## **PREVIOUS REPORTS IN SERIES**

WASH-1311	A Compilation of Occupational Radiation Exposure from Light Water Cooled Nuclear Power Plants, 1969-1973, U.S. Atomic Energy Commission, May 1974.
NUREG-75/032	Occupational Radiation Exposure at Light Water Cooled Power Reactors, 1969-1974, U.S. Nuclear Regulatory Commission, June 1975.
NUREG-0109	Occupational Radiation Exposure at Light Water Cooled Power Reactors, 1969-1975, U.S. Nuclear Regulatory Commission, August 1976.
NUREG-0323	Occupational Radiation Exposure at Light Water Cooled Power Reactors, 1969-1976, U.S. Nuclear Regulatory Commission, March 1978.
NUREG-0482	Occupational Radiation Exposure at Light Water Cooled Power Reactors, 1977, U.S. Nuclear Regulatory Commission, May 1979.
NUREG-0594	Occupational Radiation Exposure at Commercial Nuclear Power Reactors, 1978, U.S. Nuclear Regulatory Commission, November 1979.
NUREG-0713	Occupational Radiation Exposure at Commercial Nuclear Power Reactors 1979, Vol. 1, U.S. Nuclear Regulatory Commission, March 1981.
NUREG-0713	Occupational Radiation Exposure at Commercial Nuclear Power Reactors 1980, Vol. 2, U.S. Nuclear Regulatory Commission, December 1981.
NUREG-0713	Occupational Radiation Exposure at Commercial Nuclear Power Reactors 1981, Vol. 3, U.S. Nuclear Regulatory Commission, November 1982.
NUREG-0713	Occupational Radiation Exposure at Commercial Nuclear Power Reactors 1982, Vol. 4, U.S. Nuclear Regulatory Commission, December 1983.
NUREG-0713	Occupational Radiation Exposure at Commercial Nuclear Power Reactors 1983, Vol. 5, U.S. Nuclear Regulatory Commission, March 1985.
NUREG-0713	Occupational Radiation Exposure At Commercial Nuclear Power Reactors and Other Facilities 1984, Vol. 6, U.S. Nuclear Regulatory Commission, October 1986.
NUREG-0713	Occupational Radiation Exposure At Commercial Nuclear Power Reactors and Other Facilities 1985, Vol. 7, U.S. Nuclear Regulatory Commission, April 1988.
NUREG-0713	Occupational Radiation Exposure At Commercial Nuclear Power Reactors and Other Facilities 1986, Vol. 8, U.S. Nuclear Regulatory Commission, August 1989.
NUREG-0713	Occupational Radiation Exposure At Commercial Nuclear Power Reactors and Other Facilities 1987, Vol. 9, U.S. Nuclear Regulatory Commission, November 1990.
NUREG-0713	Occupational Radiation Exposure At Commercial Nuclear Power Reactors and Other Facilities 1988, Vol. 10, U.S. Nuclear Regulatory Commission, July 1991.
NUREG-0713	Occupational Radiation Exposure At Commercial Nuclear Power Reactors and Other Facilities 1989, Vol. 11, U.S. Nuclear Regulatory Commission, April 1992.
NUREG-0713	Occupational Radiation Exposure At Commercial Nuclear Power Reactors and Other Facilities 1990, Vol. 12, U.S. Nuclear Regulatory Commission, January 1993.
NUREG-0713	Occupational Radiation Exposure At Commercial Nuclear Power Reactors and Other Facilities 1991, Vol. 13, U.S. Nuclear Regulatory Commission, July 1993.
NUREG-0713	Occupational Radiation Exposure At Commercial Nuclear Power Reactors and Other Facilities 1992, Vol. 14, U.S. Nuclear Regulatory Commission, December 1993.
NUREG-0713	Occupational Radiation Exposure At Commercial Nuclear Power Reactors and Other Facilities 1993, Vol. 15, U.S. Nuclear Regulatory Commission, January 1995.
NUREG-0713	Occupational Radiation Exposure At Commercial Nuclear Power Reactors and Other Facilities 1994, Vol. 16, U.S. Nuclear Regulatory Commission, January 1996.
NUREG-0713	Occupational Radiation Exposure At Commercial Nuclear Power Reactors and Other Facilities 1995, Vol. 17, U.S. Nuclear Regulatory Commission, January 1997.
Previous reports	in the NUREG-0714 series, which are now combined with NUREG-0713, are as follows:
WASH-1350-R1 through WASH-1350-R6	First through Sixth Annual Reports of the Operation of the U.S. AEC's Centralized Ionizing Radiation Exposure Records and Reporting System, U.S. Atomic Energy Commission.
NUREG-75/108	Seventh Annual Occupational Radiation Exposure Report for Certain NRC Licensees - 1974, U.S. Nuclear Regulatory Commission,
NUREG-0119	October 1975. Eighth Annual Occupational Radiation Exposure Report for 1975, U.S. Nuclear Regulatory Commission, October 1976.
NUREG-0322	Ninth Annual Occupational Radiation Exposure Report for 1976, U.S. Nuclear Regulatory Commission, October 1977.
NUREG-0463	Tenth Annual Occupational Radiation Exposure Report for 1977, U.S. Nuclear Regulatory Commission, October 1978.
NUREG-0593	Eleventh Annual Occupational Radiation Exposure Report for 1978, U.S. Nuclear Regulatory Commission, January 1981.
NUREG-0714	Twelfth Annual Occupational Radiation Exposure Report for 1979, Vol. 1, U.S. Nuclear Regulatory Commission, August 1982.
NUREG-0714	Occupational Radiation Exposure, Thirteenth and Fourteenth Annual Reports, 1980 and 1981, Vols. 2 and 3, U.S. Nuclear Regulatory
NUREG-0714	Commission, October 1983. Occupational Radiation Exposure, Fifteenth and Sixteenth Annual Reports, 1982 and 1983, Vols. 4 and 5, U.S. Nuclear Regulatory Commission, October 1985.

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#### **ABSTRACT**

This report summarizes the occupational exposure data that are maintained in the U.S. Nuclear Regulatory Commission's (NRC) Radiation Exposure Information and Reporting System (REIRS). The bulk of the information contained in the report was compiled from the 1996 annual reports submitted by six of the seven categories<sup>1</sup> of NRC licensees subject to the reporting requirements of 10 CFR 20.2206. Since there are no geologic repositories for high level waste currently licensed, only six categories will be considered in this report.

Annual reports for 1996 were received from a total of **300** NRC licensees, of which **109** were operators of nuclear power reactors in commercial operation. Compilations of the reports submitted by the 300 licensees indicated that **138,310** individuals were monitored, **75,139** of whom received a measurable dose (Table 3.1). The collective dose incurred by these individuals was **21,755** person-cSv (person-rem)<sup>2</sup> which represents a **13% decrease** from the 1995 value. The number of workers receiving a measurable dose also decreased, resulting in the average measurable dose of **0.29** cSv (rem) for 1996. The average measurable dose is defined to be the total collective dose (TEDE) divided by the number of workers receiving a measurable dose. These figures have been adjusted to account for transient reactor workers.

In 1996, the annual collective dose per reactor for light water reactor licensees (LWRs) was **173** person-cSv (person-rem). This represents a 13% decrease from the value reported for 1995. The annual collective dose per reactor for boiling water reactors (BWRs) was **256** person-cSv (person-rem) and, for pressurized water reactors (PWRs), it was **131** person-cSv (person-rem).

Analyses of transient worker data indicate that **22,348** individuals completed work assignments at two or more licensees during the monitoring year. The dose distributions are adjusted each year to account for the duplicate reporting of transient workers by multiple licensees. In 1996, the average measurable dose calculated from reported data was **0.24** cSv (rem). The corrected dose distribution resulted in an average measurable dose of **0.29** cSv (rem).

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Commercial nuclear power reactors; industrial radiographers; fuel processors, fabricators, and reprocessors; manufacturers and distributors of byproduct material; independent spent fuel storage installations; facilities for land disposal of low-level waste; and geologic repositories for high-level waste.

In the International System of Units the sievert (Sv) is the name given to the units for dose equivalent. One centisievert (cSv) equals one rem; therefore, person-rem becomes person-cSv.

## **EDITOR'S NOTE**

The NRC currently has a five-year contract with Science Applications International Corporation (SAIC) to assist the NRC Staff in the preparation of the NUREG-0713 series. Mr. Charles Hinson (NRR) assisted in the preparation of this NUREG, serving as the NRC Technical reviewer. SAIC will be suggesting changes in the presentation of certain data in these reports. Readers should be alert to these changes, and the NRC welcomes responses, especially where these changes can be improved upon.

## Comments should be directed to:

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#### **PREFACE**

A number of NRC licensees have inquired as to how the occupational radiation exposure data that are compiled from the individual exposure reports required by § 20.2206 and the annual dose data reported by work function in accordance with Subsection 6.9.1.5 of the standard technical specifications for nuclear power plants are used by the NRC staff. This is a very appropriate inquiry that may be of importance to many affected licensees. In combination with other sources of information, the principal uses of the data are to provide facts regarding routine occupational exposures to radiation and radioactive material that occur in connection with certain NRC-licensed activities. These facts are used by the NRC staff as indicated below:

- 1. The data permit evaluation, from the viewpoint of trends, of the effectiveness of the overall NRC/licensee radiation protection and ALARA efforts by certain licensees. They also provide for the identification (and subsequent correction) of unfavorable trends.
- 2. The external dose data assist in the evaluation of the radiological risk associated with certain categories of NRC-licensed activities and are used for comparative analyses of radiation protection performance: US/foreign, BWRs/PWRs, civilian/military, facility/facility, nuclear industry/other industries, etc.
- The data provide for the monitoring of transient workers who may affect dose distribution statistics through multiple counting, or who may exceed regulatory limits on radiation exposure due to the accumulation of exposure at multiple sites per calendar quarter or calendar year.
- 4. The data help provide facts for evaluating the adequacy of the current risk limitation system (e.g., are individual lifetime dose limits, worker population collective dose limits, and requirements for optimization needed?).
- 5. The data permit comparisons of occupational radiation risks with potential public risks when action for additional protection of the public involves worker exposures.
- 6. The data are used in the establishment of priorities for the utilization of NRC health physics resources: research, standards development, and regulatory program development.
- The data provide facts for answering Congressional and Administration inquiries and for responding to questions raised by public interest groups, special interest groups, labor unions, etc.
- 8. The data provide information that may be used in the planning of epidemiological studies.

## Occupational Radiation Exposure at Commercial Nuclear Power Reactors and Other Facilities Twenty-ninth Annual Report, 1996

#### 1 INTRODUCTION

One of the basic purposes of the Atomic Energy Act and the implementing regulations in Title 10, Code of Federal Regulations, Chapter I, Part 20, is to protect the health and safety of the public, including the employees of the licensees conducting operations under those regulations. Among the regulations designed to ensure that the standards for protection against radiation set out in 10 CFR 20 are met is a requirement that licensees provide individuals likely to be exposed to radiation with devices to monitor their exposure. Each licensee is also required to maintain indefinitely records of the results of such monitoring. However, there was no initial provision that these records or any summary of them be transmitted to a central location where the data could be retrieved and analyzed.

On November 4, 1968, the U.S. Atomic Energy Commission (AEC) published an amendment to 10 CFR 20 requiring the reporting of certain occupational radiation exposure information to a central repository at AEC Headquarters. This information was required of the four categories3 of AEC licensees that were considered to involve the greatest potential for significant occupational doses and of AEC facilities and contractors exempt from licensing. A procedure was established whereby the appropriate occupational exposure data were extracted from these reports and entered into the Commission's Radiation Exposure Information Reporting System (REIRS), a computer system that was maintained at the Oak Ridge National Laboratory Computer Technology Center in Oak Ridge, Tennessee, until May 1990. At that time, the data were transferred to a database management system at Science Applications International Corporation (SAIC) at Oak Ridge, Tennessee. The computerization of these data ensures that they are kept indefinitely and facilitates their retrieval and analysis. The data maintained in REIRS have been summarized and published in a report every year since 1969. Annual reports for each of the years 1969 through 1973 presented the data reported by both AEC licensees and contractors and were published in six documents designated as WASH-1350-R1 through WASH-1350-R6.

In January 1975, with the separation of the AEC into the Energy Research and Development Administration (ERDA) and the U.S. Nuclear Regulatory Commission (NRC), each agency assumed responsibility for collecting and maintaining occupational radiation exposure information reported by the facilities under its jurisdiction. The annual reports published by the

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Commercial nuclear power reactors; industrial radiographers; fuel processors, fabricators, and reprocessors; manufacturers and distributors of specified quantities of byproduct material.

NRC on occupational exposure for calendar year 1974 and subsequent years do not contain information pertaining to ERDA facilities or contractors. Comparable information for facilities and contractors under ERDA, now the Department of Energy (DOE), is collected and published by DOE's Office of Health, a division of Environment, Safety and Health, in Germantown, Maryland.

In 1982 and 1983, paragraph 20.408(a) of Title 10 of the Code of Federal Regulations was amended to require three additional categories of NRC licensees to submit annual statistical exposure reports and individual termination exposure reports. The new categories are (1) geologic repositories for high-level radioactive waste, (2) independent spent fuel storage installations, and (3) facilities for the land disposal of low-level radioactive waste. Therefore, this document presents the exposure information that was reported by NRC licensees representing two of these new categories. (There are no geologic repositories for high-level waste currently licensed.)

This report and each of the predecessors summarizes information reported for both the current year and for previous years. More licensee-specific data for previous years, such as the annual reports submitted by each commercial power reactor pursuant to 10 CFR 20.407 and their technical specifications, may be found in those documents listed on the inside of the front cover of this report for the specific year desired. Additional operating data and statistics for each power reactor for the years 1973 through 1982 may be found in a series of reports, "Nuclear Power Plant Operating Experience" [Refs. 1-9]. These documents are available for viewing at all NRC public document rooms, or they may be purchased from the National Technical Information Service, as shown in the Reference section.

In May of 1991, the revised 10 CFR 20 "Standards for Protection Against Radiation; Final Rule" was published in the Federal Register. The revision redefined the radiation monitoring and reporting requirements of NRC licensees. Instead of summary annual reports (§ 20.407) and termination reports (§ 20.408), licensees are now required to submit an annual report of the dose received by each monitored worker (§ 20.2206). Licensees were required to implement the new requirements on or before January of 1994. This report is the third compilation of radiation exposure information collected under the revised 10 CFR 20. Certain sections of the report have been modified to account for the change in the reporting of exposure information. Readers are encouraged to comment on these changes. Recommendations for further analysis or for different presentation of information are welcome.

## 1.1 Radiation Exposure Information on the Internet

In May of 1995, the NRC began pursuing the dissemination of radiation exposure information via a World Wide Web site on the Internet. This allows interested parties with the appropriate equipment to access the data electronically rather than through the published NUREG-0713 document. A web site was created for radiation exposure and linked into the main NRC web page. The web site contains up-to-date information on radiation exposure, as well as information and guidance on reporting radiation exposure information to the NRC. Interested parties may read the documents on-line or down-load information to their systems for further analysis. Software, such as REMIT, is also available for downloading via the web site. There are also links to other web sites dealing with the topics of radiation and health physics. The NRC intends to continue pursuing the dissemination of radiation exposure information via the World Wide Web and will focus more resources on the electronic distribution of information rather than the published hard copy reports.

The main web URL address for the NRC is:

http://www.nrc.gov

The NRC radiation exposure information web URL address is:

http://www.saic.com/home/nrc\_rad

Comments on this report or the NRC's web page should be directed to:

REIRS Project Manager
Office of Nuclear Regulatory Research
U.S. Nuclear Regulatory Commission
Washington, DC 20555

#### 2 LIMITATIONS OF THE DATA

All of the figures compiled in this report relating to exposures and doses are based on the results and interpretations of the readings of various types of personnel monitoring devices employed by each licensee. This information, obtained from routine personnel monitoring programs, is sufficient to characterize the radiation environment in which individuals work and is used in evaluating the radiation protection program.

Monitoring requirements are specified in 10 CFR § 20.1502, which requires licensees to monitor individuals who receive or are likely to receive a dose in a year in excess of 10% of the applicable limits. For most adults, the annual limit for the whole body is 5 cSv (rem), so 0.5 cSv (rem) per year is the level above which monitoring is required. Separate dose limits have been established for minors and pregnant workers. Monitoring is required for any individual entering a high or very high radiation area. Depending on the administrative policy of each licensee, persons such as visitors and clerical workers may also be provided with monitoring devices for identification or convenience, although the probability of their being exposed to measurable levels of radiation is extremely small. Licensees are given the option of reporting the doses of only those individuals for whom monitoring is required, or the dose distribution of all those for whom monitoring is provided. Many licensees elect to report the latter; however, this may increase the number of individuals that one could consider to be radiation workers. In an effort to account for this, the number of individuals reported as having "no measurable exposure" has been subtracted from the total number of individuals monitored in order to calculate an average dose per individual receiving a measurable dose, as well as the average dose per monitored individual (for example, see Table 3.1).

The Revised 10 CFR § 20 was published in the Federal Register on May 21, 1991. With the revision of Part 20, licensees report the monitoring results for each individual. This has eliminated the need for the staff to calculate collective dose from the statistical distributions and has improved the accuracy of the collective dose information presented in this report. Licensees were required to implement the new reporting requirements as of January 1, 1994. Certain licensees began reporting under these new requirements during 1993, and that data has been included in the analyses presented here.

Another impact of the Revised Part 20 is the change from whole body dose to total effective dose equivalent (TEDE). The TEDE includes both external and internal dose. The TEDE is determined by summing the deep dose equivalent (DDE) from external radiation exposure and the committed effective dose equivalent (CEDE) from internal exposures. For reports prior to 1994, only the whole body dose (equivalent to the DDE) was reported and analyzed. In

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subsequent reports, the TEDE is presented and analyzed in all graphs and tables unless otherwise noted. Readers should be aware of this change from external whole body dose to the TEDE. For most licensed activities, the internal dose is not a significant contributor to the TEDE. However, workers at Fuel Fabrication facilities receive significant exposures from internal exposure. This change in reporting requirements can be seen in the 1994 through 1996 data for this licensee category. (See Section 3.3.5)

The average dose per individual, as well as the dose distributions shown for groups of licensees, also can be affected by the multiple reporting of individuals who were monitored by two or more licensees during the year. Licensees are only required to report the doses received by individuals at their licensed facility. A dose distribution for a single licensee does not consider that some of the individuals may have received doses at other facilities. When the data are summed to determine the total number of individuals monitored by a group of licensees, individuals may be counted more than once. This can also affect the distribution of doses because individuals may be counted multiple times in the lower dose ranges rather than one time in the higher range corresponding to the actual accumulated dose for the year (the sum of the individual's dose accrued at all facilities). This source of error has the greatest potential impact on the data reported by power reactor facilities since they employ many short-term workers. Further discussion of this point is provided in Section 5.

Another fact that should be kept in mind when examining the annual statistical data is that all of the personnel included in the report may not have been monitored throughout the entire year. Many licensees, such as radiography firms and nuclear power facilities, may monitor numerous individuals for periods much less than a year. The average doses calculated from these data, therefore, are less than the average dose that an individual would receive if involved in that activity for the full year.

Considerable attention should also be given when referencing the collective totals presented in this report. The differences between the totals presented for all licensees that reported versus only those licensees that are required to report should be noted. Likewise, one should distinguish between the doses attributed to the high temperature gas reactor (HTGR), pressurized water reactors (PWRs), and boiling water reactors (BWRs). The totals may be inclusive or exclusive of those licensees that were in commercial operation for less than one full year. These parameters vary throughout the tables and appendices of this report in order to provide the most comprehensive analysis of all the data available. The apparent discrepancies among the various tables are a necessary side-effect of this endeavor.

Also, it should again be pointed out that this report contains information reported by NRC licensees only. Since the NRC licensees all commercial nuclear power reactors, fuel processors, fabricators and reprocessors, and independent spent fuel storage facilities, information shown

for these categories reflects the U.S. experience. This is not the case, however, for the remaining categories of industrial radiography, manufacturing and distribution of specified quantities of by-product material, and low-level waste disposal. Companies that conduct these types of activities in Agreement States<sup>4</sup> are licensed by the state and are not required to submit occupational exposure reports to the NRC. Approximately twice as many facilities are licensed to Agreement States than the number licensed by the NRC. This report also does not include non-occupational exposure such as exposure due to medical x-rays, fluoroscopy, and accelerators received as a patient. Information shown for these categories does not reflect the total U.S. experience.

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States that have entered into an agreement with the NRC that allows each state to license organizations using radioactive materials for certain purposes. As of 12/31/94, there are 29 Agreement States.

## 3 ANNUAL PERSONNEL MONITORING REPORTS - 10 CFR 20.2206

## 3.1 Definition of Terms and Sources of Data

#### 3.1.1 Statistical Summary Reports

On February 4, 1974, 10 CFR 20.407 was amended to require certain categories<sup>5</sup> of licensees to submit an annual statistical report indicating the distribution of the whole body doses incurred by workers whom they monitored for exposure to radiation. Since the regulations did not require these licensees to report the collective dose incurred by the workers shown on the statistical reports, the dose distributions were used as the basis for the staff's calculation of the collective dose (see Section 3.1.4).

The revised 10 CFR 20 was published in the Federal Register on May 21, 1991. Section 20.2206 of the revised rule requires licensees to report the radiation exposure monitoring results for each individual for the monitoring year. All licensees were required to implement the new reporting requirements on or before January 1, 1994.

Under the new requirements, the individual's total effective dose equivalent (TEDE, as defined in § 20.1003) is reported, so that the dose distributions may be determined directly from the individual's exposure. The TEDE is summed per individual and tabulated into the appropriate dose range to generate the dose distribution for each licensee. The total collective dose is more accurate using this method, since the licensee reported the dose to each individual and the total collective dose was calculated from the sum of these doses and not statistically derived from the distribution (see Section 3.1.4). The TEDE includes the dose contribution from the committed effective dose equivalent (CEDE) for those workers who had intakes that required monitoring and reporting of internal dose. Reports submitted under formerly applicable 10 CFR 20.407 did not include the whole body contribution from internal dose.

## 3.1.2 Number of Monitored Workers

The number of monitored workers refers to the total number of workers that the NRC licensees, who are covered by 10 CFR 20.1502, reported as being monitored for exposure to external and internal radiation during the year. This number includes all workers for whom monitoring is required, and may include visitors, service representatives, contract workers, clerical workers, and any other workers for whom the licensee feels that monitoring devices should be provided.

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Commercial nuclear power reactors; industrial radiographers; fuel processors, fabricators and reprocessors; and manufacturers and distributors of by-product material. Independent spent fuel storage installations; and facilities for land disposal of low-level radioactive waste were added to this list in 1983.

For licensees submitting under the revised 10 CFR 20.2206, the total number of workers was determined from the number of unique personal identification numbers submitted per licensee. Uniqueness is defined by the combination of identification number and identification type. [Ref. 18]

#### 3.1.3 Number of Workers with Measurable Doses

Under the revised 10 CFR 20.2206, the number of workers with measurable dose includes any individual with a TEDE greater than zero cSv (rem). This does not include workers with a TEDE reported as zero, not detectable (ND), or not required to be reported (NR). [Ref. 18]

#### 3.1.4 Collective Dose

The concept of collective dose is used in this report to denote the summation of the TEDE received by all monitored workers and has the units person-cSv (person-rem).<sup>6</sup> The revised 10 CFR 20.2206 requires that the TEDE be reported, so the collective dose is calculated by summing the TEDE for all monitored workers. The phrase "collective dose" is used throughout this report to mean the collective TEDE, unless otherwise specified.

It should be noted that the collective dose in past years was, in some cases, calculated from the dose distributions by summing the products obtained from multiplying the number of workers reported in each of the dose ranges by the midpoint of the corresponding dose range. This assumes that the midpoint of the range is equal to the arithmetic mean of the individual doses in the range. Past experience has shown that the actual mean dose of workers reported in each dose range is less than the midpoint of the range, and therefore the resultant calculated collective doses shown in this report for these licensees may be about 10% higher than the sum of the actual individual doses. Care should be taken when comparing the actual collective dose calculated for 1996 with the collective dose for previous years because of this change in methodology. In addition, prior to 1994, doses only included the external whole body dose. Although the contribution of internal dose to the TEDE is minimal for most licensees, it should be taken into consideration when comparing the 1996 collective dose with the collective dose for prior years. One noted exception is for fuel fabrication licensees where the CEDE in some cases contributes the majority of the TEDE (see Section 3.3.5.).

In the International System of Units, the sievert (Sv) is the name given to the units for dose equivalent. One centisievert (cSv) equals one rem; therefore person-rem becomes person-cSv.

## 3.1.5 Average Individual Dose

The average individual dose is obtained by dividing the collective dose by the total number of workers reported as being monitored. This figure is usually less than the average measurable dose (see below) because it includes the number of those workers who received zero or less than measurable doses.

#### 3.1.6 Average Measurable Dose

The average measurable dose is obtained by dividing the collective TEDE by the number of workers who received a measurable dose. This is the average most commonly used in this and other reports when examining trends and comparing doses received by workers in various segments of the nuclear industry because it deletes those workers receiving zero or minimal doses, many of whom were monitored for convenience or identification purposes.

## 3.1.7 Number of Licensees Reporting

The number of licensees refers to the NRC licenses issued to companies to use radioactive material for certain activities that would place them in one of the six categories that are required to report pursuant to 10 CFR 20.2206. The third column in Table 3.1 shows the number of licensees that have filed such reports during the last 10 years. Agreement State licensees do not submit such reports to the NRC and are not included in this report.

## 3.1.8 CR

One of the parameters that the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) recommends be calculated for occupational dose distributions to aid in the comparison of exposure data is a ratio "CR." CR is defined to be the ratio of the annual collective dose incurred by workers whose annual doses exceed 1.5 cSv to the total annual collective dose. One UNSCEAR report [Ref. 10] states that normal values of CR should be between 0.05 and 0.50. A CR of 0.50 means that 50% of the collective dose is due to individual doses that exceed 1.5 cSv (rem).

Prior to 1994, the value of CR was calculated from the statistical distributions that were submitted under 10 CFR 20.407. For this calculation, it was assumed that the doses were uniformly distributed between each dose range interval. The number of people in each dose range above 1.5 cSv was multiplied by the midpoint of the dose range to estimate the collective dose attributed to each dose range. The collective dose of workers with doses exceeding 1.5 cSv in the 1 to 2 cSv range was calculated by assuming that half of the collective dose incurred by workers with doses between 1 and 2 cSv was because of doses greater than 1.5 cSv. This value was then added to the collective dose incurred by workers in the higher ranges. This was known to yield a conservative CR value, but was a useful indicator when consistently applied to the data from year to year.

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## TABLE 3.1 ANNUAL EXPOSURE DATA FOR CERTAIN CATEGORIES OF LICENSEES 1987 - 1996

			1	987 - 1996				
				Number of Workers	Collective TEDE		Average Measurable	
License Category* and	Calendar	Number of Licensees	Number of Monitored	With Measurable	(person- cSv or	Average TEDE (cSv	TEDE per Worker (cSv	
Program Code	Year	Reporting	Individuals	TEDE	person-rem)	or rem)	or rem)	CR**
Industrial	1996	144	3,631	2,537	1,385	0.38	0.55	0.42
Radiography	1995	139	3,530	2,465	1,338	0.38	0.54	0.40
03310	1994	139	3,230	2,351	1,415	0.44	0.60	0.51
03320	1993	176	4,721	3,007	1,596	0.34	0.53	0.45
	1992 1991	246 248	6,703 6,820	4,265 4,649	1,864 2,160	0.28 0.32	0.44 0.46	0.37 0.40
	1990	258	6,523	4,458	2,120	0.33	0.48	0.40
	1989	276	6,745	4,352	2,067	0.31	0.47	0.42
	1988	286	6,878	4,223	1,981	0.29	0.47	0.43
	1987	312	7,236	4,454	1,835	0.25	0.41	0.36
Manufacturing	1996	36	2,628	1,239	556	0.21	0.45	0.53
and	1995	36	2,666	1,222	595	0.22	0.49	0.58
Distribution	1994	44	2,941	1,251	580	0.20	0.46	0.59
02500 03211	1993 1992	58 67	4,913 5,210	2,254 2,250	680 784	0.14 0.15	0.30 0.35	0.47 0.54
03211	1991	59	4,930	1,952	764 722	0.15	0.37	0.54
03214	1990	58	4,203	2,279	693	0.16	0.30	0.55
	1989	48	4,554	2,345	770	0.17	0.33	0.53
	1988	16	2,177	868	343	0.16	0.40	0.62
	1987	24	3,589	2,317	716	0.20	0.31	0.54
Low-Level	1996	2	165	67	8	0.05	0.12	0.00
Waste	1995	2 2	212	56	8	0.04	0.15	0.00
Disposal 03231	1994 1993	2	202 432	83 76	22 21	0.11 0.05	0.27 0.27	0.15 0.22
00201	1992	2	467	82	37	0.08	0.45	0.22
	1991	2	905	147	39	0.04	0.27	0.24
	1990	2	784	115	26	0.03	0.23	0.17
	1989	2	925	119	35	0.04	0.29	0.17
	1988	2	864	171	27	0.03	0.16	0.06
	1987	2	778	173	24	0.03	0.14	0.00
Independent	1996	1	97	53	54	0.56	1.02	0.73
Spent Fuel Storage	1995 1994	1 1	104 158	49 89	51 42	0.49 0.27	1.04	0.83
23100	1994	2	135	52	14	0.27	0.47 0.26	0.44 0.11
20100	1992	2	290	85	11	0.04	0.13	0.00
	1991	2	41	24	4	0.10	0.17	0.00
	1990	2	56	22	6	0.11	0.27	0.00
	1989	2	190	102	33	0.17	0.32	0.09
	1988	2	217	57	25	0.12	0.44	0.27
EI	1987 1996	2 8	129	64	41	0.32	0.64	0.60
Fuel Fabrication	1995	8	4,369 4,106	3,061 2,959	878 1,217	0.20 0.30	0.29 0.41	0.19 0.38
and	1994	8	3,596	2,847	1,147	0.32	0.41	0.30
Processing	1993	8	9,649	2,611	339	0.04	0.13	0.08
21210	1992	11	8,439	5,061	545	0.06	0.11	0.03
	1991	.11	11,702	3,929	378	0.03	0.10	0.01
	1990	11	14,505	3,871	422	0.03	0.11	0.01
	1989	8	11,583	2,992	243	0.02	0.08	0.00
	1988 1987	10 10	11,994 10,370	3,869 3,994	455 514	0.04 0.05	0.12 0.13	0.01
Commercial	1987	109	10,370	68,182	18,874	0.05	0.13	0.01
Light Water	1995	109	133,066	70,986	21,674	0.16	0.28	0.04
Reactors***	1994	109	142,707	73,780	21,695	0.15	0.29	0.08
-	1993	114	169,862	86,187	26,365	0.16	0.31	0.22
	1992	114	183,900	94,317	29,298	0.16	0.31	0.24
	1991	115	179,043	91,085	28,528	0.16	0.31	0.26
	1990	116	187,081	98,802	36,607	0.20	0.37	0.33
	1989	113	188,477	100,080	35,930	0.19	0.36	0.33
	1988 1987	111 105	193,532 205,895	96,653 97,992	40,055 39,708	0.21 0.19	0.41	0.38 0.37
Grand Totals	1996	300	138,310	75,139	21,755	0.19	0.41	0.09
and Averages	1995	295	143,684	77,737	24,884	0.17	0.32	0.03
	1994	303	152,834	80,401	24,901	0.16	0.31	0.13
	1993	360	189,712	94,187	29,014	0.15	0.31	0.13
	1992	442	205,009	106,060	32,538	0.16	0.31	0.25
	1991	437	203,441	101,786	31,831	0.16	0.31	0.27
	1990	447	213,152	109,547	39,874	0.19	0.36	0.34
	1989	449	212,474	109,990	39,078	0.18	0.36	0.34
	1988	427	215,662	105,841	42,886	0.20	0.41	0.38
	1987	455	227,997	108,994	42,838	0.19	0.39	0.37

<sup>\*</sup> These categories consist only of NRC licensees. Agreement State licensed organizations do not report occupational exposure data to the NRC.

\*\* CR is the ratio of the annual collective dose delivered at annual doses exceeding 1.5 cSv to the total annual collective dose. (Section 3.1.8)

\*\*\* Includes all LWRs in commercial operation, although some of them may not have been in operation for a full year. 1994 - 1996 data are only for reactors that completed a full year of operation during the year. Reactor data have been corrected to account for the multiple counting of transient reactor workers. (see Section 5)

The last column in Table 3.1 shows the values of CR for the different types of licensees. With the implementation of the revised 10 CFR 20 in 1994, licensees were required to submit dose records for each individual. This allowed the NRC to determine the CR value directly by summing the collective dose for individuals with a total TEDE greater than or equal to 1.5 cSv and divide it by the collective TEDE for the licensee. This method yielded a large reduction in the CR for Reactors. The CR value for Reactors dropped 64% from 0.22 in 1993 to 0.08 in 1994 and to 0.04 in 1996. Using the previous methodology, the CR value would have been calculated to be 0.12 for 1996. One of the contributing factors for this difference is the administrative controls imposed at nuclear power facilities for individuals who exceed 1 cSv. This causes the dose distribution to drop off sharply above 1 cSv with fewer exposures exceeding 1.5 cSv. Therefore, the actual CR is significantly less than the value that is calculated by assuming a uniform dose distribution.

Other licensees, such as Manufacturing and Distribution and Independent Spent Fuel Storage, have experienced increases in the CR value and exceed the 0.50 value recommended by UNSCEAR. Fuel Fabrication doses, including the CR value, have increased primarily because of the inclusion of internal exposure in the TEDE for 1994 through 1996. However, the overall average CR for all licensees remained below 0.50, and decreased to a value of 0.09 in 1996 primarily because of the decrease in CR at power reactor licensees.

#### 3.2 Annual TEDE Dose Distributions

Table 3.2 is a statistical compilation of the exposure reports submitted by six categories of licensees (see Section 3.3 for a description of each licensee category). The dose distributions are generated by summing the TEDE for each individual and counting the number of individuals in each dose range. In nearly every category a large number of workers receive doses that are less than measurable, and very few doses exceed 4 or 5 cSv (rem). About 90% of the reported workers continue to be monitored by nuclear power facilities where they receive approximately 90% of the total collective dose.

Under the regulatory limits of the revised 10 CFR 20.1201, annual TEDE in excess of 5 cSv (rem) for occupationally exposed adults is, by definition, an exposure in excess of regulatory limits (see Section 6).

Table 3.3 gives a summary of the annual exposures reported to the Commission by certain categories of NRC licensees as required by 10 CFR 20.2206. Table 3.3 shows that ~ 95% of the exposures consistently remained <2 cSv (rem) between 1968 and 1984. For the past 10 years the percentage of workers with <2 cSv (rem) has been ≥98%. The number of workers receiving an annual exposure in excess of 5 cSv (rem) has been <0.01% since 1985.

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TABLE 3.2
DISTRIBUTION OF ANNUAL COLLECTIVE TEDE BY LICENSE CATEGORY
1996

		*Num	ber of Ind	ividuals w	ith TEDE	in the F	Ranges (c	Sv or re	m)							TOTAL
LIGENIAE OATEOORY	No	Moss	0.40	0.05	0.50	0.75	4.00	0.00	0.00	4.00	5.00	0.00	7 - 10	TOTAL	NUMBER	COLLECTIVE
LICENSE CATEGORY		Meas.	0.10-	0.25-	0.50-	0.75-	1.00-	2.00-	3.00-	4.00-	5.00-	6.00-	7- >12	TOTAL NUMBER	WITH MEAS.	DOSE
(Number of sites reporting)	Meas.	<0.1	0.25	0.50	0.75	1.00	2.00	3.00	4.00	5.00	6.00	7.00	12	MONITORED	DOSE	(TEDE) (person-cSv)
INDUSTRIAL RADIOGRAPHY														MONTORED	DOSE	(person-csv)
Single Location (27)	231	32	12	11	4	1								291	60	10
Multiple Location (117)	863	694	462	435	254	159	353	86	29	4		1		3,340	2,477	1,375
Total (144)	1,094	726	474	446	258	160	353	86	29	4		1		3,631	2,537	1,385
MANUFACTURING AND										·						
DISTRIBUTION																
"A" - Broad (7)	1,031	485	116	84	55	64	105	51	23	4				2,018	987	522
Limited (29)	358	180	40	15	11	1	4		1					610	252	34
Total (36)	1,389	665	156	99	66	65	109	51	24	4				2,628	1,239	556
LOW-LEVEL WASTE DISPOSAL																
Total (2)	98	35	24	5	3									165	67	8
INDEPENDENT SPENT FUEL																
STORAGE																
Total (1)	44	14	4	6	8	3	7	6	2	3				97	53	54
FUEL FABRICATION																
Total (8)	1,308	1,652	422	394	205	126	232	26	4					4,369	3,061	878
COMMERCIAL POWER REACTORS**			·													
Boiling Water (37)	29,333	16,985	8,335	6,456	3,009	1,452	1,374	26						66,970	37,637	9,461
Pressurized Water (72)	48,864	22,441	11,620	7,745	2,800	1,196	968	42						95,676	46,812	9,413
Total (109)	78,197	39,426	19,955	14,201	5,809	2,648	2,342	68						162,646	84,449	18,874
GRAND TOTALS	82.130	42,518	21.035	15,151	6,349	3,002	3,043	237	59	11		1		173,536	91,406	21,755

<sup>\*</sup> Dose values exactly equal to the values separating ranges are reported in the next higher range.

These values have not been adjusted for the multiple counting of transient reactor workers (see Section 5).

<sup>\*\*</sup> Includes all reactors in commercial operation for a full year during 1996.

TABLE 3.3 SUMMARY OF ANNUAL DOSE DISTRIBUTIONS FOR CERTAIN\* NRC LICENSEES 1968-1996

	Total Nu	mber of	Percent of	Percent of	Number of
	Monitored	l Persons	Individuals	Individuals	Individuals
Year	Reported	Corrected	With Doses	With Doses	With Doses
	Number	Number	< 2 cSv**	< 5 cSv**	>12 cSv**
1968	36,836		97.2%	99.5%	3
1969	31,176		96.5%	99.5%	7
1970	36,164		96.1%	99.4%	0
1971	36,311		96.3%	99.3%	1
1972	44,690		95.7%	99.5%	8
1973	67,862		95.0%	99.5%	1
1974	85,097		96.4%	99.7%	1
1975	78,713		94.8%	99.5%	1
1976	92,773		95.0%	99.6%	3
1977	98,212	93,438	93.8%	99.6%	1
1978	105,893	100,818	94.6%	99.8%	3
1979	131,027	125,316	95.2%	99.8%	1
1980	159,177	150,675	94.6%	99.7%	0
1981	157,874	149,314	94.6%	99.8%	1
1982	162,456	154,117	94.9%	99.9%	0
1983	172,927	164,239	94.6%	99.9%	0
1984	181,627	168,899	95.1%	99.9%	0
1985	212,217	201,339	97.5%	>99.99% (15)	2
1986	225,582	213,017	98.0%	>99.99% (8)	0
1987	243,562	227,997	98.7%	>99.99% (4)	1
1988	231,234	215,662	98.6%	>99.99% (8)	0
1989	229,353	212,474	98.9%	>99.99% (7)	1
1990	234,045	214,781	98.9%	>99.99% (3)	0
1991	219,229	206,732	99.4%	>99.99% (2)	0
1992	222,728	205,009	99.4%	>99.99% (1)	0
1993	209,386	189,711	99.5%	>99.99% (2)	0
1994	179,803	152,834	99.5%	>99.99% (1)	0
1995	179,176	143,684	99.5%	>99.99% (1)	0
1996	173,536	138,310	99.5%	>99.99% (1)	0

<sup>\*</sup> Licensees required to submit radiation exposure reports to the NRC under 10 CFR 20.2206.

<sup>\*\*</sup> Data for 1977-1996 are based on the distribution of individual doses after adjusting for the multiple counting of transient reactor workers (see Section 5). The number of people exceeding 5 cSv is shown in parentheses from 1985-1996.

## 3.3 Summary of Occupational Exposure Data by License Category

## 3.3.1 Industrial Radiography Licenses, Single and Multiple Locations

Industrial Radiography licenses are issued to allow the use of sealed radioactive materials, usually in exposure devices or "cameras," that primarily emit gamma rays for nondestructive testing of pipeline weld joints, steel structures, boilers, aircraft and ship parts, and other high-stress alloy parts. Some firms are licensed to conduct such activities in one location, usually in a permanent facility that was designed and shielded for radiography, and others perform radiography at multiple, temporary sites in the field. The radioisotopes most commonly used are cobalt-60 and iridium-192. As shown in Table 3.1, annual reports were received for 144 radiography licensees in 1996. Table 3.4 summarizes the reported data for the two types of radiography licenses for 1996 and for the previous 2 years for comparison purposes.

For the years prior to 1994, the average measurable dose for workers performing radiography at a single location ranged from 20 to 40% of the average measurable dose of workers at multiple location facilities. This is because it is more difficult for workers to avoid exposure to radiation in the field, where conditions are not optimal and may change daily. In 1994, the average measurable dose for single location radiographers was much closer to the value for multiple location licensees because of high average doses at one licensee, Buckeye Steel Castings. For 1996, the average measurable dose for single location licensees increased to

AN	TABLE 3.4 ANNUAL EXPOSURE INFORMATION FOR INDUSTRIAL RADIOGRAPHERS 1994 - 1996										
Year	Type of License	Number of Licenses	Number of Monitored Workers	Workers with Measurable Dose	Collective Dose (person-cSv, rem)	Average Measurable Dose (cSv or rem)					
	Single Location	27	291	60	10	0.17					
1996	Multiple Locations	117	3,340	2,477	1,375	0.56					
	Total	144	3,631	2,537	1,385	0.55					
	Single Location	27	285	61	6	0.10					
1995	Multiple Locations	112	3,245	2,404	1,332	0.55					
	Total	139	3,530	2,465	1,338	0.54					
	Single Location	29	330	89	44	0.50					
1994	Multiple Locations	111	2,900	2,262	1,371	0.61					
	Total	139	3,230	2,351	1,415	0.60					

0.17 cSv (rem). To see the contribution that each radiography licensee made to the total collective dose, a summary of the information reported by each of these licensees in 1996 is presented in Appendix A in descending order of average measurable dose.

High exposures in radiography can be directly attributable to the type and location of the radiography field work. For example, locations such as oil drilling platforms and aerial tanks offer the radiographer little available shielding. In these situations, there may not be an opportunity to use distance as a means of minimizing exposure and achieving ALARA. Although these licensed activities usually result in average measurable doses that are higher than other licensees, they involve a relatively small number of exposed workers.

Figure 3.1 shows the number of workers with measurable dose per licensee, the total collective dose per licensee, and the average measurable dose per worker for both types of Industrial Radiography facilities from 1973 through 1996.

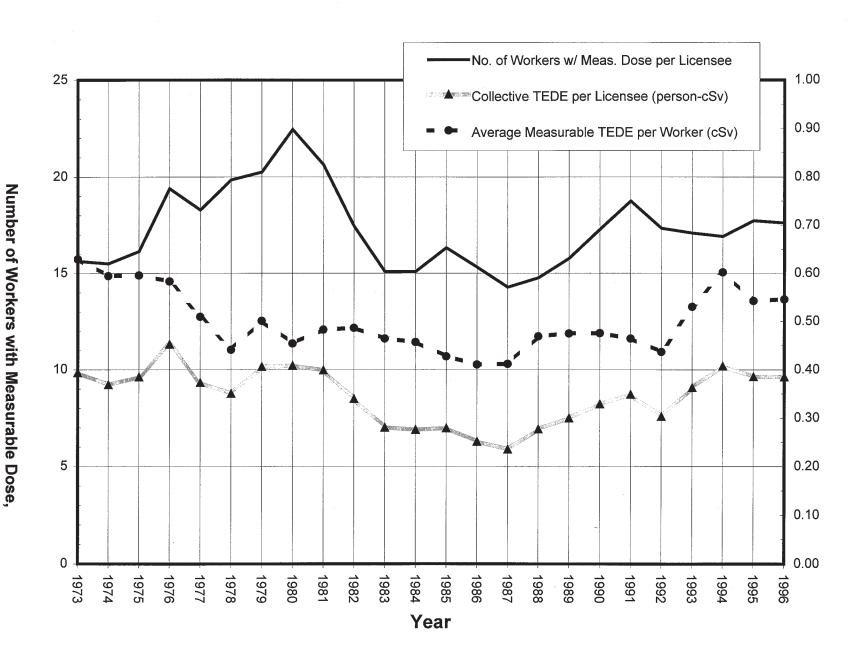
## 3.3.2 Manufacturing and Distribution Licenses, Type "A" Broad and Limited

Manufacturer and Distributor licenses are issued to allow the manufacture and distribution of radionuclides in various forms for a number of diverse purposes. The products are usually distributed to persons specifically licensed by the NRC or an Agreement State. Type "A" Broad licenses are issued to larger organizations that may use many different radionuclides in many different ways and that have a comprehensive radiation protection program. The Limited licenses are usually issued to smaller firms requiring a more restrictive license. Some firms are medical suppliers that process, package, or distribute such products as diagnostic test kits, radioactive surgical implants, and tagged radiochemicals for use in medical research, diagnosis, and therapy. Limited firms are suppliers of industrial radionuclides and are involved in the processing, encapsulation, packaging, and distribution of the radionuclides that they have purchased in bulk quantities from production reactors and cyclotrons. Major products include gamma radiography sources, cobalt irradiation sources, well-logging sources, sealed sources for gauges and smoke detectors, and radiochemicals for nonmedical research. However, only those NRC licensees that possess or use at any one time specified quantities of the nuclides listed in paragraph 20.2206(a)(7) are required to submit reports to the NRC.

Table 3.5 presents the annual data that were reported by the two types of licensees for 1996 and the previous 2 years. Looking at the information shown separately for the Type "A" Broad and Limited licensees, it can be seen that the values of all of the parameters remain higher for the Broad licensees. However, when attempting to examine trends in the data presented for this category of licensees, it should be noted that the types and quantities of radionuclides may fluctuate from year to year, and even during the year, so that some licensees may report dose data one year and not the next and may be included as a Broad licensee one year and a

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FIGURE 3.1
Average Annual Values at Industrial Radiography Facilities 1973 - 1996



3-10

Collective TEDE per Licensee (person-cSv)

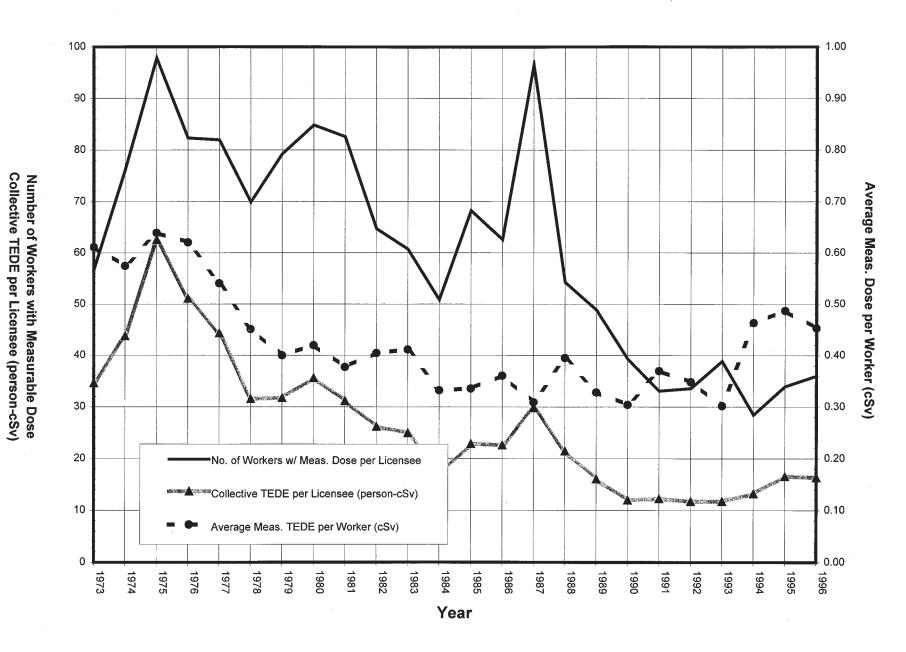
Limited licensee at other times. Because the number of reporting licensees is quite small, these fluctuations may have a significant impact on the values of the parameters.

Figure 3.2 shows the number of workers with measurable dose per licensee, the total collective dose per licensee, and the average measurable dose per worker for both Type "A" Broad and Limited Manufacturing and Distribution facilities.

For the contribution that each of these licensees made toward the total values of the number of workers monitored, number of workers, and collective dose, see Appendix A, which lists the values of these parameters for each licensee in descending order of average measurable dose for 1996.

TABLE 3.5 ANNUAL EXPOSURE INFORMATION FOR MANUFACTURERS AND DISTRIBUTORS 1994 - 1996												
Year	Type of License	Number of Licenses	Number of Monitored Workers	Workers with Measurable Dose	Collective Dose (person-cSv, rem)	Average Measurable Dose (cSv or rem)						
1996	M & D-"A"-Broad	7	2,018	987	522	0.53						
	M & D-Limited	29	610	252	34	0.13						
	Total	36	2,628	1,239	556	0.45						
1995	M & D-"A"-Broad	7	2,016	909	557	0.61						
	M & D-Limited	29	650	313	38	0.12						
	Total	36	2,666	1,222	595	0.49						
1994	M & D-"A"-Broad	8	2,133	877	544	0.62						
	M & D-Limited	36	808	374	36	0.10						
	Total	44	2,941	1,251	580	0.46						

FIGURE 3.2 Average Annual Values at Manufacturing and Distribution Facilities 1973 - 1996



## 3.3.3 Low-Level Waste Disposal Licenses

Low-Level Waste Disposal licenses are issued to allow the receipt, possession, and disposal of low-level radioactive wastes at a land disposal facility. The licensee has the appropriate facilities to receive wastes from such places as hospitals and laboratories, store them for a short time, and dispose of them in a properly prepared burial ground. The licensees in this category are located in and licensed by Agreement States which have primary regulatory authority over its activity. However, these licensees also have an NRC license that covers certain special nuclear material they might receive. The annual dose reports submitted by these licensees include all doses received during the year regardless of whether they were the result of NRC or Agreement State licensed material.

The requirement for this category of NRC licensee to file annual reports became effective in January 1983. There was only one licensee in this category in 1982 and 1983; however, there have been two licensees in this category since 1984. Table 3.1 summarizes the data reported for 1987 through 1996. Appendix A summarizes the exposure information reported by these two licensees in 1996.

Figure 3.3 shows the number of workers with measurable dose per licensee, the total collective dose per licensee, and the average measurable dose per worker for Low-Level Waste Disposal facilities from 1982 through 1996. Because only two licensees have been involved in this activity over the past 10 years, the numbers have remained fairly stable from 1984 through 1996.

## 3.3.4 Independent Spent Fuel Storage Installation Licenses

Independent Spent Fuel Storage Installation (ISFSI) licenses are issued to allow the possession of power reactor spent fuel and other associated radioactive materials for the purpose of storage of such fuel in an ISFSI. Here, the spent fuel, which has undergone at least 1 year of decay since being used as a source of energy in a power reactor, is provided interim storage, protection, and safeguarding for a limited time pending its ultimate disposal.

Eighteen licenses have been issued for these activities. Eleven are at nuclear power plants, allowing on-site temporary storage of fuel. These licensees report the dose from fuel storage activities along with the dose from reactor operations at these sites. Out of the seven remaining licenses, only one is active and is located at a facility that is independent of a reactor site. Only this licensee is included in this analysis of ISFSI facilities for 1996. Appendix A summarizes the exposure information reported by this installation.

FIGURE 3.3
Average Annual Values at Low Level Waste Disposal Facilities
1982 - 1996

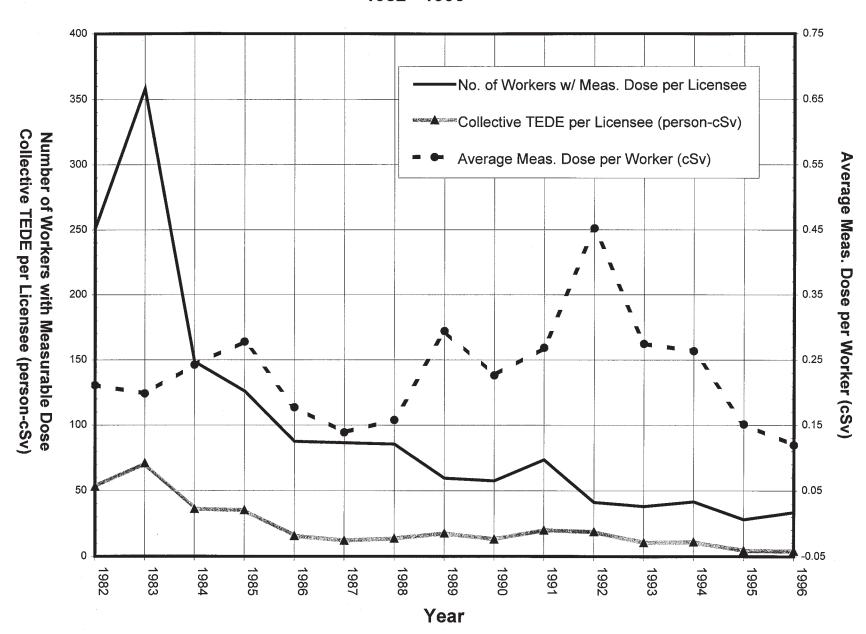


Figure 3.4 shows the number of workers with measurable dose per licensee, the total collective dose per licensee, and the average measurable dose per worker for Independent Spent Fuel Storage facilities. The large increase in the collective dose per licensee and number of workers per licensee in 1994 was mainly because only one licensee reported separately for 1994 through 1996, rather than the two licensees that reported in prior years. However, the average measurable dose has also increased significantly from 1992 to 1996 due to decreases in the number of individuals receiving measurable dose, and increases in the collective dose received by these individuals.

## 3.3.5 Fuel Fabrication and Processing Licenses

The Fuel Fabrication and Processing licenses are issued to allow the processing and fabrication of reactor fuels. In most uranium facilities where light water reactor fuels are processed, uranium hexafluoride enriched in the isotope U-235 is converted to solid uranium dioxide pellets and inserted into zirconium alloy tubes. The tubes are fabricated into fuel assemblies that are shipped to nuclear power plants. Some facilities also perform chemical operations to recover the uranium from scrap and other off-specification materials. On a much smaller scale, fuel assemblies containing plutonium oxide pellets can be similarly fabricated and used in reactors for experimental purposes. However, there are no NRC licensees engaged in this activity at this time.

Figure 3.5 shows the number of workers with measurable dose per licensee, the total collective dose per licensee, and the average measurable dose per worker for Fuel Fabrication and Processing licensees. In addition to the TEDE collective and average measurable dose, the Deep Dose Equivalent (DDE) collective dose and DDE average measurable dose are shown. Prior to 1994, only the "whole body" dose values were given, which were equivalent to the DDE. In 1994, the revised 10 CFR 20 went into effect, requiring the calculation of the CEDE and the summation of the DDE and CEDE into the TEDE. For Fuel Fabrication facilities, the CEDE is a significant contribution to the TEDE. To accurately reflect the exposure history for these facilities, it was necessary to continue to plot the old "whole body" external dose, now called DDE, in addition to the TEDE, which includes the CEDE contribution. The difference between the DDE and TEDE plots represents the CEDE contribution.

Appendix A lists each of the licensees reporting in 1996, with the number of workers monitored, the number of workers receiving measurable external doses, and the collective dose for each licensee in descending order of average measurable dose.

Table 3.6 shows that there were eight licensed Fuel Fabrication facilities in 1996. Several licensees were involved in decontamination and decommissioning of their plutonium facilities, and for several years the data for these licensees were shown in the "Decommissioning" category in Table 3.1. Because these facilities have ceased to fabricate plutonium fuel, they are not required to file annual reports and are no longer shown in the tables.

Fuel Reprocessing licenses are issued to allow the separation of useable uranium and plutonium from spent nuclear fuel. There was only one commercial facility that was ever licensed to reprocess fuel, and it has been shut down since 1972. However, the licensee did some decontamination work and stored radioactive waste at the facility for several years, and the annual report that was submitted each year was usually grouped with those of the Fuel Fabricators. In February 1982, the Department of Energy assumed possession and control of the reprocessing facility to conduct waste solidification activities necessary for final decommissioning. Therefore, the NRC license was suspended in 1982, and no reports have been filed with the NRC since this date.

TABLE 3.6

## 1994 - 1996

ANNUAL EXPOSURE INFORMATION FOR FUEL FABRICATORS

Year	Type of License	Number of Licenses	Number of Monitored Workers	Workers with Measureable Dose	Collective TEDE (pereson- cSv, rem)	Average Measureable Dose (cSv or rem)	Collective CEDE (person-cSv, rem)	Average CEDE (cSv or rem)
1996	Uranium Fuel Fab	8	4,369	3,061	878	0.29	711	0.32
1995	Uranium Fuel Fab	8	4,106	2,959	1,217	0.41	990	0.33
1994	Uranium Fuel Fab	8	3,596	2,847	1,147	0.40	867	0.30

FIGURE 3.4
Average Annual Values at Independent Spent Fuel Storage Facilities
1982 - 1996

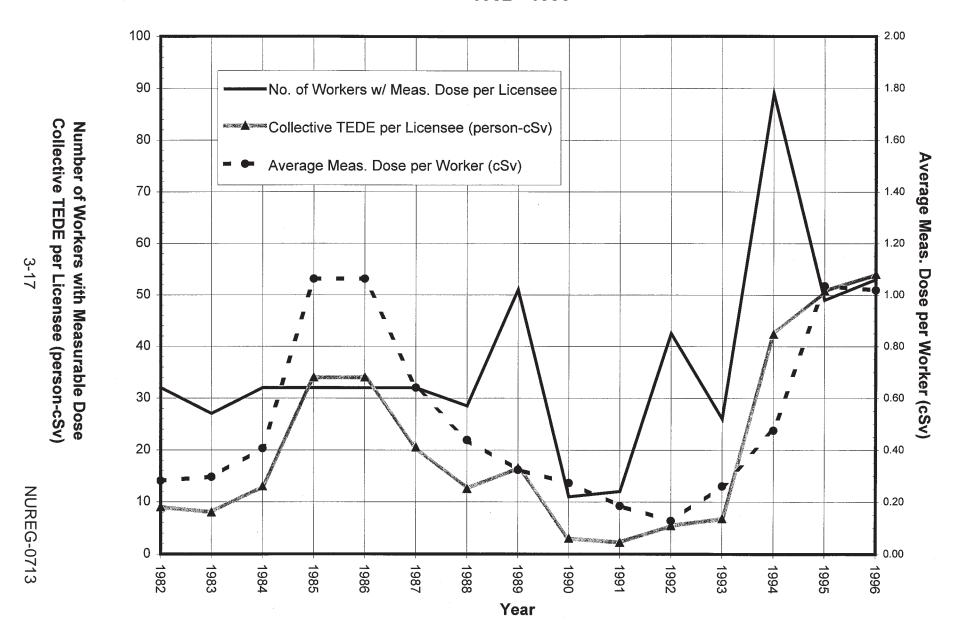
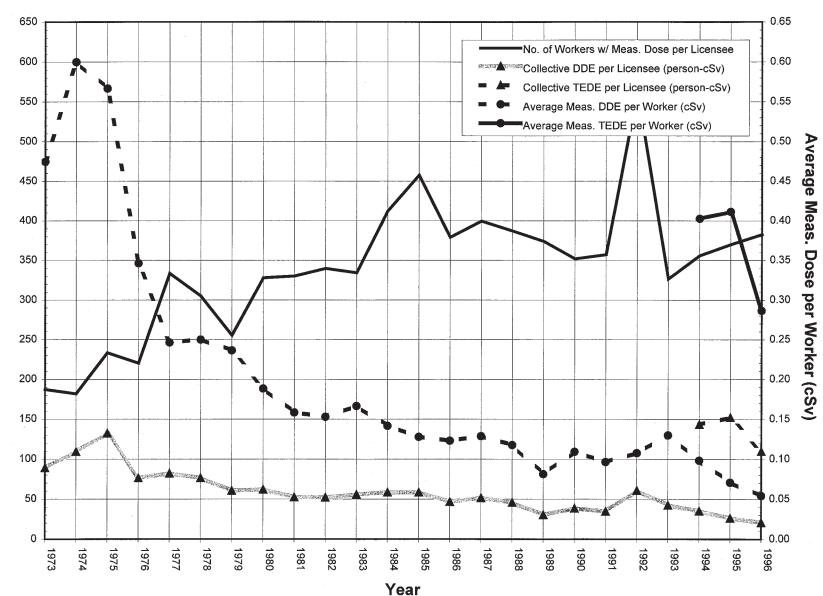


FIGURE 3.5
Average Annual Values at Fuel Fabrication and Processing Facilities
1973 - 1996



#### 3.3.6 Light-Water-Cooled Power Reactor (LWR) Licenses

LWR licenses are issued to utilities to allow them to use special nuclear material in a reactor that produces heat to generate electricity to be sold to consumers. There are two major types of commercial LWRs in the United States - pressurized water reactors (PWRs) and boiling water reactors (BWRs) - each of which uses water as the primary coolant.

Table 3.1 shows the number of licensees, total number of monitored workers, the number of workers with measurable dose, the total collective dose, and average dose per worker for all reports received from reactor facilities that were in commercial operation for the years 1987 through 1996. This table includes reactors that may not have been in commercial operation for a full year. Data for 1987 through 1988 included all reactors that reported, even though some of them were shut down. Data for 1989 through 1996 do not include reactors that have been shut down. These figures <a href="have">have</a> been adjusted for the multiple counting of transient workers (see Section 5). The reported dose distribution of workers monitored at each plant site is presented in alphabetical order by site name in Appendix B.

More detailed presentations and analyses of the annual exposure information reported by nuclear power facilities can be found in Sections 4 and 5.

#### 3.3.7 High-Temperature Gas-Cooled Power Reactor (HTGR) Licenses

A license to operate a power reactor is issued to utilities to allow them to use special nuclear material in a reactor to produce heat to generate electricity to be sold to consumers. In the HTGR, a gas, usually helium, is used as the primary coolant. Fort St. Vrain, near Greeley, Colorado, was the only such reactor in operation in the United States. Fort St. Vrain shut down permanently in 1989. Table 3.7 shows the annual whole body doses incurred by workers at the plant. Since 1992, the doses have increased significantly because of decontamination and decommissioning operations.

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TABLE 3.7

ANNUAL EXPOSURE INFORMATION FOR FORT ST. VRAIN

1974 - 1996

	No. of in	dividuals in E	ose Rar	nges (cSv	or rem)		Annual	0	
Year	No. Meas'ble Dose	Meas'ble Dose <0.10	0.25	2.00	>2.0	Number of Monitored Workers	Collective Dose (person-cSv person-rem)	Gross Electricity Generated (MW-yr.)	Average Measureable Dose (cSv or rem)
1974	1,597	63	1	0	0	1,661	3.3	0.0	0.05
1975	1,263	0	0	0	0	1,263	0.0	0.0	0.00
1976	1,362	25	0	0	0	1,387	1.3	2.8	0.05
1977	946	55	1	0	0	1,002	2.9	29.8	0.05
1978	896	34	0	0	0	930	1.7	75.7	0.05
1979	1,149	120	2	0	0	1,271	6.4	28.6	0.05
1980	902	57	1	0	0	960	3.0	83.2	0.05
1981	1,096	31	0	0	0	1,127	1.0	93.6	0.03
1982	978	22	0	0	0	1,000	0.4	72.6	0.02
1983	965	48	0	0	0	1,013	1.0	94.4	0.02
1984	1,616	62	8	0	0	1,686	3.0	10.9	0.04
1985	1,929	370	40	33	0	2,372	35.0	3.8	0.08
1986	221	66	4	0	0	291	1.8	9.7	0.03
1987	155	52	2	0	0	209	1.2	23.8	0.02
1988	238	24	0	0	0	262	0.7	81.8	0.03
1989	316	47	6	2	0	371	2.7	0.0	0.05
1990	226	30	0	0	0	256	0.6	0.0	0.02
1991	525	63	9	4	0	601	5.4	0.0	0.07
1992	520	144	36	34	0	734	25.4	0.0	0.12
1993	657	51	37	78	1	823	75.2	0.0	0.45
1994	390	89	33	79	4	591	78.0	0.0	0.39
1995	460	62	52	127	37	738	210.3	0.0	0.75
1996	230	25	2	0	0	251	1.2	0.0	0.04

#### 3.4 Summary of Intake Data by License Category

With the revision of 10 CFR 20 in 1994, licensees were required to report additional data to the NRC concerning intakes of radioactive material. Licensees were required to list for each intake the radionuclide that was taken into the body, the pulmonary clearance class, intake mode, and amount of the intake in microcuries. An NRC Form 5 report containing this information is required to be completed and submitted to the NRC under 10 CFR 20.2206.

Tables 3.8 and 3.9 summarize the intake data reported to the NRC during 1996. The data are categorized by licensee type and are listed in order of radionuclide and pulmonary clearance class. Table 3.8 lists the intakes where the mode of intake into the body was recorded as ingestion. Table 3.9 lists the intakes where the mode of intake was inhalation from ambient airborne radioactive material in the workplace. The pulmonary clearance class is recorded as D, W, or Y corresponding to its clearance half-time in the order of days, weeks, or years from the pulmonary region of the lung into the blood and gastrointestinal tract. The amount of material taken into the body is given in microcuries, a unit of measure of the quantity of radioactive material. For each category of licensee, the maximum number of intake records and the maximum intake is highlighted in the table in bold for ease of reference.

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# TABLE 3.8 INTAKE BY LICENSEE TYPE AND RADIONUCLIDE MODE OF INTAKE - *INGESTION*1996

			Number of Intake	Intake in
Licensee Type	Program Code	Radionuclide	Records*	microcuries
Nuclear Pharmacies	02500	I-131	1	0.0342
	02500	TC-99M	78	15.1500
Fuel Fabrication	21210	U-234	1	0.0021
	21210	U-235	1	0.0001
	21210	U-238	1	0.0003
Power Reactors	41111	AM-241	3	0.0078
	41111	CE-144	2	0.0139
	41111	CM-242	1	0.0002
	41111	CM-244	3	0.0047
	41111	CO-58	21	23.6353
	41111	CO-60	49	12.6120
	41111	CR-51	13	5.2249
	41111	FE-59	5	0.1667
	41111	H-3	1	0.3120
	41111	I-131	1	0.0430
	41111	IN-113M	2	0.0551
	41111	MN-54	18	4.6161
	41111	NB-95	2	1.8650
	41111	PU-238	3	0.0067
	41111	PU-239	3	0.0026
	41111	PU-241	1	0.0048
	41111	RU-103	1	0.0688
	41111	RU-106	2	0.0556
	41111	SB-124	1	0.2190
	41111	SN-113	2	0.0551
	41111	SR-90	1	0.0002
	41111	U-233/234	2	0.0037
	41111	U-235	2	0.0003
	41111	U-238	2	0.0025
	41111	UNKNOWN	3	0.4800
	41111	ZN-65	5	0.4968
	41111	ZR-95	14	12.3190

<sup>\*</sup>An intake event may involve multiple nuclides, and individuals may incur multiple intakes during the year. The number of intake records given here indicates the number of separate intake reports that were submitted on NRC Form 5 reports under 10 CFR 20.2206.

## TABLE 3.9 INTAKE BY LICENSEE TYPE AND RADIONUCLIDE MODE OF INTAKE - INHALATION 1996

		1990				
			Pulmonary	Number of		Intake in
Licensee Type	Program Code	Radionuclide	Clearance Class	Intake	Intake in	microcuries
				Records*	microcuries	(sci. notation)
Nuclear Pharmacies	02500	I-131	D	98	21.8424	2.18E+01
	02500	TC-99M	D	3	7545.0000	7.55E+03
Manufacturing and Distribution	03211	CO-60	Υ	7	0.4542	4.54E-01
Fuel Fabrication	21210	CO-60	Υ	245	0.3885	3.89E-01
	21210	CS-137	D	23	0.0000	3.12E-06
•	21210	NP-237	W	23	0.0000	3.87E-06
	21210	PA-234	W	23	0.0001	8.16E-05
	21210	PU-238	W	23	0.0000	4.66E-08
	21210	PU-239	W	60	0.0006	5.78E-04
	21210	PU-239	Υ	3	0.0000	2.06E-07
	21210	TC-99	D	23	0.0003	3.21E-04
	21210	TH-228	W	22	1.7500	1.75E+00
	21210	TH-228	Υ	262	0.0006	6.06E-04
	21210	TH-230	W	23	0.0000	1.63E-05
	21210	TH-230	Υ	261	0.0003	2.78E-04
	21210	TH-232Y	W	22	0.0000	7.28E-07
	21210	TH-232Y	Υ	262	0.0006	6.07E-04
	21210	TH-234	Υ	23	0.0000	3.22E-05
	21210	U-234	D	210	1.0925	1.09E+00
	21210	U-234	W	1	0.0011	1.09E-03
	21210	U-234	Υ	1911	5.4843	5.48E+00
	21210	U-235	W '	1	0.0005	4.54E-04
	21210	U-235	Υ	919	1.1446	1.14E+00
	21210	U-236	Υ	239	0.0031	3.12E-03
	21210	U-238	D	200	0.1801	1.80E-01
	21210	U-238	W	1	0.0030	2.99E-03
	21210	U-238	Υ	1821	0.7653	7.65E-01
Power Reactors	41111	AG-110M	D	1	0.1310	1.31E-01
	41111	AM-241	W	4	0.0005	4.80E-04
	41111	CE-144	Υ	2	0.0151	1.51E-02
	41111	CM-242	W	2	0.0000	0.00E+00
	41111	CM-243	W	2	0.0000	0.00E+00
	41111	CM-244	W	2	0.0003	2.70E-04
	41111	CO-58	Υ	196	31.3243	3.13E+01
	41111	CO-60	D	1	0.3280	3.28E-01
	41111	CO-60	V	2	0.1350	1.35E-01
	41111	CO-60	W	3	0.0883	8.83E-02
	41111	CO-60	Υ	350	541.6916	5.42E+02
	41111	CO-60 CO-60M		3 <b>50</b>	The state of the s	
	41111 41111	CO-60M	Υ	1	0.1100	1.10E-01
	41111 41111 41111	CO-60M CR-51	Y	1 6	0.1100 1.9000	1.10E-01 1.90E+00
	41111 41111 41111 41111	CO-60M CR-51 CS-134	Y Y D	1 6 9	0.1100 1.9000 0.0749	1.10E-01 1.90E+00 7.49E-02
	41111 41111 41111	CO-60M CR-51	Y	1 6	0.1100 1.9000	1.10E-01 1.90E+00

# TABLE 3.9 INTAKE BY LICENSEE TYPE AND RADIONUCLIDE MODE OF INTAKE - INHALATION 1996

Licensee Type	Program Code	Radionuclide	Pulmonary Clearance Class	Number of Intake Records*	Intake in microcuries	Intake in microcuries (sci. notation)
	41111	FE-59	W	2	89.0080	8.90E+01
	41111	H-3	V	4	20.4600	2.05E+01
	41111	HF-181	W	1	0.1113	1.11E-01
l	41111	I-131	D	38	432.3244	4.32E+02
	41111	I-132	D	6	0.5250	5.25E-01
	41111	I-133	D	3	0.5214	5.21E-01
	41111	MIXTURE	W	40	0.0370	3.70E-02
	41111	MN-54	W	81	213.5056	2.14E+02
	41111	MN-54	Υ	1	0.0340	3.40E-02
	41111	NB-95	Υ	64	2.1620	2.16E+00
	41111	NI-63	W	4	11.4610	1.15E+01
	41111	PU-238	Y	4	0.0006	5.90E-04
	41111	PU-239	Υ	4	0.0002	2.12E-04
	41111	RU-103	Υ	1	0.0460	4.60E-02
	41111	RU-106	Υ	2	0.0094	9.40E-03
	41111	U-233/234	Υ	2	0.0002	2.14E-04
	41111	U-235	Υ	2	0.0000	1.67E-05
	41111	U-238	Υ	2	0.0001	1.45E-04
	41111	ZN-65	Υ	36	0.8832	8.83E-01
	41111	ZR-95	D	3	2.1200	2.12E+00
	41111	ZR-95	W	14	0.5790	5.79E-01
	41111	ZR-95	Υ	33	1.5860	1.59E+00
	41111	ZRNB-95	W	3	4.1078	4.11E+00

<sup>\*</sup>An intake event may involve multiple nuclides, and individuals may incur multiple intakes during the year. The number of intake records given here indicates the number of separate intake reports that were submitted on NRC Form 5 reports under 10 CFR 20.2206.

#### 4 COMMERCIAL LIGHT WATER REACTORS - FURTHER ANALYSIS

#### 4.1 Introduction

General trends in occupational radiation exposures at nuclear power reactors are best evaluated within the context of other pertinent information. In this chapter, some of the tables and appendices that summarize exposure data also show the type, capacity, and age of the reactor; the amount of electricity generated; the types of workers being exposed; and the sort of tasks being performed. Exposure data are then presented as a function of these data.

#### 4.2 Definition of Terms and Sources of Data

#### 4.2.1 Number of Reactors

The *number of reactors* shown in Tables 4.1, 4.2, and 4.3 is the number of BWRs, PWRs, and LWRs, respectively, that had been in commercial operation for at least 1 full year as of December 31 of each of the indicated years. This is the number of reactors on which the *average number of workers with measurable dose* and *average collective dose per reactor* is based. Excluded are those reactors that had been in commercial operation for less than 12 months during the first year and reactors that have been permanently defueled. This yields conservative values for many of the averages shown in the tables. The date that each reactor was declared to be in commercial operation was taken from Reference 14.

Three Mile Island (TMI) 2 had been included in the compilation of data for commercially operating reactors through 1988 even though the reactor was shut down following the 1979 accident and has been in the process of defueling and decommissioning since that time. TMI 2 has <u>not</u> been included in the data analysis since 1988. Data for this reactor, however, will be listed in Appendices B, C, D and E for reference purposes.

#### 4.2.2 Electric Energy Generated

The electric energy generated in gross megawatt-years (MW-yr) each year by each facility is shown in Appendix C and graphically represented in Appendix E. This number was obtained by dividing the gross megawatt-hours of electricity annually produced by each facility by 8,760, the number of hours in the year, except for leap years when the number is 8,784 hours. The gross electricity generated (in megawatt-years) that is presented in Tables 4.1, 4.2, and 4.3 is the summation of electricity generated by the number of reactors included in each year. These sums are divided by the number of reactors included in each year to yield the average amount of electric energy generated per reactor, which is also shown in Tables 4.1, 4.2, and 4.3. The number of gross megawatt-hours of electricity produced each year was found in Reference 14.

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TABLE 4.1 SUMMARY OF INFORMATION REPORTED BY COMMERCIAL BOILING WATER REACTORS 1973 - 1996

⁄ear	Number of Reactors Included*	Annual Collective Dose (person- cSv or person-rem)	No. of Workers With Measurable Dose**	Gross Electricity Generated (MW-yrs)	Average Measurable Dose Per Worker (cSv or rem)**	Average Collective Dose Per Reactor (person- cSv or person-rem)	Average No. Personnel With Measurable Doses Per Reactor**	Average Collective Dose per MW-yr (person-cSv /MW-yr)	Average Electricity Generated Per Reactor (MW-yr)	Average Maximum Dependable Capacity Net (MWe)	Percent of Maximum Dependable Capacity Achieved
1973	12	4,564	5,340	3,393.9	0.85	380	445	1.34	283	438	65%
1974	14	7,095	8,769	4,060.2	0.81	507	626	1.75	290	485	60%
1975	18	12,611	14,607	5,786.4	0.86	701	812	2.18	321	595	54%
1976	22	12,300	16,604	8,137.9	0.74	559	755	1.51	370	630	59%
1977	23	19,041	21,388	9,102.5	0.89	828	930	2.09	396	637	62%
1978	25	15,273	20,278	11,856.0	0.75	611	811	1.29	474	660	72%
1979	25	18,325	25,245	11,671.0	0.73	733	1,010	1.57	467	660	71%
1980	26	29,530	34,094	10,868.2	0.87	1,136	1,311	2.72	418	663	63%
1981	26	25,472	34,755	10,899.2	0.73	980	1,337	2.34	419	663	63%
1982	26	24,437	32,235	10,614.6	0.76	940	1,240	2.30	408	663	62%
1983	26	27,455	33,473	9,730.1	0.82	1,056	1,287	2.82	374	663	56%
1984	27	27,097	41,105	10,019.2	0.66	1,004	1,522	2.70	371	754	49%
1985	29	20,573	38,237	12,284.0	0.54	709	1,319	1.67	424	775	55%
1986	30	19,349	37,928	12,102.1	0.51	645	1,264	1.60	403	786	51%
1987	32	16,717	41,737	15,109.0	0.40	522	1,304	1.11	472	832	57%
1988	34	17,983	40,305	16,665.4	0.45	529	1,185	1.08	490	845	58%
1989	36	15,549	44,360	17,543.5	0.35	432	1,232	0.89	487	857	57%
1990	37	15,780	41,577	21,336.1	0.38	426	1,124	0.74	577	862	67%
1991	37	12,005	38,492	21,505.8	0.31	324	1,040	0.56	581	860	68%
1992	37	13,309	42,095	20,592.2	0.32	360	1,138	0.65	557	859	65%
1993	37	12,221	39,352	21,995.6	0.31	330	1,064	0.56	594	798	74%
1994	37	12,092	39,108	22,139.0	0.31	327	1,057	0.55	598	801	75%
1995	37	9,467	35,659	24,737.0	0.27	256	964	0.38	669	835	80%
1996	37	9,461	37,637	24,322.2	0.25	256	1,017	0.39	657	838	78%

<sup>\*</sup> Includes only those reactors that had been in commercial operation for at least one full year as of December 31 of each of the indicated years. \*\* Figures are not adjusted for the multiple reporting of transient individuals. See Section 5.

**TABLE 4.2** SUMMARY OF INFORMATION REPORTED BY COMMERCIAL PRESSURIZED WATER REACTORS

1973 - 1996

Year	Number of Reactors Included*	Annual Collective Dose (person- cSv or person-rem)	No. of Workers With Measurable Dose**	Gross Electricity Generated (MW-yrs)	Average Measurable Dose Per Worker (cSv or rem)**	Collective Dose Per Reactor (person- cSv or person-rem)	Average No. Personnel With Measurable Doses Per Reactor**	Average Collective Dose per MW-yr (person-cSv /MW-yr)	Average Electricity Generated Per Reactor (MW-yr)	Average Maximum Dependable Capacity Net (MWe)	Percent of Maximum Dependable Capacity Achieved
1973	12	9,398	9,440	3,770.2	1.00	783	787	2.49	314	544	58%
1973	19	9,596 6,555	9,370	6,530.7	0.70	765 345	493	1.00	344	5 <del>44</del> 591	58% 58%
1975	26	8,268	10,884	11,982.5	0.76	318	419	0.69	461	647	71%
1976	30	13,807	17,588	13,325.0	0.79	460	586	1.04	444	701	63%
1977	34	13,467	20,878	17,345.8	0.75	396	614	0.78	510	688	74%
1978	39	16,528	25,700	19,840.5	0.64	424	659	0.70	509	706	74%
1979	42	21,657	38,828	18,255.0	0.56	516	924	1.19	435	746	58%
1980	42	24,267	46,237	18,289.3	0.52	578	1,101	1.33	435	746	58%
1981	44	28,673	47,351	20,553.7	0.61	652	1,076	1.40	467	752	62%
1982	48	27,754	52,146	22,140.6	0.53	578	1,086	1.25	461	777	59%
1983	49	29,017	52,173	23,195.5	0.56	592	1,065	1.25	473	785	60%
1984	51	28,138	56,994	26,478.4	0.49	552	1,118	1.06	519	809	64%
1985	53	22,469	54,633	29,470.7	0.41	424	1,031	0.76	556	820	68%
1986	60	23,032	62,995	33,593.0	0.37	384	1,050	0.69	560	878	64%
1987	64	23,684	62,597	37,007.3	0.38	370	978	0.64	578	900	64%
1988	68	22,786	62,921	42,929.7	0.36	335	925	0.53	631	885	71%
1989	71	20,381	63,894	44,679.5	0.32	287	900	0.46	629	897	70%
1990	73	20,812	67,081	46,955.6	0.31	285	919	0.44	643	907	71%
1991	74	16,510	60,269	51,942.6	0.27	223	814	0.32	702	913	77%
1992	73	15,985	61,048	53,419.8	0.26	219	836	0.30	732	923	79%
1993	71	14,142	56,588	50,480.6	0.25	199	797	0.28	711	945	75%
1994	72	9,603	44,766	54,618.3	0.21	133	622	0.18	759	932	81%
1995	72	12,207	51,867	55,825.1	0.24	170	720	0.22	775	933	83%
1996	72	9,413	46,812	55,337.8	0.20	131	650	0.17	769	935	82%

<sup>\*</sup> Includes only those reactors that had been in commercial operation for at least one full year as of December 31 of each of the indicated years. \*\* Figures are not adjusted for the multiple reporting of transient individuals. See Section 5.

**TABLE 4.3** SUMMARY OF INFORMATION REPORTED BY COMMERCIAL LIGHT WATER REACTORS

1973 - 1996

Year	Number of Reactors Included*	Annual Collective Dose (person- cSv or person-rem)	No. of Workers With Measurable Dose**	Gross Electricity Generated (MW-yrs)	Average Measurable Dose Per Worker (cSv or rem)**	Average Collective Dose Per Reactor (person- cSv or person-rem)	Average No. Personnel With Measurable Doses Per Reactor**	Average Collective Dose per MW-yr (person-cSv /MW-yr)	Average Electricity Generated Per Reactor (MW-yr)	Average Maximum Dependable Capacity Net (MWe)	Percent of Maximum Dependable Capacity Achieved
1973	24	13,962	14,780	7,164.1	0.94	582	616	1.95	299	491	61%
1974	33	13,650	18,139	10,590.9	0.75	414	550	1.29	321	546	59%
1975	44	20,879	25,491	17,768.9	0.82	475	579	1.18	404	626	65%
1976	52	26,107	34,192	21,462.9	0.76	502	658	1.22	413	671	62%
1977	57	32,508	42,266	26,448.3	0.77	570	742	1.23	464	667	70%
1978	64	31,801	45,978	31,696.5	0.69	497	718	1.00	495	688	72%
1979	67	39,982	64,073	29,926.0	0.62	597	956	1.34	447	714	63%
1980	68	53,797	80,331	29,157.5	0.67	791	1,181	1.85	429	714	60%
1981	70	54,145	82,106	31,452.9	0.66	774	1,173	1.72	449	719	63%
1982	74	52,191	84,381	32,755.2	0.62	705	1,140	1.59	443	737	60%
1983	75	56,472	85,646	32,925.6	0.66	753	1,142	1.72	439	743	59%
1984	78	55,235	98,099	36,497.6	0.56	708	1,258	1.51	468	790	59%
1985	82	43,042	92,870	41,754.7	0.46	525	1,133	1.03	509	804	63%
1986	90	42,381	100,923	45,695.1	0.42	471	1,121	0.93	508	847	60%
1987	96	40,401	104,334	52,116.3	0.39	421	1,087	0.78	543	877	62%
1988	102	40,769	103,226	59,595.1	0.39	400	1,012	0.68	584	871	67%
1989	107	35,930	108,254	62,223.0	0.33	336	1,012	0.58	582	883	66%
1990	110	36,592	108,658	68,291.7	0.34	333	988	0.54	621	892	70%
1991	111	28,515	98,761	73,448.4	0.29	257	890	0.39	662	895	74%
1992	110	29,294	103,143	74,012.0	0.28	266	938	0.40	673	901	75%
1993	108	26,363	95,940	72,476.2	0.27	244	888	0.36	671	895	75%
1994	109	21,695	83,874	76,757.3	0.26	199	769	0.28	704	888	79%
1995	109	21,674	87,526	80,562.1	0.25	199	803	0.27	739	900	82%
1996	109	18,874	84,449	79,660.0	0.22	173	775	0.24	731	902	81%

<sup>\*</sup> Includes only those reactors that had been in commercial operation for at least one full year as of December 31 of each of the indicated years. \*\* Figures are not adjusted for the multiple reporting of transient individuals. See Section 5.

#### 4.2.3 Collective Dose per Megawatt-Year

The number of megawatt-years of electricity generated was used in determining the ratio of the average value of the annual collective dose (TEDE) to the number of megawatt-years of electricity generated. The ratio was calculated by dividing the total collective dose in person-cSv (person-rem) by the gross electric energy generated in megawatt-years and is a measure of the dose incurred by workers at power plants in relation to the gross electric energy produced. This ratio was also calculated for each reactor site and is presented in Tables 4.1, 4.2, and 4.3 and Appendix C.

#### 4.2.4 Average Maximum Dependable Capacity

Average maximum dependable capacity, shown in Tables 4.1, 4.2, and 4.3, was found by dividing the sum of the net maximum dependable capacities of the reactors in megawatts (net MWe) by the number of reactors included each year. The net maximum dependable capacity is defined as the gross electrical output as measured at the output terminals of the turbine generator during the most restrictive seasonal conditions, less the normal station service loads. This "capacity" of each plant was found in Reference 14, and it is shown for each site in Appendix C.

#### 4.2.5 Percent of Maximum Dependable Capacity Achieved

The percent of maximum dependable capacity achieved is shown for all LWRs in Table 4.3. This parameter gives an indication of the overall power generation performance of LWRs as compared to the maximum capacity that could be obtained in a given year. It is calculated by dividing the average electricity generated per reactor by the average maximum dependable capacity for each year.

From 1973 to 1978 this indicator exhibited an increasing trend as a number of new reactors began producing power at higher efficiencies. Following the accident at Three Mile Island, reactor operations personnel concentrated on improving safety systems and complying with the new regulations for these systems. During this time period, from 1979 to 1987, the percent of maximum dependable capacity remained around 61%. Following the completion of most of these mandated repairs, reactors have increased the percent of maximum dependable capacity from 62% in 1987 to 81% in 1996, a gain of nearly 20% in 10 years.

#### 4.3 Annual TEDE Distributions

Table 4.4 summarizes the distribution of the annual TEDE doses received by workers at all commercial LWRs during each of the years 1977 through 1996. This distribution is the sum of the annual dose distributions reported by each licensed LWR each year. As previously mentioned, the distribution reported by each LWR site for 1996 is shown in Appendix B. Table 4.4 shows the reported dose distributions corrected for the number of transient workers that were reported by more than one site (see Section 5). The total collective dose decreased by 13% to a value of 18,874 person-cSv (person-rem) in 1996. The value of CR decreased to a value of 0.05. The large decrease in the value of CR from 1993 to 1994 is primarily because of the change in methodology by which the CR value is determined (see Section 3.1.8). For the years 1994 to 1996, the CR value was determined directly from the individual radiation exposure records submitted under 10 CFR 20.2206 (Form 5) rather than calculating the value indirectly from the statistical dose distribution summary as in prior years. This is the twelfth consecutive year that the value of CR has been <0.50.

#### 4.4 Average Annual TEDE Doses

Some of the data presented in Tables 4.1, 4.2, and 4.3 are graphically displayed in Figure 4.1, where it can be seen that the average collective dose and average number of workers per BWR have been higher than those for PWRs since 1974 and that the values of both parameters, in general, continued to rise at both types of facilities until 1983. Between 1983 and 1996, the average collective dose per reactor dropped by 77%. In 1996, the collective dose per reactor for PWRs decreased by 23% to 131 person-cSv (person-rem). The collective dose per reactor for BWRs remained unchanged at 256 person-cSv (person-rem) in 1996. The overall collective dose per reactor for LWRs decreased by 13% to 173 person-cSv (person-rem) in 1996. The number of workers with measurable dose per reactor increased to 1,017 for BWRs but decreased to 650 for PWRs in 1996. The overall decreasing trend in average reactor collective doses since 1983 indicates that licensees are continuing to successfully implement ALARA dose reduction features at their facilities.

Figures 4.2 and 4.3 are plots of most of the other information that is given in Tables 4.1, 4.2, and 4.3. The value for the total collective dose for all LWRs decreased by 13% from a value of 21,674 person-cSv (person-rem) in 1995 to 18,874 person-cSv (person-rem) in 1996. Together with the decrease in the number of workers with measurable dose, this resulted in the average measurable dose per worker decreasing to 0.22 cSv (rem) in 1996. Figure 4.2 shows that in 1996 the gross electricity generated was 79,660 megawatt-years.

TABLE 4.4

SUMMARY DISTRIBUTION OF ANNUAL WHOLE BODY DOSES AT COMMERCIAL LIGHT WATER REACTORS\*

1977 - 1996

Year	No Meas'ble Exposure	Meas'ble <0.10	0.10- 0.25	Number of 0.25- 0.5	Individuals 0.50- 0.75	with Who 0.75- 1.0	1.0- 2.0	oses in th 2.0- 3.0	e Ranges 3.0- 4.0	(cSv or i 4.0- 5.0	5.0- 6.0	6.0- 7.0	7.0- 8.0	8.0- 9.0		10.0- 12.0	>12	Total Number Monitored	Number with Measurable Exposure	Collective Dose** (person- cSv or rem)	CR***
1977	23,562	12,395	6,030	4,518	2,890	2,220	5,649	2,856	1,288	661	186	89	47	23	6			62,420	38,858	32,508	0.65
1978	28,372	15,101	6,342	4,998	3,088	2,247	5,995	3,034	1,197	514	109	37	9	0	1	0	2	71,046	42,674	31,801	0.61
1979	43,330	22,508	8,985	7,469	4,797	3,259	7,572	3,404	1,400	545	117	42	17	3	1			103,449	60,119	39,982	0.57
1980	50,873	26,903	10,676	8,904	5,570	4,134	10,671	4,607	1,816	831	235	119	29	7	1			125,376	74,503	53,795	0.59
1981	39,265	26,836	11,226	9,330	6,042	4,497	11,170	4,811	1,999	533	103	93	9	3	1	0	1	115,919	76,654	54,144	0.57
1982	41,713	29,225	11,713	9,903	6,229	4,420	10,220	4,716	2,066	596	97	31	5	0	1	1		120,936	79,223	52,190	0.58
1983	47,048	29,107	11,195	9,344	5,851	4,276	11,345	5,332	2,269	716	121	38	8	2				126,652	79,604	56,472	0.60
1984	54,670	36,296	13,427	10,275	6,336	4,804	11,283	5,206	2,122	487	52	22						144,980	90,310	55,235	0.57
1985	59,634	36,831	13,008	11,041	6,627	4,547	10,040	3,575	1,001	157	1							146,462	86,828	43,042	0.48
1986	67,701	41,467	14,570	11,842	7,016	4,693	10,241	3,062	868	146								161,606	93,905	42,381	0.45
1987	85,181	41,222	15,834	12,839	7,586	5,332	10,611	2,192	477	69								181,343	96,162	40,401	0.38
1988	87,254	40,225	15,913	13,153	7,903	5,461	10,310	2,442	511	26		1						183,199	95,945	40,769	0.39
1989	83,947	45,282	17,267	13,777	7,945	5,137	8,634	1,614	370	34								184,007	100,060	35,930	0.33
1990	83,873	42,607	17,529	14,192	8,226	5,260	8,594	1,794	335	21								182,431	98,558	36,592	0.33
1991	87,250	42,587	16,764	13,184	7,187	4,194	5,975	938	219	17								178,315	91,065	28,527	0.27
1992	87,717	41,934	17,822	14,777	8,134	4,520	6,076	808	85	4								181,877	94,160	29,294	0.24
1993	83,069	37,331	17,235	13,733	7,562	4,289	5,322	638	76	5								169,260	86,191	26,363	0.22
1994	68,927	31,100	15,750	12,386	6,362	3,655	4,092	415	20									142,707	73,780	21,695	0.08
1995	62,080	29,681	15,152	12,083	6,146	3,306	3,905	590	121	2								133,066	70,986	21,674	0.06
1996	59,238	30,432	14,626	11,248	5,389	2,823	3,186	409	69									127,420	68,182	18,874	0.05

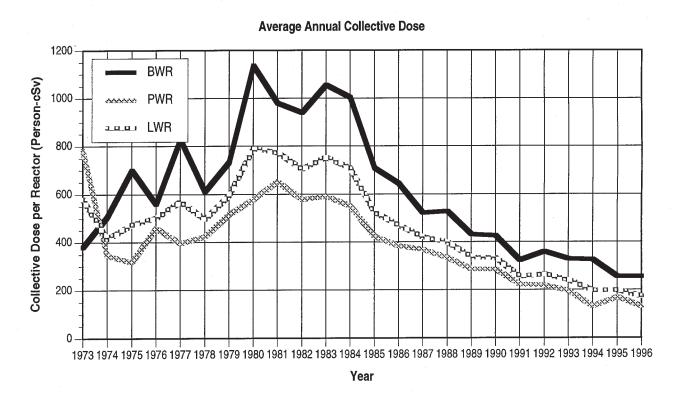
<sup>\*</sup>Summary of reports submitted in accordance with 10 CFR 20.407 or 20.2206 (since 1994) by only those plants that had been in commercial operation for at least 1 full year as of December 31 of each of the indicated years. Figures shown have been adjusted for the multiple reporting of transient individuals (see Section 5).

<sup>\*\*</sup> The collective dose, when not reported by the licensee, was calculated by the NRC staff using methods described in Section 3.1.4.

<sup>\*\*\*</sup>CR is the ratio of annual collective dose delivered at individual doses exceeding 1.5 cSv (rem) to the total annual collective dose. For 1994 - 1996, CR was determined directly from individual dose records submitted under 10 CFR 20.2206.

Figure 4.1

Average Collective Dose and Number of Workers per Reactor 1973 – 1996



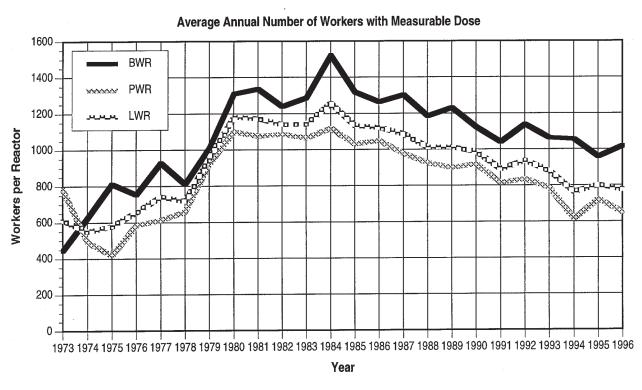
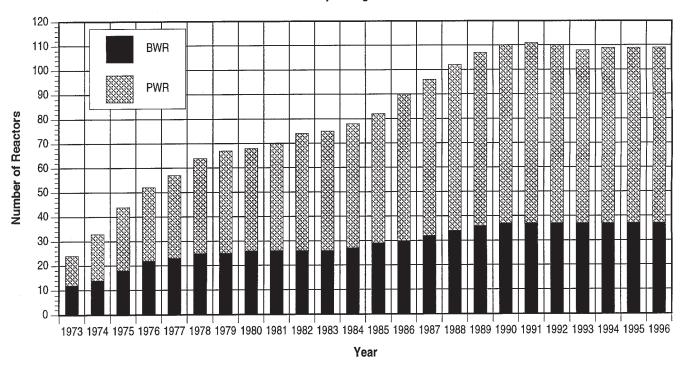


Figure 4.2

Number of Operating Reactors and Gross Electricity Generated 1973 – 1996

#### **Number of Operating Reactors**



#### **Gross Electricity Generated**

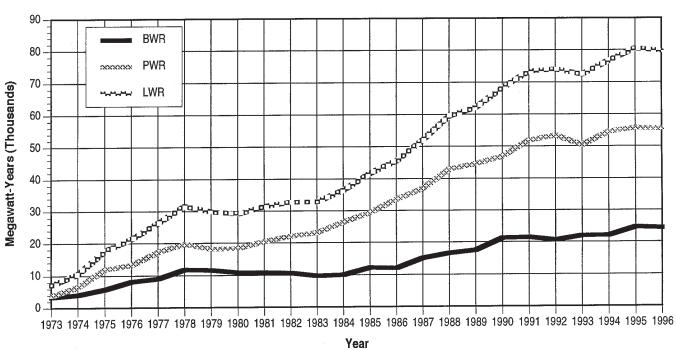
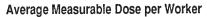
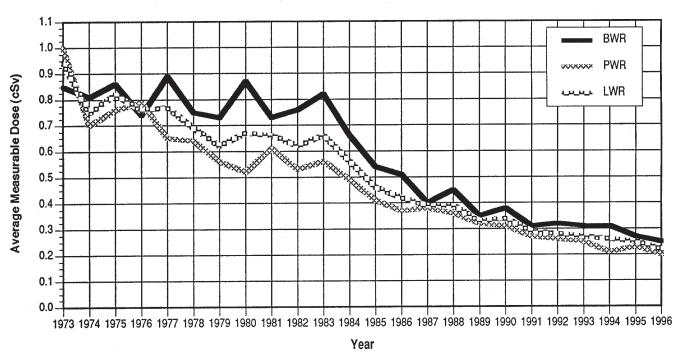


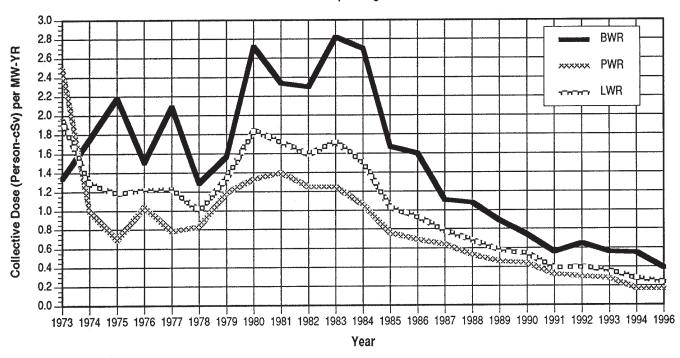
Figure 4.3

Average Measurable Dose per Worker and Collective Dose per Megawatt-Year 1973 – 1996





#### Collective Dose per Megawatt-Year



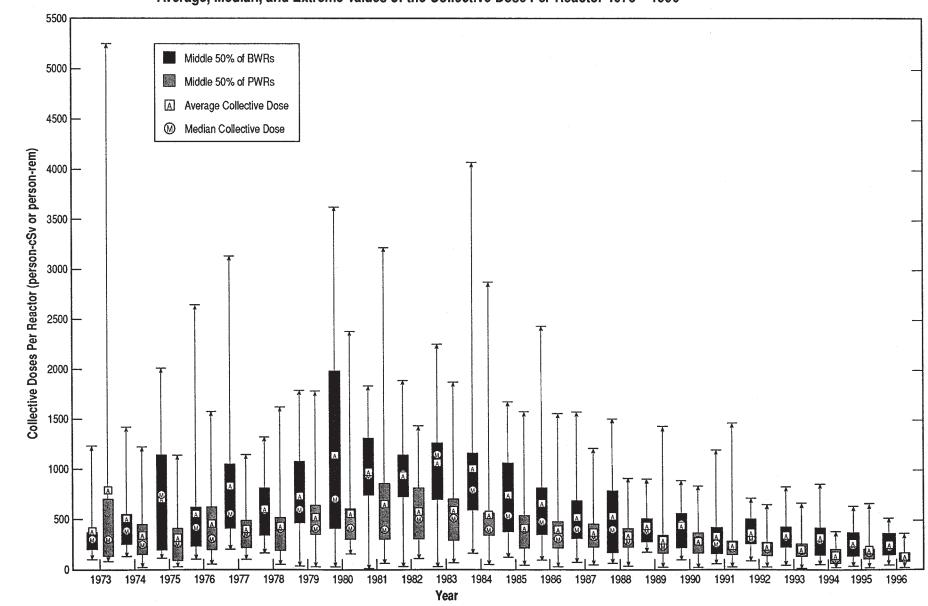
The fluctuations in the parameters for the years following the accident at the TMI plant in 1979 may reflect some of the impact that this incident had on the nuclear power industry. The decrease seen in dose trends since 1983 may be attributable to several factors. Utilities have completed most of the tasks initiated as a result of the lessons learned from the Three Mile Island accident, and they are increasing efforts to avoid and reduce exposure. The importance of exposure control and the concept of keeping exposures to ALARA levels is continually being stressed, and most utilities have established programs to collect and share information relative to tasks, techniques, and exposures.

To further assist in the identification of any trends that might exist, Figure 4.4 displays the average and median9 values of the collective dose per reactor for BWRs and for PWRs for the years 1973 through 1996. The ranges of the values reported each year are shown by the vertical lines with a small bar at each end marking the two extreme values. The rectangles indicate the range of values of the collective dose exhibited by those plants ranked in the twenty-fifth through the seventy-fifth percentiles. Since the median values usually are not as greatly affected by the extreme values of the collective doses, they do not normally fluctuate as much from year to year as do the average values. The median collective dose for PWRs experienced a decrease from 146 person-cSv (person-rem) in 1995 to 120 person-cSv (person-rem) in 1996. At BWRs, the median fluctuates more from year to year, and in 1996 the median collective dose decreased to 228 person-cSv (person-rem). Figure 4.4 also shows that, in 1996, 50% of the PWRs reported collective doses between 88 and 167 person-cSv (person-rem) while 50% of the BWRs reported collective doses between 145 and 358 person-cSv (person-rem). Nearly every year, the median collective dose is less than the average, which indicates that the collective dose for most plants is less than the average collective dose per reactor (the value that is widely quoted).

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The value at which 50% of the reactors reported greater collective doses and the other 50% reported smaller collective doses.

Figure 4.4
Average, Median, and Extreme Values of the Collective Dose Per Reactor 1973 – 1996



#### 4.5 Plant Rankings by Collective Dose per Reactor

Because the number of reactors from which data have been collected is still statistically rather small, the information reported by a few reactors where unusual conditions or problems may have occurred could have a large impact on some of the statistics presented in this report. In an effort to identify those plants, Tables 4.5 and 4.6 list the BWRs and PWRs in ascending order of collective dose per reactor for each of the 5 years from 1992 through 1996. The total collective dose per site is listed in the tables even though the dose per reactor was used for all ranking. Two other parameters, average measurable dose per worker and collective dose per megawatt-year, are also given for each plant. Also shown is a parameter CR, which is defined as the ratio of the annual collective dose delivered at individual doses exceeding 1.5 cSv (rem) to the total annual collective dose. The value of CR has continued to decline for most plants, and in 1996, the CR for all the U.S. LWRs fell between 0.05 and 0.50, the range recommended by the UNSCEAR [Ref. 10]. Note that for 1994 through 1996, the CR value was determined directly from the individual radiation exposure records submitted under 10 CFR 20.2206 (Form 5) rather than calculating the value from the statistical dose distribution summary (see Section 3.1.8).

In 1996, the five BWR sites with the highest collective doses all exceeded 409 person-cSv (person-rem) per reactor (Table 4.5). These reactors were Lasalle 1 and 2, Millstone Point 1, Oyster Creek, River Bend, and Quad Cities. Although the seven reactors at these five sites represented only 19% of the 37 BWRs, they contributed 34% of the total collective dose incurred at BWRs in 1996.

Some of the activities that contributed to the collective dose accumulated at the BWR site with the highest collective dose per reactor [Quad Cities 1 and 2 with 1,025 person-cSv (person-rem)] were valve repair, reactor water cleanup system replacement, in-service inspection, and residual heat removal room structural modifications.

In 1996, the five PWR sites with the highest collective doses all exceeded 226 person-cSv (person-rem) per reactor (Table 4.6). These reactors were Vogtle 1 and 2, Byron 1 and 2, Callaway, Palisades, and Crystal River 3. Although representing 10% of the 72 PWRs included in 1996, they contributed 19% of the total collective dose at PWRs. Much of the collective dose accumulated at the plant with the highest dose per reactor in 1996 [Crystal River 3 with 353 person-cSv (person-rem)] was attributed to reactor head work, steam generator work, health physics activities, scaffolding work, and system maintenance.

TABLE 4.5
BOILING WATER REACTORS LISTED IN ASCENDING ORDER OF COLLECTIVE DOSE PER REACTOR\*\*\*
1992 - 1996

	1992			
	Collect.	Dose	Dose	
	Dose	per	рег	
Site Name	per Site*	Worker	MW-Yr	CR**
COOPER STATION	> 84	0.18	0.1	0.07
MILLSTONE POINT 1	99	0.28	0.2	0.47
MONTICELLO	114	0.25	0.2	0.19
LIMERICK 1,2	330	0.21	0.2	0.06
BROWNS FERRY 1,2,3	516	0.19	0.5	0.04
FERMI 2	245	0.20	0.3	0.01
PEACH BOTTOM 2,3	502	0.26	0.3	0.16
HATCH 1,2	550	0.34	0.4	0.16
BIG ROCK POINT	277	0.56	8.5	0.52
PILGRIM	281	0.21	0.5	0.02
NINE MILE POINT 1,2	563	0.31	0.6	0.17
DRESDEN 2,3	619	0.34	0,7	0.22
BRUNSWICK 1,2	623	0.23	1.7	0.16
SUSQUEHANNA 1,2	724	0.38	0.5	0.23
VERMONT YANKEE	381	0.41	0.9	0.19
CLINTON	431	0.36	0.7	0.12
HOPE CREEK 1	436	0.26	0.5	0.18
GRAND GULF	484	0.24	0.5	0.14
DUANE ARNOLD	502	0.48	1.2	0.28
PERRY	571	0.38	0.7	0.15
QUAD CITIES 1,2	1,157	0.48	1.2	0.31
LASALLE 1,2	1,167	0.48	0.8	0.32
WASHINGTON NUCLEAR 2	612	0.41	0.9	0.24
OYSTER CREEK	657	0.24	1.2	0.16
FITZPATRICK	674	0.28		0.24
RIVER BEND 1	710	0.35	2.1	0.21

	1993			
	Collect.	Dose	Dose	
Ī	Dose	per	per	
Site Name	per Site*	Worker	MW-Yr	CR**
FERMI 2	35	0.10	0.0	0.00
MILLSTONE POINT 1	81	0.27	0.1	0.15
HOPE CREEK 1	98	0.14	0.1	0.05
LIMERICK 1,2	217	0.17	0.1	0.02
BIG ROCK POINT	152	0.36	3.0	0.26
SUSQUEHANNA 1,2	335	0.23	0.2	0.05
RIVER BEND 1	180	0.21	0.3	0.14
VERMONT YANKEE	217	0.26	0.5	0.08
FITZPATRICK	232	0.16	0.4	0.14
PEACH BOTTOM 2,3	552	0.31	0.3	0.17
PERRY	278	0.23	0.6	0.03
BROWNS FERRY 1,2,3	870	0.24	1.3	0.08
NINE MILE POINT 1,2	633	0.27	0.5	0.14
GRAND GULF	332	0.18	0.4	0.07
HATCH 1,2	669	0.39	0.6	0.18
COOPER STATION	391	0.35	0.9	0.20
DUANE ARNOLD	407	0.39	1.0	0.34
OYSTER CREEK	416	0.16	8.0	0.07
QUAD CITIES 1,2	849	0.39	0.9	0.24
LASALLE 1,2	854	0.50	0.6	0.33
PILGRIM	435	0.33	8.0	0.03
BRUNSWICK 1,2	872	0.30	1.9	0.17
WASHINGTON NUCLEAR 2	469	0.34	0.6	0.19
MONTICELLO	494	0.52	1.1	0.30
CLINTON	498	0.40	0.7	0.09
DRESDEN 2,3	1,655	0.60	1.7	0.38

	1994			
· ·	Collect.	Dose	Dose	
	Dose	per	per	
Site Name	per Site*	Worker	MW-Yr	CR**
VERMONT YANKEE	38	0.17	0.1	0.00
GRAND GULF	56	0.12	0.0	0.03
CLINTON	63	0.15	0.1	0.00
NINE MILE POINT 1,2	149	0.19	0.1	0.02
COOPER STATION	79	0.24	0.3	0.00
BIG ROCK POINT	119	0.38	2.4	0.14
DUANE ARNOLD	120	0.24	0.2	0.03
LIMERICK 1,2	275	0.18	0.1	0.00
PILGRIM	200	0.26	0.4	0.00
FERMI 2	213	0.19		0.00
SUSQUEHANNA 1,2	442	0.28	0.2	0.02
BROWNS FERRY 1,2,3	855	0.26	1.0	0.05
PEACH BOTTOM 2,3	579	0.27	0.3	0.09
FITZPATRICK	322	0.20	0.5	0.10
HOPE CREEK 1	326	0.18	0.4	0.05
LASALLE 1,2	726	0.40	0.5	0.08
MILLSTONE POINT 1	391	0.30	1.0	0.01
MONTICELLO	395	0.50	0.8	0.17
DRESDEN 2,3	833	0.36	1.2	0.05
HATCH 1,2	864	0.39	0.7	0.20
BRUNSWICK 1,2	999	0.33	0.8	0.05
RIVER BEND 1	519	0.23	0.9	0.06
QUAD CITIES 1,2	1,128	0.52	1.7	0.31
PERRY	691	0.33	1.3	0.03
OYSTER CREEK	844	0.35	2.0	0.24
WASHINGTON NUCLEAR 2	866	0.46	1.1	0.20

	1995			
	Collect.	Dose	Dose	
	Dose	per	per	
Site Name	per Site*	Worker	MW-Yr	CR**
FERMI 2	28	0.07	0.0	0.00
MONTICELLO	44	0.22	0.1	0.00
BIG ROCK POINT	54	0.26	0.9	0.18
PERRY	64	0.11	0.1	0.00
RIVER BEND 1	85	0.13	0.1	0.00
OYSTER CREEK	90	0.12	0.1	0.00
LIMERICK 1,2	260	0.16	0.1	0.02
BROWNS FERRY 1,2,3	409	0.16	0.4	0.00
VERMONT YANKEE	182	0.25	0.4	0.00
HOPE CREEK 1	196	0.13	0.2	0.07
PEACH BOTTOM 2,3	398	0.21	0.2	0,03
COOPER STATION	228	0.21	0.5	0.02
SUSQUEHANNA 1,2	476	0.27	0.3	0.05
HATCH 1,2	488	0.33	0.4	0.10
LASALLE 1,2	512	0.32	0.3	0.02
CLINTON	316	0.27	0.4	0.01
FITZPATRICK	327	0.26	0.6	0.03
BRUNSWICK 1,2	683	0.26	0.5	0.00
GRAND GULF	342	0.22	0.4	0.01
DUANE ARNOLD	357	0.32	0.8	0.01
QUAD CITIES 1,2	736	0.36	0.7	0.01
NINE MILE POINT 1,2	759	0.33	0.5	0.12
DRESDEN 2,3	875	0.35	1.4	0.07
WASHINGTON NUCLEAR 2	456	0.27	0.6	0.03
PILGRIM	482	0.37	0.9	0.00
MILLSTONE POINT 1	620	0.68	1.2	0.16

	1996			
	Collect.	Dose	Dose	
	Dose	per	per	
Site Name	per Site*	Worker	MW-Yr	CR**
COOPER STATION	48	0.10	0.1	0.00
PILGRIM	116	0.22	0.2	0.00
LIMERICK 1,2	234	0.14	0.1	0.00
BROWNS FERRY 1,2,3	384	0.22	0.2	0.02
PEACH BOTTOM 2,3	282	0.17	0.1	0.02
SUSQUEHANNA 1,2	289	0.20	0.1	0.02
NINE MILE POINT 1,2	290	0.18	0.2	0.02
FERMI 2	157	0.11	0.3	0.00
HOPE CREEK 1	158	0.15	0.2	0.01
BIG ROCK POINT	208	0.60	4.7	0.23
HATCH 1,2	441	0.29	0.3	0.05
DRESDEN 2,3	456	0.26	0.7	0.00
VERMONT YANKEE	231	0.24	0.5	0.00
MONTICELLO	240	0.32	0.5	0.06
DUANE ARNOLD	270	0.25	0.6	0.06
PERRY	307	0.19	0.3	0.00
CLINTON	350	0.30	0.6	0.06
FITZPATRICK	357	0.26	0.6	0.02
GRAND GULF	357	0.23	0.3	0.03
BRUNSWICK 1,2	716	0.26	0.6	0.09
WASHINGTON NUCLEAR 2	373	0.26	0.6	0.02
LASALLE 1,2	819	0.29	0.8	0.03
MILLSTONE POINT 1	431	0.58		0.17
OYSTER CREEK	449	0.24	0.9	0.07
RIVER BEND 1	473	0.23	0.6	0.07
QUAD CITIES 1,2	1,025	0.46	1.2	0.08

- \* For sites with more than one operating reactor, the collective dose per reactor is obtained by dividing the collective dose for the site by the number of reactors.
- \*\* CR is the ratio of the annual collective dose delivered at individual doses exceeding 1.5 cSv (rems) to the collective dose. For '94 - '96 data, the CR value was determined from the individual Form 5 submittals.
- \*\*\* All doses are in cSv (rems).

TABLE 4.6
PRESSURIZED WATER REACTORS LISTED IN ASCENDING ORDER OF COLLECTIVE DOSE PER REACTOR\*\*\*
1992 - 1996

	1992			
1	Collect.	Dose	Dose	
Site Name	Dose per Site*	per Worker	per MW-Y	CR**
DAVIS-BESSE	19	0.07	0.0	0.00
SUMMER 1	27	0.11	0.0	0.00
THREE MILE ISLAND 1	34	0.06	0.0	0.00
SOUTH TEXAS 1,2	147	0.16	0.1	0.01
WOLF CREEK 1	78	0.17	0.1	0.12
TROJAN	84	0.17	0.1	0.03
INDIAN POINT 2	97	0.13	0.1	0.13
BYRON 1.2	199	0.19	0.1	0.02
PRAIRIE ISLAND 1.2	211	0.15	0.3	0.10
SAN ONOFRE 1.2.3	324	0.20	0.1	0.02
BRAIDWOOD 1.2	228	0.22	0.1	0.05
KEWAUNEE	122	0.27	0.3	0.07
POINT BEACH 1,2	256	0.41	0.3	0.24
ST. LUCIE 1,2	264	0.41	0.3	0.04
BEAVER VALLEY 1.2	289	0.20	0.2	0.04
SEABROOK	147	0.18	0.2	0.01
TURKEY POINT 3.4	325	0.16	0.2	0.11
CALVERT CLIFFS 1.2	330	0.17	0.3	0.16
PALO VERDE 1.2.3	541	0.17	0.3	0.19
COMANCHE PEAK	188	0.17	0.2	0.02
MCGUIRE 1,2	386	0.77	0.2	0.13
CATAWBA 1.2	394	0.24	0.2	0.05
HADDAM NECK	202	0.25	0.4	0.08
INDIAN POINT 3	212	0.21	0.4	0.04
HARRIS	212	0.21	0.4	0.04
VOGTLE 1.2	426	0.23	0.3	0.10
SALEM 1.2	431	0.10	0.4	0.06
OCONEE 1,2,3	649	0.10	0.4	0.10
WATERFORD 3	226	0.19	0.3	0.05
DIABLO CANYON 1.2	459	0.19	0.2	0.09
SEQUOYAH 1.2	459 465	0.25	0.2	0.09
COOK 1,2	492	0.27	0.5	0.12
GINNA	261	0.23	0.6	0.09
SURRY 1.2	539	0.31	0.4	0.15
FORT CALHOUN	272	0.34	0.4	0.10
NORTH ANNA 1,2	576	0.34	0.4	0.10
PALISADES	295	0.23	0.5	0.18
CALLAWAY 1	336	0.23	0.3	0.12
ROBINSON 2	355 352	0.30	0.3	0.12
	352 805	0.28	0.7	0.09
FARLEY 1,2	424		0.6	0.28
CRYSTAL RIVER 3	424 876	0.30 0.28	0.7	0.18
ARKANSAS 1,2		0.28	0.5	0.18
MAINE YANKEE	461 1.043	0.39	0.7	0.17
ZION 1,2		0.40	1.1	0.44
MILLSTONE POINT 2,3	1,280	0.40	1.1	0.33

	1993			
	Collect.	Dose	Dose	
Site Name	Dose per Site*	per Worker	per MW-Yr	CR**
SEABROOK	6	0.05	0.0	0.00
WATERFORD 3	15	0.08	0.0	0.00
COOK 1,2	44	0.07	0.0	0.00
HARRIS	31	0.09	0.0	0.00
PRAIRIE ISLAND 1,2	106	0.20	0.1	0.00
COMANCHE PEAK 1,2	109	0.12	0.1	0.03
CRYSTAL RIVER 3	60	0.09	0.1	0.00
INDIAN POINT 3	60	0.13	0.4	0.00
OCONEE 1,2,3	237	0.16	0.1	0.00
POINT BEACH 1,2	186	0.33	0.2	0.16
KEWAUNEE	106	0.24	0.2	0.06
SOUTH TEXAS 1,2	251	0.22	1.5	0.04
ARKANSAS 1,2	268	0.14	0.2	0.01
BRAIDWOOD 1,2	273	0.26	0.1	0.03
TURKEY POINT 3,4	275 281	0.22 0.19	0.2 0.1	0.08
DIABLO CANYON 1,2 FORT CALHOUN	281 157	0.19	0.1	0.03
FARLEY 1.2	333	0.22	0.4	0.01
WOLF CREEK 1	183	0.19	0.2	0.12
VOGTLE 1.2	367	0.19	0.2	0.01
SEQUOYAH 1.2	372	0.23	0.9	0.08
SURRY 1,2	383	0.27	0.3	0.09
GINNA	193	0.23	0.5	0.08
PALO VERDE 1.2.3	592	0.28	0.2	0.16
CATAWBA 1,2	396	0.25	0.2	0.07
CALVERT CLIFFS 1,2	405	0.28	0.3	0.14
SALEM 1,2	408	0.11	0.3	0.07
THREE MILE ISLAND 1	206	0.11	0.3	0.01
BYRON 1,2	432	0.32	0.2	0.09
CALLAWAY 1	225	0.20	0.2	0.02
MCGUIRE 1,2	463	0.27	0.3	0.14
ST. LUCIE 1,2	492	0.34	0.4	0.16
SAN ONOFRE 1,2,3	767	0.35	0.4	0.14
MILLSTONE POINT 2,3	557	0.27	0.4	0.16
PALISADES	289	0.32	0.7	0.13
SUMMER 1	297	0.26	0.4	0.08
BEAVER VALLEY 1,2	621	0.30	0.5	0.12
ZION 1,2	643	0.36	0.4	0.22
ROBINSON 2	337	0.28	0.7	0.11
DAVIS-BESSE MAINE YANKEE	348 377	0.28 0.37	0.5 0.6	0.11
HADDAM NECK	377 40B	0.37	0.8	0.13
NORTH ANNA 1.2	908	0.41	0.6	0.28
INDIAN POINT 2	908 675	0.33	1.0	0.28
INDIAN FORM 2	010	0.40	1,0	0.23

	1994			
	Collect.	Dose	Dose	
	Dose	per	per	
Site Name	per Site*	Worker	MW-Y	CR**
CALLAWAY 1	14	0.07	0.0	0.00
SAN ONOFRE 2,3	32	0.06	0.0	0.00
BEAVER VALLEY 1,2	44	0.09	0.0	0.00
FORT CALHOUN	23	0.11	0.0	0.00
SOUTH TEXAS 1,2	47	0.07	0.0	0.00
THREE MILE ISLAND 1	40	0.09	0.1	0.00
COMANCHE PEAK 1,2	90	0.09	0.1	0.02
INDIAN POINT 2	48	0.13	0.1	0.06
PRAIRIE ISLAND 1,2	109	0.23	0.1	0.00
INDIAN POINT 3	58	0.11		0.00
PALISADES	60	0.15	0.1	0.00
ROBINSON 2	63	0.15	0.1	0.00
KEWAUNEE	72	0.20	0.2	0.00
MAINE YANKEE	84	0.28	0.1	0.02
POINT BEACH 1,2	170	0.31	0.2	0.01
ARKANSAS 1,2	172	0.13	0.1	0.00
MILLSTONE POINT 2,3	188	0.15	0.1	0.01
SALEM 1,2	188	0.20	0.1	0.05
NORTH ANNA 1,2	193	0.19	0.1	0.00
CATAWBA 1,2	207	0.16	0.1	0.01
VOGTLE 1,2	217	0.21	0.1	0.01
SEABROOK	113	0.13	0.2	0.00
FARLEY 1,2	125	0.24	0.2	0.03
HADDAM NECK	135	0.29	0.3	0.17
GINNA	138	0.20	0.3	0.00
BYRON 1,2	280	0.29	0.1	0.02
DAVIS-BESSE	144	0.17	0.2	0.00
SEQUOYAH 1,2	292	0.18	0.2	0.02
BRAIDWOOD 1,2	298	0.24	0.2	0.01
ZION 1,2	306	0.26	0.2	0.02
PALO VERDE 1,2,3	462	0.23	0.2	0.07
OCONEE 1,2,3	537	0.28	0.3	0.08
SURRY 1,2	378	0.25	0.3	0.00
WATERFORD 3	191	0.16	0.2	0.00
MCGUIRE 1,2	397	0.24	0.2	0.07
HARRIS	222	0.20	0.3	0.00
CALVERT CLIFFS 1.2	454	0.31	0.3	0.00
CRYSTAL RIVER 3	228	0.21	0.3	0.02
WOLF CREEK 1	235	0.22	0.2	0.01
TURKEY POINT 3.4	476	0.32	0.4	0.03
COOK 1,2	479	0.27	0.4	0.01
ST. LUCIE 1.2	505	0.27	0.4	0.05
DIABLO CANYON 1,2	590	0.25	0.3	0.05
SUMMER 1	374	0.24	0.7	0.00

	1995			
	Collect.	Dose	Dose	
	Dose	рег	per	
Site Name	per Site*	Worker	MW-Y	
DAVIS-BESSE	7	0.03	0.0	0.00
CRYSTAL RIVER 3	8	0.04	0.0	0.00
SUMMER 1	13	0.05	0.0	0.00
WOLF CREEK 1	14	0.06	0.0	0.00
PRAIRIE ISLAND 1,2	107	0.21	0.1	0.00
INDIAN POINT 3	67	0.11	0.4	0.00
MCGUIRE 1,2	138	0.11	0.1	0.00
COMANCHE PEAK 1,2	179	0.19	0.1	0.00
POINT BEACH 1,2	190	0.35	0.2	0.04
VOGTLE 1,2	199	0.21	0.1	0.00
OCONEE 1,2,3	304	0.19	0.1	0.09
COOK 1,2	203	0.15	0.1	0.00
SEABROOK	102	0.13	0.1	0.00
TURKEY POINT 3.4	215	0.19	0.2	0.00
KEWAUNEE	109	0.26	0.2	0.00
SALEM 1.2	218	0.17	0.4	0.02
CALVERT CLIFFS 1.2	235	0.20	0.2	0.00
BRAIDWOOD 1.2	236	0.21	0.1	0.01
GINNA	136	0.18	0.3	0.06
FORT CALHOUN	139	0.22	0.3	0.00
DIABLO CANYON 1.2	286	0.18	0.1	0.06
SOUTH TEXAS 1.2	291	0.20	0.1	0.00
BYRON 1,2	306	0.28	0.2	0.06
WATERFORD 3	153	0.14	0.2	0.00
PALO VERDE 1.2.3	482	0.26	0.1	0.05
HARRIS	174	0.16	0.2	0.01
SEQUOYAH 1.2	358	0.22	0.2	0.02
NORTH ANNA 1.2	367	0.24	0.2	0.05
CALLAWAY 1	187	0.18	0.2	0.00
ARKANSAS 1.2	386	0.17	0.2	0.03
SURRY 1,2	406	0.17	0.3	0.10
ST. LUCIE 1,2	413	0.22	0.3	0.07
MILLSTONE POINT 2.3	416	0.25	0.3	0.51
THREE MILE ISLAND 1	213	0.17	0.3	0.00
ROBINSON 2	215	0.17	0.3	0.00
BEAVER VALLEY 1,2	453	0.20	0.3	0.02
SAN ONOFRE 1,2,3	455	0.29	0.3	0.02
	455 462	0.24	0.3	0.03
CATAWBA 1,2	462 463	0.24	0.2	0.03
FARLEY 1,2	463 797			
ZION 1,2		0.44	0.5	0.15
HADDAM NECK	442	0.44	1.0	0.14
PALISADES	462	0.38	0.8	0.10
INDIAN POINT 2	548	0.32	0.9	0.07
MAINE YANKEE	653	0.56	27.7	0.26

	1996			
	Collect.	Dose	Dose	
Site Name	Dose per Site*	per Worker	per MW-Yr	CR**
SEABROOK	10	0.05	0.0	0.00
THREE MILE ISLAND 1	16	0.05	0.0	0.00
HARRIS	17	0.04	0.0	0.00
INDIAN POINT 3	22	0.08	0.0	0.00
WATERFORD 3	27	0.08	0.0	0.00
INDIAN POINT 2	54	0.14	0.1	0.00
MAINE YANKEE	56	0.14	0.1	0.00
PRAIRIE ISLAND 1,2	112	0.20	0.1	0.00
MILLSTONE POINT 2,3	126	0.13	0.3	0.17
SAN ONOFRE 2,3	129	0.10	0.1	0.00
SOUTH TEXAS 1,2	137	0.12	0.1	0.00
OCONEE 1,2,3	257	0.17	0.1	0.00
DIABLO CANYON 1,2	176	0.12	0.1	0.00
TURKEY POINT 3,4	187	0.16	0.1	0.00
SUMMER 1	97	0.14	0.1	0.00
PALO VERDE 1,2,3	302	0.18	0.1	0.00
ARKANSAS 1,2	203	0.14	0.1	0.02
SURRY 1,2	209	0.21	0.1	0.07
COOK 1,2	214	0.19	0.1	0.00
FARLEY 1,2	232	0.20	0.2	0.09
MCGUIRE 1,2	238	0.15	0.1	0.00
CALVERT CLIFFS 1,2	239	0.20	0.2	0.00
KEWAUNEE	126	0.27	0.3	0.03
SEQUOYAH 1,2	265	0.19	0.1	0.00
POINT BEACH 1,2	276	0.27	0.3	0.01
COMANCHE PEAK 1,2	288	0.20	0.2	0.00
NORTH ANNA 1,2	291	0.24	0.2	0.05
SALEM 1,2	300	0.18		0.01
CATAWBA 1,2	302	0.19	0.2	0.01
BRAIDWOOD 1,2	334	0.25	0.2	0.00
DAVIS-BESSE	167	0.18	0.2	0.00
ROBINSON 2	167	0.16	0.3	0.00
GINNA	168	0.17	0.5	0.00
WOLF CREEK 1	171	0.17	0.2	0.00
HADDAM NECK	175	0.26	0.5	0.06
ST. LUCIE 1,2	385	0.27	0.3	0.06
ZION 1,2	437	0.28	0.3	0.05
BEAVER VALLEY 1,2	449	0.27	0.4	0.05
FORT CALHOUN	226	0.31	0.6	0.00
VOGTLE 1,2	452	0.32	0.2	0.09
BYRON 1,2	455	0.28	0.3	0.03
CALLAWAY 1	248	0.25	0.2	0.12
PALISADES	318	0.29	0.5	0.13
CRYSTAL RIVER 3	353	0.30	1.2	0.05

<sup>\*</sup> For sites with more than one operating reactor, the collective dose per reactor is obtained by dividing the collective dose for the site by the number of reactors.

<sup>\*\*</sup> CR is the ratio of the annual collective dose delivered at individual doses exceeding 1.5 cSv (rems) to the collective dose. For '94 - '96 data, the CR value was determined from the individual Form 5 submittals.

<sup>\*\*\*</sup> All doses are in cSv (rems).

Tables 4.7a and b list the sites that had been in commercial operation for at least 5 years as of December 31, 1996, and show the values of several parameters for each of the sites. They also give averages for the two types of reactors. Based on the 185 reactor-years of operation accumulated by the 37 BWRs listed, the average annual collective dose per reactor was found to be 306 person-cSv (person-rem), the average measurable dose per worker was 0.29 cSv (rem), and the average collective dose per megawatt-year was 0.5.

Based on the 351 reactor-years of operation at the 71 PWRs listed, the average annual collective dose per reactor, average measurable dose per worker, and average collective dose per megawatt-year were found to be 172 person-cSv (person-rem), 0.24 cSv (rem), and 0.2 person-cSv/MW-yr, respectively. All of these values, at both types of facilities, are lower than those found for the 5 year period ending in 1995, with the exception of the average collective dose per megawatt-year at PWRs, which remained the same.

In some cases, the plants having the lower values for most of the parameters shown in Tables 4.7a and b are the newer plants. Some of the older, smaller plants, such as Big Rock Point, also appear near the top of the listings because they report small collective doses. However, the ratio of collective dose to megawatt-years is generally higher for these plants because of their limited power generation capability.

Usually, the combination of a large annual collective dose and a large collective dose to megawatt-year ratio for a plant indicates that extensive maintenance or modifications were undertaken during the year. Jobs that were large contributors to BWR doses in 1996 included valve repair, reactor water cleanup system replacement, drywell inspections, in-service inspections, and weld overlays. At PWR facilities, the major contributors to the collective dose were refueling, steam generator work, resistance temperature detector modifications, and reactor head work.

A complete breakdown of the activities contributing to the collective dose at the ten sites with the highest dose per reactor ranking in 1996 (from Tables 4.5 and 4.6) is given in Tables 4.8a and 4.8b for BWRs and PWRs respectively. The outage dose and duration are shown as well as the collective dose for each activity.

## TABLE 4.7a 5-YEAR TOTALS AND AVERAGES LISTED IN ASCENDING ORDER OF COLLECTIVE DOSE PER BWR

1992 - 1996

Site Name*	Number of Reactor Years	Annual Collective Dose per Reactor	Total Coll. Dose per Site (cSv)	Workers with Meas. Doses	Avg. Meas. Dose (cSv)	Total MW-yrs	Average Collective Dose per MW-yr
LIMERICK 1,2	10	132	1,316	7,624	0.17	9,576.8	0.1
FERMI 2	5	136	678	4,495	0.15	3,052.8	0.2
BIG ROCK POINT	5	162	810	1,777	0.46	239.4	3.4
COOPER STATION	5	166	830	3,489	0.24	2,655.8	0.3
BROWNS FERRY 1,2,3	15	202	3,034	13,840	0.22	5,648.4	0.5
VERMONT YANKEE	5	210	1,049	3,662	0.29	2,278.5	0.5
SUSQUEHANNA 1,2	10	227	2,266	8,156	0.28	8,864.7	0.3
PEACH BOTTOM 2,3	10	231	2,313	9,398	0.25	9,060.8	0.3
NINE MILE POINT 1,2	10	239	2,394	8,852	0.27	6,912.2	0.3
HOPE CREEK 1	5	243	1,214	6,801	0.18	4,392.3	0.3
MONTICELLO	5	257	1,287	3,153	0.41	2,482.7	0.5
HATCH 1,2	10	301	3,012	8,544	0.35	6,664.1	0.5
PILGRIM	5	303	1,514	5,229	0.29	2,689.6	0.6
GRAND GULF	5	314	1,571	7,447	0.21	5,094.7	0.3
MILLSTONE POINT 1	5	324	1,622	3,631	0.45	1,974.3	0.8
DUANE ARNOLD	5	331	1,656	4,801	0.34	2,236.5	0.7
CLINTON	5	332	1,658	5,237	0.32	3,538.5	0.5
PERRY	5	382	1,911	7,029	0.27	3,870.3	0.5
FITZPATRICK	5	382	1,912	8,029	0.24	2,339.4	0.8
BRUNSWICK 1,2	10	389	3,893	14,101	0.28	4,783.6	0.8
RIVER BEND 1	5	393	1,967	7,838	0.25	3,372.7	0.6
LASALLE 1,2	10	408	4,078	10,336	0.39	7,316.9	0.6
DRESDEN 2,3	10	444	4,438	11,169	0.40	3,776.7	1.2
QUAD CITIES 1,2	10	490	4,895	11,015	0.44	4,493.9	1.1
OYSTER CREEK	5	491	2,456	10,307	0.24	2,648.9	0.9
WASHINGTON NUCLEAR 2	5	555	2,776	7,891	0.35	3,821.5	0.7
Grand Totals and Averages	185		56,550	193,851	0.29	113,786.0	0.5
Averages Per Reactor-Year			306	1,048		615.1	

<sup>\*</sup> Sites where not all reactors had completed 5 full years of commercial operation as of 12/31/96 are not included.

## TABLE 4.7b 5-YEAR TOTALS AND AVERAGES LISTED IN ASCENDING ORDER OF COLLECTIVE DOSE PER PWR

1992 - 1996

Site Name*	Number of Reactor Years	Annual Collective Dose per Reactor	Total Coll. Dose per Site (cSv)	Workers with Meas. Doses	Avg. Meas. Dose (cSv)	Total MW-yrs	Average Collective Dose per MW-yr
PRAIRIE ISLAND 1,2	10	65	645	2,912	0.22	4,799.4	0.1
SEABROOK	5	76	378	2,774	0.14	4,901.2	0.1
INDIAN POINT 3	5	84	419	2,937	0.14	1,570.4	0.3
SOUTH TEXAS 1,2	10	87	873	5,352	0.16	8,712.6	0.1
THREE MILE ISLÂND 1	5	102	509	4,314	0.12	3,985.5	0.1
KEWAUNEE	5	107	535	2,139	0.25	2,239.1	0.2
POINT BEACH 1,2	10	108	1,078	3,301	0.33	4,379.9	0.2
WATERFORD 3	5	122	612	4,009	0.15	4,936.3	0.1
HARRIS	5	131	657	3,858	0.17	3,905.0	0.2
OCONEE 1,2,3	15	132	1,984	8,441	0.24	10,863.1	0.2
WOLF CREEK 1	5	136	681	3,731	0.18	5,144.4	0.1
BRAIDWOOD 1,2	10	137	1,369	5,829	0.23	9,215.8	0.1
DAVIS-BESSE	5	137	685	3,597	0.19	4,107.2	0.2
COOK 1,2	10	143	1,432	6,713	0.21	7,383.4	0.2
TURKEY POINT 3,4	10	148	1,478	6,433	0.23	6,011.2	0.2
SALEM 1,2	10	155	1,545	11,751	0.13	4,492.7	0.3
SAN ONOFRE 1,2,3*	11	155	1,707	7,558	0.23	9,991.1	0.2
PALO VERDE 1,2,3	15	159	2,379	9,745	0.24	15,345.4	0.2
SUMMER 1	. 5	162	808	3,877	0.21	3,905.5	0.2
MCGUIRE 1,2	10	162	1,622	7,822	0.21	9,024.2	0.2
FORT CALHOUN	5	163	817	3,093	0.26	1,942.6	0.4
VOGTLE 1,2	10	166	1,661	5,996	0.28	10,615.0	0.2
CALVERT CLIFFS 1,2	10	166	1,663	7,293	0.23	7,052.8	0.2
BYRON 1,2	10	167	1,672	6,070	0.28	9,281.5	0.2
SEQUOYAH 1,2	10	175	1,752	8,022	0.22	7,541.5	0.2
CATAWBA 1,2	10	176	1,761	7,827	0.22	9,850.0	0.2
DIABLO CANYON 1,2	10	179	1,792	8,752	0.20	9,785.3	0.2
GINNA	5	179	896	4,081	0.22	2,026.5	0.4
BEAVER VALLEY 1,2	10	186	1,856	7,212	0.26	6,769.2	0.3
ARKANSAS 1,2	10	191	1,905	10,156	0.19	7,609.5	0.3
SURRY 1,2	10	192	1,915	7,458	0.26	6,891.9	0.3
CALLAWAY 1	5	202	1,010	4,492	0.22	5,219.5	0.2
ST. LUCIE 1,2	10	206	2,059	7,540	0.27	6,940.3	0.3
FARLEY 1,2	10	208	2,083	7,068	0.29	7,230.6	0.3
CRYSTAL RIVER 3	5	215	1,073	4,566	0.23	3,222.8	0.3
ROBINSON 2	5	227	1,134	4,997	0.23	2,821.9	0.4
NORTH ANNA 1,2	10	234	2,335	8,717	0.27	7,780.4	0.3
MILLSTONE POINT 2,3	10	257	2,567	9,178	0.28	5,892.0	0.4
HADDAM NECK	5	272	1,362	3,943	0.35	2,139.7	0.6
INDIAN POINT 2	5	284	1,422	4,462	0.32	4,044.4	0.4
PALISADES	5	285	1,424	4,911	0.29	2,768.0	0.5
ZION 1,2	10	323	3,226	8,054	0.40	6,817.7	0.5
MAINE YANKEE	5	326	1,631	4,077	0.40	2,714.2	0.6
Grand Totals and Averages	351		60,412	255,058	0.24	261,870.7	0.2
Averages Per Reactor-Year			172	727		746.1	

<sup>\*</sup> Sites where not all reactors had completed 5 full years of commercial operation as of 12/31/96 are not included. San Onofre is included in the compilation even though Unit 1 is no longer in operation.

#### TABLE 4.8a

### ACTIVITIES CONTRIBUTING TO HIGH COLLECTIVE DOSES AT SELECTED PLANTS IN 1996

#### **BWRs with High Collective Doses**

#### Oyster Creek (449 rem)

Outage dose/duration: 372 rem/48 days Average daily outage dose: 5.4 rem/day Average daily operating dose: 0.249 rem/day

- -Drywell inspections (in-service inspection, non-destructive evaluation, general electric remote inspection system, intergranular stress corrosion cracking) (82 rem)
- -Drywell scaffolding (67 rem)
- -Drywell shielding (27 rem)
- -Drywell insulation (21 rem)
- -Refueling activities (20 rem)
- -Drywell safety relief valve/electro magnetic relief valve exchange (11 rem)
- -Condenser bay scaffolding (9 rem)
- -Reactor water cleanup system valve maintenance (5 rem)

#### Millstone Point 1 (431 rem)

Outage dose/duration: 431 rem/365 days Average daily outage dose: 1.18 rem/day Average daily operating dose: N/A

- -Weld overlays (76.3 rem)
- -Lower radwaste remediation (74.2 rem)
- -Mechanical stress improvement process (19.8 rem)
- -Painting (16.4 rem)
- -Intergranular stress corrosion cracking mitigation (11.4 rem)
- -Reactor coolant pump inspection/shaft replacement

(11.4 rem)

- -Staging (11 rem)
- -Valve PMs and CMs (10.5 rem)
- -Beltline inspection (7.5 rem)
- -Drywell insulation replacement (5.8 rem)
- -50.54 design engineering inspections (3.8 rem)
- -Drywell ladder modifications (3.6 rem)
- -General access (3 rem)
- -Local leak rate testing (2.9 rem)
- -Motor operated valve analysis and testing system & Valve operation test & evaluation system testing (1.8 rem)
- Hanger repairs and mods (1.4 rem)

#### Quad Cities (1025 rem)

Outage dose/duration (Unit 1): 730.3 rem/209 days Outage dose/duration (Unit 2): 89.5 rem/101 days Average daily outage dose: 3.85 rem/day Average daily operating dose: 0.598 rem/day

- -Valve work (114 rem)
- -Reactor water cleanup system replacement (92 rem)
- -In-service inspection (78.5 rem)
- -Residual heat removal rooms structural steel modification (Unit 1 51.7 rem, Unit 2 53.4 rem)
- -Weld overlays (5) (41 rem)
- -Turbine overhaul (1 high pressure, 1 low pressure valves) (34.2 rem)

#### River Bend (473 rem)

Outage dose/duration (Refueling): 384.4 rem/40 days Outage dose/duration (Forced Outage): 14 rem/18 days Average daily outage dose (Refueling): 9.657 rem/day

Average daily outage dose (Forced Outage):

0.768 rem/day

Average daily operating dose: 0.243 rem/day

-In-service inspection (59.4 rem)

-Refueling (22.5 rem)

-Emergency core cooling system modification (18.3 rem)

-Shielding (11.6 rem)

-Leak, off line removal (9.9 rem)

-Hydrogen ignitors vibration modification (9.8 rem)

-Motor-operated valve (9.5 rem)

-Control rod drive (6.7 rem)

-Local power rangè monitor (6.5 rem)

-Safety relief valve replacement (6.1 rem)

-Local leak rate testing (5.4 rem)

-Suppression pool cleanup (5.2 rem)

-Emergent work (51.7 rem) includes:

Valve modifications (18.3 rem)

Miscellaneous (15 rem)

Valve repairs (4.9 rem)

Recirc pump seals (3.8 rem)

Safety relief valve air check valves (3.5 rem)

Reactor water cleanup system -

Heat exchanger repair (2.2 rem)

#### LaSalle (819 rem)

Outage dose/duration: 645.9 rem/264days Average daily outage dose: 2.4 rem/day Average daily operating dose: 0.455 rem/day

Unit 1 (332.2 rem):

-In-service inspection (34.9 rem)

-Vessel disassembly/reassembly (24.7 rem)

-Control rod drive pull/put (20 rem)

-Under vessel work (13.3 rem)

-Chemical decontamination (12.8 rem)

-Radiation protection support (10 rem)

-Safety relief valve work (9.2 rem)

-Drywell housekeeping (9.1 rem)

-Motor operated valve work (8.9)

#### Unit 2 (295.6 rem):

-In-service inspection (39.5 rem)

-Control rod drive pull/put (29 rem)

-Safety relief valve work (9.8 rem)

-Radiation protection support (7.4 rem)

-Motor operated valve work (7 rem)

-Drywell housekeeping (6.7 rem)

-Under vessel work (5.4 rem)

-Vessel disassembly (3.6 rem)

\*All doses refer to the collective dose in person-rem (person-cSv).

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#### TABLE 4.8b

### ACTIVITIES CONTRIBUTING TO HIGH COLLECTIVE DOSES AT SELECTED PLANTS IN 1996

#### **PWRs with High Collective Doses**

#### Byron Station (455 rem)

Outage dose/duration (Unit 1-Refuel): 235 rem/98 days Outage dose/duration (Unit 2-Refuel): 159.7 rem/52 days Outage dose/duration (Unit 1-Forced Outage): 11.2 rem Outage dose/duration (Unit 2-Forced Outage): 23.1 rem Average daily outage dose (Unit 1-Refuel): 2.40 rem/day Average daily outage dose (Unit 2-Refuel): 3.07 rem/day Average daily operating dose: N/A

#### Unit 1:

-Steam generator work (73.3 rem)

-Resistance temperature detector modifications (62.9 rem)

-In-service inspection (10.6 rem)

-Scaffold work (8.8 rem)

-Reactor Dis/assembly (8.6 rem)

-Snubber work (1.3 rem)

#### Unit 2:

-Resistance temperature detector modifications (74.1 rem)

-Steam generator work (22.8 rem)

-Scaffold (14.3 rem)

-Seal weld cap work (9.2 rem)

-Reactor Dis/assembly (8.9 rem)

-In-service inspection (3.9 rem)

-Repair reactor head guide funnels (3.4 rem)

-Snubbers (2.1 rem)

#### Callaway Plant (248 rem)

Outage dose/duration: 232 rem/31 days Average daily outage dose: 7.484 rem/day Average daily operating dose: 0.048 rem/day

-Steam generator maintenance (64 rem)

Primary side work (53.8 rem) Secondary side work (10.2 rem)

-Reactor head activities (20.9 rem)

Inspection/repair of reactor head funnel welds (7 rem)

-Reactor coolant pump maintenance (19.7 rem)

Includes first of four reactor coolant pump internals replacement (5.6 rem)

Repair of seal housing to pump case leakage (9.3 rem) One reactor coolant pump motor replacement (2.4 rem)

-Modification work (14.3 rem)

Steam generator platform enlargement (5 rem)

Reactor cavity seal hatch repairs (2.6 rem)

-Miscellaneous maintenance (16.1 rem)

In-service inspection (2.9 rem)

Bolting exams (6.5 rem)

Excess letdown weld overlay piping

replacement (2.8 rem)

#### Vogtle (452 rem)

Outage dose/duration (Unit 1): 219 rem/50 days Outage dose/duration (Unit 2): 202 rem/35 days Average daily outage dose (Unit 1): 4.4 rem/day Average daily outage dose (Unit 2): 5.8 rem/day Average daily operating dose: 0.11 rem/day

#### I Init 1

-Steam generator maintenance (37.9 rem)

-Refueling operation (22.1 rem)

-Emergent work/forced outages (48.5 rem)

Unit 2:

-Steam generator maintenance (40.9 rem)

-Refueling operation (21.7 rem)

-Emergent work/forced outages (48.5 rem)

#### Crystal River 3 (353 rem)

Outage dose/duration: 315 rem/91 days Average daily outage dose: 3.46 rem/day Average daily operating dose: 0.14 rem/day

-Reactor head work (57.0 rem)

Steam generator work (48.6 rem)

-Health physics (34.7 rem)

-Scaffolding (34.7 rem)

-System maintenance (30.6 rem)

Facility maintenance/rad-waste (29.9 rem)

-Mechanical controls (17.8 rem)

-Electrical (13.2 rem)

-Operations (8.9 rem)

-insulation work (8.9 rem)

-Laborers (8.6 rem)

-Pipefitters (7.9 rem)

-Instruments and controls (7.0 rem)

-Sheet metal workers (5.9 rem)

-Nuclear waste (5.5 rem)

-Quality control (5.2 rem)

#### Palisades (318 rem)

Outage dose/duration: 268 rem/49 days Average daily outage dose: 5.0 rem/day Average daily operating dose: 0.209 rem/day

-Refueling services (101 rem) (contractor)

-Steam generator maintenance (61.8 rem)

Fuel carrier repairs (25 rem)

-Health physics support (20 rem)

-Emergent work (18 rem)

-Scaffolding (13.2 rem)

-Valve repairs (11 rem)

-Insulation (10.2 rem)

-Small bore piping (hangers) (6.3 rem)

-In-service inspection (5.3 rem)

<sup>\*</sup>All doses refer to the collective dose in person-rem (person-cSv).

Even with the use of better techniques and robotics, these tasks continue to be responsible for a major percentage of the collective dose. It should be noted that the differences in nuclear plant designs and the ages of the plants, even between plants of a given type, affect the nature of these parameters [Ref. 15]. Therefore, care should be exercised when attempting to draw conclusions from these data.

From the above analysis, one can see that the largest contributor to the collective dose is usually associated with outages at a site. In analyzing collective dose trends, it is useful to examine the outage data for reactors to look for a relationship between the collective dose and the outage information for the reactors. Figure 4.5 displays the total number of outage days for BWRs and PWRs respectively. The collective dose and average measurable dose are also plotted to allow for the comparison of outage duration to collective dose.

#### 4.6 Collective Dose by Work Function and Employee Type

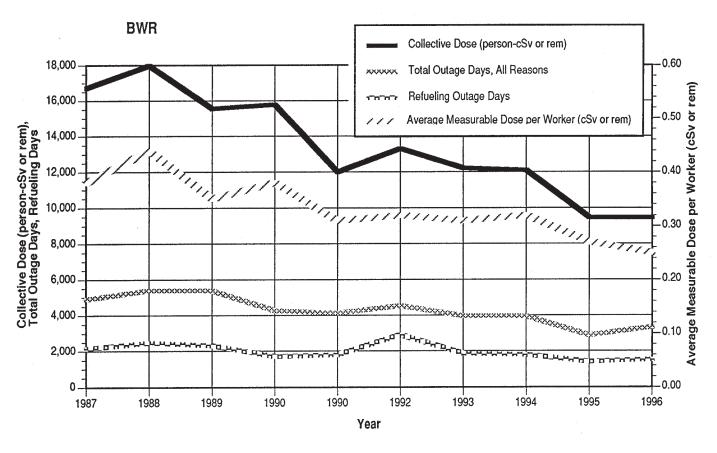
Each plant is required by its Technical Specifications to submit an annual report in accordance with Regulatory Guide 1.16 that provides the collective dose of workers monitored at each plant site by employee type (plant, utility, or contractor) and by work and job functions. A copy of the report submitted for each reactor site is provided in Appendix D, and much of the data are graphically represented for each site in Appendix E. Tables 4.9 through 4.14 summarize the 1996 data for BWRs, PWRs, and LWRs. Table 4.9 shows that, at both BWRs and PWRs, about 65% of the collective dose is incurred during routine and special maintenance activities. Also, the portion of the collective dose incurred during most of the other activities is similar at the two types of plants.

One should note that the collective doses obtained from these reports are not used in any other tables in this document. This is because the Technical Specifications of each plant require only 80% of the plant's collective dose be accounted for, and some utilities may use the results of self-reading pocket dosimeters instead of the results of the dosimeter of record (usually thermoluminescent dosimeters) in compiling the data. Also, when examining the number of personnel shown on these reports, it should be remembered that individuals who perform tasks in more than one category may be counted more than once.

Table 4.10 shows that for the past 10 years, the percentage of collective dose attributed to routine maintenance has been greater than that of special maintenance. This may be indicative of a trend showing a reduction in TMI-related activities and a greater emphasis on steady-state routine maintenance. Overall, values have been fairly stable over the years with these two categories, special maintenance and routine maintenance, always accounting for the majority of the collective dose. Some of the fluctuations shown in the percentage of the dose incurred during refueling activities (particularly in 1992 through 1995, when it increased to

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Figure 4.5
Outage Days, Average Dose, and Collective Dose



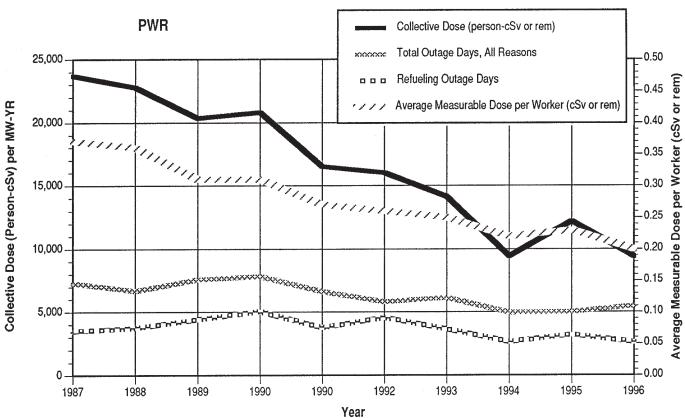


TABLE 4.9

ANNUAL COLLECTIVE DOSE

BY WORK FUNCTION AND PERSONNEL TYPE

1996

WORK AND		EMPLOYEES		MPLOYEES		WORKERS	TOTAL PER WO	
JOB FUNCTION	PERSON-cS	% OF TOTAL	PERSON-cSv	% OF TOTAL	PERSON-cSv	% OF TOTAL	PERSON-cSv	% OF TOTAL
BOILING WATER REACTORS	_							
REACTOR OPS & SURV	962	10.2%	70	0.7%	550	5.8%	1,583	16.8%
ROUTINE MAINTENANCE	1,468	15.6%	139	1.5%	2,639	28.0%	4,246	45.1%
IN-SERVICE INSPECTION	96	1.0%	31	0.3%	592	6.3%	720	7.6%
SPECIAL MAINTENANCE	335	3.6%	70	0.7%	1,604	17.0%	2,009	21.3%
WASTE PROCESSING	96	1.0%	5	0.1%	91	1.0%	192	2.0%
REFUELING	211	2.2%	77	0.8%	385	4.1%	672	7.1%
TOTAL	3,168	33.6%	392	4.2%	5,862	62.2%	9,422	100.0%
PRESSURIZED WATER REAC	TORS							
REACTOR OPS & SURV	542	6.1%	20	0.2%	244	2.7%	805	9.1%
ROUTINE MAINTENANCE	1,371	15.4%	309	3.5%	2,250	25.3%	3,929	44.2%
IN-SERVICE INSPECTION	112	1.3%	55	0.6%	1,096	12.3%	1,263	14.2%
SPECIAL MAINTENANCE	400	4.5%	238	2.7%	1,079	12.1%	1,718	19.3%
WASTE PROCESSING	126	1.4%	3	0.0%	127	1.4%	255	2.9%
REFUELING	298	3.3%	57	0.6%	569	6.4%	923	10.4%
TOTAL	2,847	32.0%	682	7.7%	5,364	60.3%	8,893	100.0%
ALL LIGHT WATER REACTOR	<u>s</u>							
REACTOR OPS & SURV	1,504	8.2%	90	0.5%	794	4.3%	2,388	13.0%
ROUTINE MAINTENANCE	2,839	15.5%	448	2.4%	4,889	26.7%	8,175	44.6%
IN-SERVICE INSPECTION	208	1.1%	86	0.5%	1,688	9.2%	1,983	10.8%
SPECIAL MAINTENANCE	735	4.0%	308	1.7%	2,683	14.7%	3,727	20.3%
WASTE PROCESSING	221	1.2%	8	0.0%	218	1.2%	447	2.4%
REFUELING	508	2.8%	134	0.7%	953	5.2%	1,596	8.7%
TOTAL	6,015	32.8%	1.075	5.9%	11,225	61.3%	18,315	100.0%

TABLE 4.10

PERCENTAGES OF ANNUAL COLLECTIVE DOSE AT LWRs BY WORK FUNCTION 1985 - 1996

WORK FUNCTION				PERCE	ENTAGE C	F COLLE	CTIVE DC	SE EACH	YEAR			3.5% 13.0% 3.5% 44.6% 0.4% 10.8%
WORK FUNCTION	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
REACTOR OPERATIONS AND SURVEILLANCE	12.8%	12.8%	11.9%	11.0%	12.2%	12.3%	14.0%	11.6%	11.2%	12.8%	13.5%	13.0%
ROUTINE MAINTENANCE	34.6%	33.2%	35.0%	37.7%	36.2%	36.5%	36.1%	38.7%	42.0%	42.7%	43.5%	44.6%
IN-SERVICE INSPECTION	8.6%	8.3%	8.0%	8.7%	9.5%	8.8%	8.9%	9.2%	10.8%	8.5%	10.4%	10.8%
SPECIAL MAINTENANCE	32.5%	35.5%	33.2%	30.1%	31.3%	31.6%	28.2%	25.8%	22.0%	19.9%	18.5%	20.3%
WASTE PROCESSING	5.1%	4.0%	3.9%	3.6%	3.4%	3.0%	3.1%	3.1%	2.5%	2.7%	2.4%	2.4%
REFUELING	6.5%	6.2%	8.1%	8.8%	7.3%	7.7%	9.7%	11.5%	11.4%	13.3%	11.7%	8.7%

over 11%) is due to the fact that some sites include doses other than those directly associated with fuel movement in this category.

Figure 4.6 graphically shows the trends in the collective dose by work function and type of personnel for the years 1990 through 1996 for BWRs and PWRs separately. The general decrease in collective dose is also apparent among most of these activities.

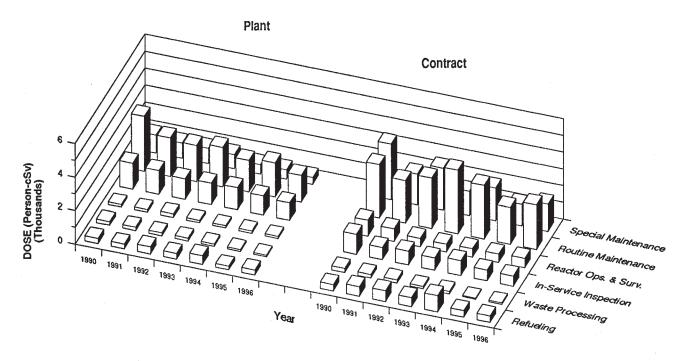
Table 4.11 presents the distribution of the collective dose for 1996 at all LWRs among five occupational categories. As in past years, maintenance personnel incurred the majority (65%) of the collective dose with contractor maintenance personnel receiving about twice as much as the station maintenance employees combined. None of the values listed changed significantly from those found for 1987 through 1995. The collective doses shown in Tables 4.9 and 4.11 do not equal those shown in other tables in the report because they are the sum of the doses taken from the type of annual reports shown in Appendix D rather than the collective dose that was obtained or calculated from the annual reports submitted pursuant to 10 CFR 20.2206.

Another use made of the reports submitted under Regulatory Guide 1.16 shown in Appendix D is in proportioning the collective dose obtained from the § 20.2206 annual reports into the work functions and personnel types shown in Appendix C. This was done in the following way:

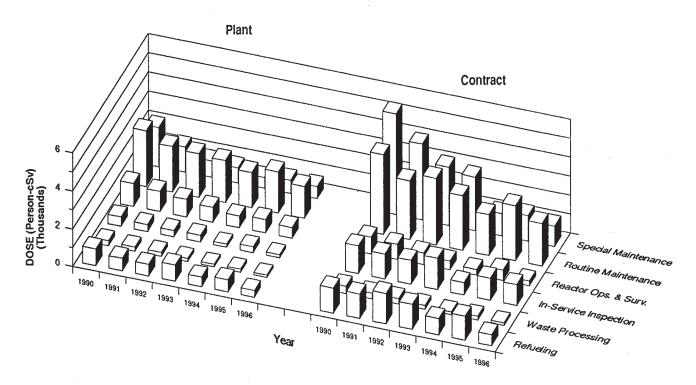
- (1) The collective dose incurred by workers in the work function "Reactor Operations and Surveillance" on each plant's annual report submitted pursuant to their technical specifications (the first number in the last column in Appendix D) was determined.
- (2) The ratio of this dose to the total collective dose (the last number in the last column in Appendix D) was calculated and multiplied by the total collective dose that had been obtained from the § 20.2206 annual reports. This product is the collective dose shown in the column headed "Operations" in Appendix C.
- (3) The collective dose shown in the column headed "Maintenance and Others" in Appendix C was determined by first summing the collective doses incurred by workers in the five remaining functions given in Appendix D and then calculating the fraction that this dose is of the total collective dose. This fraction was multiplied by the total collective dose calculated from the § 20.2206 annual reports to yield the collective dose shown in this column of Appendix C.

Figure 4.6
Collective Dose by Work Function and Personnel Type 1990 – 1996

#### **Boiling Water Reactors**



#### Pressurized Water Reactors



# TABLE 4.11 ANNUAL COLLECTIVE DOSE BY OCCUPATION AND PERSONNEL TYPE

1996

OCCUPATION	STATION E PERSON-cSv	EMPLOYEES % OF TOTAL	UTILITY EN PERSON-cSv			WORKERS % OF TOTAL		ORK FUNCTION OF TOTAL
BOILING WATER REACTORS								
MAINTENANCE OPERATIONS HEALTH PHYSICS SUPERVISORY ENGINEERING TOTAL	1,591 679 528 192 179 3,168	16.9% 7.2% 5.6% 2.0% 1.9% 33.6%	278 25 37 16 37 392	3.0% 0.3% 0.4% 0.2% 0.4% 4.2%	4,384 173 398 246 660 5,862	46.5% 1.8% 4.2% 2.6% 7.0% 62.2%	6,252 877 963 454 876 9,422	66.4% 9.3% 10.2% 4.8% 9.3% 100.0%
PRESSURIZED WATER REAC	TORS							
MAINTENANCE OPERATIONS HEALTH PHYSICS SUPERVISORY ENGINEERING	1,411 519 583 174 161	15.9% 5.8% 6.6% 2.0% 1.8%	579 23 13 30 37	6.5% 0.3% 0.1% 0.3% 0.4%	3,609 346 673 266 471	40.6% 3.9% 7.6% 3.0% 5.3%	5,599 888 1,268 470 668	63.0% 10.0% 14.3% 5.3% 7.5%
TOTAL	2,847	32.0%	682	7.7%	5,364	60.3%	8,893	100.0%
ALL LIGHT WATER REACTOR	<u>s</u>							
MAINTENANCE OPERATIONS HEALTH PHYSICS SUPERVISORY ENGINEERING	3,002 1,197 1,111 366 339	16.4% 6.5% 6.1% 2.0% 1.9%	858 48 49 46 73	4.7% 0.3% 0.3% 0.3% 0.4%	7,992 519 1,071 512 1,131	43.6% 2.8% 5.8% 2.8% 6.2%	11,852 1,765 2,231 925 1,543	64.7% 9.6% 12.2% 5.0% 8.4%
TOTAL	6,015	32.8%	1,075	5.9%	11,225	61.3%	18,315	100.0%

(4) A similar procedure was followed in determining the collective dose for the columns headed "Contractor" and "Station & Utility" in Appendix C.

#### 4.7 Number of Personnel by Work Function and Employee Type

Half of the information presented in the statistical annual reports shown in Appendix D concerns the number of various types of personnel that performed certain work functions. Tables 4.12 and 4.13 sum this information to show the percentage of personnel by work function and occupation. The major problem in interpreting the numbers shown in these tables is that the same person may perform several work functions during the year so that the total number of personnel obtained by summing those shown in the various work functions would be inflated. However, Table 4.12 is still useful in showing the percentage of personnel associated with each of the six work functions shown. About 59% of the personnel performed routine or special maintenance functions, 21% were involved with reactor operations and surveillance, and the remaining 20% were divided among the other three work functions.

Table 4.13 shows the percentage of personnel in each of five occupational categories at BWRs, PWRs, and LWRs. The workers were similarly distributed at BWRs and PWRs. The largest difference occurred in the maintenance percentages for 1996. Overall, 53% of the personnel were contractors, 40% were station employees, and 8% were utility employees in 1996.

Table 4.14 presents the average annual dose incurred by workers in the five occupational categories in 1996. These averages were calculated by dividing the collective dose reported for these groups (see Table 4.11) by the number of individuals shown in Table 4.13. It shows that, in most instances, the maintenance personnel incur the highest average doses. Examination of the values of the averages given in Table 4.14 is subject to several sources of error: (1) the number of individuals may be inflated because the same plant contractor employee may work at several plants so that the employee would be counted more than once in a summary such as Table 4.14; (2) the occupations are not clearly defined so that workers performing certain tasks in one plant may be classified as being in one occupation and be included in a different one at another plant; and (3) some plants count only those workers whose doses exceed 0.10 cSv (rem) while other plants count all workers regardless of the dose received. Because of these factors, the usefulness of the numbers of individuals obtained from the reports provided in Appendix D is limited; therefore, they are not used to develop any other statistics in this document.

### **TABLE 4.12** NUMBER OF PERSONNEL\* BY WORK FUNCTION AND PERSONNEL TYPE 1996

WORK AND JOB FUNCTION	STATIOI NUMBER	N EMPLOYEES % OF TOTAL	UTILITY NUMBER	EMPLOYEES % OF TOTAL	CONTRAC NUMBER	OT WORKERS % OF TOTAL	TOTAL PER V NUMBER	VORK FUNCTION % OF TOTAL
BOILING WATER REACTORS								
REACTOR OPS & SURV ROUTINE MAINTENANCE IN-SERVICE INSPECTION SPECIAL MAINTENANCE WASTE PROCESSING REFUELING TOTAL	6,626 7,628 945 2,262 1,202 2,220 20,883	11.2% 12.9% 1.6% 3.8% 2.0% 3.8%	1,499 1,522 296 428 196 829 4,770	2.5% 2.6% 0.5% 0.7% 0.3% 1.4% 8.1%	7,325 12,265 2,972 6,351 1,254 3,380 33,547	12.4% 20.7% 5.0% 10.7% 2.1% 5.7%	15,450 21,415 4,213 9,041 2,652 6,429 59,200	26.1% 36.2% 7.1% 15.3% 4.5% 10.9%
PRESSURIZED WATER REACT	<u>ORS</u>							
REACTOR OPS & SURV ROUTINE MAINTENANCE IN-SERVICE INSPECTION SPECIAL MAINTENANCE WASTE PROCESSING REFUELING	6,809 15,548 738 3,692 1,662 1,725	9.8% 22.3% 1.1% 5.3% 2.4% 2.5%	1,415 2,698 535 1,213 136 515	2.0% 3.9% 0.8% 1.7% 0.2% 0.7%	3,652 14,277 3,288 7,878 1,405 2,421	5.2% 20.5% 4.7% 11.3% 2.0% 3.5%	11,876 32,523 4,561 12,783 3,203 4,661	17.1% 46.7% 6.6% 18.4% 4.6% 6.7%
TOTAL	30,174	43.3%	6,512	9.4%	32,921	47.3%	69,607	100.0%
ALL LIGHT WATER REACTORS								
REACTOR OPS & SURV ROUTINE MAINTENANCE IN-SERVICE INSPECTION SPECIAL MAINTENANCE WASTE PROCESSING REFUELING	13,435 23,176 1,683 5,954 2,864 3,945	10.4% 18.0% 1.3% 4.6% 2.2% 3.1%	2,914 4,220 831 1,641 332 1,344	2.3% 3.3% 0.6% 1.3% 0.3% 1.0%	10,977 26,542 6,260 14,229 2,659 5,801	8.5% 20.6% 4.9% 11.0% 2.1% 4.5%	27,326 53,938 8,774 21,824 5,855 11,090	21.2% 41.9% 6.8% 16.9% 4.5% 8.6%
TOTAL	51,057	39.6%	11,282	8.8%	66,468	51.6%	128,807	100.0%

<sup>\*</sup> Workers may be counted in more than one category. The number of personnel in Table 4.12 should be considered to be more accurate than the number of personnel in Table 4.11, because the actual total number of individuals in each profession was provided by some plants in an attempt to correct for the multiple counting of individuals.

TOTAL

46,979

39.6%

# TABLE 4.13 NUMBER OF PERSONNEL\* BY OCCUPATION AND PERSONNEL TYPE 1996

STATION EMPLOYEES UTILITY EMPLOYEES CONTRACT WORKERS TOTAL PER WORK FUNCTION OCCUPATION NUMBER % OF TOTAL NUMBER % OF TOTAL NUMBER % OF TOTAL NUMBER % OF TOTAL BOILING WATER REACTORS MAINTENANCE 7,379 13.4% 2,293 4.2% 20,994 38.2% 30,666 55.9% **OPERATIONS** 4,402 8.0% 468 0.9% 1,839 3.4% 6,709 12.2% 2.483 4.5% 786 1.4% 1.998 3.6% 5.267 9.6% HEALTH PHYSICS 2,423 4.4% 156 0.3% 3,155 5.7% 5,734 10.4% SUPERVISORY 2,285 18,972 11.9% 100.0% **ENGINEERING** 4.2% 885 1.6% 3,347 6.1% 6,517 8.4% 31,333 TOTAL 34.6% 4.588 57.1% 54.893 PRESSURIZED WATER REACTORS 14,637 22.9% 2,439 3.8% 18.894 29.6% 35.970 MAINTENANCE 56.3% 364 0.6% **OPERATIONS** 5,331 8.4% 2,151 3.4% 7.846 12.3% HEALTH PHYSICS 4,618 7.2% 305 0.5% 6,401 10.0% 11,324 17.7% SUPERVISORY 1,660 2.6% 221 0.3% 1,239 1.9% 3,120 4.9% **ENGINEERING** 1.761 2.8% 1.466 2.3% 2.356 3.7% 5.583 8.7% 7.5% 28.007 4,795 48.6% TOTAL 43.9% 31,041 63,843 100.0% ALL LIGHT WATER REACTORS 22.016 18.5% 4.732 4.0% MAINTENANCE 39.888 33.6% 66.636 56.1% 3,990 8.2% 0.7% **OPERATIONS** 9.733 832 3.4% 14.555 12.3% 7,101 6.0% 0.9% **HEALTH PHYSICS** 1,091 8,399 7.1% 16,591 14.0% SUPERVISORY 4,083 3.4% 377 0.3% 4,394 3.7% 8,854 7.5% **ENGINEERING** 4,046 3.4% 2,351 2.0% 5,703 4.8% 12,100 10.2%

7.9%

62,374

52.5%

118,736

100.0%

9.383

<sup>\*</sup> Workers may be counted in more than one category. The number of personnel in this table is considered to be more accurate than the number of personnel in Table 4.11 because the actual total number of individuals in each category was provided by some plants in an attempt to correct for the multiple counting of individuals.

# TABLE 4.14 AVERAGE DOSES BY OCCUPATION AND PERSONNEL TYPE\*

1996

OCCUPATION		STATION NUMBER OF EMPLOYEES	AVG. DOSE		UTILITY NUMBER OF EMPLOYEES	AVG. DOSE	COLL. DOSE	CONTRACT NUMBER OF EMPLOYEES	AVG. DOSE	COLL. DOSE	TOTAL NUMBER OF EMPLOYEES	AVG. DOSE
BOILING WATER REACTORS												
MAINTENANCE OPERATIONS HEALTH PHYSICS SUPERVISORY ENGINEERING TOTAL	1,591 679 528 192 179 3,168	7,379 4,402 2,483 2,423 2,285 18,972	0.22 0.15 0.21 0.08 0.08	278 25 37 16 37 392	2,293 468 786 156 885 4,588	0.12 0.05 0.05 0.10 0.04 0.09	4,384 173 398 246 660 5,862	20,994 1,839 1,998 3,155 3,347 31,333	0.21 0.09 0.20 0.08 0.20 0.19	6,252 877 963 454 876 9,422	30,666 6,709 5,267 5,734 6,517 54,893	0.20 0.13 0.18 0.08 0.13 0.17
PRESSURIZED WATER REACTORS	<u> </u>											
MAINTENANCE OPERATIONS HEALTH PHYSICS SUPERVISORY ENGINEERING TOTAL	1,411 519 583 174 161	14,637 5,331 4,618 1,660 1,761	0.10 0.10 0.13 0.11 0.09	579 23 13 30 37	2,439 364 305 221 1,466	0.24 0.06 0.04 0.14 0.03	3,609 346 673 266 471	18,894 2,151 6,401 1,239 2,356	0.19 0.16 0.11 0.21 0.20	5,599 888 1,268 470 668	35,970 7,846 11,324 3,120 5,583	0.16 0.11 0.11 0.15 0.12
TOTAL	2,847	28,007	0.10	682	4,795	0.14	5,364	31,041	0.17	8,893	63,843	0.14
ALL LIGHT WATER REACTORS												
MAINTENANCE OPERATIONS HEALTH PHYSICS SUPERVISORY ENGINEERING	3,002 1,197 1,111 366 339	22,016 9,733 7,101 4,083 4,046	0.14 0.12 0.16 0.09 0.08	858 48 49 46 73	4,732 832 1,091 377 2,351	0.18 0.06 0.05 0.12 0.03	7,992 519 1,071 512 1,131	39,888 3,990 8,399 4,394 5,703	0.20 0.13 0.13 0.12 0.20	11,852 1,765 2,231 925 1,543	66,636 14,555 16,591 8,854 12,100	0.18 0.12 0.13 0.10 0.13
TOTAL	6,015	46,979	0.13	1,075	9,383	0.11	11,225	62,374	0.18	18,315	118,736	0.15

<sup>\*</sup> Workers may be counted in more than one category, but the actual total number of individuals in each category was used when it was provided by the plant.

### 4.8 Graphical Representation of Dose Trends in Appendix E

Each page of Appendix E presents two types of graphs for one site. One graph plots selected dose-performance indicators from 1973 through 1996, and the other indicates the collective dose by job function for 1978 through 1996. The dose and performance indicators shown in the top graph illustrate the history of the collective dose for the site, the rolling 3-year average collective dose per reactor, and the gross electricity generated at the site. These data are plotted, beginning with the plant's first full year of commercial operation, and continuing through 1996. However, any data reported prior to 1973 are not included. The 3-year average collective dose per reactor data is included because it provides a better overall indication of the plant's general trend in collective dose. This average is determined by summing the collective dose for the current year and the previous 2 years and then dividing this sum by the number of reactors reporting during those years. Data for years when the plant was not in commercial operation have been included when available. Depicting dose trends using a 3-year average reduces the sporadic effects on annual doses of refueling operations (usually a 2- to 3-year cycle) and occasional high-dose maintenance activities, and gives a better idea of collective dose trends over the life of the plant. For sites with more than one reactor, the plot of the 3-year rolling average will lie below that of the plot of the annual collective dose for the site because it is calculated on a per-reactor basis.

The second type of graph at the bottom of each page in Appendix E displays the breakdown of collective dose by job function and employee type for the years 1978 through 1996. The horizontal axis lists the six job functions of reactor operations, routine maintenance, in-service inspection, special maintenance, waste management, and refueling operations, and the vertical axis indicates collective dose at each site. This representation shows the job functions where most of the dose was accumulated as well as the division of the collective dose between plant and contract workers. The data are taken from the submittals presented in Appendix D and therefore represent at least 80% of the collective dose at each site. Only those reactors that have completed at least 1 full year of commercial operation are presented in Appendix E.

### 4.9 <u>Health Implications of Average Annual Doses</u>

Studies of populations chronically exposed to low levels of radiation delivered over protracted periods have not shown consistent or conclusive evidence of an associated increase in the risk of cancer. Thus, there is no evidence that the doses to workers recorded here cause harm.

The risk estimates presented below are based on extensive studies of Japanese Atomic bomb survivors and other populations exposed to large doses of radiation delivered in short periods of time. This information is supplemented by animal and *in vitro* studies, such as irradiation of cell cultures. These studies have confirmed that human cells have mechanisms that repair

damaged chromosomes. The existence of this repair helps to explain the finding that lower doses of radiation delivered at lower dose rates produce less of an effect on a cell per unit dose than high-dose, high-dose-rate irradiations. Thus the estimates of risks to radiation workers are likely to be conservative.

Health effects due to radiation exposure fall into three groups: carcinogenic effects, genetic effects, and mental retardation. Mental retardation has been observed only in Japanese A-bomb survivors exposed at 8-15 weeks gestational age, and is consequently not applicable to the workplace except in the case of a pregnant female worker. Genetic effects have never been observed in man, though they have been observed in mice.

Risk of cancer induction is known to increase with increasing dose, but is hard to quantify as the risk varies with the site of the cancer, the age and sex of the exposed individual, the energy and nature of the radiation, the magnitude and duration of the dose, and exposure to other carcinogens. Since nearly 20% of all deaths in the United States occur from cancer, the estimated number of cancers attributable to occupational radiation exposure is a small fraction of the total number that occur. (Those who do not succumb to cancer will, perforce, succumb to some other cause and in essentially the same time frame.)

The Committee on the Biological Effects of Ionizing Radiations (BEIR) of the National Academy of Sciences (NAS) National Research Council has been conducting an ongoing study of the health effects of ionizing radiation. Based on the BEIR V report, published in 1990, the 75,139 workers receiving the average dose of 0.29 cSv (rem) continuously during an entire working career (working from age 18 until age 65) or the maximum accidental dose of 8.3 cSv (rem) to the whole body during 1996 (see Section 6) might expect an increased cancer death risk of about 8 chances in 1000 for the average dose and 6 chances per 1000 for the maximum dose. Should a worker receive 0.29 cSv (rem) continuously during an entire working career (working from age 18 until age 65), his/her lifetime risk of dying from cancer is estimated to increase by approximately 4%. Since the American Cancer Society estimates that an individual's risk of dying of cancer is about 20% (one in five), the risk to an individual receiving 0.29 cSv (rem) would be approximately 21%.

The potential genetic effects from a worker population receiving 21,755 person-cSv (person-rem) (Table 3.1) are small compared to genetic damages that normally occur spontaneously in a population of this size. Approximately 100,000 serious genetic defects occur normally in one million live births, i.e., an average of about one serious defect in every ten live births. Theoretically, the total genetic damage in the first generation children of the 75,016 exposed workers would, according to NUREG/CR-4214 [Ref. 17], be an increase of about 6

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These estimates were calculated from Table 4-2 of Ref. 16. The average dose risk estimate assumes continuous lifetime exposure (ages 18-65), while the acute dose risk estimate assumes a one-time, instantaneous exposure. Note that these estimates are based on observations of individuals exposed to high doses of radiation over short periods of time. The BEIR committee, in its report, cautions that dose rate reduction factors (DREFs) will need to be applied to low-dose and low-dose-rate exposures. (see Ref. 16, pp. 171 and 174)

cases (approximately 0.01%) compared to the expected 8,000 cases that occur normally. No significant increase in the number of genetic defects has been observed in the children of individuals exposed to much higher levels of ionizing radiation at Hiroshima and Nagasaki, Japan.

Assuming that, on the average, each exposed person will have one live-born child in the future, i.e., 75,139 children born to this worker population. The estimates were calculated from Table 4.1 of reference 17.

### 5 TRANSIENT WORKERS AT NRC LICENSED FACILITIES

### 5.1 <u>Termination Reports</u>

Under the revised 10 CFR 20, licensees are required to submit NRC Form 5s to the Commission for each individual who is required to be monitored at the end of the monitoring year or upon the individual's termination of employment at the facility. The "termination reports" submitted in accordance with the old § 20.408, listing the individual's complete dose history during employment at the facility, are no longer required.

However, the Form 5s submitted to the NRC upon an individual's termination of employment serve the same function as the previous requirements with regard to the analysis of transient workers at NRC-licensed facilities. The following analysis examines the workers who had more than one Form 5 dose record at more than one NRC-licensed facility during the monitoring year. These workers are defined to be transient in that they worked at more than one facility during the monitoring year.

The term "monitoring year" is used here in accordance with the definition of a year given in § 20.1003, which defines a year as "the period of time beginning in January used to determine compliance with the provisions of this part. The licensee may change the start date of the monitoring year used to determine compliance provided that the change is made at the beginning of the monitoring/calendar year and that no day is omitted or duplicated in consecutive years".

### 5.2 Transient Workers at NRC Facilities

Examination of the data reported for workers who <u>began and terminated</u> two or more periods of employment with two or more different facilities within one monitoring year is useful in many ways. For example, the number and average dose for these "annual transients" can be determined from examining these data.

Additionally, the distribution of the doses received by transient workers can be useful in determining the impact that the inclusion of these individuals in each of two or more licensees' annual reports has on the annual summary (as reported in Appendices B and F) for all nuclear power facilities, and all NRC licensees combined (one of the problems mentioned in Section 2). Table 5.1 shows the "actual distribution" of transient worker doses as determined from the above-mentioned Form 5 termination reports and compares it with the "reported distribution" of the doses of these workers as they would have appeared in a summation of the annual reports submitted by each of the licensees.

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TABLE 5.1

EFFECTS OF TRANSIENT WORKERS ON ANNUAL STATISTICAL COMPILATIONS

### 1996

License Category	No Meas'ble Exposure	Number of Ir Meas'ble <0.10	0.10- 0.25	0.25- 0.5	0.50- 0.75	s (cSv or re 0.75- 1.0	m) 1.0- 2.0	2.0-	3.0- 4.0	4.0- 5.0	5.0- 6.0 >	Total Number Monitored	Number with Measurable Exposure	Collective TEDE (person- cSv or rem)	Average TEDE (cSv or rem)	Average Meas. TEDE (cSv or rem)
															,	10,
POWER REACTORS																
FORM 5 SUMMATION ①	78,197	39,426	19,955	14,201	5,809	2,648	2,342	68				162,646	84,449	18,874	0.12	0.22
TRANSIENTS - AS REPORTED ②	24,317	13,500	8,541	6,133	2,476	1,127	1,105	43				57,242	32,925	8,032	0.14	0.24
TRANSIENTS- ACTUAL ③	5,358	4,506	3,212	3,180	2,056	1,302	1,949	384	69			22,016	16,658	8,032	0.36	0.48
CORRECTED DISTRIBUTION (1-(2-3))	59,238	30,432	14,626	11,248	5,389	2,823	3,186	409	69			127,420	68,182	18,874	0.15	0.28
ALL LICENSEES																
FORM 5 SUMMATION ①	82,130	42,518	21,035	15,151	6,349	3,002	3,043	237	59	11	0 -	173,536	91,406	21,755	0.13	0.24
TRANSIENTS - AS REPORTED ②	24,562	13,661	8,644	6,204	2,509	1,148	1,136	49	3			57,916	33,354	8,223	0.14	0.25
TRANSIENTS- ACTUAL ③	5,402	4,559	3,268	3,237	2,090	1,324	1,994	400	73	1		22,348	16,946	8,223	0.37	0.49
CORRECTED DISTRIBUTION (1-(2-3))	62,970	33,416	15,659	12,184	5,930	3,178	3,901	588	129	12	0 1	137,968	74,998	21,755	0.16	0.29

Because >95% of these transients are reported by nuclear power facilities, these data were considered separately. Table 5.1 shows that the power reactor transient data constitute the vast majority of the transient worker exposure. The nonreactor licensees contribute only an additional 0.5% of the transient workforce and an additional 0.4% to the collective dose.

The following definitions apply to Table 5.1:

Form 5 Summation	The summation of the TEDE from each of the Form 5s submitted for
	the monitoring year. This is the summation of each dose record
	grouped by licensee and individual. This distribution takes into
	account multiple Form 5s for an individual at one NRC-licensed
	facility but not multiple exposures at multiple licensees.
Transients - As	This distribution represents the population of transient workers as
Reported	they were reported by each licensee. This distribution is the subset
	of all Form 5s where individuals were monitored at more than one
	licensee during the monitoring year. This is the summation of dose
	records grouped by individual and by licensee, so the distribution
	representshow the transient worker population would appear within
	the total distribution of all workers. This distribution takes into
	account multiple Form 5s for an individual at one NRC-licensed
	facility but not multiple exposures at multiple licensees.
Transients - Actual	This is the actual distribution for transient workers summed per
	individual. This represents the true number of individuals and places
	each individual in the correct dose range. This distribution accounts
	for multiple records per individual and multiple licensees.
Corrected Distribution	This distribution represents the correction of
	the reported distribution by subtracting the difference in the reported
	and actual distribution for transient workers. This represents the
	most accurate dose distribution for the licensee category and
	accounts for the multiple reporting of individuals.

Table 5.1 illustrates the impact that the multiple reporting of these transient individuals had on the summation of the exposure reports for 1996. Because each licensee reports the doses received by workers while monitored by the particular licensee during the year, one would expect that a summation of these reports would result in individuals being counted several times in dose ranges lower than the range in which their total accumulated dose (the sum of the personnel monitoring results incurred at each facility during the year) would actually place them. Thus, while the total collective dose would remain the same, the number of workers, their dose distribution, and average dose would be affected by this multiple reporting. This was found to be

true because too few workers were reported in the higher dose ranges. For example, in 1996, Table 5.1 shows that the summation of annual reports for reactor licensees indicated that 68 individuals received doses greater than 2 cSv (rem). After accounting for those individuals who were reported more than once, the corrected distribution indicated that there were really 478 workers who received doses greater than 2 cSv (rem). Correcting for the multiple counting of individuals also has a significant effect on the average measurable dose for these workers. The corrected average measurable dose for transient workers is twice as high as the value calculated by the summation of licensee records. The transient workers represent 23% of the workforce that receives measurable dose and increases the average measurable dose for all licensees by 17% from 0.24 cSv (rem) to 0.29 cSv (rem).

One purpose of the REIRS database, which tracks occupational radiation exposures at NRC-licensed facilities, is to identify individuals who may have exceeded the occupational radiation exposure limits because of multiple exposures at different facilities throughout the year. The REIRS database stores the radiation exposure information for an individual by their unique identification number and identification type [Ref. 18, Section 1.5] and sums the exposure for all facilities during the monitoring year. An individual exceeding the TEDE 5 cSv (rem) per year regulatory limit would be identified in Table 5.1 in one of the dose ranges >5 rem. In 1996, one individual exceeded this dose limit as reported by the licensee, but no individual was discovered to have exceeded the limit as a result of the correction for transient workers. Since 1985, there have been no additional transient workers identified as having received a dose of >5 cSv (rem) that have not appeared in the annual reports received by the Commission. This reflects the industry's continuing concerted efforts to keep the total annual doses of all workers under 5 cSv (rem) and shows that such reductions can be accomplished without increasing the collective dose because the collective dose has decreased during this same time period.

### 6 EXPOSURES TO PERSONNEL IN EXCESS OF REGULATORY LIMITS

### 6.1 Control Levels

Exposures in excess of regulatory limits are sometimes referred to as "overexposures." The phrase "exposures in excess of regulatory limits" is preferred to "overexposures" because the latter suggests that a worker has been subjected to an unacceptable biological risk, which may, or may not, be the case.

The implementation date for the revised 10 CFR 20 was January 1, 1994. The separate limits on internal and external exposure in the old 10 CFR 20 are no longer applicable. The revised 10 CFR 20 now includes requirements for summing internal and external dose equivalents to yield TEDE and to implement a similar limitation system for organs and tissues (such as the gonads, red bone marrow, bone surfaces, lung, thyroid, and breast). The dose equivalent limits for the skin of the whole body and for the extremities have been revised, and a new limit for dose equivalent to the lens of the eye has been added. The revised 10 CFR 20.1201 limits the TEDE of workers to ionizing radiation from licensed material and other sources of radiation within the licensee's control. The revised 10 CFR 20 no longer contains quarterly exposure limits but has reporting requirements for planned special exposures (PSEs)\*. The annual TEDE limit for adult workers is 5 cSv (rem).

The revised 10 CFR 20.2202 and 10 CFR 20.2203 require that all persons licensed by the NRC submit reports of all occurrences involving personnel radiation exposures that exceed certain control levels, thus providing for investigations and corrective actions as necessary. Based on the magnitude of the exposure, the occurrence may be placed into one of three categories:

### (1) Category A

10 CFR 20.2202(a)(1) - a TEDE to any individual to 25 cSv (rem) or more; an eye dose equivalent of 0.75 Sv (75 rem) or more; or a shallow-dose equivalent to the skin or extremities of 2.5 Gy (250 rad) or more. The Commission must be notified immediately of these events.

### (2) Category B

10 CFR 20.2202(b)(1) - a TEDE to any individual to 5 cSv (rem) or more; an eye dose equivalent of 0.15 Sv (15 rem) or more; or a shallow-dose equivalent to the skin or extremities of 0.5 Sv (50 rem) or more in a 24-hour period. The Commission must be notified within 24 hours of these events.

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<sup>\*</sup> See 10 CFR 20.1206, 20.2204 and Regulatory Guide 8.35 for more information on PSEs and their reporting requirements.

### (3) Category C

10 CFR 20.2203 - In addition to the notification required by 20.2202 (category A and B occurrences), each licensee must submit a written report within 30 days after learning of any of the following occurrences: (1) Any incident for which notification is required by 20.2202; or (2) Doses that exceed the limits in 20.1201, 20.1207, 20.1208, 20.1301 (for adults, minors, the embryo/fetus of a declared pregnant worker, and the public, respectively), or any applicable limit in the license; or (3) Levels of radiation or concentrations of radioactive material that exceed any applicable license limit for restricted areas or that, for unrestricted areas, are in excess of 10 times any applicable limit set forth in this part or in the license (whether or not involving exposure of any individual in excess of the limits in 20.1301); or (4) For licensees subject to the provisions of the Environmental Protection Agency's generally applicable environmental radiation standards in 40 CFR 190, levels of radiation or releases of radioactive material in excess of those standards, or of license conditions related to those standards.

### 6.2 Limitations of the Data

It is important to note that this summary of events includes *only*:

Occupational radiation exposures in excess of regulatory limits Events at NRC-licensed facilities Final dose of record assigned to an individual

### It does not include:

Medical misadministrations to medical patients

Exposures in excess of regulatory limits to the general public

Agreement State-licensed activities

Other radiation-related violations, such as high dose rate areas or effluent limits

Exposures to dosimeters that, upon evaluation, have been determined to be high dosimeter readings only and are not assigned to an individual as the dose of record by the NRC

Care should be taken when comparing the summary information presented here with other reports and analyses published by the NRC or other agencies. Various reports may include other types of "overexposure" events; therefore, the distinctions should be noted.

The analysis and summary of incidents presented here involving exposures in excess of regulatory limits represent the status of events as of the publication of this report. Exposure events of this type typically undergo a long review and evaluation process by the licensee, the NRC inspector for the regional office, and NRC headquarters. Preliminary dose estimates submitted by licensees are often conservatively high and do not represent the final (record) dose assigned for the event. It is therefore not uncommon for an "overexposure" event to be reassessed and the final assigned dose to be categorized as not having been in excess of the regulatory limits. In other cases, the exposure may not be identified until a later date, such as during the next scheduled audit or inspection of the licensee's exposure records.

For these reasons, an attempt is made to keep current the exposure events summary presented here. An event that has been reassessed and determined not to be an exposure in excess of the limits is not included in this report. In addition, events that occurred in prior years are added to the summary in the appropriate year of occurrence. The reader should note that the summary presented here represents a "snapshot" of the status of events as of the publication date of this report. Previous or future reports may not correlate in the exact number of events because of the review cycle and reassessment of the events.

### 6.3 Summary of Exposures in Excess of Regulatory Limits

Table 6.1 summarizes the occupational exposures in excess of regulatory limits as reported by Commission licensees pursuant to 10 CFR 20.2202 and 10 CFR 20.2203 from 1994 to 1996. Table 6.2 shows the data reported under 10 CFR 20.403 and 10 CFR 20.405 for the period 1985-1993. Note that the categorization criteria changed effective with the revised 10 CFR 20. The dose reporting thresholds have been revised — the skin of the whole body and the extremities now have the same dose limits, and a new set of dose limits has been added for the lens of the eye.

For the period 1990-1993, Table 6.2 shows the number of individuals who exceeded various limits while employed by one of several types of licensees. For the period 1985-1989, only the exposures in excess of regulatory limits reported by licensed industrial radiography firms are shown separately. Most of the occurrences included in the "Others" category come from research facilities, universities, and measuring and well-logging activities.

In 1996, one worker received a dose that exceeded the regulatory limit. There were no occurrences in which individuals received an exposure of the magnitude described previously as "Category A." Two "Category B" occurrences were reported.

The incident involved an individual working at a multi-location radiography licensee who received a TEDE dose of 8.3 cSv (rem) during 1996. A radiographer performed several radiographic exposures on a pressure vessel. The radiographer concluded his last exposure for the day and prepared to leave the facility. He retracted the source but failed to perform a lockout survey of the device. The second radiographer arrived to fulfill additional exposures on

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the pressure vessel. This second radiographer proceeded to retrieve film and other equipment needed to complete his work and positioned the source guide tube for the next exposure. Before completing the exposure he noticed that his pocket dosimeter was off scale. The film badge worn during the month for this second radiographer read 6.465 cSv (rem), bringing his annual dose to 8.3 cSv (rem). The first radiographer did not exceed the annual dose limit.

### 6.4 Maximum Exposures Below the NRC Limits

Because few exposures exceed the NRC occupational exposure limits, certain researchers have expressed an interest in a listing of the maximum exposures received at NRC licensees that do not exceed the limits. This would allow an examination of exposures that approach, but do not exceed the limits. Table 6.3 shows the maximum exposures for each dose category required to be reported to the NRC. In addition, the number of exposures in certain dose ranges is shown to reflect the number of exposures that approach the NRC limits.

## TABLE 6.1 OCCUPATIONAL EXPOSURES IN EXCESS OF REGULATORY LIMITS 1994 - 1996

					TYPES OF E	XPOSURES	AND DOSE	s		
YEAR	LICENSE PERSONS AND	TEC	DE (cSv or re	em)	Lens of	the Eye (cS	or rem)	Skin/	Extremity (cs	or rem)
	CATEGORY DOSES (REM)	<5	5-25	>25	<15	15-75	>75	<50	50-250	>250 rad
	INDUSTRIAL NO. OF PERSONS RADIOGRAPHY SUM OF DOSES		1 8.3							
	POWER NO. OF PERSONS REACTORS SUM OF DOSES								1ª 70.6	
1996	MEDICAL NO. OF PERSONS FACILITIES SUM OF DOSES									
	MARKETING NO. OF PERSONS & MANUFACT. SUM OF DOSES									
	OTHER NO. OF PERSONS SUM OF DOSES									
	INDUSTRIAL NO. OF PERSONS RADIOGRAPHY SUM OF DOSES		1 5.1							
	POWER NO. OF PERSONS REACTORS SUM OF DOSES									
1995	MEDICAL NO. OF PERSONS FACILITIES SUM OF DOSES									
	MARKETING NO. OF PERSONS & MANUFACT. SUM OF DOSES								2 <sup>b</sup> 572	
	OTHER NO. OF PERSONS SUM OF DOSES									
	INDUSTRIAL NO. OF PERSONS RADIOGRAPHY SUM OF DOSES		2 12.2							
	POWER NO. OF PERSONS REACTORS SUM OF DOSES							1 34		
1994	MEDICAL NO. OF PERSONS FACILITIES SUM OF DOSES								,	
	MARKETING NO. OF PERSONS & MANUFACT. SUM OF DOSES								1° 180	
	OTHER NO. OF PERSONS SUM OF DOSES									

<sup>&</sup>lt;sup>a</sup> This exposure was from a hot particle to a localized area of the skin.

 $<sup>^{\</sup>rm b}$  These two exposures (230 cSv and 342 cSv) were the result of hot particles.

<sup>&</sup>lt;sup>c</sup> This exposure was from a hot particle to a localized area of the skin.

### TABLE 6.2 OCCUPATIONAL EXPOSURES IN EXCESS OF REGULATORY LIMITS 1985 - 1993

YEAR	LICENSE PERSONS AND		HOLE BODY /PE	4)	TYPES OF	EXPOSURES A	ND DOSES		PR PR A190	0)
EAR	LICENSE PERSONS AND CATEGORY DOSES (REM)	(<5)	HOLE BODY (REN (5-25)	/i) (>25)	(>7.5<30)	SKIN (REMS) (30-50)	(>150)	(>18.75<75)	(75-375)	
	INDUSTRIAL NO. OF PERSONS RADIOGRAPHY SUM OF DOSES	(-0)	1 6	(>25)	(21.5050)	(30-30)	(>150)	(>18.75<75)	(75-375)	(>375)
	POWER NO. OF PERSONS REACTORS SUM OF DOSES									
1993	MEDICAL NO. OF PERSONS FACILITIES SUM OF DOSES	1 1.3						3f 187.3		
	MARKETING NO. OF PERSONS & MANUFACT. SUM OF DOSES	5 10.6								
	OTHER NO. OF PERSONS SUM OF DOSES	2a 4.0	1a 5.4						1 275	
	INDUSTRIAL NO. OF PERSONS RADIOGRAPHY SUM OF DOSES		-							1 300-1000
	POWER NO. OF PERSONS REACTORS SUM OF DOSES	1 1.9			4 57.7					
1992	MEDICAL NO. OF PERSONS FACILITIES SUM OF DOSES							4 143.6	1 272	
	MARKETING NO. OF PERSONS & MANUFACT. SUM OF DOSES									
	OTHER NO. OF PERSONS SUM OF DOSES	1 <sup>b</sup> 1.9			1 24.1			1 40.5		
	INDUSTRIAL NO. OF PERSONS RADIOGRAPHY SUM OF DOSES	2 5.6								
1001	POWER NO. OF PERSONS REACTORS SUM OF DOSES MEDICAL NO. OF PERSONS									
1991	FACILITIES SUM OF PERSONS  MARKETING NO. OF PERSONS	2 3.8								
	& MANUFACT. SUM OF DOSES							1 22.3		
	OTHER NO. OF PERSONS SUM OF DOSES	2.4	-0.4							
	INDUSTRIAL NO. OF PERSONS RADIOGRAPHY SUM OF DOSES POWER NO. OF PERSONS	3 7.2	3c,d 49.9				1 <sup>C</sup> 6000		1 111	2d 3962
4000	REACTORS SUM OF DOSES							1 48.8		
1990	MEDICAL NO. OF PERSONS FACILITIES SUM OF DOSES	зе 8.9								
	MARKETING NO. OF PERSONS & MANUFACT. SUM OF DOSES OTHER NO. OF PERSONS	1								
	SUM OF DOSES INDUSTRIAL NO. OF PERSONS	2.3		1				1 1		
1989	RADIOGRAPHY SUM OF DOSES  ALL OTHER NO. OF PERSONS	8.1		93	1 1	***	0.	72	1	
	SUM OF DOSES  INDUSTRIAL NO. OF PERSONS	6.6	1		9.2			105	178	
1988	RADIOGRAPHY SUM OF DOSES  ALL OTHER NO. OF PERSONS	8.1 7	6.1		4	1	1	1 1	118	
	SUM OF DOSES INDUSTRIAL NO. OF PERSONS	19.34 1			66.8	61	278	58	127	
1987	RADIOGRAPHY SUM OF DOSES  ALL OTHER NO. OF PERSONS	3.1	1		5			3	180	1
	SUM OF DOSES INDUSTRIAL NO. OF PERSONS	2.8	7.5		128.4			72.0		650
1986	RADIOGRAPHY SUM OF DOSES  ALL OTHER NO. OF PERSONS	4.4						1	1	2
	SUM OF DOSES  INDUSTRIAL NO. OF PERSONS	9.6	3	1				41.2	115	930
1985	RADIOGRAPHY SUM OF DOSES  ALL OTHER NO. OF PERSONS	16.7	32.6	27.0			······································	3	288	
	SUM OF DOSES	11.8						60.2	93	

<sup>Same individual exceeded 1.25 rem/qtr limit twice during 1993.
This 1992 exposure was reported in 1994.
This individual received a whole-body dose of 24 rem in addition to a 6000 rem skin dose.
One of these individuals received a 9 rem whole-body dose in addition to a 1070 rem extremity dose.
One of these individuals exceeded the quarterly whole-body dose limits three times in one calendar year.
An additional 1993 exposure was reported in 1994.</sup> 

TABLE 6.3

MAXIMUM OCCUPATIONAL EXPOSURES FOR EACH EXPOSURE CATEGORY
1996

Exposure Category	Annual Dose Limit	Maximum Exposure	Max Dose Percent of	Number of Individuals				
Category	10CFR20	Reported	the Limit	with	>25% of	>50% of	>75% of	>95% of
		cSv (rem)		Measureable	the Limit	the Limit	the Limit	the Limit
				Dose				
SDE-ME	50 rem	41.960	84%	57,840	101	24	1	0
SDE-WB	50 rem	22.710	45%	71,923	4	3	1	1 (>limit) <sup>a</sup>
LDE	15 rem	13.800	92%	71,508	20	2	1	0
CEDE		3.179b		2,893				
CDE		27.604b		2,651				
DDE		8.3°		73,076				
TEDE	5 rem	8.3°	> limit	74,616	2,764	331	24	1 (>limit)
TODE	50 rem	27.830b	56%	60,405	77	3	0	0

<sup>&</sup>lt;sup>a</sup> This dose was from a hot particle to a localized area of the skin

Shaded boxes represent dose categories that do not have specific dose limits defined in 10 CFR 20.

As can be seen from Table 6.3, few exposures exceed half of the NRC occupational annual limits. The only dose to come within 5% of the limit was the one exposure that exceeded the limit.

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<sup>&</sup>lt;sup>b</sup> These doses were received by the same individual

<sup>&</sup>lt;sup>c</sup> These internal doses were received by the same individual

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<sup>\*</sup> Report is available for purchase from the National Technical Information Service, Springfield, Virginia, 22161, and/or the NRC/ GPO Sales Program, Division of Technical Information and Document Control, U.S. Nuclear Regulatory Commission, Washington, DC 20555

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### **APPENDIX A**

Listing of Annual Exposure Data
Compiled for Certain NRC Licensees
in Descending Order of Average
Measureable Dose

1996

<sup>\*</sup> The data values shown bolded and in boxes represent the highest value in each category.

				VICINDICAL V	< >=							
	COURT INTIMA	TI COM	סק אמספ	APPENI	NON DE	MOTON	APPENDIA A V DOSES EOB NON BEACTOB NBC LICENSEES					
	ANNOAL	WHOLE	שרים	CY 1996	896	AC104 N	אַכ דוכבוי	0				
PROGRAM CODE -			Number of Individ	Tuals with Whole	Body Doses in	of Individuals with Whole Body Doses in the Ranges (cSv or rems)	v or rems)		TOTAL	NUMBER	TOTAL	
LICENSEE NAME	LICENSE#	No Meas. Exposure	Meas. 0.10- <0.10 0.25	0.25- 0.50- 0.50 0.75	0.75- 1.00- 1.00 2.00	2.00- 3.00- 3.00 4.00	-00	6.00- >12.0	NUMBER MONI- TORED	WITH MEAS. DOSE	TEDE (person- cSv, rem)	AVERAGE MEAS. TEDE (cSv, rems)
NUCLEAR PHARMACIES - 02500	6									:		
CAPITAL PHARMACY INCORPORATED	21-26597-01MD	6	1 2	1	1	i			12	ო	0.260	0.087
MALLINCKRODT INCORPORATED	24-04206-08MD	4	13 2		1		•	1	19	15	0.790	0.053
MALLINCKRODT MEDICAL INCORPORATED	24-04206-19MD	_	10 2	2 -	1	1			15	14	1.700	0.121
MALLINCKRODT MEDICAL, INC.	24-04206-15MD	7	6 1	e -	1	1	,		17	10	2.180	0.218
MALLINCKRODT MEDICAL, INC.	24-04206-14MD	4	9	2 -	1	1			20	16	1.670	0.104
MALLINCKRODT MEDICAL, INC.	24-04206-17MD	1	1 2	1	1	1	,	,	က	က	0.250	0.083
MALLINCKRODT MEDICAL, INC.	24-04206-01MD		9					,		∞	0.560	0.070
MALLINCKRODT, INC.	24-04206-12MD			-	1			1	တ	7	1.230	0.176
MEDI-PHYSICS, INC.	48-26240-01MD	73	4	1	1		1		19	9	0.470	0.078
MID-AMERICA ISOTOPES, INC.	24-26241-01	14	4	1					18	4	0.070	0.018
NORTHERN VIRGINIA ISOTOPES, INC.	45-25221-01MD		11 2	2 1			•	,	23	16	1.979	0.124
OKLAHOMA, UNIVERSITY OF	35-03176-04MD		14 2	-		i I			21	17	1.259	0.074
PHARMALOGIC LTD.	44-30124-01MD	00	m F	1		,		•	12	4	0.260	0.065
SPECTRUM PHARMACY INCORPORATED	13-26367-01	6	21 1	2 2	1	1			35	26	2.470	0.095
SYNCOR INT'L CORP.	04-26507-01MD	46	17 2	1			•	,	65	19	1.088	0.057
Total	15	131	123 28	8 6	-	t t		•	299	168	16.236	0.097
MANUFACTURING AND DISTRIBUTION - TYPE A BROAD	CT - NOITUS	PE A BR	OAD - 03211	7								
ABB INDUSTRIAL SYSTEMS INC.	34-00255-03	7		1	1		1	ı	м	~	0.010	0.010
ADVANCED MEDICAL SYS., INC.	34-19089-01	-	1	1 3	- 2	1	1	1	19	<b>∞</b>	4.810	0.601
AMERSHAM CORPORATION	20-12836-01	24	24 5	2 4	4	1	1	,	64	40	9.390	0.235
DU PONT MERCK PHARMACEUTICAL CO.	20-28598-01	321	241 75	56 31	38 52	14 5	1	1	833	512	215.390	0.421
E. I. DU PONT DE NEMOURS & CO., INC	20-00320-21	1		•		1	1	ı	14	14	2.661	0.190
E. R. SQUIBB & SONS, INC.	29-00139-02	641					1	ı	791	150	12.300	0.082
MALLINGKRODT, INC.	24-04206-01	32	500 C	1		36	4	1	294	797	2///609	1.060
Total	7	1,031	485 116	84 55	64 105	51 23	- 4	•	2,018	987	522.166	0.529

	ANNUAL	APPENDIX A ANNUAL WHOLE BODY DOSES FOR NON-REACTOR NRC LICENSEES CY 1996	A DODY DOSI	APPENDIX SES FOR NC CY 1996	A ON-REAC	FOR NRC	LICENS	EES				
PROGRAM CODE - LICENSEE NAME	LICENSE#	No Meas. No Exposure	Number of Individuals with Whole Body Doses in the Ranges (CSv or rems)  Meas. 0.10- 0.25- 0.50- 0.75- 1.00- 2.00- 3.00- 4.00- 5.0  <0.10 0.25 0.50 0.75 1.00 2.00 3.00 4.00 5.00 6	lals with Whole Body I 0.25- 0.50- 0.75- 0.50 0.75 1.00	ody Doses in the Rai 0.75- 1.00- 2.00- 1.00 2.00 3.00	anges (cSv or re 3.00- 4.00- 0 4.00 5.00	rems) - 5.00- 6.00- 0 6.00 12.0	. >12.0	TOTAL N NUMBER MONI- TORED	NUMBER C WITH MEAS. DOSE	TOTAL COLLECTIVE TEDE (person-cSv, rem)	AVERAGE MEAS. TEDE (cSv, rems)
MANUFACTURING AND DISTRIBUTION - TYPE B BROAD -	BUTION - T	YPE B BRO	AD - 03212	:	·							
BEST INDUSTRIES, INC.	45-19757-01	38	9 1	4 = 1 -		1	1	1	53	15	2.616	0.174
Total	1	38	9 1	4 1 -	•		•	-	53	15	2.616	0.174
MANUFACTURING AND DISTRIBUTION - OTHER - 03214	BUTION - O	THER - 032	14								·	:
BERTHOLD SYSTEMS, INC.	37-21226-01	11	18 3 -		l L	-	i i	-	33	22	4.730	0.215
CERBERUS TECHNOLOGIES, INC.	29-08864-03	2	1	1		1	1		2		1	
CIS-US, INC.	20-20973-01	Ø	4	2 1 -	- 2	1	i I	1	8	10	4.230	0.423
CIS-US, INC.	20-27966-01	-	1 1	1	1	1	1		ო	2	0.260	0.130
DU PONT MERCK PHARMACEUTICAL CO.	20-00320-19	i	4	1	· -	r i	1	1	9	9	2.180	0.363
ELIAS USA, INC.	48-26355-01	T.	1	1	1	1	,	1	_	i .		1
HARRIS SEMICONDUCTOR	37-24841-01	19	1	1	1	1	ı J	ı	19	ı	•	•
INTERGRATED INDUSTRIAL SYS., INC.	06-21253-01	26	2	ı		1	1	ı	28	7	0.020	0.010
LIFECODES CORPORATION	06-28766-01	16	1	1	1	1	1	ı	16		•	1
NUCLEAR RESEARCH CORPORATION SAINT-GORAIN/NOPTON	37-02401-01	36 54	' ' വ	1 1	1 1	1 1	1 1	j	45	ത യ	0.230	0.026
MOLEVACOGO OVER INTERPRETATION	48 12016 01	)	•	•					\$ 7	> <		220.0
THERATRONICS INTERNATIONAL LIMITED	54-28315-01	15	7 1 -	- 1		1	ı ı	1	73	r 00	7.330 0.380	0.048
Total	13	189	48 11	2 2	1 4 -	1 -	,	-	258	69	15.090	0.219
Z LOW LEVEL WASTE DISPOSAL FACILITIES - 03231	. FACILITIE	S - 03231		-								
CHEM-NUCLEAR SYSTEMS, INC.	12-13536-01	92	29 18	5 3 -	1	1	,	ı	147	55	7.140	0.130
U. S. ECOLOGY, INC.	16-19204-01	9	9 9	1	1	1			18	12	1.158	0.097
Total	2	86	35 24	5 3 -	,	,		-	165	67	8.298	0.124

			V	ADDENINY	<							
	ANNUAL	ANNUAL WHOLE BOD	<b>&gt;</b>		N-REACT	OR NRC	LICENS	EES				
				CY 1996								
PROGRAM CODE - LICENSEE NAME	LICENSE#	No Meas. Exposure	Number of Individuals with Whole Body Doses in the Ranges (cSv or rems)  Meas. 0.10- 0.25- 0.50- 0.75- 1.00- 2.00- 3.00- 4.00- 5.0 <ul> <li>&lt; 0.10 0.25 0.50 0.75 1.00</li> <li>&lt; 0.00 3.00 4.00 5.00 6</li> </ul>	ith Whole Body [ 0.50- 0.75-	Doses in the Rai 1.00- 2.00- 2.00 3.00	anges (cSv or re - 3.00- 4.00- ) 4.00 5.00	ems) 5.00- 6.00- 6.00 12.0	>12.0	TOTAL NI NUMBER MONI- N	NUMBER C WITH MEAS. DOSE	TOTAL COLLECTIVE TEDE (person- cSv, rem) (	AVERAGE MEAS. TEDE (cSv, rems)
INDUSTRIAL RADIOGRAPHY - SINGLE LOCATION - 03310	SINGLELO	CATION - (	03310									
AMERICAN FOUNDRY GROUP, INC.	35-26893-01	2	1	1	1	1	1	1	2	,	ı	,
ARMY, DEPARTMENT OF THE	13-18235-01	29	L I	1	1	1	1	t	34	2	0.061	0.012
ARMY, DEPARTMENT OF THE	29-00047-06	_	1	i a	1		i i	ı	<del></del>	,	1	1
ARROW TANK & ENGINEERING CO.	22-13253-01	2	1 3 -	- 2	1	ı	1	ı	∞	9	1.780	0.297
BABCOCK & WILCOX COMPANY	34-02160-03	10	5	1	1	1	1	1	15	വ	0.050	0.010
BUCKEYE STEEL CASTINGS	34-06627-01	2	1	1	1	1	1	1	2		ı	
CARONDELET FOUNDRY COMPANY	24-26136-01	9	· —	ı			1	1	∞	2	0.160	0.080
CONNEX PIPE SYSTEMS INCORPORATED	45-26591-01	ល	1	1	•	1	1	<b>L</b>	9	_	0.041	0.041
COPES-VULCAN, INC.	37-19530-01	-	, ,	1	1	,	1	1	_	,	1	r
DURALOY	37-02279-02	•	2 1 1	1	1	1	1	•	4	4	0.590	0.148
DURIRON CO., INC., (THE)	34-06398-01	-	2 1 -	1	1	1	1	,	4	က	0.260	0.087
GENERAL MOTORS CORP.	21-08678-05	2		1	r.	1	ı	•	ო	-	0.030	0.030
GENERAL MOTORS CORPORATION	34-15315-02	വ	1	1	1	1		ı	ດ		•	,
GREDE-PRYOR, INC.	35-18099-01	_		1	1	1	ı	l	7	<b>-</b>	0.020	0.020
HARRISON STEEL CASTINGS COMPANY	13-02141-01	3	ر د د	1	1	1	1	1	9	က	0.130	0.043
HIGH STEEL STRUCTURES, INC.	37-17534-01	<b>o</b>	4 1 -	'		1	ı I	1	14	വ	0.380	0.076
INTERMET CORPORATION	45-17464-01	œ	1	1	1	ı	ı	ı	8	,	•	•
MANOIR - ELECTRO ALLOYS, INC.	34-24346-01	m	3 2 3		1	1	1	•	1	8	1.490	0.186
MINNESOTA VALLEY ENGINEERING	22-24393-01	,	1 1 5	-	ì	i E	1	ı	00	8	2.670	0.334
MISSOURI STEEL CASTINGS, A DIVISION	24-15152-01	9	1	1	1	1	ı	ı	9	,	,	,
NILES STEEL TANK CO.	21-04741-01	က		•	1	1	1	r	4	<del>-</del>	0.010	0.010
NORTHWEST AIRLINES, INC.	22-12080-01	10	r C	1	,		1	ı	10	ı	•	ı
PELTON CASTEEL, INC.	48-02669-02	8	1	1	,	1	1	1	3	1	1	,
TRANS WORLD AIRLINES, INC.	24-05151-05	112	1	1	1	1	1	-	112	1		,
WAUKESHA FOUNDRY DIVISION	48-13776-01	က	· -	1	l i	1	1	,	4	_	0.180	0.180
WILLIAM POWELL COMPANY (THE)	34-02963-01	2	,	1	1	,	1	l.	ო	<del>-</del>	0.050	0.050
WISCONSIN CENTRIFUGAL, INC.	48-11641-01	2	- 1 2	1 1	1	,	,	•	7	2	2.250	0.450
Total	27	231	32 12 11	4 1		1	1	1	291	09	10.152	0.169

				SIGNATOR								
	ANNUAL	ANNUAL WHOLE BODY		APPENDIX SES FOR NC CY 1996	APPENDIX A DOSES FOR NON-REACTOR NRC LICENSEES CY 1996	TOR NRC	CLICENS	SEES				
PROGRAM CODE -	LICENSE#	No Meas. Exposure	Number of Individuals wi Meas. 0.10- 0.25- <0.10 0.25 0.50	with Whole Body [5-0.50-0.75-0.75-0.75-0.75-0.75-0.75-0.7	Individuals with Whole Body Doses in the Ranges (cSv or rems) 0.10- 0.25- 0.50- 0.75- 1.00- 2.00- 3.00- 4.00- 5.0 0.25 0.50 0.75 1.00 2.00 3.00 4.00 5.00 6.	(anges (cSv or re 0- 3.00- 4.00- 00 4.00 5.00	rems) 2- 5,00- 6.00- 0 6.00 12.0	<u>y</u> 00	TOTAL NUMBER MONI-	NUMBER C WITH MEAS. DOSE	TOTAL COLLECTIVE TEDE (person-cSv, rem)	AVERAGE MEAS. TEDE (cSv. rems)
INDUSTRIAL RADIOGRAPHY - MULTIPLE LOCATION - 0332	MULTIPLE	OCATION	- 03320									
ABC TESTING, INC.	20-19778-01	Υ.		2 1 -	ı	1	1	1	ស	4	1.240	0.310
ACCU-TECH EVALUATION SERVICES, INC	29-28358-01	1	1 6	- 1 -	4	2	1	1	18	9	14.420	0.801
AKRON INDUSTRIAL SERV., INC.	34-24673-01	•	1	1	,	-	,	1	2	2	2.400	1.200
ALASKA INDUSTRIAL X-RAY	50-16084-01	•	n m	2 2	1 2 -	ı	1	r	10	10	5.340	0.534
ALLEGHENY LABORATORIES	37-20734-01	4	-	-		1	1	1	7	ო	0.640	0.213
ALONSO & CARUS IRON WORKS, INC.	52-21350-01	က	- 4	1	1	1	1	ı	7	4	0.161	0.040
AMERICAN AIRLINES, INC.	35-13964-01	26	, , &	'			1	,	34	ω	0.110	0.014
ANVIL CORPORATION	46-23236-03	2	19 14	7	2 1 -	1	1	ı	48	43	8.380	0.195
ARCTIC SLOPE INSP. SERVICES, INC.	50-29015-01	5	4	2 1 -	1	,	1	i	19	14	2.700	0.193
ARMY, DEPARTMENT OF THE	30-02405-05		2	1		1	1	1	2	7	0.013	0.007
ASTROTECH, INC.	37-09928-01	4	6 4	1 -	1	1	1	•	16	12	1.670	0.139
BAKER TESTING SERV., INC.	20-19067-01	1	1	1	1	1	1	1	-	_	0.010	0.010
BARNETT INDUSTRIAL X-RAY	35-26953-01	ស	. 6 .		w		1	1	19	14	8.360	0.597
BIG STATE X-RAY, INC.	35-21144-01	•	φ 8	2 4	- 7 -	1	1	1	25	24	15.916	0.663
BILL MILLER, INC.	35-19048-01	4	88	œ	3 7 -	-	1	1	38	34	20.940	0.616
BRANCH RADIOGRAPHIC LABS., INC.	29-03405-02	S	6 4	4 2		1	ı	,	22	17	4.079	0.240
BRAUN INTERTEC CORPORATION	22-16537-02	2	11 1	2 2	. 2		1	,	32	30	13.180	0.439
CALUMET TESTING SERV., INC.	13-16347-01	15	ى	1	1 7		1	i .	30	15	17.120	1.141
CAPITAL X-RAY SERV., INC.	35-11114-01	•	- 1	1	1 6 6	, ,		,	26	26	30.040	1.155
CENTURY INSPECTION, INC.	42-08456-02	10	27 28 25	2 17	) 2 6		ı	ı	125	115	47.775	0.415
CERTIFIED TESTING LABS., INC.	29-14150-01	10	15 3	2 1		,	l J	,	33	23	4.616	0.201
CHICAGO BRIDGE AND IRON COMPANY	42-13553-02	40	28 8 (	. 1	2 1 -	1	ı T	1	98	46	7.240	0.157
COLBY & THIELMEIER TESTING CO.	24-13737-01	•	1	1 2 -	4	1	1	,	6	6	6.903	0.767
COMO TECH INSPECTION	15-26978-01	1	m	2 -	1 2 -	1	1	t	00	ω	4.473	0.559
CONAM INSPECTION	12-16559-01	42	38 42 29	9 18 1.	1 12 4	1 1	1	1	198	156	73.313	0.470
CONNELL LIMITED PARTNERSHIP	35-13735-01	<b>,</b> —		•	1	1	1	•	က	2	1.160	0.580
CONSUMERS POWER CO.	21-08606-03	O		- 1 -	1	1	1	ı	20	14	3.227	0.231
CTI ALASK, INC.	50-19202-01	35	17 9 31	23	9 15 3	٠ - د	1	t	142	107	62.830	0.587

				APPENDIX	Ø ×							
	ANNOAL	ANNUAL WHOLE BODY	BODY DOS	ES FOR N	Y DOSES FOR NON-REACTOR NRC LICENSEES	TOR NRC	: LICENS	EES				
				CY 1996	ဖွ							
PROGRAM CODE - LICENSEE NAME	LICENSE#		of Individu	ils with Whole Bc	ody Doses in the F	Ranges (cSv or			. ~	~	ĕ	AVERAGE
		No Meas. Exposure	Meas. 0.10- 0 <0.10 0.25 (	0.25- 0.50- 0. 0.50 0.75 1	0.75- 1.00- 2.00- 1.00 2.00 3.00	10- 3.00- 4.00- 00 4.00 5.00	- 5.00- 6.00- 0 6.00 12.0	>12.0	MONI- TORED	MEAS. DOSE	(person- cSv, rem)	MEAS. TEDE (cSv, rems)
INDUSTRIAL RADIOGRAPHY - MULTIPLE LOCATION - 03320	PHY - MULTIPLE L	OCATION		Continued								
DAYTON X-RAY CO.	34-06943-01	2	6 4	6 2	3 7		į	L	31	29	19.472	0.671
DIAMOND H TESTING COMPANY	11-27316-01	က	4	5 2	1 - 1 -	1	1	1	20	17	5.734	0.337
EASTERN TESTING & INSPECTION, INC.	NC. 29-09814-01	ന	3	' ' က	1	ı	1	ı	10	7	1.130	0.161
EDWARDS PIPELINE TESTING, INC.	35-23193-01	ហ	19 33	30 16	13 13 -	1	1	1	129	124	54.622	0.441
EG&G FLORIDA, INC.	FL-1219-1	29	7 1 .		1	1	ı		37	00	0.240	0.030
ELECTRIC BOAT CORPORATION	06-01781-08	1	10 11	٠ د	1	1	1	. 1	24	24	3.183	0.133
ETT: X-RAY, INC.	46-03414-03	6	9	1 2 -	1 ~	1	1	1	27	18	4.754	0.264
FROEHLING & ROBERTSON, INC.	45-08890-01	6	2 3 -	1	1	1	,	-1	14	2	0.510	0.102
GENERAL TESTING & INSPECTION CO.	.0. 34-09037-01	-	-		1	i i	1	1	4	က	0.920	0.307
GLITSCH FIELD SERVICES/NDE, INC.	34-14071-01	o.	9 6	7 2	ا ش ش	1	1	1	39	30	11.260	0.375
GLOBE X-RAY SERV., INC.	35-15194-01	2	3 2	6 4	2 6	3 1 1	1	ſ	30	28	32.100	1.146
GREAT LAKES TESTING, INC.	48-26484-01	•	. 2 .	7	ا ت	ı		1	1	10	8.300	0.830
GRINNELL CORPORATION	38-28750-01	က	. 1 .	ı.	1	1	1	1	9	ო	0.210	0.070
H&G INSPECTION COMPANY, INC.	42-26838-01	Ψ.	<del></del>	1 2	1 6 -	·		ı	13	12	15.530	1.294
HIGH MOUNTAIN INSPECTION SERV, INC	, INC 49-26808-02	•	6 7	7 4	დ	1	•	1	35	35	19.793	0.566
H. R. INSPECTION SERV., INC.	15-06209-01	-		-	4	1	1	1	œ	7	080'9	0.869
HUNTINGTON TESTING & TECHNOLOGY	JGY 47-23076-01	,	4 &	6 1	ව	2	•	•	27	27	21.240	0.787
INDUSTRIAL NDT SERVICES DIVISION	N 13-06147-04	က	10 3			-	,	ı	19	16	5.670	0.354
INSPECTION MANAGEMENT CORP	35-26824-01	-	1		S		1	ı	∞	7	9.620	1.374
INTEGRATED TECH. INC.	06-30317-01	4	2 1		1	1	•	1	∞	4	0.660	0.165
INTERMOUNTAIN TESTING CO.	05-07872-01	1	1 3	2 1	1 6	- 4	1	i.	19	19	28.585	1.504
ITT INSPECTION TECH	24-26628-01	2		,	1	•	1	•	7	ı		,
JAN X-RAY SERVICES, INC.	21-16560-01	-	7 5	14 8	5 10	-		ı	52	51	35.260	0.691
LIBERTY TECHNOLOGIES, INC.	39-24888-01	T.	5	5 2	ı -	1	ı	ı,	18	18	4.730	0.263
LONGVIEW INSPECTION, INC.	45-25279-01	₩.	6 1	1	8	ı	1	1	17	16	11.125	0.695
LONGVIEW INSPECTION INCORPORATED	ATED 48-17480-01	2	13 17	14 5	9 15	2 1 -	1	ı	78	76	50.020	0.658
LUCIUS PITKIN, INC.	29-27816-01	•	2 -	5 1 -	1	1	1	i s	თ	00	2.634	0.329
MAGNA CHEK, INC.	21-19111-02	20	3	'		,	•		23	က	0.120	0.040

TOTAL   TOTAL   NUMBER   COLECTIVE   COL					APPENDIX	4							
Part		ANNOAL	WHOLE		ES FOR N(	ON-REAC	TOR NRC	LICENS	EES				
### Pry - MULTIPLE LOCATION - 03320 Continued    No.	PROGRAM CODE - LICENSEE NAME	LICENSE#	2.0	tumber of Individual Meas. 0.10- 0.25	ls with Whole Bod 25- 0.50- 0.7	ly Doses in the R 5- 1.00- 2.00	(anges (cSv or r	-00	>12.0		1	TOTAL COLLECTIVE TEDE (person- cSv, rem)	AVERAGE MEAS. TEDE (cSv, rems)
INC.   19-2868-501   9   4   6   6   11   2   2	INDUSTRIAL RADIOGRAPHY - N	MULTIPLEL	OCATION		ntinued								
No.   25-24/7501   1   2   2   2   2   1   -     -	MARYLAND Q.C. LABORATORIES, INC.	19-28683-01	O		6 1 -	2 -	1	1	ı	28	19	6.420	0.338
ES, INC.   45-1761-01   4   2   3   1   -   1   -   1   -     1   -       1   -	MASSACHUSETTS MATERIALS RESEARCH	07-01173-03	7		-	-	1	ı	1	∞	9	1.840	0.307
NIC. 22-21479-01 1 1 3 - 4 1 3 13 12 8.086  AHINC. 22-0379-02 3 3 1 1 6 2 3 6 24 2.1 1.6.10  AHINC. 22-0379-02 1 3 1 1 3 - 1 2 4 2 24 2.1 1.6.10  AHINC. 21-2002-01 3 1 1 2 4 3 1 1 2 4 2 13 13 10 13.570  S. 25-2143-01 3 - 1 1 2 4 4 6 5 3 8 6 6 1 1 13 10 13.570  S. 25-2143-01 3 1 1 2 4 1 1 6 3 7 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	MATERIAL TESTING LABORATORIES, INC.	45-17151-01	4		1	-	i	1	1	<del>-</del>	7	2.555	0.365
Section	MATTINGLY TESTING SERVICES, INC.	25-21479-01	-		4	. 3 .	1	1	į.	13	12	8.085	0.674
MAINC. 43-27362-01 1 5 4 3 1 4 3 1 1 - 1 1 - 2 4 2 - 1 - 2 4 2 1 1 1 - 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	MAXIM TECHNOLOGIES, INC.	22-01376-02	ന	ب د	6 2	9	1	1	ı	24	21	16.610	0.791
NESING 21-2000-011   STATE 21-2000-011   STA	MET-CHEM TESTING LABS. OF UTAH, INC.	43-27362-01	<del>,</del>	5 4	დ —	4 დ	- 1	1	1	23	22	16.218	0.737
3.52747-01         4         1         3         2         2         -         4         4         1         -         -         21         17         21.150           1;         3527005-01         5         4         4         6         5         3         8         5         6         1         -         -         4         4         6         50.300           25-2133-01         120622-07         149         73         36         34         14         16         37         4         -         -         -         4         4         6         6         6         1         -         -         4         7         14         16         37         4         -	MID AMERICAN INSPECTION SERIVES, INC	21-26060-01	ന	1	-	2 4	2	1	•	13	10	13.570	1.357
S5-27005-01   5	MIDWEST INDUSTRIAL X-RAY, INC.	33-27427-01	4	1 3	2 -	4	- 1 -	ı	1	21	17	21.150	1.244
12-00622-07   149   73   36   34   14   16   37   4	MIDWEST INSPECTION SERVICES	35-27005-01	ව	4 4	6 5	œ.	5 6 1	l I	1	47	42	56.050	1.335
12-006022-07   149   73   35   34   14   16   37   4     2	MONTANA X-RAY, INC.	25-21134-01	1	1	1	1	1	1	1	-	-	0.390	0.390
\$219438-01         3         1         2         4         2         2         6         6         7         1         2         4         2         6         7         1         1         4         2         4         2         6         7         1         1         1         4         2         4         2         4         2         4	MQS INSPECTION, INC.	12-00622-07	149	35			- +	,	1	362	213	104.115	0.489
NC.         45-2492-0.2         45-2432-0.2         45-2432-0.2         45-2432-0.2         45-2432-0.2         45-24333-0.1         45-24333-0.1         45-24333-0.1         45-24333-0.1         45-24333-0.1         45-24332-0.1         <	NDT SERVICES, INC.	52-19438-01	ĸ		2 4 -	7	ı	1	1	12	6	5.516	0.613
0CK CO. 45-1042-01 8 6	NEWPORT NEWS SHIPBUILDING & DRYDOCK	45-09428-02	ľ	24 10 -	1	l L	T TS	1	ì	34	34	2.366	0.070
OCK CO.         45-12042-01         8         6 <th< th=""><td>NOOTER CORPORATION</td><td>24-03783-01</td><td>7</td><td>1 1</td><td>T.</td><td>i i</td><td>1</td><td>,</td><td>- t</td><td>19</td><td>12</td><td>0.480</td><td>0.040</td></th<>	NOOTER CORPORATION	24-03783-01	7	1 1	T.	i i	1	,	- t	19	12	0.480	0.040
NC. 37-23370-01 1 1 4 2 1 1 6 2 1 1 6 2 1 1 1 1 1 1 1 1 1 1 1	NORFOLK SHIPBUILDING & DRYDOCK CO.	45-12042-01	Ø	, 9		1	i	1	-1	14	9	0.170	0.028
FRV.ING   11-27394-01       1       1	NORTH AMERICAN INSPECTION, INC.	37-23370-01	•	1 4	2 -	9	2	,	ı	17	16	14.410	0.901
45-24872-01 2 1 6 6 - 5 5 2 1 7 4 7 - 1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	NORTHWEST INSP. & TESTING SERV. INC	11-27394-01	1	•	ı	-	ı	1	1	7	2	1.873	0.937
37-27878-01	NOVA DATA TESTING LABS, INC.	45-24872-01	2	1 6 -	1	-	1	1	ı	10	00	2.140	0.268
C.       12-16941-03       33       12       2       2       2       2       2       2       2       49       16       1.220         C.       12-16941-03       8       2       2       6       3       8       1       7	PITT-DES MOINES, INC.	37-27878-01	12	4 2	3 2	- 4	1	1	ı	28	16	8.510	0.532
C. 12-16941-03 8 2 6 6 3 8 1 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 -	PRECISION COMPONENTS CORP.	37-16280-01	33	12 2	2	1	t I	1	ı	49	16	1.220	0.076
INC. 48-25806-01 3 2 1	PROFESSIONAL SERV. INDUS., INC.	12-16941-03	00		2 6		1 - 1	1	l	36	28	25.250	0.902
34-19592-01 3 3 2 1	PROFESSIONAL WELDING ASSOC, INC.	48-25806-01	1		-4	1	1	1	1	വ	ß	0.430	0.086
13-1554-06	PROGRESS SERV., INC.	34-19592-01	ന	3		1	1	1	ı	တ	9	0.840	0.140
99-11579-03 2 8 5 - 3 18 16 2.910 37-28085-01 6 6 3 7 3 1 11 6 43 37 37.400 50-29038-01 2 11 2 4 3 2 6 6 6 2.580	PSI ENERGY, INC.	13-15544-06	7	r m	i i	1	1	1	ď	Ω	က	0.120	0.040
37-28085-01 6 6 3 7 3 1 11 6 43 37 37.400 cto CORP. 35-26815-01 1 2 4 3 2 6 6 6 2.580	Q.C. LABS., INC.	09-11579-03	7		n m	1	1	1	1	18	16	2.910	0.182
; CORP.       35-26815-01       1       2       -       -       -       4       3       2       -       -       -       11       20.883       11       20.883       11       20.883       11       20.883       11       20.883       11       20.883       11       20.883       11       20.883       11       20.883       11       20.883       11       20.883       11       20.883       12       12       12       12       12       12       13       12       13       12       13       12       13       12       13       12       13       12       13       13       14       14       12       13       14	QSL INSPECTION, INC.	37-28085-01	9	e 9	7 3		, ,	1	1	43	37	37.400	1.011
50-29038-01 2 - 1 - 2 - 1 - 5 - 6 6 2.580	QUALITY ENERGY SERV. & TESTS CORP.	35-26815-01	-	2	1			ı	ı	12	1	20.883	1.898
WWW.WWW.WW.WWW.WWW.WW.WW.WW.WW.WW.WW.WW	QUALITY INSPECTION & TESTING	50-29038-01	•	2 1 -	2 -	1	1	1	-	9	9	2.580	0.430

				APPENDIX	4 >							
	ANNÜAL	ANNUAL WHOLE BODY	_	ES FOR NG CY 1996	DOSES FOR NON-REACTOR NRC LICENSEES CY 1996	TOR NRC	LICENS	EES				
PROGRAM CODE -	LICENSE#	No Meas. Exposure	Number of Individual Meas. 0.10- 0.	als with Whole Bo. 0.25- 0.50- 0.7 0.50 0.75 1	Individuals with Whole Body Doses in the Ranges (cSv or rems) 0.10- 0.25- 0.50- 0.75- 1.00- 2.00- 3.00- 4.00- 5.00 0.25 0.50 0.75 1.00 2.00 3.00 4.00 5.00 6.	Ranges (cSv or re 0- 3:00- 4:00- 00 4:00 5:00	rems) - 5.00- 6.00- 0 6.00 12.0	>12.0	TOTAL NUMBER MONI-	NUMBER (WITH MEAS.	TOTAL COLLECTIVE TEDE (person-cSv, rem)	AVERAGE MEAS. TEDE (cSv, rems)
INDUSTRIAL RADIOGRAPHY - MULTIPLE LOCATION - 03320	NULTIPLEL	OCATION		Continued								
RAYTHEON ENGINEERS & CONSTRUCTORS	29-07056-03		1	4	τ-		ı	•	9	9	5.830	0.972
RIDGEWATER COLLEGE	22-15554-01	53	01			1	ı	ı	63	10	0.150	0.015
RIVEST TESTING USA, INC.	35-27438-01	ı	1 2 -	· -	ı	l I	1	ı	4	4	0.815	0.204
RUST UTILITY SERVICES, INC.	06-20794-01	10	- - 2	1	1	1	1	ı	24	14	1.090	0.078
SGS INDUSTRIAL SERVICES	04-29067-02	15	31 20	23 10	5 3 -	ı i	1	1	107	92	27.680	0.301
S. K. MCBRYDE, INC.	32-25137-01	7	2 3 -	-1	i L	ı	i	ı	7	S)	0.680	0.136
SAM-SON INSPECTION & TECH.SERV.INC.	34-25898-01	4	4 3	٠ ٣	. 2 -	1	,	1	16	12	4.250	0.354
SENIOR ENGINEERING CO.	24-19500-01	-	ი	j	1	1	1	1	4	ო	060'0	0.030
SIERRA TESTING, INC.	35-26950-01	-	2 1	2 -	4	3 1 -	1	1	15	14	18.850	1.346
SOUTHWEST X-RAY CORPORATION	49-27434-01	11	-	T	2 8	1 1 -	1	ı	25	14	18.950	1.354
SPEC CONSULTANTS, INC.	37-27891-01	S	9 2	3 51	2 -	1	l I	ı	26	21	7.220	0.344
ST. LOUIS TESTING LABS., INC.	24-00188-02	-	3 2	5 2 -	- 2 -	1	•	1	15	14	6.190	0.442
TECHNICAL WELDING LABORATORY, INC.	42-25214-01	က	1 2	3 2	. 8 .	-	1	t :	23	20	20.760	1.038
TEI ANALYTICAL SERVICE	37-28004-01	13	7 8	7 3	യ ന	i -	1	1	20	37	22.180	0.599
TENNECO GAS PIPELINE	42-09073-02	9	8	1	1	,	1	1	15	თ	0.250	0.028
TENNESSEE VALLEY AUTHORITY	41-06832-06	10	o 4	ы Э	• Andrews	1	ı	ı	33	23	6.134	0.267
TESTING INST. OF AK, INC.	50-17446-01	9	- 9	3 1 -	~		1	1	18	12	5.926	0.494
TESTING TECHNOLOGIES, INC.	45-25007-01	ന	2 7	7 2	1 2		1	ı.	25	22	11.010	0.500
TESTMASTER INSPECTION CO., INC.	34-24872-01	1	2 1	7 1	2 2	2	1		17	17	12.490	0.735
TRI STATE ASSOCIATES, INC.	45-24967-01	8		←	1	1	1	ı	വ	ო	1.030	0.343
TRI STATE INSPECTION & CONSULTANTS	37-19640-01	-		-	1	1	1	ı	က	7	0.550	0.275
TULSA GAMMA RAY, INC.	35-17178-01	-	7 6	01 9	2 11 (	- 1 -	-	ı	51	20	52.220	1.044
TWIN PORTS TESTING, INC.	48-23476-01	•	1	· -	1	1	ı	ı	-	<del>-</del>	0.550	0.550
VALLEY INDUSTRIAL X-RAY	04-29076-01	တ	10 3	4 ∞	4	4 2 -	ı	ı	45	39	32.985	0.846
VALLEY INSPECTION SERVICE, INC.	37-28385-01	-	3 2	1	7	1 250 see		1	∞	7	2.900	0.414
VENEGAS INDUSTRIAL TESTING	28-14847-02	1	_		•	1	1	ı	7	2	0.270	0.135
VERMONT NONDESTRUCTIVE TESTING, INC	44-28509-01	<del></del>	2	1	1	1	1	-	ო	2	0.100	0.050
VOITH HYDRO, INC.	37-16280-03	7	2	1	1	•	,		6	2	0.040	0.020

	ANNUAL	APPENDIX A ANNUAL WHOLE BODY DOSES FOR NON-REACTOR NRC LICENSEES CY 1996	вору в	APP OSES I	APPENDIX SES FOR NC CY 1996	A ON-REA	CTOR NI	C LICE!	SEES	·			
PROGRAM CODE - LICENSEE NAME	LICENSE#	No Meas. Exposure	Number of Individuals with Whole Body Doses in the Ranges (cSv or rems)  Meas. 0.10- 0.25- 0.50- 0.75- 1.00- 2.00- 3.00- 4.00- 5.0  <0.10 0.25 0.50 0.75 1.00 2.00 3.00 4.00 5.00 6.	ividuals with 000 0.25- 125 0.50	Whole Body E 0.50- 0.75- 0.75 1.00	/ Doses in the 5- 1.00- 2.00 3	ne Ranges (cSv 2.00- 3.00- 4 3.00 4.00	-00	6.00- >12.0	TOTAL NUMBER MONI- TORED	NUMBER WITH MEAS. DOSE	TOTAL COLLECTIVE TEDE (person- cSv, rem)	AVERAGE MEAS. TEDE (cSv, rems)
INDUSTRIAL RADIOGRAPHY - MULTIPLE LOCATION - 033	MULTIPLE	LOCATION	1- 03320	20 Continued	peu								
WALASHEK ENTERPRISES, INC.	53-23225-01	က	. 2	, —	1	, ,	1			9	ო	0.260	0.087
WESTERN IND. X-RAY INSPECTION CO.	49-27356-01	2	2	2 1	-	1	2 -	1	1	10	, 00	5.915	0.739
WESTERN X-RAY COMPANY	35-19993-01	- T	1	2 2	- 4	7	ر د		1	4	18	20.060	1.114
WESTINGHOUSE ELECTRIC CORP.	37-05809-02	4	ı	1	ţ	1	ı			4	1	•	ı
X-R-I TESTING	21-05472-01	85	19		1		,			109	24	1.580	990.0
Total	117	863	694 462	435	254 159	9 353	86 29	- 4	- 1	3,340	2,477	1,374.864	0.555
FUEL FABRICATION FACILITIES - 21210	ES - 21210												
B&W FUEL CO.	SNM-1168	214	192 44	4 7	2	ا د	ı		t .	462	248	18.984	0.077
BABCOCK & WILCOX CO.	SNM-42	50	48 34	4 85	40 28	8 42			,	328	278	147.486	0.531
COMBUSTION ENGINEERING, INC.	SNM-33	266	- 06	1	1	ı	ı		ı	356	06	0.113	0.001
GENERAL ATOMICS	SNM-696	62	13	7 7	- ص	i	ı			95	30	5.738	0.191
GENERAL ELECTRIC CO.	SNM-1097	317	536 147	7 132	68 36	62 9	2			1,317	1,000	261.514	0.262
NUCLEAR FUEL SERVICES, INC.	SNM-124	178	195 26	6 26	7	E	1	1		435	257	24.937	0.097
SIEMENS POWER CORP.	SNM-1227	102	409 91	1 57	40 27	7 34	r -	,	1	761	629	142.483	0.216
WESTINGHOUSE ELECTRIC CORP.	SNM-1107	119	169 73	3 80	45 29	77	22 4	•		618	499	276.355	0.554
Total	80	1,308	1,652 422	394	205 126	6 232	26 4 .	•		4,369	3,061	877.610	0.287
INDEPENDENT SPENT FUEL STORAGE INSTALLATION - 23200	TORAGE IN	STALLATI	ON - 2320	00									
GENERAL ELECTRIC CO.	SNM-2500	44	14	4 6	8	3 7	6 2	3	1	97	53	54.301	1.025
Total	1	44	14 4	4 6	8	3 7	6 2	3 -	,	97	53	54.301	1.025

### **APPENDIX B**

**Annual Whole Body Doses at Licensed Nuclear Power Plants** 

1996

APPENDIX B
ANNUAL WHOLE BODY DOSES AT LICENSED NUCLEAR POWER FACILITIES
CY 1996

	-		Z	Number of Individuals with Whole Body Doses in the Ranges (cSv or rems)	ndividuals	with Whol	e Body [	oses in	the Ran	ges (cS)	or rems					TOTAL	NUMBER	TOTAL
PLANT NAME	TYPE	No Meas. Exposure	Meas. <0.10	0.10-	0.25-	0.50-	0.75-	1.00- 3	2.00- 3.00	3.00-	5.00	5.00- 6	6.00- 7	7.00- >	NI NI	NUMBER MONI- TORED	WITH MEAS. DOSE	TEDE (person- cSv, rem)
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Q.	7	100	2	167	1	ç									000	777	
ARKANSAS 1,2 BEAVER VALLEY 1.2	T W	1,382	657	413	315	147	2 8	53.0	, 4		) (					2,003	1,44	203
BIG BOCK POINT	RWR	181	85	202	52	38	29	92	. ,	,	,	,	,	,		528	347	208
BRAIDWOOD 1.2	PWR	1.229	468	380	310	122	55	21	,				,			2.585	1.356	334
BROWNS FERRY 1,2,3	BWR	1,649	794	402	328	144	59	22		ı		ı		,	,	3,398	1,749	384
BRUNSWICK 1,2	BWR	1,437	1,310	574	448	219	06	141	7	,	,	1	,	,		4,221	2,784	716
BYRON 1,2	PWR	1,415	211	388	356	154	65	20						ı		3,025	1,610	455
CALLAWAY 1	PWR	707	382	279	187	69	25	32	9	,				,		1,687	980	248
CALVERT CLIFFS 1,2	PWR	1,530	228	319	188	84	32	16	ı	,				,		2,697	1,167	239
CATAWBA 1,2	PWR	1,887	869	504	261	89	29	28		1					ı	3,475	1,588	302
CLINTON	BWR	882	408	267	242	126	53	22	<del></del>					ι		2,036	1,154	350
COMANCHE PEAK 1,2	PWR	1,065	710	364	236	92	34	56					,		1	2,527	1,462	288
COOK 1,2	PWR	1,082	527	260	212	91	2,	က						,		2,196	1,114	214
COOPER STATION	BWR	787	314	104	32	14	- 8	, ;	,	1		,				1,255	468	48
CRYSTAL RIVER 3	T W	8/3	424	500	526	135	ب و	42	n							2,065	1,192	353
DAVIS-BESSE	PWR	723	462	263	143	64	17	. '	,							1,672	949	167
DIABLO CANYON 1,2 DRESDEN 2,3	BWR BWR	1,825	938 788	342 351	117 329	43 183	17	s 4 8								3,287 3,675	1,462	176 456
DUANE ARNOLD	BWR	909	446	269	224	82	40	31	-		,	,				1,699	1,093	270
FARLEY 1,2	PWR	808	565	326	160	43	19	37			,	,				1,958	1,150	232
FERMI 2	BWR	1,794	870	353	158	21				,	,	ı				3,196	1,402	157
FITZPATRICK	BWR	850	587	304	257	129	26	51		,	1					2,234	1,384	357
FORT CALHOUN	PWR	504	281	140	147	82	22	33	,							1,244	740	226
GINNA	PWR	932	440	289	205	34	4	4		,			,			1,908	926	168
GRAND GULF	BWR	1,092	744	343	250	126	61	39	-	,	,					2,656	1,564	357
HADDAM NECK	PWR	953	342	106	66	22	35	36								1,626	673	175
HARRIS	PWR	550	394	36	4				•						1	994	444	17
HATCH 1,2	BWR	765	571	319	304	136	633	0/	7		,					2,260	1,495	441
HOPE CREEK 1	BWR	895	591	220	173	22	71	တ								1,964	1,069	158
INDIAN POINT 2	PWR	725	229	26	44	<del>-</del>	4	က	ı				,	,		1,113	388	54
INDIAN POINT 3	PWR	1,099	231	36	17	4		~			,	,				1,388	289	22
KEWAUNEE	PWR	238	213	78	95	47	22	55	,		,					712	474	126
LASALLE 1,2	BWR	1,218	1,175	200	515	293	146	149	4		ı					4,000	2,782	819
LIMERICK 1,2	BWR	2,148	266	374	184	29	52	7	,	,	,					3,802	1,654	234
MAINE YANKEE	PWR	805	229	103	49	თ	က	,	1	,				,	,	1,213	408	26
MCGUIRE 1,2	PWR	1,800	891	447	206	20	18	9	,		,			,		3,422	1,622	238
MILLSTONE POINT 1	BWR	1,127	325	152	108	22	40	28	7							1,874	747	431
MILLSTONE POINT 2,3	PWR	1,481	428	201	142	74	53	22	တ					,		2,465	984	126
MONTICELLO	BWR	625	266	180	141	80	45	45		,	,			,	1	1,382	757	240
																		. 1

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ANNUAL WHOLE BODY DOSES AT LICENSED NUCLEAR POWER FACILITIES

CY 1996

			_	Number of Individuals with Whole Body Doses in the Ranges (cSv or rems)	Individuals	with Who	le Body	Doses in	the Rang	tes (cSv	or rems)				TOTAL	NUMBER	TOTAL
PLANT NAME	TY PE	No Mean	Mean	0 10	0.25-	0.50	0.75-	9	2 00 -	3 00- 4	4 00- 5	5,00- 8,0	7 00-	7.	Ž		
	] - -	Exposure	<0.10	0.25	0.5	0.75	1.00	2.00		'		6.00 7.00	-		-		o
NINE MILE POINT 1,2	BWR	1,293	764	420	291	88	20	13	•		,	,	'	,	2,889	1,596	290
NORTH ANNA 1,2	PWR	1,236	455	359	240	78	37	32	2	,			•	•	2,439	1,203	291
OCONEE 1,2,3	PWR	1,831	710	447	207	79	21	15				,	'	,	3,310	1,479	257
OYSTER CREEK	BWR	642	859	418	272	135	29	79	ო	,			,	•	2,475	1,833	449
PALISADES	PWR	628	490	244	181	71	48	29	∞			,	•	•	1,737	1,109	318
PALO VERDE 1,2,3	PWR	1,342	929	356	281	82	45	21	,			,	'	•	3,059	1,717	302
PEACH BOTTOM 2,3	BWR	1,712	924	377	211	93	31	21	4	1	1	,	•	,	3,369	1,657	282
PERRY	BWR	1,279	029	516	318	89	22	7		,	,		,	,	2,901	1,622	307
PILGRIM	BWR	822	209	116	132	20	10	,		,		•	'	'	1,339	517	116
POINT BEACH 1,2	PWR	517	373	241	242	103	40	30		,	t		•	'	1,546	1,029	276
PRAIRIE ISLAND 1,2	PWR	483	251	141	113	38	12	က		,	,	,	'	•	1,041		112
QUAD CITIES 1,2	BWR	1,167	614	375	443	278	224	314	,	•	,	,	•	,	3,415	2,248	1,025
RIVER BEND 1	BWR	701	1,030	433	331	161	9/	22	2	,	,	,	,	'	2,794	2,093	473
ROBINSON 2	PWR	009	546	239	175	24	4	ဗ					'	'	1,631	1,031	167
SALEM 1,2	PWR	1,401	925	343	270	87	32	14				1	'	'	3,072	1,671	300
SAN ONOFRE 2,3	PWR	3,440	821	318	116	14	ო			,	,		•	•	4,712	1,272	129
SEABROOK	PWR	934	183	16	7	,					,		'	1	1,140	206	10
SEQUOYAH 1,2	PWR	1,533	657	361	274	79	56	7			1		'	'	2,937	1,404	
SOUTH TEXAS 1,2	PWR	1,516	713	247	150	30	4	_				1		•	2,661	1,145	
ST. LUCIE 1,2	PWR	1,203	563	360	282	100	28	69	-		1	1	•	•	2,636	1,433	
SUMMER 1	PWR	928	376	205	66	19	7	,					•	'	1,629	701	26
SURRY 1,2	PWR	1,225	408	306	174	20	27	15	ო				•	'	2,208	983	209
SUSQUEHANNA 1,2	BWR	1,600	698	333	245	91	46	17	,	,			•	•	3,030	1,430	289
THREE MILE ISLAND 1	PWR	457	232	34	-				,	ι	ı	,	•	•	724	267	16
TURKEY POINT 3,4	PWR	1,155	220	326	199	45	4	ო	,	,			•	•	2,312	1,157	187
VERMONT YANKEE	BWR	1,163	311	299	207	107	19	ω		,			•	•	2,114	951	231
VOGTLE 1,2	PWR	860	202	308	275	126	22	102	7				'	'	2,255	1,395	452
WASHINGTON NUCLEAR 2	BWR	1,011	635	286	258	146	83	39			,	,	•	'	2,464	1,453	373
WATERFORD 3	PWR	863	246	75	20	-	1	,		1	1		1	•	1,335	342	27
WOLF CREEK 1	PWR	820	474	289	153	25	17	_					1	1	1,806	986	171
ZION 1,2	PWR	1,069	909	331	348	167	22	22	4				•	•	2,636	1,567	437
TOTALS: 37 BWRs		29,333	16,985	8,335	6,456	3,009	l .	1,374	26				,		026,99	37,637	9,461
		48,864	22,441	11,620	7,745		1,196	896	42	ı		1	1	'	92,676	46,812	9,413
TOTALS: 109 LWRs		78,197	39,426	19,955	14,201			2,342	89	1			•	'	162,646	84,449	18,874

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APPENDIX B (Continued)
ANNUAL WHOLE BODY DOSES AT LICENSED NUCLEAR POWER FACILITIES
FACILITIES NOT IN OPERATION OR IN OPERATION LESS THAN ONE YEAR
CY 1996

			Ź	Number of Individuals with Whole Body Doses in the Ranges (cSv or rems)	ndividuals	with Wh	ole Body	Doses ir	the Raו ר	So) saɓı	v or rem	(\$				TOTAL	NUMBER	TOTAL
PLANT NAME	ТҮРЕ	No Meas. Exposure	Meas. <0.10	0.10-	0.25-	0.50-	0.75-	1.00-	2.00- 3.00	3.00-	4.00- 4 5.00	5.00-	6.00-	7.00- :	>12.0	NUMBER MONI- TORED	WITH MEAS. DOSE	TEDE (person- cSv, rem)
DRESDEN 1 *	BWR	Reported with Dresden 2,3	Dresden 2,3															į
FORT ST. VRAIN *	HTGR	229	56	_			,	₩.	,	,	,		,	,	,	257	28	2
HUMBOLDT BAY *	BWR	185	48	13	4	-			,	1			ı			251	99	co.
INDIAN POINT 1 *	PWR	Reported with Indian Point 2	Indian Point	2												1		
LACROSSE *	BWR	49	7	15	က		,	,				,		,		74	25	4
RANCHO SECO *	PWR	176	16	,	,	,	,	,	,	,	1	,	1	,	,	192	16	-
SAN ONOFRE 1*	PWR	Reported with San Onofre 2,3	San Onofre 2	5,3												,		
THREE MILE ISLAND 2*	PWR	209	106	15	~		1			1		ı		,	r	331	122	2
TROJAN *	PWR	255	55	21	თ	œ	4	15			1					367	112	41
WATTS BAR 1,2	PWR	1,563	335	31			,	,	,			1		,	,	1,929	366	15
YANKEE-ROWE *	PWR	674	69	62	37	27	15	29		,	1					913	239	92
TOTAL REPORTING: 8		3,340	662	158	54	36	19	45				,		,		4,314	974	165

\* Indicates plants that are no longer in commercial operation.

### **APPENDIX C\***

Personnel, Dose, and Power Generation Summary

1969-1996

<sup>\*</sup> A discussion of the methods used to collect and calculate the information contained in this Appendix is given in Section 2.1

APPENDIX C PERSONNEL, DOSE AND POWER GENERATION SUMMARY

						Pen	Person-cSv (-rems)	ms)			
						Per Work Function	unction	Per Personnel Type	el Type	Average	ć
Reporting Organization	Year	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective	Opera- tions	Maint & Others	Con- tractor	Station & Utility	ivieasurable Dose (cSv or rems)	cSv (-rems) MW-yr
ARKANSAS 1,2 Docket 50-313, 50-368; DPR-51; NPF-6 1st commercial operation 12/74, 3/80 Type - PWRs Capacity - 836, 858 MWe	1975 1975 1977 1980 1980 1988 1988 1988 1989 1990 1995 1995	588.0 464.6 610.3 627.2 397.0 397.0 1,104.7 905.4 905.4 905.4 1,289.1 1,070.3 1,366.1 1,351.9 1,596.0 1,596.0	76.5 56.6 77.7 77.8 63.7 63.7 77.4 77.4 66.9 66.9 66.9 77.4 88.9 93.6 93.6 93.5 93.5	747 476 476 601 7225 7,1208 7,100 2,135 2,135 2,135 1,361 1,361 1,441	22 289 289 256 1189 369 1,397 1,397 1,387 1,387 1,387 1,387 1,287 1,288 268 268 203	782838888888888888888888888888888888888	262 228 157 315 315 315 261 7,30 1,249 1,249 1,249 275 730 316 855 259 316 352 152	100 111 100 252 213 843 1,45 533 1,094 1,094 1,094 1,094 1,094 1,094 1,094 1,094 1,094 1,094 1,094 1,094 1,094	189 145 171 129 259 259 275 277 177 109 137 149 149 149 173	0.14 0.61 0.43 0.28 0.28 0.50 0.50 0.53 0.34 0.17 0.13 0.17	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
BEAVER VALLEY 1,2 Docket 50-334, 50-412; DPR-66, NPF-73 1st commercial operation 10/76, 11/87 Type - PWRs Capacity - 810, 820	761 761 761 762 763 763 763 763 763 763 763 763 763 763	355.6 304.2 221.0 39.8 326.7 573.4 571.2 571.2 684.1 1,017.4 1,271.0 1,271.0	57.0 40.8 40.0 6.8 6.8 7.1.8 83.2 70.7 83.3 85.3 85.3 89.1	331 646 704 704 71,237 7285 7285 7675 7689 7689 7689	878 132 132 553 553 504 60 60 627 7378 1378 289 895	67 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	258 179 179 177 191 191 191 191 191 191 191	29 151 67 477 142 302 12 137 1,151 268 325 325	39 65 76 76 1118 171 171 170 86	0.26 0.29 0.19 0.30 0.36 0.36 0.30 0.20 0.20	0000 <u>6</u> 0000 <u>6</u> 00004840000000000000000000000000000000

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APPENDIX C (continued)
PERSONNEL, DOSE AND POWER GENERATION SUMMARY

		NOCY L	ERSOINEL, DOSE	LAND LOWER	CHINERA		1 LYNIMIDO				
				·		Per	Person-cSv (-rems)	(sua			
						Per Work Function	unction	Per Personnel Type	lel Type	Average	
Reporting Organization	Year	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective Dose	Opera- tions	Maint & Others	Con- tractor	Station & Utility	Dose (cSv or rems)	cSv (-rems) MW-yr
BEAVER VALLEY 1,2 (continued)	1993 1994 1995 1996	1,157.9 1,514.6 1,389.2 1,269.0	73.1 88.6 83.1 76.5	2,087 487 1,536 1,688	621 44 453 449	59 9 46 48	562 34 407 401	490 5 336 368	131 38 117 81	0.30 0.09 0.29 0.27	0.5 0.3 0.4
BIG ROCK POINT  Docket 50-155; DPR-6  1st commercial operation 3/63  Type - BWR  Capacity - 67 MWe	960 1970 1970 1972 1973 1975 1980 1980 1980 1980 1980 1980 1980 1980	$\begin{array}{c} 444466488444644644664866444666666644666666$	70.3 59.8 73.4 73.4 73.5 73.5 73.5 73.5 73.5 73.5 73.5 73.5	265 280 280 281 285 300 479 479 303 303 303 304 305 305 305 305 305 305 305 305 305 305	222 275 275 275 277 277 277 277 277 277	48884888888888888888888888888888888888	222 240 240 251 252 253 253 253 253 253 253 253 253 253	54958° 52888828784424455	234 60 160 160 160 160 160 160 160 160 160	0.62 0.03 0.03 0.05 0.05 0.05 0.05 0.05 0.05	24444000000000000000000000000000000000
BRAIDWOOD 1,2 Docket 50-456, 50-457; NPF-72, NPF-77 1st commercial operation 7/88, 10/88 Type - PWRs Capacity - 1120, 1120 MWe	1989 1990 1991 1992 1993	1,381.8 1,740.2 1,377.2 1,885.9 1,899.3	75.4 84.1 68.9 89.0 86.9	1,460 1,081 1,641 1,059 1,043	296 186 550 228 273	7 101 29 23	289 177 449 199 250	198 107 387 140 170	98 70 79 88 103	0.20 0.34 0.22 0.26	0.000 2.1.411

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# APPENDIX C (continued) PERSONNEL, DOSE AND POWER GENERATION SUMMARY

	IDE		Reporting Organization	BRAIDWOOD 1,2 (continued)	BROWNS FERRY 1,2,3 Docket 50-259, 50-260, 50-296 DPR - 33, -52, -68 1st commercial operation 8/74, 3/75, 3/77 Type - BWRs Capacity - 0, 1065, 1065 MWe	BRUNSWICK 1,2 Docket 50-324, 50-325; DPR-62, -71 1st commercial operation 3/77, 11/75 Type - BWRs Capacity - 767, 754 MWe
			Year	1994 1995 1996	1935 1935 1937 1938 1938 1938 1938 1938 1938 1938 1938	1976 1977 1977 1979 1980 1983 1984 1985
PERSONNEL,			Megawatt Years MW-YR	1,666.1 1,914.7 1,854.9	1,327.6 1,327.6 1,992.1 2,393.0 2,132.9 1,641.0 1,441.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	297.2 291.1 1,173.1 87.2 925.2 540.3 636.7 761.3 822.2
NEL, DOSE			Unit Availability Factor	77.2 85.4 82.1	77.8 26.9 27.7 27.7 27.6 27.7 27.7 27.7 27.7 27.7	56.0 83.7 83.7 80.0 50.0 50.3 69.4 69.1 69.1
<b>AND POWER</b>			Total Personnel With Measurable Doses	1,237 1,134 1,356	2,380 2,380 2,207 2,207 3,376 3,377 3,324 1,153 3,594 1,749	1,265 1,512 1,512 2,891 3,788 3,854 4,957 4,057 3,370
GENERATION SUMMARY			Collective Dose	298 236 334	325 234 234 234 234 1,792 1,792 1,182 1,193 1,193 1,155 1,155 1,155 1,155 1,155 1,105 1,310 354 364 370 384 384 384 384 384 384 384 387	326 1,120 1,004 2,602 3,870 2,638 3,792 3,475 3,260 2,804 1,909
LION SUI	Per	Per Work Function	Opera- tions	13 13 18	00 4 0 4 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	25 26 26 27 27 27 27 27 27 27 27 27 27 27 27 27
MMARY	Person-cSv (-rems)	-unction	Maint & Others	2800 223 316	2,788 1,788 2,667 2,039 3,087 1,711 1,246 994 4,31 4,31 3,35 3,35	, 1 3 1, 071 2, 905 2, 479 3, 3, 23 3, 3, 23 1, 684 1, 812
	ns)	Per Personnel Type	Con- tractor	179 2 241	249 289 289 289 3404 3404 340 340 340 340 340 340 340 3	222 782 2,074 3,098 1,890 2,428 2,363 1,277
		nel Type	Station & Utility	118 234 93	614 1,534 1,378 1,903 1,903 1,046 1,046 1,046 2,33 2,17 2,17 2,10 2,10 2,10 2,10 2,10 2,10 2,10 2,10	104 337 309 528 772 748 951 1,047 727
		Average	Measurable Dose (cSv or rems)	0.24 0.21 0.25	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.26 0.26 0.09 0.09 0.08 0.06 0.06 0.06
			cSv (-rems) MW-yr	0.1 0.1 0.2	2.000.000 2.000.000 2.000.000 2.000.000 2.000.000	- 60 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

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APPENDIX C (continued)
PERSONNEL, DOSE AND POWER GENERATION SUMMARY

		PERSONNEL,	NEL, DOSE	AND POWER	GENERALION	- 1	SOIMINARY				
						Per	Person-cSv (-rems)	ims)			
						Per Work Function	-unction	Per Personnel Type	el Type	Average	0000
Reporting Organization	Year	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective Dose	Opera- tions	Maint & Others	Con- tractor	Station & Utility	Dose (cSv or rems)	cSv (-rems) MW-yr
BRUNSWICK 1,2 (continued)	1987 1988 1989 1990 1991 1992 1995 1995	1,152.4 990.8 990.9 991.6 952.8 375.9 470.0 1,268.4 1,411.7	80.6 70.1 65.8 67.8 64.5 64.5 83.8 83.0 85.9	2, 2, 3, 3, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5,	1,419 1,747 1,786 1,548 7,78 623 872 999 683	452 252 85 252 252 250 250 250 250 250 250 250 25	1,275 1,528 1,396 658 528 754 876 614	861 1,051 1,1295 1,156 4,51 1,20 1,20 1,485 1,48	558 696 491 392 327 159 227 201 251	0.00 0.46 0.23 0.23 0.23 0.23 0.26	1.2 1.8 1.9 1.9 0.5 0.5 0.5
BYRON 1,2 Docket 50-454, 50-455; NPF-37, NPF-66 1st commercial operation 9/85,8/87 Type - PWRS Capacity - 1105, 1105 MWe	1986 1987 1988 1989 1990 1992 1994 1996	894.5 650.9 1,534.7 1,812.6 1,816.3 1,888.4 1,785.6 1,953.3 1,900.6	88.6 70.9 86.3 90.2 78.8 89.9 90.1 79.3	1,081 1,826 1,222 1,109 1,077 1,077 1,370 962 1,107	76 76 459 434 434 199 432 280 306 455	21 0 1 2 3 3 8 8 4 4 5 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	64 758 459 459 151 396 226 375 305 305	47 667 333 105 105 118 118 118 118 176	29 102 102 108 110 110 115 123 279	0.07 0.38 0.31 0.25 0.28 0.28	0.000000000000000000000000000000000000
CALLAWAY 1 Docket 50-483; NPF-30 1st commercial operation 12/84 Type - PWR Capacity - 1125 MWe	1985 1986 1987 1987 1990 1991 1992 1994 1995 1995	967.4 865.2 759.0 1,000.3 960.7 1,193.1 1,002.9 1,196.4 989.6 1,066.0	90.0 87.1.1 7.1.1 85.4 85.4 86.4 100.0 100.0 90.7 90.5 90.7	964 1,055 1,055 353 280 1,133 1,133 1,062 1,062	36 225 393 27 283 21 21 225 14 187 288	925 95 95 95 95 95 95 95 95 95 95 95 95 95	20 172 304 15 12 392 392 152 152 157 157	249 249 249 191 332 22 244 157 118	884 885 885 885 885 885 885 885 885 885	0.20 0.38 0.39 0.39 0.30 0.30 0.48 0.48	220230530 220230530 220230530

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# APPENDIX C (continued) PERSONNEL, DOSE AND POWER GENERATION SUMMARY

		PEKSONNEL,	NEL, DOSE	AND POWER	GENERALION	ן מ	SUMMAKY  Person-cSv (-rems)	me)			
				1		Ď	al-) ACO-1106	(SIII)			
						Per Work Function	unction	Per Personnel Type	el Type	Average Measurable	<u>a</u>
Reporting Organization	Year	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective Dose	Opera- tions	Maint & Others	Con- tractor	Station & Utility	Dose (cSv or rems)	2
CALVERT CLIFFS 1,2 Docket 50-317, 50-318; DPR-53, -69 1st commercial operation 5/75, 4/77 Type - PWRs Capacity - 835, 840 MWe	1976 1977 1978 1980 1981 1982 1983 1986 1986 1989 1990 1991 1991 1995 1995	753.4 583.0 1,188.5 1,161.0 1,309.9 1,339.2 1,339.4 1,530.0 1,207.3 1,397.7 1,342.1 1,342.1 1,542.1 1,542.1 1,542.1	95.2 75.1 75.1 74.0 84.1 83.1 73.7 73.9 83.9 83.9 83.9 83.9 82.9	2,265 2,265 1,391 1,496 1,915 1,369 1,296 1,296 1,462 1,462 1,403	74 504 506 805 677 668 677 412 412 330 330 405 405 239 239	8855558426928555855855855855855855	46 773 773 662 662 663 345 863 345 345 345 335 107 107 295 206 223	224 426 426 426 402 402 403 403 503 503 503 503 603 603 603 603 603 603 603 603 603 6	66 323 353 374 275 229 529 520 101 101 102 102 102 103 104 105 107	0.15 0.24 0.36 0.35 0.35 0.35 0.35 0.27 0.19 0.10 0.20 0.20 0.20	•
CATAWBA 1,2 Docket 50-413, 50-414; NPF-35, NPF-52 1st commercial operation 6/85, 8/86 Type - PWR Capacity - 1129, 1129 MWe	1986 1987 1988 1990 1990 1992 1994 1996 1996	638.9 1,651.2 1,733.6 1,616.3 1,691.5 1,896.1 2,105.2 2,011.9 1,879.1	49.9 77.2 77.2 70.8 74.6 83.9 81.5 80.2 86.3	1,724 1,865 2,009 1,660 1,514 1,564 1,892 1,892 1,588	286 449 334 809 809 462 207 302 302	27 732 74 74 75 75 76 76 76 76 76 76 76 76 76 76 76 76 76	259 417 485 286 751 412 367 400 266	68 100 110 292 141 141 92 135 135	218 228 356 224 517 321 337 160 379	0.17 0.28 0.20 0.37 0.25 0.25 0.16 0.19	
CLINTON Docket 50-461; NPF-62 1st commercial operation 11/87 Type - BWR Capacity - 930 MWe	1988 1989 1990 1991	701.3 348.3 435.8 722.7 589.7	84.2 48.5 55.1 80.8 68.6	769 1,196 1,010 1,195	130 372 553 233 431	48 91 222 63	82 281 146 11	64 261 438 143 287	90 111 90 44	0.17 0.31 0.40 0.23 0.36	

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APPENDIX C (continued)
PERSONNEL, DOSE AND POWER GENERATION SUMMARY

		PERSONNE	., DO	SE AND POWER	GENERATION		SUMMARY				
						Per	Person-cSv (-rems)	(sur			
						Per Work Function	unction	Per Personnel Type	el Type	Average	
Reporting Organization	Year	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective Dose	Opera- tions	Maint & Others	Con- tractor	Station & Utility	Dose (cSv or rems)	cSv (-rems) MW-yr
CLINTON (continued)	1993 1994 1995 1996	701.5 883.3 731.1 634.7	79.6 94.8 83.0 66.7	1,253 409 1,182 1,154	498 63 316 350	48 1 25 45	450 62 291 305	367 7 202 243	131 56 114 107	0.40 0.15 0.27 0.30	0.7 0.0 0.4 0.6
COMANCHE PEAK 1,2 Docket 50-445; NPF-87 1st commercial operation 8/90, 8/93 Type - PWR Capacity - 1150 1150 MWe	1991 1992 1993 1995 1996	644.4 830.8 853.8 1,750.0 2,022.6 1,804.8	82.2 84.0 81.2 93.7 92.5 81.4	985 1,128 945 970 951 1,462	148 188 109 90 179 288	13 28 22 21 35	135 160 84 68 158 253	111 158 92 75 154 229	37 30 17 15 25 59	0.15 0.12 0.09 0.19 0.20	0.2 0.1 0.1 0.2
COOK 1,2 Docket 5-315; DPR-58, -74 1st commercial operation 8/75, 7/78 Type - PWRs Capacity - 1000, 1060 MWe	1976 1977 1977 1980 1982 1983 1986 1986 1986 1986 1986 1986 1990 1990 1990 1990 1990 1990 1990 199	807.4 573.0 744.8 1,373.0 1,552.4 1,557.3 1,566.5 1,160.4 1,160.4 1,160.4 1,160.4 1,160.4 1,160.4 1,160.6 1,16	83.1 76.1 73.1 73.1 73.4 73.4 73.4 73.5 70.2 86.2 86.2 86.2 98.5 98.5 98.5 98.5	395 802 802 802 802 774 778 755 755 755 755 755 755 755 755 755	116 330 336 718 718 699 656 658 666 666 745 745 745 745 745 79 745 745 745 745 745 745 745 745 745 745	£124444870888860000000000000000000000000000	103 278 287 287 673 608 632 608 719 853 853 863 843 443 443 443 443 443 443 453 174	7 1 1 3 8 1 1 3 8 1 1 3 8 1 1 3 8 1 1 3 8 1 1 3 8 1 1 1 1	45 161 197 264 227 227 227 160 165 167 72 72 76 76 76 76	0.29 0.37 0.37 0.37 0.38 0.38 0.33 0.31 0.07 0.07 0.05	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0

## APPENDIX C (continued) PERSONNEL. DOSE AND POWER GENERATION SUMMARY

			Reporting Organization	COOPER STATION Docket 50-298; DPR-46 1st commercial operation 7/74 Type - BWR Capacity - 764 MWe	CRYSTAL RIVER 3 Docket 50-302; DPR-72 1st commercial operation 3/77 Type - PWR Capacity - 818 MWe
	,		Year	1976 1976 1977 1978 1988 1988 1988 1988 1988 1988	1978 1980 1981 1983 1988 1988 1988 1988 1988 1988
PERSONNEL,			Megawatt Years MW-YR	456.4 433.3 538.2 538.2 576.0 576.0 602.3 396.6 441.9 483.3 480.0 602.3 566.3 731.0 731.0 742.1	31.5 453.0 453.0 490.4 452.1 474.2 344.2 344.2 344.2 346.0 690.2 654.6 654.6 632.1
INEL, DOSE			Unit Availability Factor	83.6 86.2 86.2 86.2 86.2 84.6 63.3 63.3 64.7 76.2 96.2 96.8 97.3 97.9 97.9	4.14 5.38.9 5.32.2 5.32.2 5.3.9 6.0.9 6.0.9 6.3.8 6.3.8 6.3.8 6.3.8 6.3.8 6.3.8 6.3.8 6.3.8 6.3.8 6.3.8
E AND POWER			Total Personnel With Measurable Doses	579 763 763 785 785 785 745 745 7099 71,130 7099 7099 7099 7099 7099 7099 7099 70	643 1,150 1,120 1,120 1,20 1,20 1,44 1,44 1,057 1,057 1,057 1,057 1,057 1,053 1,057 1,053 1,057 1,053 1,057 1,053
GENERATION			Collective Dose	117 178 178 178 178 178 178 178 178 178	221 625 625 625 777 777 888 888 476 64 76 76 76 76 76 76 76 76 76 76 76 76 76
	Pers	Per Work Function	Opera- tions	8864678867444848688488	80480704897688747
SUMMARY	Person-cSv (-rems)	unction	Maint & Others	87 111 147 147 171 788 516 516 777 77 277 271 271 303 345 368 368 368 368 368 368 368 368 368 368	313 466 601 390 168 481 447 447 439 622 229 468 417 56
	ıs)	Per Personnel Type	Con- tractor	210 210 210 200 382 382 382 382 3635 11 115 115 115 115 115 115 115 115 11	244 332 333 333 333 333 333 333 333 333
		el Type	Station & Utility	84 151 151 151 151 151 151 151 151 151 15	7448 7448 7448 7448 758 758 758 758 758 758 758 758 758 75
		Average	Neasulable Dose (cSv or rems)	0.20 0.63 0.63 0.63 0.72 0.03 0.24 0.24 0.25 0.27 0.27 0.27	0.50 0.50 0.33 0.33 0.35 0.35 0.33 0.33
	-	Ċ	cSv (-rems) MW-yr	00000-1-0%1-0 848468080807-0000000000000000000000000000000	0.1.1.0 0.00.0.0.1.1.0 0.00.0.0.0.0.0.0.

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APPENDIX C (continued)
PERSONNEL, DOSE AND POWER GENERATION SUMMARY

					C-9	NUREG-0713
WATER OF THE PARTY			Reporting Organization	CRYSTAL RIVER 3 (continued)	DAVIS-BESSE 1 Docket 50-346; NPF-3 1st commercial operation 7/78 Type - PWR Capacity - 873 MWe	DIABLO CANYON 1,2 Docket 50-275, 50-323; DPR-80, DPR-82 Tst commercial operation 5/85, 3/86 Type - PWRs Capacity - 1073, 1087 MWe
			Year	1995 1996	1978 1980 1980 1982 1983 1988 1988 1989 1990 1991 1994 1995 1996	1986 1987 1987 1990 1992 1993 1994 1996 1996
PERSONNEL,			Megawatt Years MW-YR	866.3 290.8	326.4 381.0 256.4 531.4 390.8 592.1 592.1 144.1 880.0 703.6 915.2 729.5 768.4 920.4	641.5 1,688.6 1,386.1 1,899.0 1,952.6 1,995.7 1,995.7 1,950.3 2,003.6
INEL, DOSE			Unit Availability Factor	100.0 37.7	48.7 96.2 96.2 67.4 67.4 62.5 7.3 98.6 100.0 100.0 88.0 100.0 85.3	80.6 83.0 87.5 97.5 90.9 90.9 83.3 90.0
E AND POWER			Total Personnel With Measurable Doses	209 1,192	421 304 1,283 1,350 1,088 1,183 1,000 1,377 1,377 1,244 1,244 1,377	1,260 1,170 1,826 1,441 2,040 1,508 2,317 1,615
CENERALION			Collective Dose	8 353	48 154 164 164 177 177 177 177 188 188 188 144 177 177 179 179 179 179 179 179 179 179	304 336 877 465 323 323 246 459 281 286 176
	Per	Per Work Function	Opera- tions	1 7	£ 8 4 - 5 0 5 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	45467-00-00
SUMIMART	Person-cSv (-rems)	unction	Maint & Others	7 346	35 150 150 152 167 167 168 168 178 178 178 178 178 178 178 178 178 17	300 331 873 873 873 873 874 589 174
	ms)	Per Personnel Type	Con- tractor	244	4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	206 226 593 329 377 393 399 189
		el Type	Station & Utility	7 109	25 25 25 25 25 25 25 25 25 25 25 25 25 2	98 138 138 169 169 199 199 199
		Average	ivieasurable Dose (cSv or rems)	0.04 0.30	0.12 0.12 0.13 0.03 0.03 0.03 0.03 0.03 0.03 0.03	0.24 0.29 0.28 0.28 0.27 0.19 0.19 0.18
		9	cSv (-rems) MW-yr	0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	000000000000000000000000000000000000000

APPENDIX C (continued)
RSONNEL. DOSE AND POWER GENERATION SUMMAF

	_	PERSONNEL,	NEL, DOSE	E AND POWER GENERATION SUMMARY	GENERAL	<b>LION SUI</b>	MMARY				
DEC.						Per	Person-cSv (-rems)	ms)			
3-07						Per Work Function	Function	Per Personnel Type	nel Type	Average Measurable	Derson
Reporting Organization	Year	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective Dose	Opera- tions	Maint & Others	Con- tractor	Station & Utility	Dose (cSv or rems)	cSv (-rems) MW-yr
DRESDEN 1 <sup>1</sup> ,2,3 Docket 50-010, 50-237, 50-249; DPR-2, -19, -25 1st commercial operation 7/60, 6/70, 11/71 Type - BWRs Capacity - 197, 772, 773 MWe	00000000000000000000000000000000000000	99.7 1,243.7 1,142.2 1,142.2 1,127.2 1,013.0 1,014.4 1,035.7 1,035.7 1,035.7 1,044.2 1	44.8 64.6 64.6 66.6 66.6 66.6 66.6 66.6	1,394 1,394 1,394 1,746 1,946 2,572 2,572 2,052 1,812 2,044 1,788 1,788	4, 6, 7, 1, 1, 2, 2, 2, 2, 1, 1, 1, 1, 1, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2,	4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	796 796 796 796 796 797 797 797 797 797	2,252 2,252 7,252 7,252 7,49 6,41 6,41 8,08 8,08 8,15 1,11 8,14 1,11 1,11 1,11 1,11 1,11 1,11	595 1,100 1,100 1,100 1,150 1,	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00000441111022222200000000000000000000
DUANE ARNOLD Docket 50-331; DPR-49 1st commercial operation 2/75 Type - BWR Capacity - 520 MWe	1976 1977 1978 1979 1980	305.2 353.6 149.2 352.0 339.1 277.7	78.7 78.9 78.3 78.3 79.3 89.3 89.3	350 538 1,112 757 1,108 1,286	105 299 974 275 671 790	4 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	91 263 240 639 734	62 220 932 219 570 598	43 79 42 56 101	0.30 0.36 0.38 0.06 0.61	00.3 0.8 0.5 0.8 0.5 0.8

<sup>1</sup>Dresden 1 has been shut down since 1978, and in 1985 it was decided that it would not be put in commercial operation again. Therefore, it is no longer included in the count of commercial reactors.

APPENDIX C (continued)
PERSONNEL, DOSE AND POWER GENERATION SUMMARY

		PERSONNEL,	NEL, DOSE	E AND POWER	GENERATION SUMMARY	TION SUI	MMARY			-	
						Per	Person-cSv (-rems)	ms)		Ī	
						Per Work Function	unction	Per Personnel Type	el Type	Average	Octob
Reporting Organization	Year	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective Dose	Opera- tions	Maint & Others	Con- tractor	Station & Utility	Dose (cSv or rems)	cSv (-rems) MW-yr
DUANE ARNOLD (continued)	1982 1983 1984 1985 1987 1989 1990 1991 1995 1995	278.5 283.0 329.4 329.4 365.5 308.4 367.4 503.7 416.5 476.8	74.7 62.9 72.9 72.8 82.0 75.2 75.2 79.0 79.5 94.5 83.8 90.7	524 468 611 611 7,468 7,136 7,043 7,043 7,043 7,093 7,093	229 1,135 1,112 1,112 189 667 667 667 667 674 194 861 202 502 407 120 357 270	84844475458488488488488488488488488488488488488	211 1,093 1,063 1,	299 296 296 296 296 296 296 296 296 296	254 179 179 178 178 178 178 179 179 170 170 170 170 170 170 170 170 170 170	0.00 0.39 0.00 0.00 0.00 0.00 0.00 0.00	80.40.40.00 80.00.40.00 80.00.00 80.00.00 80.00.00 80 80.00 80.00 80.00 80.00 80.00 80.00 80.00 80.00 80.00 80.00 80.00 80 80.00 80.00 80.00 80 80 80 80 80 80 80 80 80 80 80 80 8
FARLEY 1,2 Docket 50-348, 50-364; NPF-2, -8 1st commercial operation 12/77, 7/81 Type - PWR Capacity - 812, 822 MWe	1978 1980 1980 1981 1985 1985 1986 1986 1990 1990 1990 1990 1990 1990 1990 199	713.8 557.3 310.2 1,271.5 1,356.5 1,447.0 1,464.0 1,464.0 1,331.7 1,587.2 1,587.2 1,587.2 1,587.2 1,587.2	88.55 6.65 6.65 6.65 6.65 6.65 6.65 6.65	2, 1, 1, 227 2, 1, 1, 330 2, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	108 435 512 512 799 799 799 799 749 749 749 749 749 749	861082444444444444444444444444444444444444	69 329 329 329 4416 641 7410 7410 7410 7410 7410 7410 7410 74	224 460 460 460 464 464 505 516 516 516 516 516 516 516 516 516 51	250 250 250 282 282 283 394 397 231 231 233 233 233 235 100 100 153	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00-0000000000000000000000000000000000

# APPENDIX C (continued) PERSONNEL DOSE AND POWER GENERATION SHIMMARY

		ſ	cSv (-rems)	0.4 0.3 0.0 0.0 0.0 0.0	0.01.24.22.22.1.00.1.2.0.00.00.00.00.00.00.00.00.00.00.00.00	77.00.00.00.00.00.00.00.00.00.00.00.00.0
		Average	Measurable Dose (cSv or rems)	0.20 0.18 0.19 0.20 0.10 0.19 0.07	0.34 0.34 1.01 1.01 0.64 0.65 0.35 0.35 0.28 0.28 0.28 0.26 0.28 0.26 0.26	0.63 0.56 0.69 0.28 0.75
		lel Type	Station & Utility	73 77 77 28 60 60 42	143 321 321 232 323 324 327 280 186 198 176 176	202 275 225 225 79 79 242
	ms)	Per Personnel Type	Con- tractor	182 151 151 7 153 10	937 538 1,808 1,072 863 863 863 667 718 718 727 727 721 727 727	92 38 72 151 47 426 254
SUMMARY	Person-cSv (-rems)	Function	Maint & Others	220 52 175 195 12 145 7	743 690 743 690 1,238 1,054 1,	285 264 351 107 630 397
TION SU	Per	Per Work Function	Opera- tions	35 33 53 53 53 68 68 37	166 166 169 178 178 178 162 164 162 162 163 170 170 170 170 170 170 170 170 170 170	28 333 38 19 61 61
GENERATION			Collective Dose	255 83 228 245 35 213 28 157	202 1,080 909 859 2,040 1,425 1,190 1,090 971 1,051 884 337 884 332 322 322 327 357	294 313 297 410 126 668 458
E AND POWER			Total Personnel With Measurable Doses	1,270 462 1,223 1,213 360 1,130 390 1,402	600 1,380 904 2,056 1,732 1,578 1,536 1,536 1,595 1,249 1,384	469 516 535 596 451 891
NEL, DOSE			Unit Availability Factor	68.5 84.7 77.0 81.3 92.9 2.2 86.9 69.1	71.6 68.4 68.4 72.7 72.8 74.0 69.0 70.3 72.3 74.5 74.5 74.5 74.5 74.5 74.5 74.5 74.5	67.4 69.5 79.4 75.1 95.7 60.4
PERSONNEL,			Megawatt Years MW-YR	624.0 848.2 739.0 874.3 984.3 0.0 618.3 577.5	489.0 460.5 497.0 349.0 562.9 562.9 576.2 741.2 741.2 576.2 727.5 569.8 623.3	252.3 265.9 351.8 342.3 440.0 242.3 260.9
			Year	1989 1990 1991 1993 1994 1995	1976 1977 1978 1980 1983 1984 1986 1986 1986 1986 1986 1997 1996 1996 1996	1975 1976 1977 1978 1979 1980
			Reporting Organization	FERMI 2 Docket 50-341; NPF-43 1st commercial operation 1/88 Type - BWR Capacity - 876 MWe	FITZPATRICK Docket 50-333; DPR-59 1st commercial operation 7/75 Type - BWR Capacity - 762 MWe	FORT CALHOUN  Docket 50-285; DPR-40  1st commercial operation 6/74  Type - PWR  Capacity - 478 MWe
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APPENDIX C (continued)
PERSONNEL, DOSE AND POWER GENERATION SUMMARY

						Per	Person-cSv (-rems)	ms)			
				•		Per Work Function	unction	Per Personnel Type	el Type	Average	ſ
Reporting Organization	Year	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective Dose	Opera- tions	Maint & Others	Con- tractor	Station & Utility	Measurable Dose (cSv or rems)	rerson cSv (-rems) MW-yr
FORT CALHOUN (continued)	1982 1983 1984 1986 1986 1986 1986 1986 1986 1986 1986	418.0 330.4 279.2 367.0 367.0 341.8 365.0 395.7 395.7 391.1 303.4 402.8 402.8 374.9	89.7 73.1 73.1 75.4 75.4 75.4 74.1 89.2 89.6 89.6 83.2 79.5	604 860 860 913 982 756 1,594 760 760 713 740 740	217 433 563 563 373 74 272 290 272 272 157 23 23	26 90 90 90 90 90 90 90 90 90 90 90 90 90	243 243 345 345 346 348 348 348 443 443 123 200 200 200 200 213	102 205 313 313 321 173 160 154 154 165 105	115 228 228 250 250 142 443 130 130 130 177 177	0.36 0.50 0.62 0.38 0.17 0.37 0.20 0.22 0.32 0.31	0.5 0.5 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0
GINNA Docket 50-244; DPR-18 1st commercial operation 7/70 Type - PWR Capacity - 470 MWe	1972 1973 1973 1974 1976 1977 1986 1987 1986 1986 1986 1986 1986 1986 1986 1986	227.8 2293.6 240.5 240.5 248.8 248.8 365.6 370.5 370.5 370.5 378.1 443.3 443.3 443.3 443.3 443.3 443.3 443.3 443.3 443.3 443.6 443.6 443.6	62.4 66.4 66.4 66.4 66.4 66.4 66.4 66.4	340 340 340 340 340 884 657 657 878 878 877 897 991 991 991 992 993 832 832 832 832	222 222 222 222 232 232 242 252 252 253 253 253 253 253 253 253 25	\$25 \$25 \$25 \$25 \$25 \$25 \$25 \$25 \$25 \$25	361 961 1,690 1,060 1,060 813 337 337 337 337 337 337 337 337 337 3	108 278 210 210 202 3302 3302 3302 1144 1144 1144 1144 1144 1144	322 754 140 140 281 281 281 281 283 386 406 406 433 181 140 127 127	1.26 1.52 1.39 0.70 0.84 0.67 0.67 0.68 0.69 0.69 0.35 0.35 0.35 0.35 0.35	2.00.00

APPENDIX C (continued)
PERSONNEL. DOSE AND POWER GENERATION SUMMARY

gyappa mang managan managan ngananan managan ngananan nganan nganan nganan nganan nganan nganan nganan nganan		PERSONNE	NEL, DOSE	AND POWER	GENERATION		SUMMARY					
						Per	Person-cSv (-rems)	ns)				
						Per Work Function	-unction	Per Personnel Type	el Type	Average	9	
Reporting Organization	Year	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective Dose	Opera- tions	Maint & Others	Con- tractor	Station & Utility	Dose (cSv or rems)	cSv (-rems) MW-yr	
GINNA (continued)	1995 1996	437.0 347.9	89.6 71.1	738 976	136 168	19	128 149	95 90	41 78	0.18	0.3	
GRAND GULF Docket 50-416; NPF-29 1st commercial operation 7/85 Type - BWR Capacity - 1179 MWe	986 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	494.7 920.7 1,136.6 932.6 883.5 1,085.2 969.0 936.4 1,143.2 1,096.2	60.9 82.2 86.7 7.8.9 94.0 83.7 88.7 88.4 88.4	1,486 1,358 1,972 1,765 699 2,032 1,589 1,589	436 420 482 482 484 484 332 332 357 357	96 75 88 88 82 25 25 25 25	368 314 90 405 430 430 25 25 332 332	329 333 331 321 321 25 25 27 349 27 349 27 349 27 349 349 349	50 50 50 50 50 50 50 50 50 50 50 50 50 5	0.29 0.31 0.27 0.27 0.28 0.28 0.23	0.0 0.5 0.0 0.0 0.0 0.0 0.3	
HADDAM NECK Docket 50-213; DPR-61 1st commercial operation 1/68 Type -PWR Capacity - 560 MWe	961 961 9761 1761 1761 1761 1761 1761 17	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	91.2 88.2 88.3 88.3 98.3 7.7 7.7 8.7 7.7 8.0 7.2 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0	238 248 255 255 255 255 255 255 255 255 255 25	0.00 0.00	02 08 25 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	683 444 444 582 582 7,77 7,77 862 1,062 1,388 1,388 1,388 1,388 1,388 1,388 1,388 1,388 1,062 1,062 1,388 1,44 1,062 1,44 1,062 1,06	27 463 181 181 1022 1,076 803 803 1,274 1,274 1,29 1,29 1,29 1,29 1,29 1,29 1,29 1,29	220 241 251 261 262 272 293 293 293 293 293 293 293 293 293 29	0.00 0.03 0.03 0.03 0.03 0.03 0.03 0.03	0-000000000000000000000000000000000000	

APPENDIX C (continued)
PERSONNEL, DOSE AND POWER GENERATION SUMMARY

		PERSONNE	NEL, DOSE	E AND POWER	GENERATION		SUMMARY				
			-			Per	Person-cSv (-rems)	ns)			
						Per Work Function	-unction	Per Personnel Type	el Type	Average	
Reporting Organization	Year	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective Dose	Opera- tions	Maint & Others	Con- tractor	Station & Utility	Measurable Dose (cSv or rems)	Person cSv (-rems) MW-yr
HADDAM NECK (continued)	1994 1995 1996	455.6 439.4 331.8	77.7 77.7 55.7	463 1,006 673	135 442 175	0 74 53	0 368 122	0 348 115	0 80 09	0.29 0.44 0.26	0.3 1.0 0.5
HARRIS 1 Docket 50-400; NPF-63 1st commercial operation 5/87 Type - PWR Capacity - 860 MWe	1988 1988 1990 1992 1995 1995	652.9 690.6 776.4 724.8 661.8 661.8 913.0 740.8 731.1	75.0 79.5 89.6 81.5 74.9 99.7 82.7 83.8	721 929 453 872 930 327 1,089 1,068	169 156 85 226 213 31 222 174	28 27 27 27 27 27 27 27 27 27 27 27 27 27	140 124 179 179 200 200 163	118 85 85 47 150 134 10 167 4	51 71 76 76 79 21 55 53	0.23 0.28 0.28 0.09 0.20 0.00	0.00 0.03 0.03 0.00 0.00 0.00
HATCH 1,2 Docket 50-321, 50-366; DPR-57; NPE-05 1st commercial operation 12/75, 9/79 Type - BWRs Capacity - 805, 809 MWe	1976 1977 1978 1979 1980 1985 1985 1986 1986 1990 1990 1991 1995	496.3 446.8 513.0 400.1 1,008.7 768.0 768.0 934.7 658.6 1,271.1 1,295.4 1,293.8 1,189.6 1,376.3 1,376.3	83.8 72.8 72.8 74.6 74.6 68.6 68.6 68.6 7.4 7.7 83.5 7.4 88.6 90.6 90.6	2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2	2,248 2,48 2,248 2,248 2,218 2,218 2,218 3,34 1,497 1,497 1,161 1,	253 247 275 275 275 275 275 275 275 275 275 27	265 266 27 27 27 27 27 27 27 27 27 27 27 27 27	220 220 381 163 1,064 1,064 1,074 1,	245 130 201 201 201 286 396 390 390 381 474 474 474 256 256 270 305 232	0.000000000000000000000000000000000000	60.01.01.1.8.01.01.01.00.00 6.0.004.4.004.4.1.0.4.0.0.00

APPENDIX C (continued)
PERSONNEL, DOSE AND POWER GENERATION SUMMARY

		PERSONNEL,	2	USE AND POWER GENERATION	GENERA		SOMMARY				
		·				Per	Person-cSv (-rems)	(su			
0.7				•		Per Work Function	Function	Per Personnel Type	el Type	Average	2000
Reporting Organization	Year	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective Dose	Opera- tions	Maint & Others	Con- tractor	Station & Utility	Dose (cSv or rems)	cSv (-rems) MW-yr
HOPE CREEK 1 Docket 50-354, NPF-57 1st commercial operation 12/86 Type - BWR Capacity - 1031 MWe	1988 1988 1988 1989 1989 1989 1989 1989	869.2 832.7 791.1 791.1 966.4 882.5 841.9 1,049.2 852.0 844.5	86.4 77.8 77.8 91.6 84.2 80.8 87.8 79.8	589 1,734 1,394 1,394 1,694 688 688 1,571 1,671	287 287 465 196 373 373 436 98 326 196	22 8 4 5 6 6 8 8 2 8 4 5 6 6 8 8 8 5 6 6 8 8 6 6 6 6 6 6 6 6 6	96 249 425 170 362 427 76 292 169	40 163 292 292 304 89 101 101 87	7, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2,	0.00 0.25 0.025 0.00 0.00 0.00 0.00 0.00	0.000000000000000000000000000000000000
HUMBOLDT BAY <sup>2</sup> Docket 50-133. DPR-7 1st commercial operation 8/63 Type - BWR Capacity - 63 MWe	966 966 1076 1766 1767 1766 1767 1768 1768 1768 17	4.4% 4.0% 4.4% 4.0% 6.0% 6.0% 6.0% 6.0% 6.0% 6.0% 6.0% 6	8884 8886 8086 8086 8086 8086 8086 8086	125 115 120 20 20 20 20 20 320 42 42 42 42 42 42 42 42 42 42 42 42 43 43 43 43 43 43 43 43 43 43 43 43 43	200 200 200 200 330 330 330 330 330 40 50 70 70 70 70 70 70 70 70 70 70 70 70 70	8654886555784511088400	25 27 27 27 28 28 28 28 20 20 20 20 20 20 20 20 20 20 20 20 20	12 37 50 50 65 73 73 85 65 65 65 65 65 65 65 65 65 65 65 65 65	227 172 227 227 227 233 633 633 633 190 190 10 10	1.31 1.32 1.39 1.28 1.28 1.31 1.39 1.31 1.31 1.31 1.31 1.31 1.31	2.7.7 7.4.4 7.4.4 7.5.3 2.9.1 1.1.1

Humboldt Bay has been shutdown since 1976, and in 1984 it was decided that it would not be placed in operation again. Therefore, it is no longer included in the count of commercial reactors.

PERSONNEL, DOSE AND POWER GENERATION SUMMARY **APPENDIX C (continued)** 

							Pel	Person-cSv (-rems)	ims)			
							Per Work Function	Function	Per Personnel Type	nel Type	Average	
	Reporting Organization	Year	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective Dose	Opera- tions	Maint & Others	Con- tractor	Station & Utility	ivieasurable Dose (cSv or rems)	cSv (-rems) MW-yr
	INDIAN POINT 1 <sup>3</sup> ,2,3 <sup>4</sup> Docket 50-3, 50-247, 50-286; DPR-5, -26, -64 1st commercial operation 10/62, 8/74, 8/76 Type - PWR Capacity - 0, 951, 965 MWe	1969 1970 1971 1972 1973 1975 1976 1976	206.2 43.3 154.0 142.3 0.0 556.1 556.1 573.9 1,278.3	59.4 74.8 34.8 75.3 67.8	2,998 1,590 1,391 1,909	298 1,639 768 967 5,262 910 705 1,950 1,070	709 166 154 189 260	4,553 539 1,796 881 1,746	2,847 47 172 383 759	2,415 658 1,778 687 1,247	1.76 0.89 0.79 1.23 1.05	37.8 5.0 6.8 6.8 6.8 1.2 7.1 7.1
C-17	INDIAN POINT 1 <sup>5</sup> ,2	1979 1980 1981 1982 1983	574.0 510.8 367.5 532.4 702.6	71.4 64.8 46.0 65.4 84.0	1,349 1,577 2,595 2,144 1,057	1,279 971 2,731 1,635 486	209 304 237 343 202	1,070 667 2,494 1,292 284	612 612 6 1,595 883 219	667 965 1,136 752 267	0.95 0.62 1.05 0.76	2.2 1.9 3.1 0.7
N	INDIAN POINT 2 Docket 50-247; DPR-26 1st commercial operation 8/74 Type - PWR Capacity - 951 MWe	1984 1985 1986 1988 1989 1990 1991 1993 1993	416.7 791.4 457.5 611.4 719.3 532.5 618.0 461.2 930.9 702.1	51.9 95.7 56.7 73.4 86.9 66.6 66.6 75.7 70.0	2 919 7 708 7 708 8 890 7 7 7 8 890 7 7 8 8 9 8 8 9 8 8 9 8 8 9 8 9 9 9 9 9 9 9	2,644 192 1,250 1,217 235 1,436 608 1,468 97 675	650 123 350 128 51 208 66 179 0	1,994 69 69 900 1,089 1,228 542 1,289 70 598	1,863 3,95 3,49 805 117 813 827 39 480 0	781 907 901 118 623 623 541 58 0	0.91 0.27 0.65 0.65 0.06 0.57 0.20 0.45	60022022 60022 60022 6002 6002 6002 600
UREG-0713	<sup>3</sup> Indian Point 1 was defuelled in 1975, and in 1984 it was decided that it would not <sup>4</sup> Indian Point 3 was purchased by a different utility and now reports separately. <sup>5</sup> Indian Point 1 was defuelled in 1975, and in 1984 it was decided that it would not	1984 it we t utility and 1984 it wa	ss decided the		be placed in operation again. Therefore, it is no longer included in the count of commercial reactors. be placed in operation again. Therefore, it is no longer included in the count of commercial reactors.	yain. Therefore, lain. Therefore,	it is no longe it is no longe	er included ir	the count of the count of	commercial r	eactors.	

APPENDIX C (continued)
PERSONNEL, DOSE AND POWER GENERATION SUMMARY

		PERSONNEL,	NEL, DOSE	E AND POWER	<b>GENERATION SUMMARY</b>	IOS NOI	<b>MMARY</b>				
						Per	Person-cSv (-rems)	ms)			
				•		Per Work Function	unction	Per Personnel Type	el Type	Average	0000
Reporting Organization	Year	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective Dose	Opera- tions	Maint & Others	Con- tractor	Station & Utility	Dose (cSv or rems)	cSv (-rems) MW-yr
INDIAN POINT 2 (continued)	1995 1996	582.4 927.8	70.8 94.8	1,690 388	548 54	97	451 36	368 26	180 28	0.32	0.9
INDIAN POINT 3 <sup>6</sup> Docket 50-286; DPR-64 1st commercial operation 8/76 Type - PWR Capacity - 965 MWe	1980 1981 1982 1983 1985 1986 1986 1990 1990 1993 1995 1996	574.0 367.3 367.3 367.5 171.5 7.8 714.4 566.5 655.3 675.3 595.3 862.8 595.3 140.5 0.0	66.5 53.2 59.8 22.5 7.6.3 76.3 66.0 73.4 61.1 14.9 62.9 74.8 74.8	808 977 1,477 1,093 1,308 1,308 1,066 1,066 1,066 229 1,003 229 229 229 229 229 229 229	636 308 308 364 507 507 500 500 500 500 500 500 500 500	£24448888888888888888888888888888888888	573 261 318 318 182 569 182 535 168 416 289 746 17 17 159 30	482 210 255 1,093 494 127 123 365 365 365 365 385 385 385 385 4 4 4 4 4 4 5 4 4 8 8 8 8 8 8 8 8 8 8	48608825855 84008888 84008888 84008888 84008888	0.79 0.32 0.52 0.35 0.34 0.34 0.13 0.13 0.08	1.1. 0.1. 77.8 77.8 7.1.8 7.1.0 7.1.5 7.1.
KEWAUNEE Docket 50-305; DPR-43 1st commercial operation 6/74 Type - PWR Capacity - 511 MWe	1975 1976 1978 1979 1980 1981 1983 1984 1985	401.9 405.9 405.9 443.3 455.0 455.1 455.3 455.3 461.7	88.2 78.9 79.9 89.5 82.1 86.7 85.7 85.8	104 381 335 335 335 445 485 502	220 270 154 165 176 139 139 169	-6810rrr0re8	724 125 125 125 125 125 125 125 125 125 125	21.00 20.00	97.2888888888888888888888888888888888888	0.27 0.71 0.45 0.37 0.37 0.29 0.39 0.34	00000 00000 00000 00000 00000 00000 0000

 $^{\rm 6}{\rm Indian}$  Point 3 was purchased by a different utility and now reports separately.

APPENDIX C (continued)
PERSONNEL, DOSE AND POWER GENERATION SUMMARY

	_	INCOUL.	ENSOMMEL, DOSE AND I	AND LOVER	ACIMINOS NOLLANDINOS		ILLENIN				
						Per	Person-cSv (-rems)	(sua			
						Per Work Function	unction	Per Personnel Type	nel Type	Average Measurable	Person
Reporting Organization	Me Year M	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective Dose	Opera- tions	Maint & Others	Con- tractor	Station & Utility	Dose (cSv or rems)	cSv (-rems) MW-yr
KEWAUNEE (continued)	1987 1988 1989 1990 1992 1993 1995	480.0 467.5 449.1 468.8 441.8 471.4 457.1 455.6 380.4	89.7 88.3 84.9 87.9 83.4 88.0 86.8 87.8 71.8	755 705 705 570 490 495 436 436 415	226 210 231 221 122 106 109	80 <u>0</u> 246006-	218 204 229 140 217 119 104 106	173 165 179 112 188 88 88 65 77	53 33 33 33 33 33 33 33 51	0.30 0.30 0.42 0.45 0.27 0.26 0.26	0.5 0.5 0.2 0.2 0.2 0.3
LACROSSE <sup>7</sup> Docket 50-409; DPR-45 1st commercial operation 11/69 Type - BWR Capacity - 48 MWe	1970 1971 1972 1973 1974 1976 1980 1981 1985 1986 1986	28.23 28.23 28.24 28.24 28.24 28.54 29.56 29.56 29.56 29.56 29.66 29.56 20.56 20.56 20.56 20.56 20.56 20.56 20.56 20.56 20.56 20.56 20.56 20.56 20.56 20.56 20.56 20.56	81.0 69.0 69.0 74.0 68.5 76.0 76.0 86.7 7.0 80.5	218 115 141 148 160 160 260 260 273 288 260	111 123 133 133 133 133 133 133 133 133	221 221 89 60 60 63 63 63 64 76 76 76	50 17 12 12 13 15 11 11 11 11 11	φ ο ο ο ο ο ο ο ο ο ο ο ο ο ο ο ο ο ο ο	133 105 216 207 165 189 282 282 247 151	0.00 1.22 1.22 1.22 1.33 1.33 1.33 1.33 1.34 1.35 1.35 1.35 1.35 1.35 1.35 1.35 1.35	2.4.4.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2
	1994 1995 1996	0000	0000	23 32 32	o ω κ 4	٥	۱   س	04	04	0.10 0.15 0.15	

<sup>7</sup>LaCrosse ended commercial operation in 1987 and will not be put in commercial operation again. Therefore, it is no longer included in the count of commercial reactors.

# APPENDIX C (continued) PERSONNEL, DOSE AND POWER GENERATION SUMMARY

AND FOWER GENERALION SOMMAN	Person-cSv (-rems)	Per Work Function Per Personnel Type Average		1,245         252         29         223         88         164         0.20         0.4           1,635         685         88         597         420         265         0.42         0.7           1,614         898         143         755         527         371         0.56         1.0           1,744         1,396         217         1,179         989         407         0.80         1.9           2,737         2,471         253         2,218         1,978         493         0.90         1.9           2,737         2,471         253         2,218         1,978         493         0.90         1.9           2,737         2,475         1,386         138         1,248         853         0.56         0.9           2,747         1,386         130         818         503         445         0.56         0.9           1,830         948         161         645         427         379         0.41         0.4           2,418         1,167         195         972         648         519         0.48         0.8           1,701         726         105         621         426	2,156     174     7     167     114     60     0.08     0.3       950     52     20     32     23     29     0.05     0.1       1,818     266     70     196     156     110     0.15     0.4       1,422     175     37     138     78     97     0.12     0.1       1,151     106     24     82     52     54     0.09     0.1       1,559     330     23     307     182     148     0.21     0.2       1,543     275     44     231     161     114     0.17     0.1       1,551     260     136     124     0.16     0.1       1,654     234     85     149     102     132     0.14     0.1	782         117         59         58         0.15         0.3           619         420         64         356         188         232         0.68         1.0           440         319         15         304         181         138         0.72         0.6           244         85         27         58         26         59         0.35         0.1           508         245         46         199         112         133         0.48         0.4           638         420         54         366         262         158         0.66         0.7           735         462         177         185         0.66         0.3         0.3           735         462         17         185         0.63         0.3         0.3           735         462         17         185         0.63         0.7         0.49         0.7           1,295         619         33         586         462         157         0.48         1.1           1,262         184         9         875         702         182         0.28         0.2           1,009         700         54
ENSOINEL, DOSE			t Unit Availability Factor	77.8 53.0 59.3 71.6 73.1 72.0 76.0 77.6 54.3	70.2 96.5 66.0 78.2 86.8 84.8 94.9 93.3	68 79.9 79.9 82.2 78.2 74.4 74.4 79.2 87.8
רבהטכר			Megawatt Years MW-YR	677.8 987.9 987.9 929.5 1,030.0 1,317.6 1,754.3 1,754.3 1,540.0 1,580.0 1,696.6	636.1 794.9 628.4 1,527.7 1,810.9 1,913.2 1,944.4 1,957.1 2,026.2	408.7 432.6 542.9 712.2 642.7 624.2 527.0 527.0 624.2 677.1 605.7
			Year	1984 1985 1986 1987 1990 1991 1992 1993 1993 1995 1995	1987 1988 1990 1991 1992 1993 1995	1973 1974 1975 1976 1977 1977 1980 1981 1983 1985 1985
		0.77	Reporting Organization	LASALLE 1,2 Docket 50-373, -374; NPF-11, -18 1st commercial operation 1/84, 6/84 Type - BWR Capacity - 1036, 1036 MWe	LIMERICK 1, 2	MAINE YANKEE Docket 50-309; DPR-36 1st commercial operation 12/72 Type - PWR Capacity - 860 MWe

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APPENDIX C (continued)
PERSONNEL, DOSE AND POWER GENERATION SUMMARY

I LINSOINIEL,			Megawatt L Years Ava Reporting Organization Year MW-YR F₹	MAINE YANKEE (continued) 1987 478.1 65. 1988 591.9 79. 1989 819.2 93. 1990 573.0 71. 1991 738.1 86. 1992 631.7 79. 1993 674.8 79. 1994 782.8 90. 1996 602.9 78.	MCGUIRE 1,2  Docket 50-369, -370; NPF-9, -17  1st commercial operation 12/81, 3/84  Type - PWRS  Capacity - 1129, 1129 MWe  1982  1985  1986  1986  1986  1,360.0  1987  1,774.7  1988  1,810.2  1990  1,340.3  1,945.1  1994  1,945.1  1995  1,696.8  1,996  1,948.0  1995  1,995  1,770.4  1989  1,810.2  1,696.8  1,810.2  1,996  1,948.0  1,995  1,696.8  1,996  1,996  1,881.8	MILLSTONE POINT 1  Docket 50-245; DPR-21  1st commercial operation 3/71  1ype - BWR  Capacity - 641 MWe  1ype - BWR  1ype - BW
., DOSE AND I OWE			Unit Total Personnel Availability With Measurable Factor Doses	65.3 1,100 65.3 1,058 93.7 375 71.0 1,359 86.6 426 79.1 1,189 79.8 1,016 90.9 297 3.7 1,167 78.1 408	80.4 1,560 68.5 1,751 68.5 1,663 77.0 2,217 60.1 2,326 80.2 2,808 80.8 1,994 61.3 2,289 61.3 2,289 66.2 1,685 80.2 1,685 80.2 1,685 82.9 1,622	612 1,184 79.1 2,477 75.6 2,587 76.1 1,387 89.6 1,075 87.6 1,391 69.0
V CENEIVA I			Collective Dose	722 725 99 98 105 105 461 377 84 653 56	169 521 521 771 1,015 1,104 620 727 361 418 463 397 397	596 663 663 2,022 1,194 1,194 1,795 2,157
DIA SOMINIA	Person-cSv (-rems)	Per Work Function	Maint Opera- & tions Others	39 683 52 673 38 673 146 536 27 78 87 374 74 303 116 68 116 537	26 143 35 486 35 472 92 679 47 968 38 1,005 63 664 63 664 7 7 390 7 7 390	50 546 125 538 125 538 54 1,140 118 1,256 198 1,597 100 2,057
	/ (-rems)	Per Personnel Type	nt Con- rs tractor	531 576 25 25 46 360 309 57 53 30	29 106 106 106 106 107 108 108 108 108 108 108 108 108 108 108	340 422 422 955 1,036 1,327 1,863
		inel Type	Station & Utility	194 135 135 101 120 120 120 120 120 120 120 120 120	398 401 401 401 401 401 401 401 401 401 401	256 241 239 239 380 468 468
		Average	Measurable Dose (cSv or rems)	0.66 0.69 0.26 0.25 0.39 0.37 0.37	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.97 0.56 0.58 0.78 0.37 0.90
			cSv (-rems) MW-yr	2,7.7 2,7.7 2,7.7 2,7.7 2,7.7 2,7.7 1.0	0.0 0.0 0.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0	- 28.4.4.20.2.8.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7

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	C (con OWER (	PENDIX C (con AND POWER (	APPENDIX C (con	L. DOSE AND POWER (	APPENDIX C (con NEL. DOSE AND POWER (	APPENDIX C (con	APPENDIX C (con	APPENDIX C (con SONNEL, DOSE AND POWER (	APPENDIX C (con SONNEL, DOSE AND POWER (	APPENDIX C (con SONNEL, DOSE AND POWER (	APPENDIX C (con							
	C (con OWER (	PENDIX C (con AND POWER (	APPENDIX C (con	APPENDIX C (con	APPENDIX C (con NEL. DOSE AND POWER (	APPENDIX C (con	APPENDIX C (con	SONNEL, DOSE AND POWER	SONNEL, DOSE AND POWER	SONNEL, DOSE AND POWER	SONNEL, DOSE AND POWER	0	$\alpha$					
75 12	C (con OWER (	PENDIX C (con AND POWER (	APPENDIX C (con	APPENDIX C (con	APPENDIX C (con NEL. DOSE AND POWER (	APPENDIX C (con	APPENDIX C (con	SONNEL, DOSE AND POWER	SONNEL, DOSE AND POWER	SONNEL, DOSE AND POWER	SONNEL, DOSE AND POWER	Ď	Ш					
	C (con OWER (	PENDIX C (con AND POWER (	APPENDIX C (con	APPENDIX C (con	APPENDIX C (con NEL. DOSE AND POWER (	APPENDIX C (con	APPENDIX C (con	SONNEL, DOSE AND POWER	SONNEL, DOSE AND POWER	SONNEL, DOSE AND POWER	SONNEL, DOSE AND POWER	Ĭ	₹					
ued	C (con OWER (	PENDIX C (con AND POWER (	APPENDIX C (con	APPENDIX C (con	APPENDIX C (con NEL. DOSE AND POWER (	APPENDIX C (con	APPENDIX C (con	SONNEL, DOSE AND POWER	SONNEL, DOSE AND POWER	SONNEL, DOSE AND POWER	SONNEL, DOSE AND POWER	☲	m					
nued	C (con OWER (	PENDIX C (con AND POWER (	APPENDIX C (con	APPENDIX C (con	APPENDIX C (con NEL. DOSE AND POWER (	APPENDIX C (con	APPENDIX C (con	SONNEL, DOSE AND POWER	SONNEL, DOSE AND POWER	SONNEL, DOSE AND POWER	SONNEL, DOSE AND POWER	₹	H					
tinued	ENDIX C (co	PEN	PEN	PEN	PEN	PEN	PEN	APPENI L. DOSE AND	APPENI L. DOSE AND	APPEN NEL. DOSE AND	APPEN ANEL, DOSE AND	APPEN ANEL, DOSE AND	APPEN SONNEL, DOSE AND	APPEN SONNEL, DOSE AND	APPEN SONNEL, DOSE AND	APPEN SONNEL, DOSE AND		$\mathbf{L}$
	ENDIX C (C	PEN	PEN	PEN	PEN	PEN	PEN	APPENI L. DOSE AND	APPENI L. DOSE AND	APPEN NEL. DOSE AND	APPEN ANEL, DOSE AND	APPEN ANEL, DOSE AND	APPEN SONNEL, DOSE AND	APPEN SONNEL, DOSE AND	APPEN SONNEL, DOSE AND	APPEN SONNEL, DOSE AND	0	2
	ENDIX C (	PEN	PEN	PEN	PEN	PEN	PEN	APPENI L. DOSE AND	APPENI L. DOSE AND	APPENI NEL. DOSE AND	APPEN INEL. DOSE AND	APPEN INEL. DOSE AND	APPEN SONNEL. DOSE AND	APPEN SONNEL. DOSE AND	APPEN SONNEL. DOSE AND	APPEN SONNEL. DOSE AND	ပ	Ш
	ENDIX C	PEN	PEN	PEN	PEN	PEN	PEN	APPENI L. DOSE AND	APPENI L. DOSE AND	APPEN NEL. DOSE AND	APPEN ANEL, DOSE AND	APPEN ANEL, DOSE AND	APPEN SONNEL, DOSE AND	APPEN SONNEL, DOSE AND	APPEN SONNEL, DOSE AND	APPEN SONNEL, DOSE AND	$\overline{}$	5
	ENDIX NND PO	PEN	PEN	PEN	PEN	PEN	PEN	APPENI L. DOSE AND	APPENI L. DOSE AND	APPENI NEL. DOSE AND	APPEN INEL. DOSE AND	APPEN INEL. DOSE AND	APPEN SONNEL. DOSE AND	APPEN SONNEL. DOSE AND	APPEN SONNEL. DOSE AND	APPEN SONNEL. DOSE AND	O	2
	END!	PEN	PEN	PEN	PEN	PEN	PEN	APPENI L. DOSE AND	APPENI L. DOSE AND	APPENI NEL. DOSE AND	APPEN INEL. DOSE AND	APPEN INEL. DOSE AND	APPEN SONNEL. DOSE AND	APPEN SONNEL. DOSE AND	APPEN SONNEL. DOSE AND	APPEN SONNEL. DOSE AND		O
C (con OWER (		PEN	PEN	PEN	PEN	PEN	PEN	APPENI L. DOSE AND	APPENI L. DOSE AND	APPEN NEL. DOSE AND	APPEN ANEL, DOSE AND	APPEN ANEL, DOSE AND	APPEN SONNEL, DOSE AND	APPEN SONNEL, DOSE AND	APPEN SONNEL, DOSE AND	APPEN SONNEL, DOSE AND	$\equiv$	Δ
C (con OWER (		PEN	PPENE	APPEN SE ANI	APPEN OSE ANI	APPEN DOSE ANI	APPEN DOSE ANI			NEL DOS	NEL DOS	NEL DOS	SOUNEL DOS	SOUNEL DOS	SOUNEL DOS	SOUNEL DOS		
C (con OWER (	<u> </u>	집	PPE	APPE SE AV	APPE OSE AN	APPE DOSE AN	APPE DOSE AN			NEL DOS	NEL DOS	NEL DOS	SOUNEL DOS	SOUNEL DOS	SOUNEL DOS	SOUNEL DOS	Z	5
C (con OWER (		<u> </u>	PP A	APP SE 4	APP OSE 4	APP DOSE A	APP DOSE			NEL DOS	NEL DOS	NEL DOS	SOUNEL DOS	SOUNEL DOS	SOUNEL DOS	SOUNEL DOS	Щ	5

		PERSONNEL,	NEL, DOSE	E AND POWER GENERATION SUMMARY	GENERAL	IOS NOI	<b>MMARY</b>				
	·					Per	Person-cSv (-rems)	ms)			
						Per Work Function	unction	Per Personnel Type	el Type	- Average Measurable	Person
Reporting Organization	Year	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective Dose	Opera- tions	Maint & Others	Con- tractor	Station & Utility	Dose (cSv or rems)	cSv (-rems) MW-yr
MILLSTONE POINT 1 (continued)	1982 1983 1988 1988 1989 1989 1989 1989 1989	490.2 640.1 548.5 523.4 658.8 658.8 658.8 658.8 623.4 627.9 627.9 627.9 627.9	79.9 7.99.9 7.99.6 7.99.6 7.50.0 8.99.6 8.99.6 9.00.0 0.00.0	1,370 1,992 1,992 389 327 327 327 1,154 305 305 1,321 910	929 244 244 684 684 684 620 620 620 620 631	888848488888888888888888888888888888888	851 162 103 628 628 628 77 77 77 77 77 77 77	587 744 744 744 744 744 746 746 746 746 74	342 170 305 239 97 98 128 49 89 89 83 83 83 85 83 85 83	0.068 0.033 0.035 0.035 0.035 0.036 0.036 0.037	0.49.1.00.00.00.00.00.00.00.00.00.00.00.00.0
MILLSTONE POINT 2,3 Docket 50-336, 50-423; DPR-65, NPF-49 1st commercial operation 12/75, 4/86 Type - PWR Capacity - 871, 1137 MWe	0.000	545.7 536.6 520.0 520.0 579.3 722.4 595.9 294.0 782.7 782.7 782.7 7,594.8 1,524.5 1,556.6 1,556.6 1,556.6	7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.	620 6677 6677 6677 6677 6677 6677 6677 6	168 242 474 471 471 637 158 168 168 168 178 188 188 188 188 188 188 188 188 18	8882542518262482888 88825425182684828888	242 1,379 390 1,379 1,521 1,711 1,711 1,035 1,03	24	98 8 7 1 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	0.22 0.036 0.036 0.090 0.0000 0.000	00001-049080000000-000 8888886000-000 88888888

APPENDIX C (continued)
PERSONNEL, DOSE AND POWER GENERATION SUMMARY

		PERSONNEL,	NEL, DOSI	AND POWER	GENERA	RATION SO	SUMMART				
						Per	Person-cSv (-rems)	ims)			
						Per Work Function	-unction	Per Personnel Type	el Type	Average	Derecon
Reporting Organization	Year	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective Dose	Opera- tions	Maint & Others	Con- tractor	Station & Utility	Dose (cSv or rems)	cSv (-rems) MW-yr
MONTICELLO Docket 50-263; DPR-22 1st commercial operation 6/71 Type - BWR Capacity - 544 MWe	1972 1973 1973 1974 1975 1975 1973 1973 1973 1973 1973 1973 1973 1973	424.4 389.5 349.5 349.5 476.4 459.4 459.4 402.7 402.7 402.7 402.7 403.7	77.9 94.5 94.5 96.3 96.3 96.9 96.9 96.9 97.0 96.9 96.9 96.9	99 401 8401 355 325 325 325 325 1,102 1,10	61 1,353 1,353 1,000 1,000 1,004 157 157 157 157 157 157 158 168 168 168 178 179 170 170 170 170 170 170 170 170 170 170	94 65 62 62 62 62 62 62 62 62 62 62 62 62 62	21 204 865 313 313 865 313 865 863 863 863 863 863 863 863 863 863 863	26 26 27 28 28 28 28 28 28 28 28 28 28 28 28 28	60 109 258 212 210 210 105 283 283 283 283 283 482 482 482 482 482 482 482 482 482 482	0.62 0.44 0.48 0.48 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.2	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
NINE MILE POINT 1,2 Docket 50-220, 50-410; DPR-63, NPF-69 1st commercial operation 12/69, 4/88 Type - BWR Capacity - 565, 1105 MWe	1970 1970 1972 1978 1978 1978 1979 1980 1981 1983	227.0 346.5 346.5 359.0 359.0 352.0 352.0 353.5 353.5 353.5 4.0 4.33.5 4.0 4.33.5 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	70.5 72.1 88.2 95.2 1.5 66.0 66.0 7.5 7.5 7.9	2,006 1,006 735 735 740 649 1,093 1,726 1,174 1,352 1,405 1,530	449 448 458 458 458 458 458 459 450 450 450 450 450 450 450 450 450 450	24884834489544888 2488488488	32 152 226 228 428 613 376 1,342 1,291 1,201 810 727	17 63 279 279 279 283 883 26 940 1,064 1,064	27 132 257 257 257 449 478 449 500 288 528 320 320 528 518	0.05 0.19 0.39 0.103 0.56 0.56 0.72 0.93 0.93	0000-41-00404-40020 000-41-0000021-1001

# APPENDIX C (continued) PERSONNEL, DOSE AND POWER GENERATION SUMMARY

			cSv (-rems) MW-yr	2.6.0 2.4.0 2.0.0 2.0.0 2.0.0 2.0.0 3.0 3	0.000000000000000000000000000000000000	0.00 0.3 0.00 0.00 0.00
	,	Average	Measurable Dose (cSv or rems)	0.26 0.26 0.23 0.23 0.29 0.27 0.33 0.19	0.22 0.28 0.28 0.30 0.30 0.27 0.27 0.27 0.27	0.61 0.60 0.84 0.83 0.85 0.48
		el Type	Station & Utility	222 545 102 345 132 133 379 379 97 180	259 133 337 708 369 528 337 342 93 1168 1163 1174	373 407 807 1,034 1,053 820
	ns)	Per Personnel Type	Con- tractor	43 730 39 509 382 467 467 427 427 529 579	190 85 343 1,207 1,207 1,075 1	144 90 219 294 340 181
SOIMINARI	Person-cSv (-rems)	-unction	Maint & Others	204 1,237 106 821 821 614 672 93 672 224	371 90 1,837 1,837 1,790 697 611 1,435 578 610 561 896 176 8358 285	499 425 961 1,084 1,214 878
1	Per	Per Work Function	Opera- tions	28 33 33 33 33 33 34 36 36 36 36 36 36 36 36 36 36 36 36 36	828 826 827 828 827 827 827 827 827 827 827 827	18 72 65 244 179 123
GENERALION			Collective Dose	265 1,275 1,275 141 854 854 699 699 633 759 759	449 218 680 1,915 1,945 1722 112,71 1,471 193 367 291 291	517 497 1,026 1,329 1,001
E AND POWER			Total Personnel With Measurable Doses	1,007 1,190 2,626 2,737 2,337 1,800 2,352 800 2,304 1,596	2,025 2,086 2,086 2,086 2,085 2,062 2,085 1,1,1,55 1,1,036	844 1,215 1,595 1,636 2,100
NEL, DOS			Unit Availability Factor	96.4 65.3 93.3 93.3 46.6 79.7 79.7 61.8 84.6 95.9 91.6	61.7 86.5 71.5 71.5 76.1 76.1 83.0 96.7 88.6 84.1 84.1 80.1 89.9	60.1 75.5 63.0 65.9 75.8 67.7
ERSONNEL,			Megawatt Years MW-YR	580.9 371.0 542.6 0.0 527.5 656.2 1,250.8 965.9 1,380.2 1,589.6 1,598.6	507.0 681.8 1,241.9 777.7 1,338.4 1,616.9 1,448.5 1,772.7 1,590.4 1,742.7 1,590.4 1,666.4 1,569.6	650.6 1,838.3 1,561.4 1,566.4 1,909.0 1,708.0
			Year	1985 1986 1987 1990 1992 1995 1996	1980 1981 1982 1983 1986 1986 1986 1986 1986 1986 1986 1986	1974 1975 1976 1977 1978 1978
			Reporting Organization	NINE MILE POINT 1,2 (continued)	NORTH ANNA 1,2 Docket 50-338; NPF-04, -09 1st commercial operation 6/78, 12/80 Type - PWRs Capacity - 893, 897 MWe	OCONEE 1,2,3 Docket 50-269, 50-270, 50-287; DPR-38, -47, -55 1st commercial operation 7/73, 9/74, 12/74 Type - PWRs Capacity - 846, 846, 846 MWe

NUREG-0713

APPENDIX C (continued)
PERSONNEL, DOSE AND POWER GENERATION SUMMARY

PERSONNEL, DOSE AND POWER GENERATION SUMMARY  Person-cSv (-rems)	Megawatt Unit Total Personnel Maint Maint Dose CSV CSV or (-rems) Maint Maint Dose CSV (-rems) Maint MW-YR Factor Dose Dose tions Others tractor Utility rems) MW-yr	3 (continued)         1980         1,703.7         70.1         2,124         1,055         117         938         162         883         0.50         0.6           1981         1,661.5         66.8         2,445         1,211         113         1,098         275         936         0.50         0.7           1982         1,283.1         52.5         2,445         1,792         97         1,695         364         1,428         0.73         0.7           1982         1,224.9         85.7         2,085         1,106         63         1,043         260         846         0.53         0.5           1984         2,242.9         86.5         2,085         1,304         144         1,160         378         926         0.50         0.7           1985         2,065         80.5         2,799         1,304         144         1,160         378         926         0.50         0.5           1986         1,985         2,289         87.2         2,499         949         36         1,304         1,4         1,6         36         0.5         0.5         0.5         0.5         0.4         0.5         0.4         0.5         0.4	EK         1970         413.6         95         63         21         42         11         52         0.66         0.1           1 DPR-16         1971         448.9         249         249         50         190         92         148         0.96         0.5           1 properation 1269         1972         515.0         339         249         50         190         92         148         0.96         0.5           1 properation 1269         1972         448.9         70.4         935         149         167         415         1.72         1.1           1 properation 1269         1974         434.5         70.4         935         198         167         416         117         415         1.72         1.1           1 properation 1269         1976         465.5         70.3         1,210         1,440         166         814         68         1.2         1.1         <
	Reporting Organization	OCONEE 1, 2, 3 (continued)	OYSTER CREEK Docket 50-219; DPR-16 1st commercial operation 12/69 Type - BWR Capacity - 619 MWe

# APPENDIX C (continued) PERSONNEL, DOSE AND POWER GENERATION SUMMARY

PERSONNEL, DOSE AND POWER GENERATION SUMMARY

	_	PERSONNEL	NEL, DOSE	- AND POWER GENERATION SUMMARY	GENERA	ION SO	MIMARY				
						Per	Person-cSv (-rems)	ms)			
						Per Work Function	Function	Per Personnel Type	el Type	Average	
Reporting Organization	Year	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective Dose	Opera- tions	Maint & Others	Con- tractor	Station & Utility	Measurable Dose (cSv or rems)	cSv (-rems) MW-yr
PALO VERDE 1, 2, 3 (continued)	1995 1996	3,265.2 3,482.7	85.6 90.0	1,875 1,717	482 302	62 31	420 271	278 157	204 145	0.26	0.1
PEACH BOTTOM 2,3 Docket 50-277, 50-278; DPR-44, -56 1st commercial operation 7/74, 12/74 Type - BWR Capacity - 1093, 1093 MWe	1975 1976 1977 1977 1980 1980 1980 1980 1980 1980 1980 1980	1,234.3 1,379.2 1,052.4 1,636.3 1,740.0 1,740.0 1,568.3 824.7 1,395.0 822.7 1,395.0 1,65.8 1,654.0 1,654.0 1,516.6 1,927.4 1,927.4 1,955.9	80.9 73.0 84.0 84.0 84.0 77.5 77.5 77.5 85.7 85.7 93.8 93.8	971 971 971 971 972 972 972 972 973 973 973 973 973 973 973 973 973 973	228 840 1,317 1,318 1,388 1,977 1,977 2,450 2,450 2,450 2,450 2,450 2,450 2,450 3,327 2,327 2,327 2,327 2,52 2,73 3,34 3,34 3,38 3,38	223 245 245 233 331 331 255 331 331 331 331 331 331 331 331 34 34 35 36 37 37 37 37 37 37 37 37 37 37 37 37 37	660 1,155 1,143 1,	434 1,374 709 709 1,880 1,880 1,348 2,045 2,045 2,025 1,712 1,712 2,025 3,74 3,74 1,70 1,712 1,727 1,727 1,727 1,736 1,7	406 662 662 608 671 706 627 627 409 483 371 198 246 260 205 172	0.23 0.39 0.72 0.61 0.61 0.65 0.05 0.05 0.05 0.05 0.05 0.05 0.05	0.01.00.01.4.6.0.00.00.00.00.00.00.00.00.00.00.00.00
PERRY Docket 50-440; NPF-58 1st commercial operation 11/87 Type - BWR Capacity - 1160 MWe	1 988 1 989 1 98 1 98	869.3 642.2 792.7 1,074.2 856.2 479.2 550.8 1,090.9 895.6	79.0 57.0 67.1 91.9 75.5 50.2 50.2 77.2	782 1,883 1,537 600 1,235 2,098 587 1,622	105 767 638 146 571 278 691 64	4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	71 654 122 587 543 520 620	36 604 440 106 177 29 44 29	69 163 172 172 172 175 175 175 175 175 175 175 175 175 175	0.13 0.24 0.24 0.23 0.33 0.03	0.1.0 0.0 0.0.0 0.0.0 0.0.0 0.0.0 0.0.0 0.0.0 0.0.0 0.0.0 0.0.0 0.0.0 0.0 0.0.0 0.0 0.0 0.0.0 0.0.0 0.0.0 0.0.0 0.0.0 0.0.0 0.0.0 0.0.0 0.

	-	PERSONNEL,	NEL, DOSE	AND POWER GENERATION SUMMAR	GENERA	ION NOI	MIMARY				
						Per	Person-cSv (-rems)	(šu			
						Per Work Function	unction	Per Personnel Type	el Type	Average	Ċ
Reporting Organization	Year	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective Dose	Opera- tions	Maint & Others	Con- tractor	Station & Utility	Neasurable Dose (cSv or rems)	cSv (-rems) MW-yr
PILGRIM 1 Docket 50-293; DPR-35 1 st commercial operation 12/72 Type - BWR Capacity - 670 MWe	1973 1974 1975 1976 1978 1978 1980 1985 1985 1986 1986 1986 1986 1990 1990 1992 1993	484.0 234.1 308.1 287.8 316.6 574.0 360.3 360.3 408.9 559.5 1.4 121.9 0.0 0.0 0.0 204.6 503.5 503.5 503.5 503.5 503.5 503.5 503.5 503.5 503.5 503.5 503.5 603.5 603.5	39.2 7.13.3 60.1.3 60.1.4 7.2 88.3 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9	230 454 454 1,317 1,875 2,858 2,229 2,035 1,797 1,332 1,338 1,294 1,294	126 415 798 2,648 3,142 1,015 1,015 1,162 4,082 1,162 207 205 205 205 200 482 116	64 49 4751 500 500 500 500 500 500 500 500 500 5	2,582 2,582 2,996 1,170 1,766 3,885 3,419 1,226 3,435 3,435 1,226 1,26 1,	2,270 2,176 2,176 895 3,076 1,4418 1,094 1,094 1,094 1,094 1,094 1,23 1,23 1,23 1,23 2,18 2,18 2,18 2,18 2,18 2,18 2,18 2,18	386 378 966 966 4432 4418 4418 154 154 154 155 155 156 157 167 177 178 185 185 185 185 185 185 185 185 185 18	0.55 0.55 0.66 0.66 0.66 0.66 0.65 0.65	0.1.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0
POINT BEACH 1,2 Docket 50-266, 50-301; DPR-24, -27 1st commercial operation 12/70, 10/72 Type - PWRs Capacity - 485, 485 MWe	1971 1972 1973 1974 1975 1976 1980 1981 1981 1983 1983 1984 1985	393.4 933.4 693.7 760.2 801.2 873.9 873.9 14.4 757.2 760.4 757.2 760.4 788.9 831.3 858.9	83.3 86.7 86.7 80.9 83.5 83.5 7.2.7 82.5 85.7	501 400 339 338 336 610 561 773 767 1,372 671 664	164 588 588 588 295 370 430 609 609 609 482 482 402	25 88 88 82 82 82 82 82 82 83 85 85 85 85 85 85 85 85 85 85 85 85 85	516 225 312 366 249 579 537 1,322 668 411 352	81 107 212 212 111 448 420 364 375 1,184 457 242 219	214 263 217 209 178 232 234 219 219 240 183	1.05 1.03 1.03 1.03 1.06 0.75 0.75 0.58 0.58	0.000000000000000000000000000000000000

APPENDIX C (continued)
PERSONNEL, DOSE AND POWER GENERATION SUMMARY

						ren	rerson-cov (-rems)	ms)			
						Per Work Function	unction	Per Personnel Type	el Type	Average	
Reporting Organization	Year	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective Dose	Opera- tions	Maint & Others	Con- tractor	Station & Utility	Measurable Dose (cSv or rems)	cSv (-rems) MW-yr
POINT BEACH 1, 2 (continued)	1987 1988 1989 1990 1992 1993 1995 1995	857.5 899.3 847.8 875.5 874.8 866.7 911.0 914.5 858.4	85.5 88.6 85.5 86.5 90.0 91.2 86.1	720 734 734 617 724 617 559 548 548 548	554 410 504 378 378 265 256 170 190	55 77 72 73 73 74 75 75 75 75 75 75 75 75 75 75 75 75 75	499 346 427 325 223 217 160 161	369 235 235 235 161 118 118 63 63 85	185 175 220 217 131 138 123 95 96	0.77 0.56 0.68 0.61 0.37 0.33 0.33	0.000000000000000000000000000000000000
PRAIRIE ISLAND 1,2 Docket 50-282, 50-306; DPR-42, -60 1st commercial operation 12/73, 12/74 Type - PWRs Capacity - 513, 512 MWe	7576 1976 1976 1976 1980 1980 1980 1980 1980 1980 1980 1980	181.9 836.0 922.9 922.9 922.9 922.1 1,001.8 925.4 1,023.3 1,023.3 1,023.3 1,023.3 1,023.3 1,023.3 1,023.3 1,023.3 1,023.3	8 43.9 8 7.5 8 7.5 8 7.5 8 9.5 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	150 477 818 718 818 594 645 645 645 654 737 737 737 737 737 737 738 845 845 845 845 845 845 845 845 845 84	223 353 353 353 353 353 353 353 353 353	86688488488886658658658658	227 227 227 229 239 239 239 239 239 239 239 239 239	c 88 8 4 4 4 5 8 8 8 8 8 8 8 8 8 8 8 8 8	240 240 240 240 240 240 240 240 240 240	0.25 0.26 0.36 0.36 0.38 0.27 0.23 0.23 0.23	00000000000000000000000000000000000000

APPENDIX C (continued)
PERSONNEL DOSE AND POWER GENERATION SHIMMARY

		PERSONNEL,	NEL, DOSE	E AND POWER	<b>GENERATION SUMMARY</b>	<b>ION SU</b>	MMARY				
						Pe	Person-cSv (-rems)	ems)			
						Per Work Function	Function	Per Personnel Type	el Type	Average Measurable	Person
Reporting Organization	Year	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective Dose	Opera- tions	Maint & Others	Con- tractor	Station & Utility	Dose (cSv or rems)	cSv (-rems) MW-yr
QUAD CITIES 1,2 Docket 50-254, 50-265; DPR-29, -30 1st commercial operation 2/73, 3/73 Type - BWRs Capacity - 769, 769 MWe	1974 1975 1976 1978 1979 1980 1981 1985 1986 1986 1986 1986 1987 1989 1990 1991 1992 1993 1994	958.1 833.6 951.2 1,124.5 1,075.0 1,088.5 1,126.6 1,126.6 1,126.6 1,148.9 960.8 960.8 974.9 681.5 661.5	72.3 68.4 88.6 88.6 84.0 84.6 86.0 77.0 77.3 85.7 77.8 86.0 68.0 68.0 67.0	678 1, 225 1, 225 1, 205 1, 205 1, 207 1, 207 1, 45 1, 45 1, 45 1, 72 2, 14 2, 14 2, 14 3, 18 4, 18 6,	482 1,651 1,651 1,031 1,618 2,158 3,757 2,491 1,579 990 990 720 1,028 1,128 1,028 1,028 1,028 1,028 1,028	4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1,504 1,382 1,382 1,260 1,943 2,323 1,046 8,22 8,22 8,22 8,22 8,22 8,22 8,22 8,2	36 692 692 373 722 1,055 1,075	446 926 1,003 658 1,618 1,104 523 1,104 593 863 882 285 285 287 285 285 287 285 285 285 285 285 285 285 285 285 285	0.71 1.49 1.149 1.140 1.157 1.162 1.162 1.162 1.163 1.	00000000000000000000000000000000000000
RANCHO SECO <sup>8</sup> Docket 50-312; DPR-54 1st commercial operation 4/75 Type - PWR Capacity - 873 MWe	1976 1977 1978 1980 1981 1983 1985 1985 1986	268.1 706.4 607.7 687.0 687.0 530.9 347.9 460.0 238.7 0.0	30.4 77.1 80.5 91.1 60.4 60.4 60.8 30.8 0.0	297 515 515 287 287 772 766 1,764 1,513	58 323 412 412 787 337 300	9 12 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	52 329 329 302 310 288 629 149 573 366	248 176 644 281 281 217 217 216 217 217	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	0.20 0.64 0.44 0.52 0.59 0.27 0.27	

 $^{\rm 8}{\rm Rancho~Seco}$  has been permanently shutdown.

APPENDIX C (continued)
PERSONNEL, DOSE AND POWER GENERATION SUMMARY

		PERSONNEL,			פרויווץ						
						Per	Person-cSv (-rems)	(sut			
						Per Work Function	-nuction	Per Personnel Type	nel Type	Average	
Reporting Organization	Year	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective Dose	Opera- tions	Maint & Quthers	Con- tractor	Station & Utility	Dose (cSv or rems)	cSv (-rems
RANCHO SECO³ (continued)	1988 1989 1990 1992 1993 1995 1995 1996 1996	355.8 179.9 0.0 0.0 0.0 0.0 0.0	63.1 54.7 0.0 0.0 0.0 0.0 0.0	693 603 701 701 85 85 91	78 13 0 0 7 1	£0448←←←	65 20 48 00 00	₩ <sub>0</sub> 27−00000	865 867 867 867 867 867 867 867 867 867 867	0.12 0.13 0.09 0.10 0.11 0.06 0.06	
RIVER BEND 1 Docket 50-458; NPF-47 1st commercial operation 6/86 Type - BWR Capacity - 936 MWe	1987 1988 1989 1990 1991 1993 1995 1995	605.2 880.7 584.5 682.2 814.7 336.1 640.0 595.7 967.1	68.4 94.3 69.1 78.0 87.2 39.7 71.6 64.9 85.3	1,268 1,566 1,566 1,616 2,022 2,209 667 2,093	378 107 558 489 144 710 180 519 85 473	70 44 44 44 77 77 71 71 71 71	308 77 74 1440 139 139 446 64 64	249 348 348 348 580 580 35 295	129 146 141 130 150 178	0.30 0.21 0.36 0.30 0.18 0.24 0.23 0.23	
ROBINSON 2 Docket 50-261; DPR-23 1st commercial operation 3/71 Type - PWR Capacity - 683 MWe	1972 1973 1974 1975 1976 1978 1980 1981 1984 1984 1986 1986	580.0 455.1 578.1 501.8 501.8 511.5 482.0 387.3 426.6 277.5 409.8 577.1	83.3 72.7 72.0 70.8 73.0 75.5 70.0 72.5 72.5	245 831 831 849 849 634 7,54 7,24 1,57 1,57 1,57 1,57 1,57	215 695 672 7,142 7,142 7,15 4,188 1,852 1,426 3,11 2,880 3,11 539 499	4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	487 487 487 1,128 1,773 1,298 2,598 493 445	137 1,379 2,529 5,13 9,45 1,649 1,649 3,13 3,13	78 758 232 434 434 473 220 481 295 331 199 186	0.88 0.84 0.79 0.72 0.92 0.70 0.71 0.34 0.36	4.6.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.

<sup>8</sup>Rancho Seco has been permanently shutdown

APPENDIX C (continued)
PERSONNEL, DOSE AND POWER GENERATION SUMMARY

		PERSONNEL,	INEL, DOSE	AND POWER GENERATION	GENERA	ן מי	SUMMAKY	(000			
				•		Per	Person-csv (-rems)	ims)			
	•					Per Work Function	Function	Per Personnel Type	el Type	Average	
Reporting Organization	Year	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective Dose	Opera- tions	Maint & Others	Con- tractor	Station & Utility	Measurable Dose (cSv or rems)	
ROBINSON 2 (continued)	1988 1989 1990 1992 1993 1996 1996	385.0 336.6 400.3 575.1 487.2 502.7 560.3 618.7	65.9 48.7 64.8 81.4 66.8 70.7 79.5 84.7	1,351 1,098 1,626 885 1,267 1,221 420 1,058	564 195 437 193 352 337 63 215	4555556 455556 45556	520 164 404 404 162 324 324 54 54 149	370 88 356 139 260 246 111	194 107 107 104 104 104	0.42 0.18 0.27 0.28 0.28 0.15 0.15	
SALEM 1,2 Docket 50-272, -311; DPR-70, -75 1st commercial operation 6/77, 10/81 Type - PWRs Capacity - 1106, 1106 MWe	1978 1979 1980 1983 1985 1988 1986 1980 1990 1990 1990 1990	546.4 250.0 680.6 743.0 1,440.4 742.0 650.1 1,657.7 1,591.6 1,726.4 1,362.6 1,367.4 1,367.4 1,367.4 1,367.4 558.1	55.6 69.2 78.1 72.6 30.2 31.8 31.8 75.8 73.8 73.8 65.4 73.8 73.8 73.8	7,488 1,704 1,704 1,704 1,395 1,112 2,543 3,559 3,559 1,195 1,195	254 449 254 1,203 1,203 204 681 272 458 431 188 188 278 408	80584800800 80490 80584800 805849	94 484 394 250 1,137 671 145 671 671 145 589 589 589 443 397 186 299	32 329 463 463 463 463 463 463 463 473 379 379 371 172 271	225 168 102 357 357 118 1140 1174 129 90 90 90 17	0.20 0.39 0.24 0.00 0.24 0.00 0.00 0.00 0.00 0.00	'
SAN ONOFRE 1°, 2,3 Docket 50-206, -361, -362; DPR-13, NPF-10, NPF-15 1st commercial operation 1/68,8/83,4/84 Type - PWR Capacity - 436, 1070, 1080 MWe	1969 1970 1972 1972 1973	314.1 365.9 362.1 338.5 273.7 377.8	86.1 87.4	123 251 121 326 570 219 424	42 155 50 256 353 71 292	0 5 2 2 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	32 142 38 227 313	5 59 3 117 168	37 96 47 139 185	0.34 0.62 0.40 0.79 0.32 0.69	

<sup>9</sup>San Onofre 1 was shut down 11/92 and is no longer included in the count of commercial reactors.

APPENDIX C (continued)
PERSONNEL, DOSE AND POWER GENERATION SUMMARY

					·	Per	Person-cSv (-rems)	ms)			
						Per Work Function	-unction	Per Personnel Type	el Type	Average	Corre
Reporting Organization	Year	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective Dose	Opera- tions	Maint & Others	Con- tractor	Station & Utility	Dose (cSv or rems)	cSv (-rems) MW-yr
SAN ONOFRE 1°,2,3 (continued)	1976 1977 1977 1982 1982 1988 1988 1989 1989 1989 1989	297.9 281.2 323.2 401.0 97.3 97.3 97.3 97.9 67.0 1,982.3 1,983.0 1,982.3 1,987.6 1,987.6 1,771.3 2,220.7 2,089.3	70.2 63.7 63.7 80.2 22.3 22.3 26.7 15.7 68.8 64.9 64.9 66.1 79.0 100.0 100.0	1,330 985 764 764 1,521 1,514 1,814 1,918 1,272 1,272	880 847 401 401 3,238 3,223 832 722 722 824 885 885 412 767 767	747	733 770 371 2,167 751 751 751 751 751 752 776 776 776 776 776 776 776 776 776 77	629 629 2,017 3,104 730 113 113 831 151 151 151 578 693 598 598 598 598 74	25. 26. 26. 26. 26. 26. 26. 26. 26. 26. 26	0.66 0.86 0.52 0.27 0.27 0.27 0.24 0.26 0.33 0.06 0.06 0.06 0.06	3.0 2.2 2.0 2.2 3.3 3.3 5.5 1.1 1.1 1.1 1.2 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3
SEABROOK Docket 50-443; NPF-86 1st commercial operation 8/90 Type - PWR Capacity - 1158 Mwe	1991 1992 1993 1995 1996	810.4 932.4 1,071.5 736.4 995.5 1,168.6	75.9 81.3 93.6 63.5 87.5 99.6	699 806 110 852 800	92 147 6 113 102	0058000	90 147 6 85 100 10	43 128 0 87 76	49 6 26 10	0.13 0.05 0.13 0.13 0.05	0.0 0.0 0.0 0.0 0.0
SEQUOYAH 1,2 Docket 50-327, -328; DPR-77, -79 1st commercial operation 7/81, 6/82 Type - PWR Capacity - 1117, 1117 MWe	1985 1986 1987 1988 1988 1988	583.5 1,663.7 1,481.9 1,151.3 0.0 490.8 1,651.7	52.8 75.1 69.0 51.3 0.0 0.0 31.8 85.7	1,965 1,772 1,854 1,735 2,080 2,007 2,934	570 491 1,117 1,071 526 420 678 657 1,678	55 118 101 55 17 102	497 417 965 953 425 365 605 1,576	61 46 111 243 70 101 140 352	509 1,006 828 828 456 319 563 517	0.29 0.28 0.47 0.58 0.20 0.28 0.33	0.00 8.00 8.00 1   4.00 0.00
				•							

<sup>9</sup>San Onofre 1 was shut down 11/92 and is no longer included in the count of commercial reactors.

APPENDIX C (continued)
PERSONNEL. DOSE AND POWER GENERATION SUMMARY

RE	and the second of the second o	-	PERSONNEL,	JEL, DOSE	AND POWER GENERATION SUMMARY	GENERAT	IOS NOI	<b>IMARY</b>				
G-(							Pers	Person-cSv (-rems)	ns)			
713					I		Per Work Function	unction	Per Personnel Type	el Type	Average	9
3	Reporting Organization	Year	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective Dose	Opera- tions	Maint & Others	Con- tractor	Station & Utility	Dose (cSv or rems)	cSv (-rems) MW-yr
	SEQUOYAH 1, 2 (continued)	1991 1992 1993 1995 1996	1,965.4 1,849.0 405.7 1,418.7 1,864.2 2,009.4	88.0 85.4 21.8 66.3 86.1 87.9	1,928 1,714 1,629 1,657 1,618	698 465 372 292 358 265	20 8 8 8 3 3 8 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	659 433 343 274 330 245	299 343 272 210 250 173	39 102 108 108 20 20 30 30 30 30 30 30 30 30 30 30 30 30 30	0.36 0.27 0.23 0.18 0.19	0.0 0.0 0.2 0.2 1.0
C-34	SOUTH TEXAS 1, 2 Docket 50-498, 50-499; NPF -76,-80 1st commercial operation 8/88, 6/89 Type - PWRs Capacity - 1251, 1251 MWe	1989 1990 1991 1993 1995 1996	769.3 1,504.1 1,741.5 2,096.0 1,700.2 2,294.2 2,465.9	65.6 65.9 72.4 83.8 8.3 70.6 89.9 95.0	989 1,136 1,144 1,138 1,485 1,145	161 206 257 147 251 47 137	0288621154	151 188 219 138 239 36 276 123	114 172 172 91 197 208 92	24 85 85 85 85 83 83 83	0.16 0.18 0.22 0.22 0.07 0.07	0.1 0.1 0.1 0.0 0.1 0.1
	ST. LUCIE 1,2 Docket 50-335, -389; DPR-67; NPF-16 1st commercial operation 12/76, 8/83 Type - PWRs Capacity - 839, 839 MWe	1977 1978 1980 1988 1988 1988 1988 1990 1990 199	649.1 606.4 592.0 627.9 599.1 816.8 1,483.0 1,445.8 1,588.6 1,592.8 1,527.6 1,511.9 1,732.6	84.7 7.55 7.75 7.75 7.2.7 72.7 89.6 89.6 89.6 89.6 87.3 87.3 87.3 86.5	447 477 477 477 477 477 478 478 478 478	152 337 438 532 929 1,263 1,344 491 611 641 495 505 492 892 893 853 853 853 853 853 853 853 853 853 85	252222 24524 252222 2522 2522 25222 25222 25222 25222 25222 25222 25222 25222 25222 25222 2522 25222 25222 25222 25222 25222 25222 25222 25222 25222 25222 25222 25222 25222 25222 25222 252 2522 2522 2522 2522 2522 2522 2522 2522 2522 2522 2522 2522 252 252 252 2522 2522 252 252 252 252 252 252 252 252 252 252 252 2	126 322 413 450 909 1,123 1,050 1,050 410 950 557 471 694 481 393 375	92 140 209 195 105 105 807 810 322 332 332 302 302 153 302 197	60 229 337 337 337 337 337 280 280 290 111 111 188 203 203	0.34 0.42 0.48 0.50 0.50 0.54 0.47 0.34 0.37 0.27	0000 0000 0000 0000 0000 0000 0000 0000 0000

APPENDIX C (continued)
PERSONNEL, DOSE AND POWER GENERATION SUMMARY

	_	PERSONNE	NEL, DOSE	AND POWER GENERATION SUMMARY	GENERA		MIMARY				
						Per	Person-cSv (-rems)	ms)			
						Per Work Function	-noction	Per Personnel Type	el Type	Average	Doron
Reporting Organization	Year	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective Dose	Opera- tions	Maint & Others	Con- tractor	Station & Utility	Dose (cSv or rems)	cSv (-rems) MW-yr
SUMMER 1 Docket 50-395; NPF-12 1st commercial operation 1/84 Type - PWR Capacity - 945 MWe	1984 1985 1986 1987 1990 1992 1993 1993 1995 1995	504.6 627.7 853.7 605.3 605.3 652.4 730.0 642.5 892.6 728.3 536.7 899.8	61.1 71.6 71.6 69.1 83.1 83.9 87.4 84.0 69.5 97.2	1,120 1,201 1,201 1,075 1,127 1,090 1,549 1,549 257	295 379 23 560 511 52 376 297 27 27 27 27 297 374	29 35 11 29 11 10 10	266 305 18 18 476 476 410 270 21 286 347 10	202 241 12 454 403 322 253 253 334 62 62	93 106 108 108 108 108 108 108 108 108 108 108	0.26 0.32 0.05 0.05 0.14 0.26 0.24 0.05	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
SURRY 1,2 Docket 50-280, 50-281; DPR-32, -37 1st commercial operation 12/72, 5/73 Type - PWRs Capacity - 801, 801 MWe	1973 1974 1975 1976 1977 1982 1983 1985 1986 1986 1986 1990 1990 1991 1993	420.6 747.4 1,079.0 930.7 1,210.6 343.0 907.6 1,323.3 1,026.7 1,132.7 1,333.0 1,333.0 1,333.0 1,562.9	947 7722 7722 7722 7722 7722 7722 7722 7723 7723 7723 7723 7723 7724 8839 8725 8	2, 1, 1, 2, 2, 2, 3, 3, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5,	152 884 1,649 3,165 3,837 1,490 1,542 1,54	272 448 348 353 389 389 572 572 66 66 66 66 66 66 66 66 66 66 66 66 66	2,22 8,222 1,959 1,959 1,926 1	1,065 1,380 1,380 1,248 2,974 3,117 3,040 1,575 1,575 1,677 1,117 3,383 3,383 3,383 3,41 2,54 2,54 2,46	252 252 252 252 253 254 254 255 253 366 253 367 257 257 257 257 257 257 257 257 257 25	0.16 0.16 0.17 0.17 0.17 0.17 0.17 0.17 0.17 0.17	0.1.1.8.01.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0

APPENDIX C (continued)
PERSONNEL, DOSE AND POWER GENERATION SUMMARY

	_	PERSONNEL,	NEL, DOSE	E AND POWER	<b>GENERATION SUMMARY</b>	LION SUI	<b>MMARY</b>				
						Per	Person-cSv (-rems)	ms)			
						Per Work Function	-unction	Per Personnel Type	nel Type	Average	o di di
Reporting Organization	Year	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective Dose	Opera- tions	Maint & Others	Con- tractor	Station & Utility	Dose (cSv or rems)	cSv (-rems) MW-yr
SUSQUEHANNA 1,2 Docket 50-387, 50-388; NPF-14; NPF-22 1st commercial operation 6/83, 2/85 Type - BWR Capacity - 1090, 1094 MWe	1988 1988 1988 1988 1988 1988 1988 1988	719.9 1,452.2 1,344.8 1,749.5 1,772.5 1,604.2 1,602.1 1,850.8 1,850.8	72.6 76.4 67.0 67.0 85.3 77.7 77.3 85.4 85.3 96.3 7.9 7.9 7.9	2,827 2,996 2,996 2,548 2,996 4,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1	308 1,106 828 621 516 704 724 724 442 442 835	4 8 2 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	234 778 778 585 672 464 695 316 695 316	727 790 790 7402 7402 7403 7403 7403 7403 7403 7403 7403 7403	181 316 226 235 237 237 256 368 163 196 177	0.28 0.28 0.24 0.27 0.23 0.23	00000000000000000000000000000000000000
THREE MILE ISLAND 1,2 Docket 50-289, -320; DPR-50, -73 1st commercial operation 9/74, 12/78 Type - PWRs Capacity - 786, 880 MWe	1975 1976 1977 1978 1980 1981 1983 1983 1983	675.9 530.0 664.5 690.0 266.0 0.0 0.0 0.0 103.6	82.2 65.4 80.9 85.1 21.9 0.0 0.0 0.0 0.0	131 819 1,122 2,122 2,1328 1,592 1,692 1,890	73 286 360 360 504 1,392 394 376 1,004 1,159 688	23 197 197 23 23 23 23 23 23 23	263 344 472 1,195 365 326 942 1,074 638	18 69 128 235 235 190 433 633 833 833 833	55 231 269 485 155 186 571 571 526 358	0.56 0.35 0.32 0.26 0.17 0.73 0.64	0.5 0.5 0.5 5.2 1       8.3
THREE MILE ISLAND 1 <sup>10</sup> Docket 50-289; DPR-50 1st commercial operation 9/74 Type - PWR Capacity - 786 MWe	1986 1988 1989 1990 1993 1993	585.2 610.7 661.0 871.3 645.5 688.7 836.8 722.0	70.9 73.6 77.8 100.0 88.4 100.0 88.5 95.5	1,360 1,259 1,012 1,542 1,542 1,858 434	213 210 210 264 264 198 34 206 40	4444222456	169 109 170 221 151 153 21	250 250 250 250 250 250 250 250 250 250	22 22 22 25 26 26 26 26 26 26 26 26 26 26 26 26 26	0.16 0.08 0.08 0.09 0.013 0.09	4000000 400000000000000000000000000000

 $^{10}$ Three Mile Island 1 resumed commercial power generation 10/85 after being under regulatory restraint since 1979.

APPENDIX C (continued)
PERSONNEL, DOSE AND POWER GENERATION SUMMARY

	·					Per	Person-cSv (-rems)	ms)			
						Per Work Function	-unction	Per Personnel Type	el Type	Average	í
Reporting Organization	Year	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective Dose	Opera- tions	Maint & Others	Con- tractor	Station & Utility	Measurable Dose (cSv or rems)	cSv (-rems) MW-yr
THREE MILE ISLAND 110(continued)	1995 1996	772.9 857.4	90.8 100.0	1,220 267	213 16	31	182 15	126 0	87 16	0.17	0.3
THREE MILE ISLAND 2 <sup>11</sup> Docket 50-320; DPR-73 1st commercial operation 12/78 Type - PWR Capacity - 880 MWe	1986 1987 1988 1990 1992 1994 1995	0.0000000000000000000000000000000000000	0.0000000000000000000000000000000000000	1,497 1,378 1,247 1,014 484 484 153 315 167 191	915 977 917 639 136 37 157 7 2	97 98 88 7 7 7 1	818 887 891 551 111 36 150 7	615 687 687 382 3 3 99 19 0	300 226 226 257 88 34 44 14	0.61 0.74 0.28 0.28 0.20 0.00 0.03	
TROJAN <sup>12</sup> Docket 50-344; NPF-1 1st commercial operation 5/76 Type - PWR Capacity - 1095 MWe	1982 1983 1984 1985 1986 1986 1986 1986	792.0 205.5 631.0 727.5 775.6 579.5 567.0 829.1 852.4 525.5 758.6	92.6 20.6 20.6 58.1 72.5 74.1 76.7 76.7 67.5 61.9	591 711 711 711 711 96 97 77 965 1,209 1,408	774 258 258 609 609 419 363 381 383 383 401	88 4 7 7 1 2 1 8 8 1 8 1 8 1 8 1 8 1 8 1 8 1 8 1	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	105 113 305 305 363 363 363 274 274 266 311	69 145 145 116 251 203 203 107 107	0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.	0.000000000000000000000000000000000000
2	1990	/32.4	66.3	1,169	728	ກ	249	185	3	0.22	4.0

 $<sup>^{10} \</sup>mathrm{Three}$  Mile Island 1 resumed commercial power generation 10/85 after being under regulatory restraint since 1979.

<sup>12</sup>Trojan ended commercial operation as of 1/93, and will not be put in commercial operation again. It is no longer included in the count of commercial reactors.

<sup>&</sup>lt;sup>11</sup>Three Mile Island 2 has been shut down since the 1979 accident, but was still included in the count of reactors through 1988 since dose was still being accumulated to defuel and decontaminate the unit during this time period.

APPENDIX C (continued)
PERSONNEL DOSE AND POWER GENERATION SUMMARY

		PERSONNEL,	<b>NEL, DOSE</b>	E AND POWER	<b>GENERATION SUMMARY</b>	IOS NOI	MMARY				
						Per	Person-cSv (-rems)	ms)			
						Per Work Function	unction	Per Personnel Type	el Type	Average Measurable	Person
Reporting Organization	Year	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective Dose	Opera- tions	Maint & Others	Con- tractor	Station & Utility	Dose (cSv or rems)	cSv (-rems) MW-yr
TROJAN¹² (continued)	1991 1992 1993 1994 1995	181.6 553.9 0.0 0.0 0.0	16.1 68.4 68.4 0.0 0.0	1,496 567 54 51 141	567 84 21 9 44	78882	550 76 18	475 52 12 6	322 33 35 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	0.38 0.15 0.39 0.18 0.31	3.1
TURKEY POINT 3,4 Docket 50-250, 50-251; DPR-31, 41 1st commercial operation 12/72, 9/73 Type - PWRs Capacity - 693, 693 MWe	1973 1974 1975 1976 1976 1979 1988 1988 1988 1988 1989 1989 1989	401.9 953.6 1,003.7 974.2 979.5 1,000.2 811.0 990.6 654.0 946.7 1,034.9 754.1 431.3 869.9 933.1 1,244.8 1,320.3 1,320.3	74.7 72.7 72.7 73.6 73.6 73.6 73.6 74.7 75.5 94.6 94.6 94.6	444 47 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	78 876 1,184 1,036 1,036 1,032 1,032 1,251 1,253 1,371 1,371 1,371 1,371 1,371 1,371 1,371 1,371 1,371 1,371 1,371 1,371 1,371 1,38 1,38 1,38 1,38 1,38 1,38 1,38 1,3	88 270 89 89 233 233 244 277 277 277 277 277 277 277 277 277	366 606 606 1,095 942 1,977 1,977 1,038 1,	202 868 868 522 1,524 1,656 2,119 817 817 817 817 817 817 817 102 895 102 895 102 895 102 895 895 895 895 895 895 895 895 895 895	252 317 316 514 683 683 683 436 370 370 270 270 270 270 270 270 270 270 270 2	0.000 0.000	000011124222111200000000000000000000000
VERMONT YANKEE Docket 50-271; DPR-28 1st commercial operation 11/72 Type - BWR Capacity - 510 MWe	1973 1974 1975 1976	222.1 303.5 429.0 389.6 423.5	87.8 77.1 85.1	244 357 282 815 641	85 216 153 411 258	70 38 38 83	192 83 375 175	103 246 90	113 90 165 168	0.35 0.54 0.50 0.50	0.4 0.7 0.6 0.6

<sup>12</sup>Trojan ended commercial operation as of 1/93, and will not be put in commercial operation again. It is no longer included in the count of commercial reactors.

APPENDIX C (continued)
PERSONNEL, DOSE AND POWER GENERATION SUMMARY

			Reporting Organization	VERMONT YANKEE (continued)	VOGTLE 1,2 Docket 50-424, 50-425; NPF-68, -81 1st commercial operation 6/87, 5/89 Type - PWRs Capacity - 1162, 1162 MWe	WASHINGTON NUCLEAR 2 Docket 50-397; NPF-21 1st commercial operation 12/84 Type - BWR Capacity - 1107 MWe
			Year	1978 1980 1981 1982 1983 1985 1986 1986 1990 1990 1991 1992 1993	1988 1989 1990 1992 1992 1993 1994 1995	1985 1986 1987 1989 1990 1992 1992
PERSONNEL,			Megawatt Years MW-YR	387.5 414.0 357.8 429.1 398.1 398.1 492.3 492.3 492.3 492.3 492.3 462.1	820.4 1,045.8 1,710.9 1,966.5 2,047.9 2,170.1 2,285.4 2,056.8	616.0 616.0 639.0 707.7 727.2 684.7 508.5 682.3
NEL, DOSE			Unit Availability Factor	75.9 84.6 74.0 86.0 86.0 74.8 86.9 87.0 88.1 88.1 88.1 88.1 88.1 88.1 88.1 88	77.7 96.0 82.7 89.2 99.0 91.3 95.2	87.6 74.4 70.8 71.8 78.3 67.5 65.6 65.6
AND POWER GENERATION SUMMARY			Total Personnel With Measurable Doses	934 1,220 1,443 1,264 1,364 1,389 1,	1,108 427 1,602 1,357 1,338 1048 953 1,395	755 1,013 1,204 1,299 1,348 1,489 1,385
GENERA			Collective Dose	339 1,170 1,338 731 205 1,527 626 1,051 1,188 303 307 118 381 231 231	138 32 466 362 426 367 217 199 452	119 222 406 353 353 536 536 612 469
ION SOIL	Per	Per Work Function	Opera- tions	246 546 547 515 60 515 63 77 77 77 77 77	£1 7 8 8 6 7 8 8 5 6 4 8 5 6 4	48888 <u>6</u> 2887
WINIARY	Person-cSv (-rems)	-unction	Maint & Others	261 624 1,197 610 610 1,312 543 888 1,144 270 270 270 323 323 176 176	125 25 377 312 375 333 209 186 403	77 166 311 272 331 415 601 468
	ns)	Per Personnel Type	Con- tractor	158 642 926 408 408 80 787 787 787 220 226 67 67 66 166 18	107 14 323 296 310 310 120 120 94	207 143 209 143 207 207 207 207 207 207 207 207 207 207
		el Type	Station & Utility	181 412 412 323 323 308 153 177 77 77 77 77 86 87 77 87 83 83 83	31 18 18 19 116 116 105 218	77 152 263 260 276 327 327 305
		Average	Dose (cSv or rems)	0.36 0.96 0.93 0.58 0.58 0.37 0.35 0.35 0.25 0.25	0.12 0.07 0.29 0.27 0.27 0.21 0.32	0.16 0.22 0.34 0.38 0.38 0.36 0.36
			cSv (-rems) MW-yr	0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.	0.000000000000000000000000000000000000	0.000000000000000000000000000000000000

APPENDIX C (continued)
PERSONNEL DOSE AND POWER GENERATION SHIMMARY

UF			PERSONNEL,	NEL, DOSE	AND POWER	GENERATION SUMMARY	LION SUL	MMARY				
REG							Pers	Person-cSv (-rems)	ns)			
3-07							Per Work Function	unction	Per Personnel Type	el Type	Average	
'13	Reporting Organization	Year	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective Dose	Opera- tions	Maint & Others	Con- tractor	Station & Utility	Neasurable Dose (cSv or rems)	cSv (-rems) MW-yr
	WASHINGTON NUCLEAR 2 (continued)	1994 1995 1996	803.8 824.7 662.9	75.2 83.8 82.2	1,870 1,694 1,453	866 456 373	108 91 71	758 365 302	468 219 221	398 237 152	0.46 0.27 0.26	1.1 0.6 0.6
C-40	WATERFORD 3 Docket 50-382; NPF-38 1st commercial operation 9/85 Type - PWR Capacity - 1075 MWe	1986 1988 1988 1989 1990 1993 1995	875.7 891.8 784.3 909.8 1,027.9 870.6 909.6 1,088.3 949.1	79. 75.5 82.6 83.2 83.0 83.0 83.0 83.0	1,244 1,246 1,306 1,301 1,213 1,167 1,092 342	223 156 259 265 47 47 364 226 1191 153	288660 <u>1</u> 2884	161 123 180 195 174 174 151	178 106 207 231 24 307 177 143 93	\$ 6 6 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	0.16 0.20 0.20 0.20 0.08 0.09 0.04 0.04	0.000000000000000000000000000000000000
	WOLF CREEK 1 Docket 50-482; NPF-42 1st commercial operation 9/85 Type - PWR Capacity - 1163 MWe	1986 1988 1988 1989 1990 1993 1995 1995	832.8 778.8 778.8 1,108.4 940.2 707.6 1,010.8 1,198.0 980.6	73.3 70.7 70.7 89.5 77.9 86.8 86.8 98.7	682 1,010 1,010 1,010 1,082 242 986	143 138 297 18 195 331 78 183 235 171	27 28 29 31 31 28 28	116 235 235 294 152 199 143	28 1 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	120 120 120 120 120 120 120 120 120 120	0.21 0.29 0.29 0.10 0.24 0.19 0.06 0.06	000 000 000 000 000 000 000 000 000 00
	YANKEE ROWE <sup>13</sup> Docket 50-29; DPR-3 1st commercial operation 7/61 Type - PWR Capacity - 167 MWe	1969 1970 1971 1972 1973	138.3 146.1 173.5 78.7 127.1		193 355 155 133	215 255 90 255 99	8 8 9 8 8	132 165 192	78 158 19 146 47	133 97 71 72 52	1.11 0.72 0.58 0.90 0.74	1.6 1.7 0.5 3.2 0.8

13 Yankee Rowe ended commercial operation as of 10/91, and will not be put in commercial operation again. It is no longer included in the count of commercial reactors.

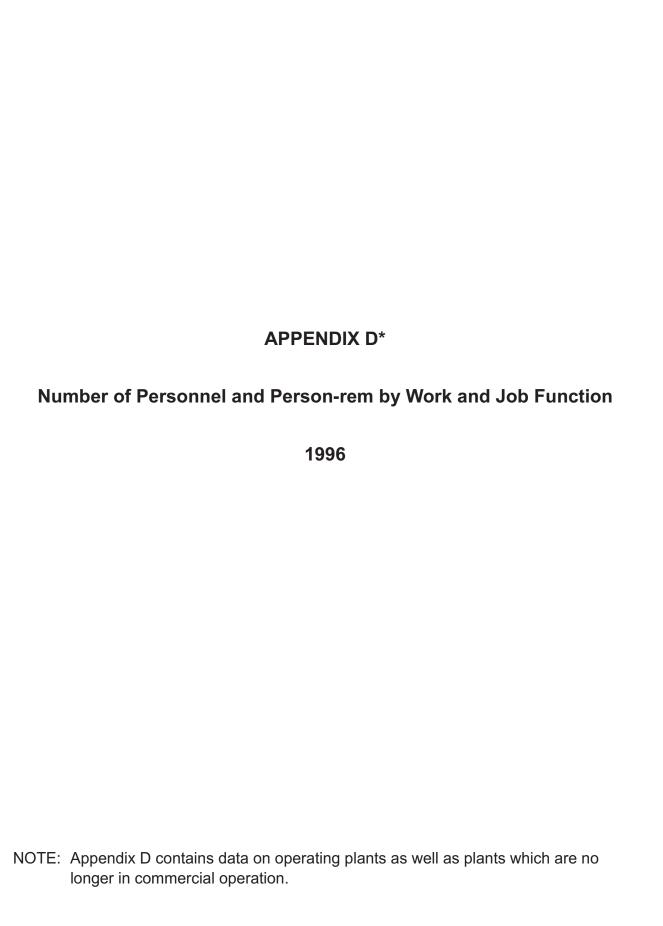
APPENDIX C (continued)
PERSONNEL, DOSE AND POWER GENERATION SUMMARY

		PERSONNEL,	NEL, DOSE	AND POWER GENERATION	GENERA		SOIVIINIART				
						Per	Person-cSv (-rems)	(su	·		
						Per Work Function	unction	Per Personnel Type	nel Type	Average	ć
Reporting Organization	Year	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective Dose	Opera- tions	Maint & Others	Con- tractor	Station & Utility	Measurable Dose (cSv or rems)	cSv (-rems) MW-yr
YANKEE ROWE <sup>13</sup> (continued)	1974 1976 1976 1978 1980 1981 1985 1988 1988 1989 1990 1990 1990 1990 1990	114744 14444 17274 1737 1738 1738 1738 1738 1738 1738 1738	88 87 88 87 88 87 88 87 88 87 88 87 88 87 88 87 87	249 249 249 252 252 253 253 253 253 253 253 253 253	205 116 356 356 212 227 248 472 227 227 248 248 262 277 277 28 28 28 29 20 20 20 20 20 20 20 20 20 20 20 20 20	37,844,50 8 7,847,50 8,50 8,50 8,50 8,50 8,50 8,50 8,50 8	94 23,24 25,24 11,25 194 194 195 195 195 195 195 195 195 195 195 195	98 4 4 4 5 20 20 20 20 20 20 20 20 20 20 20 20 20	06 55 182 182 183 183 183 183 184 185 185 185 185 185 185 185 185 185 185	0.84 0.39 0.39 0.50 0.50 0.53 0.32 0.32 0.32 0.32 0.32 0.32 0.32 0.3	2.0001.0009.44.000.0000.0000.0000.0000.00
ZION 1,2 Docket 50-295, 50-304; DPR-39, -48 1st commercial operation 12/73, 9/74 Type - PWRs Capacity - 1040, 1040 MWe	1974 1975 1976 1977 1980 1980 1981 1981 1983 1983 1984	425.3 425.3 425.3 425.3 425.3 425.3 425.3 425.3 462.0	71.1 74.9 61.9 80.2 67.6 67.6 72.3 72.3 73.2 73.2	306 436 774 774 1,104 1,575 1,54 1,110 1,498 967	56 127 127 1017 1017 1274 1274 1203 1111 166 174	71 64 72 70 70 70 70 70 70 70 70 70 70 70 70 70	110 507 960 723 723 1,106 1,106 1,103 1,127 453	13 49 257 257 257 747 747 1,688 905 905 330	43 78 314 442 1,017 527 360 565 415 406 230 379 144	0.18 0.29 0.74 0.92 0.93 0.98 1.34 0.71 0.78	0.1 0.5 0.0 0.0 0.1 0.1 0.1 0.3 0.3

<sup>13</sup>Yankee Rowe ended commercial operation as of 10/91, and will not be put in commercial operation again. It is no longer included in the count of commercial reactors.

APPENDIX C (continued)
PERSONNEL, DOSE AND POWER GENERATION SUMMARY

						Per	Person-cSv (-rems)	(su			
				•		Per Work Function	unction	Per Personnel Type	el Type	Average	
Reporting Organization	Year	Megawatt Years MW-YR	Unit Availability Factor	Total Personnel With Measurable Doses	Collective Dose	Opera- tions	Maint & Others	Con- tractor	Station & Utility	Nreasurable Dose (cSv or rems)	cSv (-rems) MW-yr
ZION 1,2 (continued)	1989 1989 1990 1992 1992 1998 1998 1998	1,337.0 1,549.1 1,514.1 1,125.7 1,128.8 1,458.2 1,538.4	71.0 77.6 77.6 58.2 59.0 72.4 75.8	1,046 1,926 1,282 1,385 902 1,772 1,176 1,607	653 1,260 624 1,043 306 437 437	88208054 × 4	615 603 677 1,024 628 789 789	432 1,045 392 492 90 783 461 176 590	221 215 204 232 207 130 130 120 120	0.652 0.652 0.50 0.50 0.60 0.36 0.36 0.36 0.28	0.000000000000000000000000000000000000



D-1 NUREG-0713

#### **APPENDIX D**

### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*ARKANSAS 1,2

TYPE:

VORK AND	NUMBER OF	PERSON	INEL (>100 mRE	EM)	TOTA	L PERSON-F	EM	
OB FUNCTION	STATION (		CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
EACTOR OPS & SURV								
IAINTENANCE PERSONNEL	11	5	28	44	1.517	1.277	4.488	7.282
PERATIONS PERSONNEL	29	2	0	31	5.008	0.593	0.000	5.601
IEALTH PHYSICS PERSONNEL	48	6	18	72	15.516	1.816	4.359	21.691
UPERVISORY PERSONNEL	4	0	1	5	0.504	0.000	0.382	0.886
NGINEERING PERSONNEL	5	0	0	<u>5</u>	1.029	0.000	0.000	1.029
TOTAL	<u>5</u> 97	<u>0</u> 13	<u>0</u> 47	157	23.574	3.686	9.229	36.489
OUTINE MAINTENANCE_								
IAINTENANCE PERSONNEL	42	7	54	103	6.372	1.130	8.666	16.168
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
EALTH PHYSICS PERSONNEL	2	0	0	2	0.270	0.000	0.000	0.270
SUPERVISORY PERSONNEL	ō	Ö	Ö	0	0.000	0.000	0.000	0.000
INGINEERING PERSONNEL					0.116	0.000	0.499	0.615
	<u>1</u> 45	<u>0</u> 7	<u>3</u> 57	<u>4</u> 109	6.758	1.130	9.165	17.053
TOTAL	45	/	5/	109	0.708	1.130	a. 100	17.053
N-SERVICE INSPECTION MAINTENANCE PERSONNEL	3	1	79	83	0.768	0.133	35.629	36.530
PERATIONS PERSONNEL	0	Ö	0	0	0.000	0.000	0.000	0.000
			_	-				
EALTH PHYSICS PERSONNEL	8	0	3	11	4.263	0.000	0.458	4.721
UPERVISORY PERSONNEL	2	0	. 0	2	0.350	0.000	0.000	0.350
NGINEERING PERSONNEL	<u>7</u>	<u>0</u> 1	<u>6</u> 88	<u>13</u>	<u>1.464</u>	<u>0.000</u>	<u>2.933</u>	4.397
TOTAL	20	1	88	109	6.845	0.133	39.020	45.998
PECIAL MAINTENANCE								
IAINTENANCE PERSONNEL	12	0	87	99	1.953	0.000	23.825	25.778
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
IEALTH PHYSICS PERSONNEL	2	0	2	4	0.254	0.000	0.501	0.755
UPERVISORY PERSONNEL	0	0	1	1	0.000	0.000	0.150	0.150
NGINEERING PERSONNEL			7	<u>15</u>	1.125	0.109	3.612	4.846
TOTAL	<u>7</u> 21	1 1	97	119	3.332	0.109	28.088	31.529
VASTE PROCESSING								
MAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
PERATIONS PERSONNEL	0	0	0	. 0	0.000	0.000	0.000	0.000
EALTH PHYSICS PERSONNEL	Ö	Ö	Ö	Ō	0.000	0.000	0.000	0.000
SUPERVISORY PERSONNEL	ő	Ö	ő	ŏ	0.000	0.000	0.000	0.000
						0.000		0.000
NGINEERING PERSONNEL TOTAL	<u>0</u> 0	<u>0</u>	<u>0</u>	<u>0</u>	<u>0.000</u> 0.000	0.000	0.000 0.000	0.000
REFUELING								
MAINTENANCE PERSONNEL	14	4	22	40	3.215	0.894	4.816	8.925
	10	0	0	10	1.774	0.000	0.000	1.774
PERATIONS PERSONNEL								
IEALTH PHYSICS PERSONNEL	4	0	1	5	1.055	0.000	0.108	1.163
SUPERVISORY PERSONNEL	5	0	0	5	1.099	0.000	0.000	1.099
NGINEERING PERSONNEL	<u>1</u> 34	<u>0</u> 4	<u>3</u>	<u>4</u> 64	0.106	0.000	0.592	0.698
TOTAL	34	4	26	64	7.249	0.894	5.516	13.659
OTAL BY JOB FUNCTION					40.00=		199 a A	04.000
MAINTENANCE PERSONNEL	82	17	270	369	13.825	3.434	77.424	94.683
PERATIONS PERSONNEL	39	2	0	41	6.782	0.593	0.000	7.375
IEALTH PHYSICS PERSONNEL	64	6	24	94	21.358	1.816	5.426	28.600
UPERVISORY PERSONNEL	11	0	2	13	1.953	0.000	0.532	2.485
NGINEERING PERSONNEL	21	1	19	41	3.840	0.109	7.636	11.585

<sup>\*</sup>Workers may be counted in more than one category.

#### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*BEAVER VALLEY 1,2

TYPE:

VORK AND	NUMBER OF					L PERSON-R		
OB FUNCTION	STATION U	TILITY (	CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
EACTOR OPS & SURV								
AINTENANCE PERSONNEL	8	0	17	25	1.671	0.000	9.521	11.192
PERATIONS PERSONNEL	45	0	0	45	8.874	0.000	0.000	8.874
EALTH PHYSICS PERSONNEL	21	0	38	59	4.825	0.000	15.431	20.256
UPERVISORY PERSONNEL	8	0	1	9	1.286	0.000	0.302	1.588
NGINEERING PERSONNEL	<u>1</u>	<u>o</u>	<u>o</u>	<u>1</u>	<u>0.117</u>	0.000	<u>0.116</u>	0.233
TOTAL	83	ō	56	139	16.773	0.000	25.370	42.143
OUTINE MAINTENANCE								
AINTENANCE PERSONNEL	154	0	270	424	38.534	0.000	106.530	145.064
PERATIONS PERSONNEL	3	. 0	0	3	0.592	0.000	0.000	0.592
EALTH PHYSICS PERSONNEL	8	0	26	34	1.777	0.000	9.439	11.216
UPERVISORY PERSONNEL	9	0	8	17 .	1.887	0.000	1.763	3.650
NGINEERING PERSONNEL	<u>2</u>	<u>o</u> 0	<u>4</u>	<u>6</u>	<u>0.410</u>	0.000	<u>0.824</u>	1.234
TOTAL	<u>2</u> 176	ō	308	484	43.200	0.000	118.556	161.756
-SERVICE INSPECTION		_			A		400 700	400.015
AINTENANCE PERSONNEL	1	0	227	228	0.159	0.000	122.789	122.948
PERATIONS PERSONNEL	0	0	0	0	0.028	0.000	0.000	0.028
EALTH PHYSICS PERSONNEL	0	0	20	20	0.033	0.000	8.059	8.092
UPERVISORY PERSONNEL	10	0	7	17	4.066	0.000	3.016	7.082
NGINEERING PERSONNEL	<u>0</u>	<u>o</u> 0	<u>1</u>	<u>1</u>	<u>0.096</u>	0.000	<u>0.315</u>	<u>0.411</u>
TOTAL	11	Ō	255	266	4.382	0.000	134.179	138.561
PECIAL MAINTENANCE			_					
AINTENANCE PERSONNEL	0	0	2	2	0.000	0.000	0.352	0.352
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
EALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
UPERVISORY PERSONNEL	0	0	0	0	0.009	0.000	0.001	0.010
NGINEERING PERSONNEL	<u>0</u> 0	<u>o</u> o	<u>0</u> 2	<u>0</u> 2	0.000	0.000	0.007	0.007
TOTAL	ō	ō	2	2	0.009	0.000	0.360	0.369
VASTE PROCESSING								
IAINTENANCE PERSONNEL	1	0	3	4	0.155	0.000	0.422	0.577
PERATIONS PERSONNEL	4	0	0	4	0.873	0.000	0.000	0.873
EALTH PHYSICS PERSONNEL	1	0	6	7	0.277	0.000	1.692	1.969
UPERVISORY PERSONNEL	1	0	0	1	0.209	0.000	0.000	0.209
NGINEERING PERSONNEL	0	0	<u>0</u> 9	0	0.000	0.000	0.000	0.000
TOTAL	<u>0</u> 7	00	9	<u>0</u> 16	1.514	0.000	2.114	3.628
EFUELING								
IAINTENANCE PERSONNEL	5	0	61	66	1.056	0.000	35.288	36.344
PERATIONS PERSONNEL	1	0	0	1	0.412	0.000	0.000	0.412
EALTH PHYSICS PERSONNEL	2	0	15	17	0.398	0.000	4.718	5.116
UPERVISORY PERSONNEL	7	0	2	9	2.960	0.000	0.814	3.774
NGINEERING PERSONNEL	<u>1</u>	0	3	4	0.243	0.000	2.211	2.454
TOTAL	16	<u>o</u>	<u>3</u> 81	9 <del>7</del>	5.069	0.000	43.031	48.100
OTAL BY JOB FUNCTION							<b></b>	
AINTENANCE PERSONNEL	169	0	580	749	41.575	0.000	274.902	316.477
PERATIONS PERSONNEL	53	0	0	53	10.779	0.000	0.000	10.779
EALTH PHYSICS PERSONNEL	32	0	105	137	7.310	0.000	39.339	46.649
UPERVISORY PERSONNEL	35	0	18	53	10.417	0.000	5.896	16.313
NGINEERING PERSONNEL	4	0	8	12	0.866	0.000	3.473	4.339
GRAND TOTALS	293	0	711	1004	70.947	0.000	323.610	394.557

<sup>\*</sup>Workers may be counted in more than one category.

# NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*BIG ROCK POINT

TYPE:

/ORK AND	NOWREK O	F PERSONN	EL (>100 mRE	:M)	TOTA	L PERSON-R	EM	
OB FUNCTION	STATION		CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTA
EACTOR OPS & SURV								
IAINTENANCE PERSONNEL	1	0	0	1	0.394	0.003	0.002	0.399
PERATIONS PERSONNEL	36	0	0	36	22.582	0.009	0.003	22.594
EALTH PHYSICS PERSONNEL	8	0	8	16	3.166	0.010	2.636	5.812
UPERVISORY PERSONNEL	2	. 0	1	3	0.781	0.025	0.405	1.211
IGINEERING PERSONNEL	<u>1</u>		0		0.801	0.067	0.117	0.985
TOTAL	48	<u>o</u>	<u>0</u> 9	<u>1</u> 57	27.724	0.114	3.163	31.001
OUTINE MAINTENANCE								
AINTENANCE PERSONNEL	25	37	7	69	16.138	19.383	1.820	37.341
PERATIONS PERSONNEL	. 4	0	0	4	0.726	0.000	0.000	0.726
EALTH PHYSICS PERSONNEL	9	Ö	16	25	3.317	0.000	5.212	8.529
JPERVISORY PERSONNEL	1	3	2	6	0.241	0.518	1.355	2.114
IGINEERING PERSONNEL	<u>5</u>	<u>0</u> 40	<u>2</u> 27	7	<u>1.890</u>	<u>0.016</u>	<u>2.039</u>	3.945
TOTAL	44	40	27	111	22.312	19.917	10.426	52.655
-SERVICE INSPECTION AINTENANCE PERSONNEL	0	16	3	19	0.141	8.366	1.505	10.012
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
EALTH PHYSICS PERSONNEL	1.	0	8	9	0.210	0.000	1.330	1.540
JPERVISORY PERSONNEL	1	6	15	22	0.237	3.542	5.077	8.856
IGINEERING PERSONNEL	1	0	<u>0</u>	1	0.231	0.000	0.009	0.240
TOTAL	<u>1</u> 3	<u>0</u> 22	26	<u>1</u> 51	0.819	11.908	7.921	20.648
PECIAL MAINTENANCE								
AINTENANCE PERSONNEL	5	22	10	37	2.052	8.719	5.283	16.054
PERATIONS PERSONNEL	2	0	0	2	0.407	0.000	0.000	0.407
EALTH PHYSICS PERSONNEL	8	1	14	23	3.205	0.130	4.286	7.621
JPERVISORY PERSONNEL	Ō	3	27	30	0.204	1.412	20.299	21.915
NGINEERING PERSONNEL		2	<u>0</u>	<u>5</u>	0.680	0.928	0.095	1.703
TOTAL	<u>3</u> 18	<u>2</u> 28	5 <u>1</u>	9 <del>7</del>	6.548	11.189	29.963	47.700
ASTE PROCESSING								
AINTENANCE PERSONNEL	0	1	3	4	0.302	0.251	3.731	4.284
PERATIONS PERSONNEL	1	Ó	0	1	0.469	0.000	0.000	0.469
EALTH PHYSICS PERSONNEL	18	2	5	25	14.747	0.475	1.470	16.692
		0	13	14	0.485	0.000	14.451	14.936
JPERVISORY PERSONNEL	1							
IGINEERING PERSONNEL	<u>2</u> 22	<u>0</u> 3	<u>0</u> 21	2	0.941	0.000	0.008	0.949
TOTAL	22	3	21	46	16.944	0.726	19.660	37.330
FUELING	40	4.5	0	27	4.270	6.838	0.000	11.108
AINTENANCE PERSONNEL	12	15						
PERATIONS PERSONNEL	21	0	0	21	4.232	0.000	0.000	4.232
EALTH PHYSICS PERSONNEL	4	0	5	9	0.784	0.008	1.011	1.803
JPERVISORY PERSONNEL	4	0	2	6	1.006	0.007	0.379	1.392
IGINEERING PERSONNEL	<u>0</u> 41	<u>0</u> 15	<u>0</u> 7	<u>0</u> 63	<u>0.078</u>	<u>0.053</u>	<u>0.000</u>	0.131
TOTAL	41	15	7	63	10.370	6.906	1.390	18.666
TAL BY JOB FUNCTION								
AINTENANCE PERSONNEL	43	91	23	157	23.297	43.560	12.341	79.198
PERATIONS PERSONNEL	64	0	0	64	28.416	0.009	0.003	28.428
EALTH PHYSICS PERSONNEL	48	3	56	107	25.429	0.623	15.945	41.997
JPERVISORY PERSONNEL	9	12	60	81	2.954	5.504	41.966	50.424
IGINEERING PERSONNEL	12	2	2	16	4.621	1.064	2.268	7.953

<sup>\*</sup>Workers may be counted in more than one category.

#### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*BRAIDWOOD 1,2

TYPE:

REACTOR OPS & SURV MAINTENANCE PERSONNEL 5 0 3 8 1.104 0.711 0.000 18.  OPERATIONS PERSONNEL 53 1 27 81 5.674 0.008 0.272 5.9  REALTH PHYSICS PERSONNEL 20 8 12 40 5.159 0.06 2.492 7.5  SUPERVISORY PERSONNEL 33 1 13 47 1.056 0.001 0.194 12.  ENGINEERING PERSONNEL 34 2 5 41 0.926 0.012 0.084 1.0  TOTAL 145 12 60 217 13.919 0.778 3.022 17.7  ROUTINE MAINTENANCE  ROUTINE MAINTENANCE  ROUTINE MAINTENANCE PERSONNEL 162 15 546 823 36.691 0.019 132.684 169.3  OPERATIONS PERSONNEL 42 36 41 119 10.716 0.217 8.893 19.8  SUPERVISORY PERSONNEL 42 36 41 119 10.716 0.217 8.893 19.8  SUPERVISORY PERSONNEL 97 22 19 138 2.829 0.001 1.280 17.7  MAINTENANCE PERSONNEL 97 22 19 138 2.829 119 0.226 2.005 17.7  MAINTENANCE PERSONNEL 1 0 0 134 135 0.329 0.000 27.406 27.7  OPERATIONS PERSONNEL 1 0 0 1 1 0.158 0.000 0.000 0.1  MAINTENANCE PERSONNEL 1 0 0 1 1 0.158 0.000 0.000 0.1  MAINTENANCE PERSONNEL 1 1 1 1 3 0.170 0.005 0	REACTOR OPS & SURV	EAVI. BIGIDIOOD							IIFE. I	
### REACTOR OPS & SURV ### MAINTENANCE PERSONNEL	REACTOR OPS & SURV  MAINTENANCE PERSONNEL 5 0 3 8 1.104 0.711 0.000 1.1  DPERATIONS PERSONNEL 53 1 27 81 5.674 0.008 0.272 5.1  EALTH PHYSICS PERSONNEL 33 1 13 47 1.066 0.001 0.194 1.2  SUPERVISORY PERSONNEL 33 1 13 47 1.066 0.001 0.194 1.2  SUCHINE MAINTENANCE PERSONNEL 34 2 5 41 0.922 0.001 0.194 1.2  TOTAL 145 12 60 217 13,919 0.778 3.022 17.  SUCHINE MAINTENANCE PERSONNEL 182 15 646 823 36,991 0.019 132 684 169.  PERSONNEL 81 57 1 139 8.712 0.916 0.005 9.91  EALTH PHYSICS PERSONNEL 183 17 83 283 5.893 0.018 1.280 7.78  SUPERVISORY PERSONNEL 183 17 83 283 5.893 0.018 1.280 7.78  SUPERVISORY PERSONNEL 97 22 19 138 2.632 0.119 0.226 2.2  SUPERVISORY PERSONNEL 97 22 19 138 2.632 0.119 0.226 2.2  SUSPERVISORY PERSONNEL 1 0 134 135 0.329 0.000 2.7 406 2.7  SUPERVISORY PERSONNEL 1 0 134 135 0.329 0.000 2.7 406 2.7  MAINTENANCE PERSONNEL 1 0 134 135 0.329 0.000 2.7 406 2.7  SUPERVISORY PERSONNEL 1 0 0 13 1.018 0.000 0.00									
AINTENANCE   PERSONNEL   5	AINTENANCE PERSONNEL 5 0 3 8 1.104 0.711 0.000 1.1 PERCATIONS PERSONNEL 5 1 1 27 81 5.674 0.08 0.272 5.5  IEALTH PHYSICS PERSONNEL 20 8 12 40 5.159 0.046 2.492 7.7  IEALTH PHYSICS PERSONNEL 33 1 27 81 5.674 0.08 0.272 5.5  IEALTH PHYSICS PERSONNEL 34 2 5 41 0.926 0.012 0.984 1.1  INGINEERING PERSONNEL 34 2 5 41 0.926 0.012 0.984 1.1  TOTAL 145 12 60 217 13.919 0.778 3.022 1.1  IOUTINE MAINTENANCE  RAINTENANCE PERSONNEL 162 15 646 823 36.691 0.019 132.684 169.  RAINTENANCE PERSONNEL 81 57 1 139 8.712 0.916 0.005 9.9  IEALTH PHYSICS PERSONNEL 183 17 83 283 5.830 0.018 1.260 17.  TOTAL 565 147 790 1502 84.581 1.289 143.082 0.7  INGINEERING PERSONNEL 97 22 19 138 2.632 0.119 0.226 2.1  INGINEERING PERSONNEL 1 0 134 135 0.329 0.000 27.406 27.  RAINTENANCE PERSONNEL 1 0 134 135 0.329 0.000 27.406 27.  RAINTENANCE PERSONNEL 1 0 134 135 0.329 0.000 27.406 27.  RAINTENANCE PERSONNEL 1 0 0 1 1 0.158 0.000 0.0	OB FUNCTION	STATION U	JTILITY	CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAI
DERRATIONS PERSONNEL   53	PERATIONS PERSONNEL   53   1   27   81   5.674   0.008   0.272   5.1	EACTOR OPS & SURV								
EALTH PHYSICS PERSONNEL   20   8   12   40   5.159   0.046   2.492   7.6	EALTH PHYSICS PERSONNEL   20									1.815
UPERVISORY PERSONNEL   33	UPERVISORY PERSONNEL   33	PERATIONS PERSONNEL	53	1	27	81	5.674	0.008	0.272	5.954
NGINEERING PERSONNEL 145 12 60 217 13.919 0.778 3.022 17.77 TOTAL 145 12 60 217 13.919 0.778 3.022 17.77 TOTAL 145 12 60 217 13.919 0.778 3.022 17.77  OUTINE MAINTENANCE IAINTENANCE PERSONNEL IS2 15 646 223 36.691 0.019 132.684 169.3 PERPATIONS PERSONNEL 81 57 1 139 8.712 0.916 0.005 9.6 EALTH PHYSIGS PERSONNEL 42 36 41 119 10.716 0.217 8.893 18.8 UDERVISORY PERSONNEL 97 22 19 13.8 2.632 0.119 0.226 2.3 TOTAL 565 147 790 1502 64.581 1.289 143.068 208.5  LSERVICE INSPECTION LSERVICE INSPECTION LSERVICE SPERSONNEL 1 0 134 135 0.329 0.000 27.406 27.7 PERATIONS PERSONNEL 1 1 1 1 3 0.170 0.005 0.249 0.40 UDERVISORY PERSONNEL 1 1 1 1 3 0.170 0.005 0.249 0.40 UDERVISORY PERSONNEL 1 1 1 1 3 0.170 0.005 0.000 0.00 UDERVISORY PERSONNEL 1 1 1 1 3 0.170 0.005 0.249 0.40 UDERVISORY PERSONNEL 1 1 1 1 3 0.170 0.005 0.249 0.40 UDERVISORY PERSONNEL 1 1 1 1 3 0.017 0.005 0.249 0.40 UDERVISORY PERSONNEL 1 1 1 1 3 0.017 0.005 0.249 0.40 UDERVISORY PERSONNEL 1 1 1 1 3 0.017 0.005 0.249 0.40 UDERVISORY PERSONNEL 1 1 1 1 35 148 0.877 0.005 0.27661 28.5  PECIAL MAINTENANCE LAITH PHYSIGS PERSONNEL 1 1 2 1 135 148 0.877 0.005 0.000 0.000 0.00 UDERVISORY PERSONNEL 1 1 1 1 3 0.577 0.005 0.006 0.00 UDERVISORY PERSONNEL 1 1 0 1 2.94 3.05 0.272 0.001 60.314 62.5  PERATIONS PERSONNEL 1 1 0 1 2.94 3.05 0.272 0.001 60.314 62.5  PERATIONS PERSONNEL 1 1 0 1 1 2.94 3.05 0.872 0.005 0.006 0.00  EALTH PHYSIGS PERSONNEL 1 0 0 0 2.9 0.914 0.000 0.000 0.00  UDERVISORY PERSONNEL 1 0 0 0 2.9 0.914 0.000 0.000 0.000  UDERVISORY PERSONNEL 1 0 0 0 1 3 3 3 0.001 0.000 0.000 0.000  UDERVISORY PERSONNEL 1 0 0 0 1 0.000 0.000 0.000 0.000  UDERVISORY PERSONNEL 1 0 0 0 1 0.000 0.000 0.000 0.000  UDERVISORY PERSONNEL 1 0 0 0 1 0.000 0.000 0.000 0.000  UDERVISORY PERSONNEL 1 0 0 0 1 0.000	NGINEERING PERSONNEL 145 12 60 217 13.919 0.778 3.022 17.  OUTINE MAINTENANCE IAINTENANCE PERSONNEL 162 15 646 823 36.691 0.019 132.684 16.91  IAINTENANCE PERSONNEL 163 15 7 1 139 8.712 0.916 0.005 9.91  EALTH PHYSICS PERSONNEL 183 17 83 223 5.830 0.018 1.280 7.  NGINEERING PERSONNEL 183 17 83 223 5.830 0.018 1.280 7.  NGINEERING PERSONNEL 183 17 83 223 5.830 0.018 1.280 7.  NGINEERING PERSONNEL 183 17 790 1502 64.561 1.289 143.068 206.  LASERY/JCE INSPECTION  IAINTENANCE PERSONNEL 1 0 0 134 135 0.329 0.000 27.406 27.  IAINTENANCE PERSONNEL 1 1 0 1 34 135 0.329 0.000 27.406 27.  PERATIONS PERSONNEL 1 1 0 1 34 135 0.329 0.000 0.74 0.000 0.00	EALTH PHYSICS PERSONNEL	20	8	12	40	5.159	0.046	2.492	7.697
OUTINE MAINTENANCE   Color	OUTINE MAINTENANCE   AINTENANCE PERSONNEL   162   15   646   823   36.691   0.019   132.684   169.84	UPERVISORY PERSONNEL	33		13	47	1.056	0.001	0.194	1.251
OUTINE MAINTENANCE   AINTENANCE PERSONNEL   162   15   646   823   36.691   0.019   132.684   169.3   169.9	OUTINE MAINTENANCE	NGINEERING PERSONNEL	34	2	5	41	0.926	0.012	0.064	1.002
AINTENANCE PERSONNEL  162  155  646  823  36.691  0.019  132.684  169.3  PERATIONS PERSONNEL  181  57  1 139  8.712  9.916  0.005  9.96  EALTH PHYSICS PERSONNEL  183  17  83  283  5.830  0.018  1.280  7.1  VOINEERING PERSONNEL  97  22  19  138  2.632  0.119  0.226  2.8  TOTAL  SERVICE INSPECTION  AINTENANCE PERSONNEL  1 0 0 1 1 0.158  0.000  0	AINTENANCE PERSONNEL 162 15 646 823 36.691 0.019 132.684 1693. PERATIONS PERSONNEL 81 57 1 1399 8.712 0.916 0.005 9.916	TOTAL		12	60	217	13.919	0.778		17.719
PERATIONS PERSONNEL 42 36 41 1199 8.712 0.916 0.005 9.6 EALTH PHYSICS PERSONNEL 42 36 41 1199 10.716 0.217 8.893 19.8 EVERVISORY PERSONNEL 183 17 83 283 5.830 0.018 1.260 7.1 NOINEERING PERSONNEL 97 22 19 138 2.652 0.119 0.226 2.3 TOTAL  SERVICE INSPECTION AINTENANCE PERSONNEL 1 0 134 135 0.329 0.000 27.406 27.7 PERATIONS PERSONNEL 1 0 0 1 1.585 0.000 0.000 0.000 0.001 EALTH PHYSICS PERSONNEL 1 1 1 1 1 3 0.170 0.005 0.249 0.40 EVERYORY PERSONNEL 1 1 1 1 1 3 0.170 0.005 0.249 0.40 EVERYORY PERSONNEL 1 1 0 0 1 1 0.011 0.000 0.006 0.000 NGINEERING PERSONNEL 8 0 0 0 8 0.209 0.000 0.000 0.000 NGINEERING PERSONNEL 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	PERATIONS PERSONNEL         81         57         1         139         8.712         0.916         0.005         9.9           EALTH PHYSIGS PERSONNEL         42         36         41         119         10.716         0.217         8.883         19.9           UPERVISORY PERSONNEL         183         17         83         283         5.830         0.018         1.260         7.           KORIMERING PERSONNEL         19         22         19         138         2.632         0.119         0.226         2.2           TOTAL         565         147         790         1502         64.581         1.289         143.068         208.1           LSERVICE INSPECTION         A         1         0         134         135         0.329         0.000         27.406         227.           PERATIONS PERSONNEL         1         0         0         1         0.158         0.000         27.406         227.           PERATIONS PERSONNEL         1         0         0         1         0.011         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.0	OUTINE MAINTENANCE								
EALTH PHYSICS PERSONNEL 42 36 41 119 10.716 0.217 8.893 19.8 19.9 19.0 19.0 19.0 19.0 19.0 19.0 19.0	EALTH PHYSICS PERSONNEL 42 36 41 119 10.716 0.217 8.893 19.1   UPERVISORY PERSONNEL 183 17 83 283 5.830 0.018 1.260 7.   NGINEERING PERSONNEL 97 22 19 138 2.632 0.119 0.226 2.5   TOTAL 566 147 790 1502 64.581 1.289 143.088 20.8.1   LESERVICE INSPECTION   AINTENANCE PERSONNEL 1 0 134 135 0.329 0.000 27.406 27.1   PERATIONS PERSONNEL 1 1 0 0 1 1 0.158 0.000 0.000 0.000 0.000   UPERVISORY PERSONNEL 1 1 1 3 0.170 0.005 0.249 0.000 0	AINTENANCE PERSONNEL	162		646	823	36.691	0.019	132.684	169.394
JPERVISORY PERSONNEL   183   17   83   283   5.830   0.018   1.260   7.1	UPERVISORY PERSONNEL	PERATIONS PERSONNEL	81	57	1	139	8.712	0.916	0.005	9.633
NGINEERING PERSONNEL   97   22   19   138   2.632   0.119   0.226   2.9     TOTAL   565   147   790   1502   64.581   1.289   143.068   208.9     SERVICE INSPECTION     AINTENANCE PERSONNEL   1   0   134   135   0.329   0.000   27.406   27.7     PERATIONS PERSONNEL   1   0   0   1   0.158   0.000   0.000   0.1     PERVISORY PERSONNEL   1   0   0   1   0.011   0.000   0.000   0.000     PERVISORY PERSONNEL   1   0   0   1   0.011   0.000   0.006   0.0     TOTAL   12   1   135   148   0.877   0.005   27.661   28.5     PECIAL MAINTENANCE PERSONNEL   10   1   294   305   2.272   0.001   60.314   62.5     PERATIONS PERSONNEL   10   1   294   305   2.272   0.001   60.314   62.5     PERATIONS PERSONNEL   3   44   19   66   0.691   0.267   4.075   5.0     PERATIONS PERSONNEL   29   0   0   29   0.914   0.000   0.000   0.00     PERATIONS PERSONNEL   3   44   19   66   0.691   0.267   4.075   5.0     POLIPERVISORY PERSONNEL   57   48   327   432   4.283   0.318   64.558   69.1     ASTE PROCESSING   AINTENANCE PERSONNEL   1   0   157   158   0.075   0.000   1.569   1.6     ASTE PROCESSING   1   0   0   1   0.332   0.000   0.000   0.002     PERATIONS PERSONNEL   1   0   157   158   0.075   0.000   1.569   1.6     PERTATIONS PERSONNEL   1   0   0   1   0.332   0.000   0.000   0.000     PERTATIONS PERSONNEL   1   0   0   1   0.332   0.000   0.000   0.000     ASTE PROCESSING   1   0   0   1   0.332   0.000   0.000   0.000     ASTE PROCESSING   1   0   0   1   0.332   0.000   0.000   0.000   0.000     PERTATIONS PERSONNEL   1   0   0   1   0.346   0.000   0.001   0.000     PERTATIONS PERSONNEL   1   0   0   1   0.345   0.000	NGINEERING PERSONNEL 97 22 19 138 2.632 0.119 0.226 2.5 TOTAL 565 147 790 1502 64.581 1.289 143.068 208.3 LSERVICE INSPECTION AINTENANCE PERSONNEL 1 0 134 135 0.329 0.000 27.406 27.3 AINTENANCE PERSONNEL 1 1 0 0 1 1 0.158 0.000	EALTH PHYSICS PERSONNEL	42	36	41	119	10.716	0.217	8.893	19.826
NGINEERING PERSONNEL 97 22 19 138 2.632 0.119 0.226 2.9 TOTAL 566 147 790 1502 64.581 1.289 143.068 208.9 TOTAL 566 147 790 1502 64.581 1.289 143.068 208.9  **SERVICE INSPECTION** AINTENANCE PERSONNEL 1 0 134 135 0.329 0.000 27.406 27.7  PERATIONS PERSONNEL 1 1 0 0 1 1 0.158 0.000 0.000 0.1  PERATIONS PERSONNEL 1 1 0 0 1 1 0.158 0.000 0.000 0.1  PERSONNEL 1 1 1 1 3 0.01 0.000 0.000 0.000 0.1  PERSONNEL 1 1 0 0 0 1 0.011 0.000 0.006 0.0  RIGINEERING PERSONNEL 1 1 0 0 0 1 0.011 0.000 0.006 0.0  TOTAL 12 1 135 148 0.877 0.005 27.661 28.5  **PECIAL MAINTENANCE** PERSONNEL 10 1 294 305 2.272 0.001 60.314 62.5  PERSONNEL 10 1 294 305 2.272 0.001 60.314 62.5  PERSONNEL 10 1 294 305 2.272 0.001 60.314 62.5  PERSONNEL 10 1 294 305 0.000	NGINEERING PERSONNEL 97 22 19 138 2.632 0.119 0.226 2.5   TOTAL 565 147 790 1502 64.581 1.289 143.068 208.5   LEERVICE INSPECTION   AINTENANCE PERSONNEL 1 0 134 135 0.329 0.000 27.406 27.5   PERATIONS PERSONNEL 1 1 0 0 1 1 0.158 0.000 0.000 0.5   PERATIONS PERSONNEL 1 1 1 1 3 0.176 0.005 0.249 0.000 0.000 0.2   PERVISIORY PERSONNEL 1 1 1 1 3 0.170 0.005 0.249 0.000 0.006 0.1   PERVISIORY PERSONNEL 1 0 0 1 1 0.011 0.000 0.006 0.1   PERVISIORY PERSONNEL 1 1 135 148 0.877 0.005 27.661 28.5   PECIAL MAINTENANCE   AINTENANCE PERSONNEL 0 3 1 4 0.002 0.000 0.2   PERATIONS PERSONNEL 3 44 19 66 0.691 0.267 4.075 51.   PERATIONS PERSONNEL 29 0 0 29 0.914 0.000 0.000 0.1   PERVISIORY PERSONNEL 1 57 48 327 432 4.283 0.318 64.558 69.1    ASTE PROCESSING   AINTENANCE PERSONNEL 1 1 0 157 158 0.075 0.000 0.052 0.000   AINTENANCE PERSONNEL 1 0 0 1 157 158 0.075 0.000 0.052 0.000   AINTENANCE PERSONNEL 1 0 0 1 157 158 0.075 0.000 0.163 0.1   PERATIONS PERSONNEL 1 0 0 1 157 158 0.075 0.000 0.052 0.000   AINTENANCE PERSONNEL 1 0 0 1 1 0.332 0.000 0.092 0.000   AINTENANCE PERSONNEL 1 0 0 1 0.032 0.000 0.092 0.000	JPERVISORY PERSONNEL	183	17	83	283	5.830	0.018	1.260	7.108
TOTAL 565 147 790 1502 64.581 1.289 143.068 208.9  LSERVICE INSPECTION  AINTENANCE PERSONNEL 1 0 134 135 0.329 0.000 27.406 27.7  PERATIONS PERSONNEL 1 0 0 1 1 0.158 0.000 0.000 0.1  EALTH PHYSICS PERSONNEL 1 1 1 1 3 0.170 0.005 0.249 0.40  UPERVISORY PERSONNEL 1 0 0 1 0.011 0.000 0.066 0.0  NGINEERING PERSONNEL 8 0 0 0 8 0.209 0.000 0.000 0.2  TOTAL 12 1 135 148 0.877 0.005 27.661 28.5  PECIAL MAINTENANCE  AINTENANCE PERSONNEL 1 0 1 294 305 2.272 0.001 60.314 62.5  PERATIONS PERSONNEL 3 44 19 66 0.691 0.267 4.075 5.0  UPERVISORY PERSONNEL 15 0 13 28 0.404 0.000 0.000 0.00  NGINIERRING PERSONNEL 29 0 0 29 0.914 0.000 0.000 0.00  NGINIERRING PERSONNEL 15 0 13 28 0.404 0.000 0.000 0.53  NGINIERRING PERSONNEL 15 0 13 28 0.404 0.000 0.053  AINTENANCE PERSONNEL 1 0 0 1 1 0.57 158 0.000 0.000 0.522 0.58  PERATIONS PERSONNEL 1 0 0 1 1 0.046 0.000 0.000 0.501  AINTENANCE PERSONNEL 1 0 0 1 0.046 0.000 0.001 1.509 1.600  TOTAL 50 0.000 0.	SERRICE INSPECTION   SERRICE		97	22	19	138	2.632	0.119	0.226	2.977
AINTENANCE PERSONNEL 1 0 134 135 0.329 0.000 27.406 227.70   PERATIONS PERSONNEL 1 0 0 0 1 0.158 0.000 0.000 0.12   ALTH PHYSICS PERSONNEL 1 1 1 3 0.170 0.005 0.249 0.44   PERVISORY PERSONNEL 1 0 0 0 1 0.011 0.000 0.006 0.0   AUGUSTERING PERSONNEL 1 1 0 0 0 1 0.011 0.000 0.006 0.0   AUGUSTERING PERSONNEL 1 1 0 0 0 1 0.011 0.000 0.006 0.0   AUGUSTERING PERSONNEL 1 0 1 135 148 0.877 0.005 27.661 28.5    PECIAL MAINTENANCE PERSONNEL 1 0 1 294 305 0.877 0.005 27.661 28.5   PECIAL MAINTENANCE PERSONNEL 1 0 1 294 305 0.877 0.005 27.661 28.5    PECIAL MAINTENANCE PERSONNEL 1 0 1 294 0.0000 0.00	AINTENANCE PERSONNEL 1 0 134 135 0.329 0.000 27.406 27.70   PERATIONS PERSONNEL 1 0 0 1 1 0.158 0.000 0.000 0.24   PERATIONS PERSONNEL 1 1 1 1 3 0.170 0.005 0.249 0.24   PERATIONS PERSONNEL 1 1 1 1 3 0.011 0.000 0.006 0.24   PERATIONS PERSONNEL 1 0 0 1 0.011 0.000 0.006 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.0000 0.0			147						208.938
PERATIONS PERSONNEL 1 0 0 1 0.158 0.000 0.000 0.16 BAILTH PHYSICS PERSONNEL 1 1 1 1 3 0.170 0.005 0.249 0.4  IPERVISORY PERSONNEL 1 0 0 1 0.011 0.000 0.006 0.0  NGINEERING PERSONNEL 8 0 0 8 0.209 0.000 0.000 0.2  TOTAL 12 1 135 148 0.877 0.005 27.661 28.5  PECIAL MAINTENANCE AINTENANCE PERSONNEL 10 1 294 305 2.272 0.001 60.314 62.5  PERATIONS PERSONNEL 0 3 1 4 0.002 0.050 0.006 0.0  PERSONNEL 10 1 294 305 2.272 0.001 60.314 62.5  PERSONNEL 10 3 1 4 0.002 0.050 0.006 0.0  PERSONNEL 29 0 0 0 29 0.914 0.000 0.000 0.9  PERSONNEL 15 0 13 28 0.404 0.000 0.163 0.5  TOTAL 57 48 327 432 4.283 0.318 64.558 69.1  ASTE PROCESSING  AINTENANCE PERSONNEL 1 0 0 3 3 3 0.001 0.000 0.522 0.5  ASTE PROCESSING  AINTENANCE PERSONNEL 1 0 0 0 3 0.001 0.000 0.522 0.5  PERATIONS PERSONNEL 1 0 0 0 1 0.332 0.000 0.92 0.4  AUPERVISORY PERSONNEL 1 0 0 1 0.046 0.000 0.522 0.5  PERATIONS PERSONNEL 1 0 0 0 1 0.046 0.000 0.002 0.002 0.000 0.002 0.000	DERATIONS PERSONNEL	-SERVICE INSPECTION								
EALTH PHYSICS PERSONNEL 1 1 1 1 1 3 0.170 0.005 0.249 0.4  IPERVISORY PERSONNEL 1 0 0 0 1 0.011 0.000 0.006 0.00  SINDERING PERSONNEL 1 0 0 0 1 0.011 0.000 0.000 0.00  TOTAL 12 1 1 135 148 0.877 0.005 27.661 28.5  PECIAL MAINTENANCE  AINTENANCE PERSONNEL 10 1 294 305 2.272 0.001 60.314 62.5  PERATIONS PERSONNEL 10 1 294 305 2.272 0.001 60.314 62.5  PERATIONS PERSONNEL 3 44 19 66 0.691 0.267 4.075 5.0  SINDERING PERSONNEL 29 0 0 0 29 0.914 0.000 0.000 0.000  VIGINEERING PERSONNEL 15 0 13 288 0.404 0.000 0.000 0.663 0.5  TOTAL 57 48 327 432 4.283 0.318 64.558 69.1  ASTE PROCESSING  AINTENANCE PERSONNEL 1 0 157 158 0.075 0.000 1.559 1.6  EALTH PHYSICS PERSONNEL 1 0 0 1 0.00 0.000 0.000 0.000  VIGINEERING PERSONNEL 1 0 0 1 1.0332 0.000 0.092 0.4  PERATIONS PERSONNEL 1 0 0 1 1 0.332 0.000 0.092 0.4  PERATIONS PERSONNEL 1 0 0 1 1 0.332 0.000 0.092 0.4  VIGINEERING PERSONNEL 1 0 0 1 1 0.332 0.000 0.092 0.4  VIGINEERING PERSONNEL 1 0 0 1 1 0.332 0.000 0.092 0.4  VIGINEERING PERSONNEL 1 0 0 1 1 0.332 0.000 0.002 0.000 0.001  VIGINEERING PERSONNEL 1 0 0 1 1 0.332 0.000 0.002 0.001  VIGINEERING PERSONNEL 1 0 0 1 1 0.332 0.000 0.002 0.001  VIGINEERING PERSONNEL 1 0 0 1 1 0.346 0.000 0.001  VIGINEERING PERSONNEL 1 0 0 1 1 0.346 0.000 0.001  VIGINEERING PERSONNEL 1 0 0 1 1 0.346 0.000 0.001  VIGINEERING PERSONNEL 1 1 0 0 1 1 0.346 0.000 0.001  VIGINEERING PERSONNEL 1 1 0 0 1 1 0.365 0.000 0.002  TOTAL 3 0 0 0 0 0 0.002 0.000 0.000  VIGINEERING PERSONNEL 2 42 0 44 0.466 0.255 0.021 0.7  VIGENTIAL PHYSICS PERSONNEL 2 0 0 0 2 0.066 0.000 0.000 0.000  VIGINEERING PERSONNEL 2 0 0 0 2 0.066 0.000 0.000 0.000  VIGINEERING PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6  VIGENTIAL PHYSICS PERSONNEL 153 61 186 400 16.503 0.974 1.852 19.3  VIGENTIAL PHYSICS PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6  EALTH PHYSICS PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6  VIGENTIAL PHYSICS PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6  VIGENTIAL PHYSICS PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6  VIGENT	EALTH PHYSICS PERSONNEL 1 1 1 1 3 0.170 0.005 0.249 0.0 1.0 1.0 1.0 1.0 0.0 0.0 0.0 0.0 0.0		1	0	134	135	0.329	0.000	27.406	27.735
PERVISORY PERSONNEL		PERATIONS PERSONNEL	1	0	0	1	0.158	0.000	0.000	0.158
JPERVISORY PERSONNEL	JPERVISIORY PERSONNEL	EALTH PHYSICS PERSONNEL	1	1	1	3	0.170	0.005	0.249	0.424
NGINEERING PERSONNEL   8	SECONDECE   8									0.017
PECIAL MAINTENANCE AINTENANCE PERSONNEL 10 1 294 305 2.272 0.001 60.314 62.55 PERATIONS PERSONNEL 0 3 1 4 0.002 0.050 0.006 0.05 EALTH PHYSICS PERSONNEL 3 44 19 66 0.691 0.267 4.075 5.0 PERATISORY PERSONNEL 29 0 0 0 29 0.914 0.000 0.000 0.99 NGINEERING PERSONNEL 15 0 13 28 0.404 0.000 0.163 0.5 TOTAL 57 48 327 432 4.283 0.318 64.558 69.1  ASTE PROCESSING AINTENANCE PERSONNEL 1 0 0 0 3 3 0.001 0.000 0.522 0.5 PERATIONS PERSONNEL 1 0 0 157 158 0.075 0.000 1.569 1.6 EALTH PHYSICS PERSONNEL 1 0 0 0 1 0.332 0.000 0.092 0.4 PPERVISORY PERSONNEL 1 0 0 0 1 0.332 0.000 0.092 0.4 PPERVISORY PERSONNEL 1 0 0 0 1 0.046 0.000 0.001 0.000 CIONAL 3 0 160 163 0.456 0.000 0.001 0.000 TOTAL 3 0 0 0 0 0.002 0.000 0.000 0.000 TOTAL 3 0 0 0 1 0.002 0.000 0.000 0.000 TOTAL 3 0 0 0 0 0.002 0.000 0.000 0.000 TOTAL 3 0 0 0 0 0 0.002 0.000 0.000 0.000 TOTAL 3 0 0 0 0 0 0.002 0.000 0.000 0.000 TOTAL 3 0 0 0 0 0 0.002 0.000 0.000 0.000 TOTAL 3 0 0 0 0 0 0 0.002 0.000 0.000 0.000 TOTAL 5 0 0 0 0 0 0 0.002 0.000 0.000 0.000 TOTAL 5 0 0 0 0 0 0 0.002 0.000 0.000 0.000 TOTAL 5 0 0 0 0 0 0 0.002 0.000 0.000 0.000 TOTAL 5 0 0 0 0 0 0 0.002 0.000 0.000 0.000 TOTAL 5 0 0 0 0 0 0 0.002 0.000 0.000 0.000 TOTAL 5 0 0 0 0 0 0 0.002 0.000 0.000 0.000 TOTAL 5 0 0 0 0 0 0 0 0.000 0.000 0.000 TOTAL 5 0 0 0 0 0 0 0 0.000 0.000 0.000 TOTAL 5 0 0 0 0 0 0 0 0 0.000 0.000 0.000 TOTAL 5 0 0 0 0 0 0 0 0 0 0 0 0.000 0.000 TOTAL 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	PECIAL MAINTENANCE AINTENANCE PERSONNEL 10 1 294 305 2.272 0.001 60.314 62.5 PERATIONS PERSONNEL 0 3 1 4 0.002 0.050 0.006 0.1 PERATIONS PERSONNEL 1 3 14 19 66 0.691 0.267 4.075 5.5 PERSONNEL 29 0 0 29 0.914 0.000 0.000 0.3 RININERING PERSONNEL 15 0 13 28 0.404 0.000 0.000 0.1 RININERING PERSONNEL 15 0 13 28 0.404 0.000 0.163 0.1 TOTAL 57 48 327 432 4.283 0.318 64.558 69.5  ASTE PROCESSING AINTENANCE PERSONNEL 1 0 0 3 3 3 0.001 0.000 0.522 0.3 PERATIONS PERSONNEL 1 0 0 157 158 0.075 0.000 1.569 1.4 PERATIONS PERSONNEL 1 0 0 1 1 0.332 0.000 0.092 0.000 PERATIONS PERSONNEL 1 0 0 1 1 0.332 0.000 0.092 0.000 PERSONNEL 1 0 0 0 1 0.046 0.000 0.001 0.000 RISINEERING PERSONNEL 0 0 0 0 0 0.002 0.000 0.001 0.000 RISINEERING PERSONNEL 0 0 0 1 0.046 0.000 0.001 0.000 RISINEERING PERSONNEL 0 0 0 0 0 0.002 0.000 0.000 0.1 TOTAL 3 0 160 163 0.456 0.000 1.191 4.4 PERATIONS PERSONNEL 17 0 0 17 1.882 0.000 0.000 1.1 PERULELING AINTENANCE PERSONNEL 2 42 0 44 0.466 0.255 0.021 0.1 PERUSORY PERSONNEL 2 42 0 44 0.466 0.255 0.021 0.1 PERUSORY PERSONNEL 2 42 0 44 0.466 0.255 0.021 0.1 PERUSORY PERSONNEL 2 42 0 44 0.466 0.255 0.021 0.1 PERUSORY PERSONNEL 2 42 0 44 0.466 0.255 0.021 0.1 PERUSORY PERSONNEL 39 0 0 39 1.234 0.000 0.000 1.1 PERUSORY PERSONNEL 2 0 0 0 2 0.066 0.000 0.000 1.1 PERUSORY PERSONNEL 39 0 0 39 1.234 0.000 0.000 0.1 PERSORY PERSONNEL 39 0 0 39 1.234 0.000 0.000 0.1 PERSORY PERSONNEL 39 0 0 39 1.234 0.000 0.000 0.1 PERSORY PERSONNEL 39 0 0 39 1.234 0.000 0.000 0.1 PERSORY PERSONNEL 39 0 0 39 1.234 0.000 0.000 0.1 PERSORY PERSONNEL 39 0 0 0 39 1.234 0.000 0.000 0.1 PERSORY PERSONNEL 39 0 0 0 39 1.234 0.000 0.000 0.1 PERSORY PERSONNEL 39 0 0 0 39 1.234 0.000 0.000 0.1 PERSORY PERSONNEL 39 0 0 0 39 1.234 0.000 0.000 0.1 PERSORY PERSONNEL 39 0 0 0 39 1.234 0.000 0.000 0.1 PERSORY PERSONNEL 39 0 0 0 39 1.234 0.000 0.000 0.1 PERSORY PERSONNEL 39 0 0 0 39 1.234 0.000 0.000 0.1 PERSORY PERSONNEL 39 0 0 0 39 1.234 0.000 0.000 0.1 PERSORY PERSONNEL 39 16 1086 1295 43.850 0.731 222.117 266.1 PERSORY PERSONNEL 39 16 1086 400 16.				_					0.209
NUMBER   N	NATERIANCE PERSONNEL   10		12	• 1						28.543
PERATIONS PERSONNEL 0 3 1 4 0.002 0.050 0.006 0.006	PERATIONS PERSONNEL 0 3 1 4 0.002 0.050 0.066 0.06 EALTH PHYSICS PERSONNEL 3 44 19 66 0.691 0.267 4.075 5.0 PERVISORY PERSONNEL 29 0 0 0 29 0.914 0.000 0.000 0.00 NGINEERING PERSONNEL 15 0 13 28 0.404 0.000 0.163 0.5 TOTAL 57 48 327 432 4.283 0.318 64.558 69.  **ASTE PROCESSING** ARITENANCE PERSONNEL 0 0 0 3 3 3 0.001 0.000 0.522 0.5 PERATIONS PERSONNEL 1 0 0 157 158 0.075 0.000 1.569 1.6 EALTH PHYSICS PERSONNEL 1 0 0 0 1 0.332 0.000 0.092 0.000 PERVISORY PERSONNEL 1 0 0 0 1 0.332 0.000 0.092 0.000 PERVISORY PERSONNEL 1 0 0 0 1 0.046 0.000 0.001 0.1 SINEERING PERSONNEL 0 0 0 0 0 0.002 0.000 0.000 0.1 TOTAL 3 0 160 163 0.456 0.000 2.184 2.6  **EFUELING** AINTENANCE PERSONNEL 15 0 6 21 3.453 0.000 1.191 4.6 PERATIONS PERSONNEL 17 0 0 17 1.882 0.000 0.000 1.2  EFUELING** AINTENANCE PERSONNEL 15 0 6 6 21 3.453 0.000 1.191 4.6 PERATIONS PERSONNEL 17 0 0 17 1.882 0.000 0.000 1.2  EFUELING** AINTENANCE PERSONNEL 15 0 6 6 21 3.453 0.000 1.191 4.6 PERATIONS PERSONNEL 2 42 0 44 0.466 0.255 0.021 0.2  PERSONNEL 15 0 6 21 3.453 0.000 0.000 1.2  EFUELING** AINTENANCE PERSONNEL 39 0 0 39 1.234 0.000 0.000 1.2  PERSONNEL 2 0 0 0 2 0.066 0.000 0.000 1.2  PERSONNEL 39 0 0 0 39 1.234 0.000 0.000 1.2  PERSONNEL 2 0 0 0 2 0.066 0.000 0.000 0.000 1.2  PERSONNEL 2 0 0 0 2 0.066 0.000 0.000 0.000 1.2  PERSONNEL 2 0 0 0 2 0.066 0.000	PECIAL MAINTENANCE								
EALTH PHYSICS PERSONNEL 3 44 19 66 0.691 0.267 4.075 5.0 PERVISORY PERSONNEL 29 0 0 0 29 0.914 0.000 0.000 0.90 0.90 NGINEERING PERSONNEL 15 0 13 28 0.404 0.000 0.163 0.5 TOTAL 57 48 327 432 4.283 0.318 64.558 69.1 NGINEERING PERSONNEL 0 0 0 3 3 3 0.001 0.000 0.522 0.55 PERATIONS PERSONNEL 1 0 0 157 158 0.075 0.000 1.569 1.6 EALTH PHYSICS PERSONNEL 1 0 0 0 1 0.332 0.000 0.092 0.4 PERSONNEL 1 0 0 0 1 0.332 0.000 0.092 0.4 PERSONNEL 1 0 0 0 1 0.332 0.000 0.092 0.4 PERSONNEL 1 0 0 0 1 0.046 0.000 0.001 0.000 0.001 0.000 NGINEERING PERSONNEL 1 0 0 0 1 0.046 0.000 0.001 0.000 0.001 0.000 0.001 0.000 0.001 0.000 0.001 0.000 0.001 0.000 0.001 0.000 0.001 0.000 0.001 0.000 0.001 0.000 0.001 0.000 0.00	EALTH PHYSICS PERSONNEL 3 44 19 66 0.691 0.267 4.075 5.0 PPERVISORY PERSONNEL 29 0 0 0 29 0.914 0.000 0.000 0.90 RIGINEERING PERSONNEL 15 0 13 28 0.404 0.000 0.163 0.91 TOTAL 57 48 327 432 4.283 0.318 64.558 69.  ASTE PROCESSING AINTENANCE PERSONNEL 0 0 0 3 3 3 0.001 0.000 0.522 0.90 PERATIONS PERSONNEL 1 0 157 158 0.075 0.000 1.569 1.6 EALTH PHYSICS PERSONNEL 1 0 0 1 1 0.332 0.000 0.992 0.4 PPERVISORY PERSONNEL 1 0 0 1 1 0.046 0.000 0.001 0.599 1.6 EALTH PHYSICS PERSONNEL 1 0 0 1 0 0.000 0.000 0.001 0.001 RIGINEERING PERSONNEL 1 0 0 1 0.046 0.000 0.001 0.001 RIGINEERING PERSONNEL 0 0 0 1 0.046 0.000 0.001 0.001 RIGINEERING PERSONNEL 15 0 6 21 3.453 0.000 1.191 4.6 EFUELING AINTENANCE PERSONNEL 15 0 6 21 3.453 0.000 1.191 4.6 PERATIONS PERSONNEL 17 0 0 17 1.882 0.000 0.000 1.9 PERATIONS PERSONNEL 17 0 0 17 1.882 0.000 0.000 1.9 PERATIONS PERSONNEL 2 42 0 44 0.466 0.255 0.021 0.9 PERATIONS PERSONNEL 39 0 0 39 1.234 0.000 0.000 1.3 PERSONNEL 39 0 0 39 1.234 0.000 0.000 1.3 PIERVISORY PERSONNEL 2 42 0 44 0.466 0.255 0.021 0.3 PIERVISORY PERSONNEL 39 0 0 39 1.234 0.000 0.000 1.3 PIERVISORY PERSONNEL 39 0 0 39 1.234 0.000 0.000 1.3 PIERVISORY PERSONNEL 39 0 0 39 1.234 0.000 0.000 1.3 PIERVISORY PERSONNEL 39 0 0 39 1.234 0.000 0.000 1.3 PIERVISORY PERSONNEL 39 0 0 39 1.234 0.000 0.000 1.3 PIERVISORY PERSONNEL 39 0 0 39 1.234 0.000 0.000 1.3 PIERVISORY PERSONNEL 39 0 0 0 39 1.234 0.000 0.000 1.3 PIERVISORY PERSONNEL 39 0 0 0 39 1.234 0.000 0.000 1.3 PIERVISORY PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.1 PIERVISORY PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.1 PIERVISORY PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.1 PIERVISORY PERSONNEL 153 61 186 400 16.503 0.974 1.852 19.5  EALTH PHYSICS PERSONNEL 69 131 73 273 17.544 0.790 15.822 34.4  PIERVISORY PERSONNEL 156 24 37 217 4.239 0.131 0.453 4.4	AINTENANCE PERSONNEL	10	1	294	305	2.272	0.001	60.314	62.587
Pervisory Personnel   29	Derivisory Personnel   29	PERATIONS PERSONNEL	. 0	3	1	4	0.002	0.050	0.006	0.058
JPERVISORY PERSONNEL   29	JPERVISORY PERSONNEL   29	EALTH PHYSICS PERSONNEL	3	44	19	66	0.691	0.267	4.075	5.033
NGINEERING PERSONNEL 15 0 13 28 0.404 0.000 0.163 0.5 TOTAL 57 48 327 432 4.283 0.318 64.558 69.1 ASTE PROCESSING  AINTENANCE PERSONNEL 0 0 0 3 3 3 0.001 0.000 0.522 0.5 PERATIONS PERSONNEL 1 0 157 158 0.075 0.000 1.569 1.6 PERATIONS PERSONNEL 1 0 0 1 1 0.332 0.000 0.092 0.4 PERVISORY PERSONNEL 1 0 0 0 1 0.046 0.000 0.001 0.000 0.001 0.000 0.001 0.000 0.001 0.000 0.001 0.000 0.001 0.000 0.001 0.000 0.001 0.000 0.001 0.0000	NGINEERING PERSONNEL 15 0 13 28 0.404 0.000 0.163 0.1  TOTAL 57 48 327 432 4.283 0.318 64.558 69.1  ASTE PROCESSING AINTENANCE PERSONNEL 0 0 0 3 3 0.001 0.000 0.522 0.0  PERATIONS PERSONNEL 1 0 0 157 158 0.075 0.000 1.569 1.6  PERATIONS PERSONNEL 1 0 0 0 1 0.332 0.000 0.092 0.000  PERSONNEL 1 0 0 0 1 0.332 0.000 0.092 0.000  PERSONNEL 1 0 0 0 1 0.046 0.000 0.001 0.001  NGINEERING PERSONNEL 0 0 0 0 1 0.046 0.000 0.001 0.001  NGINEERING PERSONNEL 0 0 0 0 0 0 0.002 0.000 0.000 0.001  TOTAL 3 0 160 163 0.456 0.000 1.191 4.6  PERATIONS PERSONNEL 15 0 6 21 3.453 0.000 1.191 4.6  PERATIONS PERSONNEL 17 0 0 17 1.882 0.000 0.000 1.2  PERSONNEL 17 0 0 17 1.882 0.000 0.000 1.2  PERSONNEL 2 42 0 44 0.466 0.255 0.021 0.000  NGINEERING PERSONNEL 39 0 0 39 1.234 0.000 0.000 1.2  NGINEERING PERSONNEL 2 0 0 2 0.066 0.000 0.000 1.2  NGINEERING PERSONNEL 2 0 0 0 2 0.066 0.000 0.000 1.2  NGINEERING PERSONNEL 2 0 0 0 2 0.066 0.000 0.000 0.000 1.2  NGINEERING PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6  PERATIONS PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6  PERATIONS PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6  PERATIONS PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6  PERATIONS PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6  PERATIONS PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6  PERATIONS PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6  PERATIONS PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6  PERATIONS PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6  PERATIONS PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6  PERATIONS PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6  PERATIONS PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6  PERATIONS PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6  PERATIONS PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6  PERATIONS PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6  PERATIONS PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6  PERATIONS PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6	JPERVISORY PERSONNEL	29	0	0	29	0.914	0.000	0.000	0.914
ASTE PROCESSING AINTENANCE PERSONNEL 0 0 0 3 3 3 0.001 0.000 0.522 0.5 PERATIONS PERSONNEL 1 0 0 157 158 0.075 0.000 1.569 1.6 EALTH PHYSICS PERSONNEL 1 0 0 0 1 0.332 0.000 0.092 0.4 JPERVISORY PERSONNEL 1 0 0 0 1 0.046 0.000 0.001 0.0 NGINEERING PERSONNEL 0 0 0 0 0 0.002 0.000 0.000 TOTAL 3 0 160 163 0.456 0.000 2.184 2.6  EFUELING AINTENANCE PERSONNEL 15 0 6 21 3.453 0.000 1.191 4.6 PERATIONS PERSONNEL 17 0 0 17 1.882 0.000 0.000 1.8 EALTH PHYSICS PERSONNEL 2 42 0 44 0.466 0.255 0.021 0.7 JPERVISORY PERSONNEL 39 0 0 39 1.234 0.000 0.000 1.2 NGINEERING PERSONNEL 39 0 0 39 1.234 0.000 0.000 1.2 NGINEERING PERSONNEL 2 42 0 44 0.466 0.255 0.021 0.7 JPERVISORY PERSONNEL 39 0 0 39 1.234 0.000 0.000 1.2 NGINEERING PERSONNEL 2 0 0 0 2 0.066 0.000 0.000 1.2 NGINEERING PERSONNEL 2 0 0 0 2 0.066 0.000 0.000 0.00 TOTAL 75 42 6 123 7.101 0.255 1.212 8.5  DTAL BY JOB FUNCTION AINTENANCE PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6 PERSONNEL 153 61 186 400 16.503 0.974 1.852 19.3 JPERVISORY PERSONNEL 69 131 73 273 17.534 0.790 15.822 34.1 JPERVISORY PERSONNEL 69 131 73 273 17.534 0.790 15.822 34.1 JPERVISORY PERSONNEL 286 18 96 400 9.091 0.019 1.461 10.5	ASTE PROCESSING AINTENANCE PERSONNEL 0 0 0 3 3 3 0.001 0.000 0.522 0.6 PERATIONS PERSONNEL 1 0 157 158 0.075 0.000 1.569 1.6 EALTH PHYSICS PERSONNEL 1 0 0 1 0 1 0.332 0.000 0.092 0.4 DEPENSORY PERSONNEL 1 0 0 1 0.046 0.000 0.001 0.1 NGINEERING PERSONNEL 0 0 0 0 0 0.002 0.000 0.000 0.001 TOTAL 3 0 160 163 0.456 0.000 2.184 2.6  EFUELING AINTENANCE PERSONNEL 15 0 6 21 3.453 0.000 1.191 4.6 PERATIONS PERSONNEL 17 0 0 17 1.882 0.000 0.000 1.4 EALTH PHYSICS PERSONNEL 2 42 0 44 0.466 0.255 0.021 0.7 DEPENSORY PERSONNEL 39 0 0 39 1.234 0.000 0.000 1.4 NGINEERING PERSONNEL 2 0 0 0 2 0.066 0.000 0.000 1.4 NGINEERING PERSONNEL 2 0 0 0 2 0.066 0.000 0.000 1.4 NGINEERING PERSONNEL 2 0 0 0 2 0.066 0.000 0.000 0.000 1.4 NGINEERING PERSONNEL 2 0 0 0 2 0.066 0.000 0.000 0.000 1.4 NGINEERING PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.4 DOTAL BY JOB FUNCTION AINTENANCE PERSONNEL 153 61 186 400 16.503 0.974 1.852 19.3 EALTH PHYSICS PERSONNEL 69 131 73 273 17.534 0.790 15.822 34.4 UPERVISORY PERSONNEL 286 18 96 400 9.091 0.019 1.461 10.3 NGINEERING PERSONNEL 286 18 96 400 9.091 0.019 1.461 10.3 NGINEERING PERSONNEL 286 18 96 400 9.091 0.019 1.461 10.3 NGINEERING PERSONNEL 156 24 37 217 4.239 0.131 0.453 4.3				13					0.567
AINTENANCE PERSONNEL 0 0 3 3 3 0.001 0.000 0.522 0.50 PERATIONS PERSONNEL 1 0 157 158 0.075 0.000 1.569 1.60 EALTH PHYSICS PERSONNEL 1 0 0 1 1 0.332 0.000 0.092 0.4 DJERVISORY PERSONNEL 1 0 0 0 1 0.046 0.000 0.001 0.00 NGINEERING PERSONNEL 0 0 0 0 0 0.002 0.000 0.000 0.00 TOTAL 3 0 160 163 0.456 0.000 2.184 2.60  EFUELING AINTENANCE PERSONNEL 15 0 6 21 3.453 0.000 1.191 4.60 PERATIONS PERSONNEL 17 0 0 17 1.882 0.000 0.000 1.80 EALTH PHYSICS PERSONNEL 2 42 0 44 0.466 0.255 0.021 0.7 DJERVISORY PERSONNEL 39 0 0 39 1.234 0.000 0.000 1.2 NGINEERING PERSONNEL 2 0 0 44 0.466 0.255 0.021 0.7 UPERVISORY PERSONNEL 2 0 0 0 39 1.234 0.000 0.000 1.2 NGINEERING PERSONNEL 2 0 0 0 2 0.066 0.000 0.000 1.2 NGINEERING PERSONNEL 2 0 0 0 2 0.066 0.000 0.000 0.000 1.2 TOTAL 75 42 6 123 7.101 0.255 1.212 8.5  DTAL BY JOB FUNCTION AINTENANCE PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6 DTAL BY JOB FUNCTION AINTENANCE PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6 DTAL BY JOB FUNCTION AINTENANCE PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6 DTAL BY JOB FUNCTION AINTENANCE PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6 DEALTH PHYSICS PERSONNEL 69 131 73 273 17.534 0.790 15.822 34.1 UPERVISORY PERSONNEL 286 18 96 400 9.091 0.019 1.461 10.5	AINTENANCE PERSONNEL 0 0 3 3 3 0.001 0.000 0.522 0.5 PERATIONS PERSONNEL 1 0 157 158 0.075 0.000 1.569 1.6 EALTH PHYSICS PERSONNEL 1 0 0 1 0.332 0.000 0.092 0.5 EALTH PHYSICS PERSONNEL 1 0 0 1 0.332 0.000 0.092 0.5 DEPRIVISORY PERSONNEL 1 0 0 0 1 0.046 0.000 0.001 0.1 NGINEERING PERSONNEL 0 0 0 0 0 0.002 0.000 0.000 0.001 TOTAL 3 0 160 163 0.456 0.000 2.184 2.6  EFUELING AINTENANCE PERSONNEL 15 0 6 21 3.453 0.000 1.191 4.6 PERATIONS PERSONNEL 17 0 0 17 1.882 0.000 0.000 1.6 EALTH PHYSICS PERSONNEL 2 42 0 44 0.466 0.255 0.021 0.5 DEPREVISORY PERSONNEL 39 0 0 39 1.234 0.000 0.000 1.2 NGINEERING PERSONNEL 2 0 0 2 0.066 0.000 0.000 1.2 NGINEERING PERSONNEL 2 0 0 0 2 0.066 0.000 0.000 1.2 TOTAL 75 42 6 123 7.101 0.255 1.212 8.3  DITAL BY JOB FUNCTION AINTENANCE PERSONNEL 153 61 186 400 16.503 0.974 1.852 19.3 EALTH PHYSICS PERSONNEL 69 131 73 273 17.534 0.790 15.822 34. UPERVISORY PERSONNEL 266 18 96 400 9.091 0.019 1.461 10.9 NGINEERING PERSONNEL 266 18 96 400 9.091 0.019 1.461 10.9 NGINEERING PERSONNEL 156 24 37 217 4.239 0.131 0.453 4.3		57	48		432				69.159
PERATIONS PERSONNEL 1 0 157 158 0.075 0.000 1.569 1.6 EALTH PHYSICS PERSONNEL 1 0 0 1 1 0.332 0.000 0.092 0.4 UPERVISORY PERSONNEL 1 0 0 0 1 0.046 0.000 0.001 0.0 NGINEERING PERSONNEL 0 0 0 0 0 0.002 0.000 0.000 0.001 TOTAL 3 0 160 163 0.456 0.000 0.000 0.000  EFUELING IAINTENANCE PERSONNEL 15 0 6 21 3.453 0.000 1.191 4.6 PERATIONS PERSONNEL 17 0 0 17 1.882 0.000 0.000 1.8 EALTH PHYSICS PERSONNEL 2 42 0 44 0.466 0.255 0.021 0.7 UPERVISORY PERSONNEL 39 0 0 39 1.234 0.000 0.000 1.2 NGINEERING PERSONNEL 2 0 0 2 0.066 0.000 0.000 1.2 NGINEERING PERSONNEL 2 0 0 0 39 1.234 0.000 0.000 1.2 NGINEERING PERSONNEL 2 0 0 0 39 1.234 0.000 0.000 1.2 NGINEERING PERSONNEL 2 0 0 0 39 1.234 0.000 0.000 1.2 NGINEERING PERSONNEL 1 0 0 0 12 0.066 0.000 0.000 1.2 NGINEERING PERSONNEL 1 0 0 0 0 0 0.000 0	PERATIONS PERSONNEL 1 0 157 158 0.075 0.000 1.569 1.6 EALTH PHYSICS PERSONNEL 1 0 0 1 1 0.332 0.000 0.092 0.4 UPERVISORY PERSONNEL 1 0 0 0 1 0.046 0.000 0.001 0.0 NGINEERING PERSONNEL 0 0 0 0 0 0.002 0.002 0.000 0.000 0.001 TOTAL 3 0 160 163 0.456 0.000 1.191 4.6 EFUELING IAINTENANCE PERSONNEL 15 0 6 21 3.453 0.000 1.191 4.6 PERATIONS PERSONNEL 17 0 0 17 1.882 0.000 0.000 1.4 EALTH PHYSICS PERSONNEL 2 42 0 44 0.466 0.255 0.021 0.3 UPERVISORY PERSONNEL 39 0 0 39 1.234 0.000 0.000 1.2 NGINEERING PERSONNEL 2 0 0 0 2 0.066 0.000 0.000 1.3 NGINEERING PERSONNEL 2 0 0 0 2 0.066 0.000 0.000 1.3 NGINEERING PERSONNEL 2 0 0 0 0 0.000 0.000 0.000 1.3 NGINEERING PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.1  OTAL BY JOB FUNCTION IAINTENANCE PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.1 PERATIONS PERSONNEL 153 61 186 400 16.503 0.974 1.852 19.3 EALTH PHYSICS PERSONNEL 69 131 73 273 17.534 0.790 15.822 34. UPERVISORY PERSONNEL 286 18 96 400 9.091 0.019 1.461 10.9 NGINEERING PERSONNEL 156 24 37 217 4.239 0.131 0.453 4.4	ASTE PROCESSING								
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Description	Description	PERATIONS PERSONNEL	1	0	157	158	0.075	0.000	1.569	1.644
Description	Description	EALTH PHYSICS PERSONNEL	1	0	0	1	0.332	0.000	0.092	0.424
NGINEERING PERSONNEL   0   0   0   0   0   0.002   0.000   0	NGINEERING PERSONNEL 0 0 0 0 0 0 0.002 0.000 0.0		1	0	0	1	0.046	0.000	0.001	0.047
EFUELING AINTENANCE PERSONNEL 15 0 6 21 3.453 0.000 1.191 4.6 PERATIONS PERSONNEL 17 0 0 17 1.882 0.000 0.000 1.8 EALTH PHYSICS PERSONNEL 2 42 0 44 0.466 0.255 0.021 0.7 IPERVISORY PERSONNEL 39 0 0 39 1.234 0.000 0.000 1.2 INGINEERING PERSONNEL 2 0 0 2 0.066 0.000 0.000 1.2 INGINEERING PERSONNEL 2 0 0 0 2 0.066 0.000 0.000 0.00 TOTAL 75 42 6 123 7.101 0.255 1.212 8.5  OTAL BY JOB FUNCTION AINTENANCE PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6 PERATIONS PERSONNEL 153 61 186 400 16.503 0.974 1.852 19.3 EALTH PHYSICS PERSONNEL 69 131 73 273 17.534 0.790 15.822 34.1 IJPERVISORY PERSONNEL 286 18 96 400 9.091 0.019 1.461 10.5	EFUELING AINTENANCE PERSONNEL 15 0 6 21 3.453 0.000 1.191 4.6 PERATIONS PERSONNEL 17 0 0 17 1.882 0.000 0.000 1.6 EALTH PHYSICS PERSONNEL 2 42 0 44 0.466 0.255 0.021 0.7 IPERVISORY PERSONNEL 39 0 0 39 1.234 0.000 0.000 1.6 IGINEERING PERSONNEL 2 0 0 0 2 0.066 0.000 0.000 0.00 ITOTAL 75 42 6 123 7.101 0.255 1.212 8.9  OTAL BY JOB FUNCTION AINTENANCE PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6 PERATIONS PERSONNEL 153 61 186 400 16.503 0.974 1.852 19.7 EALTH PHYSICS PERSONNEL 69 131 73 273 17.534 0.790 15.822 34.7 INDIPERVISORY PERSONNEL 286 18 96 400 9.091 0.019 1.461 10.5 INGINEERING PERSONNEL 156 24 37 217 4.239 0.131 0.453 4.5 INGINEERING PERSONNEL 156 24 37 217 4.239 0.131 0.453 4.5									0.002
AINTENANCE PERSONNEL 15 0 6 21 3.453 0.000 1.191 4.60 PERATIONS PERSONNEL 17 0 0 17 1.882 0.000 0.000 1.8 PERATIONS PERSONNEL 2 42 0 44 0.466 0.255 0.021 0.7 PERVISORY PERSONNEL 39 0 0 39 1.234 0.000 0.000 1.2 PERVISORY PERSONNEL 2 0 0 44 0.466 0.255 0.021 0.7 PERVISORY PERSONNEL 2 0 0 0 39 1.234 0.000 0.000 1.2 PERVISORY PERSONNEL 2 0 0 0 2 0.066 0.000 0.000 0.00 0.00 0	AINTENANCE PERSONNEL 15 0 6 21 3.453 0.000 1.191 4.6 PERATIONS PERSONNEL 17 0 0 17 1.882 0.000 0.000 1.6 EALTH PHYSICS PERSONNEL 2 42 0 44 0.466 0.255 0.021 0.7 PIPERVISORY PERSONNEL 39 0 0 39 1.234 0.000 0.000 1.6 PIGINEERING PERSONNEL 2 0 0 0 2 0.066 0.000 0.000 1.6 PITOTAL 75 42 6 123 7.101 0.255 1.212 8.6 PITAL BY JOB FUNCTION AINTENANCE PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6 PERATIONS PERSONNEL 153 61 186 400 16.503 0.974 1.852 19.6 PERALTH PHYSICS PERSONNEL 69 131 73 273 17.534 0.790 15.822 34.6 PITAL PHYSICS PERSONNEL 286 18 96 400 9.091 0.019 1.461 10.9 PITOTAL 286 18 96 400 9.091 0.019 1.461 10.9 PITOTAL 3.4 37 217 4.239 0.131 0.453 4.8		3	ō						2.640
AINTENANCE PERSONNEL 15 0 6 21 3.453 0.000 1.191 4.66 PERATIONS PERSONNEL 17 0 0 17 1.882 0.000 0.000 1.8 PERATIONS PERSONNEL 2 42 0 44 0.466 0.255 0.021 0.7 UPERVISORY PERSONNEL 39 0 0 39 1.234 0.000 0.000 1.2 PERSONNEL 2 0 0 0 39 1.234 0.000 0.000 1.2 PERSONNEL 2 0 0 0 2 0.066 0.000 0.000 0.000 1.2 PERSONNEL 75 42 6 123 7.101 0.255 1.212 8.5 PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.66 PERSONNEL 153 61 186 400 16.503 0.974 1.852 19.3 PERSONNEL 153 61 186 400 16.503 0.974 1.852 19.3 PERSONNEL 69 131 73 273 17.534 0.790 15.822 34.1 PERVISORY PERSONNEL 286 18 96 400 9.091 0.019 1.461 10.5	AINTENANCE PERSONNEL 15 0 6 21 3.453 0.000 1.191 4.60 PERATIONS PERSONNEL 17 0 0 17 1.882 0.000 0.000 1.50 PERATIONS PERSONNEL 17 0 0 0 17 1.882 0.000 0.000 1.50 PERSONNEL 17 0 0 0 17 1.882 0.000 0.000 1.50 PERSONNEL 18 18 18 18 18 18 18 18 18 18 18 18 18	FUELING_								
PERATIONS PERSONNEL 17 0 0 17 1.882 0.000 0.000 1.882  EALTH PHYSICS PERSONNEL 2 42 0 44 0.466 0.255 0.021 0.7  UPERVISORY PERSONNEL 39 0 0 39 1.234 0.000 0.000 1.2  NGINEERING PERSONNEL 2 0 0 0 2 0.066 0.000 0.000 0.000  TOTAL 75 42 6 123 7.101 0.255 1.212 8.5  OTAL BY JOB FUNCTION  AINTENANCE PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6  PERATIONS PERSONNEL 153 61 186 400 16.503 0.974 1.852 19.3  EALTH PHYSICS PERSONNEL 69 131 73 273 17.534 0.790 15.822 34.1  UPERVISORY PERSONNEL 286 18 96 400 9.091 0.019 1.461 10.5	PERATIONS PERSONNEL 17 0 0 17 1.882 0.000 0.000 1.6 EALTH PHYSICS PERSONNEL 2 42 0 44 0.466 0.255 0.021 0.7  IJPERVISORY PERSONNEL 39 0 0 39 1.234 0.000 0.000 1.6  INGINEERING PERSONNEL 2 0 0 0 2 0.066 0.000 0.000 0.000  TOTAL 75 42 6 123 7.101 0.255 1.212 8.6  IDITAL BY JOB FUNCTION  AINTENANCE PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6  PERATIONS PERSONNEL 153 61 186 400 16.503 0.974 1.852 19.5  EALTH PHYSICS PERSONNEL 69 131 73 273 17.534 0.790 15.822 34.5  IJPERVISORY PERSONNEL 286 18 96 400 9.091 0.019 1.461 10.9  INGINEERING PERSONNEL 156 24 37 217 4.239 0.131 0.453 4.50		15	0	6	21	3.453	0.000	1.191	4.644
EALTH PHYSICS PERSONNEL 2 42 0 44 0.466 0.255 0.021 0.7  UPERVISORY PERSONNEL 39 0 0 39 1.234 0.000 0.000 1.2  NGINEERING PERSONNEL 2 0 0 0 2 0.066 0.000 0.000 0.00  TOTAL 75 42 6 123 7.101 0.255 1.212 8.5  OTAL BY JOB FUNCTION  AINTENANCE PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6  PERATIONS PERSONNEL 153 61 186 400 16.503 0.974 1.852 19.3  EALTH PHYSICS PERSONNEL 69 131 73 273 17.534 0.790 15.822 34.1  UPERVISORY PERSONNEL 286 18 96 400 9.091 0.019 1.461 10.5	EALTH PHYSICS PERSONNEL 2 42 0 44 0.466 0.255 0.021 0.7  JPERVISORY PERSONNEL 39 0 0 39 1.234 0.000 0.000 1.7  NGINEERING PERSONNEL 2 0 0 0 2 0.066 0.000 0.000 0.000  TOTAL 75 42 6 123 7.101 0.255 1.212 8.9  DIAL BY JOB FUNCTION  AINTENANCE PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6  PERATIONS PERSONNEL 153 61 186 400 16.503 0.974 1.852 19.5  EALTH PHYSICS PERSONNEL 69 131 73 273 17.534 0.790 15.822 34.7  JPERVISORY PERSONNEL 286 18 96 400 9.091 0.019 1.461 10.9  NGINEERING PERSONNEL 156 24 37 217 4.239 0.131 0.453 4.300									1.882
UPERVISORY PERSONNEL   39   0   0   39   1.234   0.000   0.000   1.200   0.0	JPERVISORY PERSONNEL   39   0   0   39   1.234   0.000   0.000   1.200   0.0									0.742
NGINEERING PERSONNEL 2 0 0 2 0.066 0.000 0.000 0.00 0.00 0.0	NGINEERING PERSONNEL 2 0 0 2 0.066 0.000 0									1.234
DTAL BY JOB FUNCTION       AINTENANCE PERSONNEL     193     16     1086     1295     43.850     0.731     222.117     266.6       PERATIONS PERSONNEL     153     61     186     400     16.503     0.974     1.852     19.3       EALTH PHYSICS PERSONNEL     69     131     73     273     17.534     0.790     15.822     34.1       JPERVISORY PERSONNEL     286     18     96     400     9.091     0.019     1.461     10.5	OTAL BY JOB FUNCTION AINTENANCE PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6 PERATIONS PERSONNEL 153 61 186 400 16.503 0.974 1.852 19.3 EALTH PHYSICS PERSONNEL 69 131 73 273 17.534 0.790 15.822 34. UPERVISORY PERSONNEL 286 18 96 400 9.091 0.019 1.461 10.6 NGINEERING PERSONNEL 156 24 37 217 4.239 0.131 0.453 4.6		2							0.066
AINTENANCE PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6 PERATIONS PERSONNEL 153 61 186 400 16.503 0.974 1.852 19.3 EALTH PHYSICS PERSONNEL 69 131 73 273 17.534 0.790 15.822 34.1  JPERVISORY PERSONNEL 286 18 96 400 9.091 0.019 1.461 10.5	AINTENANCE PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.00 perations personnel 153 61 186 400 16.503 0.974 1.852 19.30 personnel 69 131 73 273 17.534 0.790 15.822 34.00 personnel 286 18 96 400 9.091 0.019 1.461 10.40 personnel 156 24 37 217 4.239 0.131 0.453 4.80 personnel 156 24 37 24 24 24 24 24 2		7 <del>5</del>	42	<u><del>-</del></u>	123				8.568
AINTENANCE PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6 PERATIONS PERSONNEL 153 61 186 400 16.503 0.974 1.852 19.3 EALTH PHYSICS PERSONNEL 69 131 73 273 17.534 0.790 15.822 34.1 JPERVISORY PERSONNEL 286 18 96 400 9.091 0.019 1.461 10.5	AINTENANCE PERSONNEL 193 16 1086 1295 43.850 0.731 222.117 266.6 PERATIONS PERSONNEL 153 61 186 400 16.503 0.974 1.852 19.3 EALTH PHYSICS PERSONNEL 69 131 73 273 17.534 0.790 15.822 34. UPERVISORY PERSONNEL 286 18 96 400 9.091 0.019 1.461 10.4 NGINEERING PERSONNEL 156 24 37 217 4.239 0.131 0.453 4.8	OTAL BY JOB FUNCTION								
PERATIONS PERSONNEL 153 61 186 400 16.503 0.974 1.852 19.3 EALTH PHYSICS PERSONNEL 69 131 73 273 17.534 0.790 15.822 34.1 JPERVISORY PERSONNEL 286 18 96 400 9.091 0.019 1.461 10.5	PERATIONS PERSONNEL 153 61 186 400 16.503 0.974 1.852 19.3  EALTH PHYSICS PERSONNEL 69 131 73 273 17.534 0.790 15.822 34.  UPERVISORY PERSONNEL 286 18 96 400 9.091 0.019 1.461 10.4  NGINEERING PERSONNEL 156 24 37 217 4.239 0.131 0.453 4.8		193	16	1086	1295	43.850	0.731	222.117	266.698
EALTH PHYSICS PERSONNEL 69 131 73 273 17.534 0.790 15.822 34.1 JPERVISORY PERSONNEL 286 18 96 400 9.091 0.019 1.461 10.5	EALTH PHYSICS PERSONNEL 69 131 73 273 17.534 0.790 15.822 34.  JPERVISORY PERSONNEL 286 18 96 400 9.091 0.019 1.461 10.9  NGINEERING PERSONNEL 156 24 37 217 4.239 0.131 0.453 4.8									19.329
JPERVISORY PERSONNEL 286 18 96 400 9.091 0.019 1.461 10.5	JPERVISORY PERSONNEL 286 18 96 400 9.091 0.019 1.461 10.9 10.9 1 1.461 10.9 1 1.461 10.9 1 1.461 10.9 1 1.461 10.9 1 1.461 10.9 1 1.461 10.9 1 1.461 10.9 1 1.461 10.9 1 1.461 10.9 1 1.461									34.146
	NGINEERING PERSONNEL 156 24 37 217 4.239 0.131 0.453 4.8									10.571
	GRAND TOTALS 857 250 1478 2585 91.217 2.645 241.705 335.5									4.823
	GRAND TOTALS 857 250 1478 2585 91.217 2.645 241.705 335.				4.4	0.85			0.44 = 0.5	005 505

<sup>\*</sup>Workers may be counted in more than one category.

#### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*BROWNS FERRY 1.2.3

TYPE:

PLANT: *BROWNS FER	1,2,3						TYPE:	BWR
WORK AND	NUMBER C	OF PERSON	INEL (>100 mRE	EM)	TOTA	L PERSON-R	REM	
IOB FUNCTION	STATION		CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV								
MAINTENANCE PERSONNEL	115	13	113	241	1.560	0.441	0.823	2.824
PERATIONS PERSONNEL	104	3	17	124	30.011	0.872	2.661	33.544
IEALTH PHYSICS PERSONNEL	40	11	12	63	11.340	1.321	3.517	16.178
SUPERVISORY PERSONNEL	47	1	16	64	4.861	0.035	0.293	5.189
NGINEERING PERSONNEL TOTAL	<u>33</u> 339	<u>3</u> 31	<u>16</u> 174	<u>52</u> 544	<u>1.709</u> 49.481	<u>0.017</u> 2.686	<u>0.202</u> 7.496	<u>1.928</u> 59.663
OUTINE MAINTENANCE								
MAINTENANCE PERSONNEL	193	28	407	628	76.362	8.752	119.826	204.940
PERATIONS PERSONNEL	127	3	27	157	9.796	0.459	1.893	12.148
IEALTH PHYSICS PERSONNEL	40	14	9	63	5.249	0.694	0.530	6.473
SUPERVISORY PERSONNEL	45	2	42	89	3.997	0.052	7.148	11.197
NGINEERING PERSONNEL	<u>31</u>		23	64	3.286	0.179	3.082	6.547
TOTAL	436	<u>10</u> 57	508	1001	98.690	10.136	132.479	241.305
N-SERVICE INSPECTION				06-				DC -1-
MAINTENANCE PERSONNEL	93	11	12 <u>1</u>	225	6.903	0.891	15.521	23.315
PERATIONS PERSONNEL	46	1	7	54	0.826	0.006	1.112	1.944
IEALTH PHYSICS PERSONNEL	29	7	2	38	1.033	1.108	0.011	2.152
UPERVISORY PERSONNEL	14	5	16	35	0.978	0.672	1.960	3.610
NGINEERING PERSONNEL	<u>16</u>	<u>6</u> 30	12	34	1.736	1.103	<u>5.482</u>	8.321
TOTAL	198	30	158	386	11.476	3.780	24.086	39.342
PECIAL MAINTENANCE MAINTENANCE PERSONNEL	100	14	206	320	8.508	0.839	13.325	22.672
PERATIONS PERSONNEL	47	2	8	57	1.638	0.029	0.292	1.959
EALTH PHYSICS PERSONNEL	36	4	5	45	1.939	0.084	0.113	2.136
UPERVISORY PERSONNEL	22	0	26	48	0.769	0.000	1.157	1.926
NGINEERING PERSONNEL	<u>8</u> .	3	7	18	0.270	0.466	0.816	1.552
TOTAL	213	<u>3</u> 23	252	488	13.124	1.418	15.703	30.245
VASTE PROCESSING								
MAINTENANCE PERSONNEL	34	4	95	133	0.719	0.003	8.194	8.916
PERATIONS PERSONNEL	20	. 0	2	22	5.560	0.000	0.245	5.805
EALTH PHYSICS PERSONNEL	31	5	0	36	1.560	0.011	0.000	1.571
UPERVISORY PERSONNEL	10	0	10	20	0.699	0.000	0.459	1.158
NGINEERING PERSONNEL	<u>2</u> 97	<u>0</u>	<u>o</u>	<u>2</u>	<u>0.032</u>	0.000	0.000	<u>0.032</u>
TOTAL	97	9	107	213	8.570	0.014	8.898	17.482
EFUELING MAINTENANCE PERSONNEL	47	6	171	224	1.675	0.181	24.368	26.224
	47 40	6 3	8	22 <del>4</del> 51	2.972	0.101	24.366 0.421	3.522
PERATIONS PERSONNEL	19	3	8 7	29	1.945	0.129	0.421	2.264
IEALTH PHYSICS PERSONNEL SUPERVISORY PERSONNEL	11	1	11	29	0.350	0.029	1.304	1.678
				23 <u>17</u>	0.599	0.024	0.395	0.994
NGINEERING PERSONNEL TOTAL	<u>11</u> 128	<u>0</u> 13	<u>6</u> 203	3 <del>17</del>	7.541	0.363	26.778	34.682
OTAL BY JOB FUNCTION								
MAINTENANCE PERSONNEL	582	76	1113	1771	95.727	11.107	182.057	288.891
PERATIONS PERSONNEL	384	12	69	465	50.803	1.495	6.624	58.922
EALTH PHYSICS PERSONNEL	195	44	35	274	23.066	3.247	4.461	30.774
SUPERVISORY PERSONNEL	149	9	121	279	11.654	0.783	12.321	24.758
NGINEERING PERSONNEL	101	22	64	187	7.632	1.765	9.977	19.374
GRAND TOTALS	1411	163	1402	2976	188.882	18.397	215.440	422.719

<sup>\*</sup>Workers may be counted in more than one category.

#### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*BRUNSWICK 1,2

TYPE:

WORK AND	NUMBER O	F PERSON	INEL (>100 mRE	EM)	TOTA	L PERSON-R	EM	
JOB FUNCTION	STATION		CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV						· · · · · · · · · · · · · · · · · · ·		
AINTENANCE PERSONNEL	5	0	12	17	2.834	0.122	6.344	9.300
PERATIONS PERSONNEL	86	0	. 18	104	31.978	0.004	5.301	37.283
IEALTH PHYSICS PERSONNEL	67	0	36	103	31.728	0.093	13.747	45.568
SUPERVISORY PERSONNEL	5	0	0	5	3.265	0.085	0.308	3.658
NGINEERING PERSONNEL	<u>11</u>	<u>0</u>	<u>5</u>	<u>16</u>	<u>3.842</u>	0.043	<u>2.283</u>	<u>6.168</u>
TOTAL	174	0	71	245	73.647	0.347	27.983	101.977
OUTINE MAINTENANCE								
MAINTENANCE PERSONNEL	182	22	378	582	88.703	10.949	182.545	282.197
PERATIONS PERSONNEL	4	1	0	5	2.024	0.553	0.083	2.660
IEALTH PHYSICS PERSONNEL	20	1	14	35	7.771	0.316	8.527	16.614
SUPERVISORY PERSONNEL	16	1	6	23	7.745	0.405	4.575	12.725
ENGINEERING PERSONNEL	<u>56</u>	<u>0</u> 25	<u>187</u>	<u>243</u>	<u>22.158</u>	0.722	150.930	173.810
TOTAL	278	25	585	888	128.401	12.945	346.660	488.006
N-SERVICE INSPECTION		•	•	•	4.400	0.000	0.007	0.400
MAINTENANCE PERSONNEL	3	. 0	0	3	1.198	0.038	0.887	2.123
PERATIONS PERSONNEL	6	0	0	6	2.523	0.000	0.012	2.535
EALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.009	0.009
UPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.011	0.011
NGINEERING PERSONNEL	<u>5</u>	<u>o</u>	<u>7</u>	12	1.904	0.000	<u>3.941</u>	5.845
TOTAL	14	0	7	21	5.625	0.038	4.860	10.523
PECIAL MAINTENANCE	•	40	400	400	0.470	2.005	50.004	65.020
MAINTENANCE PERSONNEL	6	10	166	182	2.473	2.865	59.694	65.032
PERATIONS PERSONNEL	1	0	1	2	0.190	0.174	0.169	0.533
EALTH PHYSICS PERSONNEL	15	. 0	10	25	4.632	0.002	3.053	7.687
SUPERVISORY PERSONNEL	0	0	1	1	0.753	0.007	0.671	1.431
NGINEERING PERSONNEL	<u>0</u> 22	<u>0</u> 10	7	21 =	1.323	0.110	<u>4.557</u>	5.990
TOTAL	22	10	185	217	9.371	3.158	68.144	80.673
WASTE PROCESSING	44	0	4	45	4 906	0.076	3.270	8.152
MAINTENANCE PERSONNEL	11	0	4	15	4.806	0.076		
PERATIONS PERSONNEL	0	0	0	0	0.080	0.000	0.000	0.080
HEALTH PHYSICS PERSONNEL	6	0	1	7	1.586	0.014	0.276	1.876
SUPERVISORY PERSONNEL	0	0	0	0	0.085	0.000	0.030	0.115
NGINEERING PERSONNEL	<u>0</u> 17	<u>o</u> 0	<u>1</u> 6	1 23	0.252	0.000	<u>0.926</u>	1.178
TOTAL	17	0	6	23	6.809	0.090	4.502	11.401
REFUELING	F	^	47	22	2 202	0.360	6.025	9.677
MAINTENANCE PERSONNEL	5	0	17	22	3.292	0.360	6.025	
PERATIONS PERSONNEL	0	0	0	0	0.252	0.000	0.000	0.252
HEALTH PHYSICS PERSONNEL	0	0	2	2	0.135	0.000	0.252	0.387
SUPERVISORY PERSONNEL	7	0	0	7	2.911	0.000	0.048	2.959
INGINEERING PERSONNEL TOTAL	<u>7</u> 19	0	<u>26</u> 45	<u>33</u> 64	<u>3.757</u> 10.347	0.028 0.388	<u>6.606</u> 12.931	10.391 23.666
	.0	·	,,					
OTAL BY JOB FUNCTION MAINTENANCE PERSONNEL	212	32	577	821	103.306	14.410	258.765	376.481
	212 97	32 1	19	117	37.047	0.731	5.565	43.343
PERATIONS PERSONNEL			63	177	45.852	0.731	25.864	72.141
HEALTH PHYSICS PERSONNEL	108	1		36	45.852 14.759	0.425 0.497	25.643	20.899
SUPERVISORY PERSONNEL	28	1	7				169.243	20.699
ENGINEERING PERSONNEL	79	0	233	312	33.236	0.903	109.243	203.302
GRAND TOTALS	524	35	899	1458	234.200	16.966	465.080	716.246

<sup>\*</sup>Workers may be counted in more than one category.

### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*BYRON 1,2

TYPE:

							11111	WIX
WORK AND			EL (>100 mRE			<u>L PERSON-R</u>		
JOB FUNCTION	STATION L	JTILITY C	ONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV			-					
MAINTENANCE PERSONNEL	3	0	2	5	0.979	0.000	0.430	1.409
OPERATIONS PERSONNEL	4	Ö	ō	4	0.288	0.000	0.000	0.288
HEALTH PHYSICS PERSONNEL	2	Ö	Ö	2	0.474	0.000	0.000	0.474
SUPERVISORY PERSONNEL	5	1	Ō	6	0.287	0.006	0.017	0.310
ENGINEERING PERSONNEL	<u>27</u> 41	24			1.090	0.409	0.044	1.543
TOTAL	41	24 25	$\frac{2}{4}$	<u>53</u> 70	3.118	0.415	0.491	4.024
ROUTINE MAINTENANCE								
MAINTENANCE PERSONNEL	187	42	500	729	54.246	1.837	100.998	157.081
OPERATIONS PERSONNEL	163	0	50	213	11.443	0.000	0.445	11.888
HEALTH PHYSICS PERSONNEL	73	0	78	151	16.328	0.000	22.829	39.157
SUPERVISORY PERSONNEL	186	61	40	287	11.174	0.230	10.836	22.240
ENGINEERING PERSONNEL	31	<u>229</u>	24	<u>284</u>	1.270	<u>3.975</u>	0.562	<u>5.807</u>
TOTAL	640	332	692	1664	94.461	6.042	135.670	236.173
IN-SERVICE INSPECTION MAINTENANCE PERSONNEL	2	0	105	107	0.649	0.000	21.220	21.869
OPERATIONS PERSONNEL	7	0	0	7	0.449	0.000	0.000	0.449
HEALTH PHYSICS PERSONNEL	0	0	0	ó	0.105	0.000	0.002	0.107
SUPERVISORY PERSONNEL	9	3	34	46	0.547	0.000	9.399	9.957
ENGINEERING PERSONNEL	<u>1</u>		5 5	15	0.027	0.156	0.118	0.301
TOTAL	19	<u>9</u> 12	14 <b>4</b>	1 <del>75</del>	1.777	0.167	30.739	32.683
SPECIAL MAINTENANCE								
MAINTENANCE PERSONNEL	5	0	728	733	1.286	146.791	0.012	148.089
OPERATIONS PERSONNEL	0	0	0	0	0.022	0.003	0.000	0.025
HEALTH PHYSICS PERSONNEL	0	0	0	0	0.103	0.015	0.000	0.118
SUPERVISORY PERSONNEL	38	0	73	111	2.233	19.729	0.000	21.962
ENGINEERING PERSONNEL		<u>59</u> 59	<u>3</u>	<u>62</u>	0.004	0.081	1.019	1.104
TOTAL	<u>0</u> 43	<del>59</del>	804	906	3.648	166.619	1.031	171.298
WASTE PROCESSING								
MAINTENANCE PERSONNEL	0	0	5	5	0.497	0.000	4.951	5.448
OPERATIONS PERSONNEL	1	0	128	129	1.844	0.000	0.000	1.844
HEALTH PHYSICS PERSONNEL	0	0	0	0	0.026	0.000	0.000	0.026
SUPERVISORY PERSONNEL	0	0	0	0	0.686	0.015	1.215	1.916
ENGINEERING PERSONNEL	<u>0</u> 1	<u>0</u> 0	<u>0</u>	<u>0</u>	<u>0.141</u>	0.005	0.000	0.146
TOTAL	1	0	133	134	3.194	0.020	6.166	9.380
REFUELING DEPOSITION	2	0	25	27	0.000	0.000	0.063	0.962
MAINTENANCE PERSONNEL	2 26	0 0	25 0	27 26	0.000 0.069	0.000 0.000	0.962 1.143	1.212
OPERATIONS PERSONNEL	26 0	0	0	26 0	0.010	0.000	0.000	0.010
HEALTH PHYSICS PERSONNEL	11	4	4	19	0.009	0.000	0.000	0.010
SUPERVISORY PERSONNEL ENGINEERING PERSONNEL					0.009	0.000	0.000	0.009
TOTAL.	4 <u>4</u> 4 <u>3</u>	<u>0</u> 4	<u>0</u> 29	<u>4</u> 76	0.088	0.000	2.105	2.193
TOTAL BY JOB FUNCTION								
MAINTENANCE PERSONNEL	199	42	1365	1606	57.657	148.628	128.573	334.858
OPERATIONS PERSONNEL	201	0	178	379	14.115	0.003	1.588	15.706
HEALTH PHYSICS PERSONNEL		Ö	78	153	17.046	0.015	22.831	39.892
SUPERVISORY PERSONNEL	249	69	151	469	14.936	19.991	21.467	56.394
ENGINEERING PERSONNEL	63	321	34	418	2.532	4.626	1.743	8.901
GRAND TOTALS	787	432	1806	3025	106.286	173.263	176.202	455.751
	• • •							

<sup>\*</sup>Workers may be counted in more than one category.

# NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*CALLAWAY 1

TYPE:

PLANI: "CALLAWAY 1							TYPE:	WK
WORK AND	NUMBER C	OF PERSON	NNEL (>100 mRE	EM)	TOTA	AL PERSON-R	REM	
JOB FUNCTION	STATION	UTILITY	CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV								
MAINTENANCE PERSONNEL	0	0	0	0	0.249	0.000	0.338	0.587
PERATIONS PERSONNEL	27	0	0	27	5.550	0.000	0.000	5.550
HEALTH PHYSICS PERSONNEL	38	0	31	69	8.870	0.001	8.002	16.873
SUPERVISORY PERSONNEL	5	Ō	0	5	1.928	0.014	0.094	2.036
NGINEERING PERSONNEL	<u>8</u>		<u>o</u>	<u>10</u>	2.814	1.176	0.000	3.990
TOTAL	7 <u>8</u>	<u>2</u>	3 <u>1</u>	111	1 <u>9.411</u>	1.191	8.434	29.036
ROUTINE MAINTENANCE								
MAINTENANCE PERSONNEL	75	0	173	248	20.356	0.065	67.010	87.431
PERATIONS PERSONNEL	0	0	1	1	0.371	0.000	0.120	0.491
EALTH PHYSICS PERSONNEL	2	1	0	3	1.151	0.212	0.294	1.657
SUPERVISORY PERSONNEL	3	Ó	1	4	1.078	0.008	0.245	1.331
ENGINEERING PERSONNEL	<u>10</u>		1	<u>12</u>	3.380	0.430	0.115	3.925
	90	1/2	176	268				
TOTAL	90	2	1/6	<b>∠</b> 0ŏ	26.336	0.715	67.784	94.835
N-SERVICE INSPECTION MAINTENANCE PERSONNEL	1	0	103	104	0.892	0.000	65.856	66.748
DPERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.014	0.014
	3		-	15				
HEALTH PHYSICS PERSONNEL		0	12		1.078	0.000	2.849	3.927
SUPERVISORY PERSONNEL	3	0	0	3	0.819	0.000	0.000	0.819
NGINEERING PERSONNEL	<u>3</u> 10	00	<u>0</u>	<u>3</u>	<u>0.803</u>	0.052	<u>0.002</u>	0.857
TOTAL	10	0	115	125	3.592	0.052	68.721	72.365
SPECIAL MAINTENANCE								
MAINTENANCE PERSONNEL	0	0	54	54	0.438	0.000	18.890	19.328
PERATIONS PERSONNEL	0	0	1	1	0.000	0.000	0.102	0.102
HEALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
SUPERVISORY PERSONNEL	0	0	0	0	0.026	0.000	0.001	0.027
ENGINEERING PERSONNEL	5	0	0	<u>5</u>	1.173	0.013	0.062	1.248
TOTAL	<u>5</u> 5	<u>0</u>	<u>0</u> 55	60	1.637	0.013	19.055	20.705
WASTE PROCESSING								
MAINTENANCE PERSONNEL	0	0	0	0	0.112	0.000	0.000	0.112
OPERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
HEALTH PHYSICS PERSONNEL	10	0	3	13	2.861	0.000	0.759	3.620
SUPERVISORY PERSONNEL	0	0	0	0	0.075	0.000	0.000	0.075
ENGINEERING PERSONNEL					0.059	0.000	0.000	0.059
TOTAL	<u>0</u> 10	<u>o</u>	<u>0</u> 3	<u>0</u> 13	3.107	0.000	0.759	3.866
	10	U	3	13	3.107	0.000	0.759	3.000
REFUELING MAINTENANCE PERSONNEL	0	1	43	44	0.155	0.659	20.169	20.983
DPERATIONS PERSONNEL	0	ò	0	0	0.197	0.000	0.029	0.226
		0	11			0.000	2.344	3.372
HEALTH PHYSICS PERSONNEL	3			14	1.028			
SUPERVISORY PERSONNEL	2	0	0	2	0.749	0.000	0.000	0.749
NGINEERING PERSONNEL	<u>2</u> 7	<u>1</u> 2	<u>0</u> 54	<u>3</u> 63	1.034	0.436	<u>0.104</u>	1.574
TOTAL	7	2	54	63	3.163	1.095	22.646	26.904
OTAL BY JOB FUNCTION	7.0		070	450	00 000	0.704	470.000	10E 100
AAINTENANCE PERSONNEL	76	1	373	450	22.202	0.724	172.263	195.189
PERATIONS PERSONNEL	27	0	2	29	6.118	0.000	0.265	6.383
HEALTH PHYSICS PERSONNEL	56	1	57	114	14.988	0.213	14.248	29.449
SUPERVISORY PERSONNEL	13	0	1	14	4.675	0.022	0.340	5.037
NGINEERING PERSONNEL	28	4	1	33	9.263	2.107	0.283	11.653
GRAND TOTALS	200	6	434	640	57.246	3.066	187.399	247.711

<sup>\*</sup>Workers may be counted in more than one category.

# NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*CALLAWAY 1

TYPE:

PLANT: "CALLAVVAY 1							TYPE:	PWR
WORK AND	NUMBER C	F PERSON	INEL (>100 mRI	Ξ <b>M</b> )	TOTA	L PERSON-F	REM	
JOB FUNCTION	STATION	UTILITY	CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV						X.		
MAINTENANCE PERSONNEL	0	0	0	0	0.249	0.000	0.338	0.587
OPERATIONS PERSONNEL	27	0	Ō	27	5.550	0.000	0.000	5.550
HEALTH PHYSICS PERSONNEL	38	Õ	31	69	8.870	0.001	8.002	16.873
SUPERVISORY PERSONNEL	5	0	0	5	1.928	0.014	0.094	2.036
INGINEERING PERSONNEL	<u>8</u>			10	2.814	1.176	0.000	3.990
TOTAL	7 <u>8</u>	<u>2</u> 2	<u>0</u> 31	111	19.411	1.191	8.434	29.036
ROUTINE MAINTENANCE								
MAINTENANCE PERSONNEL	75	0	173	248	20.356	0.065	67.010	87.431
OPERATIONS PERSONNEL	0	Ō	1	1	0.371	0.000	0.120	0.491
HEALTH PHYSICS PERSONNEL	2	1	ó	3	1.151	0.212	0.294	1.657
	3	Ó	1		1.078	0.008	0.245	
SUPERVISORY PERSONNEL			•	4				1.331
ENGINEERING PERSONNEL	<u>10</u>	$\frac{1}{2}$	_1_	12	3.380	<u>0.430</u>	<u>0.115</u>	<u>3.925</u>
TOTAL	90	2	176	268	26.336	0.715	67.784	94.835
N-SERVICE INSPECTION	,	_	400	404	0.000	0.000	or oro	60.740
MAINTENANCE PERSONNEL	1	0	103	104	0.892	0.000	65.856	66.748
OPERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.014	0.014
HEALTH PHYSICS PERSONNEL	3	0	12	15	1.078	0.000	2.849	3.927
SUPERVISORY PERSONNEL	3	0	0	3	0.819	0.000	0.000	0.819
NGINEERING PERSONNEL	3	0	<u>o</u>	<u>3</u>	0.803	0.052	0.002	0.857
TOTAL	1 <u>3</u>	<u>0</u>	115	125	3.592	0.052	68.721	72.365
SPECIAL MAINTENANCE								
MAINTENANCE PERSONNEL	0	0	54	54	0.438	0.000	18.890	19.328
PERATIONS PERSONNEL	0	0	1	1	0.000	0.000	0.102	0.102
HEALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
SUPERVISORY PERSONNEL	0	Õ	Ö	Ō	0.026	0.000	0.001	0.027
ENGINEERING PERSONNEL	5				1.173	0.013	0.062	1.248
	<u>5</u>	<u>o</u> 0	<u>0</u> 55	<u>5</u>				
TOTAL	5	U	55	60	1.637	0.013	19.055	20.705
WASTE PROCESSING MAINTENANCE PERSONNEL	0	0	0	0	0.112	0.000	0.000	0.112
						0.000	0.000	0.000
OPERATIONS PERSONNEL	0	0	0	0	0.000			
HEALTH PHYSICS PERSONNEL	10	0	3	13	2.861	0.000	0.759	3.620
SUPERVISORY PERSONNEL	0	0	0	0	0.075	0.000	0.000	0.075
ENGINEERING PERSONNEL	<u>0</u> 10	<u>o</u>	<u>0</u> 3	<u>0</u> 13	<u>0.059</u>	0.000	<u>0.000</u>	<u>0.059</u>
TOTAL	10	ō	3	13	3.107	0.000	0.759	3.866
REFUELING								
MAINTENANCE PERSONNEL	0	1	43	44	0.155	0.659	20.169	20.983
PERATIONS PERSONNEL	0	0	0	0	0.197	0.000	0.029	0.226
HEALTH PHYSICS PERSONNEL	3	0	11	14	1.028	0.000	2.344	3.372
SUPERVISORY PERSONNEL	2	Ö	. 0	2	0.749	0.000	0.000	0.749
ENGINEERING PERSONNEL	2			3	1.034	0.436	0.104	1.574
TOTAL	<u>2</u> 7	$\frac{1}{2}$	<u>0</u> 54	<u>3</u> 63	3.163	1.095	22.646	26.904
TOTAL BY JOB FUNCTION								
MAINTENANCE PERSONNEL	76	1	373	450	22.202	0.724	172.263	195.189
PERATIONS PERSONNEL	27	0	2	29	6.118	0.000	0.265	6.383
HEALTH PHYSICS PERSONNEL	56	1	57	114	14.988	0.213	14.248	29.449
SUPERVISORY PERSONNEL	13	0	1	14	4.675	0.022	0.340	5.037
ENGINEERING PERSONNEL	28	4	1	33	9.263	2.107	0.283	11.653
GRAND TOTALS	200	6	434	640	57.246	3.066	187.399	247.711

<sup>\*</sup>Workers may be counted in more than one category.

### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*CATAWBA 1,2

TYPE:

PLANT. CATAWDA 1,2	_								AAIZ
WORK AND	NUMBER C	OF PERSON	NEL (>100 r	nREM)		TOTA	L PERSON-R	REM	
JOB FUNCTION	STATION	UTILITY	CONTRAC	T TOTAL		STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV									
MAINTENANCE PERSONNEL	113	341	150	604		3.690	2.049	6.114	11.853
PERATIONS PERSONNEL	74	1	40	115		10.874	0.085	2.355	13.314
HEALTH PHYSICS PERSONNEL	19	1	62	82		1.845	0.000	3.042	4.887
SUPERVISORY PERSONNEL	3	2	2	7		0.099	0.015	0.000	0.114
NGINEERING PERSONNEL	<u>3</u>	<u>6</u>	<u>62</u>	<u>71</u>		<u>0.013</u>	<u>0.065</u>	<u>1.686</u>	<u>1.764</u>
TOTAL	212	351	316	879		16.521	2.214	13.197	31.932
ROUTINE MAINTENANCE									
MAINTENANCE PERSONNEL	113	338	150	601		16.632	73.747	34.301	124.680
PERATIONS PERSONNEL	58	1	45	104		0.488	0.001	7.782	8.271
IEALTH PHYSICS PERSONNEL	18	1	62	81		1.502	0.372	12.245	14.119
SUPERVISORY PERSONNEL	3	2	0	5		0.187	0.794	0.000	0.981
ENGINEERING PERSONNEL	<u>3</u>	<u>6</u>	<u>62</u>	<u>71</u>		<u>0.514</u>	<u>2.431</u>	<u>43.619</u>	46.564
TOTAL	195	348	319	862		19.323	77.345	97.947	194.615
N-SERVICE INSPECTION									
MAINTENANCE PERSONNEL	76	104	55	235		2.488	5.684	1.723	9.895
OPERATIONS PERSONNEL	23	1	3	27		0.302	0.003	0.222	0.527
HEALTH PHYSICS PERSONNEL	5	0	. 11	16		0.001	0.000	0.052	0.053
SUPERVISORY PERSONNEL	0	1	2	3		0.000	0.162	0.008	0.170
NGINEERING PERSONNEL	<u>0</u>	<u>0</u>	<u>0</u> 71	<u>0</u>		0.000	0.000	<u>0.000</u>	<u>0.000</u>
TOTAL	104	106	71	281		2.791	5.849	2.005	10.645
PECIAL MAINTENANCE									'
MAINTENANCE PERSONNEL	102	292	131	525		3.062	16.125	2.350	21.537
PERATIONS PERSONNEL	68	1	40	109		1.265	0.000	1.021	2.286
IEALTH PHYSICS PERSONNEL	13	1	49	63		0.480	0.013	0.642	1.135
SUPERVISORY PERSONNEL	3	1	0	4		0.109	0.000	0.000	0.109
NGINEERING PERSONNEL	<u>3</u>	<u>5</u>	<u>20</u>	<u>28</u>		<u>0.334</u>	<u>0.307</u>	<u>0.277</u>	<u>0.918</u>
TOTAL	189	300	240	729		5.250	16.445	4.290	25.985
VASTE PROCESSING									
MAINTENANCE PERSONNEL	8	18	9	35		0.000	0.000	0.012	0.012
PERATIONS PERSONNEL	7	0	31	38		0.245	0.000	0.077	0.322
IEALTH PHYSICS PERSONNEL	12	1	24	37		0.781	0.000	1.874	2.655
SUPERVISORY PERSONNEL	0	0	0	0		0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	<u>0</u> 27	<u>0</u> 19	<u>3</u> 67	3		0.000	0.000	0.000	0.000
TOTAL	27	19	67	113		1.026	0.000	1.963	2.989
REFUELING	20	<b>.</b> .	00	100		0.057	4 700	0.074	0.450
MAINTENANCE PERSONNEL	32	64	33	129		0.357	1.728	0.074	2.159
PERATIONS PERSONNEL	17	1	20	38		0.372	0.029	0.449	0.850
IEALTH PHYSICS PERSONNEL	2	0	18	20		0.012	0.000	0.167	0.179
SUPERVISORY PERSONNEL	1	0	0	1		0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	<u>1</u> 53	<u>1</u> 66	<u>0</u> 71	2		0.067	0.000	0.000	0.067
TOTAL	53	66	71	190		0.808	1.757	0.690	3.255
OTAL BY JOB FUNCTION		(440*45=	(0.44) 500	(450) 0400	(00.4)	00.000	00.000	44 574	470 400
MAINTENANCE PERSONNEL	444	(113)157		(150) 2129	(604)	26.229	99.333	44.574	170.136
PERATIONS PERSONNEL	247	(74) 5	(1) 179	(45) 431	(120)	13.546	0.118	11.906	25.570
HEALTH PHYSICS PERSONNEL	69	(19) 4	(1) 226	(62) 299	(82)	4.621	0.385	18.022	23.028
SUPERVISORY PERSONNEL	10	(3) 6	(2) 4	(2) 20	(7)	0.395	0.971	0.008	1.374
NGINEERING PERSONNEL	. 10	(3) 18	(6) 147	(62) 175	(71)	0.928	2.803	45.582	49.313

<sup>\*</sup>Workers may be counted in more than one category. Numbers in parentheses are total numbers of individuals.

### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

#### 1996

PLANT:

\*CLINTON

TYPE:

WORK AND  JOB FUNCTION	STATION		NEL (>100 mRI				TOTAL PERSON-REM				
	SIMILON	UTILITY	CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL			
REACTOR OPS & SURV											
MAINTENANCE PERSONNEL	122	0	344	466	9.579	0.000	6.677	16.256			
PERATIONS PERSONNEL	81	1	17	99	9.915	0.162	0.298	10.375			
HEALTH PHYSICS PERSONNEL	41	0	41	82	8.231	0.000	5.301	13.532			
SUPERVISORY PERSONNEL	27	0	2	29	1.514	0.000	0.034	1.548			
NGINEERING PERSONNEL	13		35	48	1.068	0.000	0.164	1.232			
TOTAL	284	<u>0</u> 1	439	724	30.307	0.162	12.474	42.943			
ROUTINE MAINTENANCE											
MAINTENANCE PERSONNEL	116	0	170	286	15.519	0.000	35.151	50.670			
PERATIONS PERSONNEL	69	0	2	71	5.853	0.000	0.187	6.040			
IEALTH PHYSICS PERSONNEL	35	0	29	64	1.695	0.000	1.312	3.007			
SUPERVISORY PERSONNEL	13	0	2	15	1.352	0.000	0.673	2.025			
NGINEERING PERSONNEL	7		1	8	0.480	0.000	0.000	0.480			
TOTAL	240	<u>o</u> 0	20 <del>1</del>	44 <u>4</u>	2 <del>4.899</del>	0.000	3 <del>7.323</del>	62.222			
	240	U	204	777	24.033	0.000	37.323	02.222			
N-SERVICE INSPECTION MAINTENANCE PERSONNEL	17	0	54	71	0.869	0.000	6.567	7.436			
OPERATIONS PERSONNEL	22	0	1	23	2.383	0.000	0.274	2.657			
HEALTH PHYSICS PERSONNEL	15	0	32	47	1.832	0.000	1.817	3.649			
								0.261			
SUPERVISORY PERSONNEL	5	0	0	5	0.261	0.000	0.000				
NGINEERING PERSONNEL	<u>4</u> 63	<u>o</u> 0	47	<u>51</u>	0.758	0.000	40.355	41.113			
TOTAL	63	0	134	197	6.103	0.000	49.013	55.116			
PECIAL MAINTENANCE	440			44.4	04.474		444.040	105 100			
MAINTENANCE PERSONNEL	110	0	304	414	24.474	0.000	111.012	135.486			
PERATIONS PERSONNEL	40	0	13	53	1.779	0.000	1.796	3.575			
IEALTH PHYSICS PERSONNEL	32	0	35	67	2.555	0.000	4.722	7.277			
SUPERVISORY PERSONNEL	12	0	2	14	1.387	0.000	0.168	1.555			
NGINEERING PERSONNEL	10	<u>o</u> 0	<u>5</u>	<u>15</u>	0.624	0.000	0.888	1.512			
TOTAL	204	, 0	359	563	30.819	0.000	118.586	149.405			
WASTE PROCESSING											
MAINTENANCE PERSONNEL	12	0	8	20	0.629	0.000	0.485	1.114			
PERATIONS PERSONNEL	13	0	0	13	0.093	0.000	0.000	0.093			
IEALTH PHYSICS PERSONNEL	16	0	1	17	0.332	0.000	0.001	0.333			
SUPERVISORY PERSONNEL	4	0	0	4	0.017	0.000	0.000	0.017			
NGINEERING PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000			
TOTAL	<u>0</u> 45	<u>o</u>	<u>0</u> 9	<u>0</u> 54	1.071	0.000	0.486	1.557			
REFUELING											
MAINTENANCE PERSONNEL	49	0	147	196	1.914	0.000	8.992	10.906			
PERATIONS PERSONNEL	55	0	7	62	3.078	0.000	1.021	4.099			
HEALTH PHYSICS PERSONNEL	24	0	21	45	1.027	0.000	1.382	2.409			
SUPERVISORY PERSONNEL	20	0	0	20	1.791	0.000	0.000	1.791			
NGINEERING PERSONNEL	7		<u>12</u>	19	0.094	0.000	1.547	1.641			
TOTAL	155	<u>0</u>	187	342	7.904	0.000	12.942	20.846			
OTAL BY JOB FUNCTION											
MAINTENANCE PERSONNEL	426	0	1027	1453	52.984	0.000	168.884	221.868			
PERATIONS PERSONNEL	280	1	40	321	23.101	0.162	3.576	26.839			
EALTH PHYSICS PERSONNEL	163	0	159	322	15.672	0.000	14.535	30.207			
SUPERVISORY PERSONNEL	81	Ő	6	87	6.322	0.000	0.875	7.197			
ENGINEERING PERSONNEL	41	0	100	141	3.024	0.000	42.954	45.978			

<sup>\*</sup>Workers may be counted in more than one category.

# NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*COMANCHE PEAK 1,2

TYPE:

PLANT. COMPANDILL	<b>,</b>						ITPE. F	AAL
WORK AND	NUMBER O	F PERSON	INEL (>100 mRE	EM)	TOTAL PERSON-REM			
IOB FUNCTION	STATION		CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV								
MAINTENANCE PERSONNEL	0	0	22	22	0.165	0.000	6.552	6.717
PERATIONS PERSONNEL	42	0	0	42	10.070	0.026	0.636	10.732
IEALTH PHYSICS PERSONNEL	16	0	39	55	4.903	0.087	11.520	16.510
SUPERVISORY PERSONNEL	0	0	0	0	0.137	0.000	0.067	0.204
ENGINEERING PERSONNEL	0	0	<u>o</u>	<u>o</u>	0.939	0.010	0.203	1.152
TOTAL	<u>0</u> 58	0	61	119	16.214	0.123	18.978	35.315
ROUTINE MAINTENANCE								
MAINTENANCE PERSONNEL	44	0	255	299	10.656	0.000	82.980	93.636
PERATIONS PERSONNEL	9	0	4	13	2.732	0.060	1.420	4.212
EALTH PHYSICS PERSONNEL	4	1	8	13	1.408	0.155	2.332	3.895
SUPERVISORY PERSONNEL	0	Ö	Ö	0	0.118	0.000	0.005	0.123
ENGINEERING PERSONNEL				11	2.190	0.029	1.698	3.917
TOTAL	<u>4</u> 61	<u>0</u> 1	<u>7</u> 274	336	17.104	0.029	88.435	105.783
TOTAL	01	'	2/4	330	17.104	0.244	00.435	105.763
N-SERVICE INSPECTION MAINTENANCE PERSONNEL	4	0	100	104	2.406	0.000	43.741	46.147
	10	0	2	12		0.000	0.505	
PERATIONS PERSONNEL					8.431			8.936
IEALTH PHYSICS PERSONNEL	3	0	14	17	1.840	0.000	3.492	5.332
SUPERVISORY PERSONNEL	1	0	0	1	0.649	0.000	0.000	0.649
NGINEERING PERSONNEL	<u>5</u>	0	<u>5</u>	<u>10</u>	<u>3.358</u>	0.042	<u>1.644</u>	<u>5.044</u>
TOTAL	23	0	121	144	16.684	0.042	49.382	66.108
PECIAL MAINTENANCE								
MAINTENANCE PERSONNEL	1	0	50	51	0.300	0.000	16.545	16.845
PERATIONS PERSONNEL	0	0	3	3	0.265	0.010	1.246	1.521
IEALTH PHYSICS PERSONNEL	0	0	0	0	0.097	0.000	0.583	0.680
SUPERVISORY PERSONNEL	0	0	0	0	0.021	0.000	0.000	0.021
NGINEERING PERSONNEL					0.406	0.000	1.217	1.623
TOTAL	<u>2</u> 3	<u>0</u>	<u>4</u> 57	<u>6</u> 60	1.089	0.010	19.591	20.690
WASTE PROCESSING								
MAINTENANCE PERSONNEL	0	0	2	2	0.059	0.000	0.706	0.765
PERATIONS PERSONNEL	1	Ö	1	2	0.956	0.000	0.551	1.507
HEALTH PHYSICS PERSONNEL	5	1	o O	6	1.544	0.187	0.488	2.219
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	<u>0</u> 6	<u>0</u> 1	<u>0</u> 3	<u>0</u> 10	<u>0.076</u>	0.000	0.000	<u>0.076</u>
TOTAL	6	1	3	10	2.635	0.187	1.745	4.567
REFUELING		_						
MAINTENANCE PERSONNEL	2	0	94	96	0.896	0.000	47.557	48.453
PERATIONS PERSONNEL	6	0	1	7	1.680	0.004	0.188	1.872
EALTH PHYSICS PERSONNEL	4	0	8	12	1.899	0.000	2.524	4.423
SUPERVISORY PERSONNEL	0	0	0	0	0.011	0.000	0.006	0.017
NGINEERING PERSONNEL			1		0.445	0.000	0.597	1.042
TOTAL	1 <u>1</u>	<u>o</u>	10 <del>4</del>	<u>2</u> 117	4.931	0.004	50.872	55.807
OTAL BY JOB FUNCTION								
MAINTENANCE PERSONNEL	51	0	523	574	14.482	0.000	198.081	212.563
PERATIONS PERSONNEL	68	0	11	79	24.134	0.100	4.546	28.780
								33.059
IEALTH PHYSICS PERSONNEL	32	2	. 69	103	11.691	0.429	20.939	
SUPERVISORY PERSONNEL	1	0	0	1	0.936	0.000	0.078	1.014
NGINEERING PERSONNEL	12	0	17	29	7.414	0.081	5.359	12.854
GRAND TOTALS	164	2	620	786	58.657	0.610	229.003	288.270

<sup>\*</sup>Workers may be counted in more than one category.

### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*COOK 1,2

TYPE:

WORK AND			NEL (>100 mRE		TOTA	L PERSON-R	EM	
IOB FUNCTION	STATION U	JTILITY	CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV								
MAINTENANCE PERSONNEL	1	0	0	1	1.732	0.069	1.723	3.524
PERATIONS PERSONNEL	34	0	1	35	8.158	0.125	1.527	9.810
IEALTH PHYSICS PERSONNEL	27	0	4	31	7.968	0.001	3.227	11.196
SUPERVISORY PERSONNEL	2	0	0	2	0.814	0.001	0.052	0.867
NGINEERING PERSONNEL	<u>0</u> 64	<u>0</u>	<u>0</u> 5	<u>0</u> 69	<u>0.981</u>	<u>0.107</u>	<u>0.397</u>	<u>1.485</u>
TOTAL	64	0	5	69	19.653	0.303	6.926	26.882
ROUTINE MAINTENANCE		_						
MAINTENANCE PERSONNEL	77	0	211	288	22.620	0.002	89.046	111.668
PERATIONS PERSONNEL	16	1	- 11	28	4.497	0.383	4.079	8.959
HEALTH PHYSICS PERSONNEL	28	0	39	67	9.303	0.000	13.266	22.569
SUPERVISORY PERSONNEL	2	0	1	3	0.346	0.000	0.245	0.591
ENGINEERING PERSONNEL	8	<u>5</u> 6	<u>5</u>	18	<u>2.893</u>	1.354	2.556	6.803
TOTAL	131	6	267	404	39.659	1.739	109.192	150.590
N-SERVICE INSPECTION	2	0	4.4	16	1 460	0.020	7 455	0.056
MAINTENANCE PERSONNEL OPERATIONS PERSONNEL	2 1	0	14 8	16 9	1.462 0.662	0.039 0.003	7.455 1.764	8.956 2.429
	0							
HEALTH PHYSICS PERSONNEL SUPERVISORY PERSONNEL	-	0	0	0	0.050	0.000	0.074	0.124
	0	0	0	0	0.000	0.000	0.040	0.040
NGINEERING PERSONNEL	<u>0</u> 3	<u>0</u>	<u>0</u> 22	<u>0</u> 25	0.108	0.020	0.275	0.403
TOTAL	3	U	22	25	2.282	0.062	9.608	11.952
SPECIAL MAINTENANCE MAINTENANCE PERSONNEL	3	0	56	59	1.965	0.000	16,216	18.181
PERATIONS PERSONNEL	0	0	1	1	0.354	0.000	0.181	0.535
HEALTH PHYSICS PERSONNEL	0	0	Ö	Ö	0.127	0.000	0.001	0.333
SUPERVISORY PERSONNEL	ő	0	0	Ö	0.000	0.000	0.062	0.120
ENGINEERING PERSONNEL					0.219	0.035	0.048	0.302
TOTAL	<u>0</u> 3	0	<u>0</u> 57	<u>0</u> 60	2.665	0.035	16.508	19.208
WASTE PROCESSING								
MAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.068	0.068
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.010	0.010
IEALTH PHYSICS PERSONNEL	0	0	1	1	0.057	0.000	0.465	0.522
SUPERVISORY PERSONNEL	0	0	0	0	0.001	0.000	0.000	0.001
NGINEERING PERSONNEL	0	0	0	<u>0</u> 1	0.001	0.000	0.000	0.001
TOTAL	<u>0</u>	0	<u>0</u> 1	1	0.059	0.000	0.543	0.602
REFUELING								
MAINTENANCE PERSONNEL	3	0	17	20	1.691	0.000	5.652	7.343
PERATIONS PERSONNEL	7	0	21	28	2.538	0.000	9.387	11.925
HEALTH PHYSICS PERSONNEL	4	0	0	4	1.899	0.000	0.805	2.704
SUPERVISORY PERSONNEL	1	0	0	1	0.155	0.000	0.010	0.165
NGINEERING PERSONNEL	<u>0</u> 15	<u>0</u>	<u>1</u> 39	<u>1</u> 54	<u>0.260</u>	0.024	<u>0.595</u>	0.879
TOTAL	15	0	39	54	6.543	0.024	16.449	23.016
OTAL BY JOB FUNCTION		_						
MAINTENANCE PERSONNEL	86	0	298	384	29.470	0.110	120.160	149.740
PERATIONS PERSONNEL	58	1	42	101	16.209	0.511	16.948	33.668
EALTH PHYSICS PERSONNEL	59	0	44	103	19.404	0.001	17.838	37.243
SUPERVISORY PERSONNEL	5	0	1	6	1.316	0.001	0.409	1.726
ENGINEERING PERSONNEL	8	5	6	19	4.462	1.540	3.871	9.873
	216							232.250

<sup>\*</sup>Workers may be counted in more than one category.

# NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*COOPER STATION

TYPE:

NORK AND	NUMBER (	OF PERSONN	EL (>100 mRI	EM)	TOTA	L PERSON-R	EM	
JOB FUNCTION	STATION	UTILITY C	CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV								
MAINTENANCE PERSONNEL	104	6	21	131	2.392	0.010	1.224	3.626
OPERATIONS PERSONNEL	83	0	0	83	7.581	0.000	0.000	7.581
HEALTH PHYSICS PERSONNEL	49	1	12	62	4.341	0.000	0.381	4.722
SUPERVISORY PERSONNEL	100	7	145	252	0.823	0.007	0.624	1.454
NGINEERING PERSONNEL	<u>128</u>	<u>4</u>	<u>171</u>	<u>303</u>	<u>1.734</u>	0.005	<u>2.105</u>	3.844
TOTAL	464	18	349	831	16.871	0.022	4.334	21.227
ROUTINE MAINTENANCE								
MAINTENANCE PERSONNEL	128	2	22	152	8.359	0.000	1.261	9.620
OPERATIONS PERSONNEL	63	0	0	63	3.307	0.000	0.000	3.307
IEALTH PHYSICS PERSONNEL	40	0	17	57	4.731	0.000	0.652	5.383
SUPERVISORY PERSONNEL	56	2	3	61	0.557	0.002	0.000	0.559
ENGINEERING PERSONNEL	<u>68</u>	<u>2</u>	<u>63</u>	<u>133</u>	0.412	0.005	<u>0.655</u>	1.072
TOTAL	355	6	105	466	17.366	0.007	2.568	19.941
N-SERVICE INSPECTION	_	•	•	•	0.005	0.005	0.000	0.000
MAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
OPERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
HEALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
ENGINEERING PERSONNEL	<u>1</u> 1	<u>0</u>	<u>4</u> 4	<u>5</u> 5	0.006	0.000	0.071	0.077
TOTAL	1	0	4	5	0.006	0.000	0.071	0.077
SPECIAL MAINTENANCE	00		40	00	5 000	0.000	0.504	E 500
MAINTENANCE PERSONNEL	82	1	10	93	5.002	0.002	0.584	5.588
PERATIONS PERSONNEL	25	0	0	25	0.568	0.000	0.000	0.568
HEALTH PHYSICS PERSONNEL	31	0	9	40	1.944	0.000	1.189	3.133
SUPERVISORY PERSONNEL	18	2	3	23	0.549	0.001	0.007	0.557
ENGINEERING PERSONNEL	37	<u>0</u> 3	<u>30</u> 52	<u>67</u>	<u>0.590</u>	0.000	1.631	2.221
TOTAL	193	3	52	248	8.653	0.003	3.411	12.067
WASTE PROCESSING MAINTENANCE PERSONNEL	14	2	1	17	0.023	0.000	0.000	0.023
OPERATIONS PERSONNEL	20	0	ò	20	0.210	0.000	0.000	0.210
HEALTH PHYSICS PERSONNEL	19	ő	6	25	0.891	0.000	1.621	2.512
SUPERVISORY PERSONNEL	2	2	ő	4	0.069	0.000	0.000	0.069
ENGINEERING PERSONNEL		0	<u>6</u>		0.000	0.000	0.002	0.003
TOTAL	<u>0</u> 55	<u>0</u> 4	13	6 72	1.193	0.000	1.623	2.816
REFUELING								
MAINTENANCE PERSONNEL	8	0	0	8	0.003	0.000	0.000	0.003
OPERATIONS PERSONNEL	9	Ō	Ō	9	0.018	0.000	0.000	0.018
HEALTH PHYSICS PERSONNEL	6	Ö	3	9	0.031	0.000	0.014	0.045
SUPERVISORY PERSONNEL	1	Ō	Ō	1	0.001	0.000	0.000	0.001
NGINEERING PERSONNEL					0.006	0.000	0.070	0.076
TOTAL	<u>2</u> 26	<u>0</u> 0	<u>5</u> 8	<u>7</u> 34	0.059	0.000	0.084	0.143
TOTAL BY JOB FUNCTION								
MAINTENANCE PERSONNEL	336	11	54	401	15.779	0.012	3.069	18.860
PERATIONS PERSONNEL	200	0	0	200	11.684	0.000	0.000	11.684
HEALTH PHYSICS PERSONNEL	145	1	47	193	11.938	0.000	3.857	15.795
SUPERVISORY PERSONNEL	177	13	151	341	1.999	0.010	0.631	2.640
ENGINEERING PERSONNEL	236	6	279	521	2.748	0.010	4.534	7.292
GRAND TOTALS	1094	31	531	1656	44.148	0.032	12.091	56.271

<sup>\*</sup>Workers may be counted in more than one category.

# NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*CRYSTAL RIVER 3

TYPE:

				TIPE. FWN				
WORK AND	NUMBER OF	PERSON	NEL (>100 mRE	(M)	TOTAL PERSON-REM			
JOB FUNCTION	STATION U		CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV								
MAINTENANCE PERSONNEL	0	0	0	0	0.067	0.000	0.000	0.067
PERATIONS PERSONNEL	31	0	0	31	6.922	0.038	0.000	6.960
HEALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.002	0.002
SUPERVISORY PERSONNEL	0	0	0	0	0.081	0.075	0.000	0.156
NGINEERING PERSONNEL	<u>0</u>	<u>0</u>	<u>o</u>	<u>0</u> 31	<u>0.089</u>	<u>0.005</u>	0.000	<u>0.094</u>
TOTAL	31	0	0	31	7.159	0.118	0.002	7.279
ROUTINE MAINTENANCE	02	61	101	255	20.460	24.000	60.700	111756
MAINTENANCE PERSONNEL	93	61			32.160	21.868	60.728	114.756
PERATIONS PERSONNEL	43	13	168	224	12.127	3.715	84.004	99.846
HEALTH PHYSICS PERSONNEL	28	0	38	66	11.385	0.052	17.181	28.618
SUPERVISORY PERSONNEL	11	11	60	82	3.676	5.036	32.791	41.503
ENGINEERING PERSONNEL	<u>2</u> 177	<u>8</u> 93	<u>5</u>	<u>15</u>	0.589	3.379	3.859	7.827
TOTAL	177	93	372	642	59.937	34.050	198.563	292.550
N-SERVICE INSPECTION MAINTENANCE PERSONNEL	0	0	23	23	0.068	0.054	10.757	10.879
OPERATIONS PERSONNEL	7	0	31	38	1.246	0.000	11.327	12.573
HEALTH PHYSICS PERSONNEL	0	0	0	0	0.056	0.000	0.112	0.168
			_					6.428
SUPERVISORY PERSONNEL	0	1	17	18	0.101	0.378	5.949	
NGINEERING PERSONNEL	<u>0</u> 7	<u>0</u> 1	<u>1</u> 72	<u>1</u>	0.000	0.262	<u>0.164</u>	0.426
TOTAL	/	1	. 72	80	1.471	0.694	28.309	30.474
SPECIAL MAINTENANCE MAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
HEALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
	0	0	0	0	0.000	0.000	0.000	0.000
SUPERVISORY PERSONNEL ENGINEERING PERSONNEL					0.000	0.000	0.000	0.000
TOTAL	<u>o</u> 0	<u>0</u>	<u>0</u>	<u>0</u> 0	0.000	0.000	0.000	0.000
	U	U	U	U	0.000	0.000	0.000	0.000
WASTE PROCESSING MAINTENANCE PERSONNEL	4	1	0	5	0.729	0.234	0.049	1.012
PERATIONS PERSONNEL	7	Ö	Ö	7	2.193	0.000	0.017	2.210
HEALTH PHYSICS PERSONNEL	o O	0	ő	O	0.064	0.000	0.151	0.215
SUPERVISORY PERSONNEL	Ö	Ô	ő	Ö	0.155	0.004	0.001	0.160
NGINEERING PERSONNEL					0.000	0.000	0.000	0.000
TOTAL	<u>0</u> 11	<u>0</u> 1	<u>0</u> 0	<u>0</u> 12	3.141	0.238	0.218	3.597
REFUELING								
MAINTENANCE PERSONNEL	2	2	21	25	0.469	0.595	5.442	6.506
PERATIONS PERSONNEL	0	1	22	23	0.198	0.782	5.980	6.960
EALTH PHYSICS PERSONNEL	1	0	4	5	0.188	0.000	1.259	1.447
SUPERVISORY PERSONNEL	Ó	Ō	8	8	0.170	0.017	3.146	3.333
NGINEERING PERSONNEL				2	0.002	0.062	0.520	0.584
TOTAL	<u>0</u> 3	<u>0</u> 3	<u>2</u> 57	<u>2</u> 63	1.027	1.456	16.347	18.830
OTAL BY JOB FUNCTION								
MAINTENANCE PERSONNEL	99	64	145	308	33.493	22.751	76.976	133.220
PERATIONS PERSONNEL	88	14	221	323	22.686	4.535	101.328	128.549
HEALTH PHYSICS PERSONNEL	29	0	42	71	11.693	0.052	18.705	30.450
SUPERVISORY PERSONNEL	11	12	85	108	4.183	5.510	41.887	51.580
ENGINEERING PERSONNEL	2	8	8	18	0.680	3.708	4.543	8.931
GRAND TOTALS	229	98	501	828	72.735	36.556	243.439	352.730

<sup>\*</sup>Workers may be counted in more than one category.

# NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*DAVIS-BESSE

TYPE:

WORK AND	NUMBER C	OF PERSON	INEL (>100 mR	EM)	TOTA			
JOB FUNCTION	STATION	UTILITY	CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV								
MAINTENANCE PERSONNEL	0	0	0	0	0.130	0.000	0.201	0.331
PERATIONS PERSONNEL	28	0	0	28	5.584	0.000	0.002	5.586
IEALTH PHYSICS PERSONNEL	10	1	23	34	3.886	0.169	6.706	10.761
SUPERVISORY PERSONNEL	0	0	0	0	0.202	0.000	0.009	0.211
NGINEERING PERSONNEL	<u>0</u> 38	<u>0</u> 1	<u>0</u> 23	<u>0</u>	<u>0.166</u>	0.000	<u>0.092</u>	0.258
TOTAL	38	1	23	62	9.968	0.169	7.010	17.147
ROUTINE MAINTENANCE								
MAINTENANCE PERSONNEL	31	13	16	60	9.790	3.927	9.570	23.287
PERATIONS PERSONNEL	1	0	0	1	0.505	0.000	0.002	0.507
HEALTH PHYSICS PERSONNEL	2	0	0	2	0.354	0.000	0.086	0.440
SUPERVISORY PERSONNEL	0	0	0	0	0.082	0.000	0.003	0.085
ENGINEERING PERSONNEL	<u>2</u>	<u>0</u> 13	<u>0</u>	<u>2</u> 65	<u>1.957</u>	0.000	<u>0.294</u>	2.251
TOTAL	36	13	16	65	12.688	3.927	9.955	26.570
N-SERVICE INSPECTION	_	_		12			تحديد	
IAINTENANCE PERSONNEL	7	0	58	65	2.481	0.002	18.590	21.073
OPERATIONS PERSONNEL	0	0	0	0	0.016	0.000	0.000	0.016
HEALTH PHYSICS PERSONNEL	0	0	2	2	0.013	0.000	0.744	0.757
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.005	0.005
NGINEERING PERSONNEL	<u>0</u> 7	<u>0</u>	<u>33</u> 93	<u>33</u>	<u>0.193</u>	0.000	<u>10.177</u>	<u>10.370</u>
TOTAL	7	0	93	100	2.703	0.002	29.516	32.221
PECIAL MAINTENANCE		_						
MAINTENANCE PERSONNEL	20	9	47	76	6.977	2.794	15.120	24.891
PERATIONS PERSONNEL	1	0	0	1	0.643	0.000	0.000	0.643
HEALTH PHYSICS PERSONNEL	1	0	0	1	0.709	0.000	0.594	1.303
SUPERVISORY PERSONNEL	0	0	0	0	0.057	0.000	0.000	0.057
ENGINEERING PERSONNEL	<u>7</u> 29	<u>0</u>	20	27	2.467	0.000	<u>5.914</u>	<u>8.381</u>
TOTAL	29	9	67	105	10.853	2.794	21.628	35.275
WASTE PROCESSING			•	•		2 2 4 2	0.057	0.500
MAINTENANCE PERSONNEL	0	0	0	0	0.260	0.049	0.257	0.566
PERATIONS PERSONNEL	0	0	0	0	0.182	0.000	0.000	0.182
HEALTH PHYSICS PERSONNEL	6	1	15	22	2.211	0.183	4.003	6.397
SUPERVISORY PERSONNEL	0	0	0	0	0.162	0.000	0.000	0.162
NGINEERING PERSONNEL	$\frac{1}{7}$	<u>0</u> 1	<u>0</u> 15	<u>1</u>	0.237	0.000	0.000	0.237
TOTAL	1	1	15	23	3.052	0.232	4.260	7.544
REFUELING	44		07	44	4.500	0.040	40.445	47.405
MAINTENANCE PERSONNEL	11	3	27	41	4.532	0.818	12.145	17.495
PERATIONS PERSONNEL	2	0	0	2	2.055	0.000	0.003	2.058
HEALTH PHYSICS PERSONNEL	4	0	6	10	1.532	0.076	2.108	3.716
SUPERVISORY PERSONNEL	1	0	0	1	0.134	0.000	0.000	0.134
ENGINEERING PERSONNEL	<u>6</u> 24	<u>0</u> 3	<u>32</u> 65	<u>38</u> 92	2.312	0.000	15.834 30.000	18.146
TOTAL	24	3	00	92	10.565	0.894	30.090	41.549
OTAL BY JOB FUNCTION MAINTENANCE PERSONNEL	60	25	148	242	24.170	7.590	55.883	87.643
	69 32	25 0	0	32	8.985	0.000	0.007	8.992
PERATIONS PERSONNEL								23.374
HEALTH PHYSICS PERSONNEL	23	2	46	71	8.705	0.428	14.241	
SUPERVISORY PERSONNEL	1	0	0	1	0.637	0.000	0.017	0.654
ENGINEERING PERSONNEL	16	0	85	101	7.332	0.000	32.311	39.643
GRAND TOTALS	141	27	279	447	49.829	8.018	102.459	160.306

<sup>\*</sup>Workers may be counted in more than one category.

# NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*DIABLO CANYON 1,2

TYPE:

WORK AND	NUMBER OF	PERSON	INEL (>100 mRI	ΞM)	TOTA			
OB FUNCTION	STATION (	JTILITY	CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV								
MAINTENANCE PERSONNEL	1	0	0	1	0.016	0.000	0.000	0.016
PERATIONS PERSONNEL	15	0	1	16	0.802	0.000	0.034	0.836
EALTH PHYSICS PERSONNEL	38	2	1	41	1.115	0.070	0.013	1.198
UPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	<u>0</u> 54	<u>0</u> 2	$\frac{1}{3}$	<u>1</u>	0.000	0.000	<u>0.071</u>	<u>0.071</u>
TOTAL	54	2	3	59	1.933	0.070	0.118	2.121
OUTINE MAINTENANCE				4.50			4 700	
IAINTENANCE PERSONNEL	47	17	124	188	1.445	0.611	1.732	3.788
PERATIONS PERSONNEL	9	1	3	13	0.095	0.148	0.018	0.261
IEALTH PHYSICS PERSONNEL	57	2	37	96	4.692	0.348	0.439	5.479
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
INGINEERING PERSONNEL	<u>3</u>	<u>0</u> 20	<u>9</u>	<u>12</u>	<u>0.363</u>	<u>0.000</u>	<u>0.211</u>	<u>0.574</u>
TOTAL	116	20	173	309	6.595	1.107	2.400	10.102
N-SERVICE INSPECTION	٠	-	4=	2.		4 000	0.000	4 000
MAINTENANCE PERSONNEL	4	7	13	24	0.428	1.368	2.233	4.029
OPERATIONS PERSONNEL	4	0	2	6	1.495	0.000	0.411	1.906
EALTH PHYSICS PERSONNEL	13	1	6	20	0.165	0.002	0.221	0.388
UPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	<u>1</u>	<u>0</u> 8	<u>7</u>	<u>8</u>	0.002	0.000	<u>1.485</u>	<u>1.487</u>
TOTAL	22	8	28	58	2.090	1.370	4.350	7.810
PECIAL MAINTENANCE								
MAINTENANCE PERSONNEL	42	16	181	239	6.046	0.884	37.453	44.383
PERATIONS PERSONNEL	4	0	14	18	0.081	0.000	10.267	10.348
IEALTH PHYSICS PERSONNEL	37	3	41	81	1.260	0.106	4.106	5.472
SUPERVISORY PERSONNEL	0	0	1	1	0.000	0.000	0.256	0.256
NGINEERING PERSONNEL	<u>3</u> 86	<u>1</u> 20	<u>8</u>	<u>12</u>	0.037	<u>0.001</u>	<u>0.182</u>	0.220
TOTAL	86	20	245	351	7.424	0.991	52.264	60.679
VASTE PROCESSING		_						
MAINTENANCE PERSONNEL	14	3	13	30	0.156	0.089	0.615	0.860
PERATIONS PERSONNEL	8	0	1	9	0.073	0.000	0.003	0.076
EALTH PHYSICS PERSONNEL	41	3	4	48	4.669	0.327	0.856	5.852
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	<u>1</u> 64	<u>0</u> 6	<u>2</u>	<u>3</u>	<u>0.004</u>	<u>0.000</u>	0.020	<u>0.024</u>
TOTAL	64	6	20	90	4.902	0.416	1.494	6.812
REFUELING				<b>4</b>			00.155	40
MAINTENANCE PERSONNEL	41	18	195	254	10.372	3.209	33.188	46.769
PERATIONS PERSONNEL	22	0	6	28	1.640	0.000	0.846	2.486
HEALTH PHYSICS PERSONNEL	40	4	54	98	4.018	0.260	8.100	12.378
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	<u>6</u>	1 23	<u>9</u>	<u>16</u>	<u>0.612</u>	<u>0.113</u>	<u>0.542</u>	<u>1.267</u>
TOTAL	109	23	264	396	16.642	3.582	42.676	62.900
OTAL BY JOB FUNCTION							wa	00.01=
MAINTENANCE PERSONNEL	149	61	526	736	18.463	6.161	75.221	99.845
PERATIONS PERSONNEL	62	1	27	90	4.186	0.148	11.579	15.913
IEALTH PHYSICS PERSONNEL	226	15	143	384	15.919	1.113	13.735	30.767
SUPERVISORY PERSONNEL	0	0	1	1	0.000	0.000	0.256	0.256
ENGINEERING PERSONNEL	14	2	36	52	1.018	0.114	2.511	3.643
GRAND TOTALS	451	79	733	1263	39.586	7.536	103.302	150.424

<sup>\*</sup>Workers may be counted in more than one category.

# NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*DRESDEN 2,3

TYPE:

VORK AND	NUMBER OF	PERSON	INEL (>100 mRE	EM)	TOTAL PERSON-REM				
OB FUNCTION	STATION U		CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTA	
EACTOR OPS & SURV									
IAINTENANCE PERSONNEL	5	4	13	22	2.066	0.082	1.201	3.349	
PERATIONS PERSONNEL	125	0	37	162	17.181	0.000	1.821	19.002	
EALTH PHYSICS PERSONNEL	49	34	40	123	14.557	0.236	8.049	22.842	
UPERVISORY PERSONNEL	106	0	97	203	5.734	0.000	0.610	6.344	
NGINEERING PERSONNEL	<u>39</u>	<u>0</u>	<u>13</u>	<u>52</u>	2.239	0.000	2.021	4.260	
TOTAL	324	38	200	562	41.777	0.318	13.702	55.797	
OUTINE MAINTENANCE									
AINTENANCE PERSONNEL	201	54	478	733	76.178	1.270	45.735	123.183	
PERATIONS PERSONNEL	94	0	27	121	12.879	0.000	1.295	14.174	
EALTH PHYSICS PERSONNEL	91	191	62	344	26.868	1.318	12.598	40.784	
UPERVISORY PERSONNEL	191	0	44	235	10.358	0.000	0.280	10.638	
NGINEERING PERSONNEL	<u>166</u>	0	652	818	9.538	0.000	101.047	110.585	
TOTAL	743	245	1 <del>263</del>	. 2251	13 <del>5.821</del>	2.588	160.955	299.364	
N-SERVICE INSPECTION	_	-	_	_			0		
IAINTENANCE PERSONNEL	0	0	6	6	0.061	0.000	0.570	0.631	
PERATIONS PERSONNEL	1	0	0	1	0.091	0.000	0.000	0.091	
EALTH PHYSICS PERSONNEL	0	0	0	0	0.014	0.000	0.006	0.020	
UPERVISORY PERSONNEL	8	0	0	8	0.430	0.000	0.000	0.430	
NGINEERING PERSONNEL	<u>22</u> 31	<u>0</u>	<u>32</u>	<u>54</u> 69	<u>1.291</u>	0.000	<u>5.007</u>	6.298	
TOTAL	31	ō	38	69	1.887	0.000	5.583	7.470	
PECIAL MAINTENANCE									
AINTENANCE PERSONNEL	0	0	338	338	0.044	0.000	32.321	32.365	
PERATIONS PERSONNEL	2	0	0	2	0.274	0.000	0.003	0.277	
EALTH PHYSICS PERSONNEL	0	1	16	17	0.003	0.005	3.083	3.091	
UPERVISORY PERSONNEL	1	0	0	1	0.049	0.000	0.000	0.049	
NGINEERING PERSONNEL	<u>1</u>	<u>0</u> 1	<u>153</u>	<u>154</u>	0.043	0.000	<u>23.791</u>	<u>23.834</u>	
TOTAL	4	1	507	512	0.413	0.005	59.198	59.616	
ASTE PROCESSING									
AINTENANCE PERSONNEL	1	0	0	1	0.332	0.000	0.043	0.375	
PERATIONS PERSONNEL	15	0	96	111	2.066	0.000	4.676	6.742	
EALTH PHYSICS PERSONNEL	21	0	2	23	6.298	0.001	0.448	6.747	
UPERVISORY PERSONNEL	15	0	5	20	0.836	0.000	0.029	0.865	
NGINEERING PERSONNEL	<u>0</u> 52	0	<u>50</u>	<u>50</u>	0.000	0.000	7.767	<u>7.767</u>	
TOTAL	52	Ō	153	205	9.532	0.001	12.963	22.496	
EFUELING			_						
AINTENANCE PERSONNEL	17	0	9	26	6.248	0.000	0.865	7.113	
PERATIONS PERSONNEL	13	0	3	16	1.839	0.000	0.158	1.997	
EALTH PHYSICS PERSONNEL	3	11	1	15	0.820	0.074	0.259	1.153	
UPERVISORY PERSONNEL	16	0	0	16	0.858	0.000	0.000	0.858	
NGINEERING PERSONNEL	<u>3</u> 52	<u>0</u> 11	<u>3</u> 16	<u>6</u> 79	<u>0.179</u>	<u>0.000</u>	<u>0.361</u>	0.540	
TOTAL	52	11	16	79	9.944	0.074	1.643	11.661	
OTAL BY JOB FUNCTION	***		644	4400	04.000	4.050	00.705	407.040	
AINTENANCE PERSONNEL	224	58	844	1126	84.929	1.352	80.735	167.016	
PERATIONS PERSONNEL	250	0	163	413	34.330	0.000	7.953	42.283	
EALTH PHYSICS PERSONNEL	164	237	121	522	48.560	1.634	24.443	74.637	
UPERVISORY PERSONNEL	337	0	146	483	18.265	0.000	0.919	19.184	
NGINEERING PERSONNEL	231	0	903	1134	13.290	0.000	139.994	153.284	
GRAND TOTALS	1206	295	2177	3678	199.374	2.986	254.044	456.404	

<sup>\*</sup>Workers may be counted in more than one category.

### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*DUANE ARNOLD

TYPE:

PLANT: "DUANE ARNO						TYPE:		
WORK AND	NUMBER C	F PERSON	NEL (>100 mRE	EM)	TOTA	L PERSON-R	REM	
OB FUNCTION	STATION	UTILITY	CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV								
MAINTENANCE PERSONNEL	6	0	0	6	1.219	0.000	0.000	1.219
PERATIONS PERSONNEL	28	0	0	28	8.632	0.000	0.000	8.632
IEALTH PHYSICS PERSONNEL	4	0	7	11	0.603	0.000	1.826	2.429
SUPERVISORY PERSONNEL	10	1	4	15	2.604	0.365	1.127	4.096
NGINEERING PERSONNEL	<u>2</u>	0	<u>1</u>	<u>3</u>	0.262	0.000	0.129	0.391
TOTAL	50	<u>0</u> 1	12	63	13.320	0.365	3.082	16.767
OUTINE MAINTENANCE								
IAINTENANCE PERSONNEL	77	0	237	314	22.458	0.000	73.472	95.930
PERATIONS PERSONNEL	9	0	0	9	3.221	0.000	0.000	3.221
IEALTH PHYSICS PERSONNEL	4	0	23	27	0.609	0.000	10.467	11.076
SUPERVISORY PERSONNEL	8	0	5	13	1.418	0.000	1,767	3.185
NGINEERING PERSONNEL	<u>16</u>		47	63	3.688	0.000	29.969	33.657
TOTAL	114	<u>0</u> 0	312	4 <u>26</u>	31.394	0.000	1 <u>15.675</u>	147.069
	114	·	012	420	31.334	0.000	110.070	147.005
N-SERVICE INSPECTION MAINTENANCE PERSONNEL	5	0	16	21	1.642	0.000	5.086	6.728
PERATIONS PERSONNEL	Ō	0	0	0	0.000	0.000	0.000	0.000
IEALTH PHYSICS PERSONNEL	1	0	Ō	1	0.144	0.000	0.000	0.144
SUPERVISORY PERSONNEL	ò	0	Ö	Ö	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL					0.000	0.000	0.000	0.000
TOTAL	<u>0</u> 6	<u>o</u>	<u>0</u> 16	<u>0</u> 22	1.786	0.000	5.086	6.872
	0	U	10	22	1.700	0.000	5.060	0.072
PECIAL MAINTENANCE MAINTENANCE PERSONNEL	11	0	27	38	3.282	0.000	6.071	9.353
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
EALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
	0	0	0	0	0.000	0.000	0.000	0.000
SUPERVISORY PERSONNEL								
NGINEERING PERSONNEL	2	<u>0</u>	<u>2</u> 29	4 <u>4</u>	0.780	0.000	0.422	1.202
TOTAL	13	0	29	42	4.062	0.000	6.493	10.555
VASTE PROCESSING MAINTENANCE PERSONNEL	5	0	0	5	1.555	0.000	0.000	1.555
PERATIONS PERSONNEL	6	0	1	7	1.008	0.000	0.000	1.253
EALTH PHYSICS PERSONNEL	2	0			0.367	0.000	0.146	0.513
			1	3				
UPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	<u>0</u> 13	<u>o</u> o	<u>0</u> 2	<u>0</u> 15	0.000	0.000	0.000	0.000
TOTAL	13	0	2	15	2.930	0.000	0.391	3.321
EFUELING IAINTENANCE PERSONNEL	0	0	31	40	2.114	0.000	11.806	13.920
	9		0		0.000	0.000		0.000
PERATIONS PERSONNEL	0	0		0			0.000	
IEALTH PHYSICS PERSONNEL	1	0	10	11	0.236	0.000	2.098	2.334
SUPERVISORY PERSONNEL	0	0	1	1	0.000	0.000	0.114	0.114
NGINEERING PERSONNEL	1 11	<u>o</u>	<u>7</u> 49	<u>8</u> 60	<u>0.267</u>	0.000	3.682	3.949
TOTAL	11	0	49	00	2.617	0.000	17.700	20.317
OTAL BY JOB FUNCTION	112	^	211	424	32.270	0.000	96.435	128.705
IAINTENANCE PERSONNEL	113	0	311	424				13.106
PERATIONS PERSONNEL	43	0	1	44	12.861	0.000	0.245	
EALTH PHYSICS PERSONNEL	12	0	41	53	1.959	0.000	14.537	16.496
UPERVISORY PERSONNEL	18	1	10	29 70	4.022	0.365	3.008	7.395
NGINEERING PERSONNEL	21	0	57	78	4.997	0.000	34.202	39.199
GRAND TOTALS	207	1	420	628	56.109	0.365	148.427	204.901

<sup>\*</sup>Workers may be counted in more than one category.

# NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*FARLEY 1,2

TYPE:

PLANI: FARLET 1,2							TYPE: F	VVIK
WORK AND	NUMBER OF	PERSON	INEL (>100 mRE	EM)	TOTA	AL PERSON-F	REM	
IOB FUNCTION	STATION U	TILITY	CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV								
MAINTENANCE PERSONNEL	0	0	0	0	0.102	0.000	0.322	0.424
PERATIONS PERSONNEL	53	0	0	53	11.622	0.000	0.174	11.796
IEALTH PHYSICS PERSONNEL	19	0	47	66	5.313	0.000	13.442	18.755
UPERVISORY PERSONNEL	0	0	0	0	0.288	0.107	0.197	0.592
NGINEERING PERSONNEL	Ô			<u>o</u>	0.275	0.036	0.204	0.515
TOTAL	<u>0</u> 72	<u>0</u>	<u>0</u> 47	119	17.600	0.143	14.339	32.082
OUTINE MAINTENANCE								
IAINTENANCE PERSONNEL	5	0	1	6	4.754	0.000	1.352	6.106
PERATIONS PERSONNEL	0	0	0	0	0.166	0.000	0.000	0.166
IEALTH PHYSICS PERSONNEL	2	0	0	2	0.221	0.000	0.000	0.221
SUPERVISORY PERSONNEL	0	0	0	0	0.014	0.001	0.000	0.015
NGINEERING PERSONNEL	0	0	0		0.016	0.001	0.088	0.105
TOTAL	<u>0</u> 7	<u>0</u>	<u>0</u> 1	<u>0</u> 8	5.171	0.002	1.440	6.613
N-SERVICE INSPECTION								
MAINTENANCE PERSONNEL	0	0	38	38	0.000	0.022	25.057	25.079
PERATIONS PERSONNEL	Ö	Ö	4	4	0.181	0.000	2.221	2.402
EALTH PHYSICS PERSONNEL	Ö	ő	0	ŏ	0.046	0.000	0.068	0.114
UPERVISORY PERSONNEL	Ö	0	ő	ő	0.000	0.098	0.004	0.102
NGINEERING PERSONNEL				47	0.191	0.030	42.805	43.271
	<u>0</u> 0	<u>1</u>	<u>46</u> 88	<del>47</del> 89	0.191	0.395	70.155	70.968
TOTAL	U	į.	00	09	0.416	0.395	70.155	70.900
PECIAL MAINTENANCE MAINTENANCE PERSONNEL	85	0	178	263	29.491	0.000	58.890	88.381
	. 8	0	3	11	2.675	0.000	0.701	3.376
PERATIONS PERSONNEL	_							
EALTH PHYSICS PERSONNEL	31	0	8	39	8.942	0.000	2.976	11.918
UPERVISORY PERSONNEL	1	0	1	2	0.415	0.000	0.414	0.829
NGINEERING PERSONNEL	3	<u>0</u>	<u>25</u>	<u>28</u>	0.754	0.009	7.950	8.713
TOTAL	128	0	215	343	42.277	0.009	70.931	113.217
VASTE PROCESSING	•				0.444	0.000		0.404
AINTENANCE PERSONNEL	3	0	0	3	0.414	0.000	0.020	0.434
PERATIONS PERSONNEL	2	0	0	2	0.529	0.000	0.030	0.559
EALTH PHYSICS PERSONNEL	16	0	1	17	4.862	0.000	0.628	5.490
UPERVISORY PERSONNEL	0	0	0	0	0.010	0.000	0.000	0.010
NGINEERING PERSONNEL	<u>0</u> 21	<u>0</u>	<u>0</u> 1	<u>0</u> 22	<u>0.000</u>	<u>0.000</u>	<u>0.005</u>	<u>0.005</u>
TOTAL	21	0	1	22	5.815	0.000	0.683	6.498
EFUELING								
AINTENANCE PERSONNEL	0	0	1	1	0.084	0.000	0.194	0.278
PERATIONS PERSONNEL	0	0	2	2	0.693	0.000	0.939	1.632
EALTH PHYSICS PERSONNEL	0	0	0	0	0.015	0.000	0.000	0.015
UPERVISORY PERSONNEL	0	0	0	0	0.206	0.000	0.008	0.214
NGINEERING PERSONNEL	<u>0</u> 0	<u>0</u>	<u>0</u> 3	<u>0</u> 3	<u>0.085</u>	<u>0.023</u>	<u>0.040</u>	0.148
TOTAL	0	0	3	3	1.083	0.023	1.181	2.287
OTAL BY JOB FUNCTION		_	6.15				05.00	100 70-
IAINTENANCE PERSONNEL	93	0	218	311	34.845	0.022	85.835	120.702
PERATIONS PERSONNEL	63	0	9	72	15.866	0.000	4.065	19.931
IEALTH PHYSICS PERSONNEL	68	0	56	124	19.399	0.000	17.114	36.513
SUPERVISORY PERSONNEL	1	0	1	2	0.933	0.206	0.623	1.762
NGINEERING PERSONNEL	3	1	71	75	1.321	0.344	51.092	52.757
GRAND TOTALS	228	1	355	584	72.364	0.572	158.729	231.665
0.0415 / 0.1/100		'			, 2.004	0.072		

<sup>\*</sup>Workers may be counted in more than one category.

# NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*FERMI 2

TYPE:

							TIPE: D	AAIX
WORK AND	NUMBER OF F	PERSON	NEL (>100 mRE	EM)	TOTA	L PERSON-F	:EM	.,
JOB FUNCTION			CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV								
MAINTENANCE PERSONNEL	71	2	47	120	3.529	0.000	2.252	5.781
PERATIONS PERSONNEL	84	1	25	110	7.488	0.002	5.166	12.656
HEALTH PHYSICS PERSONNEL	30	0	11	41	2.743	0.000	1.542	4.285
SUPERVISORY PERSONNEL	129	. 14	277	420	7.311	0.094	8.172	15.577
NGINEERING PERSONNEL	<u>80</u>	<u>3</u>	<u>2</u>	<u>85</u>	<u>1.633</u>	0.000	<u>0.000</u>	<u>1.633</u>
TOTAL	394	20	362	776	22.704	0.096	17.132	39.932
ROUTINE MAINTENANCE		_						
MAINTENANCE PERSONNEL	57	2	80	139	7.468	0.016	6.063	13.547
PERATIONS PERSONNEL	2	0	3	5	0.272	0.000	0.519	0.791
HEALTH PHYSICS PERSONNEL	1	0	1	2	0.150	0.000	0.182	0.332
SUPERVISORY PERSONNEL	19	5	118	142	0.869	0.007	11.735	12.611
ENGINEERING PERSONNEL	<u>9</u> 88	<u>1</u> 8	2	12	0.284	0.000	0.200	0.484
TOTAL	88	8	204	300	9.043	0.023	18.699	27.765
N-SERVICE INSPECTION MAINTENANCE PERSONNEL	0	^	2	2	0.000	0.000	0.000	0.000
DPERATIONS PERSONNEL	1	0 0	2 0	2 1	0.000 0.000	0.000 0.000	0.020 0.000	0.020 0.000
HEALTH PHYSICS PERSONNEL	0	.0	0	0	0.000	0.000	0.000	0.000
	0		19		0.000			
SUPERVISORY PERSONNEL ENGINEERING PERSONNEL		1		20		0.016	0.400	0.416
TOTAL	<u>3</u> 4	<u>0</u> 1	<u>0</u> 21	<u>3</u> 26	<u>0.462</u> 0.462	<u>0.000</u> 0.016	<u>0.000</u> 0.420	0.462 0.898
	7	•	41	20	0.402	0.010	0.420	0.000
PECIAL MAINTENANCE MAINTENANCE PERSONNEL	39	0	93	132	6.330	0.000	6.584	12.914
PERATIONS PERSONNEL	4	ő	5	9	0.039	0.000	0.976	1.015
IEALTH PHYSICS PERSONNEL	3	Ö	2	5	0.561	0.000	0.097	0.658
SUPERVISORY PERSONNEL	24	8	469	501	1.761	0.145	46.792	48.698
NGINEERING PERSONNEL			1	<u>13</u>	0.335	0.008	0.255	0.598
TOTAL	<u>11</u> 81	<u>1</u> 9	57 <del>0</del>	660	9.026	0.153	5 <del>4.704</del>	63.883
WASTE PROCESSING								
MAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
PERATIONS PERSONNEL	0	0	2	2	0.000	0.000	0.158	0.158
IEALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
SUPERVISORY PERSONNEL	0	0	3	3	0.000	0.000	0.320	0.320
NGINEERING PERSONNEL	<u>0</u> 0	<u>0</u>	<u>0</u> 5	<u>0</u> 5	0.000	0.000	0.000	0.000
TOTAL	ō	ō	5	5	0.000	0.000	0.478	0.478
REFUELING								
MAINTENANCE PERSONNEL	1	1	28	30	0.115	0.000	4.144	4.259
PERATIONS PERSONNEL	8	0	4	12	0.387	0.000	0.696	1.083
IEALTH PHYSICS PERSONNEL	19	0	6	25	1.610	0.000	1.011	2.621
SUPERVISORY PERSONNEL	21	5	248	274	0.822	0.000	24.279	25.101
NGINEERING PERSONNEL	<u>18</u> 67	<u>0</u> 6	<u>7</u>	<u>25</u>	<u>0.641</u>	0.000	<u>0.670</u>	<u>1.311</u>
TOTAL	67	6	293	366	3.575	0.000	30.800	34.375
OTAL BY JOB FUNCTION								
MAINTENANCE PERSONNEL	168	5	250	423	17.442	0.016	19.063	36.521
PERATIONS PERSONNEL	99	1	39	139	8.186	0.002	7.515	15.703
IEALTH PHYSICS PERSONNEL	53	0	20	73	5.064	0.000	2.832	7.896
SUPERVISORY PERSONNEL	193	33	1134	1360	10.763	0.262	91.698	102.723
ENGINEERING PERSONNEL	121	5	12	138	3.355	0.008	1.125	4.488
GRAND TOTALS	634	44	1455	2133	44.810	0.288	122.233	167.331

<sup>\*</sup>Workers may be counted in more than one category.

# NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*FITZPATRICK

TYPE:

LANI. FIIZFATRICK										DAALZ
VORK AND	NUMBER (	OF PERSOI	NNEL (>1	00 m	REM)		ТОТА	L PERSON-R	EM	
OB FUNCTION	STATION	UTILITY	CONTR	RACT	TOTAL		STATION	UTILITY	CONTRACT	TOTA
REACTOR OPS & SURV										
MAINTENANCE PERSONNEL	4	0		0	4		0.000	0.000	0.030	0.030
PERATIONS PERSONNEL	61	ő		1	62		25.950	0.000	0.020	25.970
EALTH PHYSICS PERSONNEL	2	0		ó	2		0.000	0.000	0.020	0.000
	3	0		1			0.000		0.000	
UPERVISORY PERSONNEL		-			4			0.000		0.100
NGINEERING PERSONNEL	<u>0</u> 70	<u>1</u> 1		<u>0</u> 2	<u>1</u> 73		0.040	0.020	0.000	0.060
TOTAL	70	1		2	/3		26.060	0.020	0.080	26.160
OUTINE MAINTENANCE			_							
AINTENANCE PERSONNEL	109	1		83	493		58.960	0.700	116.030	175.690
PERATIONS PERSONNEL	57	1		11	69		7.710	0.120	2.580	10.410
EALTH PHYSICS PERSONNEL	50	0		52	102		16.260	0.020	11.390	27.670
UPERVISORY PERSONNEL	13	1		13	27		4.520	0.000	3.060	7.580
NGINEERING PERSONNEL	19	1		<u>43</u>	63		4.680	0.050	9.050	13.780
TOTAL	248	<u>1</u>		02	754		92.130	0.890	142.110	235.130
	240	7	J	OL.	704		02.100	0.000	142.110	200.100
I-SERVICE INSPECTION IAINTENANCE PERSONNEL	02	0	2	27	220		2 420	0.020	20.250	32.790
	83		2	37	320		3.420	0.020	29.350	
PERATIONS PERSONNEL	60	1		4	65		5.900	0.010	0.820	6.730
EALTH PHYSICS PERSONNEL	34	0		25	59		2.390	0.000	1.460	3.850
JPERVISORY PERSONNEL	10	1		10	21		1.320	0.620	1.840	3.780
NGINEERING PERSONNEL	14	1		14	<u>29</u>		1.600	0.140	3.020	4.760
TOTAL	201	$\frac{1}{3}$		90	494		14.630	0.790	36.490	51.910
PECIAL MAINTENANCE										
AINTENANCE PERSONNEL	37	0	1	18	155		0.440	0.000	11.510	11.950
PERATIONS PERSONNEL	18	Ŏ	•	1	19		0.150	0.070	0.010	0.230
EALTH PHYSICS PERSONNEL	23	0		7	30		0.110	0.000	0.190	0.300
UPERVISORY PERSONNEL	5	0		3	8		0.060	0.000	0.110	0.170
NGINEERING PERSONNEL	<u>4</u> 87	<u>1</u> 1		<u>3</u>	<u>8</u>		0.110	0.000	0.330	0.440
TOTAL	87	1	1	32	220		0.870	0.070	12.150	13.090
ASTE PROCESSING										
AINTENANCE PERSONNEL	23	0		7	30		4.470	0.080	0.160	4.710
PERATIONS PERSONNEL	7	1		1	9		1.520	0.210	0.340	2.070
EALTH PHYSICS PERSONNEL	23	0		15	38		1.000	0.000	1.270	2.270
JPERVISORY PERSONNEL	1	Ö		0	1		0.060	0.000	0.000	0.060
NGINEERING PERSONNEL	<u>i</u>			<u>0</u>			0.000	0.000	0.000	0.000
TOTAL	55	<u>0</u> 1		23	<u>1</u> 79		7.050	0.290	<u>0.000</u> 1.770	9.110
EFUELING AINTENANCE PERSONNEL	56	0		84	140		1.300	0.000	11.750	13.050
PERATIONS PERSONNEL	40	1		4	45		1.580	0.000	1.050	2.740
EALTH PHYSICS PERSONNEL	26	0		27	53		0.970	0.000	2.420	3.390
JPERVISORY PERSONNEL	7	0		5	12		0.250	0.000	0.170	0.420
IGINEERING PERSONNEL	<u>2</u>	<u>1</u> 2		<u>17</u>	20		0.200	0.090	<u>1.910</u>	<u>2.200</u>
TOTAL	131	2	1	37	270		4.300	0.200	17.300	21.800
OTAL BY JOB FUNCTION										
AINTENANCE PERSONNEL	312	(115) 1	(1) 8	29	(401) 1142	(517)	68.590	0.800	168.830	238.220
PERATIONS PERSONNEL	243	(75) 4		22	(12) 269	(88)	42.810	0.520	4.820	48.150
EALTH PHYSICS PERSONNEL	158	(50) 0		26	(54) 284	(104)	20.730	0.020	16.730	37.480
JPERVISORY PERSONNEL		. ,		32	. ,	. ,	6.280	0.620	5.210	12.110
	39				` '	(29)				
NGINEERING PERSONNEL	40	(20) 5	(2)	77	(44) 122	(66)	6.630	0.300	14.310	21.240
GRAND TOTALS	792	(274) 12	(5) 10		(525) 1890	(804)	145.040	2.260	209.900	357.200

<sup>\*</sup>Workers may be counted in more than one category. Numbers in parentheses are total numbers of individuals.

# NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*FORT CALHOUN

TYPE:

WORK AND			NEL (>100 mRE			L PERSON-R		
JOB FUNCTION	STATION L	JTILITY	CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV								
MAINTENANCE PERSONNEL	2	0	0	2	1.021	0.070	0.014	1.105
PERATIONS PERSONNEL	40	0	0	40	11.782	0.000	0.000	11.782
IEALTH PHYSICS PERSONNEL	13	0	10	23	7.961	0.000	5.067	13.028
SUPERVISORY PERSONNEL	3	. 0	0	- 3	1.163	0.000	0.000	1.163
NGINEERING PERSONNEL	<u>1</u>	<u>0</u>	<u>o</u>	<u>1</u>	0.760	0.000	0.000	0.760
TOTAL	5 <del>9</del>	ō	10	69	22.687	0.070	5.081	27.838
OUTINE MAINTENANCE								
MAINTENANCE PERSONNEL	39	16	25	80	25.649	7.077	6.014	38.740
PERATIONS PERSONNEL	4	0	0	4	0.943	0.000	0.000	0.943
IEALTH PHYSICS PERSONNEL	11	0	14	25	6.423	0.000	6.510	12.933
SUPERVISORY PERSONNEL	9	0	1	10	3.743	0.000	0.146	3.889
NGINEERING PERSONNEL	12	<u>0</u>		<u>14</u>	3.621	0.000	0.546	4.167
TOTAL	<u>12</u> 75	16	<u>2</u> 42	133	40.379	7.077	13.216	60.672
	73	10	72	155	40.579	7.017	13.210	00.072
N-SERVICE INSPECTION MAINTENANCE PERSONNEL	6	10	25	41	4.958	5.606	9.365	19.929
PERATIONS PERSONNEL	0	0	0	0	0.050	0.000	0.000	0.050
HEALTH PHYSICS PERSONNEL	2	0	11	13	1.706	0.000	8.269	9.975
SUPERVISORY PERSONNEL	4	0	1	5	2.950	0.000	0.584	3.534
INGINEERING PERSONNEL			<u>63</u>		0.432	0.000	50.674	51.106
	1 <u>1</u> 13	<u>0</u> 10	100	<u>64</u> 123	10.096	5.606	68.892	84.594
TOTAL	13	10	100	123	10.096	5.000	00.092	04.394
PECIAL MAINTENANCE MAINTENANCE PERSONNEL	2	0	4	6	1.427	0.081	1.067	2.575
					0.000	0.001	0.000	0.000
PERATIONS PERSONNEL	0	0	0	0				
IEALTH PHYSICS PERSONNEL	0	0	0	0	0.103	0.000	0.037	0.140
UPERVISORY PERSONNEL	0	0	0	0	0.140	0.000	0.000	0.140
NGINEERING PERSONNEL	<u>1</u> 3	<u>0</u>	<u>0</u> 4	$\frac{1}{7}$	<u>0.132</u>	0.000	0.038	<u>0.170</u>
TOTAL	3	0	4	7	1.802	0.081	1.142	3.025
VASTE PROCESSING								
MAINTENANCE PERSONNEL	0	0	0	0	0.041	0.035	0.034	0.110
PERATIONS PERSONNEL	0	0	0	0	0.073	0.000	0.000	0.073
HEALTH PHYSICS PERSONNEL	5	0	4	9	2.918	0.000	1.755	4.673
UPERVISORY PERSONNEL	0	0	0	0	0.044	0.000	0.000	0.044
NGINEERING PERSONNEL	<u>0</u> 5	<u>0</u>	<u>0</u> 4	<u>0</u> 9	<u>0.001</u>	0.000	0.000	0.001
TOTAL	5	0	4	9	3.077	0.035	1.789	4.901
REFUELING								
MAINTENANCE PERSONNEL	23	28	37	88	15.138	14.124	12.922	42.184
PERATIONS PERSONNEL	6	0	0	6	1.308	0.000	0.000	1.308
IEALTH PHYSICS PERSONNEL	1	0	6	7	1.048	0.000	3.240	4.288
SUPERVISORY PERSONNEL	6	0	0	6	2.601	0.000	0.112	2.713
NGINEERING PERSONNEL		0	10	<u>15</u>	1.858	0.000	4.686	6.544
TOTAL	<u>5</u> 41	28	53	122	21.953	14.124	20.960	57.037
OTAL BY JOB FUNCTION								
MAINTENANCE PERSONNEL	72	54	91	217	48.234	26.993	29.416	104.643
PERATIONS PERSONNEL	50	0	0	50	14.156	0.000	0.000	14.156
EALTH PHYSICS PERSONNEL	32	0	45	77	20.159	0.000	24.878	45.037
SUPERVISORY PERSONNEL	22	0	2	24	10.641	0.000	0.842	11.483
NGINEERING PERSONNEL	20	0	75	95	6.804	0.000	55.944	62.748
TOTAL ENGINEE					0.001	3.000		
GRAND TOTALS	196	54	213	463	99.994	26.993	111.080	238.067

<sup>\*</sup>Workers may be counted in more than one category.

### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*GINNA

TYPE:

PLANT: *GINNA							TYPE: F	PWR
WORK AND	NUMBER O	F PERSON	INEL (>100 mRI	EM)	TOTA	AL PERSON-F	REM	
JOB FUNCTION	STATION	UTILITY	CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV								
MAINTENANCE PERSONNEL	812	79	340	1231	2.234	0.189	0.624	3.047
OPERATIONS PERSONNEL	1252	1	14	1267	1.598	0.004	0.082	1.684
HEALTH PHYSICS PERSONNEL	469	0	473	942	1.964	0.000	3.971	5.935
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	<u>307</u>	<u>249</u>	<u>102</u>	<u>658</u>	<u>0.344</u>	<u>0.750</u>	<u>0.490</u>	<u>1.584</u>
TOTAL	2840	329	929	4098	6.140	0.943	5.167	12.250
ROUTINE MAINTENANCE	00.40	0.40	4044					
MAINTENANCE PERSONNEL	6846	340	1314	8500	17.346	2.224	2.179	21.749
OPERATIONS PERSONNEL	610	4	41	655	0.183	0.066	0.003	0.252
HEALTH PHYSICS PERSONNEL	783	0	2614	3397	1.631	0.001	1.539	3.171
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
ENGINEERING PERSONNEL	123	372	<u>292</u>	<u>787</u>	0.078	0.629	6.386	7.093
TOTAL	8362	716	4261	13339	19.238	2.920	10.107	32.265
N-SERVICE INSPECTION		_						
MAINTENANCE PERSONNEL	5	7	41	53	0.124	0.043	3.665	3.832
PERATIONS PERSONNEL	41	0	0	41	0.160	0.000	0.033	0.193
IEALTH PHYSICS PERSONNEL	12	0	1	13	0.018	0.000	0.003	0.021
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	<u>2</u> 60	<u>174</u>	87	<u>263</u>	0.014	<u>1.422</u>	<u>0.537</u>	<u>1.973</u>
TOTAL	60	181	129	370	0.316	1.465	4.238	6.019
PECIAL MAINTENANCE								
MAINTENANCE PERSONNEL	1135	355	1747	3237	6.361	1.829	2.914	11.104
PERATIONS PERSONNEL	46	0	0	46	0.048	0.000	0.715	0.763
HEALTH PHYSICS PERSONNEL	107	0	182	289	0.237	0.000	1.550	1.787
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	<u>59</u>	88	<u>331</u>	<u>478</u>	0.214	<u>1.657</u>	<u>0.715</u>	2.586
TOTAL	1347	443	2260	4050	6.860	3.486	5.894	16.240
VASTE PROCESSING	. 40		-	50	0.007	0.005	0.004	0.000
MAINTENANCE PERSONNEL	49	4	5	58	0.007	0.025	0.634	0.666
PERATIONS PERSONNEL HEALTH PHYSICS PERSONNEL	1	0	0	1	0.000	0.022	0.000	0.022
	570	12 0	177	759	0.998	0.090	5.920	7.008
SUPERVISORY PERSONNEL ENGINEERING PERSONNEL	0	-	0	0	0.000	0.000	0.000	0.000
TOTAL	<u>0</u> 620	<u>35</u> 51	<u>0</u> 182	<u>35</u> 853	<u>0.000</u> 1.005	<u>0.138</u> 0.275	0.000	0.138
	620	51	102	000	1.005	0.275	6.554	7.834
REFUELING MAINTENANCE PERSONNEL	122	62	27	211	3.204	1.383	0.242	4.829
PERATIONS PERSONNEL	90	25	504	619	0.694	0.133	23.051	23.878
IEALTH PHYSICS PERSONNEL	90	25 0	504 51	51	0.000	0.133		
UPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	1.744 0.000	1.744 0.000
NGINEERING PERSONNEL	<u>2</u>	<u>34</u>	1	<u>37</u>	0.615	0.300 0.321	0.000	1.046
TOTAL	214	121	58 <del>3</del>	9 <u>18</u>	4.513	1.837	25.147	31.497
OTAL BY JOB FUNCTION								
MAINTENANCE PERSONNEL	8969	847	3474	13290	29.276	5.693	10.258	45.227
PERATIONS PERSONNEL	2040	30	559	2629	2.683	0.225	23.884	26.792
HEALTH PHYSICS PERSONNEL	1941	12	3498	5451	4.848	0.223	14.727	19.666
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
INGINEERING PERSONNEL	493	952	813	2258	1.265	4.917	8.238	14.420
GRAND TOTALS	13443	1841	8344	23628	38.072	10.926	57.107	106.105

<sup>\*</sup>Workers may be counted in more than one category.

### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*GRAND GULF

TYPE:

	•						1112.	
WORK AND	NUMBER (	)F PERSONN	IEL (>100 mRE	=M)	TOTAL	PERSON-RI	=N4	
JOB FUNCTION	STATION		CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV					<del>""                                   </del>			
MAINTENANCE PERSONNEL	0	0	0	0	0.675	0.045	0.342	1.062
OPERATIONS PERSONNEL	0	0	1	1	3.126	0.378	0.000	3.504
HEALTH PHYSICS PERSONNEL	12	2	19	33	3.427	5.975	8.759	18.161
SUPERVISORY PERSONNEL	11	14	0	25	0.522	0.259	0.245	1.026
ENGINEERING PERSONNEL	<u>1</u> 24	<u>1</u> 17	<u>0</u>	<u>2</u> 61	<u>0.069</u>	0.000	<u>0.059</u>	<u>0.128</u>
TOTAL	24	17	20	61	7.819	6.657	9.405	23.881
ROUTINE MAINTENANCE	400		050	F 40	55.007	40.000	450.004	000 504
MAINTENANCE PERSONNEL	128	54	358	540	55.097	18.263	153.234	226.594
OPERATIONS PERSONNEL	50	2	5	57	19.625	0.464	3.155	23.244
HEALTH PHYSICS PERSONNEL SUPERVISORY PERSONNEL	28 12	5 3	21 21	54 36	11.617	1.429	5.794	18.840
ENGINEERING PERSONNEL			0		4.446 5.176	1.184	4.653	10.283
TOTAL	<u>16</u> 234	<u>3</u> 67	40 <u>5</u>	<u>19</u> 706	<u>5.176</u> 95.961	<u>1.071</u> 22.411	<u>0.024</u> 166.860	<u>6.271</u> 285.232
	234	07	403	700	93.901	22.411	100.000	200.232
IN-SERVICE INSPECTION MAINTENANCE PERSONNEL	0	0	24	24	0.004	0.000	7.136	7.140
OPERATIONS PERSONNEL	ő	0	0	0	0.000	0.000	0.000	0.000
HEALTH PHYSICS PERSONNEL	Ö	Ö	ő	0	0.003	0.000	0.079	0.082
SUPERVISORY PERSONNEL	3	2	11	16	0.642	0.476	7.482	8.600
ENGINEERING PERSONNEL	<u>1</u>		0	1	0.316	0.000	0.000	0.316
TOTAL	$\frac{1}{4}$	<u>0</u> 2	<u>0</u> 35	<u>1</u> 41	0.965	0.476	14.697	16.138
SPECIAL MAINTENANCE								
MAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
OPERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
HEALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
ENGINEERING PERSONNEL	<u>0</u>	<u>o</u> o	<u>o</u> o	<u>0</u>	0.000	0.000	0.000	0.000
TOTAL	U	U		U	0.000	0.000	0.000	0.000
WASTE PROCESSING MAINTENANCE PERSONNEL	.0	0	4	4	0.422	0.000	0.004	0.500
OPERATIONS PERSONNEL	0	0	1 5	1 5	0.122 0.000	0.000	0.384 1.004	0.506 1.004
HEALTH PHYSICS PERSONNEL	0	0	0	0	0.050	0.000	0.047	0.097
SUPERVISORY PERSONNEL	Ö	. 0	Ö	. 0	0.000	0.000	0.000	0.000
ENGINEERING PERSONNEL					0.000	0.000	0.000	0.000
TOTAL	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u> 6	0.172	0.000	1.435	1.607
REFUELING								
MAINTENANCE PERSONNEL	0	1	45	46	0.198	0.609	12.822	13.629
OPERATIONS PERSONNEL	2	0	0	2	0.690	0.091	0.000	0.781
HEALTH PHYSICS PERSONNEL	0	0	0	0	0.003	0.011	0.036	0.050
SUPERVISORY PERSONNEL	2	2	2	6	0.735	0.778	0.345	1.858
ENGINEERING PERSONNEL TOTAL	<u>4</u> 8	<u>0</u> 3	<u>0</u> 47	<u>4</u> 58	<u>1.246</u> 2.872	<u>0.056</u> 1.545	<u>0.043</u> 13.246	<u>1.345</u> 17.663
	3	Ü	.,	30	2.072			
TOTAL BY JOB FUNCTION	100		400	044	E0 000	40.047	470.040	040.004
MAINTENANCE PERSONNEL	128	55	428	611 65	56.096	18.917	173.918	248.931
OPERATIONS PERSONNEL	52 40	2 7	11 40	65 87	23.441 15.100	0.933	4.159 14.715	28.533
HEALTH PHYSICS PERSONNEL SUPERVISORY PERSONNEL	40 28	21	40 34	87 83	6.345	7.415 2.697	14.715 12.725	37.230 21.767
ENGINEERING PERSONNEL	22	4	0	26	6.807	1.127	0.126	8.060
			<b>,</b>		J.007	1.141	0.120	
GRAND TOTALS	270	89	513	872	107.789	31.089	205.643	344.521
			2.0	5, <b>2</b>	. 37.7700	5000	200.040	5021

<sup>\*</sup>Workers may be counted in more than one category.

# NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*HADDAM NECK

TYPE:

PLANT: HADDAM NEC							TYPE: F	- VVIX
WORK AND	NUMBER O	F PERSON	NNEL (>100 mRI	EM)	TOTA			
OB FUNCTION	STATION		CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAI
REACTOR OPS & SURV								
MAINTENANCE PERSONNEL	51	4	110	165	7.688	0.108	3.328	11.124
PERATIONS PERSONNEL	36	1	0	37	12.744	0.172	0.000	12.916
IEALTH PHYSICS PERSONNEL	19	1	34	54	7.653	0.164	13.079	20.896
SUPERVISORY PERSONNEL	1	3	3	7	0.139	0.185	0.085	0.409
NGINEERING PERSONNEL	<u>12</u>	7	<u>41</u>	<u>60</u>	1.644	0.403	0.627	2.674
TOTAL	119	1 <del>6</del>	188	323	29.868	1.032	17.119	48.019
OUTINE MAINTENANCE								
MAINTENANCE PERSONNEL	50	1	95	146	6.863	0.147	7.802	14.812
PERATIONS PERSONNEL	10	0	0	10	0.368	0.000	0.000	0.368
EALTH PHYSICS PERSONNEL	15	1	25	41	0.145	0.320	1.159	1.624
SUPERVISORY PERSONNEL	1	3	3	7	0.007	0.217	0.114	0.338
		5						
NGINEERING PERSONNEL	10	<u>5</u> 10	19	34	0.669	0.346	1.443	2.458
TOTAL	86	10	142	238	8.052	1.030	10.518	19.600
N-SERVICE INSPECTION MAINTENANCE PERSONNEL	4	4	75	00	0.000	0.007	20.457	20.454
	4	1	75	80	0.000	0.297	39.157	39.454
PERATIONS PERSONNEL	1	0	0	1	0.006	0.000	0.000	0.006
IEALTH PHYSICS PERSONNEL	3	0	6	9	0.001	0.000	0.145	0.146
SUPERVISORY PERSONNEL	0	1	3	4	0.000	0.224	0.784	1.008
NGINEERING PERSONNEL	1	1	<u>21</u>	<u>23</u>	0.003	0.131	12.773	12.907
TOTAL	<u>1</u> 9	$\frac{1}{3}$	105	117	0.010	0.652	52.859	53.521
SPECIAL MAINTENANCE								
MAINTENANCE PERSONNEL	31	2	71	104	1.195	0.368	3.325	4.888
PERATIONS PERSONNEL	5	0	0	5	0.206	0.000	0.000	0.206
IEALTH PHYSICS PERSONNEL	18	0	17	35	3.349	0.000	1.155	4.504
SUPERVISORY PERSONNEL	0	3	2	5	0.000	0.378	0.065	0.443
INGINEERING PERSONNEL			18		0.628			4.922
	<u>7</u> 61	<u>1</u>		<u>26</u> 175		0.043	4.251	
TOTAL	61	Ь	108	1/5	5.378	0.789	8.796	14.963
VASTE PROCESSING MAINTENANCE PERSONNEL	4	0	3	7	0.442	0.000	0.034	0.476
	4							
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
IEALTH PHYSICS PERSONNEL	14	1	27	42	3.893	0.001	4.778	8.672
SUPERVISORY PERSONNEL	0	1	0	1	0.000	0.001	0.000	0.001
NGINEERING PERSONNEL	0	0	1	1	0.000	0.000	0.000	0.000
TOTAL	<u>0</u> 18	<u>0</u> 2	<u>1</u> 31	<u>1</u> 51	4.335	0.002	4.812	9.149
REFUELING								
MAINTENANCE PERSONNEL	33	1	25	59	3.198	0.001	9.551	12.750
PERATIONS PERSONNEL	8	1	0	9	0.188	0.004	0.000	0.192
EALTH PHYSICS PERSONNEL	5	0	7	12	0.088	0.000	0.119	0.207
UPERVISORY PERSONNEL	Ō	1	1	2	0.000	0.000	0.009	0.009
NGINEERING PERSONNEL				<u>12</u>	0.079	<u>0.034</u>	0.993	1.106
TOTAL	<u>4</u> 50	<u>1</u>	<u>7</u> 40	94	3.553	0.039	10.672	14.264
OTAL BY JOB FUNCTION								
MAINTENANCE PERSONNEL	173	9	379	561	19.386	0.921	63.197	83.504
PERATIONS PERSONNEL	60	2	0	62	13.512	0.176	0.000	13.688
IEALTH PHYSICS PERSONNEL	74	3	116	193	15.129	0.485	20.435	36.049
SUPERVISORY PERSONNEL	2	12	12	26	0.146	1.005	1.057	2.208
INGINEERING PERSONNEL	34	15	107	156	3.023	0.957	20.087	24.067
GRAND TOTALS	343	41	614	998	51.196	3.544	104.776	159.516

<sup>\*</sup>Workers may be counted in more than one category.

### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*HARRIS

TYPE:

ORK AND	NUMBER OF F	PERSONNE	L (>100 mRE	M)	TOTAL	PERSON-RE	M		
OB FUNCTION	STATION UT		ONTRACT	TOTAL		UTILITY	CONTRACT	TOTA	
EACTOR OPS & SURV									
IAINTENANCE PERSONNEL	1	0	1	2	0.435	0.003	0.232	0.670	
PERATIONS PERSONNEL	3	0	0	3	2.201	0.000	0.128	2.329	
EALTH PHYSICS PERSONNEL	9	0	0	9	2.867	0.000	0.091	2.958	
UPERVISORY PERSONNEL	0	0	0	0	0.054	0.006	0.002	0.062	
NGINEERING PERSONNEL	0	0	0		0.439	0.034	0.102	0.575	
TOTAL	1 <u>0</u>	<u>0</u>	0 1	<u>0</u> 14	5.996	0.043	0.555	6.594	
OUTINE MAINTENANCE									
AINTENANCE PERSONNEL	1	0	0	1	2.015	0.002	0.937	2.954	
PERATIONS PERSONNEL	0	0	0	0	0.261	0.000	0.000	0.261	
EALTH PHYSICS PERSONNEL	0	0	0	0	0.296	0.000	0.001	0.297	
UPERVISORY PERSONNEL	0	0	0	0	0.007	0.000	0.001	0.008	
NGINEERING PERSONNEL	<u>0</u> 1	<u>o</u>	<u>0</u>	<u>0</u> 1	0.373	0.000	0.049	0.422	
TOTAL	1	ō	ō	1	2.952	0.002	0.988	3.942	
-SERVICE INSPECTION		•	•		0.000		0.000	0.00-	
AINTENANCE PERSONNEL	0	0	0	0	0.003	0.000	0.000	0.003	
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000	
EALTH PHYSICS PERSONNEL	0	0	0	0	0.048	0.000	0.000	0.048	
UPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000	
NGINEERING PERSONNEL	<u>0</u>	<u>o</u>	<u>0</u> 0	<u>0</u>	0.011	<u>0.000</u>	<u>0.000</u>	<u>0.011</u>	
TOTAL	0	0	0	0	0.062	0.000	0.000	0.062	
PECIAL MAINTENANCE		•	40	40	0.004	0.000	0.404	5 400	
AINTENANCE PERSONNEL	6	0	10	16	2.064	0.003	3.421	5.488	
PERATIONS PERSONNEL	0	0	0	0	0.071	0.000	0.032	0.103	
EALTH PHYSICS PERSONNEL	4	0	0	4	1.164	0.000	0.003	1.167	
UPERVISORY PERSONNEL	0	0	0	0	0.005	0.000	0.000	0.005	
NGINEERING PERSONNEL	1	<u>o</u> o	<u>0</u> 10	. <u>1</u> 21	<u>0.372</u>	0.000	<u>0.006</u>	0.378	
TOTAL	11	0	10	21	3.676	0.003	3.462	7.141	
/ASTE PROCESSING IAINTENANCE PERSONNEL	0	0	0	0	0.243	0.000	0.053	0.296	
			0						
PERATIONS PERSONNEL	0	0	0	0	0.153	0.000	0.000	0.153	
EALTH PHYSICS PERSONNEL	1	0	0	1	0.786	0.000	0.000	0.786	
JPERVISORY PERSONNEL	0	0	0	0	0.001	0.000	0.000	0.001	
NGINEERING PERSONNEL	<u>0</u> 1	<u>o</u>	<u>0</u> 0	<u>0</u> 1	0.022	0.000	0.052	0.074	
TOTAL	1	0	0	1	1.205	0.000	0.105	1.310	
EFUELING AINTENANCE PERSONNEL	0	0	0	0	0.095	0.000	0.065	0.160	
PERATIONS PERSONNEL	0	0	0	0	0.093	0.000	0.000	0.100	
EALTH PHYSICS PERSONNEL	0	0	0	0	0.200	0.000	0.000	0.200	
		0	0		0.121	0.000	0.000	0.121	
JPERVISORY PERSONNEL	0			0			0.000	0.000	
NGINEERING PERSONNEL TOTAL	<u>0</u>	<u>o</u>	<u>0</u>	<u>0</u>	<u>0.087</u> 0.511	0.000 0.000	0.065	0.576	
OTAL BY JOB FUNCTION									
AINTENANCE PERSONNEL	8	0	11	19	4.855	0.008	4.708	9.571	
PERATIONS PERSONNEL	3	Ŏ	Ö	3	2.894	0.000	0.160	3.054	
EALTH PHYSICS PERSONNEL	14	0	0	14	5.282	0.000	0.095	5.377	
UPERVISORY PERSONNEL	0	0	0	0	0.067	0.006	0.003	0.076	
NGINEERING PERSONNEL	1	ő	ő	1	1.304	0.034	0.209	1.547	
GRAND TOTALS	26	0	11	37	14.402	0.048	5.175	19.625	

<sup>\*</sup>Workers may be counted in more than one category.

# NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*HATCH 1,2

TYPE:

PLANT. HATCH 1,2							ITPE: E	DAALZ
WORK AND	NUMBER O	F PERSON	INEL (>100 mRE	EM)	TOTAL PERSON-REM			
JOB FUNCTION	STATION	UTILITY	CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV							N.	
MAINTENANCE PERSONNEL	185	6	339	530	109.824	2.215	130.059	242.098
OPERATIONS PERSONNEL	15	0	0	15	5.995	0.000	0.009	6.004
HEALTH PHYSICS PERSONNEL	8	0	22	30	2.917	0.000	8.956	11.873
SUPERVISORY PERSONNEL	22	0	7	29	8.764	0.063	2.522	11.349
ENGINEERING PERSONNEL	12	<u>0</u>	21	<u>33</u>	4.398	<u>0.067</u>	<u>6.311</u>	<u>10.776</u>
TOTAL	242	6	389	637	131.898	2.345	147.857	282.100
ROUTINE MAINTENANCE								
MAINTENANCE PERSONNEL	9	0	3	12	4.852	0.107	4.108	9.067
OPERATIONS PERSONNEL	74	0	0	74	38.955	0.000	0.029	38.984
HEALTH PHYSICS PERSONNEL	65	0	24	89	30.674	0.008	7.526	38.208
SUPERVISORY PERSONNEL	11	0	3	14	4.008	0.040	0.849	4.897
ENGINEERING PERSONNEL	<u>3</u> 162	<u>o</u>	<u>0</u> 30	<u>3</u>	<u>2.354</u>	<u>0.082</u>	<u>0.442</u>	<u>2.878</u>
TOTAL	162	0	30	192	80.843	0.237	12.954	94.034
IN-SERVICE INSPECTION								
MAINTENANCE PERSONNEL	3	0	3	6	0.900	0.011	0.751	1.662
OPERATIONS PERSONNEL	24	0	0	24	7.470	0.000	0.000	7.470
HEALTH PHYSICS PERSONNEL	15	0	16	31	11.504	0.000	9.707	21.211
SUPERVISORY PERSONNEL	3	0	0	3	0.833	0.089	0.000	0.922
ENGINEERING PERSONNEL	1	0	13	14	0.444	0.021	4.192	4.657
TOTAL	46	0	32	78	21.151	0.121	14.650	35.922
SPECIAL MAINTENANCE								
MAINTENANCE PERSONNEL	69	0	96	165	25.649	0.021	36.207	61.877
OPERATIONS PERSONNEL	5	0	0	5	1.100	0.000	0.000	1.100
HEALTH PHYSICS PERSONNEL	5	0	16	21	0.891	0.000	10.480	11.371
SUPERVISORY PERSONNEL	7	0	1	8	2.908	0.000	1.003	3.911
ENGINEERING PERSONNEL	<u>4</u> 90	<u>o</u> 0	<u>0</u>	<u>4</u>	<u>1.120</u>	0.030	<u>0.175</u>	1.325
TOTAL	90	0	113	203	31.668	0.051	47.865	79.584
WASTE PROCESSING			_					
MAINTENANCE PERSONNEL	6	0	0	6	1.460	0.030	0.045	1.535
OPERATIONS PERSONNEL	0	0	1	1	0.017	0.000	0.223	0.240
HEALTH PHYSICS PERSONNEL	4	0	4	8	2.688	0.000	3.205	5.893
SUPERVISORY PERSONNEL	1	0	0	1	0.148	0.000	0.000	0.148
ENGINEERING PERSONNEL	<u>0</u> 11	<u>o</u> 0	<u>0</u> 5	<u>0</u> 16	0.002	0.000	0.000	0.002
TOTAL	11	0	5	16	4.315	0.030	3.473	7.818
REFUELING		_						
MAINTENANCE PERSONNEL	4	0	69	73	1.154	0.000	20.238	21.392
OPERATIONS PERSONNEL	9	0	0	9	1.994	0.000	0.000	1.994
HEALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.089	0.089
SUPERVISORY PERSONNEL	0	0	0	0	0.185	0.000	0.194	0.379
ENGINEERING PERSONNEL	<u>2</u> 15	0	<u>7</u> 76	<u>9</u> 91	<u>0.431</u> 3.764	<u>0.004</u> 0.004	<u>2.123</u> 22.644	<u>2.558</u> 26.412
TOTAL	13	U		31	3.764	0.004	ZZ.044	20.412
TOTAL BY JOB FUNCTION	070	_	540	700	440.000	0.001	404 400	227 224
MAINTENANCE PERSONNEL	276	6	510	792	143.839	2.384	191.408	337.631
OPERATIONS PERSONNEL	127	0	1	128	55.531	0.000	0.261	55.792
HEALTH PHYSICS PERSONNEL	97	0	82	179	48.674	0.008	39.963	88.645
SUPERVISORY PERSONNEL	44	0	11	55 63	16.846	0.192	4.568	21.606
ENGINEERING PERSONNEL	22	0	41	63	8.749	0.204	13.243	22.196
GRAND TOTALS	566	. 6	645	1217	273.639	2.788	249.443	525.870

<sup>\*</sup>Workers may be counted in more than one category.

# NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*HOPE CREEK 1

TYPE:

PLANT. HOPE CREEP	<b>\</b> 1						IYPE: E	NALK
WORK AND	NUMBER OF	PERSON	NEL (>100 mRE	EM)	TOTA			
OB FUNCTION	STATION U		CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAI
EACTOR OPS & SURV			-					
AINTENANCE PERSONNEL	25	3	2	30	7.916	1.558	1.282	10.756
PERATIONS PERSONNEL	35	8	3	46	11.011	2.608	1.994	15.613
IEALTH PHYSICS PERSONNEL	25	1	5	31	5.494	0.238	2.204	7.936
UPERVISORY PERSONNEL	0	Ó	Ō	0	0.010	0.018	0.020	0.048
NGINEERING PERSONNEL	<u>o</u>		<u>o</u>	<u>o</u>	0.280	0.318	0.028	0.626
TOTAL	8 <del>5</del>	<u>0</u> 12	10	10 <del>7</del>	2 <del>4.711</del>	4.740	5.528	34.979
OUTINE MAINTENANCE								
AINTENANCE PERSONNEL	3	0	0	3	2.026	0.484	1.774	4.284
PERATIONS PERSONNEL	1	0	0	1	0.610	0.329	0.248	1.187
EALTH PHYSICS PERSONNEL	- 0	0	0	0	0.255	0.000	0.103	0.358
UPERVISORY PERSONNEL	0	0	0	0	0.000	0.002	0.003	0.005
NGINEERING PERSONNEL					0.017	0.074	0.041	0.132
TOTAL	<u>0</u> 4	00	<u>0</u>	<u>0</u> 4	2.908	0.889	2.169	5.966
	·		•		2.000		255	,5.000
I-SERVICE INSPECTION	0	4	24	22	0.227	0.204	E 101	E 740
AINTENANCE PERSONNEL	0	1	21	22	0.237	0.384	5.121	5.742
PERATIONS PERSONNEL	0	0	1	1	0.024	0.157	0.429	0.610
EALTH PHYSICS PERSONNEL	0	0	0	0	0.053	0.003	0.090	0.146
UPERVISORY PERSONNEL	0	0	0	0	0.002	0.039	0.030	0.071
NGINEERING PERSONNEL	<u>o</u> 0	$\frac{1}{2}$	<u>0</u> 22	<u>1</u> 24	0.000	0.400	0.008	<u>0.408</u>
TOTAL	0	2	22	24	0.316	0.983	5.678	6.977
PECIAL MAINTENANCE	00	40	04	474	47.000	0.774	05 507	47.047
AINTENANCE PERSONNEL	68	12	91	171	17.939	3.771	25.537	47.247
PERATIONS PERSONNEL	21	6	25	52	5.330	2.142	8.867	16.339
EALTH PHYSICS PERSONNEL	15	0	8 .	23	3.418	0.056	1.676	5.150
UPERVISORY PERSONNEL	0	0	0	0	0.035	0.036	0.058	0.129
NGINEERING PERSONNEL	<u>0</u>	<u>2</u> 20	· <u>0</u>	<u>2</u>	<u>0.220</u>	0.722	<u>0.081</u>	1.023
TOTAL	104	20	124	248	26.942	6.727	36.219	69.888
ASTE PROCESSING		_	_					
IAINTENANCE PERSONNEL	1	0	0	1	0.298	0.058	0.001	0.357
PERATIONS PERSONNEL	0	0	2	2	0.067	0.009	0.536	0.612
EALTH PHYSICS PERSONNEL	3	0	1	4	0.830	0.033	0.244	1.107
UPERVISORY PERSONNEL	0	0	0	0	0.000	0.001	0.000	0.001
NGINEERING PERSONNEL	<u>0</u> 4	<u>o</u>	<u>0</u> 3	<u>0</u> 7	0.000	0.060	0.000	0.060
TOTAL	4	ō	3	7	1.195	0.161	0.781	2.137
EFUELING								
AINTENANCE PERSONNEL	12	7	20	39	3.441	1.890	11.006	16.337
PERATIONS PERSONNEL	4	0	27	31	0.948	0.497	13.642	15.087
EALTH PHYSICS PERSONNEL	10	. 0	5	15	2.432	0.064	1.907	4.403
JPERVISORY PERSONNEL	0	0	1	1	0.000	0.003	0.137	0.140
NGINEERING PERSONNEL	<u>0</u> 26	<u>0</u> 7	<u>0</u> 53	<u>0</u>	0.022	0.065	0.006	0.093
TOTAL	26	7	53	86	6.843	2.519	26.698	36.060
OTAL BY JOB FUNCTION								
AINTENANCE PERSONNEL	109	23	134	266	31.857	8.145	44.721	84.723
PERATIONS PERSONNEL	61	14	58	133	17.990	5.742	25.716	49.448
EALTH PHYSICS PERSONNEL	53	1	19	73	12.482	0.394	6.224	19.100
JPERVISORY PERSONNEL	0	0	1	1	0.047	0.099	0.248	0.394
NGINEERING PERSONNEL	0	3	0	3	0.539	1.639	0.164	2.342
GRAND TOTALS	223	41	212	476	62.915	16.019	77.073	156.007
GIVAND TOTALS	223	41	414	4/0	02.813	10.018	11.013	150.007

<sup>\*</sup>Workers may be counted in more than one category.

### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*INDIAN POINT 2

TYPE:

						ITPE. FVI		
WORK AND	NUMBER OF	PERSON	INEL (>100 mRE	EM)	TOTA			
OB FUNCTION	STATION I		CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV								
MAINTENANCE PERSONNEL	1	0	1	2	0.527	0.000	0.125	0.652
PERATIONS PERSONNEL	35	0	0	35	6.889	0.000	0.000	6.889
IEALTH PHYSICS PERSONNEL	16	1	7	24	3.230	0.194	2.388	5.812
SUPERVISORY PERSONNEL	2	0	1	3	0.330	0.000	0.197	0.527
NGINEERING PERSONNEL	<u>2</u>	0	0	<u>2</u>	0.285	0.000	0.000	0.285
TOTAL	56	<u>0</u> 1	<u>0</u> 9	66	11.261	0.194	2.710	14.165
ROUTINE MAINTENANCE								
MAINTENANCE PERSONNEL	. 1	0	0	1	0.106	0.000	0.000	0.106
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
IEALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
SUPERVISORY PERSONNEL	0	0.	0	0	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	1	0			0.104	0.000	0.000	0.104
TOTAL	1/2	<u>0</u>	<u>0</u>	<u>1</u>	0.210	0.000	0.000	0.210
	. 2	Ū	· ·	2	0.210	0.000	0.000	0.210
N-SERVICE INSPECTION MAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
PERATIONS PERSONNEL	Ō	Ō	Ö	Ö	0.000	0.000	0.000	0.000
EALTH PHYSICS PERSONNEL	ő	Ö	Ö	Ö	0.000	0.000	0.000	0.000
SUPERVISORY PERSONNEL	ő	Ö	ő	o ·	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL					0.000	0.000	0.000	0.000
TOTAL	<u>0</u> 0	<u>0</u>	<u>0</u>	<u>0</u>	0.000	0.000	0.000	0.000
PECIAL MAINTENANCE								
MAINTENANCE PERSONNEL	30	3	18	51	6.180	0.393	2.742	9.315
PERATIONS PERSONNEL	2	Ō	0	2	0.220	0.000	0.000	0.220
EALTH PHYSICS PERSONNEL	3	Ö	2	5	0.396	0.000	0.391	0.787
SUPERVISORY PERSONNEL	Ö	0	0	ő	0.000	0.000	0.000	0.000
INGINEERING PERSONNEL					0.656	0.000	0.145	0.801
TOTAL	<u>4</u> 39	<u>0</u> 3	<u>1</u> 21	<u>5</u> 63	7.452	0.393	3.278	11.123
WASTE PROCESSING								
MAINTENANCE PERSONNEL	2	0	20	22	0.585	0.000	10.525	11.110
PERATIONS PERSONNEL	2	Ō	0	2	0.319	0.000	0.000	0.319
HEALTH PHYSICS PERSONNEL	1	Ö	4	5	0.219	0.000	2.520	2.739
SUPERVISORY PERSONNEL	2	0	1	3	1.079	0.000	0.325	1.404
INGINEERING PERSONNEL			1	<u>1</u>	0.000	0.000	0.358	0.358
TOTAL	<u>0</u> 7	<u>0</u>	26	33	2.202	0.000	13.728	15.930
REFUELING								
MAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
PERATIONS PERSONNEL	Ö	Ö	Ö	ő	0.000	0.000	0.000	0.000
HEALTH PHYSICS PERSONNEL	Ö	0	0	Ö	0.000	0.000	0.000	0.000
SUPERVISORY PERSONNEL	ő	0	Ö	Ö	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL					0.000	0.000	0.000	0.000
TOTAL	<u>o</u>	<u>0</u>	<u>o</u>	<u>o</u>	0.000	0.000	0.000	0.000
OTAL BY JOB FUNCTION								
MAINTENANCE PERSONNEL	34	3	39	76	7.398	0.393	13.392	21.183
PERATIONS PERSONNEL	39	0	0	39	7.428	0.000	0.000	7.428
IEALTH PHYSICS PERSONNEL	20	1	13	34	3.845	0.000	5.299	9.338
UPERVISORY PERSONNEL	4	0	2	6	1.409	0.000	0.522	1.931
NGINEERING PERSONNEL	7	0	2	9	1.045	0.000	0.503	1.548
	•							
GRAND TOTALS	104	4	56	164	21.125	0.587	19.716	41.428

<sup>\*</sup>Workers may be counted in more than one category.

### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*INDIAN POINT 3

TYPE:

PLANT: "INDIAN POINT							TYPE: F	VVIK
WORK AND	NUMBER O	F PERSON	NNEL (>100 mRE	EM)	TOTA			
OB FUNCTION	STATION	UTILITY	CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAI
EACTOR OPS & SURV						*		
MAINTENANCE PERSONNEL	11	0	12	23	3.800	0.000	2.520	6.320
PERATIONS PERSONNEL	16	ő	2	18	3.910	0.000	0.280	4.190
EALTH PHYSICS PERSONNEL	15	Ö	0	15	3.820	0.000	0.000	3.820
SUPERVISORY PERSONNEL	1	Ő	Ŏ	1	0.150	0.000	0.000	0.150
NGINEERING PERSONNEL	<u>i</u>		<u>o</u>	<u>1</u>	0.320	0.000	0.000	0.320
TOTAL	44	<u>0</u> 0	14	58	12.000	0.000	2.800	14.800
OUTINE MAINTENANCE								
MAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
PERATIONS PERSONNEL	Ö	0	0	Ō	0.000	0.000	0.000	0.000
EALTH PHYSICS PERSONNEL	Ö	0	ő	ő	0.000	0.000	0.000	0.000
	0	0	0	ő	0.000	0.000	0.000	0.000
UPERVISORY PERSONNEL								
NGINEERING PERSONNEL	<u>o</u>	<u>0</u>	<u>0</u>	<u>o</u> o	0.000	0.000	0.000	0.000
TOTAL	0	0	0	0	0.000	0.000	0.000	0.000
N-SERVICE INSPECTION		^	0	0	0.000	0.000	0.000	0.000
IAINTENANCE PERSONNEL	0	0	0	0		0.000		
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
EALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
UPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
TOTAL	0	<u>0</u>	<u>0</u>	<u>0</u>	0.000	0.000	0.000	0.000
PECIAL MAINTENANCE								
IAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
EALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
UPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL					0.000	0.000	0.000	0.000
TOTAL	<u>0</u>	<u>0</u>	<u>o</u>	<u>0</u>	0.000	0.000	0.000	0.000
VASTE PROCESSING								
MAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
PERATIONS PERSONNEL	Ō	0	0	0	0.000	0.000	0.000	0.000
EALTH PHYSICS PERSONNEL	Ö	Ö	Ö	Ö	0.000	0.000	0.000	0.000
UPERVISORY PERSONNEL	ő	0	Ö	ŏ	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	<u>0</u>	0	<u>0</u>	<u>o</u> o	0.000	0.000	0.000	0.000
TOTAL	0	O	0	Ü	0.000	0.000	0.000	0.000
EFUELING IAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
								0.000
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	
EALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
UPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	<u>0</u> 0	<u>0</u>	<u>0</u>	<u>o</u>	0.000	<u>0.000</u>	<u>0.000</u>	0.000
TOTAL	ō	ō	0	ō	0.000	0.000	0.000	0.000
OTAL BY JOB FUNCTION								
IAINTENANCE PERSONNEL	11	0		23	3.800	0.000	2.520	6.320
PERATIONS PERSONNEL	16	0	2	18	3.910	0.000	0.280	4.190
EALTH PHYSICS PERSONNEL	15	0	0	15	3.820	0.000	0.000	3.820
UPERVISORY PERSONNEL	1	Ö	Ō	1	0.150	0.000	0.000	0.150
NGINEERING PERSONNEL	i	ő		i	0.320	0.000	0.000	0.320
GRAND TOTALS	44	0	14	58	12.000	0.000	2.800	14.800

<sup>\*</sup>Workers may be counted in more than one category.

# NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*KEWAUNEE

TYPE:

						TYPE: F	VVIK
NUMBER OF PE	RSON	NEL (>100 mRE	iM)	TOTA	L PERSON-R	EM	
STATION UTIL	.ITY	CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
0	0	0	0	0.000	0.000	0.000	0.000
7	0	0	7	1.188	0.000	0.000	1.188
0	0	0	0				0.000
0							0.000
0	0						0.000
7	ō	Ö	7	1.188	0.000	0.000	1.188
23	2	30		10.390	1.140		27.699
7	0	0	7	2.468	0.000	0.000	2.468
18	0	27	45	11.222	0.000	10.845	22.067
4	0	2	6	1.055	0.000	0.710	1.765
10	0	0	10	3.124	0.000	0.000	3.124
62	2	5 <del>9</del>	123	28.259	1.140	$2\overline{7.724}$	57.123
5	0	0	5	1.140	0.000	0.000	1.140
3	0	Ō		1.244	0.000	0.000	1.244
0	0					0.000	0.000
=							0.120
							3.620
9	ō	12	21	2.504	0.000	3.620	6.124
1	1	83	85	1.010	0.150	32 920	34.080
							0.000
							0.000
-							0.000
							1.610
9	<u>0</u>	00	0				
	1	99	91	1.010	0.150	34.530	35.690
_							
							0.000
•							0.660
_							0.000
							0.000
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>				0.000
1	0	0	1	0.660	0.000	0.000	0.660
				_			
							9.382
							0.000
0			0				0.000
0	0	0	0		0.000	0.000	0.000
<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>		<u>0.000</u>	<u>0.000</u>	0.930
12	2	0	14	9.612	0.700	0.000	10.312
							_
38	5		156	21.222	1.990		72.301
18	0	0	18	5.560	0.000	0.000	5.560
18	. 0	27	45	11.222	0.000	10.845	22.067
5	0	2	7	1.175	0.000	0.710	1.885
13	0	18	31	4.054	0.000	5.230	9.284
92	5	160	257	43.233	1.990	65.874	111.097
	STATION UTIL  0 7 0 0 7 0 0 0 7 18 4 10 62 5 3 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 0 1 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 0 1 0 0 0 0 0 1 0 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 0 1 0 0 0 0 0 1 0 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 0 1 0 0 0 0 0 1 0 0 0 0 0 1 0 0 0 0 0 1 0	STATION         UTILITY           0         0           7         0           0         0           0         0           0         0           0         0           0         0           1         0           0         0           1         0           0         <	STATION         UTILITY         CONTRACT           0         0         0           7         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           18         0         27           4         0         2           10         0         0           0         0         0           0         0         0           1         0         0           0         0         0           1         1         83           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0         0           0         0 <td>0 0 0 0 0 7 0 0 0 0 7 0 0 0 0 0 0 0 0 0</td> <td>  STATION   UTILITY   CONTRACT   TOTAL   STATION    </td> <td>  STATION UTILITY   CONTRACT   TOTAL   STATION UTILITY    </td> <td>  STATION   UTILITY   CONTRACT   TOTAL   STATION   UTILITY   CONTRACT    </td>	0 0 0 0 0 7 0 0 0 0 7 0 0 0 0 0 0 0 0 0	STATION   UTILITY   CONTRACT   TOTAL   STATION	STATION UTILITY   CONTRACT   TOTAL   STATION UTILITY	STATION   UTILITY   CONTRACT   TOTAL   STATION   UTILITY   CONTRACT

<sup>\*</sup>Workers may be counted in more than one category.

# NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*LASALLE 1,2

TYPE:

PLANT: LASALLE 1,2							TYPE: E	SVVIK
VORK AND			NEL (>100 mRE		TOTA	L PERSON-R	REM	
OB FUNCTION	STATION	UTILITY	CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTA
REACTOR OPS & SURV								
MAINTENANCE PERSONNEL	10	1	26	37	4.443	0.048	6.824	11.315
PERATIONS PERSONNEL	121	0	37	158	29.906	0.000	2.427	32.333
EALTH PHYSICS PERSONNEL	45	57	24	126	16.541	1.252	6.019	23.812
SUPERVISORY PERSONNEL	74	0	42	116	5.217	0.000	2.037	7.254
NGINEERING PERSONNEL	48	<u>0</u>	6	<u>54</u>	4.220	0.000	1.111	5.331
TOTAL	298	5 <u>8</u>	135	491	60.327	1.300	18.418	80.045
OUTINE MAINTENANCE								
AINTENANCE PERSONNEL	210	49	1486	1745	96.759	2.246	396.442	495.447
PERATIONS PERSONNEL	30	0	7	37	7.421	3.600	0.438	11.459
EALTH PHYSICS PERSONNEL	39	164	76	279	14.512	0.000	19.435	33.947
UPERVISORY PERSONNEL	200	0	206	406	4.196	0.000	9.833	14.029
					7.898			
NGINEERING PERSONNEL	<u>91</u>	<u>0</u>	<u>248</u>	339		0.000	<u>45.701</u>	53.599
TOTAL	570	213	2023	2806	130.786	5.846	471.849	608.481
N-SERVICE INSPECTION IAINTENANCE PERSONNEL	0	. 0	190	190	0.000	0.000	50.663	50.663
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
EALTH PHYSICS PERSONNEL	0	60	15	75	0.149	1.302	3.897	5.348
UPERVISORY PERSONNEL	7	0	-1	8	0.471	0.000	0.043	0.514
NGINEERING PERSONNEL	<u>8</u>	<u>0</u>	<u>47</u>	<u>55</u>	<u>0.713</u>	0.000	<u>8.754</u>	9.467
TOTAL	<u>8</u> 15	60	253	328	1.333	1.302	63.357	65.992
PECIAL MAINTENANCE								
AINTENANCE PERSONNEL	2	10	57	69	0.863	0.000	15.224	16.087
PERATIONS PERSONNEL	0	0	0	0	0.016	0.000	0.000	0.016
EALTH PHYSICS PERSONNEL	0	0	0	Ö	0.001	0.458	0.005	0.464
UPERVISORY PERSONNEL	1	0	2	3	0.062	0.000	0.072	0.134
NGINEERING PERSONNEL	0	0	0	0	0.000	0.000	0.021	0.021
TOTAL	<u>0</u> 3	<u>0</u> 10	<u>0</u> 59	<u>0</u> 72	0.942	0.458	15.322	16.722
VASTE PROCESSING								
IAINTENANCE PERSONNEL	0	0	19	19	0.077	0.000	4.946	5.023
PERATIONS PERSONNEL	3	0	97	100	0.734	0.000	6.273	7.007
EALTH PHYSICS PERSONNEL	1	1	0	2	0.378	0.018	0.070	0.466
UPERVISORY PERSONNEL	4	0	Ŏ	4	0.317	0.000	0.006	0.323
NGINEERING PERSONNEL	7				0.137	0.000	0.043	0.180
	<u>2</u> 10	<u>0</u> 1	<u>0</u> 116	<u>2</u> 127	0.137 1.643	0.000	11.338	12.999
TOTAL	10		110	121	1.043	0.016	11.330	12.555
EFUELING AINTENANCE PERSONNEL	2	0	34	36	1.085	0.000	9.130	10.215
PERATIONS PERSONNEL	10	0	0	10	2.337	0.000	0.003	2.340
EALTH PHYSICS PERSONNEL	4	58	0	62	1.287	1.257	0.000	2.544
					1.422	0.000	0.000	1.584
UPERVISORY PERSONNEL	20	0	3	23				
NGINEERING PERSONNEL TOTAL	<u>3</u> 39	<u>0</u> 58	<u>42</u> 79	<u>45</u> 176	<u>0.277</u> 6.408	<u>0.000</u> 1.257	<u>7.728</u> 17.023	<u>8.005</u> 24.688
OTAL BY JOB FUNCTION	004	60	4040	2006	102 227	2.204	402 220	500 750
AINTENANCE PERSONNEL	224	60	1812	2096	103.227	2.294	483.229	588.750
PERATIONS PERSONNEL	164	0	141	305	40.414	3.600	9.141	53.155
EALTH PHYSICS PERSONNEL	89	340	115	544	32.868	4.287	29.426	66.581
UPERVISORY PERSONNEL	306	0	254	560	11.685	0.000	12.153	23.838
NGINEERING PERSONNEL	152	0	343	495	13.245	0.000	63.358	76.603
GRAND TOTALS	935	400	2665	4000	201.439	10.181	597.307	808.927

<sup>\*</sup>Workers may be counted in more than one category.

#### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*LIMERICK 1,2

TYPE:

	•						111 -	VVIX
WORK AND	NIIMBED	OF PERSONNEL	(>100 r	mDEM)	TOTA	L PERSON-R	ENA	
JOB FUNCTION	STATION		NTRAC		STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV								
MAINTENANCE PERSONNEL	331	271	1048	1650	15.242	12.357	15.416	43.015
OPERATIONS PERSONNEL	199	29	136	364	13.766	1.462	9.997	25.225
HEALTH PHYSICS PERSONNEL	41	5	22	68	8.660	0.492	1.276	10.428
SUPERVISORY PERSONNEL	9	4	17	30	0.185	0.010	0.145	0.340
INGINEERING PERSONNEL	108	<u>72</u>	20	200	3.893	1.317	0.237	5.447
TOTAL	688	381	1243	2312	41.746	15.638	27.071	84.455
ROUTINE MAINTENANCE								
MAINTENANCE PERSONNEL	66	38	20	124	1.236	0.363	0.077	1.676
OPERATIONS PERSONNEL	26	3	3	32	0.173	0.044	0.006	0.223
HEALTH PHYSICS PERSONNEL	18	0	4	22	0.377	0.000	0.021	0.398
SUPERVISORY PERSONNEL	2	Ö	1	3	0.009	0.000	0.015	0.024
ENGINEERING PERSONNEL	9			12	0.056	0.231	0.000	0.287
TOTAL	121	<u>3</u> 44	<u>0</u> 28	1 <u>93</u>	1.851	0.638	0.119	2.608
101712	121	44	20	100	1.001	0.000	0.113	2.000
IN-SERVICE INSPECTION MAINTENANCE PERSONNEL	0	1	58	59	0.000	0.023	10.353	10.376
OPERATIONS PERSONNEL	0	0	0	0	0.000	0.023	0.000	0.000
HEALTH PHYSICS PERSONNEL	0	0	2	2	0.000	0.000	0.014	0.014
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
ENGINEERING PERSONNEL	<u>o</u> 0	<u>0</u> 1	<u>0</u>	<u>0</u> 61	0.000	0.000	0.000	0.000
TOTAL	0	1 .	60	61	0.000	0.023	10.367	10.390
SPECIAL MAINTENANCE								
MAINTENANCE PERSONNEL	2	7	0	9	0.031	0.242	0.000	0.273
OPERATIONS PERSONNEL	. 0	0	0	0	0.000	0.000	0.000	0.000
HEALTH PHYSICS PERSONNEL	1	0	0	1	0.032	0.000	0.000	0.032
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
ENGINEERING PERSONNEL	<u>0</u> 3	1	0	1	0.000	0.005	0.000	0.005
TOTAL	3	<u>1</u> 8	<u>0</u>	1 <u>1</u>	0.063	0.247	0.000	0.310
WASTE PROCESSING								
MAINTENANCE PERSONNEL	17	30	12	59	0.055	1.259	1.097	2.411
OPERATIONS PERSONNEL	8	2	20	30	0.340	0.003	0.505	0.848
HEALTH PHYSICS PERSONNEL	21	1	1	23	0.796	0.006	0.005	0.807
SUPERVISORY PERSONNEL	0	Ö	1	1	0.000	0.000	0.003	0.007
ENGINEERING PERSONNEL	<u>2</u>	<u>o</u>	1	<u>3</u>	0.008	0.020	0.000	0.028
TOTAL	48	33	35	116	1.199	1.288	1.608	4.095
TOTAL	40	33	33	110	1.199	1.200	1.000	4.033
REFUELING	005	450	F7.4	000	07.500	00.700	54.000	404.000
MAINTENANCE PERSONNEL	205	159	574	938	27.506	22.708	54.092	104.306
OPERATIONS PERSONNEL	116	23	60	199	7.739	1.256	6.862	15.857
HEALTH PHYSICS PERSONNEL	35	2	13	50	4.852	0.583	1.176	6.611
SUPERVISORY PERSONNEL	7	1	9	17	0.164	0.002	0.529	0.695
ENGINEERING PERSONNEL	<u>70</u>	<u>40</u>	<u>8</u>	<u>118</u>	<u>3.231</u>	<u>1.085</u>	<u>0.192</u>	<u>4.508</u>
TOTAL	433	225	664	1322	43.492	25.634	62.851	131.977
TOTAL BY JOB FUNCTION								
MAINTENANCE PERSONNEL	621	(549) 506 (441)	1712	(1576) 2839 (256	66) 44.070	36.952	81.035	162.057
OPERATIONS PERSONNEL	349	(270) 57 (122)		(182) 625 (57		2.765	17.370	42.153
HEALTH PHYSICS PERSONNEL	116	(51) 8 (9)		` '	34) 14.717	1.081	2.492	18.290
SUPERVISORY PERSONNEL	18	(20) 5 (17)		(76) 51 (11		0.012	0.690	1.060
ENGINEERING PERSONNEL	189	(160) 116 (184)		(117) 334 (46	•	2.658	0.429	10.275
GRAND TOTALS	1293	(1050)692 (773)	2030	(1975) 4015 (379	98) 88.351	43.468	102.016	233.835
	. –	, , , , , <del>, , , , , , , , , , , , , , </del>			,			-, -

<sup>\*</sup>Workers may be counted in more than one category. Numbers in parentheses are total numbers of individuals.

# NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*MAINE YANKEE

TYPE:

PLANT: *MAINE YANK	.EE						TYPE: I	PWR
WORK AND	NUMBER O	OF PERSON	INEL (>100 mRE	EM)	TOTA			
JOB FUNCTION	STATION		CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV								
MAINTENANCE PERSONNEL	0	0	0	0	0.242	0.000	0.359	0.601
OPERATIONS PERSONNEL	0	0	0	0	0.072	0.000	0.048	0.120
HEALTH PHYSICS PERSONNEL	0	0	0	0	0.040	0.000	0.015	0.055
SUPERVISORY PERSONNEL	0	0	0	0	0.020	0.000	0.329	0.349
ENGINEERING PERSONNEL	<u>1</u>	0			1.835	0.000	0.000	1.835
TOTAL	1	<u>o</u>	<u>0</u>	<u>1</u>	2.209	0.000	0.751	2.960
ROUTINE MAINTENANCE								
MAINTENANCE PERSONNEL	30	0	37	67	8.141	0.000	10.086	18.227
OPERATIONS PERSONNEL	28	0	3	31	9.405	0.000	1.023	10.428
HEALTH PHYSICS PERSONNEL	16	0	37	53	3.686	0.000	13.530	17.216
SUPERVISORY PERSONNEL	2	0	2	4	0.718	0.000	0.634	1.352
ENGINEERING PERSONNEL	8	0	. <u>1</u>	<u>9</u>	2.870	0.000	0.675	3.545
TOTAL	<u>8</u> 84	<u>o</u>	80	$16\overline{4}$	24.820	0.000	25.948	50.768
N-SERVICE INSPECTION								
MAINTENANCE PERSONNEL	0	0	. 0	0	0.000	0.000	0.000	0.000
OPERATIONS PERSONNEL	.0	0	0	0	0.000	0.000	0.000	0.000
HEALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL					0.012	0.000	0.051	0.063
TOTAL	0	<u>o</u>	<u>0</u>	<u>o</u>	0.012	0.000	0.051	0.063
SPECIAL MAINTENANCE								
MAINTENANCE PERSONNEL	2	0	16	18	1.147	0.000	4.336	5.483
OPERATIONS PERSONNEL	0	0	0	0	0.243	0.000	0.122	0.365
HEALTH PHYSICS PERSONNEL	1	Ō	5	6	0.734	0.000	1.227	1.961
SUPERVISORY PERSONNEL	0	Ō	4	4	0.010	0.000	0.877	0.887
ENGINEERING PERSONNEL					0.152	0.000	0.881	1.033
TOTAL	<u>0</u> 3	0	<u>4</u> 29	$\frac{4}{32}$	2.286	0.000	7.443	9.729
WASTE PROCESSING								
MAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
OPERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
HEALTH PHYSICS PERSONNEL	0	Ō	Ō	Ō	0.000	0.000	0.000	0.000
SUPERVISORY PERSONNEL	0	Ō	Ö	Ō	0.000	0.000	0.000	0.000
ENGINEERING PERSONNEL					0.000	0.000	0.000	0.000
TOTAL	<u>0</u>	<u>o</u>	<u>0</u>	<u>o</u> o	0.000	0.000	0.000	0.000
REFUELING								
MAINTENANCE PERSONNEL	0	0	0	0	0.050	0.000	0.010	0.060
OPERATIONS PERSONNEL	Ō	0	0	0	0.000	0.000	0.000	0.000
HEALTH PHYSICS PERSONNEL	ő	Ö	Ŏ	Õ	0.000	0.000	0.000	0.000
SUPERVISORY PERSONNEL	ő	Ö	Ö	Ö	0.000	0.000	0.005	0.005
ENGINEERING PERSONNEL				Ô	0.000	0.000	0.000	0.000
TOTAL	<u>0</u>	<u>0</u>	<u>o</u>	<u>o</u>	0.050	0.000	0.015	0.065
TOTAL BY JOB FUNCTION								
MAINTENANCE PERSONNEL	32	0	53	85	9.580	0.000	14.791	24.371
OPERATIONS PERSONNEL	28	0	3	31	9.720	0.000	1.193	10.913
HEALTH PHYSICS PERSONNEL	17	0	42	59	4.460	0.000	14,772	19.232
SUPERVISORY PERSONNEL	2	0	6	8	0.748	0.000	1.845	2.593
ENGINEERING PERSONNEL	9	. 0	5	14	4.869	0.000	1.607	6.476
GRAND TOTALS	88	0	109	197	29.377	0.000	34.208	63.585
GIVAND TOTALS	00	U	109	131	25.311	0.000	J-4.200	00.000

<sup>\*</sup>Workers may be counted in more than one category.

# NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*MCGUIRE 1,2

TYPE:

								1175. 1	
WORK AND	NUMBER (	OF PERSONN	IEL (>100 n	nREM)		TOTA	L PERSON-R	REM	
JOB FUNCTION	STATION		CONTRAC			STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV									
MAINTENANCE PERSONNEL	132	255	168	555		0.937	0.248	0.181	1.366
OPERATIONS PERSONNEL	50	2	23	75		1.883	0.041	1.195	3.119
HEALTH PHYSICS PERSONNEL	14	0	32	46		0.934	0.000	0.447	1.381
SUPERVISORY PERSONNEL	1	0	1	2		0.011	0.000	0.000	0.011
ENGINEERING PERSONNEL	<u>6</u>	<u>0</u>	<u>5</u>	<u>11</u>		0.119	0.000	0.768	0.887
TOTAL	203	257	229	689		3.884	0.289	2.591	6.764
ROUTINE MAINTENANCE						•			
MAINTENANCE PERSONNEL	132	254	168	554		36.030	78.950	42.166	157.146
OPERATIONS PERSONNEL	55	2	26	83		6.305	0.209	6.443	12.957
HEALTH PHYSICS PERSONNEL	14	0	32	46		1.840	0.000	4.699	6.539
SUPERVISORY PERSONNEL	1	0	0	1		0.196	0.000	0.000	0.196
ENGINEERING PERSONNEL	<u>6</u>	0	<u>3</u>	9		1.159	0.000	0.495	1.654
TOTAL	208	25 <del>6</del>	22 <u>9</u>	69 <del>3</del>		45.530	79.159	53.803	178.492
	200	200	220	000		10.000	70.100	00.000	170.402
IN-SERVICE INSPECTION MAINTENANCE PERSONNEL	30	22	18	70		0.294	0.800	0.112	1.206
OPERATIONS PERSONNEL	1	0	0	1		0.006	0.000	0.000	0.006
HEALTH PHYSICS PERSONNEL	1	Ō	3	4		0.000	0.000	0.013	0.013
SUPERVISORY PERSONNEL	o O	Ö	ő	o O		0.000	0.000	0.000	0.000
ENGINEERING PERSONNEL	1		0			0.007	0.000	0.000	0.007
TOTAL	33	<u>0</u> 22	<u>0</u> 21	<u>1</u> 76		0.307	0.800	0.125	1.232
SPECIAL MAINTENANCE									
MAINTENANCE PERSONNEL	65	48	22	135		0.843	1.047	0.405	2.295
OPERATIONS PERSONNEL	5	0	12	17		0.080	0.000	0.666	0.746
HEALTH PHYSICS PERSONNEL	10	ő	10	20		0.432	0.000	0.048	0.480
SUPERVISORY PERSONNEL	0	0	0	0		0.000	0.000	0.000	0.000
ENGINEERING PERSONNEL				<u>2</u>		0.000	0.000	0.000	0.000
TOTAL	<u>2</u> 82	<u>0</u> 48	<u>0</u> 44	<u>∠</u> 174		1.355	1.047	<u>0.000</u> 1.119	3.521
	02	40	44	174		1.555	1.047	1.119	3.521
WASTE PROCESSING MAINTENANCE PERSONNEL	0	1	0	1		0.000	0.000	0.000	0.000
OPERATIONS PERSONNEL	1	0	17	18		0.003	0.000	0.000	0.000
HEALTH PHYSICS PERSONNEL	2	0	0	2		0.005	0.000	0.000	0.113
SUPERVISORY PERSONNEL	0	0	0	0		0.005	0.000		0.003
								0.000	
ENGINEERING PERSONNEL	<u>0</u> 3	<u>0</u> 1	<u>0</u> 17	<u>0</u> 21		0.000	0.000	0.000	0.000
TOTAL	3	ı	17	21		0.008	0.000	0.110	0.118
REFUELING MAINTENANCE PERSONNEL	A	. 34	0	. 20		0.042	0.126	0.000	0 170
OPERATIONS PERSONNEL	4	24	0	28			0.136	0.000	0.178
	0	0	0	0		0.000	0.000	0.000	0.000
HEALTH PHYSICS PERSONNEL	3	0	4	7		0.003	0.000	0.004	0.007
SUPERVISORY PERSONNEL	0	0	0	0		0.000	0.000	0.000	0.000
ENGINEERING PERSONNEL TOTAL	<u>0</u> 7	<u>0</u> 24	<u>0</u> 4	<u>0</u> 35		<u>0.000</u> 0.045	<u>0.000</u> 0.136	<u>0.000</u> 0.004	0.000 0.185
TOTAL BY JOB FUNCTION	000	(400) 004 (0	(EE) 070	(400) 4040	(FFF)	20.440	04.404	40.004	400 404
MAINTENANCE PERSONNEL	363	(132)604 (2	,	(168) 1343	(555)	38.146	81.181	42.864	162.191
OPERATIONS PERSONNEL	112	(55) 4	(2) 78	(26) 194	(83)	8.277	0.250	8.414	16.941
HEALTH PHYSICS PERSONNEL	44	(14) 0	(0) 81	(32) 125	(46)	3.214	0.000	5.211	8.425
SUPERVISORY PERSONNEL	2	(1) 0	(0) 1	(1) 3	(2)	0.207	0.000	0.000	0.207
ENGINEERING PERSONNEL	15	(6) 0	(0) 8	(5) 23	(11)	1.285	0.000	1.263	2.548
GRAND TOTALS	536	(208) 608 (2	257) 544	(232) 1688	(697)	51.129	81.431	57.752	190.312

<sup>\*</sup>Workers may be counted in more than one category. Numbers in parentheses are total numbers of individuals.

#### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*MILLSTONE POINT 1

TYPE:

VORK AND	NUMBER C	F PERSONN	EL (>100 mRI	EM)	TOTA			
OB FUNCTION	STATION		CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTA
REACTOR OPS & SURV_								
MAINTENANCE PERSONNEL	25	8	119	152	1.295	0.034	1.815	3.144
PERATIONS PERSONNEL	46	0	10	56	6.809	0.000	0.931	7.740
EALTH PHYSICS PERSONNEL	39	. 2	39	80	4.361	0.525	5.914	10.800
SUPERVISORY PERSONNEL	0	0	1	1	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	<u>5</u>	4	<u>6</u>	<u>15</u>	0.016	0.028	0.006	0.050
TOTAL	115	1 <u>4</u> 14	17 <del>5</del>	304	12.481	0.587	8.666	21.734
OUTINE MAINTENANCE								
IAINTENANCE PERSONNEL	63	37	400	500	2.965	0.411	13.340	16.716
PERATIONS PERSONNEL	16	0	4	20	0.019	0.000	0.010	0.029
EALTH PHYSICS PERSONNEL	6	0	33	39	0.582	0.000	1.577	2.159
UPERVISORY PERSONNEL	0	0	5	5	0.000	0.000	0.107	0.107
NGINEERING PERSONNEL	<u>11</u>	<u>8</u> 45	<u>41</u>	<u>60</u>	<u>0.160</u>	<u>0.186</u>	0.727	1.073
TOTAL	96	45	483	624	3.726	0.597	15.761	20.084
I-SERVICE INSPECTION		_		_		,		<i>-</i>
AINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
EALTH PHYSICS PERSONNEL	0	0	. 0	0	0.000	0.000	0.000	0.000
UPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	<u>0</u>	<u>o</u>	<u>0</u> 0	<u>0</u> 0	0.000	0.000	0.000	0.000
TOTAL	ō	ō	ō	ō	0.000	0.000	0.000	0.000
PECIAL MAINTENANCE								
AINTENANCE PERSONNEL	53	37	481	571	10.061	5.357	263.476	278.894
PERATIONS PERSONNEL	24	0	11	35	1.620	0.000	1.708	3.328
EALTH PHYSICS PERSONNEL	36	1	46	83	5.461	0.085	16.064	21.610
UPERVISORY PERSONNEL	0	. 0	5	5	0.000	0.000	2.023	2.023
NGINEERING PERSONNEL	<u>13</u>	<u>11</u> 49	<u>59</u>	<u>83</u>	<u>1.796</u>	<u>2.333</u>	<u> 29.945</u>	<u>34.074</u>
TOTAL	126	49	602	777	18.938	7.775	313.216	339.929
VASTE PROCESSING					0.400	0.004		0.405
IAINTENANCE PERSONNEL	63	26	268	357	2.468	0.061	3.966	6.495
PERATIONS PERSONNEL	20	0	11	31	0.000	0.000	0.520	0.520
EALTH PHYSICS PERSONNEL	25	0	31	56	0.882	0.000	1.329	2.211
UPERVISORY PERSONNEL	0	0	2	2	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	<u>6</u>	<u>1</u> 27	<u>12</u>	<u>19</u>	<u>0.000</u>	<u>0.001</u>	<u>0.002</u>	0.003
TOTAL	114	27	324	465	3.350	0.062	5.817	9.229
EFUELING	**				2011	0.046	0.007	0.051
AINTENANCE PERSONNEL	26	8	32	66	0.311	0.016	2.327	2.654
PERATIONS PERSONNEL	3	0	0	3	0.040	0.000	0.000	0.040
EALTH PHYSICS PERSONNEL	6	0	9	15	0.107	0.000	0.232	0.339
UPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	<u>1</u> 36	<u>1</u> 9	<u>3</u> 44	<u>5</u>	<u>0.002</u>	0.007	0.002	0.011
TOTAL	36	9	44	89	0.460	0.023	2.561	3.044
OTAL BY JOB FUNCTION			4000	10.15	1 m 1 a c	F 075	004.004	007.000
AINTENANCE PERSONNEL	230	116	1300	1646	17.100	5.879	284.924	307.903
PERATIONS PERSONNEL	109	0	36	145	8.488	0.000	3.169	11.657
EALTH PHYSICS PERSONNEL	112	3	158	273	11.393	0.610	25.116	37.119
JPERVISORY PERSONNEL	0	0	13	13	0.000	0.000	2.130	2.130
NGINEERING PERSONNEL	36	25	121	182	1.974	2.555	30.682	35.211
GRAND TOTALS	487	144	1628	2259	38.955	9.044	346.021	394.020

<sup>\*</sup>Workers may be counted in more than one category.

#### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*MILLSTONE POINT 2,3

TYPE:

REACTOR OPS & SURV MAINTENANCE PERSONNEL SUPERVISORY PERSONNEL TOTAL  REALTH PHYSICS PERSONNEL SUPERVISORY PERSONNEL TOTAL  ROUTINE MAINTENANCE MAINTENANCE PERSONNEL TOTAL  REALTH PHYSICS PERSONNEL SUPERVISORY PERSONNEL TOTAL  REALTH PHYSICS PERSONNEL SUPERVISORY PERSONNEL TOTAL  REPECIAL MAINTENANCE MAINTENANCE PERSONNEL SUPERATIONS PERSONNEL SUPERATIONS PERSONNEL SUPERATIONS PERSONNEL SUPERATIONS PERSONNEL SUPERATIONS PERSONNEL SUPERATIONS PERSONNEL TOTAL  REPECIAL MAINTENANCE MAINTENANCE PERSONNEL SUPERVISORY PERSONNEL TOTAL  REPUBLING MAINTENANCE PERSONNEL SUPERVISORY PERSONNEL TOTAL  REFUELING MAINTENANCE PERSONNEL SUPERVISORY PERSONNEL SUPERVISORY PERSONNEL SUPERVISORY PERSONNEL TOTAL  REFUELING MAINTENANCE PERSONNEL SUPERVISORY PERSONNEL SUPERVISORY PERSONNEL TOTAL  REFUELING MAINTENANCE PERSONNEL SUPERVISORY PERSONNEL SUPERVISORY PERSONNEL SUPERVISORY PERSONNEL TOTAL  REFUELING MAINTENANCE PERSONNEL SUPERVISORY PERSONNEL SUPERVISORY PERSONNEL SUPERVISORY PERSONNEL SUPERVISORY PERSONNEL TOTAL  REFUELING MAINTENANCE PERSONNEL SUPERVISORY SUPERVISORY SUPERVISORY SUPERVISORY SUPERV		429 11 46 3 29 518  324 4 20 2 21 371	580 57 120 3 46 806	TOTAL STATION  4.453 10.290 8.710 0.000 1.130 24.583  5.738 0.417 0.683 0.000 0.418	0.662 0.000 0.000 0.000 0.173 0.835	1.881 0.220 3.038 1.287 0.055 6.481	6.996 10.510 11.748 1.287 1.358 31.899
EACTOR OPS & SURV IAINTENANCE PERSONNEL 107 PERATIONS PERSONNEL 46 IEALTH PHYSICS PERSONNEL 0 NGINEERING PERSONNEL 15 TOTAL 242  OUTINE MAINTENANCE IAINTENANCE PERSONNEL 12 PERATIONS PERSONNEL 13 IEALTH PHYSICS PERSONNEL 10 NGINEERING PERSONNEL 10 NGINEERING PERSONNEL 10 NGINEERING PERSONNEL 10 TOTAL 121  I-SERVICE INSPECTION IAINTENANCE PERSONNEL 9 PERATIONS PERSONNEL 9 PERATIONS PERSONNEL 10 NGINEERING PERSONNEL 10 IAINTENANCE PERSONNEL 10 NGINEERING PERSONNEL 11 TOTAL 26  PECIAL MAINTENANCE IAINTENANCE PERSONNEL 11 TOTAL 159  VASTE PROCESSING IAINTENANCE PERSONNEL 13 TOTAL 159  VASTE PROCESSING IAINTENANCE PERSONNEL 17 IEALTH PHYSICS PERSONNEL 18 IEALTH PHYSICS PERSONNEL 18 IEALTH PHYSICS PERSONNEL 18 IEALTH P	44 0 0 0 2 46 38 0 0 0 0 4 42	429 11 46 3 29 518	580 57 120 3 46 806	4.453 10.290 8.710 0.000 1.130 24.583 5.738 0.417 0.683 0.000	0.662 0.000 0.000 0.000 0.173 0.835 1.115 0.000 0.000	1.881 0.220 3.038 1.287 <u>0.055</u> 6.481	6.996 10.510 11.748 1.287 <u>1.358</u> 31.899
IAINTENANCE PERSONNEL PERATIONS PERSONNEL PERATIONS PERSONNEL UPERVISORY PERSONNEL UPERVISORY PERSONNEL TOTAL  OUTINE MAINTENANCE IAINTENANCE PERSONNEL PERATIONS PERSONNEL UPERVISORY PERSONNEL UPERVISORY PERSONNEL UPERVISORY PERSONNEL UPERVISORY PERSONNEL UPERVISORY PERSONNEL UPERVICE INSPECTION IAINTENANCE PERSONNEL UPERVISORY PERSONNEL UPERV	0 0 0 2 46 38 0 0 0 4 42	11 46 3 29 518 324 4 20 2	57 120 3 46 806 434 17 46 2 35	10.290 8.710 0.000 1.130 24.583 5.738 0.417 0.683 0.000	0.000 0.000 0.000 <u>0.173</u> 0.835 1.115 0.000 0.000	0.220 3.038 1.287 <u>0.055</u> 6.481	10.510 11.748 1.287 <u>1.358</u> 31.899
PERATIONS PERSONNEL EALTH PHYSICS PERSONNEL UPERVISORY PERSONNEL UPERVISORY PERSONNEL TOTAL  OUTINE MAINTENANCE AINTENANCE PERSONNEL PERATIONS PERSONNEL PERATIONS PERSONNEL EALTH PHYSICS PERSONNEL UPERVISORY PERSONNEL TOTAL  ISSERVICE INSPECTION AINTENANCE PERSONNEL PERATIONS PERSONNEL UPERVISORY PERSONNEL FOR PERSONNEL UPERVISORY PERSONNEL UPERVISORY PERSONNEL UPERVISORY PERSONNEL TOTAL  PECIAL MAINTENANCE AINTENANCE PERSONNEL TOTAL  PECIAL MAINTENANCE AINTENANCE PERSONNEL UPERVISORY PE	0 0 0 2 46 38 0 0 0 4 42	11 46 3 29 518 324 4 20 2	57 120 3 46 806 434 17 46 2 35	10.290 8.710 0.000 1.130 24.583 5.738 0.417 0.683 0.000	0.000 0.000 0.000 <u>0.173</u> 0.835 1.115 0.000 0.000	0.220 3.038 1.287 <u>0.055</u> 6.481	10.510 11.748 1.287 <u>1.358</u> 31.899
EALTH PHYSICS PERSONNEL UPERVISORY PERSONNEL UNGINEERING PERSONNEL TOTAL  OUTINE MAINTENANCE AINTENANCE PERSONNEL EALTH PHYSICS PERSONNEL UPERVISORY PERSONNEL EALTH PHYSICS PERSONNEL UPERVISORY PERSONNEL TOTAL  ISERVICE INSPECTION AINTENANCE PERSONNEL EALTH PHYSICS PERSONNEL UPERVISORY PERSONNEL EALTH PHYSICS PERSONNEL UPERVISORY PERSONNEL UPERVISORY PERSONNEL UPERVISORY PERSONNEL TOTAL  PECIAL MAINTENANCE AINTENANCE PERSONNEL UPERVISORY PERSONNEL EALTH PHYSICS PERSONNEL UPERVISORY PERSONNEL EALTH PHYSICS PERSONNEL UPERVISORY PERSONNEL EALTH PHYSICS PERSONNEL UPERVISORY PERSONNEL UPERVISORY PERSONNEL UPERVISORY PERSONNEL EALTH PHYSICS PERSONNEL UPERVISORY PERSONNEL UPERVIS	0 0 2 46 38 0 0 0 4 42	46 3 29 518 324 4 20 2 21	120 3 46 806 434 17 46 2 35	8.710 0.000 1.130 24.583 5.738 0.417 0.683 0.000	0.000 0.000 <u>0.173</u> 0.835 1.115 0.000 0.000	3.038 1.287 <u>0.055</u> 6.481	11.748 1.287 <u>1.358</u> 31.899
UPERVISORY PERSONNEL NGINEERING PERSONNEL TOTAL  OUTINE MAINTENANCE AINTENANCE PERSONNEL PERATIONS PERSONNEL UPERVISORY PERSONNEL UPERVISORY PERSONNEL ISERVICE INSPECTION AINTENANCE PERSONNEL PERATIONS PERSONNEL UPERVISORY PERSONNEL UPERVISORY PERSONNEL UPERVISORY PERSONNEL EALTH PHYSICS PERSONNEL UPERVISORY PERSONNEL UPER	0 2 46 38 0 0 0 4 42	3 29 518 324 4 20 2 21	3 46 806 434 17 46 2 35	0.000 1.130 24.583 5.738 0.417 0.683 0.000	0.000 <u>0.173</u> 0.835 1.115 0.000 0.000	1.287 0.055 6.481	1.287 <u>1.358</u> 31.899
NGINEERING PERSONNEL TOTAL  DUTINE MAINTENANCE AINTENANCE PERSONNEL PERATIONS PERSONNEL JEALTH PHYSICS PERSONNEL TOTAL  SERVICE INSPECTION AINTENANCE PERSONNEL PERATIONS PERSONNEL JERVISORY PERSONNEL SERVICE INSPECTION AINTENANCE PERSONNEL PERATIONS PERSONNEL JERVISORY PERSONNEL JUPERVISORY PERSONNEL TOTAL  PECIAL MAINTENANCE AINTENANCE PERSONNEL TOTAL  PECIAL MAINTENANCE AINTENANCE PERSONNEL JUPERVISORY PERSONNEL FALTH PHYSICS PERSONNEL JUPERVISORY PERSONNEL FALTH PHYSICS PERSONNEL JUPERVISORY PERSONNEL JUPERVISORY PERSONNEL TOTAL  ASTE PROCESSING AINTENANCE PERSONNEL JUPERVISORY PERSON	2 46 38 0 0 0 4 42	29 518 324 4 20 2 21	46 806 434 17 46 2 35	1.130 24.583 5.738 0.417 0.683 0.000	0.173 0.835 1.115 0.000 0.000	0.055 6.481 6.941	<u>1.358</u> 31.899
TOTAL  DUTINE MAINTENANCE AINTENANCE PERSONNEL PERATIONS PERSONNEL PERSONNEL PERSONNEL PERSONNEL PERSONNEL TOTAL  SERVICE INSPECTION AINTENANCE PERSONNEL PERSONNEL PERSONNEL PERSONNEL TOTAL  SERVICE INSPECTION AINTENANCE PERSONNEL PERSONNEL PERSONNEL PERSONNEL TOTAL  PECIAL MAINTENANCE AINTENANCE PERSONNEL PERSONNE	38 0 0 0 4 42	518 324 4 20 2 2	806 434 17 46 2 35	5.738 0.417 0.683 0.000	0.835 1.115 0.000 0.000	6.481 6.941	31.899
TOTAL  DUTINE MAINTENANCE AINTENANCE PERSONNEL PERATIONS PERSONNEL DIFERVISORY PERSONNEL TOTAL  SERVICE INSPECTION AINTENANCE PERSONNEL PERATIONS PERSONNEL FALTH PHYSICS PERSONNEL TOTAL  DIGINEERING PERSONNEL FALTH PHYSICS PERSONNEL TOTAL  PECIAL MAINTENANCE AINTENANCE PERSONNEL TOTAL  PECIAL MAINTENANCE AINTENANCE PERSONNEL TOTAL  PECIAL MAINTENANCE AINTENANCE PERSONNEL TOTAL  PERSONNEL TOTAL  DIPERVISORY PERSONNEL TOTAL  ASTE PROCESSING AINTENANCE PERSONNEL DIPERVISORY PERSONNEL DIPERVISORY PERSONNEL TOTAL  DIPERVISORY PERSONNEL TOTAL  DIPERVISORY PERSONNEL	38 0 0 0 4 42	518 324 4 20 2 2	806 434 17 46 2 35	5.738 0.417 0.683 0.000	0.835 1.115 0.000 0.000	6.481 6.941	31.899
AINTENANCE PERSONNEL PERATIONS PERSONNEL PERATIONS PERSONNEL PERVISORY PERSONNEL PERVISORY PERSONNEL PERVICE INSPECTION AINTENANCE PERSONNEL PERATIONS PERSONNEL PERVISORY PERSONNEL PERVI	0 0 0 4 42	4 20 2 <u>21</u>	17 46 2 <u>35</u>	0.417 0.683 0.000	0.000 0.000		13.794
PERATIONS PERSONNEL EALTH PHYSICS PERSONNEL JPERVISORY PERSONNEL IO NGINEERING PERSONNEL TOTAL  SERVICE INSPECTION AINTENANCE PERSONNEL EALTH PHYSICS PERSONNEL FOR AINTENANCE PERSONNEL FOR AINTENANCE PERSONNEL FOR AINTENANCE PERSONNEL TOTAL  PECIAL MAINTENANCE AINTENANCE PERSONNEL FOR AINTENANCE PERSONNEL TOTAL  ASTE PROCESSING AINTENANCE PERSONNEL FOR AINTENANCE PERSONNEL TOTAL  ASTE PROCESSING AINTENANCE PERSONNEL FOR AINTENANCE PERSONNEL TOTAL  FOR AINTENANCE TOTAL  13  FOR AINTENANCE TOTAL  13  14  15  15  16  17  17  18  19  10  10  10  10  10  10  10  10  10	0 0 0 4 42	4 20 2 <u>21</u>	17 46 2 <u>35</u>	0.417 0.683 0.000	0.000 0.000		13.794
EALTH PHYSICS PERSONNEL JPERVISORY PERSONNEL ORGINEERING PERSONNEL TOTAL  SERVICE INSPECTION AINTENANCE PERSONNEL EALTH PHYSICS PERSONNEL JPERVISORY PERSONNEL TOTAL  PECIAL MAINTENANCE AINTENANCE PERSONNEL TOTAL  PECIAL MAINTENANCE AINTENANCE PERSONNEL JPERVISORY PERSONNEL JPERVISORY PERSONNEL TOTAL  PECIAL MAINTENANCE AINTENANCE PERSONNEL JPERVISORY PERSONNEL TOTAL  ASTE PROCESSING AINTENANCE PERSONNEL JPERVISORY PERSONNEL JPERVISORY PERSONNEL JPERVISORY PERSONNEL JPERVISORY PERSONNEL AITTENANCE PERSONNEL JPERVISORY PERSONNEL TOTAL  EFUELING AINTENANCE PERSONNEL JPERVISORY PERSONNEL TOTAL  ASTERBALTH PHYSICS PERSONNEL JPERVISORY PERSONNEL AITTENANCE PERSONNEL JPERVISORY PERSONNEL AITTENANCE PERSONNEL AITT	0 0 0 4 42	20 2 <u>21</u>	46 2 <u>35</u>	0.683 0.000	0.000	0.000	
EALTH PHYSICS PERSONNEL JPERVISORY PERSONNEL ORGINEERING PERSONNEL TOTAL  SERVICE INSPECTION AINTENANCE PERSONNEL EALTH PHYSICS PERSONNEL JPERVISORY PERSONNEL TOTAL  PECIAL MAINTENANCE AINTENANCE PERSONNEL FALTH PHYSICS PERSONNEL TOTAL  PECIAL MAINTENANCE AINTENANCE PERSONNEL FALTH PHYSICS PERSONNEL JPERVISORY PERSONNEL TOTAL  PECIAL MAINTENANCE AINTENANCE PERSONNEL JPERVISORY PERSONNEL TOTAL  ASTE PROCESSING AINTENANCE PERSONNEL JPERVISORY PERSONNEL TOTAL  ASTE PROCESSING AINTENANCE PERSONNEL JPERVISORY PERSONNEL JPERVISORY PERSONNEL JPERVISORY PERSONNEL TOTAL  ASTELLING AINTENANCE PERSONNEL JPERVISORY PERSONNEL AINTENANCE PERSONNEL JPERVISORY PERSONNEL AINTENANCE PERSONNEL AINTENA	0 0 4 42	2 <u>21</u>	46 2 <u>35</u>	0.683 0.000	0.000		0.417
JPERVISORY PERSONNEL  GIGINEERING PERSONNEL  TOTAL  SERVICE INSPECTION AINTENANCE PERSONNEL  EALTH PHYSICS PERSONNEL  JPERVISORY PERSONNEL  GINEERING PERSONNEL  AINTENANCE PERSONNEL  PECIAL MAINTENANCE AINTENANCE PERSONNEL  JPERVISORY PERSONNEL  GALTH PHYSICS PERSONNEL  JPERVISORY PERSONNEL  JPERVISORY PERSONNEL  GALTH PHYSICS PERSONNEL  JPERVISORY PERSONNEL  TOTAL  ASTE PROCESSING AINTENANCE PERSONNEL  JOHN JOHN JOHN JOHN JOHN JOHN JOHN JOHN	0 4 42	2 <u>21</u>	2 <u>35</u>	0.000		0.250	0.933
AGINEERING PERSONNEL TOTAL  SERVICE INSPECTION AINTENANCE PERSONNEL PERATIONS PERSONNEL SALTH PHYSICS PERSONNEL TOTAL  PECIAL MAINTENANCE AINTENANCE PERSONNEL SALTH PHYSICS PERSONNEL PERATIONS PERSONNEL SALTH PHYSICS PERSONNEL SALTH PHYSICS PERSONNEL SALTH PHYSICS PERSONNEL SALTH PHYSICS PERSONNEL TOTAL  ASTE PROCESSING AINTENANCE PERSONNEL TOTAL  ASTE PROCESSING AINTENANCE PERSONNEL SALTH PHYSICS PERSONNEL TOTAL  SEFUELING AINTENANCE PERSONNEL TOTAL  SEFUELING AINTENANCE PERSONNEL TOTAL  SEFUELING AINTENANCE PERSONNEL TOTAL  SALTH PHYSICS PERSONNEL TOTAL	4 <u>2</u>	<u>21</u>	<u>35</u>		0.000	0.008	0.008
TOTAL 121  -SERVICE INSPECTION AINTENANCE PERSONNEL 9 PERATIONS PERSONNEL 4 EALTH PHYSICS PERSONNEL 5 TOTAL 26  PECIAL MAINTENANCE AINTENANCE PERSONNEL 21 EALTH PHYSICS PERSONNEL 37 JPERVISORY PERSONNEL 21 EALTH PHYSICS PERSONNEL 37 JPERVISORY PERSONNEL 13 TOTAL 159  ASTE PROCESSING AINTENANCE PERSONNEL 17 EALTH PHYSICS PERSONNEL 21 TOTAL 113  EFUELING AINTENANCE PERSONNEL 22 TOTAL 113  EFUELING AINTENANCE PERSONNEL 23 PERATIONS PERSONNEL 24 EALTH PHYSICS PERSONNEL 27 JPERVISORY PERSONNEL 4 EALTH PHYSICS PERSONNEL 7 JPERVISORY PERSONNEL 7 JPERVISORY PERSONNEL 17 JPERVISORY PERSONNEL 18 JPERVISORY PERSONNE				U.410	0.142	0.35 <u>6</u>	0.008
SERVICE INSPECTION AINTENANCE PERSONNEL 9 PERATIONS PERSONNEL 4 EALTH PHYSICS PERSONNEL 5 IPERVISORY PERSONNEL 5 TOTAL 26  PECIAL MAINTENANCE AINTENANCE PERSONNEL 21 EALTH PHYSICS PERSONNEL 37 IPERVISORY PERSONNEL 37 IPERVISORY PERSONNEL 13 TOTAL 159  ASTE PROCESSING AINTENANCE PERSONNEL 17 EALTH PHYSICS PERSONNEL 2 IPERVISORY PERSONNEL 2 INGINEERING PERSONNEL 34 INGINEERING PERSONNEL 2 INGINEERING PERSONNEL 34 INGINEERING PERSONNEL 36 INGINEERING PERSONNEL 3		3/1	5.54				
AINTENANCE PERSONNEL PERATIONS PERSONNEL EALTH PHYSICS PERSONNEL IGINEERING PERSONNEL TOTAL  PECIAL MAINTENANCE AINTENANCE PERSONNEL EALTH PHYSICS PERSONNEL EALTH PHYSICS PERSONNEL EALTH PHYSICS PERSONNEL IGINEERING PERSONNEL EALTH PHYSICS PERSONNEL IGINEERING PERSONNEL IGINEERING PERSONNEL IGINEERING PERSONNEL EALTH PHYSICS PERSONNEL IGINEERING PERSONNEL EALTH PHYSICS PERSONNEL ITOTAL  PERSONNEL ITOTAL  EFUELING AINTENANCE PERSONNEL ITOTAL  EFUE	27		<b>55</b> 4	7.256	1.257	7.555	16.068
PERATIONS PERSONNEL EALTH PHYSICS PERSONNEL DIPERVISORY PERSONNEL ONGINEERING PERSONNEL TOTAL  PECIAL MAINTENANCE AINTENANCE PERSONNEL EALTH PHYSICS PERSONNEL EALTH PHYSICS PERSONNEL TOTAL  ASTE PROCESSING AINTENANCE PERSONNEL TOTAL  ASTE PROCESSING AINTENANCE PERSONNEL EALTH PHYSICS PERSONNEL TOTAL  ASTE PROCESSING AINTENANCE PERSONNEL EALTH PHYSICS PERSONNEL TOTAL  EFUELING AINTENANCE PERSONNEL TOTAL  EFUELING AINTENANCE PERSONNEL TOTAL  EFUELING AINTENANCE PERSONNEL EALTH PHYSICS PERSONNEL TOTAL  EFUELING AINTENANCE PERSONNEL EALTH PHYSICS PERSONNEL TOTAL  EFUELING AINTENANCE PERSONNEL TOTAL  EFUELING AINTENANCE PERSONNEL TOTAL  EFUELING AINTENANCE PERSONNEL TOTAL  EFUELING AINTENANCE PERSONNEL TOTAL  AINTENANCE PERSONNEL TOTAL  EGALTH PHYSICS PERSONNEL TOTAL  AINTENANCE P	41	147	183	0.102	2.303	2.564	4.969
EALTH PHYSICS PERSONNEL JPERVISORY PERSONNEL GINEERING PERSONNEL TOTAL  PECIAL MAINTENANCE AINTENANCE PERSONNEL PERATIONS PERSONNEL EALTH PHYSICS PERSONNEL JUPERVISORY PERSONNEL TOTAL  ASTE PROCESSING AINTENANCE PERSONNEL TOTAL  ASTE PROCESSING AINTENANCE PERSONNEL EALTH PHYSICS PERSONNEL JUPERVISORY PERSONNEL EALTH PHYSICS PERSONNEL JUPERVISORY PERSONNEL JUPERVISORY PERSONNEL JUPERVISORY PERSONNEL TOTAL  EFUELING AINTENANCE PERSONNEL JUPERVISORY PERSONNEL EALTH PHYSICS PERSONNEL TOTAL  EFUELING AINTENANCE PERSONNEL JUPERVISORY PERSONNEL EALTH PHYSICS PERSONNEL JUPERVISORY PERSONNEL JUPE	0						0.086
DIPERVISORY PERSONNEL NGINEERING PERSONNEL TOTAL  PECIAL MAINTENANCE AINTENANCE PERSONNEL PERATIONS PERSONNEL SALTH PHYSICS PERSONNEL TOTAL  ASTE PROCESSING AINTENANCE PERSONNEL TOTAL  ASTE PROCESSING AINTENANCE PERSONNEL PERATIONS PERSONNEL SALTH PHYSICS PERSONNEL FALTH PHYSICS PERSONNEL FEALTH PHYSICS PERSONNEL DIPERVISORY PERSONNEL SALTH PHYSICS PERSONNEL TOTAL  EFUELING AINTENANCE PERSONNEL TOTAL  EFUELING AINTENANCE PERSONNEL TOTAL  EFUELING AINTENANCE PERSONNEL TOTAL  EFUELING AINTENANCE PERSONNEL FEALTH PHYSICS PERSONNEL TOTAL  AGRICATIONS PERSONNEL FEALTH PHYSICS PERSONNEL FEALTH PHYSICS PERSONNEL TOTAL  AGRICATIONS PERSONNEL	0	4	8	0.080	0.000	0.006	
NGINEERING PERSONNEL TOTAL  PECIAL MAINTENANCE AINTENANCE PERSONNEL PERATIONS PERSONNEL FALTH PHYSICS PERSONNEL TOTAL  ASTE PROCESSING AINTENANCE PERSONNEL TOTAL  ASTE PROCESSING AINTENANCE PERSONNEL PERATIONS PERSONNEL FALTH PHYSICS PERSONNEL FALTH PHYSICS PERSONNEL FEALTH PHYSICS PERSONNEL FEALTH PHYSICS PERSONNEL FOR AINTENANCE PERSONNEL FEALTH PHYSICS PERSONNEL TOTAL  EFUELING AINTENANCE PERSONNEL FOR AINTENANCE PERSONNEL TOTAL  EFUELING AINTENANCE PERSONNEL FEALTH PHYSICS PERSONNEL FEALTH PHYSICS PERSONNEL FEALTH PHYSICS PERSONNEL FOR AINTENANCE PERSONNEL FOR	0	2	10	0.089	0.000	0.001	0.090
PECIAL MAINTENANCE AINTENANCE PERSONNEL 88 PERATIONS PERSONNEL 21 FALTH PHYSICS PERSONNEL 37 JUPERVISORY PERSONNEL 13 TOTAL 159  ASTE PROCESSING AINTENANCE PERSONNEL 17 FALTH PHYSICS PERSONNEL 17 FALTH PHYSICS PERSONNEL 34 JUPERVISORY PERSONNEL 2 TOTAL 113  EFUELING AINTENANCE PERSONNEL 2 JUPERVISORY PERSONNEL 34 JUPERVISORY PERSONNEL 34 JUPERVISORY PERSONNEL 35 JUPERVISORY PERSONNEL 36 JUPERVISORY PERSONNEL 37 JU	0	3	3	0.000	0.000	0.012	0.012
PECIAL MAINTENANCE AINTENANCE PERSONNEL AINTENANCE PERSONNEL PERATIONS PERSONNEL PERVISORY PERSONNEL TOTAL  ASTE PROCESSING AINTENANCE PERSONNEL PERATIONS PERSONNEL PERATIONS PERSONNEL P	<u>0</u> 27	<u>13</u>	<u>18</u>	<u>0.037</u>	<u>0.000</u>	<u>0.912</u>	0.949
AINTENANCE PERSONNEL PERATIONS PERSONNEL PERATIONS PERSONNEL PERSO	27	169	222	0.308	2.303	3.495	6.106
PERATIONS PERSONNEL EALTH PHYSICS PERSONNEL JPERVISORY PERSONNEL ONGINEERING PERSONNEL TOTAL  ASTE PROCESSING AINTENANCE PERSONNEL PERATIONS PERSONNEL JPERVISORY PERSONNEL JPERVISORY PERSONNEL TOTAL  EFUELING AINTENANCE PERSONNEL TOTAL  EFUELING AINTENANCE PERSONNEL TOTAL  EFUELING AINTENANCE PERSONNEL JEPERVISORY PERSONNEL TOTAL  EFUELING AINTENANCE PERSONNEL JEPERVISORY PERSONNEL JEPERVISORY PERSONNEL JEPERVISORY PERSONNEL JUPERVISORY							
ASTE PROCESSING AINTENANCE PERSONNEL TOTAL  ASTE PROCESSING AINTENANCE PERSONNEL PERATIONS PERSONNEL TOTAL  17 EALTH PHYSICS PERSONNEL PERSONNEL TOTAL  17 EALTH PHYSICS PERSONNEL TOTAL  113 EFUELING AINTENANCE PERSONNEL TOTAL  EFUELING AINTENANCE PERSONNEL TOTAL  2 TOTAL  4 TOTAL	51	530	669	5.045	2.437	26.277	33.759
PERVISORY PERSONNEL  IGINEERING PERSONNEL  TOTAL  ASTE PROCESSING AINTENANCE PERSONNEL  FALTH PHYSICS PERSONNEL  TOTAL  ISINEERING PERSONNEL  ITOTAL  ISINEERING PERSONNEL  TOTAL  EFUELING AINTENANCE PERSONNEL  EFUELING AINTENANCE PERSONNEL  PERATIONS PERSONNEL  AINTENANCE PERSONNEL  EALTH PHYSICS PERSONNEL  AINTENANCE PERSONNEL  FALTH PHYSICS PERSONNEL  ISINEERING PERSONN	0	13	34	2.537	0.000	0.055	2.592
ASTE PROCESSING AINTENANCE PERSONNEL PERATIONS PERSONNEL AINTENANCE PERSONNEL AINTENANCE PERSONNEL AINTENANCE PERSONNEL AINTENANCE PERSONNEL AIRTH PHYSICS PERSONNEL AIRTH PHYSICS PERSONNEL TOTAL AINTENANCE PERSONNEL AIN	0	22	59	2.076	0.000	1.460	3.536
ASTE PROCESSING AINTENANCE PERSONNEL PERATIONS PERSONNEL AINTENANCE PERSONNEL AINTENANCE PERSONNEL AINTENANCE PERSONNEL AIT PERVISORY PERSONNEL AIT	0	6	6	0.000	0.000	0.006	0.006
TOTAL 159  ASTE PROCESSING AINTENANCE PERSONNEL 60 PERATIONS PERSONNEL 17 EALTH PHYSICS PERSONNEL 0 NGINEERING PERSONNEL 2 TOTAL 113  EFUELING AINTENANCE PERSONNEL 23 PERATIONS PERSONNEL 4 EALTH PHYSICS PERSONNEL 7 JPERVISORY PERSONNEL 7 JPERVISORY PERSONNEL 0 NGINEERING PERSONNEL 23 PERATIONS PERSONNEL 4 EALTH PHYSICS PERSONNEL 7 JPERVISORY PERSONNEL 0 NGINEERING PERSONNEL 2 TOTAL 36		<u>34</u>	<u>53</u>	0.563	0.136	0.679	1.378
AINTENANCE PERSONNEL PERATIONS PERSONNEL EALTH PHYSICS PERSONNEL JIPERVISORY PERSONNEL GINEERING PERSONNEL TOTAL  EFUELING PERATIONS PERSONNEL PERATIONS PERSONNEL EALTH PHYSICS PERSONNEL JIPERVISORY PERSONNEL OUTPERVISORY PERSONNEL TOTAL  GINEERING PERSONNEL ALTH PHYSICS PERSONNEL JIPERVISORY PERSONNEL TOTAL  GINEERING PERSONNEL TOTAL  2 TOTAL 36	<u>6</u> 57	605	821	10.221	2.573	28.477	41.271
PERATIONS PERSONNEL 17 EALTH PHYSICS PERSONNEL 34 UPERVISORY PERSONNEL 0 NGINEERING PERSONNEL 2 TOTAL 113  EFUELING AINTENANCE PERSONNEL 23 PERATIONS PERSONNEL 4 EALTH PHYSICS PERSONNEL 7 UPERVISORY PERSONNEL 0 NGINEERING PERSONNEL 2 TOTAL 36							
EALTH PHYSICS PERSONNEL JPERVISORY PERSONNEL ONGINEERING PERSONNEL TOTAL  EFUELING AINTENANCE PERSONNEL PERATIONS PERSONNEL EALTH PHYSICS PERSONNEL JPERVISORY PERSONNEL ONGINEERING PERSONNEL TOTAL  23 PORTION PERSONNEL 7 JPERVISORY PERSONNEL ONGINEERING PERSONNEL 2 TOTAL 36	35	313	408	2.199	0.026	2.868	5.093
EALTH PHYSICS PERSONNEL JPERVISORY PERSONNEL OIGINEERING PERSONNEL TOTAL  EFUELING AINTENANCE PERSONNEL EALTH PHYSICS PERSONNEL JPERVISORY PERSONNEL OIGINEERING PERSONNEL TOTAL  OIGINEERING PERSONNEL TOTAL  23 24 25 26 27 28 29 20 20 20 21 21 21 22 23 24 26 26 27 27 28 28 29 20 20 20 20 20 20 20 20 20 20 20 20 20	0	18	35	0.049	0.000	0.378	0.427
PERVISORY PERSONNEL 0 NGINEERING PERSONNEL 2 TOTAL 113  EFUELING AINTENANCE PERSONNEL 23 PERATIONS PERSONNEL 4 EALTH PHYSICS PERSONNEL 7 JUPERVISORY PERSONNEL 0 NGINEERING PERSONNEL 2 TOTAL 36	o o	27	61	0.376	0.000	0.797	1.173
RGINEERING PERSONNEL 2 TOTAL 113  EFUELING AINTENANCE PERSONNEL 23 PERATIONS PERSONNEL 4 EALTH PHYSICS PERSONNEL 7 JUPERVISORY PERSONNEL 0 NGINEERING PERSONNEL 2 TOTAL 36	0	2	2	0.000	0.000	0.002	0.002
TOTAL 113  EFUELING AINTENANCE PERSONNEL 23 PERATIONS PERSONNEL 4 EALTH PHYSICS PERSONNEL 7 JUPERVISORY PERSONNEL 0 NGINEERING PERSONNEL 2 TOTAL 36		10	13	0.000	0.000	0.002	0.002
AINTENANCE PERSONNEL 23 PERATIONS PERSONNEL 4 EALTH PHYSICS PERSONNEL 7 IPERVISORY PERSONNEL 0 IGINEERING PERSONNEL 2 TOTAL 36	<u>1</u> 36	3 <del>70</del>	519	2.624	0.026	4.046	6.696
AINTENANCE PERSONNEL 23 PERATIONS PERSONNEL 4 EALTH PHYSICS PERSONNEL 7 JPERVISORY PERSONNEL 0 NGINEERING PERSONNEL 2 TOTAL 36							
PERATIONS PERSONNEL 4 EALTH PHYSICS PERSONNEL 7 UPERVISORY PERSONNEL 0 NGINEERING PERSONNEL 2 TOTAL 36	3	28	54	1.966	0.006	1.416	3.388
EALTH PHYSICS PERSONNEL 7 JPERVISORY PERSONNEL 0 NGINEERING PERSONNEL 2 TOTAL 36	0	0	4	0.035	0.000	0.000	0.035
DERVISORY PERSONNEL 0 NGINEERING PERSONNEL 2 TOTAL 36				0.035	0.000		0.033
NGINEERING PERSONNEL 2 TOTAL 36	0	4	11			0.034	
	. 0	1	1	0.000	0.000	0.000	0.000
	<u>0</u> 3	$\frac{1}{34}$	<u>3</u> 73	0.014	0.000	0.178	0.192
	3	34	73	2.122	0.006	1.628	3.756
TAL BY JOB FUNCTION	400	4 4	0000	40 500	à = 10	44.047	07.000
AINTENANCE PERSONNEL 359	198	1771	2328	19.503	6.549	41.947	67.999
PERATIONS PERSONNEL 105	0	50	155	13.408	0.000	0.659	14.067
EALTH PHYSICS PERSONNEL 186	^	121	307	12.041	0.000	5.580	17.621
JPERVISORY PERSONNEL 0	0	17	17	0.000	0.000	1.315	1.315
IGINEERING PERSONNEL 47	0	108	168	2.162	0.451	2.181	4.794
GRAND TOTALS 697		2067	2975	47.114	7.000	51.682	105.796

<sup>\*</sup>Workers may be counted in more than one category.

#### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*MONTICELLO

TYPE:

VORK AND	NUMBER O	F PERSONNE	EL (>100 mRE	EM)	TOTAL	L PERSON-R	EM	
	STATION		ONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTA
EACTOR OPS & SURV								
AINTENANCE PERSONNEL	31	1	40	72	7.836	1.324	12.704	21,864
PERATIONS PERSONNEL	38	0	0	38	19.839	0.000	0.271	20.110
EALTH PHYSICS PERSONNEL	23	. 0	7	30	7.706	0.004	2.848	10.558
UPERVISORY PERSONNEL	27	1	4	32	9.727	0.611	1.368	11.706
NGINEERING PERSONNEL				<u>8</u>	2.695	0.064	0.000	2.759
TOTAL	<u>8</u> 127	<u>0</u> 2	<u>0</u> 51	18 <mark>0</mark>	47.803	2.003	17.191	66.997
OUTINE MAINTENANCE								
AINTENANCE PERSONNEL	38	55	99	192	20.975	22.253	40.705	83.933
PERATIONS PERSONNEL	6	0	0	6	1.648	0.000	0.000	1.648
EALTH PHYSICS PERSONNEL	10	0	9	19	5.538	0.006	7.130	12.674
UPERVISORY PERSONNEL	22	4	11	37	7.575	1.558	5.497	14.630
NGINEERING PERSONNEL	<u>8</u>	<u>i</u>	Ö	9	3.725	0.222	0.000	3.947
TOTAL	8 <u>3</u>	6 <u>0</u>	11 <u>9</u>	$26\overline{3}$	39.461	24.039	53.332	116.832
-SERVICE INSPECTION								
AINTENANCE PERSONNEL	1	1	19	21	0.138	0.221	7.599	7.958
PERATIONS PERSONNEL	0	0	0	0	0.006	0.000	0.000	0.006
EALTH PHYSICS PERSONNEL	0	0	0	0	0.088	0.000	0.244	0.332
UPERVISORY PERSONNEL	Ö	1	22	23	0.294	0.303	5.700	6.297
NGINEERING PERSONNEL			0	<u>0</u>	0.000	0.000	0.000	0.000
TOTAL	<u>0</u> 1	<u>0</u>	4 <u>1</u>	44	0.526	0.524	13.543	14.593
PECIAL MAINTENANCE								
AINTENANCE PERSONNEL	3	2	49	54	1.083	0.551	23.776	25.410
PERATIONS PERSONNEL	0	0	0	0	0.012	0.000	0.000	0.012
EALTH PHYSICS PERSONNEL	0	0	0	0	0.138	0.000	0.111	0.249
JPERVISORY PERSONNEL	0	Ō	Ō	Ō	0.182	0.024	0.276	0.482
NGINEERING PERSONNEL					0.011	0.000	0.000	0.011
TOTAL	<u>0</u> 3	<u>0</u> 2	<u>0</u> 49	<u>0</u> 54	1.426	0.575	24.163	26.164
ASTE PROCESSING								
AINTENANCE PERSONNEL	5	0	3	8	1.803	0.000	1.778	3.581
PERATIONS PERSONNEL	0	0	0	0	0.028	0.000	0.000	0.028
EALTH PHYSICS PERSONNEL	2	0	0	2	0.491	0.000	0.017	0.508
JPERVISORY PERSONNEL	0	0	0	0	0.105	0.014	0.013	0.132
IGINEERING PERSONNEL					0.000	0.000	0.000	0.000
TOTAL	<u>0</u> 7	<u>0</u>	<u>0</u> 3	<u>0</u> 10	2.427	0.014	1.808	4.249
FUELING								
AINTENANCE PERSONNEL	7	8	6	21	2.119	1.959	1.234	5.312
PERATIONS PERSONNEL	15	0	0	15	3.570	0.000	0.000	3.570
EALTH PHYSICS PERSONNEL	2	0	4	6	0.515	0.000	0.927	1.442
JPERVISORY PERSONNEL	3	3	0	6	1.082	0.583	0.130	1.795
IGINEERING PERSONNEL					0.024	0.000	0.000	0.024
TOTAL	<u>0</u> 27	<u>0</u> 11	<u>0</u> 10	<u>0</u> 48	7.310	2.542	2.291	12.143
OTAL BY JOB FUNCTION								
AINTENANCE PERSONNEL	85	67	216	368	33.954	26.308	87.796	148.058
PERATIONS PERSONNEL	59	0	0	59	25.103	0.000	0.271	25.374
EALTH PHYSICS PERSONNEL	37	0	20	57	14.476	0.010	11.277	25.763
JPERVISORY PERSONNEL	52	9	37	98	18.965	3.093	12.984	35.042
NGINEERING PERSONNEL	16	1	0	17	6.455	0.286	0.000	6.741
GRAND TOTALS	249	77	273	599	98.953	29.697	112.328	240.978

<sup>\*</sup>Workers may be counted in more than one category.

#### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*NINE MILE POINT 1,2

TYPE:

PLANT: NINE WILE PC	JIN 1 1,2						TYPE: E	DAALZ
WORK AND	NUMBER (	OF PERSON	NNEL (>100 mRI		TOTA	L PERSON-R	REM	
OB FUNCTION	STATION	UTILITY	CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV								
AINTENANCE PERSONNEL	325	0	575	900	12.478	0.000	6.031	18.509
PERATIONS PERSONNEL	192	0	22	214	28.177	0.000	0.019	28.196
IEALTH PHYSICS PERSONNEL	129	0	48	177	13.386	0.000	2.078	15.464
SUPERVISORY PERSONNEL	66	0	112	178	3.000	0.000	0.186	3.186
NGINEERING PERSONNEL	115		135	250	2.013	0.000	0.284	2.297
TOTAL	827	0	892	1719	59.054	0.000	8.598	67.652
OUTINE MAINTENANCE								
MAINTENANCE PERSONNEL	351	0	326	677	43.654	0.000	62.776	106.430
PERATIONS PERSONNEL	153	0	11	164	4.528	0.000	0.122	4.650
EALTH PHYSICS PERSONNEL	104	0	42	146	10.168	0.000	5.599	15.767
UPERVISORY PERSONNEL	224	Ö	85	309	5.482	0.000	2.478	7.960
INGINEERING PERSONNEL	80		207	287	2.175	0.000	<u>6.511</u>	8.686
TOTAL	912	<u>o</u> o	671	1583	66.007	0.000	77.486	143.493
	912	U	671	1303	66.007	0.000	77.400	143.493
N-SERVICE INSPECTION MAINTENANCE PERSONNEL	35	0	219	254	2.615	0.000	26.937	29.552
PERATIONS PERSONNEL	0	0	1	1	0.000	0.000	0.004	0.004
EALTH PHYSICS PERSONNEL	14	0	2	16	0.220	0.000	0.025	0.245
	30				2.975	0.000	2.150	5.125
SUPERVISORY PERSONNEL		0	12	42				
NGINEERING PERSONNEL	<u>2</u> 81	<u>o</u>	<u>37</u>	<u>39</u>	0.043	0.000	7.495	7.538
TOTAL	81	Ü	271	352	5.853	0.000	36.611	42.464
PECIAL MAINTENANCE	00	0	400	070	0.000	0.000	10.014	40.700
MAINTENANCE PERSONNEL	86	0	193	279	2.866	0.000	13.914	16.780
PERATIONS PERSONNEL	7	0	1	8	0.032	0.000	0.000	0.032
IEALTH PHYSICS PERSONNEL	22	0	6	28	0.067	0.000	0.037	0.104
UPERVISORY PERSONNEL	42	0	14	56	0.254	0.000	0.236	0.490
NGINEERING PERSONNEL	<u>13</u>	<u>o</u>	<u>22</u>	<u>35</u>	<u>0.084</u>	<u>0.000</u>	<u>0.078</u>	<u>0.162</u>
TOTAL	170	0	236	406	3.303	0.000	14.265	17.568
VASTE PROCESSING								
MAINTENANCE PERSONNEL	22	0	7	29	0.135	0.000	0.000	0.135
PERATIONS PERSONNEL	57	0	5	62	5.007	0.000	0.410	5.417
IEALTH PHYSICS PERSONNEL	38	0	16	54	0.448	0.000	1.406	1.854
SUPERVISORY PERSONNEL	9	0	3	12	0.016	0.000	0.001	0.017
NGINEERING PERSONNEL	8	<u>o</u> o	<u>8</u>	<u>16</u>	0.042	0.000	0.342	0.384
TOTAL	8 134	ō	39	173	5.648	0.000	2.159	7.807
EFUELING					_			
IAINTENANCE PERSONNEL	103	0	187	290	0.774	0.000	11.178	11.952
PERATIONS PERSONNEL	84	0	3	87	1.483	0.000	0.035	1.518
HEALTH PHYSICS PERSONNEL	38	0	15	53	1.542	0.000	0.581	2.123
SUPERVISORY PERSONNEL	28	0	10	38	0.207	0.000	0.018	0.225
NGINEERING PERSONNEL	<u>16</u>	<u>o</u> 0	<u>43</u>	<u>59</u>	<u>0.091</u>	0.000	3.302	3.393
TOTAL	2 <del>69</del>	ō	258	527	4.097	0.000	15.114	19.211
OTAL BY JOB FUNCTION								
MAINTENANCE PERSONNEL	922	0	1507	2429	62.522	0.000	120.836	183.358
PERATIONS PERSONNEL	493	0	43	536	39.227	0.000	0.590	39.817
IEALTH PHYSICS PERSONNEL	345	0	129	474	25.831	0.000	9.726	35.557
SUPERVISORY PERSONNEL	399	0	236	635	11.934	0.000	5.069	17.003
NGINEERING PERSONNEL	234	0	452	686	4.448	0.000	18.012	22.460
GRAND TOTALS	2393	0	2367	4760	143.962	0.000	154.233	298.195

<sup>\*</sup>Workers may be counted in more than one category.

#### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*NORTH ANNA 1,2

TYPE:

	A 1,2						TYPE: I	ZVVK
WORK AND	NUMBER O	F PERSON	INEL (>100 mRE	EM)	TOTA	AL PERSON-R	REM	
IOB FUNCTION	STATION	UTILITY	CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV				,				
MAINTENANCE PERSONNEL	56	0	10	66	0.992	0.000	0.044	1.036
PERATIONS PERSONNEL	93	11	16	120	5.657	0.005	0.005	5.667
IEALTH PHYSICS PERSONNEL	26	0	21	47	0.223	0.000	0.057	0.280
SUPERVISORY PERSONNEL	34	2	0	36	0.115	0.000	0.000	0.115
INGINEERING PERSONNEL	11	<u>0</u>		<u>11</u>	0.121	0.000	0.000	<u>0.113</u>
TOTAL	220	13	<u>0</u> 47	280	7.108	0.005	0.106	7.219
ROUTINE MAINTENANCE								
MAINTENANCE PERSONNEL	260	4	755	1019	58.345	0.788	89.778	148.911
OPERATIONS PERSONNEL	236	89	116	441	11.937	0.806	1.250	13.993
HEALTH PHYSICS PERSONNEL	86	6	203	295	15.786	0.079	17.761	33.626
	75	14	9		3.745			3.798
SUPERVISORY PERSONNEL				98		0.021	0.032	
ENGINEERING PERSONNEL	<u>94</u>	<u>13</u>	<u>50</u>	<u>157</u>	<u>6.134</u>	<u>0.109</u>	<u>1.622</u>	<u>7.865</u>
TOTAL	751	126	1133	2010	95.947	1.803	110.443	208.193
N-SERVICE INSPECTION	40	_	00	00	0.704	0.000	10.447	
MAINTENANCE PERSONNEL	18	0	62	80	0.701	0.000	10.447	11.148
OPERATIONS PERSONNEL	18	0	0	18	3.134	0.000	0.000	3.134
HEALTH PHYSICS PERSONNEL	11	0	28	39	0.134	0.000	0.372	0.506
SUPERVISORY PERSONNEL	1	1	1	3	0.001	0.026	0.034	0.061
NGINEERING PERSONNEL	12	2	<u>33</u>	<u>47</u>	<u>2.397</u>	0.000	7.144	9.541
TOTAL	<u>12</u> 60	<u>2</u> 3	124	1 <del>87</del>	6.367	0.026	17.997	24.390
SPECIAL MAINTENANCE								
MAINTENANCE PERSONNEL	77	0	228	305	1.513	0.000	32.368	33.881
PERATIONS PERSONNEL	10	2	4	16	0.065	0.132	0.065	0.262
HEALTH PHYSICS PERSONNEL	33	1	59	93	1.966	0.018	5.581	7.565
SUPERVISORY PERSONNEL	11	0	2	13	0.291	0.000	0.029	0.320
NGINEERING PERSONNEL	<u>12</u>	<u>0</u> 3	<u>15</u>	<u>27</u>	<u>0.284</u>	0.000	<u>1.064</u>	<u>1.348</u>
TOTAL	143	3	308	454	4.119	0.150	39.107	43.376
WASTE PROCESSING								
MAINTENANCE PERSONNEL	75	0	12	87	0.406	0.000	0.070	0.476
PERATIONS PERSONNEL	20	0	0	20	0.559	0.000	0.000	0.559
HEALTH PHYSICS PERSONNEL	34	. 0	11	45	0.781	0.000	0.040	0.821
SUPERVISORY PERSONNEL	6	0	0	6	0.069	0.000	0.000	0.069
NGINEERING PERSONNEL	<u>1</u>			<u>1</u>	0.009	0.000	0.000	0.009
TOTAL	13 <del>6</del>	<u>o</u>	<u>0</u> 23	159	1.824	0.000	0.110	1.934
REFUELING								
MAINTENANCE PERSONNEL	115	2	85	202	26,746	0.348	7.080	34.174
PERATIONS PERSONNEL	55	9	4	68	4.001	1.154	0.113	5.268
HEALTH PHYSICS PERSONNEL	16	1	36	53	1.272	0.002	2.110	3.384
SUPERVISORY PERSONNEL	14	0	0	14	1.312	0.000	0.000	1.312
NGINEERING PERSONNEL	<u>5</u>	<u>0</u> 12	7	<u>12</u>	<u>0.317</u>	0.000	0.094	0.411
TOTAL	205	12	132	349	33.648	1.504	9.397	44.549
OTAL BY JOB FUNCTION	بدء			4	00 ===		400	000
MAINTENANCE PERSONNEL	601	6	1152	1759	88.703	1.136	139.787	229.626
PERATIONS PERSONNEL	432	111	140	683	25.353	2.097	1.433	28.883
HEALTH PHYSICS PERSONNEL	206	8	358	572	20.162	0.099	25.921	46.182
SUPERVISORY PERSONNEL	141	17	12	170	5.533	0.047	0.095	5.675
ENGINEERING PERSONNEL	135	15	105	255	9.262	0.109	9.924	19.295
GRAND TOTALS	1515	157	1767	3439	149.013	3.488	177.160	329.661

<sup>\*</sup>Workers may be counted in more than one category.

## NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*OCONEE 1,2,3

TYPE:

PLANT. OCONEE 1,2,	3							TYPE: I	PVIK
WORK AND	NUMBER (	OF PERSON	NEL (>100 r	nREM)		TOTA	AL PERSON-F	REM	
IOB FUNCTION	STATION		CONTRAC			STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV									
MAINTENANCE PERSONNEL	166	227	159	552		3.186	0.673	0.363	4.222
PERATIONS PERSONNEL	66	0	28	94		11.178	0.000	0.371	11.549
HEALTH PHYSICS PERSONNEL	21	0	67	88		0.871	0.000	1.648	2.519
SUPERVISORY PERSONNEL	8	1	1	10		1.325	0.000	0.000	1.325
NGINEERING PERSONNEL	3	<u>0</u>	<u>2</u>	<u>5</u>		0.032	0.000	0.000	0.032
TOTAL	264	228	257	749		16.592	0.673	2.382	19.647
ROUTINE MAINTENANCE									
MAINTENANCE PERSONNEL	164	223	153	540		46.907	49.148	25.959	122.014
PERATIONS PERSONNEL	49	0	41	90		1.895	0.000	12.393	14.288
IEALTH PHYSICS PERSONNEL	21	0	67	88		2.173	0.000	10.832	13.005
SUPERVISORY PERSONNEL	6	1	1	8		0.593	0.004	0.137	0.734
NGINEERING PERSONNEL	<u>3</u>	<u>0</u>	<u>1</u>	<u>4</u>		0.485	0.000	0.135	0.620
TOTAL	243	224	263	730		52.053	49.152	49,456	150.661
	2.0					02.000			
N-SERVICE INSPECTION MAINTENANCE PERSONNEL	25	76	27	4.40		1.997	10.880	A ECC	17.443
	35	76	37	148		0.083	0.000	4.566 0.232	0.315
PERATIONS PERSONNEL	1	0	14	15					
IEALTH PHYSICS PERSONNEL	. 6	0	25	31		0.077	0.000	0.643	0.720
SUPERVISORY PERSONNEL	0	1	1	2		0.000	0.236	0.001	0.237
NGINEERING PERSONNEL	<u>2</u>	<u>0</u> 77	<u>1</u>	<u>3</u>		<u>0.117</u>	<u>0.000</u>	<u>0.207</u>	0.324
TOTAL	44	77	7 <del>8</del>	199		2.274	11.116	5.649	19.039
SPECIAL MAINTENANCE						0.040	44.500	4.500	00.004
MAINTENANCE PERSONNEL	76	134	79	289		3.249	14.583	4.529	22.361
PERATIONS PERSONNEL	5	0	6	11		0.010	0.000	0.005	0.015
IEALTH PHYSICS PERSONNEL	10	0	29	39		0.116	0.000	0.669	0.785
SUPERVISORY PERSONNEL	1	0	1	2		0.002	0.000	0.009	0.011
INGINEERING PERSONNEL	<u>1</u> 93	<u>0</u>	<u>0</u>	<u>1</u>		0.003	<u>0.000</u>	<u>0.000</u>	0.003
TOTAL	93	134	115	342		3.380	14.583	5.212	23.175
WASTE PROCESSING		_	_					0.400	2 2 4 2
MAINTENANCE PERSONNEL	36	5	6	47		0.496	0.021	0.126	0.643
OPERATIONS PERSONNEL	23	0	38	61		0.992	0.000	0.925	1.917
HEALTH PHYSICS PERSONNEL	14	0	7	21		0.611	0.000	0.068	0.679
SUPERVISORY PERSONNEL	4	0	0	4		0.016	0.000	0.000	0.016
NGINEERING PERSONNEL	<u>0</u> 77	<u>0</u> 5	<u>0</u> 51	<u>0</u>		0.000	0.000	0.000	0.000
TOTAL	77	5	51	133		2.115	0.021	1.119	3.255
REFUELING				_					
MAINTENANCE PERSONNEL	30	52	17	99		1.382	5.655	1.042	8.079
PERATIONS PERSONNEL	11	0	21	32		0.263	0.000	0.318	0.581
IEALTH PHYSICS PERSONNEL	6	0	16	22		0.013	0.000	0.524	0.537
UPERVISORY PERSONNEL	0	0	1	1		0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	<u>2</u>	<u>0</u>	. <u>1</u>	<u>3</u>		<u>0.054</u>	0.000	0.000	0.054
TOTAL	49	<u>0</u> 52	56	<u>3</u> 157		1.712	5.655	1.884	9.251
OTAL BY JOB FUNCTION									
MAINTENANCE PERSONNEL	507	(166)717 (	` '	(162) 1675	(555)	57.217	80.960	36.585	174.762
PERATIONS PERSONNEL	155	(66) 0	(0) 148	(41) 303	(107)	14.421	0.000	14.244	28.665
IEALTH PHYSICS PERSONNEL	78	(21) 0	(0) 211	(67) 289	(88)	3.861	0.000	14.384	18.245
UPERVISORY PERSONNEL	19	(8) 3	(1) 5	`(1) 27	(10)	1.936	0.240	0.147	2.323
NGINEERING PERSONNEL	11	(3) 0	(0) 5	(2) 16	(5)	0.691	0.000	0.342	1.033
ODAND TOTAL C		(004) 700	(000) 000	(272) 2242	(705)	79 400	04 200	6F 700	225 020
GRAND TOTALS	770	(264) /20 (	(228) 820	(273) 2310	(765)	78.126	81.200	65.702	225.028

<sup>\*</sup>Workers may be counted in more than one category. Numbers in parentheses are total numbers of individuals.

## NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*OYSTER CREEK

TYPE:

WORK AND	NUMBER (	OF PERSON	INEL (>100	mREM)		TOTAL PERSON-REM			
JOB FUNCTION	STATION		CONTRAC		-	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV									
MAINTENANCE PERSONNEL	134	2	22	158		4.009	0.002	1.359	5.370
OPERATIONS PERSONNEL	98	0	3	101		11.584	0.000	0.003	11.587
HEALTH PHYSICS PÉRSONNEL	42	0	1	43		2.272	0.000	0.000	2.272
SUPERVISORY PERSONNEL	14	0	0	14		0.240	0.000	0.000	0.240
ENGINEERING PERSONNEL	<u>15</u>	<u>0</u> 2	<u>1</u> 27	16		0.089	0.000	0.096	0.185
TOTAL	303	$\overline{2}$	27	332		18.194	0.002	1.458	19.654
ROUTINE MAINTENANCE									
MAINTENANCE PERSONNEL	425	38	635	1098		30.343	1.400	15.970	47.713
OPERATIONS PERSONNEL	197	7	28	232		4.904	0.004	0.223	5.131
HEALTH PHYSICS PERSONNEL	83	0	57	140		6.858	0.000	2.733	9.591
SUPERVISORY PERSONNEL	78	4	18	100		1.299	0.055	0.566	1.920
ENGINEERING PERSONNEL	<u>118</u>	<u>4</u> 53	<u>16</u>	<u>138</u>		<u>3.627</u>	<u>0.005</u>	0.240	3.872
TOTAL	901	53	754	1708		47.031	1.464	19.732	68.227
N-SERVICE INSPECTION									
MAINTENANCE PERSONNEL	43	1	196	240		0.969	0.024	4.272	5.265
OPERATIONS PERSONNEL	15	0	5	20		0.930	0.000	0.057	0.987
HEALTH PHYSICS PERSONNEL	8	0	5	13		0.072	0.000	0.083	0.155
SUPERVISORY PERSONNEL	1	0	1	2		0.003	0.000	0.002	0.005
NGINEERING PERSONNEL	<u>8</u> 75	<u>0</u> 1	<u>1</u>	<u>9</u>		0.058	0.000	<u>0.115</u>	<u>0.173</u>
TOTAL	75	1	208	284		2.032	0.024	4.529	6.585
SPECIAL MAINTENANCE									
MAINTENANCE PERSONNEL	239	33	910	1182		61.908	3.655	300.753	366.316
PERATIONS PERSONNEL	81	0	15	96		8.547	0.000	3.810	12.357
HEALTH PHYSICS PERSONNEL	60	0	43	103		9.571	0.000	6.694	16.265
SUPERVISORY PERSONNEL	21	2	15	38		2.534	0.064	1.660	4.258
ENGINEERING PERSONNEL	<u>42</u>	<u>0</u> 35	<u>13</u>	55		3.077	0.000	2.593	5.670
TOTAL	443	35	996	1474		85.637	3.719	315.510	404.866
WASTE PROCESSING									
MAINTENANCE PERSONNEL	65	4	21	90		0.452	0.013	0.477	0.942
PERATIONS PERSONNEL	39	0	4	43		1.246	0.000	0.634	1.880
HEALTH PHYSICS PERSONNEL	22	0	6	28		0.236	0.000	0.027	0.263
SUPERVISORY PERSONNEL	5	0	0	5		0.064	0.000	0.000	0.064
NGINEERING PERSONNEL	<u>2</u>	<u>0</u> 4	<u>1</u> 32	<u>3</u>		0.405	0.000	0.001	0.406
TOTAL	133	4	32	169		2.403	0.013	1.139	3.555
REFUELING									
MAINTENANCE PERSONNEL	26	1	74	101		0.215	0.003	3.065	3.283
OPERATIONS PERSONNEL	35	0	3	38		1.424	0.000	0.037	1.461
HEALTH PHYSICS PERSONNEL	9	0	6	15		0.292	0.000	0.093	0.385
SUPERVISORY PERSONNEL	1	0	3	4		0.219	0.000	0.317	0.536
ENGINEERING PERSONNEL	<u>6</u> 77	<u>0</u> 1	<u>3</u>	<u>9</u>		0.041	0.000	0.086	0.127
TOTAL	77	ī	89	167		2.191	0.003	3.598	5.792
TOTAL BY JOB FUNCTION									
MAINTENANCE PERSONNEL	932	(458) 79	(39) 1858	(1025) 2869		97.896	5.097	325.896	428.889
OPERATIONS PERSONNEL	465	(241) 7	(7) 58	(32) 530	(280)	28.635	0.004	4.764	33.403
HEALTH PHYSICS PERSONNEL	224	(87) 0	(0) 118	(60) 342	(147)	19.301	0.000	9.630	28.931
SUPERVISORY PERSONNEL	120	(81) 6	(4) 37	(23) 163	(108)	4.359	0.119	2.545	7.023
ENGINEERING PERSONNEL	191	(126) 4	(4) 35	(20) 230	(150)	7.297	0.005	3.131	10.433
GRAND TOTALS	1932	(002) 00	(5.4) 0400	(1160) 4134	(0007)	157.488	5.225	345.966	508.679

<sup>\*</sup>Workers may be counted in more than one category. Numbers in parentheses are total numbers of individuals.

# NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

#### 1996

PLANT:

\*PALISADES

TYPE:

							ITPE: F	AAIK	
WORK AND	NUMBER O	F PERSON	NEL (>100 mRE	EM)	TOTAL PERSON-REM				
OB FUNCTION	STATION		CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTA	
EACTOR OPS & SURV							<u></u>		
IAINTENANCE PERSONNEL	2	0	1	3	2.001	0.210	0.715	2.926	
PERATIONS PERSONNEL	44	Ö	i	45	12.364	0.003	0.746	13.113	
EALTH PHYSICS PERSONNEL	15	0	36	51	3.908	0.008	11.056	14.972	
UPERVISORY PERSONNEL	7	ő	0	7	1.729	0.002	0.018	1.749	
NGINEERING PERSONNEL	<u>8</u>		<u>1</u>	, <u>9</u>	2.364	0.002	0.842	3.316	
TOTAL	7 <u>6</u>	<u>0</u>	39	115	22.366	0.333	13.377	36.076	
OUTINE MAINTENANCE									
AINTENANCE PERSONNEL	63	8	145	216	15.253	2.045	46,128	63.426	
PERATIONS PERSONNEL	5	Ö	3	8	1.338	0.000	0.446	1.784	
EALTH PHYSICS PERSONNEL	34	Ö	15	49	13.937	0.000	3.570	17.507	
UPERVISORY PERSONNEL	4	ő	2	6	1.150	0.000	0.318	1.468	
NGINEERING PERSONNEL	<u>3</u> 109	<u>0</u> 8	<u>7</u>	<u>10</u>	0.921	0.113	1.644	2.678	
TOTAL	109	8	172	289	32.599	2.158	52.106	86.863	
N-SERVICE INSPECTION NAME OF THE PROPERTY OF T	0	1	49	-50	0.000	0 500	44 040	41.837	
PERATIONS PERSONNEL	0					0.589	41.248		
	•	0	0	0	0.002	0.000	0.000	0.002	
EALTH PHYSICS PERSONNEL	1	0	14	15	0.922	0.000	3.901	4.823	
UPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.023	0.023	
NGINEERING PERSONNEL	<u>2</u> 3	<u>7</u>	<u>1</u>	<u>10</u> 75	<u>0.687</u>	<u>4.216</u>	0.695	5.598	
TOTAL	3	8	64	75	1.611	4.805	45.867	52.283	
PECIAL MAINTENANCE									
AINTENANCE PERSONNEL	2	6	54	62	0.881	2.025	21.836	24.742	
PERATIONS PERSONNEL	0	0	4	4	0.056	0.000	0.781	0.837	
EALTH PHYSICS PERSONNEL	12	0	5	17	4.610	0.000	1.630	6.240	
UPERVISORY PERSONNEL	0	0	Ō	0	0.107	0.000	0.013	0.120	
NGINEERING PERSONNEL	<u>2</u>		<u>17</u>	<u>19</u>	0.463	0.022	8.625	9.110	
TOTAL	16	<u>0</u>	80	102	6.117	2.047	32.885	41.049	
VASTE PROCESSING									
AINTENANCE PERSONNEL	. 0	0	0	0	0.110	0.005	0.009	0.124	
PERATIONS PERSONNEL	0	0	0	Ō	0.146	0.000	0.006	0.152	
EALTH PHYSICS PERSONNEL	7	Ö	Ŏ	7	3.001	0.000	0.075	3.076	
UPERVISORY PERSONNEL	1	0	Ö	1	0.458	0.000	0.000	0.458	
	•								
NGINEERING PERSONNEL	<u>0</u> 8	<u>0</u>	<u>0</u> 0	<u>0</u> 8	0.047	0.002	0.049	0.098	
TOTAL	8	Ü	U	8	3.762	0.007	0.139	3.908	
EFUELING	•	•	90	00	0.000	0.000	72.186	70 400	
AINTENANCE PERSONNEL	2	0	86	88	0.300	0.006		72.492	
PERATIONS PERSONNEL	0	0	0	0	0.270	0.000	0.025	0.295	
EALTH PHYSICS PERSONNEL	1	0	9	10	0.561	0.000	5.163	5.724	
UPERVISORY PERSONNEL	1	0	2	3	0.510	0.000	2.438	2.948	
NGINEERING PERSONNEL	<u>8</u> 12	<u>0</u>	<u>8</u>	<u>16</u>	<u>1.989</u>	<u>0.026</u>	<u>5.346</u>	<u>7.361</u>	
TOTAL	12	Ō	105	117	3.630	0.032	85.158	88.820	
OTAL BY JOB FUNCTION									
AINTENANCE PERSONNEL	69	15	335	419	18.545	4.880	182.122	205.547	
PERATIONS PERSONNEL	49	0	8	57	14.176	0.003	2.004	16.183	
EALTH PHYSICS PERSONNEL	70	Õ	79	149	26.939	0.008	25.395	52.342	
UPERVISORY PERSONNEL	13	Ö	4	17	3.954	0.002	2.810	6.766	
NGINEERING PERSONNEL	23	7	34	64	6.471	4.489	17.201	28.161	
GRAND TOTALS	224	22	460	706	70.085	9.382	229.532	308.999	

<sup>\*</sup>Workers may be counted in more than one category.

# NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*PALO VERDE 1,2,3

TYPE:

PLANT: PALO VERDE	. 1,2,0						TYPE: F	WR
WORK AND	NUMBER (	OF PERSON	NNEL (>100 mRE	EM)	TOTAL PERSON-REM			
OB FUNCTION	STATION		CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV								
MAINTENANCE PERSONNEL	2	0	4	6	1.156	0.000	1.298	2.454
PERATIONS PERSONNEL	14	0	. 0	14	7.577	0.000	0.181	7.758
IEALTH PHYSICS PERSONNEL	56	Ō	14	70	14.532	0.000	5.066	19.598
SUPERVISORY PERSONNEL	6	Ö	Ö	6	1.911	0.000	0.039	1.950
NGINEERING PERSONNEL	<u>2</u>		<u>ŏ</u>	<u>2</u>	1.782	0.000	0.039	1.878
TOTAL	80	<u>0</u>	18	98	26.958	0.000	6.680	33.638
ROUTINE MAINTENANCE								
MAINTENANCE PERSONNEL	142	0	271	413	47.350	0.000	100.006	147.356
OPERATIONS PERSONNEL	32	0	1	33	15.128	0.000	0.231	15.359
EALTH PHYSICS PERSONNEL	50	0	45	95	18.979	0.000	12.680	31.659
SUPERVISORY PERSONNEL	20	0	3	23	8.301	0.000	0.885	9.186
ENGINEERING PERSONNEL	<u>14</u>	<u>o</u>	<u>16</u>	<u>30</u>	<u>7.067</u>	0.000	<u>4.281</u>	<u>11.348</u>
TOTAL	258	0	336	594	96.825	0.000	118.083	214.908
N-SERVICE INSPECTION				_				
MAINTENANCE PERSONNEL	2	0	33	35	1.138	0.000	11.611	12.749
PERATIONS PERSONNEL	2	0	2	4	0.854	0.000	0.925	1.779
IEALTH PHYSICS PERSONNEL	0	0	0	0	0.261	0.000	0.258	0.519
SUPERVISORY PERSONNEL	2	0	0	2	0.393	0.000	0.000	0.393
NGINEERING PERSONNEL			7	<u>10</u>	0.753	0.000	2.530	3.283
TOTAL	<u>3</u> 9	<u>0</u>	<u>7</u> 42	51	3.399	0.000	15.324	18.723
SPECIAL MAINTENANCE								
MAINTENANCE PERSONNEL	5	0	28	33	2.768	0.000	14.274	17.042
PERATIONS PERSONNEL	1	0	0					
	•			1	0.303	0.000	0.009	0.312
EALTH PHYSICS PERSONNEL	4	0	5	9	1.171	0.000	1.913	3.084
SUPERVISORY PERSONNEL	4	0	0	4	3.358	0.000	0.099	3.457
NGINEERING PERSONNEL	<u>2</u> 16	<u>o</u>	<u>8</u> 41	<u>10</u> 57	<u>1.585</u>	0.000	4.562	6.147
TOTAL	16	0	41	57	9.185	0.000	20.857	30.042
VASTE PROCESSING								
MAINTENANCE PERSONNEL	4	0	1	5	1.775	0.000	0.547	2.322
PERATIONS PERSONNEL	1	0	1	2	0.334	0.000	0.112	0.446
EALTH PHYSICS PERSONNEL	13	0	3	16	5.505	0.000	2.982	8.487
SUPERVISORY PERSONNEL	1	Ō	Ō	1	0.308	0.000	0.084	0.392
NGINEERING PERSONNEL					0.067	0.000		
TOTAL	<u>0</u> 19	0	<u>0</u> 5	<u>0</u> 24	7.989	0.000	<u>0.018</u> 3.743	<u>0.085</u> 11.732
REFUELING								
MAINTENANCE PERSONNEL	20	0	- 10	30	6.225	0.000	2 042	0.020
				30		0.000	2.813	9.038
PERATIONS PERSONNEL	4	. 0	0	4	1.307	0.000	0.022	1.329
IEALTH PHYSICS PERSONNEL	2	0	1	3	1.076	0.000	1.059	2.135
SUPERVISORY PERSONNEL	3	0	0	3	1.215	0.000	0.000	1.215
NGINEERING PERSONNEL	3	0	<u>1</u>	4	0.954	0.000	0.191	1.145
TOTAL	3 32	<u>0</u>	1 <u>1</u>	<u>4</u> 44	10.777	0.000	4.085	14.862
OTAL BY JOB FUNCTION								
MAINTENANCE PERSONNEL	175	0	347	522	60.412	0.000	130.549	190.961
PERATIONS PERSONNEL	54	Ō	4	58	25.503	0.000	1.480	26.983
EALTH PHYSICS PERSONNEL	125	ő	68	193	41.524	0.000	23.958	65.482
SUPERVISORY PERSONNEL ENGINEERING PERSONNEL	36 24	0	3 32	39 56	15.486 12.208	0.000 0.000	1.107 11.678	16.593 23.886
GRAND TOTALS	414	0	454	868	155.133	0.000	168.772	323.905

<sup>\*</sup>Workers may be counted in more than one category.

#### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*PEACH BOTTOM 2,3

TYPE:

PLANT. PLACTIBOTI	1 O W 2,3							ITPE. E	DAALC
WORK AND			NEL (>100				AL PERSON-F		
JOB FUNCTION	STATION	UTILITY	CONTRAC	TOTAI	L	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV									
MAINTENANCE PERSONNEL	414	375	740	1529		45.567	16.786	55.350	117.703
OPERATIONS PERSONNEL	118	52	92	262		4.668	0.914	4.220	9.802
HEALTH PHYSICS PERSONNEL	30	4	14	48		3.414	0.065	0.611	4.090
SUPERVISORY PERSONNEL	13	8	47	68		0.090	0.047	0.476	0.613
ENGINEERING PERSONNEL	<u>56</u>	66	18	140		1.115	1.156	0.203	2.474
TOTAL	631	505	911	2047		54.854	18.968	60.860	134.682
ROUTINE MAINTENANCE									
MAINTENANCE PERSONNEL	50	44	164	258		2.227	1.994	5.725	9.946
OPERATIONS PERSONNEL	4	1	4	9		0.335	0.001	0.097	0.433
HEALTH PHYSICS PERSONNEL	4	0	5	9		0.070	0.000	0.322	0.392
SUPERVISORY PERSONNEL	0	Ō	3	3		0.000	0.000	0.006	0.006
ENGINEERING PERSONNEL		<u>o</u>	1	2		0.018	0.000	0.003	0.021
TOTAL	<u>1</u> 59	45	17 <del>7</del>	281		2.650	1.995	6.153	10.798
	59	40	177	201		2.650	1.995	0.155	10.790
IN-SERVICE INSPECTION MAINTENANCE PERSONNEL	7	23	258	288		0.122	0.383	11.760	12.265
OPERATIONS PERSONNEL	1	0	238	10		0.122	0.000	0.923	0.924
HEALTH PHYSICS PERSONNEL	0	0	1	10		0.001	0.000	0.032	0.032
SUPERVISORY PERSONNEL	0	0	3	3		0.000	0.000	0.055	0.055
ENGINEERING PERSONNEL	<u>0</u> 8	<u>0</u> 23	0	<u>0</u>		0.000	0.000	0.000	0.000
TOTAL	8	23	271	302		0.123	0.383	12.770	13.276
SPECIAL MAINTENANCE									00.400
MAINTENANCE PERSONNEL	103	76	214	393		12.606	6.453	14.127	33.186
OPERATIONS PERSONNEL	3	4	11	18		0.202	0.060	1.346	1.608
HEALTH PHYSICS PERSONNEL	3	0	2	5		0.089	0.000	0.145	0.234
SUPERVISORY PERSONNEL	0	0	3	3		0.000	0.000	0.105	0.105
ENGINEERING PERSONNEL	<u>4</u>	<u>5</u> 85	<u>6</u>	<u>15</u>		<u>0.114</u>	0.055	<u>0.096</u>	0.265
TOTAL	113	85	236	434		13.011	6.568	15.819	35.398
WASTE PROCESSING									
MAINTENANCE PERSONNEL	0	0	9	9		0.000	0.000	0.885	0.885
OPERATIONS PERSONNEL	0	0	2	2		0.000	0.000	0.013	0.013
HEALTH PHYSICS PERSONNEL	0	0	0	0		0.000	0.000	0.000	0.000
SUPERVISORY PERSONNEL	0	0	0	0		0.000	0.000	0.000	0.000
ENGINEERING PERSONNEL			0			0.000	0.000	0.000	0.000
TOTAL	<u>0</u>	0	1 <u>0</u>	<u>0</u> 11		0.000	0.000	0.898	0.898
REFUELING									
MAINTENANCE PERSONNEL	225	293	647	1165		13.173	26.563	36.550	76.286
OPERATIONS PERSONNEL	40	25	29	94		2.849	1.074	1.810	5.733
HEALTH PHYSICS PERSONNEL	15	3	8	26		0.950	0.086	0.605	1.641
SUPERVISORY PERSONNEL	5	2	7	14		0.357	0.097	0.432	0.886
ENGINEERING PERSONNEL	<u>32</u>	31	10	73		1.456	0.684	0.326	2.466
TOTAL	317	3 <del>51</del>	701	13 <del>72</del>		18.785	28.504	39.723	87.012
TOTAL BY JOB FUNCTION									
MAINTENANCE PERSONNEL	799	(526) 911	(515) 2032	(1328) 3642	(2360)	73.695	52.179	124.397	250.271
		(206) 82				8.055	2.049	8.409	18.513
OPERATIONS PERSONNEL	166	, ,	` '	(137) 395	, ,				
HEALTH PHYSICS PERSONNEL	52	(51) 7	(8) 30	(17) 89	(76)	4.523	0.151	1.715	6.389
SUPERVISORY PERSONNEL	18	(20) 10		(99) 91	(135)	0.447	0.144	1.074	1.665
ENGINEERING PERSONNEL	93	(111) 102	(164) 35	(73) 230	(348)	2.703	1.895	0.628	5.226
GRAND TOTALS	1128	(914)1012	(802) 2307	(1654) 4447	(3370)	89.423	56.418	136.223	282.064
GRAND TOTALS	1128	(914)1012	(802) 2307	(1654) 4447	(3370)	89.423	56.418	136.223	282.0

<sup>\*</sup>Workers may be counted in more than one category. Numbers in parentheses are total numbers of individuals.

#### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*PERRY

TYPE:

PLANI: "PERRY			-				TYPE:	BWR
WORK AND	NUMBER (	OF PERSON	NEL (>100 mRE	EM)	TOTAL PERSON-REM			
OB FUNCTION	STATION		CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV								
MAINTENANCE PERSONNEL	180	78	632	890	1.183	0.484	9.418	11.085
PERATIONS PERSONNEL	62	56	289	407	0.502	0.266	18.092	18.860
IEALTH PHYSICS PERSONNEL	54	16	151	221	7.682	1.964	14.214	23.860
SUPERVISORY PERSONNEL	3	5	56	64	0.002	0.043	0.266	0.311
NGINEERING PERSONNEL	<u>52</u>	139	105	296	0.752	0.738	0.365	1.855
TOTAL	351	294	1233	1878	10.121	3.495	42.355	55.971
OUTINE MAINTENANCE								
IAINTENANCE PERSONNEL	227	119	1122	1468	25.564	6.498	116.989	149.051
PERATIONS PERSONNEL	281	85	156	522	5.924	3.197	17.291	26.412
EALTH PHYSICS PERSONNEL	57	28	138	223	1.495	1.847	5.705	9.047
UPERVISORY PERSONNEL	1	6	31	38	0.000	0.024	0.146	0.170
NGINEERING PERSONNEL	<u>58</u>	161	138	357	1.082	4.778	5.667	11.527
TOTAL	6 <u>24</u>	399	1 <u>585</u>	2 <del>608</del>	34.065	16.344	145.798	196.207
	024	399	1565	2006	34.065	10.344	143.790	190.207
N-SERVICE INSPECTION  IAINTENANCE PERSONNEL	39	9	437	485	0.154	0.293	59.595	60.042
PERATIONS PERSONNEL	27	8	10	465 45				
EALTH PHYSICS PERSONNEL	23				0.651	0.399	0.898	1.948
		1	26	50	0.664	0.000	0.830	1.494
UPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	<u>5</u> 94	25 43	_33	<u>63</u>	0.035	0.724	<u>2.637</u>	3.396
TOTAL	94	43	506	643	1.504	1.416	63.960	66.880
PECIAL MAINTENANCE								
AINTENANCE PERSONNEL	60	19	399	478	1.655	0.478	7.841	9.974
PERATIONS PERSONNEL	78	7	29	114	1.493	0.308	1.361	3.162
EALTH PHYSICS PERSONNEL	19	6	46	71	0.336	0.022	1.160	1.518
UPERVISORY PERSONNEL	0	1	1	2	0.000	0.000	0.001	0.001
NGINEERING PERSONNEL	9	<u>18</u>	<u>25</u>	<u>52</u>	0.075	0.237	1.597	1.909
TOTAL	166	51	500	717	3.559	1.045	11.960	16.564
VASTE PROCESSING								
AINTENANCE PERSONNEL	100	44	231	375	0.031	0.012	0.773	0.816
PERATIONS PERSONNEL	96	26	24	146	1.780	0.312	0.267	2.359
EALTH PHYSICS PERSONNEL	40	20	43	103	0.309	0.922	0.749	1.980
UPERVISORY PERSONNEL	0	3	2	5	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	11	11	4	<u>26</u>	0.039	0.004	0.008	0.000
TOTAL	2 <del>11</del>	104	30 <del>4</del>	655	2.159	1.250	1.797	5.206
	241	104	304	055	2.139	1.230	1.737	5.200
EFUELING IAINTENANCE PERSONNEL	21	5	249	275	0.162	0.007	27.768	27.937
PERATIONS PERSONNEL	34	8	25	67	1.164	0.501	1.274	2.939
EALTH PHYSICS PERSONNEL	20	4	25 35	59	0.116			
UPERVISORY PERSONNEL	0	0				0.018	0.430	0.564
			.1	1	0.000	0.000	0.002	0.002
NGINEERING PERSONNEL TOTAL	<u>5</u> 80	<u>21</u> 38	1 <u>5</u>	<u>41</u> 443	0.028	0.145	<u>1.289</u>	1.462
	60	38	325	443	1.470	0.671	30.763	32.904
OTAL BY JOB FUNCTION	007	67.	0070	0074	00 = 10		000.00	0.000
AINTENANCE PERSONNEL	627	274	3070	3971	28.749	7.772	222.384	258.905
PERATIONS PERSONNEL	578	190	533	1301	11.514	4.983	39.183	55.680
EALTH PHYSICS PERSONNEL	213	75	439	727	10.602	4.773	23.088	38.463
UPERVISORY PERSONNEL	4	15	91	110	0.002	0.067	0.415	0.484
NGINEERING PERSONNEL	140	375	320	835	2.011	6.626	11.563	20.200
GRAND TOTALS	1562	929	4453	6944	52.878	24.221	296.633	373.732

<sup>\*</sup>Workers may be counted in more than one category.

# NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*PILGRIM

TYPE:

i barri.							, CTCG, D	WWIX
WORK AND	NI IMBED OF	DEDSONI	NEL (>100 mRE		TOTA	AL PERSON-F	DEM.	
JOB FUNCTION	STATION U		CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
							···	
REACTOR OPS & SURV								
NAINTENANCE PERSONNEL	28	11	18	57	1.083	0.473	0.360	1.916
PERATIONS PERSONNEL	69	1	81	151	14.334	0.203	2.766	17.303
IEALTH PHYSICS PERSONNEL	24	0	0	24	1.399	0.000	0.000	1.399
SUPERVISORY PERSONNEL	17	1	3	21	0.945	0.017	0.036	0.998
NGINEERING PERSONNEL	12	2	<u>1</u>	15	0.796	0.000	0.001	0.797
TOTAL	150	<u>2</u> 15	103	268	18.557	0.693	3.163	22.413
OUTINE MAINTENANCE								
AAINTENANCE PERSONNEL	144	59	289	492	43.814	6.131	11.150	61.095
PERATIONS PERSONNEL	74	7	30	111	7.732	0.052	0.515	8.299
EALTH PHYSICS PERSONNEL	44	3	26	73	13.510	0.008	1.734	15.252
SUPERVISORY PERSONNEL	104	11	54	169	7.151	0.561	0.453	8.165
ENGINEERING PERSONNEL								6.745
	<u>110</u>	22	<u>61</u>	<u>193</u>	4.333	0.502	<u>1.910</u>	
TOTAL	476	102	460	1038	76.540	7.254	15.762	99.556
N-SERVICE INSPECTION								
MAINTENANCE PERSONNEL	2	0	44	46	0.112	0.000	5.726	5.838
OPERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
IEALTH PHYSICS PERSONNEL	0	0	1	1	0.000	0.000	0.110	0.110
UPERVISORY PERSONNEL	4	0	3	7	0.063	0.000	0.614	0.677
NGINEERING PERSONNEL					0.654	0.000	1.863	2.517
TOTAL	<u>9</u> 15	<u>0</u>	<u>4</u> 52	<u>13</u> 67	0.829	0.000	8.313	9.142
	, ,		02	0,	0.020	0.000	0.0.0	
PECIAL MAINTENANCE MAINTENANCE PERSONNEL	12	4	47	63	0.077	0.053	0.691	0.821
PERATIONS PERSONNEL	20	0	1	21	0.152	0.000	0.003	0.155
HEALTH PHYSICS PERSONNEL	11	0	0	11	0.241	0.000	0.000	0.241
SUPERVISORY PERSONNEL	7	0	6	13	0.084	0.000	0.048	0.132
NGINEERING PERSONNEL	3	1	7	<u>11</u>	0.105	0.002	0.030	0.137
TOTAL	<u>3</u> 53	<u>1</u> 5	<u>7</u> 61	119	0.659	0.055	0.772	1.486
VASTE PROCESSING								
MAINTENANCE PERSONNEL	36	7	5	48	0.376	0.107	0.042	0.525
OPERATIONS PERSONNEL	12	1	1	14	0.906	0.114	0.009	1.029
HEALTH PHYSICS PERSONNEL	28	Ö	i	29	1.055	0.000	0.013	1.068
SUPERVISORY PERSONNEL	6	0	Ö	6	0.245	0.000	0.000	0.245
NGINEERING PERSONNEL	1	<u>0</u> 8	<u>1</u> 8	<u>2</u> 99	0.462	0.000	0.000	0.462
TOTAL	83	8	8	99	3.044	0.221	0.064	3.329
EFUELING								
MAINTENANCE PERSONNEL	79	37	3	119	1.088	0.532	0.003	1.623
PERATIONS PERSONNEL	26	0	1	27	0.123	0.000	0.003	0.126
EALTH PHYSICS PERSONNEL	20	Õ	1	21	0.206	0.000	0.000	0.206
SUPERVISORY PERSONNEL	8	ő	Ó	8	0.106	0.000	0.000	0.106
NGINEERING PERSONNEL					0.100 0.202	0.000 0.001	0.025	0.100
TOTAL	<u>10</u> 143	<u>2</u> 39	<u>6</u> 11	<u>18</u> 193	<u>0.202</u> 1.725	0.533	0.025	2.289
TOTAL	143	აყ	11	193	1.725	0.000	0.031	۷.۷۵۶
OTAL BY JOB FUNCTION	<b>.</b>		486		40	7.444	47 676	74.046
MAINTENANCE PERSONNEL	301	118	406	825	46.550	7.296	17.972	71.818
PERATIONS PERSONNEL	201	9	114	324	23.247	0.369	3.296	26.912
HEALTH PHYSICS PERSONNEL	127	3	29	159	16.411	0.008	1.857	18.276
UPERVISORY PERSONNEL	146	12	66	224	8.594	0.578	1.151	10.323
NGINEERING PERSONNEL	145	27	80	252	6.552	0.505	3.829	10.886
GRAND TOTALS	920	169	695	1784	101.354	8.756	28.105	138.215

<sup>\*</sup>Workers may be counted in more than one category.

## NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*POINT BEACH 1,2

TYPE:

WORK AND		OF PERSONNEL				AL PERSON-R		
JOB FUNCTION	STATION	UTILITY CO	NTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV								
MAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
PERATIONS PERSONNEL	38	0-	0	38	10.400	0.000	0.200	10.600
IEALTH PHYSICS PERSONNEL	22	0	0	22	6.750	0.000	0.000	6.750
SUPERVISORY PERSONNEL	6	0	0	6	1.260	0.000	0.000	1.260
NGINEERING PERSONNEL	<u>7</u>	<u>o</u> o	<u>0</u> 0	<u>7</u>	<u>1.660</u>	<u>0.870</u>	<u>0.660</u>	<u>3.190</u>
TOTAL	73	0	0	73	20.070	0.870	0.860	21.800
COUTINE MAINTENANCE								
MAINTENANCE PERSONNEL	54	36	0	90	18.070	7.000	0.000	25.070
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
IEALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
SUPERVISORY PERSONNEL	2	0	0	2	0.510	0.000	0.000	0.510
NGINEERING PERSONNEL	<u>0</u>	<u>0</u> 36	<u>0</u>	<u>0</u> 92	<u>0.000</u>	0.000	<u>0.000</u>	0.000
TOTAL	56	36	0	92	18.580	7.000	0.000	25.580
N-SERVICE INSPECTION		_						
MAINTENANCE PERSONNEL	.0	0	2	2	0.000	0.000	1.160	1.160
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
IEALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
UPERVISORY PERSONNEL	0	. 0	0	0	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	<u>1</u>	<u>7</u> 7	<u>29</u> 31	<u>37</u> 39	<u>0.350</u>	2.010	9.080	<u>11.440</u>
TOTAL	1	7	31	39	0.350	2.010	10.240	12.600
PECIAL MAINTENANCE								
MAINTENANCE PERSONNEL	42	0	24	66	0.850	0.000	6.850	7.700
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
IEALTH PHYSICS PERSONNEL	0	0	22	22	0.000	0.000	5.390	5.390
SUPERVISORY PERSONNEL	2	0	2	4	0.120	0.000	1.250	1.370
NGINEERING PERSONNEL	<u>0</u> 44	<u>o</u>	<u>14</u>	<u>14</u>	0.000	0.000	4.390	4.390
TOTAL	44	ō	62	106	0.970	0.000	17.880	18.850
VASTE PROCESSING								
MAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.400	0.400
PERATIONS PERSONNEL	38	0	0	38	0.250	0.000	0.000	0.250
IEALTH PHYSICS PERSONNEL	22	0	2	24	0.390	0.000	1.060	1.450
UPERVISORY PERSONNEL	1	0	0	1	0.170	0.000	0.000	0.170
NGINEERING PERSONNEL	<u>0</u>	<u>o</u>	0	<u>0</u>	0.000	0.000	0.000	0.000
TOTAL	61	ō	<u>0</u> 2	63	0.810	0.000	1.460	2.270
EFUELING								
IAINTENANCE PERSONNEL	54	36	0	90	8.670	6.930	0.000	15.600
PERATIONS PERSONNEL	38	0	0	38	1.200	0.000	0.000	1.200
IEALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
UPERVISORY PERSONNEL	7	0	0	7	1.040	0.000	0.000	1.040
NGINEERING PERSONNEL	0	0	<u>0</u>	0	0.000	0.000	0.000	0.000
TOTAL	<u>0</u> 99	<u>0</u> 36	ō	<u>0</u> 135	10.910	6.930	0.000	17.840
OTAL BY JOB FUNCTION								
MAINTENANCE PERSONNEL	150	(52) 72 (36	) 26	(24) 248 (1	12) 27.590	13.930	8.410	49.930
PERATIONS PERSONNEL	114	(38) 0 (0	) 0		38) 11.850	0.000	0.200	12.050
EALTH PHYSICS PERSONNEL	44	(22) 0 (0	: .	(24) 68 (	46) 7.140	0.000	6.450	13.590
UPERVISORY PERSONNEL	18	(18) 0 (0			20) 3.100	0.000	1.250	4.350
NGINEERING PERSONNEL	8	(8) 7 (7	,		58) 2.010	2.880	14.130	19.020
المارية الماري								······································
GRAND TOTALS	334	(138) 79 (43	) 95	(93) 508 (2	74) 51.690	16.810	30.440	98.940

<sup>\*</sup>Workers may be counted in more than one category. Numbers in parentheses are total numbers of individuals.

#### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*PRAIRIE ISLAND 1,2

TYPE:

PLANT: "PRAIRIE ISLA	1,2						TYPE: P	WK
WORK AND	NUMBER (	F PERSOI	NNEL (>100 mRI	Ξ <b>M</b> )	TOTA			
JOB FUNCTION	STATION	UTILITY	CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV								
MAINTENANCE PERSONNEL	0	0	0	0	0.379	0.056	0.100	0.535
OPERATIONS PERSONNEL	0	0	0	Ō	1.531	0.000	0.000	1.531
HEALTH PHYSICS PERSONNEL	5	Ö	13	18	1.685	0.000	3.642	5.327
SUPERVISORY PERSONNEL	2	ŏ	Ö	2	1.058	0.051	0.079	1.188
ENGINEERING PERSONNEL	2			2	0.743	0.000	0.000	0.743
TOTAL	<u>2</u> 9	<u>0</u>	<u>0</u> 13	22	5.396	0.107	3.821	9.324
ROUTINE MAINTENANCE								
MAINTENANCE PERSONNEL	15	22	14	51	3.410	7.579	5.146	16.135
OPERATIONS PERSONNEL	0	0	0	0	0.066	0.000	0.000	0.066
HEALTH PHYSICS PERSONNEL	ő	ő	Ö	ŏ	0.180	0.000	0.069	0.249
SUPERVISORY PERSONNEL	1	0	2	3	0.903	0.078	0.453	1.434
			2	3				
ENGINEERING PERSONNEL	3	<u>0</u> 22	<u>0</u> 16	<u>3</u> 57	0.820	0.000	0.000	0.820
TOTAL	19	22	16	57	5.379	7.657	5.668	18.704
N-SERVICE INSPECTION	-	20	4.4	40	2 020	14 650	2.000	10 464
MAINTENANCE PERSONNEL	5	33	11	49	2.830	11.652	3.982	18.464
OPERATIONS PERSONNEL	0	0	0	0	0.031	0.000	0.000	0.031
HEALTH PHYSICS PERSONNEL	0	0	1	1	0.118	0.000	0.570	0.688
SUPERVISORY PERSONNEL	3	1	22	26	1.159	0.114	6.513	7.786
ENGINEERING PERSONNEL	<u>1</u>	<u>0</u> 34	<u>1</u>	<u>2</u>	<u>0.165</u>	0.000	<u>0.181</u>	0.346
TOTAL	<u>1</u> 9	34	3 <u>1</u> 35	78	4.303	11.766	11.246	27.315
SPECIAL MAINTENANCE								
MAINTENANCE PERSONNEL	4	5	4	13	1.701	3.512	1.227	6.440
PERATIONS PERSONNEL	0	0	0	0	0.054	0.000	0.000	0.054
HEALTH PHYSICS PERSONNEL	0	0	0	0	0.187	0.000	0.755	0.942
SUPERVISORY PERSONNEL	2	Ō	44	46	0.571	0.105	21.655	22.331
ENGINEERING PERSONNEL	2				0.266	0.000	0.000	0.266
TOTAL	<u>2</u> 8	<u>0</u> 5	<u>0</u> 48	<u>2</u> 61	2.779	3.617	23.637	30.033
	Ū	Ü		01	2.770	0.017	20.007	00.000
WASTE PROCESSING MAINTENANCE PERSONNEL	-5	0	1	6	2.294	0.214	0.116	2.624
OPERATIONS PERSONNEL	0	0	0	. 0	0.077	0.000	0.000	0.077
HEALTH PHYSICS PERSONNEL	3	0	0	3	1.259	0.000	0.116	1.375
SUPERVISORY PERSONNEL	0	. 0	0	0	0.148	0.041	0.000	0.189
ENGINEERING PERSONNEL	<u>0</u> 8	<u>o</u> 0	<u>0</u> 1	<u>0</u> 9	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
TOTAL	8	Ō	1	9	3.778	0.255	0.232	4.265
REFUELING								
MAINTENANCE PERSONNEL	15	45	1	61	3.809	11.776	0.340	15.925
PERATIONS PERSONNEL	5	0	0	5	3.043	0.000	0.000	3.043
HEALTH PHYSICS PERSONNEL	0	0	1	1	0.035	0.000	0.188	0.223
SUPERVISORY PERSONNEL	4	ō	Ö	4	1.102	0.043	0.000	1.145
ENGINEERING PERSONNEL					0.000	0.000	0.000	0.000
TOTAL	<u>0</u> 24	<u>0</u> 45	<u>0</u> 2	<u>0</u> 71	7.989	11.819	0.528	20.336
TOTAL BY JOB FUNCTION								
MAINTENANCE PERSONNEL	44	105	31	180	14.423	34.789	10.911	60.123
OPERATIONS PERSONNEL	5	0	0	5	4.802	0.000	0.000	4.802
HEALTH PHYSICS PERSONNEL	8	0	15	23	3.464	0.000	5.340	8.804
SUPERVISORY PERSONNEL	12	1	68	81	4.941	0.432	28.700	34.073
ENGINEERING PERSONNEL	8	0	1	9	1.994	0.000	0.181	2.175
GRAND TOTALS	77	106	115	298	29.624	35.221	45.132	109.977

<sup>\*</sup>Workers may be counted in more than one category.

#### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*QUAD CITIES 1,2

TYPE:

1,2						ITPE.	SVVK
NUMBER C	F PERSON	INEL (>100 mRF	=M)	TOTA			
		CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
2	33	6	41	1.575	0.396	2.759	4.730
96		159	255	35.744	0.000	13.068	48.812
							23.510
							9.275
							5.401
286	33	202	521	65.066	0.396	26.266	91.728
149	70	680	899	99 843	0.819	295 097	395.759
							9.396
							26.897
							19.557
<u>71</u>	<u>0</u>		<u>134</u>	<u>5.809</u>		<u>5.235</u>	<u>11.044</u>
402	70	875	1347	139.194	0.819	322.640	462.653
							117.086
1	0	1	2	0.329	0.000	0.052	0.381
2	0	6	8	0.807	0.000	2.586	3.393
4	0	55	59	0.317	0.000	5.050	5.367
							7.471
<del>70</del>	96	371	512				133.698
55	00	3/1	312	5.567	1.010	127.113	133.090
5	25	580	610	3 151	0.301	256.016	259.468
							1.926
							11.297
	0	100	120	1.768	0.000	9.181	10.949
16	0	80	96	1.293	0.000	6.684	7.977
51	25	794	8 <del>7</del> 0	10.476	0.301	280.840	291.617
1	1	3	5	0.074	0.009	1.393	1.476
15	0	21	36	5.446	0.000	1.763	7.209
							2.948
							2.309
.1	À	<u> </u>	_=				0.024
49	1	25	/5	10.755	0.009	3.202	13.966
07	^	4	20	40 274	0.000	1 670	20.074
							5.946
6							2.675
31	0	0	31	2.680	0.000	0.011	2.691
	0	2	4	0.197	0.000	0.163	0.360
82	2	<del>-</del> 6	90	29.872	0.028	1.846	31.746
184	217	1549	1950	123.162	2.571	672.860	798.593
							73.670
							70.720
							50.148
200	0	191	391	16.379	0.000	15.898	32.277
	NUMBER C STATION  2 96 32 94 62 286  149 23 31 128 71 402  0 1 2 4 48 55  5 4 6 20 16 51  1 15 6 26 1 49  27 16 6 6 31 2 82	NUMBER OF PERSON   STATION   UTILITY	NUMBER OF PERSONEL (>100 mRESTATION UTILITY CONTRACT           2         33         6           96         0         159           32         0         22           94         0         11           62         0         4           286         33         202           149         70         680           23         0         10           31         0         31           128         0         91           71         0         63           402         70         875           0         86         267           1         0         1           2         0         6           4         0         55           48         0         42           55         25         589           4         0         4           6         0         21           20         0         100           16         0         21           20         0         10           1         1         3           15         0         21	NUMBER OF PERSONNEL (>100 mREM)           STATION         UTILITY         CONTRACT         TOTAL           2         33         6         41           96         0         159         255           32         0         22         54           94         0         11         105           62         0         4         66           286         33         202         521           149         70         680         899           23         0         10         33           31         0         31         62           128         0         91         219           71         0         63         134           402         70         875         1347           0         86         267         353           1         0         1         2           2         0         6         8           4         0         55         59           48         0         42         90           55         25         589         619           4         0         4	NUMBER OF PERSONNEL (>100 mREM)         TOTA           STATION         UTILITY         CONTRACT         TOTAL         STATION           2         33         6         41         1.575           96         0         159         255         35.744           32         0         22         54         14.423           94         0         11         105         8.237           62         0         4         66         5.087           286         33         202         521         65.066           149         70         680         899         99.843           23         0         10         33         8.589           31         0         31         62         13.779           128         0         91         219         11.174           71         0         63         1347         139.194           0         86         267         353         0.145           1         0         1         2         0.329           2         0         6         8         0.807           4         0         55	NUMBER OF PERSONNEL (>100 mREM)	NUMBER OF PERSONNEL (>100 mREM)

<sup>\*</sup>Workers may be counted in more than one category.

# NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*RANCHO SECO

TYPE:

PLANT. RANGHO SEC	-						ITPE: P	WIX
WORK AND	NUMBER OF	PERSON	INEL (>100 mRE	EM)	TOTA	· · · · · · · · · · · · · · · · · · ·		
OB FUNCTION	STATION U		CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
EACTOR OPS & SURV								
MAINTENANCE PERSONNEL	8	1	1	10	0.003	0.000	0.000	0.003
PERATIONS PERSONNEL	51	0	8	59	0.136	0.000	0.002	0.138
IEALTH PHYSICS PERSONNEL	19	1	5	25	0.294	0.000	0.166	0.460
SUPERVISORY PERSONNEL	15	2	2	19	0.007	0.000	0.000	0.007
NGINEERING PERSONNEL	14		<u>18</u>	<u>35</u>	0.007	0.000	0.001	0.008
TOTAL	107	<u>3</u> 7	34	1 <u>48</u>	0.447	0.000	0.169	0.616
ROUTINE MAINTENANCE								
MAINTENANCE PERSONNEL	25	0	5	30	0.180	0.000	0.003	0.183
PERATIONS PERSONNEL	10	0	Ō	10	0.034	0.000	0.000	0.034
IEALTH PHYSICS PERSONNEL	6	Ö	2	8	0.005	0.000	0.025	0.030
SUPERVISORY PERSONNEL	3	0	ō	3	0.039	0.000	0.000	0.039
ENGINEERING PERSONNEL		<u>0</u>	<u>1</u> 8	<u>9</u> 60	<u>0.056</u>	0.000	0.000	0.056
TOTAL	52	0	8	60	0.314	0.000	0.028	0.342
N-SERVICE INSPECTION MAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
	-							
HEALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	<u>0</u>	<u>0</u>	<u>o</u> 0	<u>o</u> 0	0.000	<u>0.000</u>	<u>0.000</u>	0.000
TOTAL	0	ō	0	Ö	0.000	0.000	0.000	0.000
SPECIAL MAINTENANCE								
MAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
IEALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	ñ	0			0.000	0.000	0.000	0.000
TOTAL	<u>o</u> 0	0	$\frac{0}{0}$	0	0.000	0.000	0.000	0.000
WASTE PROCESSING								
MAINTENANCE PERSONNEL	5	0	0	5	0.007	0.000	0.000	0.007
OPERATIONS PERSONNEL	3	0	0	3	0.014	0.000	0.000	0.014
EALTH PHYSICS PERSONNEL	4	0	2	6	0.098	0.000	0.012	0.110
SUPERVISORY PERSONNEL	ó	Ö	0	Ö	0.000	0.000	0.000	0.000
				3	0.000	0.000	0.000	0.000
ENGINEERING PERSONNEL TOTAL	<u>1</u> 13	<u>0</u>	<u>1</u> 3	<u>2</u> 16	0.119	0.000	0.012	0.131
REFUELING								
MAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
								0.030
OPERATIONS PERSONNEL	5	0	0	5	0.030	0.000	0.000	
HEALTH PHYSICS PERSONNEL	0	0	1	1	0.000	0.000	0.000	0.000
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	<u>0</u> 5	<u>0</u>	$\frac{1}{2}$	$\frac{1}{7}$	0.000	<u>0.000</u>	<u>0.005</u>	0.005
TOTAL	5	0	2	7	0.030	0.000	0.005	0.035
OTAL BY JOB FUNCTION			_		<u>.</u>			
MAINTENANCE PERSONNEL	38	1	6	45	0.190	0.000	0.003	0.193
PERATIONS PERSONNEL	69	0	8	77	0.214	0.000	0.002	0.216
IEALTH PHYSICS PERSONNEL	29	1	10	40	0.397	0.000	0.203	0.600
SUPERVISORY PERSONNEL	18	2	2	22	0.046	0.000	0.000	0.046
NGINEERING PERSONNEL	23	3	21	47	0.063	0.000	0.006	0.069
GRAND TOTALS	177	7	47	231	0.910	0.000	0.214	1.124

<sup>\*</sup>Workers may be counted in more than one category.

#### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*RIVER BEND 1

TYPE:

	1						TYPE:	BWK	
WORK AND	NUMBER OF	PERSON	NNEL (>100 mRE	=NA)	TOTAL PERSON-REM				
IOB FUNCTION	STATION (	· · · · · · · · · · · · · · · · · · ·	CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL	
REACTOR OPS & SURV						*			
MAINTENANCE PERSONNEL	2	1	6	9	1.276	0.088	0.884	2.248	
OPERATIONS PERSONNEL	48	2	Ö	50	13.425	0.568	0.053	14.046	
EALTH PHYSICS PERSONNEL	21	22	20	63	7.049	5.209	7.407	19.665	
SUPERVISORY PERSONNEL	0	2	2	4	0.008	0.384	0.219	0.611	
INGINEERING PERSONNEL	4	4	<u>8</u>	<u>16</u>	0.546	0.515	1.683	2.744	
TOTAL	75	3 <u>1</u>	3 <u>6</u>	142	22.304	6.764	10.246	39.314	
ROUTINE MAINTENANCE									
MAINTENANCE PERSONNEL	19	18	93	130	5.080	4.322	23.232	32.634	
PERATIONS PERSONNEL	0	0	0	0	0.001	0.000	0.000	0.001	
IEALTH PHYSICS PERSONNEL	0	6	4	10	0.446	0.437	0.725	1.608	
SUPERVISORY PERSONNEL	Ö	Ö	o O	Ö	0.000	0.000	0.000	0.000	
NGINEERING PERSONNEL			<u>5</u>	8	0.171	0.181	3.960	4.312	
TOTAL	<u>1</u> 20	<u>2</u> 26	102	148	5.698	4.940	27.917	38.555	
TOTAL	20	20	102	140	5.098	4.540	21.511	30.000	
N-SERVICE INSPECTION MAINTENANCE PERSONNEL	8	3	50	61	3.041	0.993	24.480	28.514	
PERATIONS PERSONNEL	2	1	0	3	2.888	0.497	0.000	3.385	
	0	2	0	2	0.728	1.164		2.212	
HEALTH PHYSICS PERSONNEL	-						0.320		
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.009	0.009	
INGINEERING PERSONNEL	<u>13</u> 23	14	<u>37</u>	64	<u>3.597</u>	<u>5.591</u>	<u>35.593</u>	44.781	
TOTAL	23	20	87	130	10.254	8.245	60.402	78.901	
SPECIAL MAINTENANCE		-4	222	000	05.000	00.000	400 400	400.000	
MAINTENANCE PERSONNEL	57	51	280	388	35.896	20.926	106.138	162.960	
PERATIONS PERSONNEL	1	0	9	10	1.533	0.000	1.882	3.415	
IEALTH PHYSICS PERSONNEL	5	3	2	10	6.131	3.018	1.719	10.868	
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.001	0.001	
NGINEERING PERSONNEL	<u>1</u>	<u>9</u> 63	<u>24</u>	<u>34</u>	<u>0.336</u>	<u>2.263</u>	<u>5.190</u>	<u>7.789</u>	
TOTAL	64	63	315	442	43.896	26.207	114.930	185.033	
VASTE PROCESSING									
MAINTENANCE PERSONNEL	0	0	1	1	0.003	0.000	1.033	1.036	
PERATIONS PERSONNEL	0	0	0	0	0.011	0.000	0.121	0.132	
HEALTH PHYSICS PERSONNEL	2	1	0	3	1.396	0.332	0.047	1.775	
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.009	0.009	
NGINEERING PERSONNEL	<u>0</u> 2	<u>0</u> 1	<u>0</u> 1	<u>0</u> 4	0.000	0.002	0.000	0.002	
TOTAL	2	1	1	4	1.410	0.334	1.210	2.954	
REFUELING									
MAINTENANCE PERSONNEL	2	9	4	15	0.264	1.811	0.955	3.030	
PERATIONS PERSONNEL	3	1	1	5	0.332	0.124	0.149	0.605	
HEALTH PHYSICS PERSONNEL	3	6	2	11	1.292	1.215	0.431	2.938	
SUPERVISORY PERSONNEL	1	0	- 0	1	0.136	0.001	0.000	0.137	
NGINEERING PERSONNEL					0.325	1.961	11.822	14.108	
TOTAL	<u>3</u> 12	<u>15</u> 31	<u>40</u> 47	<u>58</u> 90	2.349	5.112	13.357	20.818	
OTAL BY JOB FUNCTION									
MAINTENANCE PERSONNEL	88	82	434	604	45.560	28.140	156.722	230.422	
PERATIONS PERSONNEL	54	4	10	68	18.190	1.189	2.205	21.584	
HEALTH PHYSICS PERSONNEL	31	40	28	99	17.042	11.375	10.649	39.066	
SUPERVISORY PERSONNEL	1	2	2	5	0.144	0.385	0.238	0.767	
NGINEERING PERSONNEL	22	44		180	4.975	10.513	58.248	73.736	
GRAND TOTALS	196	172	588	956	85.911	51.602	228.062	365.575	

<sup>\*</sup>Workers may be counted in more than one category.

## NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*ROBINSON 2

TYPE:

DRIGHTON   STATION   UTILITY   CONTRACT   TOTAL   STATION   UTILITY   CONTRACT   TOTAL	TEATT. ROBINGON 2							111 =	****
BEUNCTION	WORK AND	NUMBER OF	PERSONN	EL (>100 mRE	EM)	TOTA	L PERSON-R	EM	
AINTENANCE PERSONNEL 5 0 0 5 5 1.571 0.000 0.074 1.844 EALTH PHYSICS PERSONNEL 15 0 0 0 13 3.372 0.019 0.097 3.485 EALTH PHYSICS PERSONNEL 15 0 24 39 5.235 0.000 5.586 11.196 PERATIONS PERSONNEL 0 0 0 0 0.033 0.000 0.011 1 0.214 NGINEERINS PERSONNEL 0 0 0 0 0.033 0.000 0.011 1 0.214 NGINEERINS PERSONNEL 0 0 0 0 0.023 0.000 0.011 1 0.214 NGINEERINS PERSONNEL 0 0 0 0 0.023 0.000 0.011 1 0.214 NGINEERINS PERSONNEL 0 0 0 0 0.022 0.006 0.083 0.224 57 11.110 0.025 0.008 0.083 0.224 57 11.110 0.025 0.008 0.083 0.224 57 11.110 0.025 0.008 0.083 0.224 57 11.110 0.025 0.008 0.083 0.224 57 11.110 0.025 0.008 0.083 0.224 57 11.110 0.025 0.008 0.083 0.224 57 11.110 0.025 0.008 0.083 0.224 57 11.110 0.025 0.008 0.009 0	JOB FUNCTION								TOTAL
PERATIONS PERSONNEL 13 0 0 1 13 3.372 0.019 0.097 3.486 ALTH PHYSICS PERSONNEL 15 0 24 39 6.235 0.000 0.001 1.199 UPERVISORY PERSONNEL 0 0 0 0 0 0.203 0.000 0.011 0.214 UPERVISORY PERSONNEL 0 0 0 0 0 0.229 0.000 0.011 0.214  NOILINE MAINTENANCE 1.1110 0.025 6.235 1.7.370  DUTINE MAINTENANCE 1.0 0 0 0 0 0.229 0.000 0.011 0.214  MAINTENANCE PERSONNEL 0 0 0 0 0 0.150 0.000	REACTOR OPS & SURV								
EALTH PHYSICS PERSONNEL 15 0 24 39 5.235 0.000 5.960 11.19E PUPENVISORY PERSONNEL 0 0 0 0 0.023 0.000 0.011 0.214 NGINEERING PERSONNEL 0 0 0 0 0 0.023 0.000 0.011 0.214 NGINEERING PERSONNEL 0 0 0 0 0 0.029 0.025 0.028 0.025 17.37C 0.001 0.0	MAINTENANCE PERSONNEL				5		0.000	0.074	1.645
UPERVISORY PERSONNEL	PERATIONS PERSONNEL	13	0	0	13	3.372	0.019	0.097	3.488
NGINEERING PERSONNEL 33 0 24 57 11.110 0.025 6.235 17.37C  OUTINE MAINTENANCE  AINTENANCE PERSONNEL 4 0 40 44 3.011 0.088 13.808 16.907  PERATIONS PERSONNEL 0 0 0 0 0 0.150 0.000 0.000 0.055  EALTH PHYSICS PERSONNEL 0 0 1 1 1 0.331 0.000 0.559 0.898  NGINEERING PERSONNEL 1 0 0 1 1 1 0.031 0.000 0.0559 0.898  NGINEERING PERSONNEL 1 0 1 1 0.002 0.000 0.141 1.43  NGINEERING PERSONNEL 1 0 1 2 0.570 0.009 0.770 1.348  NGINEERING PERSONNEL 1 0 0 0 0 0 0.033 0.000 0.008 0.047  INTENANCE PERSONNEL 0 0 0 0 0 0.033 0.000 0.008 0.047  PERATIONS PERSONNEL 0 0 0 0 0 0.033 0.000 0.008 0.047  AINTENANCE PERSONNEL 0 0 0 0 0 0.033 0.000 0.008 0.047  PERATIONS PERSONNEL 0 0 0 0 0 0.009 0.000 0.000  EALTH PHYSICS PERSONNEL 0 0 0 0 0 0.009 0.000 0.000  PERATIONS PERSONNEL 0 0 0 0 0 0.040 0.000 0.022 0.068  PERATIONS PERSONNEL 0 0 0 0 0 0.040 0.000 0.022 0.068  PERSONNEL 0 0 0 0 0 0.040 0.000 0.022 0.068  PERSONNEL 0 0 0 0 0 0.040 0.000 0.022 0.068  PERSONNEL 0 0 0 0 0 0.040 0.000 0.022 0.068  PERSONNEL 0 0 0 0 0 0.040 0.000 0.022 0.068  PERSONNEL 0 0 0 0 0 0.040 0.000 0.022 0.068  PERSONNEL 0 0 0 0 0 0.040 0.000 0.022 0.068  PERSONNEL 0 0 0 0 0 0.040 0.000 0.022 0.068  PERSONNEL 0 0 0 0 0 0.040 0.000 0.022 0.068  PERSONNEL 0 0 0 0 0 0.040 0.000 0.022 0.068  PERSONNEL 0 0 0 0 0 0.040 0.000 0.022 0.068  PERSONNEL 1 0 0 0 0 0.040 0.000 0.022 0.068  PERSONNEL 1 0 0 0 0 0.040 0.000 0.022 0.068  PERSONNEL 1 0 0 0 1 0.040 0.000 0.000 0.022  PERSONNEL 1 0 0 0 1 0.040 0.000 0.000 0.022  PERSONNEL 1 0 0 0 1 0.040 0.000 0.000 0.000 0.000  PERSONNEL 1 0 0 0 1 0.040 0.000	HEALTH PHYSICS PERSONNEL	15	0	24	39	5.235	0.000	5.960	11.195
OUTINE MAINTENANCE	SUPERVISORY PERSONNEL			0	0	0.203		0.011	0.214
OUTINE MAINTENANCE	NGINEERING PERSONNEL	0	0	0	0	0.729	0.006	0.093	0.828
AINTENANCE PERSONNEL 4 0 40 44 3,011 0,088 13,808 18,907 PERATIONS PERSONNEL 0 0 0 0 0,150 0,000 0,000 0,000 0,000 PERATIONS PERSONNEL 0 0 0 1 1 1 0,331 0,000 0,559 0,890 UPERVISORY PERSONNEL 1 0 0 1 1 1 0,331 0,000 0,559 0,890 UPERVISORY PERSONNEL 1 0 0 1 1 2 0,570 0,009 0,770 1,345 UPERVISORY PERSONNEL 1 0 0 1 2 2 0,570 0,009 0,770 1,345 UPERVISORY PERSONNEL 1 0 0 0 0 0 0,003 0,007 15,278 19,455 UPERVISORY PERSONNEL 0 0 0 0 0 0,003 0,000 0,008 0,041 UPERVISORY PERSONNEL 0 0 0 0 0 0,003 0,000 0,008 0,041 UPERVISORY PERSONNEL 0 0 0 0 0 0,009 0,000 0,00	TOTAL	33	ō	24	57			6.235	17.370
PERATIONS PERSONNEL   0	ROUTINE MAINTENANCE								
EALTH PHYSICS PERSONNEL 0 0 1 1 0.331 0.000 0.559 0.890				40	44				16.907
UPERVISORY PERSONNEL	OPERATIONS PERSONNEL	0	0	0	0	0.150	0.000	0.000	0.150
NGINEERING PERSONNEL  1 0 1 2 0.570 0.009 0.770 1.345  I-SERVICE INSPECTION  AINTENANCE PERSONNEL  0 0 0 0 0 0.033 0.000 0.008 0.001  PERRATIONS PERSONNEL  0 0 0 0 0 0.009 0.000 0.000  EALTH PHYSICS PERSONNEL  0 0 0 0 0 0.003 0.000 0.002  EALTH PHYSICS PERSONNEL  0 0 0 0 0 0.013 0.000 0.002  EALTH PHYSICS PERSONNEL  0 0 0 0 0 0.013 0.000 0.002  INSPERING PERSONNEL  0 0 0 0 0 0.013 0.000 0.003  INSPERING PERSONNEL  0 0 0 0 0 0.015 0.000 0.003  INSPERING PERSONNEL  0 0 0 0 0 0.025 0.006  INSPERING PERSONNEL  1 0 0 0 0 0.257 0.006 0.269 0.532  PECIAL MAINTENANCE  AINTENANCE PERSONNEL  1 0 0 1 0.149 0.009 0.000 0.155  EALTH PHYSICS PERSONNEL  1 0 0 1 0.149 0.009 0.000 0.155  INSPERING PERSONNEL  1 0 0 1 0.149 0.009 0.000 0.155  INSPERING PERSONNEL  1 0 0 1 0.259 0.000 0.098  INSPERING PERSONNEL  1 0 0 1 0.259 0.000 0.098  INSPERING PERSONNEL  1 0 0 1 0.259 0.000 0.098  INSPERING PERSONNEL  25 1 19 45 7.705 0.328 6.884 14.917  IASTE PROCESSING  IAINTENANCE PERSONNEL  1 0 0 0 0 0.172 0.000 0.004 0.176  EALTH PHYSICS PERSONNEL  1 0 0 0 0 0.172 0.000 0.004 0.176  EALTH PHYSICS PERSONNEL  1 0 0 0 0 0.172 0.000 0.004 0.176  EALTH PHYSICS PERSONNEL  1 0 0 0 0 0.172 0.000 0.004 0.176  EALTH PHYSICS PERSONNEL  1 0 0 0 0 0.172 0.000 0.004 0.176  EALTH PHYSICS PERSONNEL  1 0 0 0 0 0.003 0.000 0.007 0.000  INSPERING PERSONNEL  1 0 0 0 0 0.003 0.000 0.007 0.000  INSPERING PERSONNEL  1 0 0 0 0 0.003 0.000 0.007 0.000  INSPERING PERSONNEL  1 0 0 0 0 0.003 0.000 0.000 0.000  INSPERING PERSONNEL  1 0 0 0 0 0.003 0.000 0.000 0.000 0.000  INSPERING PERSONNEL  1 0 0 0 0 0.003 0.000 0.000 0.000 0.000  INSPERING PERSONNEL  1 0 0 0 0 0.003 0.000 0.0	HEALTH PHYSICS PERSONNEL	0	0	1	1	0.331	0.000	0.559	0.890
SERVICE INSPECTION   AINTENANCE PERSONNEL   0	SUPERVISORY PERSONNEL	0	0	1	1	0.002	0.000	0.141	0.143
SERVICE INSPECTION   AINTENANCE PERSONNEL   0	ENGINEERING PERSONNEL	1	0	1	2			0.770	1.349
AINTENANCE PERSONNEL 0 0 0 0 0.033 0.000 0.008 0.041 personnole personnole 0 0 0 0.009 0.000 0.0		5	ō	43	48				19.439
AINTENANCE PERSONNEL 0 0 0 0 0.033 0.000 0.008 0.041 personnole personnole 0 0 0 0.009 0.000 0.0	N-SERVICE INSPECTION								
PERATIONS PERSONNEL 0 0 0 0 0 0.009 0.000		0	Ω	Ω	0	0.033	0.000	0.008	0.041
EALTH PHYSICS PERSONNEL 0 0 0 0 0 0.040 0.000 0.022 0.065   UPERVISORY PERSONNEL 0 0 0 0 0 0.013 0.000 0.008 0.021   NOSINEERING PERSONNEL 0 0 0 0 0 0.062 0.006 0.251 0.395   TOTAL    **PECIAL MAINTENANCE**  AINTENANCE PERSONNEL 16 1 4 21 5.349 0.310 2.009 7.866   PERATIONS PERSONNEL 1 0 0 1 0.149 0.009 0.000 0.155   EALTH PHYSICS PERSONNEL 1 0 0 1 0.434 0.000 0.195 0.625   UPERVISORY PERSONNEL 1 0 0 1 0.434 0.000 0.195 0.625   UPERVISORY PERSONNEL 1 0 0 1 0.434 0.000 0.195 0.625   UPERVISORY PERSONNEL 1 0 0 1 0.259 0.000 0.008 0.267   USATE PROCESSING**  AINTENANCE PERSONNEL 1 0 0 1 0.259 0.000 0.008 0.267   USATE PROCESSING**  AINTENANCE PERSONNEL 1 0 0 0 0.055 0.328 6.884 14.917   USATE PROCESSING**  AINTENANCE PERSONNEL 0 0 0 0 0.0772 0.000 0.004 0.176   EALTH PHYSICS PERSONNEL 0 0 0 0 0 0.0772 0.000 0.004 0.176   EALTH PHYSICS PERSONNEL 0 0 0 0 0 0.003 0.000 0.007 0.016   USATE PROCESSING**  AINTENANCE PERSONNEL 0 0 0 0 0 0 0.003 0.000 0.004 0.176   UPERVISORY PERSONNEL 0 0 0 0 0 0 0.003 0.000 0.007 0.016   USATE PROCESSING**  AINTENANCE PERSONNEL 0 0 0 0 0 0 0.003 0.000 0.007 0.017   USATE PROCESSING**  AINTENANCE PERSONNEL 0 0 0 0 0 0 0.003 0.000 0.007 0.017   USATE PROCESSING**  AINTENANCE PERSONNEL 0 0 0 0 0 0 0.003 0.000 0.007 0.017   USATE PROCESSING**  AINTENANCE PERSONNEL 0 0 0 0 0 0 0 0.003 0.000 0.007 0.017   USATE PROCESSING**  AINTENANCE PERSONNEL 0 0 0 0 0 0 0 0.003 0.000 0.007 0.017   USATE PROCESSING**  AINTENANCE PERSONNEL 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0									
UPERVISORY PERSONNEL   0		-	_	-					
NGINEERING PERSONNEL    0									
PECIAL MAINTENANCE AINTENANCE PERSONNEL 16 1 4 21 5.349 0.310 2.009 7.666 PERATIONS PERSONNEL 1 0 0 1 0.149 0.009 0.000 0.156 EALTH PHYSICS PERSONNEL 1 0 0 0 1 0.434 0.000 0.000 0.008 PERSONNEL 1 0 0 0 1 0.259 0.000 0.008 0.267 NGINIERRING PERSONNEL 6 0 15 21 1.514 0.009 4.672 6.195 TOTAL 25 1 19 45 7.705 0.328 6.884 14.917  MAINTENANCE PERSONNEL 1 0 0 3 4 0.656 0.000 0.462 1.116 PERATIONS PERSONNEL 0 0 0 0 0.1772 0.000 0.004 0.176 EALTH PHYSICS PERSONNEL 5 0 2 7 2.018 0.000 0.567 2.586 PERSONNEL 0 0 0 0 0.003 0.000 0.004 NGINIERRING PERSONNEL 0 0 0 0 0.003 0.000 0.007 0.016 NGINIERRING PERSONNEL 0 0 0 0 0.003 0.000 0.007 0.017 TOTAL 6 0 5 11 2.972 0.000 1.158 4.130  EFUELING MAINTENANCE PERSONNEL 3 0 3 16 3.523 0.000 1.158 4.130  EFUELING MAINTENANCE PERSONNEL 3 0 3 16 3.523 0.000 1.339 4.866 PERSONNEL 1 0 3 18 5.441 0.001 0.555 6.000 NGINIERRING PERSONNEL 1 0 3 18 5.441 0.001 0.555 6.000 NGINIERRING PERSONNEL 1 0 3 18 5.441 0.001 0.555 6.000 NGINIERRING PERSONNEL 1 0 3 18 5.441 0.001 0.555 6.000 NGINIERRING PERSONNEL 1 0 3 18 5.441 0.001 0.555 6.000 NGINIERRING PERSONNEL 1 0 3 18 5.441 0.001 0.555 6.000 NGINIERRING PERSONNEL 1 1 199 354 43.452 2.192 60.826 106.470  DIAL BY JOB FUNCTION MAINTENANCE PERSONNEL 1 145 10 199 354 43.452 2.192 60.826 106.470  DIAL BY JOB FUNCTION MAINTENANCE PERSONNEL 3 0 0 7 178 275 28.777 1.825 53.562 84.164  PERATIONS PERSONNEL 4 5 2 0 47 11.464 0.424 0.245 12.133  EALTH PHYSICS PERSONNEL 4 5 2 0 47 11.464 0.424 0.245 12.133  EALTH PHYSICS PERSONNEL 4 5 2 0 47 11.464 0.424 0.245 12.133  EALTH PHYSICS PERSONNEL 4 5 2 0 47 11.464 0.424 0.245 12.133  EALTH PHYSICS PERSONNEL 4 5 2 0 47 11.464 0.424 0.245 12.133  EALTH PHYSICS PERSONNEL 4 6 0 5 5.921 0.001 0.740 6.666  NGINEERING PERSONNEL 4 6 0 5 5.921 0.001 0.740 6.666  NGINEERING PERSONNEL 4 6 0 5 5.921 0.001 0.740 6.666  NGINEERING PERSONNEL 4 7 11.817 0.398 27.461 39.676									
PECIAL MAINTENANCE AINTENANCE PERSONNEL 16 1 4 21 5.349 0.310 2.009 7.666 PERATIONS PERSONNEL 1 0 0 1 0.149 0.009 0.000 0.156 EALTH PHYSICS PERSONNEL 1 0 0 0 1 0.434 0.000 0.000 0.008 PERSONNEL 1 0 0 0 1 0.259 0.000 0.008 0.267 NGINIERRING PERSONNEL 6 0 15 21 1.514 0.009 4.672 6.195 TOTAL 25 1 19 45 7.705 0.328 6.884 14.917  MAINTENANCE PERSONNEL 1 0 0 3 4 0.656 0.000 0.462 1.116 PERATIONS PERSONNEL 0 0 0 0 0.1772 0.000 0.004 0.176 EALTH PHYSICS PERSONNEL 5 0 2 7 2.018 0.000 0.567 2.586 PERSONNEL 0 0 0 0 0.003 0.000 0.004 NGINIERRING PERSONNEL 0 0 0 0 0.003 0.000 0.007 0.016 NGINIERRING PERSONNEL 0 0 0 0 0.003 0.000 0.007 0.017 TOTAL 6 0 5 11 2.972 0.000 1.158 4.130  EFUELING MAINTENANCE PERSONNEL 3 0 3 16 3.523 0.000 1.158 4.130  EFUELING MAINTENANCE PERSONNEL 3 0 3 16 3.523 0.000 1.339 4.866 PERSONNEL 1 0 3 18 5.441 0.001 0.555 6.000 NGINIERRING PERSONNEL 1 0 3 18 5.441 0.001 0.555 6.000 NGINIERRING PERSONNEL 1 0 3 18 5.441 0.001 0.555 6.000 NGINIERRING PERSONNEL 1 0 3 18 5.441 0.001 0.555 6.000 NGINIERRING PERSONNEL 1 0 3 18 5.441 0.001 0.555 6.000 NGINIERRING PERSONNEL 1 0 3 18 5.441 0.001 0.555 6.000 NGINIERRING PERSONNEL 1 1 199 354 43.452 2.192 60.826 106.470  DIAL BY JOB FUNCTION MAINTENANCE PERSONNEL 1 145 10 199 354 43.452 2.192 60.826 106.470  DIAL BY JOB FUNCTION MAINTENANCE PERSONNEL 3 0 0 7 178 275 28.777 1.825 53.562 84.164  PERATIONS PERSONNEL 4 5 2 0 47 11.464 0.424 0.245 12.133  EALTH PHYSICS PERSONNEL 4 5 2 0 47 11.464 0.424 0.245 12.133  EALTH PHYSICS PERSONNEL 4 5 2 0 47 11.464 0.424 0.245 12.133  EALTH PHYSICS PERSONNEL 4 5 2 0 47 11.464 0.424 0.245 12.133  EALTH PHYSICS PERSONNEL 4 5 2 0 47 11.464 0.424 0.245 12.133  EALTH PHYSICS PERSONNEL 4 6 0 5 5.921 0.001 0.740 6.666  NGINEERING PERSONNEL 4 6 0 5 5.921 0.001 0.740 6.666  NGINEERING PERSONNEL 4 6 0 5 5.921 0.001 0.740 6.666  NGINEERING PERSONNEL 4 7 11.817 0.398 27.461 39.676		<u>0</u>	<u>0</u>	0	<u>0</u>				
AINTENANCE PERSONNEL 16 1 4 21 5.349 0.310 2.009 7.666 PERSONNEL 1 0 0 0 1 0.149 0.009 0.000 0.155 6.625 0.6		U	Ü	Ü	v	0.237	0.000	0.200	0.002
PERATIONS PERSONNEL 1 0 0 1 0.149 0.009 0.000 0.155 EALTH PHYSICS PERSONNEL 1 0 0 0 1 0.434 0.000 0.195 OCCUPERVISORY PERSONNEL 1 0 0 0 1 0.435 0.000 0.196 NGINEERING PERSONNEL 6 0 0 15 21 1.514 0.009 4.672 6.195 TOTAL 25 1 19 45 7.705 0.328 6.884 14.917  VASTE PROCESSING AINTENANCE PERSONNEL 1 0 0 3 4 0.656 0.000 0.462 1.116 PERATIONS PERSONNEL 5 0 0 0 0.172 0.000 0.004 0.176 EALTH PHYSICS PERSONNEL 0 0 0 0 0.172 0.000 0.004 0.176 EALTH PHYSICS PERSONNEL 0 0 0 0 0.003 0.000 0.567 2.586 UPERVISORY PERSONNEL 0 0 0 0 0.003 0.000 0.007 0.016 NGINEERING PERSONNEL 6 0 0 5 11 2.972 0.000 1.158 4.130  EFUELING AINTENANCE PERSONNEL 64 6 131 201 18.157 1.427 37.201 56.786 PERATIONS PERSONNEL 31 2 0 33 7.612 0.396 0.144 8.155 EFUELING AINTENANCE PERSONNEL 13 0 3 18 5.441 0.001 0.565 6.007 NGINEERING PERSONNEL 13 0 3 18 5.441 0.001 0.565 6.007 NGINEERING PERSONNEL 13 0 3 18 5.441 0.001 0.565 6.007 NGINEERING PERSONNEL 145 0 3 18 5.441 0.001 0.565 6.007 NGINEERING PERSONNEL 145 0 3 18 5.441 0.001 0.565 6.007 NGINEERING PERSONNEL 15 0 3 18 5.441 0.001 0.565 6.007 NGINEERING PERSONNEL 15 0 3 18 5.441 0.001 0.565 6.007 NGINEERING PERSONNEL 15 0 3 18 5.441 0.001 0.565 6.007 NGINEERING PERSONNEL 15 0 3 18 5.441 0.001 0.565 6.007 NGINEERING PERSONNEL 15 0 3 18 5.441 0.001 0.565 6.007 NGINEERING PERSONNEL 15 0 3 18 5.441 0.001 0.565 6.007 NGINEERING PERSONNEL 15 0 3 18 5.441 0.001 0.565 6.007 NGINEERING PERSONNEL 15 0 3 18 5.441 0.001 0.565 6.007 NGINEERING PERSONNEL 15 0 3 18 5.441 0.001 0.565 6.007 NGINEERING PERSONNEL 145 0 0 3 18 5.441 0.001 0.565 6.007 NGINEERING PERSONNEL 145 0 0 3 0 47 11.464 0.424 0.245 12.133 EALTH PHYSICS PERSONNEL 15 0 0 47 11.464 0.424 0.245 12.133 EALTH PHYSICS PERSONNEL 16 0 4 20 5.921 0.001 0.740 6.666 NGINEERING PERSONNEL 16 0 4 20 5.921 0.001 0.740 6.666 NGINEERING PERSONNEL 16 0 4 20 5.921 0.001 0.740 6.666 NGINEERING PERSONNEL 29 2 78 109 11.817 0.398 27.461 39.676		16	1	4	21	5 3/10	0.310	2 009	7 668
EALTH PHYSICS PERSONNEL 1 0 0 1 1 0.434 0.000 0.195 0.625 UPERVISORY PERSONNEL 1 0 0 0 1 0.259 0.000 0.008 0.267 NGINEERING PERSONNEL 6 0 15 21 1.514 0.009 4.672 6.195 TOTAL 25 1 19 45 7.705 0.328 6.884 14.917 (ASTE PROCESSING AINTENANCE PERSONNEL 1 0 0 3 4 0.656 0.000 0.462 1.118 PERATIONS PERSONNEL 1 0 0 0 0 0.172 0.000 0.004 0.176 EALTH PHYSICS PERSONNEL 5 0 2 7 2.018 0.000 0.567 2.588 0.92									
UPERVISORY PERSONNEL									
NGINEERING PERSONNEL 25 1 19 45 7.705 0.328 6.884 14.917  NASTE PROCESSING  AINTENANCE PERSONNEL 1 0 3 4 0.656 0.000 0.462 1.118  PERATIONS PERSONNEL 5 0 2 7 2.018 0.000 0.057 2.588  UPERVISORY PERSONNEL 0 0 0 0 0 0.003 0.000 0.007 0.016  NGINEERING PERSONNEL 0 0 0 0 0 0.023 0.000 0.007 0.017  NGINEERING PERSONNEL 0 0 0 0 0 0.003 0.000 0.007 0.016  NGINEERING PERSONNEL 0 0 0 0 0 0.023 0.000 0.118 0.241  TOTAL 6 0 5 11 2.972 0.000 1.158 4.136  EFUELING  AINTENANCE PERSONNEL 31 2 0 33 7.612 0.396 0.144 8.152  EALTH PHYSICS PERSONNEL 15 0 3 18 5.441 0.001 0.566 6.007  NGINEERING PERSONNEL 15 0 3 18 5.441 0.001 0.566 6.007  NGINEERING PERSONNEL 15 0 3 18 5.441 0.001 0.566 6.007  NGINEERING PERSONNEL 15 0 3 18 5.441 0.001 0.566 6.007  NGINEERING PERSONNEL 15 0 3 18 5.441 0.001 0.566 6.007  NGINEERING PERSONNEL 15 0 3 18 5.441 0.001 0.566 6.007  NGINEERING PERSONNEL 15 0 3 18 5.441 0.001 0.566 6.007  NGINEERING PERSONNEL 15 0 3 18 5.441 0.001 0.565 6.007  NGINEERING PERSONNEL 15 0 3 18 5.441 0.001 0.565 6.007  NGINEERING PERSONNEL 15 0 3 18 5.441 0.001 0.565 6.007  NGINEERING PERSONNEL 22 2 62 86 8.719 0.368 21.577 3.0664  TOTAL  NGINEERING PERSONNEL 45 2 0 47 11.464 0.424 0.245 12.133  EALTH PHYSICS PERSONNEL 45 2 0 47 11.464 0.424 0.245 12.133  EALTH PHYSICS PERSONNEL 45 2 0 47 11.464 0.424 0.245 12.133  EALTH PHYSICS PERSONNEL 45 2 0 47 11.464 0.424 0.245 12.133  EALTH PHYSICS PERSONNEL 29 2 78 109 11.817 0.398 27.461 39.676		•							
ASTE PROCESSING   AINTENANCE PERSONNEL   1									
ASTE PROCESSING   AINTENANCE PERSONNEL   1		<u>6</u>	<u>0</u>	<u>15</u>	<u>21</u>				
AINTENANCE PERSONNEL	TOTAL	25	1	19	45	7.705	0.328	6.884	14.917
PERATIONS PERSONNEL 0 0 0 0 0 0.172 0.000 0.004 0.176 EALTH PHYSICS PERSONNEL 5 0 2 7 2.018 0.000 0.567 2.588 UPERVISORY PERSONNEL 0 0 0 0 0 0.003 0.000 0.007 0.010 0.001 0.0	WASTE PROCESSING	4	0		4	0.050	0.000	0.462	4 440
EALTH PHYSICS PERSONNEL 5 0 2 7 2.018 0.000 0.567 2.585 UPERVISORY PERSONNEL 0 0 0 0 0 0.003 0.000 0.007 0.016 NGINEERING PERSONNEL 0 0 0 0 0 0 0.003 0.000 0.007 0.016 NGINEERING PERSONNEL 0 0 0 0 0 0 0.0123 0.000 0.118 0.241 TOTAL 6 0 5 11 2.972 0.000 1.158 4.130 0.000									
UPERVISORY PERSONNEL 0 0 0 0 0 0.003 0.000 0.007 0.010 NGINEERING PERSONNEL 0 0 0 0 0 0.123 0.000 0.118 0.241 TOTAL 0 6 0 0 5 11 2.972 0.000 1.158 4.130 0.0000 0.000 0.									
NGINEERING PERSONNEL TOTAL  0 0 0 0 0 0.123 0.000 0.118 0.241 TOTAL  EFUELING AINTENANCE PERSONNEL 64 6 131 201 18.157 1.427 37.201 56.785 PERATIONS PERSONNEL 31 2 0 33 7.612 0.396 0.144 8.152 EALTH PHYSICS PERSONNEL 13 0 3 16 3.523 0.000 1.339 4.862 UPERVISORY PERSONNEL 15 0 3 18 5.441 0.001 0.565 6.007 NGINEERING PERSONNEL 22 2 662 86 8.719 0.368 21.577 30.664 TOTAL 145 10 199 354 43.452 2.192 60.826 106.470  OTAL BY JOB FUNCTION AINTENANCE PERSONNEL 90 7 178 275 28.777 1.825 53.562 84.164 PERATIONS PERSONNEL 45 2 0 47 11.464 0.424 0.245 12.133 EALTH PHYSICS PERSONNEL 34 0 30 64 11.581 0.000 8.642 20.223 UPERVISORY PERSONNEL 16 0 4 20 5.921 0.001 0.740 6.662 NGINEERING PERSONNEL 29 2 78 109 11.817 0.398 27.461 39.676									
EFUELING  AINTENANCE PERSONNEL 64 6 131 201 18.157 1.427 37.201 56.785 PERATIONS PERSONNEL 31 2 0 33 7.612 0.396 0.144 8.152 EALTH PHYSICS PERSONNEL 13 0 3 16 3.523 0.000 1.339 4.862 UPERVISORY PERSONNEL 15 0 3 18 5.441 0.001 0.565 6.007 NGINEERING PERSONNEL 22 2 62 86 8.719 0.368 21.577 30.664 TOTAL 145 10 199 354 43.452 2.192 60.826 106.470  OTAL BY JOB FUNCTION IAINTENANCE PERSONNEL 90 7 178 275 28.777 1.825 53.562 84.164 PERATIONS PERSONNEL 45 2 0 47 11.464 0.424 0.245 12.133 EALTH PHYSICS PERSONNEL 34 0 30 64 11.581 0.000 8.642 20.223 UPERVISORY PERSONNEL 16 0 4 20 5.921 0.001 0.740 6.662 NGINEERING PERSONNEL 29 2 78 109 11.817 0.398 27.461 39.676									
EFUELING  AINTENANCE PERSONNEL 64 6 131 201 18.157 1.427 37.201 56.785 PERATIONS PERSONNEL 31 2 0 33 7.612 0.396 0.144 8.152 EALTH PHYSICS PERSONNEL 13 0 3 16 3.523 0.000 1.339 4.862 UPERVISORY PERSONNEL 15 0 3 18 5.441 0.001 0.565 6.007 NGINEERING PERSONNEL 22 2 62 86 8.719 0.368 21.577 30.664 TOTAL 145 10 199 354 43.452 2.192 60.826 106.470  OTAL BY JOB FUNCTION IAINTENANCE PERSONNEL 90 7 178 275 28.777 1.825 53.562 84.164 PERATIONS PERSONNEL 45 2 0 47 11.464 0.424 0.245 12.133 EALTH PHYSICS PERSONNEL 34 0 30 64 11.581 0.000 8.642 20.223 UPERVISORY PERSONNEL 16 0 4 20 5.921 0.001 0.740 6.662 NGINEERING PERSONNEL 29 2 78 109 11.817 0.398 27.461 39.676		<u>0</u>	<u>0</u>	<u>o</u>	<u>0</u>				
AINTENANCE PERSONNEL 64 6 131 201 18.157 1.427 37.201 56.785 PERATIONS PERSONNEL 31 2 0 33 7.612 0.396 0.144 8.152 EALTH PHYSICS PERSONNEL 13 0 3 16 3.523 0.000 1.339 4.862 UPERVISORY PERSONNEL 15 0 3 18 5.441 0.001 0.565 6.007 NGINEERING PERSONNEL 22 2 62 86 8.719 0.368 21.577 30.664 TOTAL 145 10 199 354 43.452 2.192 60.826 106.470  OTAL BY JOB FUNCTION IAINTENANCE PERSONNEL 90 7 178 275 28.777 1.825 53.562 84.164 PERATIONS PERSONNEL 45 2 0 47 11.464 0.424 0.245 12.133 EALTH PHYSICS PERSONNEL 34 0 30 64 11.581 0.000 8.642 20.223 UPERVISORY PERSONNEL 16 0 4 20 5.921 0.001 0.740 6.662 NGINEERING PERSONNEL 29 2 78 109 11.817 0.398 27.461 39.676	TOTAL	6	0	5	11	2.972	0.000	1.158	4.130
PERATIONS PERSONNEL 31 2 0 33 7.612 0.396 0.144 8.152 EALTH PHYSICS PERSONNEL 13 0 3 16 3.523 0.000 1.339 4.862 UPERVISORY PERSONNEL 15 0 3 18 5.441 0.001 0.565 6.007 NGINEERING PERSONNEL 22 2 62 86 8.719 0.368 21.577 30.664 TOTAL 0.001 1.505 106.470 1.505 1	REFUELING			404	004	40.457	4 407	07.004	50.705
EALTH PHYSICS PERSONNEL 13 0 3 16 3.523 0.000 1.339 4.862 UPERVISORY PERSONNEL 15 0 3 18 5.441 0.001 0.565 6.007 NGINEERING PERSONNEL 22 2 62 86 8.719 0.368 21.577 30.664 TOTAL 145 10 199 354 43.452 2.192 60.826 106.476 OTAL BY JOB FUNCTION PERSONNEL 90 7 178 275 28.777 1.825 53.562 84.164 PPERATIONS PERSONNEL 45 2 0 47 11.464 0.424 0.245 12.133 EALTH PHYSICS PERSONNEL 34 0 30 64 11.581 0.000 8.642 20.223 UPERVISORY PERSONNEL 16 0 4 20 5.921 0.001 0.740 6.665 NGINEERING PERSONNEL 29 2 78 109 11.817 0.398 27.461 39.676									
UPERVISORY PERSONNEL   15									
NGINEERING PERSONNEL 22 2 62 86 8.719 0.368 21.577 30.664 TOTAL 145 10 199 354 43.452 2.192 60.826 106.470  OTAL BY JOB FUNCTION AINTENANCE PERSONNEL 90 7 178 275 28.777 1.825 53.562 84.164 PERATIONS PERSONNEL 45 2 0 47 11.464 0.424 0.245 12.133 EALTH PHYSICS PERSONNEL 34 0 30 64 11.581 0.000 8.642 20.223 UPERVISORY PERSONNEL 16 0 4 20 5.921 0.001 0.740 6.662 NGINEERING PERSONNEL 29 2 78 109 11.817 0.398 27.461 39.676	HEALTH PHYSICS PERSONNEL								4.862
OTAL BY JOB FUNCTION  AINTENANCE PERSONNEL 90 7 178 275 28.777 1.825 53.562 84.164    PERATIONS PERSONNEL 45 2 0 47 11.464 0.424 0.245 12.135    EALTH PHYSICS PERSONNEL 34 0 30 64 11.581 0.000 8.642 20.225    UPERVISORY PERSONNEL 16 0 4 20 5.921 0.001 0.740 6.662    NGINEERING PERSONNEL 29 2 78 109 11.817 0.398 27.461 39.676	SUPERVISORY PERSONNEL		0						6.007
OTAL BY JOB FUNCTION  AINTENANCE PERSONNEL 90 7 178 275 28.777 1.825 53.562 84.164    PERATIONS PERSONNEL 45 2 0 47 11.464 0.424 0.245 12.135    EALTH PHYSICS PERSONNEL 34 0 30 64 11.581 0.000 8.642 20.225    UPERVISORY PERSONNEL 16 0 4 20 5.921 0.001 0.740 6.662    NGINEERING PERSONNEL 29 2 78 109 11.817 0.398 27.461 39.676	NGINEERING PERSONNEL		<u>2</u>		<u>86</u>				30.664
AINTENANCE PERSONNEL 90 7 178 275 28.777 1.825 53.562 84.164 PERATIONS PERSONNEL 45 2 0 47 11.464 0.424 0.245 12.133 EALTH PHYSICS PERSONNEL 34 0 30 64 11.581 0.000 8.642 20.223 UPERVISORY PERSONNEL 16 0 4 20 5.921 0.001 0.740 6.662 NGINEERING PERSONNEL 29 2 78 109 11.817 0.398 27.461 39.676	TOTAL		10		354	43.452	2.192	60.826	106.470
PERATIONS PERSONNEL         45         2         0         47         11.464         0.424         0.245         12.133           EALTH PHYSICS PERSONNEL         34         0         30         64         11.581         0.000         8.642         20.223           UPERVISORY PERSONNEL         16         0         4         20         5.921         0.001         0.740         6.662           NGINEERING PERSONNEL         29         2         78         109         11.817         0.398         27.461         39.676	TOTAL BY JOB FUNCTION		_					50	
EALTH PHYSICS PERSONNEL       34       0       30       64       11.581       0.000       8.642       20.223         UPERVISORY PERSONNEL       16       0       4       20       5.921       0.001       0.740       6.662         NGINEERING PERSONNEL       29       2       78       109       11.817       0.398       27.461       39.676	MAINTENANCE PERSONNEL								84.164
UPERVISORY PERSONNEL         16         0         4         20         5.921         0.001         0.740         6.662           NGINEERING PERSONNEL         29         2         78         109         11.817         0.398         27.461         39.676	PERATIONS PERSONNEL	45							12.133
NGINEERING PERSONNEL 29 2 78 109 11.817 0.398 27.461 39.676	HEALTH PHYSICS PERSONNEL	34	0	30	64				20.223
NGINEERING PERSONNEL 29 2 78 109 11.817 0.398 27.461 39.676	SUPERVISORY PERSONNEL	16	0		20	5.921	0.001	0.740	6.662
GRAND TOTALS 214 11 290 515 69.560 2.648 90.650 162.858	ENGINEERING PERSONNEL	29		78	109	11.817	0.398	27.461	39.676
GRAND TOTALS 214 11 290 515 69.560 2.648 90.650 162.858				000	F45	00.500	0.040	00.050	400.050
	GRAND TOTALS	214	11	290	515	69.560	2.648	90.650	162.858

<sup>\*</sup>Workers may be counted in more than one category.

#### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*SALEM 1,2

TYPE:

VORK AND OB FUNCTION  REACTOR OPS & SURV MAINTENANCE PERSONNEL DERATIONS PERSONNEL DERATIONS PERSONNEL DERATIONS PERSONNEL DERATIONS PERSONNEL TOTAL  ROUTINE MAINTENANCE MAINTENANCE PERSONNEL DERATIONS PERSONNEL	NUMBER OF F STATION UT	0 0 0 0 0	ONTRACT 0 0	TOTAL 0	TOTAI STATION 0.003	L PERSON-RI UTILITY	EMCONTRACT	TOTAI
REACTOR OPS & SURV MAINTENANCE PERSONNEL DPERATIONS PERSONNEL BEALTH PHYSICS PERSONNEL BUPERVISORY PERSONNEL TOTAL  ROUTINE MAINTENANCE MAINTENANCE PERSONNEL DPERATIONS PERSONNEL	0 0 0 0	0 0 0 0	0	0	STATION			TOTA
MAINTENANCE PERSONNEL DPERATIONS PERSONNEL BEALTH PHYSICS PERSONNEL BUPERVISORY PERSONNEL TOTAL BOUTINE MAINTENANCE MAINTENANCE PERSONNEL DPERATIONS PERSONNEL	0 0 0	0 0 0	0		0.002			
PPERATIONS PERSONNEL JEALTH PHYSICS PERSONNEL JUPERVISORY PERSONNEL TOTAL  ROUTINE MAINTENANCE JAINTENANCE PERSONNEL DPERATIONS PERSONNEL	0 0 0	0 0 0	0		0.003			
EALTH PHYSICS PERSONNEL UPERVISORY PERSONNEL NGINEERING PERSONNEL TOTAL  OUTINE MAINTENANCE IAINTENANCE PERSONNEL PERATIONS PERSONNEL	0 0	0				0.038	0.022	0.063
UPERVISORY PERSONNEL NGINEERING PERSONNEL TOTAL  OUTINE MAINTENANCE IAINTENANCE PERSONNEL PERATIONS PERSONNEL	0	0	^	0	0.004	0.000	0.096	0.100
NGINEERING PERSONNEL TOTAL  OUTINE MAINTENANCE IAINTENANCE PERSONNEL PERATIONS PERSONNEL			0	0	0.069	0.090	0.183	0.342
TOTAL  OUTINE MAINTENANCE IAINTENANCE PERSONNEL PERATIONS PERSONNEL	<u>o</u>	•	0	0	0.000	0.000	0.000	0.000
OUTINE MAINTENANCE AINTENANCE PERSONNEL PERATIONS PERSONNEL	ō	<u>U</u>	<u>o</u> o	<u>0</u> 0	0.068	0.000	0.000	0.068
AINTENANCE PERSONNEL PERATIONS PERSONNEL		<u>0</u>	ō	0	0.144	0.128	0.301	0.573
PERATIONS PERSONNEL	_							
	9	4	49	62	6.818	2.729	25.636	35.183
	2	7	25	34	1.119	4.670	12.547	18.336
EALTH PHYSICS PERSONNEL	1	0	16	17	1.975	0.354	6.548	8.877
UPERVISORY PERSONNEL	0	0	2	2	0.054	0.024	0.456	0.534
NGINEERING PERSONNEL	<u>0</u> 12	<u>0</u> 11	<u>o</u>	<u>o</u>	<u>0.084</u>	0.322	0.030	0.436
TOTAL	12	11	92	115	10.050	8.099	45.217	63.366
I-SERVICE INSPECTION	•			44	A 1=1	0.000	45	40.00-
AINTENANCE PERSONNEL	0	1	38	39	0.154	0.388	15.750	16.292
PERATIONS PERSONNEL	0	2	158	160	0.007	0.990	55.459	56.456
EALTH PHYSICS PERSONNEL	3	0	12	15	1.037	0.117	3.838	4.992
UPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.237	0.237
NGINEERING PERSONNEL	<u>0</u> 3	<u>0</u> 3	<u>5</u>	<u>5</u>	<u>0.005</u>	<u>0.104</u>	<u>2.279</u>	<u>2.388</u>
TOTAL	3	3	213	219	1.203	1.599	77.563	80.365
PECIAL MAINTENANCE								
AINTENANCE PERSONNEL	6	0	257	263	2.606	0.314	98.207	101.127
PERATIONS PERSONNEL	1	1	67	69	0.214	0.477	25.157	25.848
EALTH PHYSICS PERSONNEL	5	2	16	23	1.069	0.257	6.038	7.364
UPERVISORY PERSONNEL	0	0	0	0	0.010	0.026	0.135	0.171
NGINEERING PERSONNEL	<u>0</u> 12	<u>0</u> 3	<u>0</u>	<u>o</u>	<u>0.004</u>	<u>0.133</u>	<u>0.074</u>	<u>0.211</u>
TOTAL	12	3	340	355	3.903	1.207	129.611	134.721
VASTE PROCESSING MAINTENANCE PERSONNEL	0	0	4.4	4.4	0.242	0.444	2 722	4 470
	0	0	14	14	0.343	0.414	3.722	4.479
PERATIONS PERSONNEL	0	0	10	10	0.318	0.086	2.134	2.538
EALTH PHYSICS PERSONNEL	0	0	3	3	0.423	0.128	1.479	2.030
UPERVISORY PERSONNEL	0	0	0	0	0.002	0.012	0.000	0.014
NGINEERING PERSONNEL	<u>o</u>	<u>o</u>	<u>0</u> 27	<u>0</u> 27	0.000	<u>0.010</u>	0.000	0.010
TOTAL	0	0	27	27	1.086	0.650	7.335	9.071
EFUELING AINTENANCE PERSONNEL	4	0	4	E	0.475	0.405	1 740	2.000
	1	0	4	5 17	0.175	0.105	1.743	2.023
PERATIONS PERSONNEL	0	0	17	17	0.052	0.146	3.991	4.189
EALTH PHYSICS PERSONNEL	0	0	5	5	0.104	0.008	1.313	1.425
JPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.094	0.094
NGINEERING PERSONNEL TOTAL	<u>0</u> 1	<u>0</u> 0	<u>0</u> 26	<u>0</u> 27	<u>0.000</u> 0.331	0.006 0.265	<u>0.000</u> 7.141	<u>0.006</u> 7.737
OTAL BY JOB FUNCTION								
AINTENANCE PERSONNEL	16	5	362	383	10.099	3.988	145.080	159.167
PERATIONS PERSONNEL	3	10	277	290	1.714	6.369	99.384	107.467
EALTH PHYSICS PERSONNEL	9	2	52	63	4.677	0.954	19.399	25.030
JPERVISORY PERSONNEL	0	0	2	2	0.066	0.954	0.922	1.050
NGINEERING PERSONNEL	0	0	5	5	0.161	0.575	2.383	3.119
GRAND TOTALS	28	17	698	743	16.717	11.948	267.168	295.833

<sup>\*</sup>Workers may be counted in more than one category.

# NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*SAN ONOFRE 2,3

TYPE:

PLANT: SAN UNUFRE	= 2,3									TYPE: F	TVVIX
WORK AND	NUMBER (	OF PERSO	NNEL (	′>100 m	nREM)			TOTAL PERSON-REM			
OB FUNCTION	STATION			ITRAC1		OTAL		STATION	UTILITY	CONTRACT	TOTA
EACTOR OPS & SURV											
IAINTENANCE PERSONNEL	1	0	ı	5		6		0.000	0.000	0.057	0.057
PERATIONS PERSONNEL	1	0		Ö		1		0.009	0.000	0.000	0.009
EALTH PHYSICS PERSONNEL	2	0		Ö		2		0.003	0.000	0.000	0.003
	0	0									
UPERVISORY PERSONNEL				0		0		0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	<u>0</u> 4	<u>0</u>		<u>0</u> 5		<u>0</u> 9		0.000	0.000	0.000	0.000
TOTAL	4	0	1	5		9		0.021	0.000	0.057	0.078
OUTINE MAINTENANCE		_									
AINTENANCE PERSONNEL	110	3		206		319		23.523	1.492	38.179	63.194
PERATIONS PERSONNEL	14	0		0		14		1.544	0.000	0.000	1.544
EALTH PHYSICS PERSONNEL	59	0		65		124		9.060	0.000	8.154	17.214
JPERVISORY PERSONNEL	5	0	ı	0		5		0.262	0.000	0.000	0.262
NGINEERING PERSONNEL	<u>11</u>	0		<u>6</u>		17		2.564	0.000	0.895	3.459
TOTAL	199	<u>0</u> 3		$27\frac{3}{7}$		4 <del>79</del>		36.953	1.492	47.228	85.673
TOTAL	199	3	'	211		413		50.955	1.432	47.220	00.070
I-SERVICE INSPECTION AINTENANCE PERSONNEL	1	0		48		49		0.155	0.000	8.631	8.786
	1	. 0		0		1		0.082	0.000	0.000	0.082
PERATIONS PERSONNEL	-			_							
EALTH PHYSICS PERSONNEL	0	.0		0		0		0.000	0.000	0.000	0.000
JPERVISORY PERSONNEL	0	0		0		. 0		0.000	0.000	0.000	0.000
IGINEERING PERSONNEL	<u>0</u> 2	0		<u>0</u> 48		<u>0</u>		0.000	0.000	<u>0.000</u>	0.000
TOTAL	2	Ō		48		<u>0</u> 50		0.237	0.000	8.631	8.868
PECIAL MAINTENANCE											
AINTENANCE PERSONNEL	0	0		0		0		0.000	0.000	0.000	0.000
PERATIONS PERSONNEL	0	0		0		0		0.000	0.000	0.000	0.000
EALTH PHYSICS PERSONNEL	0	0		0		0		0.000	0.000	0.000	0.000
JPERVISORY PERSONNEL	Ō	Ö		Ö		ō		0.000	0.000	0.000	0.000
NGINEERING PERSONNEL								0.000	0.000	0.000	0.000
	<u>o</u> 0	<u>0</u>		<u>0</u>		<u>0</u>					
TOTAL	U	U	!	U		U		0.000	0.000	0.000	0.000
ASTE PROCESSING	•	•				7		0.440	0.000	0.004	0.450
AINTENANCE PERSONNEL	3	0		4		7		0.149	0.000	0.001	0.150
PERATIONS PERSONNEL	1	0		0		1		0.130	0.000	0.000	0.130
EALTH PHYSICS PERSONNEL	35	0		32		67		6.019	0.000	4.390	10.409
JPERVISORY PERSONNEL	0	0		0		0		0.000	0.000	0.000	0.000
IGINEERING PERSONNEL	0	0		<u>0</u>		0		0.000	0.000	0.000	0.000
TOTAL	<u>0</u> 39	<u>0</u>		36		<u>0</u> 75		6.298	0.000	4.391	10.689
FUELING											
AINTENANCE PERSONNEL	15	0		47		62		2.536	0.000	6.018	8.554
PERATIONS PERSONNEL	1	Ö		0		1		0.000	0.000	0.000	0.000
EALTH PHYSICS PERSONNEL	4	0		Ö		4		0.478	0.000	0.000	0.478
									0.000	0.000	0.920
JPERVISORY PERSONNEL	4	0		0		4		0.920			
IGINEERING PERSONNEL	<u>6</u> 30	<u>0</u>		.1		7		<u>0.511</u>	0.000	0.004	0.515
TOTAL	30	0	l	48		78		4.445	0.000	6.022	10.467
OTAL BY JOB FUNCTION		/4.4. <del>*</del> * -		0.40	(0.4.7)	4.45	(0.0.7)	00.000	4 460	FC 222	00 =
AINTENANCE PERSONNEL	130	(110) 3		310	(212)	443	(325)	26.363	1.492	52.886	80.741
PERATIONS PERSONNEL	18	(14) 0	(0)	0	(0)	18	(14)	1.765	0.000	0.000	1.765
EALTH PHYSICS PERSONNEL	100	(59) 0		97	(69)	197	(128)	15.569	0.000	12.544	28.113
JPERVISORY PERSONNEL	9	(5) 0	٠,	0	(0)	9	(5)	1.182	0.000	0.000	1.182
NGINEERING PERSONNEL	17	(12) 0		7	(6)	24	(18)	3.075	0.000	0.899	3.974
CRAND TOTAL C	074	(200) 2	(2)	111	(207)	601	(400)	47.054	4.400	66 220	115 775
GRAND TOTALS	274	(200) 3	(3)	414	(287)	ופס	(490)	47.954	1.492	66.329	115.775

<sup>\*</sup>Workers may be counted in more than one category. Numbers in parentheses are total numbers of individuals.

# NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*SEABROOK

TYPE:

PLANT: SEABROOK							TYPE: F	VVK
WORK AND	NUMBER OF PE	RSONNE	EL (>100 mRE	M)	ТОТА			
IOB FUNCTION	STATION UTIL	ITY C	ONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
EACTOR OPS & SURV								
MAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
PERATIONS PERSONNEL	Õ	Ö	Ö	Ö	0.000	0.000	0.000	0.000
EALTH PHYSICS PERSONNEL	Ö	Ö	Ö	Ö	0.000	0.000	0.000	0.000
SUPERVISORY PERSONNEL	ő	ŏ	ŏ	Ö	0.000	0.000	0.000	0.000
INGINEERING PERSONNEL							0.000	0.000
TOTAL	<u>0</u>	00	<u>0</u> 0	<u>0</u> 0	<u>0.000</u> 0.000	<u>0.000</u> 0.000	0.000	0.000
ROUTINE MAINTENANCE								
MAINTENANCE PERSONNEL	8	0	0	8	0.872	0.000	0.000	0.872
OPERATIONS PERSONNEL	1	1	Ö	2	0.225	0.125	0.000	0.350
EALTH PHYSICS PERSONNEL	11	Ö	Ö	11	2.276	0.000	0.000	2.276
	0	0	0					0.000
SUPERVISORY PERSONNEL				0	0.000	0.000	0.000	
ENGINEERING PERSONNEL	<u>0</u> 20	<u>0</u> 1	<u>0</u> 0	<u>0</u> 21	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	0.000
TOTAL	20	1	0	21	3.373	0.125	0.000	3.498
N-SERVICE INSPECTION	0	•	0	,	0.000	0.000	0.000	0.000
MAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
OPERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
HEALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
TOTAL	0	0	<u>0</u>	<u>0</u>	0.000	0.000	0.000	0.000
SPECIAL MAINTENANCE								
MAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
HEALTH PHYSICS PERSONNEL	1	Ö	Ö	1	0.000	0.000	0.000	0.000
SUPERVISORY PERSONNEL	Ö	Ö	ő	ò	0.000	0.000	0.000	0.000
					0.000	0.000	0.000	0.000
ENGINEERING PERSONNEL	<u>0</u>	<u>o</u>	<u>0</u>	<u>0</u> 1				
TOTAL	1	U	U	1	0.000	0.000	0.000	0.000
WASTE PROCESSING MAINTENANCE PERSONNEL	3	0	1	4	0.300	0.000	0.184	0.484
				4				
OPERATIONS PERSONNEL	0	. 0	0	0	0.000	0.000	0.000	0.000
HEALTH PHYSICS PERSONNEL	4	0	0	4	0.017	0.000	0.000	0.017
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
TOTAL	<u>0</u> 7	<u>0</u>	<u>0</u> 1	<u>0</u> 8	0.317	0.000	0.184	0.501
REFUELING								
MAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
HEALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
SUPERVISORY PERSONNEL	Ö	Ö	Ö	Ö	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL					0.000	0.000	0.000	0.000
TOTAL	<u>0</u>	<u>o</u>	<u>0</u>	<u>o</u> o	0.000	0.000	0.000	0.000
OTAL BY JOB FUNCTION								
MAINTENANCE PERSONNEL	11	0	1	12	1.172	0.000	0.184	1.356
PERATIONS PERSONNEL	1.	1	Ö	2	0.225	0.125	0.000	0.350
IEALTH PHYSICS PERSONNEL	16	0	0	16	2.293	0.000	0.000	2.293
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	0	0.	0	0	0.000	0.000	0.000	0.000
GRAND TOTALS	28	1	1	30	3.690	0.125	0.184	3.999

<sup>\*</sup>Workers may be counted in more than one category.

# NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*SEQUOYAH 1,2

TYPE:

PLANT: SEQUUTANT	,–						TYPE: I	PVVK
WORK AND	NUMBER OF	PERSON	NEL (>100 mRE	Ξ <b>M</b> )	TOTA			
JOB FUNCTION	STATION L		CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV								· · · · · · · · · · · · · · · · · · ·
MAINTENANCE PERSONNEL	55	3	40	98	0.461	0.046	0.341	0.848
PERATIONS PERSONNEL	45	3	1	49	5.929	0.190	0.000	6.119
EALTH PHYSICS PERSONNEL	37	6	33	76	6.404	0.473	5.066	11.943
SUPERVISORY PERSONNEL	9	1	0	10	0.510	0.058	0.000	0.568
INGINEERING PERSONNEL	<u>22</u>	<u>6</u>	11	<u>39</u>	0.395	0.137	0.344	0.876
TOTAL	1 <del>22</del>	19	85	2 <del>72</del>	13.699	0.904	5.751	20.354
ROUTINE MAINTENANCE								
MAINTENANCE PERSONNEL	105	6	267	378	21.659	0.725	54.411	76.795
PERATIONS PERSONNEL	49	5	6	60	1.970	0.126	1.091	3.187
EALTH PHYSICS PERSONNEL	70	6	34	110	14.300	0.200	3.156	17.656
SUPERVISORY PERSONNEL	17	3	Ö	20	0.980	0.099	0.000	1.079
INGINEERING PERSONNEL	<u>38</u>	10	41	89	3.741	0.394	0.708	4.843
	279	30		657				
TOTAL	219	30	348	657	42.650	1.544	59.366	103.560
N-SERVICE INSPECTION MAINTENANCE PERSONNEL	11	0	78	89	2.617	0.000	11.909	14.526
PERATIONS PERSONNEL	5	0	5	10	0.211	0.000	0.860	1.071
EALTH PHYSICS PERSONNEL	32	1	25	58	2.556	0.003	3.496	6.055
UPERVISORY PERSONNEL	5	0	0	5	2.902	0.000	0.000	2.902
NGINEERING PERSONNEL	<u>10</u>	13 14	<u>102</u>	<u>125</u>	<u>3.081</u>	<u>2.169</u>	<u>33.169</u>	<u>38.419</u>
TOTAL	63	14	210	287	11.367	2.172	49.434	62.973
PECIAL MAINTENANCE								
AINTENANCE PERSONNEL	77	4	123	204	5.840	0.258	22.815	28.913
PERATIONS PERSONNEL	14	1	5	20	0.173	0.017	0.212	0.402
EALTH PHYSICS PERSONNEL	38	2	15	55	2.039	0.055	0.331	2.425
UPERVISORY PERSONNEL	14	0	0	14	0.917	0.000	0.000	0.917
NGINEERING PERSONNEL	<u>19</u>	<u>3</u>	<u>73</u>	<u>95</u>	1.200	0.223	15.184	16.607
TOTAL	162	10	2 <u>16</u>	3 <u>88</u>	10.169	0.553	38.542	49.264
VASTE PROCESSING								
MAINTENANCE PERSONNEL	17	0	8	25	0.202	0.000	0.296	0.498
PERATIONS PERSONNEL	1	0	2	3	0.001	0.000	0.081	0.082
IEALTH PHYSICS PERSONNEL	40	2	4	46	4.065	0.011	0.721	4.797
UPERVISORY PERSONNEL	1	ō	Ö	1	0.007	0.000	0.000	0.007
NGINEERING PERSONNEL	<u>0</u> 59	<u>0</u> 2	<u>1</u> 15	1	0.000	0.000	0.061	0.061
TOTAL	59	2	15	76	4.275	0.011	1.159	5.445
EFUELING IAINTENANCE PERSONNEL	18	1	39	58	1.134	0.010	8.698	9.842
PERATIONS PERSONNEL	11	2	2	15	0.825	0.131	0.023	0.979
EALTH PHYSICS PERSONNEL	14	1	7	22	0.356	0.130	0.335	0.821
UPERVISORY PERSONNEL	5	1	0	6	1.430	0.521	0.000	1.951
NGINEERING PERSONNEL	<u>8</u>	<u>1</u> 6	<u>17</u>	<u>26</u> 127	<u>0.501</u>	0.247	<u>9.775</u>	<u>10.523</u>
TOTAL	56	6	65	127	4.246	1.039	18.831	24.116
OTAL BY JOB FUNCTION								
IAINTENANCE PERSONNEL	283	14	555	852	31.913	1.039	98.470	131.422
PERATIONS PERSONNEL	125	11	21	157	9.109	0.464	2.267	11.840
EALTH PHYSICS PERSONNEL	231	18	118	367	29.720	0.872	13.105	43.697
UPERVISORY PERSONNEL	51	5	0	56	6.746	0.678	0.000	7.424
NGINEERING PERSONNEL	97	33	245	375	8.918	3.170	59.241	71.329
GRAND TOTALS	787	81	939	1807	86.406	6.223	173.083	265.712

<sup>\*</sup>Workers may be counted in more than one category.

# NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*SOUTH TEXAS 1,2

TYPE:

VORK AND	NUMBER C	F PERSONNI	EL (>100 mRE	M)	TOTAL	PERSON-RE	M	
OB FUNCTION	STATION	UTILITY C	CONTRACT	TOTAL		UTILITY	CONTRACT	TOTA
REACTOR OPS & SURV_								
IAINTENANCE PERSONNEL	0	0	0	0	0.671	0.000	0.100	0.771
PERATIONS PERSONNEL	17	0	0	17	5.198	0.000	0.000	5.198
EALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
UPERVISORY PERSONNEL	20	0	5	25	6.923	0.000	2.410	9.333
NGINEERING PERSONNEL	<u>2</u> 39	<u>0</u>	<u>0</u> 5	<u>2</u> 44	<u>0.805</u>	<u>0.000</u>	0.000	0.805
TOTAL	39	0	5	44	13.597	0.000	2.510	16.107
OUTINE MAINTENANCE								
AINTENANCE PERSONNEL	22	. 0	4	26	7.948	0.000	2.216	10.164
PERATIONS PERSONNEL	1	0	0	1	0.614	0.000	0.000	0.614
EALTH PHYSICS PERSONNEL	0	0	_0	0	0.000	0.000	0.000	0.000
JPERVISORY PERSONNEL	6	0	51	57	2.004	0.000	14.200	16.204
NGINEERING PERSONNEL	<u>0</u>	0	<u>0</u> 55	<u>0</u> 84	0.310	0.000	0.001	0.311
TOTAL	29	0	55	84	10.876	0.000	16.417	27.293
SERVICE INSPECTION AINTENANCE PERSONNEL	0	0	0	0	2.508	0.000	0.901	3.409
PERATIONS PERSONNEL	9 1	0 0	0	9 1	2.508 0.157	0.000	0.901	0.157
EALTH PHYSICS PERSONNEL	0	0	0	0	0.157	0.000	0.000	0.157
JPERVISORY PERSONNEL	0	0	4	4	0.428	0.000	1.176	1.604
NGINEERING PERSONNEL					0.944	0.000	0.764	1.708
TOTAL	1 <u>3</u> 13	<u>o</u> o	<u>2</u> 6	<u>5</u> 19	4.037	0.000	2.841	6.878
PECIAL MAINTENANCE								
AINTENANCE PERSONNEL	28	0	23	51	7.456	0.000	7.404	14.860
PERATIONS PERSONNEL	2	Ō	0	2	0.656	0.000	0.000	0.656
EALTH PHYSICS PERSONNEL	0	Ō	0	0	0.000	0.000	0.000	0.000
JPERVISORY PERSONNEL	11	0	162	173	2.824	0.000	60.264	63.088
NGINEERING PERSONNEL			0	0	0.139	0.000	0.000	0.139
TOTAL	<u>0</u> 41	<u>0</u>	185	226	11.075	0.000	67.668	78.743
ASTE PROCESSING								
AINTENANCE PERSONNEL	0	0	0	0	0.063	0.000	0.011	0.074
PERATIONS PERSONNEL	4	0	0	4	1.214	0.000	0.000	1.214
EALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
JPERVISORY PERSONNEL	6	0	17	23	2.885	0.000	5.800	8.685
IGINEERING PERSONNEL	<u>0</u>	<u>0</u> 0	<u>0</u> 17	<u>0</u> 27	<u>0.071</u>	0.000	0.000	0.071
TOTAL	10	. 0	17	27	4.233	0.000	5.811	10.044
FUELING								
AINTENANCE PERSONNEL	16	0	15	31	5.379	0.000	3.621	9.000
PERATIONS PERSONNEL	1	0	0.	1	0.252	0.000	0.000	0.252
EALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
JPERVISORY PERSONNEL	4	0	31	35	1.376	0.000	8.895	10.271
IGINEERING PERSONNEL	<u>2</u> 23	<u>o</u> o	<u>0</u> 46	<u>2</u> 69	1.037	0.000	0.000	1.037
TOTAL	23	0	46	69	8.044	0.000	12.516	20.560
TAL BY JOB FUNCTION	<b></b>	^	40	445	04.005	0.000	44.050	00.070
AINTENANCE PERSONNEL	75	0	42	117	24.025	0.000	14.253	38.278
PERATIONS PERSONNEL	26	0	0	26	8.091	0.000	0.000	8.091
EALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
JPERVISORY PERSONNEL	47 7	0	270	317	16.440	0.000	92.745	109.185
NGINEERING PERSONNEL	7	0	2	9	3.306	0.000	0.765	4.071
GRAND TOTALS	155	0	314	469	51.862	0.000	107.763	159.625

<sup>\*</sup>Workers may be counted in more than one category.

## NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*ST. LUCIE 1,2

TYPE:

WORK AND	NUMBER (	OF PERSON	NEL (>10	0 mREM	)		TOTAL PERSON-REM			
JOB FUNCTION	STATION		CONTRA		TOTAL		STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV										
MAINTENANCE PERSONNEL	, 0	0		3	3		0.324	0.029	1.180	1.533
OPERATIONS PERSONNEL	13	0		3	16		5.217	0.398	1.892	7.507
HEALTH PHYSICS PERSONNEL	0	0		0	0		0.410	0.006	0.007	0.423
SUPERVISORY PERSONNEL	0	0		0	0		0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	<u>0</u>	<u>0</u> 0		<u>0</u> 6	<u>0</u>		0.000	<u>0.107</u>	0.000	<u>0.107</u>
TOTAL	13	0		6	19		5.951	0.540	3.079	9.570
ROUTINE MAINTENANCE				_						
MAINTENANCE PERSONNEL	182	11	17		366		61.304	3.217	57.175	121.696
PERATIONS PERSONNEL	35	3		6	44		8.583	1.029	2.829	12.441
IEALTH PHYSICS PERSONNEL	48	0		8	126		17.893	0.016	30.630	48.539
SUPERVISORY PERSONNEL	0	0		0	0		0.005	0.000	0.000	0.005
ENGINEERING PERSONNEL	<u>0</u>	<u>1</u>		<u>0</u>	<u>1</u>		<u>0.004</u>	<u>0.809</u>	<u>0.001</u>	<u>0.814</u>
TOTAL	265	15	25	7	537		87.789	5.071	90.635	183.495
N-SERVICE INSPECTION										
MAINTENANCE PERSONNEL	0	0	9		91		0.227	0.214	74.217	74.658
PERATIONS PERSONNEL	1	2	1		22		0.697	0.701	20.318	21.716
EALTH PHYSICS PERSONNEL	0	0		0	0		0.153	0.000	0.009	0.162
SUPERVISORY PERSONNEL	0	0		0	0		0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	<u>0</u>	<u>1</u>		<u>0</u>	<u>1</u>		<u>0.010</u>	<u>0.421</u>	0.002	0.433
TOTAL	1	3	11	0	114		1.087	1.336	94.546	96.969
PECIAL MAINTENANCE										
MAINTENANCE PERSONNEL	62	1	11		173		20.929	0.357	33.870	55.156
PERATIONS PERSONNEL	1	3		5	9		0.568	1.235	1.438	3.241
IEALTH PHYSICS PERSONNEL	1	0	1	4	15		0.444	0.000	3.760	4.204
SUPERVISORY PERSONNEL	0	0		0	0		0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	<u>0</u>	<u>0</u>		<u>0</u>	0		0.004	0.162	0.000	0.166
TOTAL	64	4	12	9	197		21.945	1.754	39.068	62.767
WASTE PROCESSING										
MAINTENANCE PERSONNEL	10	0	1	6	26		3.500	0.000	4.183	7.683
PERATIONS PERSONNEL	0	0		0	0		0.127	0.000	0.109	0.236
HEALTH PHYSICS PERSONNEL	6	0		8	14		2.286	0.000	3.038	5.324
SUPERVISORY PERSONNEL	0	0		0	0		0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	<u>0</u>	<u>o</u> o		<u>0</u> 4	<u>0</u>		0.000	0.000	0.000	0.000
TOTAL	16	ō	2	4	40		5.913	0.000	7.330	13.243
REFUELING										
MAINTENANCE PERSONNEL	0	0		0	0		0.120	0.000	0.031	0.151
PERATIONS PERSONNEL	0	0		0	0		1.487	0.044	0.057	1.588
IEALTH PHYSICS PERSONNEL	0	0		0	0		0.046	0.000	0.039	0.085
SUPERVISORY PERSONNEL	0	0		0	0		0.000	0.000	0.000	0.000
NGINEERING PERSONNEL				0			0.000	0.139	0.000	<u>0.139</u>
TOTAL	<u>0</u>	<u>0</u>		<u>0</u> 0	<u>0</u>		1.653	0.183	0.127	1.963
OTAL BY JOB FUNCTION										
MAINTENANCE PERSONNEL	254	(211) 12		•	•	(566)	86.404	3.817	170.656	260.877
PERATIONS PERSONNEL	50	(55) 8	(9) 3			(93)	16.679	3.407	26.643	46.729
HEALTH PHYSICS PERSONNEL	55	(51) 0	(0) 10	0 (83	) 155	(134)	21.232	0.022	37.483	58.737
SUPERVISORY PERSONNEL	0	(0) 0		0 (0	) O	(0)	0.005	0.000	0.000	0.005
ENGINEERING PERSONNEL	0	(0) 2		0 (0		(4)	0.018	1.638	0.003	1.659
GRAND TOTALS	359	(317) 22	(25) 52	0 (455	) 907	(797)	124.338	8.884	234.785	368.007

<sup>\*</sup>Workers may be counted in more than one category. Numbers in parentheses are total numbers of individuals.

## NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*SUMMER 1

TYPE:

PENT. COMMETT							HE. F	VVIX
WORK AND	NUMBER OF	DEDSONN	EL />400 mpE	- N.A.\	TOTA	LIDEDCONE		
JOB FUNCTION	STATION U		EL (>100 mRE CONTRACT	TOTAL	STATION	L PERSON-R UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV MAINTENANCE PERSONNEL	. 0	0	5	5	0.253	0.000	1.636	1.889
OPERATIONS PERSONNEL	4	0	1	5	2.489	0.000	0.533	3.022
HEALTH PHYSICS PERSONNEL	9	0	7	16	1.906	0.000	3.025	4.931
SUPERVISORY PERSONNEL	2	0	ó	2	0.540	0.000	0.034	0.574
ENGINEERING PERSONNEL				<u>0</u>	0.208	0.000	0.043	0.251
TOTAL	<u>0</u> 15	0	<u>0</u> 13	28	5.396	0.000	5.271	10.667
ROUTINE MAINTENANCE								
MAINTENANCE PERSONNEL	31	0	94	125	8.823	0.003	29.226	38.052
OPERATIONS PERSONNEL	10	Ō	8	18	4.407	0.129	1.943	6.479
HEALTH PHYSICS PERSONNEL	6	Ö	32	38	1.859	0.000	7.140	8.999
SUPERVISORY PERSONNEL	1	Ō	0	1	0.498	0.000	0.021	0.519
ENGINEERING PERSONNEL	<u>1</u>		<u>8</u>	<u>9</u>	0.517	0.010	3.123	3.650
TOTAL	49	<u>0</u>	14 <u>2</u>	19 <u>7</u>	1 <u>6.104</u>	0.142	41.453	57.699
	70	Ü	172	151	10.104	0.142	41.400	37.000
IN-SERVICE INSPECTION MAINTENANCE PERSONNEL	1 .	0	28	29	0.446	0.005	9.807	10.258
OPERATIONS PERSONNEL	3	Ö	0	3	0.966	0.000	0.281	1.247
HEALTH PHYSICS PERSONNEL	0	0	2	2	0.255	0.000	1.047	1.302
SUPERVISORY PERSONNEL	1	0	0	1	0.321	0.000	0.000	0.321
ENGINEERING PERSONNEL								
	<u>0</u> 5	<u>0</u>	<u>3</u> 33	<u>3</u> 38	<u>0.121</u>	0.039	2.020	2.180
TOTAL	5	U	33	38	2.109	0.044	13.155	15.308
SPECIAL MAINTENANCE	04	0	0	20	0.205	0.004	E 0.40	14.247
MAINTENANCE PERSONNEL	21	0	9	30	8.395	0.004	5.848	
OPERATIONS PERSONNEL	7	0	1	8	2.689	0.014	0.338	3.041
HEALTH PHYSICS PERSONNEL	4	0	3	7	1.166	0.000	1.091	2.257
SUPERVISORY PERSONNEL	1	0	0	1	0.292	0.000	0.000	0.292
ENGINEERING PERSONNEL	<u>0</u> 33	<u>0</u>	<u>0</u> 13	<u>0</u> 46	0.058	0.000	0.407	0.465
TOTAL	33	0	13	46	12.600	0.018	7.684	20.302
WASTE PROCESSING		_	_					
MAINTENANCE PERSONNEL	0	0	0	0	0.076	0.000	0.114	0.190
OPERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.016	0.016
HEALTH PHYSICS PERSONNEL	7	0	1	8	2.090	0.000	0.343	2.433
SUPERVISORY PERSONNEL	0	0	0	0	0.028	0.000	0.000	0.028
ENGINEERING PERSONNEL	<u>0</u> 7	<u>o</u> o	<u>0</u> 1	<u>0</u> 8	0.000	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
TOTAL	7	0	1	8	2.194	0.000	0.473	2.667
REFUELING								
MAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
OPERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
HEALTH PHYSICS PERSONNEL	0	0	0	0	0.012	0.000	0.000	0.012
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
ENGINEERING PERSONNEL	<u>o</u> o	<u>o</u>	<u>o</u> o	<u>0</u> 0	0.000	0.000	0.000	0.000
TOTAL	ō	Ō	Ō	Ō	0.012	0.000	0.000	0.012
TOTAL BY JOB FUNCTION								
MAINTENANCE PERSONNEL	53	0	136	189	17.993	0.012	46.631	64.636
OPERATIONS PERSONNEL	24	0	10	34	10.551	0.143	3.111	13.805
HEALTH PHYSICS PERSONNEL	26	0	45	71	7.288	0.000	12.646	19.934
SUPERVISORY PERSONNEL	5	0	0	5	1.679	0.000	0.055	1.734
ENGINEERING PERSONNEL	1	0	11	12	0.904	0.049	5.593	6.546
			_					
GRAND TOTALS	109	0	202	311	38.415	0.204	68.036	106.655

<sup>\*</sup>Workers may be counted in more than one category.

#### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*SURRY 1,2

TYPE:

PLANT: "SURRY 1,2							TYPE: I	YVK	
WORK AND	NUMBER (	OF PERSON	NEL (>100 mRE	=M)	TOTAL PERSON-REM				
JOB FUNCTION	STATION		CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL	
REACTOR OPS & SURV			· · · · · · · · · · · · · · · · · · ·						
MAINTENANCE PERSONNEL	197	1	291	489	2.974	0.001	0.813	3.788	
OPERATIONS PERSONNEL	255	48	37	340	13.039	0.205	0.290	13.534	
EALTH PHYSICS PERSONNEL	89	3	112	204	9.826	0.059	6.581	16.466	
SUPERVISORY PERSONNEL	103	. 15	25	143	1.866	0.080	0.073	2.019	
NGINEERING PERSONNEL	88		6	117	0.559	0.034	0.000	0.593	
TOTAL	7 <del>32</del>	<u>23</u> 90	47 <u>1</u>	1293	28.264	0.379	7.757	36.400	
ROUTINE MAINTENANCE									
MAINTENANCE PERSONNEL	199	1	561	761	42.339	0.354	51.554	94.247	
DPERATIONS PERSONNEL	208	41	21	270	3.969	0.163	0.233	4.365	
HEALTH PHYSICS PERSONNEL	60	2	93	155	7.300	0.107	8.935	16.342	
SUPERVISORY PERSONNEL	69	9	22	100	3.823	0.040	1.031	4.894	
ENGINEERING PERSONNEL	57	<u>10</u>	11	78	1.544	0.132	1.246	2.922	
TOTAL	593	63	7 <mark>08</mark>	13 <del>64</del>	58.975	0.796	62.999	122.770	
	595	03	700	1304	50.975	0.790	62.999	122.770	
N-SERVICE INSPECTION MAINTENANCE PERSONNEL	22	0	109	131	1.482	0.055	8.693	10.230	
PERATIONS PERSONNEL	3	ő	0	3	0.047	0.000	0.000	0.047	
HEALTH PHYSICS PERSONNEL	3	0	12	15	0.127	0.000	0.406	0.533	
SUPERVISORY PERSONNEL	2	0	5	7	0.062	0.000	0.200	0.262	
INGINEERING PERSONNEL	2								
	<u>6</u> 36	<u>0</u>	<u>24</u> 150	<u>30</u>	<u>0.443</u>	0.000	<u>3.152</u>	3.595	
TOTAL	36	U	150	186	2.161	0.055	12.451	14.667	
SPECIAL MAINTENANCE MAINTENANCE PERSONNEL	130	0	166	296	9,427	0.000	6.280	15.707	
		0							
PERATIONS PERSONNEL	42		8	50	1.802	0.000	0.024	1.826	
HEALTH PHYSICS PERSONNEL	40	0	23	63	1.934	0.000	0.488	2.422	
SUPERVISORY PERSONNEL	20	. 0	14	34	0.388	0.000	0.207	0.595	
ENGINEERING PERSONNEL	<u>17</u>	1 1	<u>3</u>	<u>21</u>	<u>0.636</u>	<u>0.013</u>	0.023	<u>0.672</u>	
TOTAL	249	1	214	464	14.187	0.013	7.022	21.222	
WASTE PROCESSING	0.4	•		40	0.074		5.446	0.444	
MAINTENANCE PERSONNEL	21	0	22	43	0.274	0.000	0.140	0.414	
PERATIONS PERSONNEL	31	2	2	35	0.722	0.009	0.007	0.738	
IEALTH PHYSICS PERSONNEL	39	0	23	62	0.615	0.000	0.215	0.830	
SUPERVISORY PERSONNEL	10	2	3	15	0.204	0.006	0.059	0.269	
NGINEERING PERSONNEL	<u>0</u>	<u>1</u>	<u>1</u>	2	0.000	0.000	0.000	0.000	
TOTAL	101	5	51	157	1.815	0.015	0.421	2.251	
REFUELING		_					,		
MAINTENANCE PERSONNEL	41	0	53	94	8.026	0.000	4.380	12.406	
PERATIONS PERSONNEL	30	8	2	40	1.012	0.055	0.181	1.248	
HEALTH PHYSICS PERSONNEL	18	0	31	49	0.627	0.000	0.583	1.210	
SUPERVISORY PERSONNEL	10	1	0	11	1.463	0.000	0.000	1.463	
NGINEERING PERSONNEL	<u>8</u>	<u>0</u> 9	<u>o</u>	<u>8</u>	<u>0.104</u>	0.000	0.000	<u>0.104</u>	
TOTAL	107	9	86	202	11.232	0.055	5.144	16.431	
OTAL BY JOB FUNCTION									
MAINTENANCE PERSONNEL	610	2	1202	1814	64.522	0.410	71.860	136.792	
PERATIONS PERSONNEL	569	99	70	738	20.591	0.432	0.735	21.758	
HEALTH PHYSICS PERSONNEL	249	5	294	548	20.429	0.166	17.208	37.803	
SUPERVISORY PERSONNEL	214	27	69	310	7.806	0.126	1.570	9.502	
ENGINEERING PERSONNEL	176	35	45	256	3.286	0.179	4.421	7.886	
GRAND TOTALS	1818	168	1680	3666	116.634	1.313	95.794	213.741	

<sup>\*</sup>Workers may be counted in more than one category.

#### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*SUSQUEHANNA 1,2

TYPE:

WORK AND	NUMBER (	OF PERSON	INEL (>100 mRI	EM)	TOTAL PERSON-REM				
JOB FUNCTION	STATION	UTILITY	CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL	
REACTOR OPS & SURV							-		
MAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000	
OPERATIONS PERSONNEL	52	0	0	52	13.185	0.000	0.000	13.185	
IEALTH PHYSICS PERSONNEL	23	1	33	57	12.993	0.104	10.568	23.665	
SUPERVISORY PERSONNEL	2	0	0	2	0.992	0.000	0.000	0.992	
NGINEERING PERSONNEL	<u>0</u> 77	<u>0</u> 1	<u>0</u>	<u>0</u>	0.000	0.000	0.000	0.000	
TOTAL	77	<u>1</u> .	33	111	27.170	0.104	10.568	37.842	
ROUTINE MAINTENANCE									
MAINTENANCE PERSONNEL	226	2	147	375	81.009	1.042	52.694	134.745	
PERATIONS PERSONNEL	10	0	0	10	2.067	0.000	0.000	2.067	
EALTH PHYSICS PERSONNEL	39	0	23	62	14.179	0.000	8.223	22.402	
SUPERVISORY PERSONNEL	2	1	1	4	0.746	0.199	0.143	1.088	
ENGINEERING PERSONNEL	<u>13</u>	<u>1</u>	<u>4</u>	<u>18</u>	2.099	<u>0.135</u>	0.487	2.721	
TOTAL	290	4	175	469	100.100	1.376	61.547	163.023	
N-SERVICE INSPECTION									
MAINTENANCE PERSONNEL	6	0	43	49	2.420	0.000	11.227	13.647	
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000	
IEALTH PHYSICS PERSONNEL	0	0	1	1	0.000	0.000	0.587	0.587	
SUPERVISORY PERSONNEL	0	. 0	0.	0	0.000	0.000	0.000	0.000	
NGINEERING PERSONNEL	<u>0</u> 6	<u>0</u>	<u>0</u> 44	<u>0</u>	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	0.000	
TOTAL	6	0	44	50	2.420	0.000	11.814	14.234	
PECIAL MAINTENANCE									
MAINTENANCE PERSONNEL	15	0	8	23	5.146	0.000	1.369	6.515	
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000	
IEALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000	
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000	
NGINEERING PERSONNEL	<u>0</u> 15	<u>0</u>	<u>0</u> 8	<u>0</u> 23	0.000	0.000	0.000	0.000	
TOTAL	15	0	8	23	5.146	0.000	1.369	6.515	
WASTE PROCESSING									
MAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000	
PERATIONS PERSONNEL	0	0	1	1	0.000	0.000	1.378	1.378	
HEALTH PHYSICS PERSONNEL	2	0	. 0	2	0.621	0.000	0.000	0.621	
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000	
NGINEERING PERSONNEL	<u>0</u> 2	<u>0</u>	<u>1</u> 2	<u>1</u> 4	<u>0.000</u>	<u>0.000</u>	<u>0.410</u>	<u>0.410</u>	
TOTAL	2	0	2	4	0.621	0.000	1.788	2.409	
REFUELING									
MAINTENANCE PERSONNEL	.0	0	0	0	0.000	0.000	0.000	0.000	
PERATIONS PERSONNEL	1	0	0	1	0.123	0.000	0.000	0.123	
IEALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000	
SUPERVISORY PERSONNEL	0	0	0	. 0	0.000	0.000	0.000	0.000	
NGINEERING PERSONNEL	<u>0</u> 1	<u>0</u>	<u>0</u> 0	<u>0</u> 1	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	0.000	
TOTAL	1	0	0	1	0.123	0.000	0.000	0.123	
OTAL BY JOB FUNCTION		_				,	0.5.00	45400	
MAINTENANCE PERSONNEL	247	2	198	447	88.575	1.042	65.290	154.907	
PERATIONS PERSONNEL	63	0	_1	64	15.375	0.000	1.378	16.753	
IEALTH PHYSICS PERSONNEL	64	1	57	122	27.793	0.104	19.378	47.275	
SUPERVISORY PERSONNEL	4	1	1	6	1.738	0.199	0.143	2.080	
ENGINEERING PERSONNEL	13	1	5	19	2.099	0.135	0.897	3.131	
GRAND TOTALS	391	5	262	658	135.580	1.480	87.086	224.146	

<sup>\*</sup>Workers may be counted in more than one category.

## NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*THREE MILE ISLAND 1

TYPE:

PLANT: INKEE WILET								TYPE: PI	WK	
WORK AND	NUMBER (	OF PERSON	NNEL (>100				L PERSON-R			
JOB FUNCTION	STATION	UTILITY	CONTRAC	TOTAL	-	STATION	UTILITY	CONTRACT	TOTAL	
REACTOR OPS & SURV	-									
MAINTENANCE PERSONNEL	64	2	1	67		0.159	0.010	0.089	0.258	
OPERATIONS PERSONNEL	32	0	0	32		0.168	0.000	0.000	0.168	
HEALTH PHYSICS PERSONNEL	53	0	Ō	53		0.791	0.000	0.000	0.791	
SUPERVISORY PERSONNEL	28	1	Ō	29		0.047	0.000	0.000	0.047	
ENGINEERING PERSONNEL	9			10		0.014	0.000	0.000	0.014	
TOTAL	18 <del>6</del>	<u>0</u> 3	1/2	1 <u>91</u>		1.179	0.010	0.089	1.278	
ROUTINE MAINTENANCE										
MAINTENANCE PERSONNEL	110	5	. 4	119		2.580	0.006	0.012	2.598	
OPERATIONS PERSONNEL	97	0	1	98		2.721	0.000	0.000	2.721	
HEALTH PHYSICS PERSONNEL	48	0	0	48		2.159	0.000	0.000	2.159	
SUPERVISORY PERSONNEL	145	49	6	200		0.975	0.099	0.016	1.090	
ENGINEERING PERSONNEL	66		3	<u>78</u>		0.272	0.015	0.017	0.304	
TOTAL	466	<u>9</u> 63	<u>3</u> 14	543		8.707	0.120	0.045		
	400	03	14	543		8.707	0.120	0.045	8.872	
IN-SERVICE INSPECTION MAINTENANCE PERSONNEL	19	0	0	19		0.047	0.000	0.000	0.047	
OPERATIONS PERSONNEL	21	0	0	21						
						0.152	0.000	0.000	0.152	
HEALTH PHYSICS PERSONNEL	13	0	0	13		0.014	0.000	0.000	0.014	
SUPERVISORY PERSONNEL	8	0	0	8		0.006	0.000	0.000	0.006	
ENGINEERING PERSONNEL	<u>2</u> 63	<u>o</u> 0	<u>o</u> 0	<u>2</u>		0.000	0.000	0.000	0.000	
TOTAL	63	Ō	Ō	<u>2</u> 63		0.219	0.000	0.000	0.219	
SPECIAL MAINTENANCE										
MAINTENANCE PERSONNEL	92	0	10	102		1.311	0.000	0.004	1.315	
OPERATIONS PERSONNEL	31	0	0	31		1.560	0.000	0.000	1.560	
HEALTH PHYSICS PERSONNEL	14	0	0	14		0.092	0.000	0.000	0.092	
SUPERVISORY PERSONNEL	22	2	1	25		0.272	0.000	0.000	0.272	
ENGINEERING PERSONNEL	15	0		15		0.014	0.000	0.000	0.014	
TOTAL	174	<u>0</u> 2	<u>0</u> 11	187		3.249				
	174	2	11	187		3.249	0.000	0.004	3.253	
WASTE PROCESSING MAINTENANCE PERSONNEL	24		0	04		0.073	0.000	0.000	0.072	
	21	0	0	21		0.073	0.000	0.000	0.073	
OPERATIONS PERSONNEL	36	0	0	36		1.464	0.000	0.000	1.464	
HEALTH PHYSICS PERSONNEL	22	0	0	22		0.043	0.000	0.000	0.043	
SUPERVISORY PERSONNEL	17	. 6	0	23		0.074	0.036	0.000	0.110	
ENGINEERING PERSONNEL	<u>6</u>	0	1	<u>7</u>		0.001	0.000	0.000	0.001	
TOTAL	102	<u>0</u>	1/1	109		1.655	0.036	0.000	1.691	
REFUELING										
MAINTENANCE PERSONNEL	1	0	0	1		0.000	0.000	0.000	0.000	
DPERATIONS PERSONNEL	0	0	0	0		0.000	0.000	0.000	0.000	
HEALTH PHYSICS PERSONNEL	0	0	0	0		0.000	0.000	0.000	0.000	
SUPERVISORY PERSONNEL	ō	ō	Ö	Ö		0.000	0.000	0.000	0.000	
NGINEERING PERSONNEL						0.000	0.000	0.000	0.000	
TOTAL	<u>0</u> 1	<u>o</u>	<u>0</u>	<u>0</u> 1		0.000	0.000	0.000	0.000	
TOTAL BY JOB FUNCTION										
MAINTENANCE PERSONNEL	307	(117) 7	(7) 15	(13) 329	(137)	4.170	0.016	0.105	4.291	
	217					6.065	0.000	0.000	6.065	
DPERATIONS PERSONNEL		(112) 0	(0) 1	` '	(113)					
HEALTH PHYSICS PERSONNEL	150	(71) 0	(0) 0	(0) 150	(71)	3.099	0.000	0.000	3.099	
SUPERVISORY PERSONNEL	220	(162) 58	(55) 7	(6) 285	(223)	1.374	0.135	0.016	1.525	
ENGINEERING PERSONNEL	98	(71) 9	(9) 5	(3) 112	(83)	0.301	0.015	0.017	0.333	

<sup>\*</sup>Workers may be counted in more than one category. Numbers in parentheses are total numbers of individuals.

#### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*THREE MILE ISLAND 2

TYPE:

VORK AND	NUMBER OF PERSONNEL (>100 mREM)							TOTAL PERSON-REM				
OB FUNCTION	STATION			CONTRAC		TOTAL		STATION	UTILITY	CONTRACT	TOTAL	
EACTOR OPS & SURV												
MAINTENANCE PERSONNEL	65		0	2		67		0.229	0.000	0.014	0.243	
PERATIONS PERSONNEL	80		0	0		80		0.326	0.000	0.000	0.326	
EALTH PHYSICS PERSONNEL	28		Ŏ	Ö		28		0.432	0.000	0.000	0.432	
UPERVISORY PERSONNEL	70		3	3		76		0.251	0.049	0.019	0.319	
NGINEERING PERSONNEL	14		2			16		0.005	0.000	0.000	0.005	
TOTAL	257		<u>2</u> 5	<u>0</u> 5		267		1.243	0.049	0.033	1.325	
OUTINE MAINTENANCE												
IAINTENANCE PERSONNEL	26		0	0		26		0.442	0.000	0.000	0.442	
PERATIONS PERSONNEL	4		0	0		4		0.018	0.000	0.000	0.018	
EALTH PHYSICS PERSONNEL	6		0	0		6		0.255	0.000	0.000	0.255	
UPERVISORY PERSONNEL	3		1	0		4		0.052	0.166	0.000	0.218	
NGINEERING PERSONNEL			Ó					0.000	0.000	0.000	0.000	
TOTAL	<u>0</u> 39		<u>0</u> 1	<u>0</u>		<u>0</u> 40		0.767	0.166	0.000	0.933	
N-SERVICE INSPECTION												
IAINTENANCE PERSONNEL	0		0	0		0		0.001	0.000	0.000	0.001	
PERATIONS PERSONNEL	0		0	0		0		0.020	0.000	0.000	0.020	
EALTH PHYSICS PERSONNEL	0		0	0		0		0.044	0.000	0.000	0.044	
UPERVISORY PERSONNEL	0		0	0		0		0.000	0.000	0.000	0.000	
NGINEERING PERSONNEL	0		0					0.000	0.000	0.000	0.000	
TOTAL	<u>0</u>		<u>0</u>	<u>0</u>		<u>0</u>		0.065	0.000	0.000	0.065	
PECIAL MAINTENANCE												
IAINTENANCE PERSONNEL	9		0	0		9		0.000	0.000	0.000	0.000	
PERATIONS PERSONNEL	14		0	0		14		0.000	0.000	0.000	0.000	
EALTH PHYSICS PERSONNEL	6		0	0		6		0.000	0.000	0.000	0.000	
UPERVISORY PERSONNEL	Ō		0	0		Õ		0.000	0.000	0.000	0.000	
NGINEERING PERSONNEL	<u>0</u>							0.000	0.000	0.000	0.000	
TOTAL	29		<u>0</u>	<u>0</u>		<u>0</u> 29		0.000	0.000	0.000	0.000	
VASTE PROCESSING												
IAINTENANCE PERSONNEL	2		0	0		2		0.000	0.000	0.000	0.000	
PERATIONS PERSONNEL	7		0	0		7		0.000	0.000	0.000	0.000	
EALTH PHYSICS PERSONNEL	5		0	0		5		0.000	0.000	0.000	0.000	
UPERVISORY PERSONNEL	1		0	0		1		0.000	0.000	0.000	0.000	
NGINEERING PERSONNEL						<u>0</u>		0.000	0.000	0.000	0.000	
TOTAL	<u>0</u> 15		0	00		15		0.000	0.000	0.000	0.000	
EFUELING												
IAINTENANCE PERSONNEL	0		0	0		0		0.000	0.000	0.000	0.000	
PERATIONS PERSONNEL	Ö		ŏ	0		Ö		0.000	0.000	0.000	0.000	
EALTH PHYSICS PERSONNEL	Ö		Ö	0		Ö		0.000	0.000	0.000	0.000	
UPERVISORY PERSONNEL	Ö		Ö	0		Ö		0.000	0.000	0.000	0.000	
NGINEERING PERSONNEL								0.000	0.000	0.000	0.000	
TOTAL	<u>0</u>		<u>0</u>	<u>0</u>		<u>0</u>		0.000	0.000	0.000	0.000	
OTAL BY JOB FUNCTION												
AINTENANCE PERSONNEL	102	(73)	0	(0) 2	(2)	104	(75)	0.672	0.000	0.014	0.686	
PERATIONS PERSONNEL	105	(90)	Ö	(0) 0	(0)	105	(90)	0.364	0.000	0.000	0.364	
EALTH PHYSICS PERSONNEL	45	(30)	Ö	(0) 0	(0)	45	(30)	0.731	0.000	0.000	0.731	
UPERVISORY PERSONNEL	74	(70)	4	(3) 3	(3)	81	(76)	0.303	0.215	0.019	0.737	
NGINEERING PERSONNEL	14	(14)	2	(2) 0	(0)	16	(16)	0.005	0.000	0.000	0.005	

<sup>\*</sup>Workers may be counted in more than one category. Numbers in parentheses are total numbers of individuals.

## NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*TURKEY POINT 3,4

TYPE:

NORK AND			NEL (>100 mRE		TOTAL PERSON-REM				
JOB FUNCTION	STATION	UTILITY	CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL	
REACTOR OPS & SURV								,	
IAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000	
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000	
IEALTH PHYSICS PERSONNEL	. 0	0	0	0	0.000	0.000	0.000	0.000	
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000	
NGINEERING PERSONNEL	<u>o</u> 0	<u>0</u>	0	0	0.000	0.000	0.000	0.000	
TOTAL	ō	ō	0	0	0.000	0.000	0.000	0.000	
OUTINE MAINTENANCE									
IAINTENANCE PERSONNEL	199	0	191	390	63.273	0.020	61.994	125.287	
PERATIONS PERSONNEL	41	0	1	42	12.413	0.000	0.731	13.144	
IEALTH PHYSICS PERSONNEL	35	. 0	50	85	12.587	0.016	13.831	26.434	
SUPERVISORY PERSONNEL	5	Ŏ	41	46	2.426	0.145	14.911	17.482	
ENGINEERING PERSONNEL	<u>18</u>		<u>5</u>	<u>23</u>	5.203	0.287	1.358	6.848	
	298	<u>0</u>							
TOTAL	298	U	288	586	95.902	0.468	92.825	189.195	
N-SERVICE INSPECTION MAINTENANCE PERSONNEL	0	0	23	23	0.485	0.000	7.919	8.404	
PERATIONS PERSONNEL	0	0	23 0	23	0.465		0.000		
	-					0.000		0.000	
IEALTH PHYSICS PERSONNEL	0	0	0	0	0.012	0.000	0.129	0.141	
UPERVISORY PERSONNEL	1	0	3	4	0.153	0.025	0.757	0.935	
NGINEERING PERSONNEL	<u>1</u> 2	<u>o</u>	<u>6</u> 32	<u>7</u> 34	<u>0.273</u>	<u>0.045</u>	<u>1.068</u>	<u>1.386</u>	
TOTAL	2	0	32	34	0.923	0.070	9.873	10.866	
PECIAL MAINTENANCE									
MAINTENANCE PERSONNEL	0	- 0	0	0	0.151	0.000	0.000	0.151	
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000	
EALTH PHYSICS PERSONNEL	0	0	0	0	0.018	0.000	0.000	0.018	
UPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000	
NGINEERING PERSONNEL					0.004	0.000	0.000	0.004	
TOTAL	<u>0</u>	<u>o</u>	<u>0</u>	<u>0</u>	0.173	0.000	0.000	0.173	
VASTE PROCESSING									
MAINTENANCE PERSONNEL	5	0	2	7	2.865	0.000	0.583	3.448	
PERATIONS PERSONNEL	ő	Ö	1	1	0.078	0.000	0.886	0.964	
EALTH PHYSICS PERSONNEL	5	0	ò	5	1.340	0.000	0.033		
UPERVISORY PERSONNEL	0							1.373	
		0	0	0	0.011	0.000	0.047	0.058	
NGINEERING PERSONNEL	<u>0</u>	<u>o</u>	<u>0</u> 3	<u>0</u> 13	0.000	0.000	<u>0.000</u>	0.000	
TOTAL	10	0	3	13	4.294	0.000	1.549	5.843	
EFUELING		_	_	<b></b>					
AINTENANCE PERSONNEL	49	0	5	54	11.765	0.000	1.787	13.552	
PERATIONS PERSONNEL	6	0	2	8	2.713	0.000	0.591	3.304	
EALTH PHYSICS PERSONNEL	0	0	1	1	0.166	0.000	0.212	0.378	
UPERVISORY PERSONNEL	0	0	0	0	0.231	0.000	0.000	0.231	
NGINEERING PERSONNEL	1	0			0.551	0.017	0.168	0.736	
TOTAL	<u>1</u> 56	<u>o</u>	<u>1</u> 9	<u>2</u> 65	15.426	0.017	2.758	18.201	
OTAL BY JOB FUNCTION									
IAINTENANCE PERSONNEL	253	0	221	474	78.539	0.020	72.283	150.842	
PERATIONS PERSONNEL	47	Ö	4	51	15.204	0.000	2.208	17.412	
EALTH PHYSICS PERSONNEL	40	0	51	91	14.123	0.016	14.205	28.344	
UPERVISORY PERSONNEL	6	0	44	50	2.821	0.170	15.715	18.706	
NGINEERING PERSONNEL	20	0	12	32	6.031	0.349	2.594	8.974	

<sup>\*</sup>Workers may be counted in more than one category.

#### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

**\*VERMONT YANKEE** 

TYPE:

PLANT. VERWORT TA	MAKEE						TYPE: E	AALK
VORK AND	NUMBER O	F PERSON	INEL (>100 mRE	EM)	TOTAL PERSON-REM			
OB FUNCTION	STATION		CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTA
EACTOR OPS & SURV								
AINTENANCE PERSONNEL	22	0	102	124	5.447	0.000	34.678	40.125
PERATIONS PERSONNEL	25	0	1	26	7.978	0.000	0.304	8.282
EALTH PHYSICS PERSONNEL	11	0	18	29	3.711	0.000	4.660	8.371
UPERVISORY PERSONNEL	0	0	0	0	0.081	0.000	0.052	0.133
NGINEERING PERSONNEL	0	0	<u>0</u>	<u>o</u>	0.139	0.000	0.000	0.139
TOTAL	<u>0</u> 58	<u>o</u>	121	179	17.356	0.000	39.694	57.050
OUTINE MAINTENANCE								
AINTENANCE PERSONNEL	22	1	371	394	9.001	0.101	114.502	123.604
PERATIONS PERSONNEL	16	0	0	16	5.539	0.000	0.001	5.540
EALTH PHYSICS PERSONNEL	4	0	27	31	1.463	0.000	9.676	11.139
UPERVISORY PERSONNEL	3	0	1	4	0.645	0.000	0.272	0.917
NGINEERING PERSONNEL			<u>1</u>	<u>2</u>	0.194	0.000	0.407	0.601
TOTAL	<u>1</u> 46	<u>0</u> 1	40 <del>0</del>	447	16.842	0.101	124.858	141.801
N-SERVICE INSPECTION								
IAINTENANCE PERSONNEL	0	0	18	18	0.091	0.000	6.158	6.249
PERATIONS PERSONNEL	0	0	0	0	0.038	0.000	0.000	0.038
EALTH PHYSICS PERSONNEL	0	0	0	0	0.112	0.000	0.166	0.278
UPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL					0.003	0.000	0.000	0.003
TOTAL	<u>0</u>	<u>0</u>	<u>0</u> 18	<u>0</u> 18	0.244	0.000	6.324	6.568
PECIAL MAINTENANCE								
AINTENANCE PERSONNEL	0	0	56	56	0.019	0.000	23.860	23.879
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
EALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.007	0.007
UPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
NGINEERING PERSONNEL	0	0	<u>0</u>	0	0.000	0.000	0.000	0.000
TOTAL	<u>0</u>	<u>0</u>	56	<u>0</u> 56	0.019	0.000	23.867	23.886
VASTE PROCESSING								
MAINTENANCE PERSONNEL	0	0	0	0	0.068	0.000	0.428	0.496
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
EALTH PHYSICS PERSONNEL	. 0	0	0	0	0.053	0.000	0.042	0.095
UPERVISORY PERSONNEL	0	0	0	0	0.006	0.000	0.000	0.006
NGINEERING PERSONNEL				Ō	0.000	0.000	0.000	0.000
TOTAL	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u> 0	0.127	0.000	0.470	0.597
EFUELING								
IAINTENANCE PERSONNEL	0	0	0	0	0.293	0.000	0.498	0.791
PERATIONS PERSONNEL	ŏ	0	Ö	Ö	0.177	0.000	0.001	0.178
EALTH PHYSICS PERSONNEL	ŏ	Ö	Ö	Ö	0.002	0.000	0.008	0.010
UPERVISORY PERSONNEL	Ö	Ö	Ŏ.	ő	0.027	0.000	0.000	0.027
NGINEERING PERSONNEL					0.112	0.000	0.000	0.112
TOTAL	<u>0</u>	<u>o</u>	<u>0</u>	<u>0</u> 0	0.611	0.000	0.507	1.118
OTAL BY JOB FUNCTION								
IAINTENANCE PERSONNEL	44	1	547	592	14.919	0.101	180.124	195.144
PERATIONS PERSONNEL	41	0	1	42	13.732	0.000	0.306	14.038
EALTH PHYSICS PERSONNEL	15	0	45	60	5.341	0.000	14.559	19.900
UPERVISORY PERSONNEL	3	0	1	4	0.759	0.000	0.324	1.083
NGINEERING PERSONNEL	1	ō	1	2	0.448	0.000	0.407	0.855
GRAND TOTALS	104	1	595	700	35.199	0.101	195.720	231.020

<sup>\*</sup>Workers may be counted in more than one category.

#### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

**\*VOGTLE 1,2** 

TYPE:

PLANT: *VOGILE 1,2							TYPE: F	WR
WORK AND	NUMBER (	OF PERSON	NNEL (>100 mRI	EM)	TOTA	L PERSON-R	EM	
JOB FUNCTION	STATION		CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV		,						
MAINTENANCE PERSONNEL	15	0	6	21	4.602	0.303	2.279	7.184
OPERATIONS PERSONNEL	45	0	0	45	13.271	0.037	0.092	13.400
HEALTH PHYSICS PÉRSONNEL	36	6	37	79	10.168	1.849	14.011	26.028
SUPERVISORY PERSONNEL	2	0	1	3	1.122	0.028	0.486	1.636
ENGINEERING PERSONNEL	<u>1</u>	<u>0</u> 6	<u>0</u> 44	<u>1</u>	0.553	0.001	<u>0.179</u>	0.733
TOTAL	99	6	44	149	29.716	2.218	17.047	48.981
ROUTINE MAINTENANCE	4.0							
MAINTENANCE PERSONNEL	18	1	22	41	7.507	0.172	9.975	17.654
PERATIONS PERSONNEL	6	. 0	0	6	2.794	0.088	0.048	2.930
HEALTH PHYSICS PERSONNEL	55	1	5	61	15.926	0.236	3.104	19.266
SUPERVISORY PERSONNEL	1	0	1	2	0.442	0.007	0.697	1.146
ENGINEERING PERSONNEL	1	<u>0</u> 2	<u>0</u>	1	0.584	0.000	<u>0.120</u>	0.704
TOTAL	81	2	28	111	27.253	0.503	13.944	41.700
N-SERVICE INSPECTION MAINTENANCE PERSONNEL	4	0	20	20	0.000	0.000	45.000	45.000
OPERATIONS PERSONNEL	1	0	29	30	0.622	0.008	15.032	15.662
HEALTH PHYSICS PERSONNEL	10 0	0	0	10 0	3.048 0.043	0.000 0.000	0.000 0.011	3.048
SUPERVISORY PERSONNEL	-		16					0.054
	1	1		18	0.418	0.239	5.802	6.459
NGINEERING PERSONNEL	<u>2</u> 14	<u>0</u> 1	<u>7</u> 52	<u>9</u> 67	0.429	<u>0.051</u>	<u>2.976</u>	3.456
TOTAL	14	1	52	67	4.560	0.298	23.821	28.679
SPECIAL MAINTENANCE MAINTENANCE PERSONNEL	111	8	200	319	89.881	4.068	112.194	206,143
PERATIONS PERSONNEL	19	1	0	20	14.348	1.427	0.200	15.975
HEALTH PHYSICS PERSONNEL	24	2	6	32	6.716	0.365	2.875	9.956
SUPERVISORY PERSONNEL	9	1	15	25	5.455	0.193	8.404	14.052
INGINEERING PERSONNEL			13 11	20	3.597	0.174	5.780	9.551
TOTAL	<u>8</u> 171	1 <u>1</u>	232	4 <u>16</u>	119.997	6.227	129.453	255.677
WASTE PROCESSING								
MAINTENANCE PERSONNEL	0	0	1	1	0.200	0.000	0.185	0.385
OPERATIONS PERSONNEL	5	0	0	5	3.452	0.000	0.049	3.501
EALTH PHYSICS PERSONNEL	15	Ō	46	61	10.603	0.053	21.371	32.027
SUPERVISORY PERSONNEL	1	0	0	1	0.265	0.000	0.000	0.265
NGINEERING PERSONNEL					0.001	0.000	0.000	0.001
TOTAL	<u>0</u> 21	00	<u>0</u> 47	<u>0</u> 68	14.521	0.053	21.605	36.179
REFUELING				-				
MAINTENANCE PERSONNEL	11	1	13	25	4.430	0.222	12.374	17.026
PERATIONS PERSONNEL	10	0	1	11	3.364	0.000	1.188	4.552
IEALTH PHYSICS PERSONNEL	9	0	19	28	4.439	0.007	7.883	12.329
SUPERVISORY PERSONNEL	1	0	6	7	0.219	0.001	3.388	3.608
NGINEERING PERSONNEL	<u>1</u> 32	<u>0</u> 1	<u>5</u> 44	<u>6</u> 77	<u>0.343</u>	0.000	<u>3.148</u>	<u>3.491</u>
TOTAL	32	1	44	77	12.795	0.230	27.981	41.006
OTAL BY JOB FUNCTION	450	4.5	071	40=	40=040	4 7776	450.000	00405:
MAINTENANCE PERSONNEL	156	10	271	437	107.242	4.773	152.039	264.054
DPERATIONS PERSONNEL	95	1	1	97	40.277	1.552	1.577	43.406
HEALTH PHYSICS PERSONNEL	139	9	113	261	47.895 7.034	2.510	49.255	99.660
SUPERVISORY PERSONNEL	15	2	39	56	7.921	0.468	18.777	27.166
ENGINEERING PERSONNEL	13	1	23	37	5.507	0.226	12.203	17.936

<sup>\*</sup>Workers may be counted in more than one category.

#### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*WASHINGTON NUCLEAR 2

TYPE:

WORK AND	NUMBER O	F PERSONN	EL (>100 mRE	EM)	TOTAL PERSON-REM				
JOB FUNCTION	STATION	UTILITY (	CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL	
REACTOR OPS & SURV									
MAINTENANCE PERSONNEL	69	4	92	165	17.351	0.595	14.867	32.813	
OPERATIONS PERSONNEL	32	3	1	36	15.795	0.381	0.163	16.339	
HEALTH PHYSICS PERSONNEL	17	1	4	22	3.429	0.093	0.931	4.453	
SUPERVISORY PERSONNEL	10	1	4	15	1.299	0.087	1.065	2.451	
ENGINEERING PERSONNEL	14		<u>25</u>	48	2.803	1.189	6.632	10.624	
TOTAL	142	<u>9</u> 18	126	286	40.677	2.345	23.658	66.680	
ROUTINE MAINTENANCE									
MAINTENANCE PERSONNEL	55	1	200	256	43.856	0.664	121.330	165.850	
OPERATIONS PERSONNEL	1	0	0	1	4.080	0.000	0.414	4.494	
HEALTH PHYSICS PERSONNEL	17	1	45	63	9.943	0.285	16.377	26.605	
SUPERVISORY PERSONNEL	2	0	6	8	3.569	0.046	2.599	6.214	
ENGINEERING PERSONNEL	6	6	17	<u>29</u>	2.969	2.392	6.566	11.927	
TOTAL	<u>6</u> 81	<u>6</u> 8	268	357	64.417	3.387	147.286	215.090	
N-SERVICE INSPECTION									
MAINTENANCE PERSONNEL	1	0	6	7	0.316	0.000	4.192	4.508	
OPERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000	
HEALTH PHYSICS PERSONNEL	0	0	0	0	0.004	0.000	0.008	0.012	
SUPERVISORY PERSONNEL	0	0	0	0	0.005	0.000	0.079	0.084	
NGINEERING PERSONNEL	0	0	1	1	0.031	0.149	0.527	0.707	
TOTAL	<u>0</u> 1	<u>0</u>	$\frac{1}{7}$	<del>1</del> 8	0.356	0.149	4.806	5.311	
PECIAL MAINTENANCE									
MAINTENANCE PERSONNEL	14	0	44	58	4.048	0.000	13.194	17.242	
PERATIONS PERSONNEL	1	. 0	0	1	0.164	0.000	0.000	0.164	
HEALTH PHYSICS PERSONNEL	4	0	0	4	1.148	0.000	0.000	1.148	
SUPERVISORY PERSONNEL	0	0 -	0	0	0.000	0.000	0.000	0.000	
ENGINEERING PERSONNEL	<u>4</u> 23	<u>0</u>	<u>21</u>	<u>25</u> 88	<u>1.114</u>	0.124	6.371	7.609	
TOTAL	23	0	65	88	6.474	0.124	19.565	26.163	
NASTE PROCESSING			_						
MAINTENANCE PERSONNEL	1	0	0	1	0.482	0.592	0.024	1.098	
OPERATIONS PERSONNEL	0	0	0	0	0.025	0.000	0.000	0.025	
HEALTH PHYSICS PERSONNEL	1	0	1	2	0.619	0.000	1.226	1.845	
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000	
NGINEERING PERSONNEL	<u>0</u> 2	<u>o</u> 0	<u>0</u> 1	<u>0</u> 3	<u>0.135</u>	<u>0.027</u>	0.000	0.162	
TOTAL	2	0	1	3	1.261	0.619	1.250	3.130	
REFUELING		_			,				
MAINTENANCE PERSONNEL	20	0	11	31	18.443	0.008	6.415	24.866	
PERATIONS PERSONNEL	0	0	0	0	0.837	0.000	0.000	0.837	
IEALTH PHYSICS PERSONNEL	1	0	10	11	0.775	0.000	3.368	4.143	
SUPERVISORY PERSONNEL	4	1	0	5	1.351	0.228	0.003	1.582	
NGINEERING PERSONNEL	<u>0</u> 25	<u>3</u> 4	<u>4</u> 25	<u>7</u> 54	<u>0.241</u>	<u>0.590</u>	<u>0.910</u>	<u>1.741</u>	
TOTAL	25	. 4	25	54	21.647	0.826	10.696	33.169	
OTAL BY JOB FUNCTION		_ :				,			
MAINTENANCE PERSONNEL	160	5	353	518	84.496	1.859	160.022	246.377	
PERATIONS PERSONNEL	34	3	1	38	20.901	0.381	0.577	21.859	
IEALTH PHYSICS PERSONNEL	40	2	60	102	15.918	0.378	21.910	38.206	
SUPERVISORY PERSONNEL	16	2	10	28	6.224	0.361	3.746	10.331	
ENGINEERING PERSONNEL	24	18	68	110	7.293	4.471	21.006	32.770	
GRAND TOTALS	274	30	492	796	134.832	7.450	207.261	349.543	

<sup>\*</sup>Workers may be counted in more than one category.

#### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*WATERFORD 3

TYPE:

			***********			*******		,	
WORK AND			NNEL (>100 mRE	EM)	TOTA	L PERSON-F	REM		
JOB FUNCTION	STATION	UTILITY	CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL	
REACTOR OPS & SURV									
MAINTENANCE PERSONNEL	8	0	5	13	3.819	0.000	2.517	6.336	
PERATIONS PERSONNEL	12	0	0	12	4.233	0.001	0.361	4.595	
IEALTH PHYSICS PERSONNEL	11	0	0	11	2.194	0.023	0.010	2.227	
SUPERVISORY PERSONNEL	2	0	0	2	0.784	0.000	0.036	0.820	
NGINEERING PERSONNEL	0	0	0	<u>o</u>	0.488	0.001	0.083	0.572	
TOTAL	<u>0</u> 33	<u>0</u>	<u>0</u> 5	38	11.518	0.025	3.007	14.550	
ROUTINE MAINTENANCE									
MAINTENANCE PERSONNEL	5	0	0	5	2.674	0.000	0.583	3.257	
PERATIONS PERSONNEL	1	0	0	1	0.638	0.001	0.014	0.653	
HEALTH PHYSICS PERSONNEL	0	0	0	0	0.232	0.000	0.000	0.232	
SUPERVISORY PERSONNEL	0	0	1	1	0.174	0.000	0.037	0.211	
ENGINEERING PERSONNEL	<u>0</u> 6	0	<u>0</u> 1	<u>0</u> 7	0.038	0.000	<u>0.134</u>	0.172	
TOTAL	6	ō	1	7	3.756	0.001	0.768	4.525	
N-SERVICE INSPECTION	-	=	-	•					
MAINTENANCE PERSONNEL	0	0	0	0	0.023	0.000	0.000	0.023	
OPERATIONS PERSONNEL	0	0	0	0	0.021	0.001	0.000	0.022	
HEALTH PHYSICS PERSONNEL	0	0	0	0	0.006	0.000	0.000	0.006	
SUPERVISORY PERSONNEL	0	0	0	0	0.001	0.000	0.000	0.001	
NGINEERING PERSONNEL	<u>0</u>	<u>0</u> 0	<u>0</u> 0	<u>0</u>	<u>0.001</u>	0.000	0.000	0.001	
TOTAL	ō	Ō	0	Ō	0.052	0.001	0.000	0.053	
PECIAL MAINTENANCE									
MAINTENANCE PERSONNEL	10	0	0	10	2.977	0.000	0.020	2.997	
OPERATIONS PERSONNEL	1	0	0	1	0.251	0.013	0.019	0.283	
HEALTH PHYSICS PERSONNEL	0	0	0	0	0.105	0.000	0.000	0.105	
SUPERVISORY PERSONNEL	1	0	0	1	0.300	0.000	0.000	0.300	
ENGINEERING PERSONNEL	<u>2</u>	<u>0</u>	<u>0</u>	<u>2</u> 14	<u>0.330</u>	0.000	<u>0.010</u>	<u>0.340</u>	
TOTAL	14	0	0	14	3.963	0.013	0.049	4.025	
WASTE PROCESSING MAINTENANCE PERSONNEL	0	0	0	0	0.224	0.000	0.000	0.224	
OPERATIONS PERSONNEL		0			0.224	0.000		0.224	
	1		1	2			0.366		
HEALTH PHYSICS PERSONNEL	0	0	0	0	0.163	0.000	0.036	0.199	
SUPERVISORY PERSONNEL	0	0	0	0	0.004	0.000	0.000	0.004	
ENGINEERING PERSONNEL	<u>0</u> 1	0	<u>0</u> 1	<u>0</u> 2	0.000	0.011	0.000	0.011	
TOTAL	1	0	1	2	0.626	0.011	0.402	1.039	
REFUELING MAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000	
PERATIONS PERSONNEL	0	0	0	Ö	0.000	0.000	0.000	0.000	
HEALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000	
SUPERVISORY PERSONNEL		0			0.000	0.000	0.000	0.000	
ENGINEERING PERSONNEL	0		0	0	0.000	0.000	0.000	0.000	
TOTAL	<u>0</u>	<u>0</u>	<u>o</u> o	<u>0</u>	0.000	0.000	0.000	0.000	
OTAL BY JOB FUNCTION									
MAINTENANCE PERSONNEL	23	0	5	28	9.717	0.000	3.120	12.837	
PERATIONS PERSONNEL	15	Ö	1	16	5.378	0.016	0.760	6.154	
HEALTH PHYSICS PERSONNEL	11	0	0	11	2.700	0.023	0.046	2.769	
SUPERVISORY PERSONNEL	3	0	1	4	1.263	0.000	0.073	1.336	
ENGINEERING PERSONNEL	2	Ő	Ö	2	0.857	0.012	0.227	1.096	
GRAND TOTALS	54	0	7	61	19.915	0.051	4.226	24.192	

<sup>\*</sup>Workers may be counted in more than one category.

#### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*WATTS BAR 1,2

TYPE:

WORK AND	NUMBER C	F PERSONNE	EL (>100 mRI	EM)	TOTAL PERSON-REM				
JOB FUNCTION			ONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL	
REACTOR OPS & SURV									
MAINTENANCE PERSONNEL	1	0	3	4	0.010	0.000	0.004	0.014	
PERATIONS PERSONNEL	Ó	Ö	Ö	Ó	0.000	0.000	0.000	0.000	
HEALTH PHYSICS PERSONNEL	6	1	3	10	0.358	0.000	0.000	0.358	
SUPERVISORY PERSONNEL	0	Ö	0	0	0.000	0.000	0.000	0.000	
NGINEERING PERSONNEL					0.000	0.000	0.000	0.000	
TOTAL	<u>0</u> 7	<u>0</u> 1	<u>0</u> 6	<u>0</u> 14	0.368	0.000	0.004	0.372	
ROUTINE MAINTENANCE									
MAINTENANCE PERSONNEL	2	0	16	18	0.048	0.000	0.000	0.048	
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000	
EALTH PHYSICS PERSONNEL	6	1	1	8	0.155	0.000	0.001	0.156	
SUPERVISORY PERSONNEL	Ö	o O	ò	ő	0.000	0.000	0.000	0.000	
ENGINEERING PERSONNEL						0.000			
TOTAL	<u>0</u> 8	<u>0</u> 1	<u>0</u> 17	<u>0</u> 26	<u>0.000</u> 0.203	0.000	<u>0.000</u> 0.001	0.000 0.204	
N-SERVICE INSPECTION									
MAINTENANCE PERSONNEL	0	0	2	2	0.000	0.000	0.026	0.026	
OPERATIONS PERSONNEL	0	. 0	0	0	0.000	0.000	0.000	0.020	
EALTH PHYSICS PERSONNEL	6	0	0	6	0.002	0.000	0.000	0.002	
UPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000	
NGINEERING PERSONNEL	<u>0</u> 6	<u>0</u>	<u>0</u> 2	<u>0</u> 8	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>	0.000	
TOTAL	6	0	2	8	0.002	0.000	0.026	0.028	
SPECIAL MAINTENANCE	_								
MAINTENANCE PERSONNEL	2	0	27	29	0.210	0.000	3.649	3.859	
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000	
IEALTH PHYSICS PERSONNEL	6	1	3	10	0.275	0.103	0.358	0.736	
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000	
NGINEERING PERSONNEL	0	0	3	3	0.000	0.000	0.338	0.338	
TOTAL	<u>0</u> 8	<u>0</u> 1	3 <u>3</u>	<u>3</u> 42	0.485	0.103	4.345	4.933	
WASTE PROCESSING									
MAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000	
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000	
IEALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000	
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000	
NGINEERING PERSONNEL					0.000	0.000	0.000	0.000	
TOTAL	<u>0</u>	<u>o</u> o	<u>o</u> o	<u>o</u> o	0.000	0.000	0.000	0.000	
REFUELING									
MAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000	
PERATIONS PERSONNEL	Ö	Ö	Ö	Õ	0.000	0.000	0.000	0.000	
EALTH PHYSICS PERSONNEL	0	ő	ő	ő	0.000	0.000	0.000	0.000	
SUPERVISORY PERSONNEL	0	ő	0	0	0.000	0.000	0.000	0.000	
-					0.000	0.000	0.000	0.000	
NGINEERING PERSONNEL TOTAL	<u>0</u> 0	<u>o</u> o	<u>o</u> o	<u>0</u> 0	0.000	0.000	0.000	0.000	
OTAL BY JOB FUNCTION									
MAINTENANCE PERSONNEL	5	.0	48	53	0.268	0.000	3.679	3.947	
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000	
			-						
HEALTH PHYSICS PERSONNEL	24	3	7	34	0.790	0.103	0.359	1.252	
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000	
NGINEERING PERSONNEL	0	0	3	3	0.000	0.000	0.338	0.338	
GRAND TOTALS	29	3	58	90	1.058	0.103	4.376	5.537	

<sup>\*</sup>Workers may be counted in more than one category.

#### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*WOLF CREEK 1

TYPE:

WORK AND	NUMBER OF				TOTAL PERSON-REM			
OB FUNCTION	STATION U	TILITY C	ONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV								
MAINTENANCE PERSONNEL	0	0 .	0	0	0.446	0.000	0.555	1.001
PERATIONS PERSONNEL	11	1	0	12	5.446	0.535	0.007	5.988
EALTH PHYSICS PERSONNEL	21	0	31	52	7.414	0.258	7.753	15.425
SUPERVISORY PERSONNEL	4	0	3	7	2.082	0.000	0.849	2.931
NGINEERING PERSONNEL	<u>3</u>	0	1	4	1.629	0.238	0.456	2.323
TOTAL	39	<u>0</u> 1	<u>1</u> 35	<u>4</u> 75	17.017	1.031	9.620	27.668
OUTINE MAINTENANCE								
IAINTENANCE PERSONNEL	10	0	12	22	6.227	0.000	7.119	13.346
PERATIONS PERSONNEL	0	0	0	0	0.330	0.054	0.010	0.394
EALTH PHYSICS PERSONNEL	0	0	0	0	0.870	0.105	0.024	0.999
SUPERVISORY PERSONNEL	5	0	0	5	2.369	0.004	0.758	3.131
NGINEERING PERSONNEL	0	0	0	0	0.855	0.174	0.599	1.628
TOTAL	<u>0</u> 15	<u>0</u>	<u>0</u> 12	<u>0</u> 27	10.651	0.337	8.510	19.498
N-SERVICE INSPECTION								
IAINTENANCE PERSONNEL	9	. 0	13	22	2.288	0.000	5.143	7.431
PERATIONS PERSONNEL	0	0	0	0	0.015	0.000	0.004	0.019
EALTH PHYSICS PERSONNEL	3	0	7	10	0.885	0.000	2.101	2.986
UPERVISORY PERSONNEL	2	0	4	6	0.626	0.000	2.066	2.692
NGINEERING PERSONNEL	<u>1</u>	<u>o</u>	<u>31</u>	32	0.598	0.096	14.167	14.861
TOTAL	15	ō	55	<u>32</u> 70	4.412	0.096	23.481	27.989
PECIAL MAINTENANCE								
MAINTENANCE PERSONNEL	13	0	105	118	7.362	0.023	33.553	40.938
PERATIONS PERSONNEL	1	0	0	1	0.319	0.000	0.000	0.319
EALTH PHYSICS PERSONNEL	2	0	1	3	1.039	0.020	0.678	1.737
UPERVISORY PERSONNEL	6	0	3	9	2.870	0.000	1.508	4.378
NGINEERING PERSONNEL			70	72	0.838	0.144	18.522	19.504
TOTAL	<u>1</u> 23	<u>1</u>	179	203	12.428	0.187	54.261	66.876
VASTE PROCESSING								
MAINTENANCE PERSONNEL	. 0	0	0	0	0.562	0.000	0.387	0.949
PERATIONS PERSONNEL	1	0	1	2	0.562	0.022	0.328	0.912
IEALTH PHYSICS PERSONNEL	15	0	13	28	4.972	0.067	4.110	9.149
UPERVISORY PERSONNEL	0	0	0	0	0.342	0.000	0.027	0.369
NGINEERING PERSONNEL	<u>o</u>	0	<u>o</u>	<u>o</u>	0.045	0.000	0.036	0.081
TOTAL	16	<u>o</u>	14	30	6.483	0.089	4.888	11.460
REFUELING								
MAINTENANCE PERSONNEL	1	0	9	10	1.211	0.000	3.933	5.144
PERATIONS PERSONNEL	1	0	0	1	0.256	0.007	0.000	0.263
IEALTH PHYSICS PERSONNEL	2	0	1	3	0.848	0.000	0.324	1.172
UPERVISORY PERSONNEL	2	0	3	5	0.815	0.000	1.394	2.209
NGINEERING PERSONNEL	3				1.605	0.022	7.320	8.947
TOTAL	<u>3</u> 9	<u>0</u>	<u>11</u> 24	14 33	4.735	0.029	12.971	17.735
OTAL BY JOB FUNCTION								
IAINTENANCE PERSONNEL	33	0	139	172	18.096	0.023	50.690	68.809
PERATIONS PERSONNEL	14	1	1	16	6.928	0.618	0.349	7.895
IEALTH PHYSICS PERSONNEL	43	0	53	96	16.028	0.450	14.990	31.468
UPERVISORY PERSONNEL	19	0	13	32	9.104	0.004	6.602	15.710
NGINEERING PERSONNEL	8	1	113	122	5.570	0.674	41.100	47.344
GRAND TOTALS	117	2	319	438	55.726	1.769	113.731	171.226

<sup>\*</sup>Workers may be counted in more than one category.

#### NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

#### 1996

PLANT:

\*YANKEE-ROWE

TYPE:

WORK AND	NUMBER OF		EL (>100 mRE	EM)	TOTAL PERSON-REM			
JOB FUNCTION	STATION U	TILITY C	ONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
REACTOR OPS & SURV								
MAINTENANCE PERSONNEL	0	0	3	3	0.050	0.069	2.105	2.224
OPERATIONS PERSONNEL	1	0	0	1	0.311	0.000	0.151	0.462
HEALTH PHYSICS PERSONNEL	0	0	0	0	0.018	0.073	0.421	0.512
SUPERVISORY PERSONNEL	0	0	0	0	0.027	0.037	0.006	0.070
ENGINEERING PERSONNEL	0	1	0		0.005	0.215	0.092	0.312
TOTAL	<u>0</u> 1	<u>1</u>	<u>0</u> 3	<u>1</u> 5	0.411	0.394	2.775	3.580
ROUTINE MAINTENANCE								
MAINTENANCE PERSONNEL	1 -	0	1	2	0.293	0.000	0.316	0.609
OPERATIONS PERSONNEL	0	0	0	0	0.114	0.000	0.018	0.132
HEALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.128	0.128
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
ENGINEERING PERSONNEL	0	0	0	0	0.000	0.000	0.078	0.078
TOTAL	<u>0</u> 1	<u>0</u>	<u>0</u> 1	<u>0</u> 2	0.407	0.000	0.540	0.947
N-SERVICE INSPECTION								
MAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
OPERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
HEALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
SUPERVISORY PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
ENGINEERING PERSONNEL	0		0	0	0.000	0.000	0.000	0.000
TOTAL	<u>o</u>	<u>0</u>	<u>o</u>	<u>0</u>	0.000	0.000	0.000	0.000
SPECIAL MAINTENANCE								
MAINTENANCE PERSONNEL	1	0	84	85	0.357	0.096	49.467	49.920
PERATIONS PERSONNEL	1	0	1	2	0.256	0.000	0.307	0.563
HEALTH PHYSICS PERSONNEL	2	7	49	58	0.270	3.048	18.523	21.841
SUPERVISORY PERSONNEL	0	0	0	0	0.009	0.023	0.014	0.046
NGINEERING PERSONNEL			<u>2</u>	<u>5</u>	0.343	0.389	0.449	1.181
TOTAL	<u>1</u> 5	<u>2</u> 9	136	15 <u>0</u>	1.235	3.556	68.760	73.551
WASTE PROCESSING								
MAINTENANCE PERSONNEL	0	. 0	19	19	0.005	0.000	7.396	7.401
OPERATIONS PERSONNEL	0	0	1	1	0.142	0.000	0.925	1.067
HEALTH PHYSICS PERSONNEL	0	0	9	9	0.009	0.233	8.211	8.453
SUPERVISORY PERSONNEL	0	0	0	0	0.064	0.000	0.000	0.064
ENGINEERING PERSONNEL	Ō	0	Ö		0.000	0.133	0.069	0.202
TOTAL	<u>o</u> o	<u>0</u>	<u>0</u> 29	<u>0</u> 29	0.220	0.366	16.601	17.187
REFUELING								
MAINTENANCE PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
OPERATIONS PERSONNEL	Ō	Ō	Ö	Ö	0.000	0.000	0.000	0.000
HEALTH PHYSICS PERSONNEL	Ö	ő	Ö	Ö	0.000	0.000	0.000	0.000
SUPERVISORY PERSONNEL	ő	ŏ	ŏ	Ŏ	0.000	0.000	0.000	0.000
ENGINEERING PERSONNEL					0.000	0.000	0.000	0.000
TOTAL	<u>o</u>	<u>0</u>	<u>0</u>	<u>0</u>	0.000	0.000	0.000	0.000
TOTAL BY JOB FUNCTION								
MAINTENANCE PERSONNEL	2	0	107	109	0.705	0.165	59.284	60.154
OPERATIONS PERSONNEL	2	Ö	2	4	0.823	0.000	1.401	2.224
HEALTH PHYSICS PERSONNEL	2	7	58	67	0.297	3.354	27.283	30.934
SUPERVISORY PERSONNEL	ō	Ó	Ö	0	0.100	0.060	0.020	0.180
ENGINEERING PERSONNEL	1	3	2	6	0.348	0.737	0.688	1.773
GRAND TOTALS	7	10	169	186	2.273	4.316	88.676	95.265

<sup>\*</sup>Workers may be counted in more than one category.

## NUMBER OF PERSONNEL AND PERSON-REM BY WORK AND JOB FUNCTION

1996

PLANT:

\*ZION 1,2

TYPE:

								VVIK
WORK AND	NUMBER O	F PERSON	INEL (>100 mRE	EM)	TOTA	L PERSON-F	REM	
OB FUNCTION	STATION		CONTRACT	TOTAL	STATION	UTILITY	CONTRACT	TOTAL
EACTOR OPS & SURV								
IAINTENANCE PERSONNEL	0	0	0	0	0.043	0.000	0.053	0.096
PERATIONS PERSONNEL	98	0	0	98	12.227	0.000	0.000	12.227
EALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
UPERVISORY PERSONNEL	30	0	0	30	1.635	0.000	0.009	1.644
NGINEERING PERSONNEL	<u>1</u>	<u>0</u>	<u>1</u>	. <u>2</u>	0.051	0.000	0.026	0.077
TOTAL	129	ō	1	130	13.956	0.000	0.088	14.044
OUTINE MAINTENANCE								
IAINTENANCE PERSONNEL	143	15	1000	1158	42.924	1.274	255.534	299.732
PERATIONS PERSONNEL	29	5	182	216	3.610	0.021	0.560	4.191
EALTH PHYSICS PERSONNEL	60	63	75	198	17.026	1.055	21.850	39.931
SUPERVISORY PERSONNEL	168	0	149	317	9.041	0.000	6.298	15.339
NGINEERING PERSONNEL	<u>144</u>	<u>0</u> 83	<u>45</u>	<u>189</u>	<u>5.850</u>	0.000	<u>0.881</u>	<u>6.731</u>
TOTAL	544	83	1451	2078	78.451	2.350	285.123	365.924
N-SERVICE INSPECTION				444	2.242			00.000
IAINTENANCE PERSONNEL	0	0	111	111	0.042	0.000	28.326	28.368
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
EALTH PHYSICS PERSONNEL	0	12	0	12	0.014	0.208	0.003	0.225
UPERVISORY PERSONNEL	0	0	28	28	0.008	0.000	1.169	1.177
NGINEERING PERSONNEL	<u>1</u> 1	<u>0</u> 12	<u>18</u>	<u>19</u>	<u>0.040</u>	<u>0.000</u>	<u>0.367</u>	<u>0.407</u>
TOTAL	1	12	157	170	0.104	0.208	29.865	30.177
PECIAL MAINTENANCE	•		_	-				4.440
IAINTENANCE PERSONNEL	0	0	5	5	0.000	0.000	1.142	1.142
PERATIONS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
EALTH PHYSICS PERSONNEL	0	0	0	0	0.000	0.000	0.000	0.000
UPERVISORY PERSONNEL	0	0	117	117	0.000	0.000	4.972	4.972
NGINEERING PERSONNEL	<u>0</u>	<u>o</u> 0	<u>0</u>	<u>o</u>	<u>0.000</u>	0.000	0.000	0.000
TOTAL	0	0	122	122	0.000	0.000	6.114	6.114
VASTE PROCESSING	4	0	0	<b>-7</b>	0.205	0.000	4 505	4 000
IAINTENANCE PERSONNEL	1	0	6	7	0.395	0.000	1.525	1.920
PERATIONS PERSONNEL	12	0	0	12	1.552	0.000	0.000	1.552
IEALTH PHYSICS PERSONNEL	3	0	4	7	0.776	0.003	1.026	1.805
UPERVISORY PERSONNEL	9	0	0	9	0.473	0.000	0.000	0.473
NGINEERING PERSONNEL	<u>0</u> 25	<u>0</u>	<u>0</u> 10	<u>0</u> 35	0.004	0.000	0.000	0.004
TOTAL	25	0	10	35	3.200	0.003	2.551	5.754
EFUELING IAINTENANCE PERSONNEL	20	1	4	34	8.718	0.088	1.046	9.852
	29							2.763
PERATIONS PERSONNEL	22	0	0	22	2.763	0.000	0.000	
EALTH PHYSICS PERSONNEL	0	14	0	14	0.090	0.235	0.132	0.457
UPERVISORY PERSONNEL	26	0	1	27	1.398	0.000	0.039	1.437
NGINEERING PERSONNEL TOTAL	<u>4</u> 81	<u>0</u> 15	<u>1</u>	<u>5</u> 102	<u>0.168</u> 13.137	0.000 0.323	<u>0.010</u> 1.227	<u>0.178</u> 14.687
OTAL BY JOB FUNCTION								
IAINTENANCE PERSONNEL	173	16	1126	1315	52.122	1.362	287.626	341.110
PERATIONS PERSONNEL	161	5	182	348	20.152	0.021	0.560	20.733
EALTH PHYSICS PERSONNEL	63	89	79	231	17.906	1.501	23.011	42.418
UPERVISORY PERSONNEL	233	0	295	528	12.555	0.000	12.487	25.042
NGINEERING PERSONNEL	150	0	295 65	215	6.113	0.000	1.284	7.397
TOTALLIMO I LIMONALL				210	0.110		1.207	

<sup>\*</sup>Workers may be counted in more than one category.

#### **APPENDIX E\***

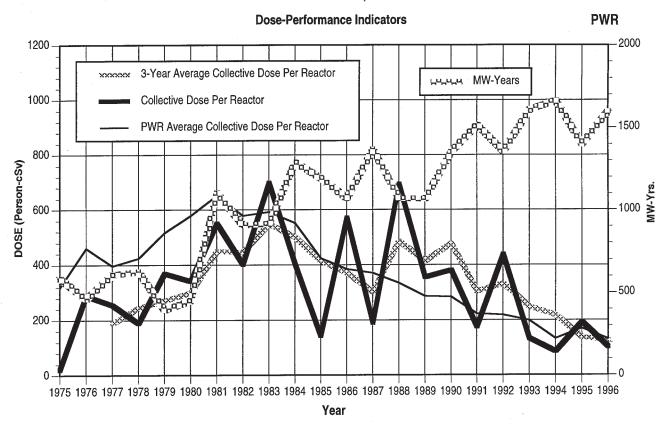
# Graphical Representation of Collective Dose Trends by Year and Job Function for Each Site

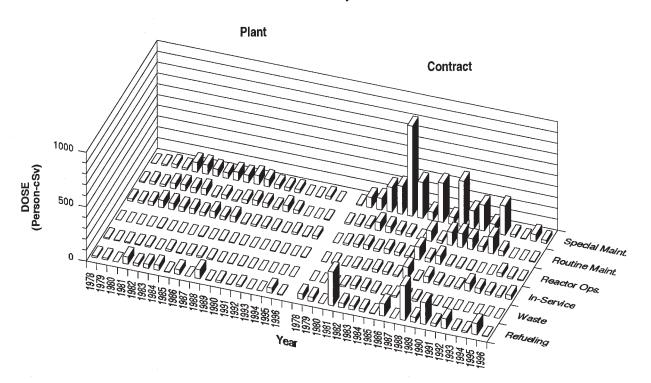
1973-1996

<sup>\*</sup> Appendix E contains data on operating plants as well as plants which are no longer in commercial operation.

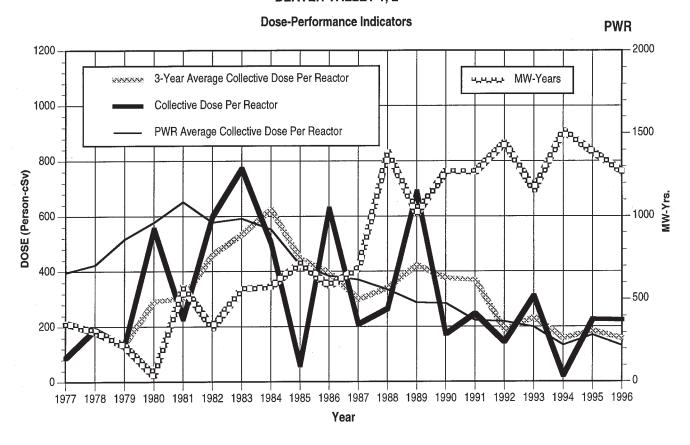
#### APPENDIX E

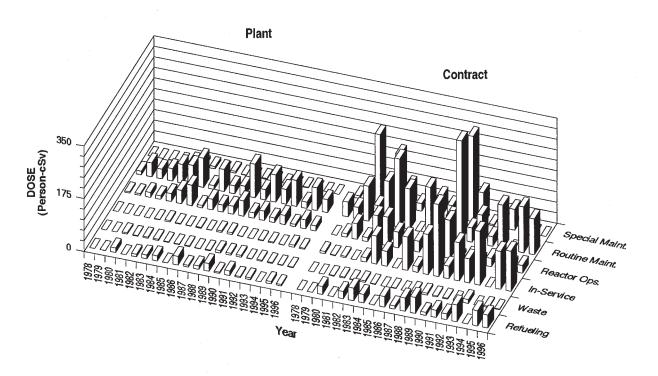
#### **ARKANSAS 1, 2**



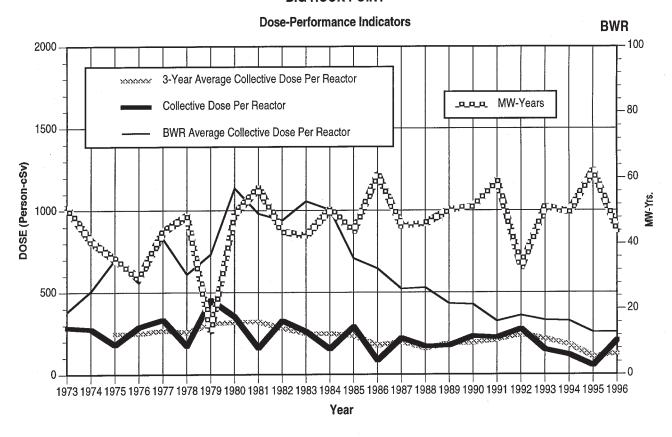


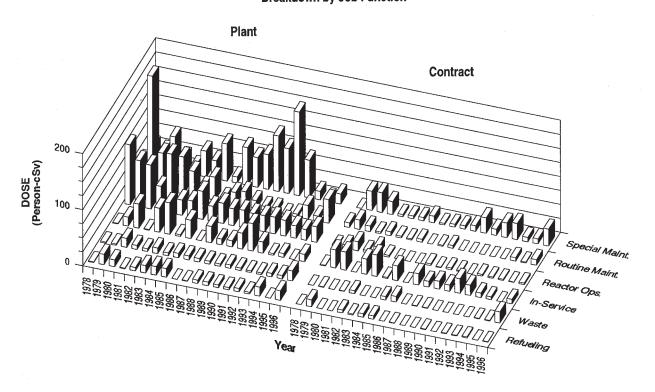
#### **BEAVER VALLEY 1, 2**



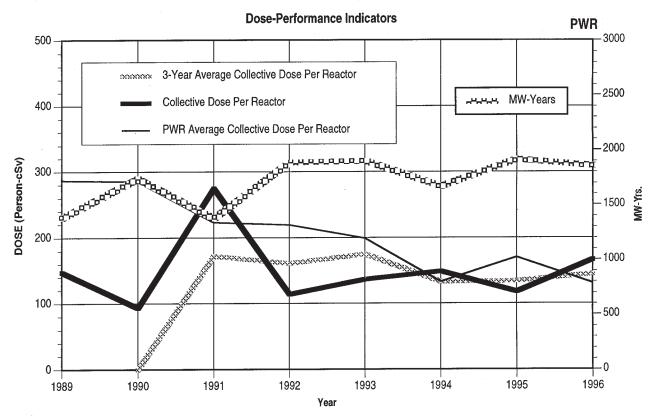


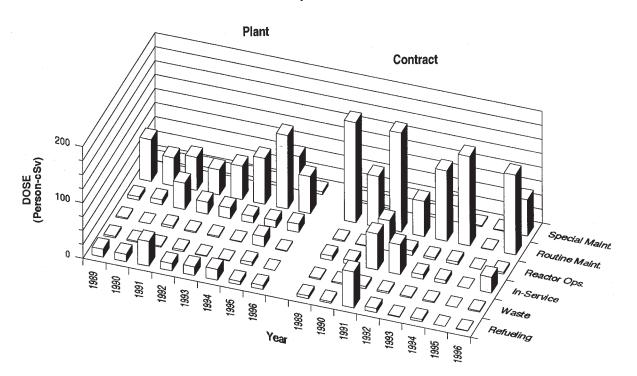
## APPENDIX E (continued) BIG ROCK POINT



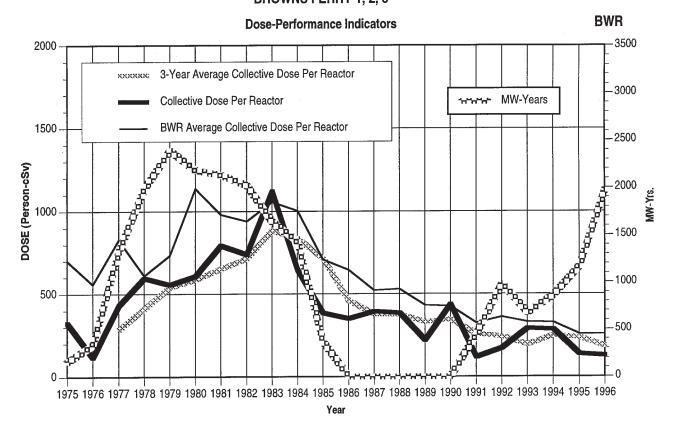


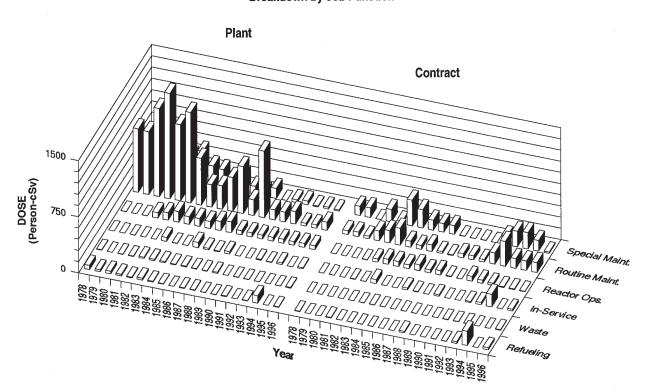
#### **BRAIDWOOD 1, 2**



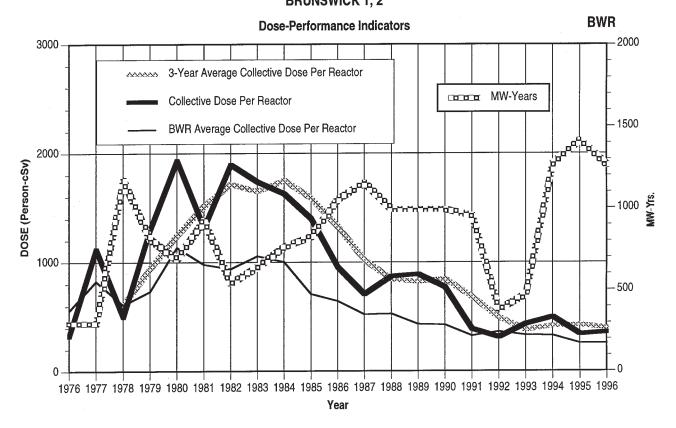


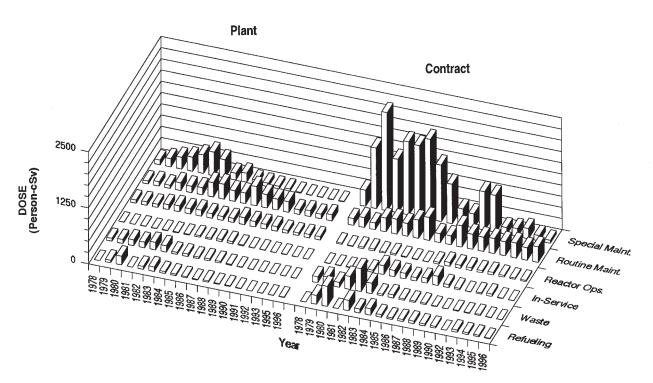
## APPENDIX E (continued) BROWNS FERRY 1, 2, 3



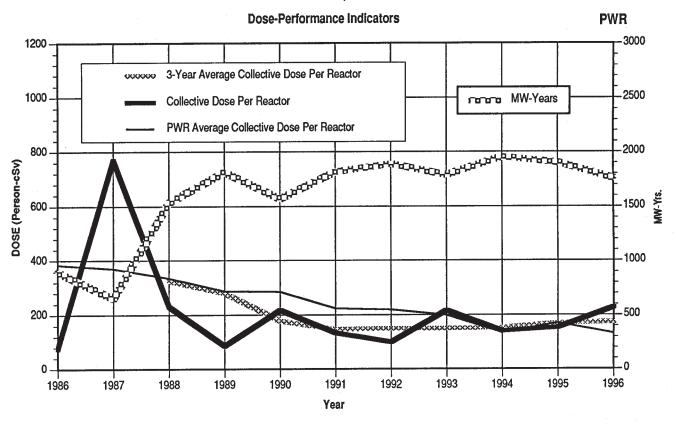


# APPENDIX E (continued) BRUNSWICK 1, 2

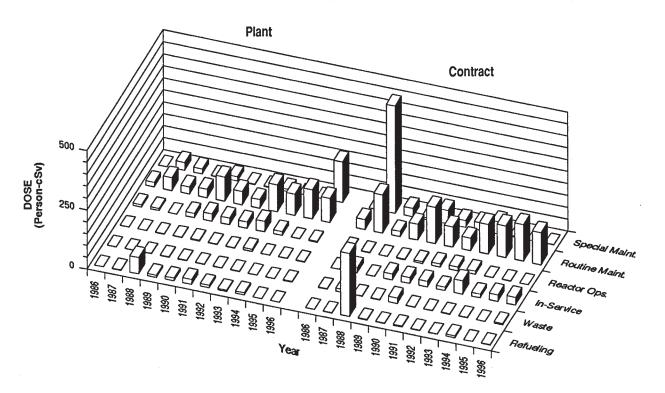




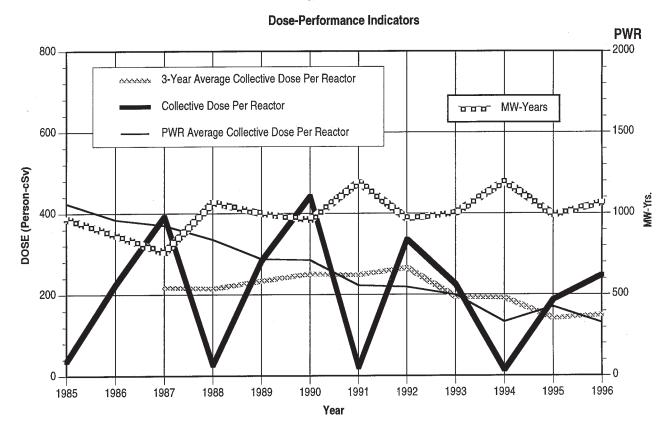
## APPENDIX E (continued) BYRON 1, 2

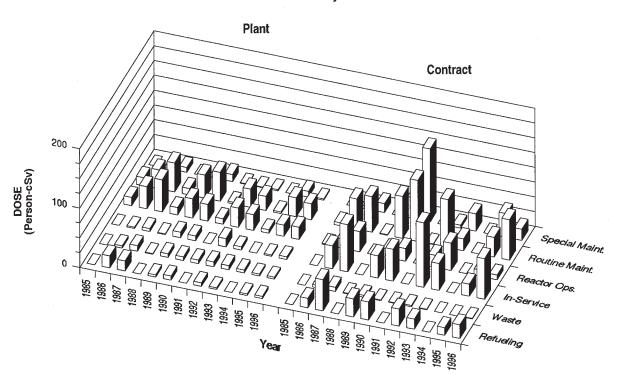


Breakdown by Job Function



## APPENDIX E (continued) CALLAWAY 1



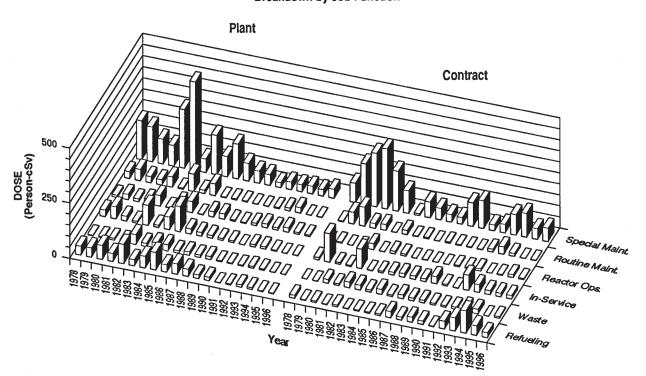


# APPENDIX E (continued) CALVERT CLIFFS 1, 2

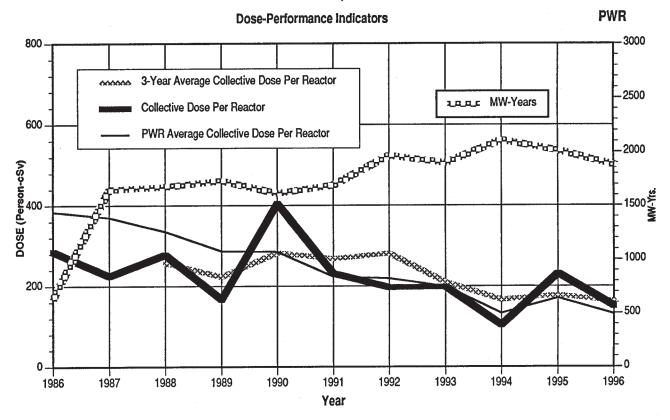
# Dose-Performance Indicators PWR 3-Year Average Collective Dose Per Reactor PWR Average Collective Dose Per Reactor 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500

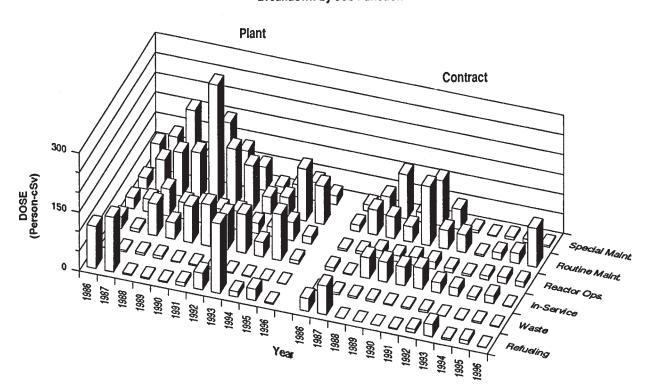
#### Breakdown by Job Function

1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 **Year** 

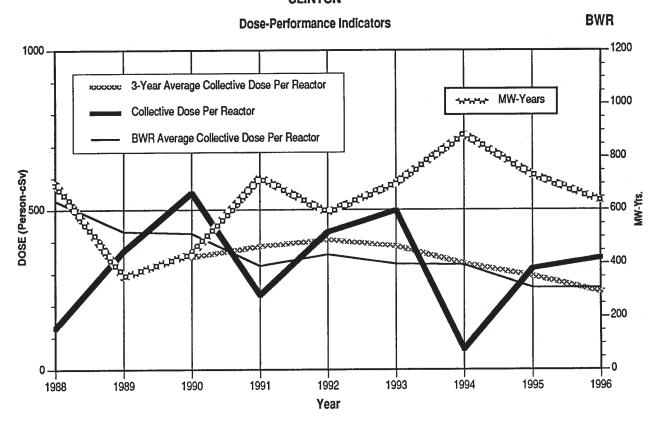


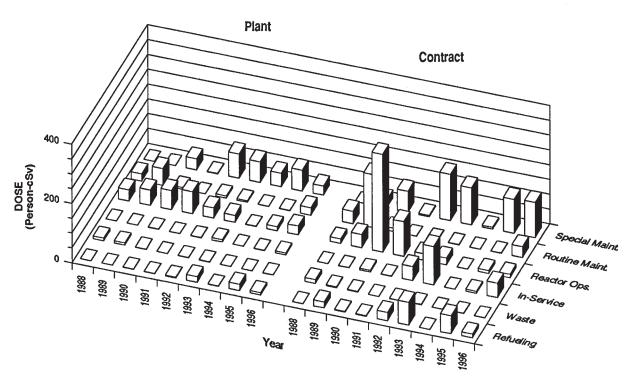
## APPENDIX E (continued) CATAWBA 1, 2



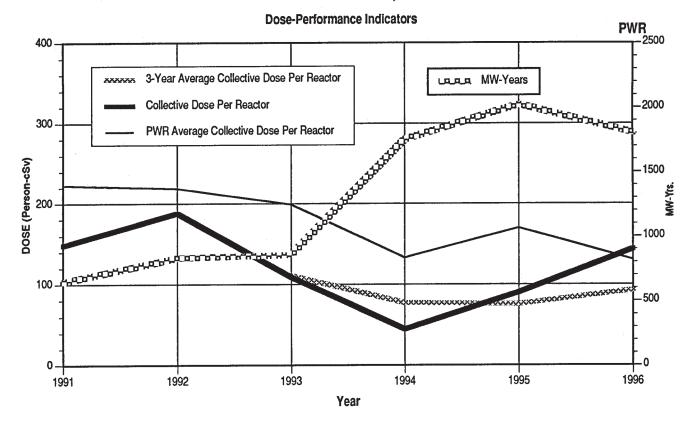


## APPENDIX E (continued) CLINTON

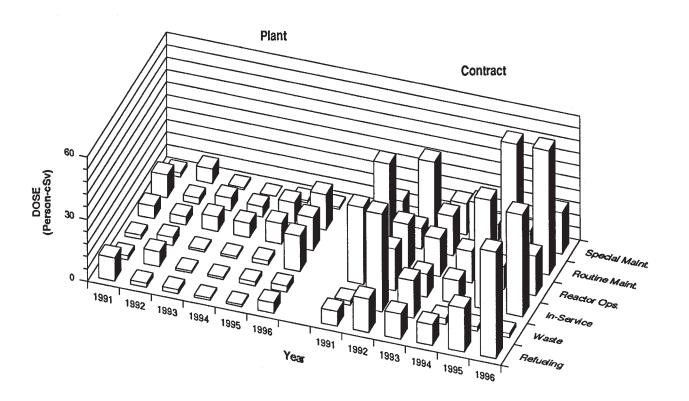




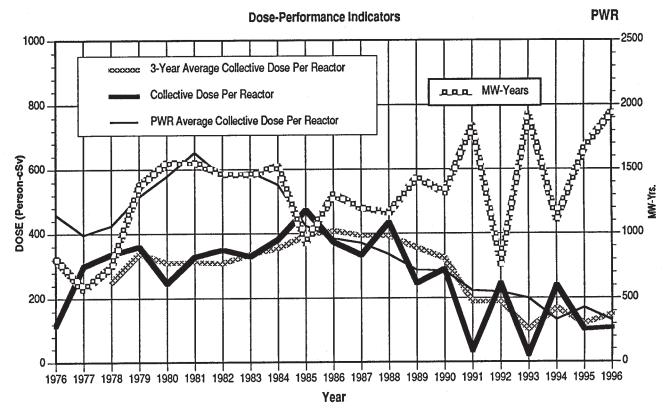
#### **COMANCHE PEAK 1, 2**

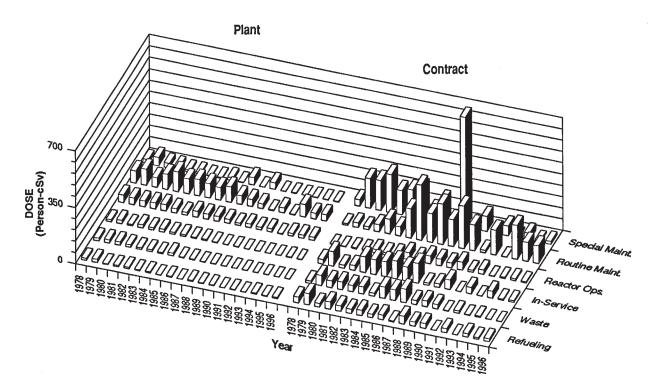


Breakdown by Job Function

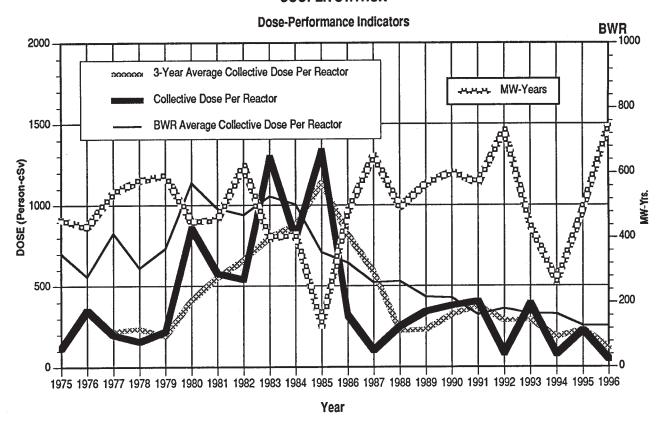


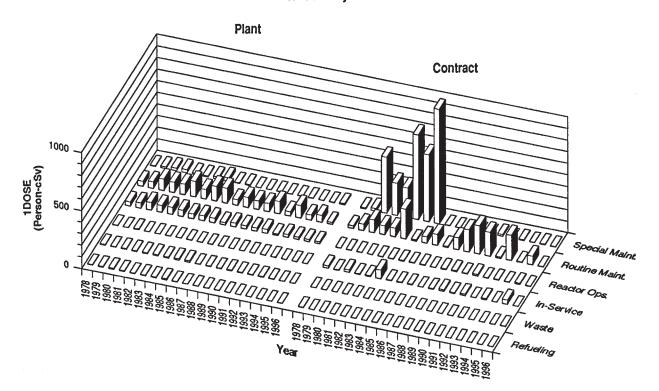
## APPENDIX E (continued) COOK 1, 2



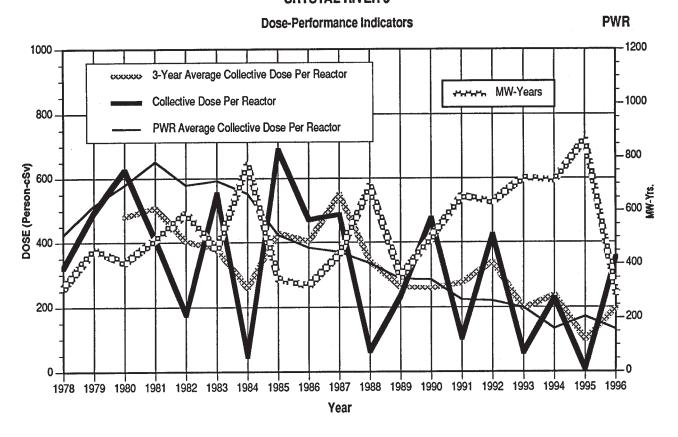


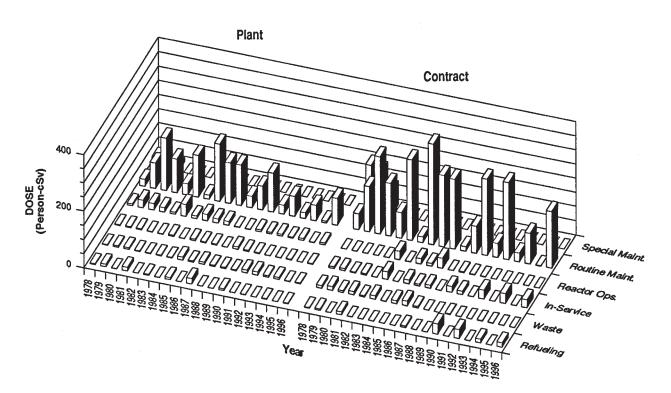
#### **COOPER STATION**



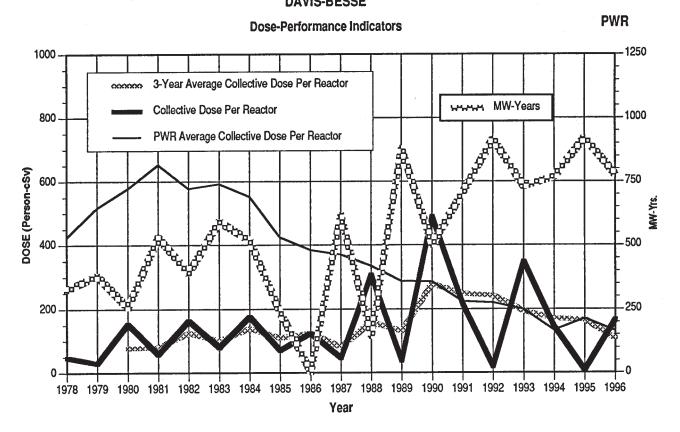


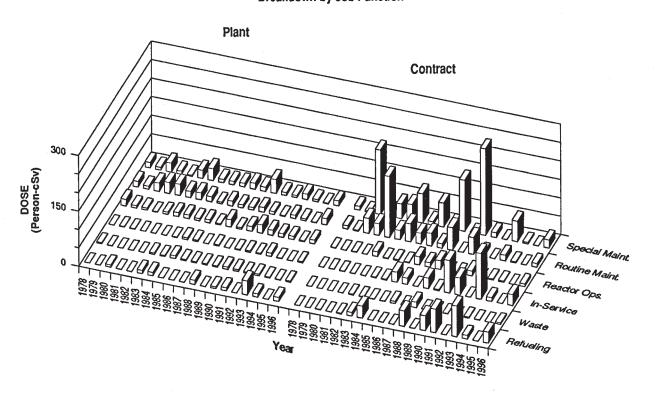
## APPENDIX E (continued) CRYSTAL RIVER 3

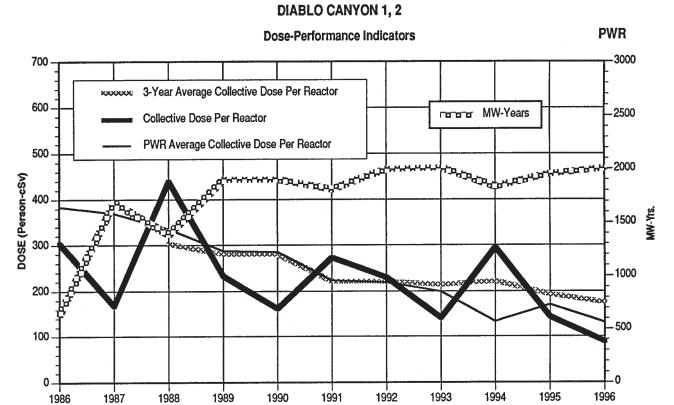




## APPENDIX E (continued) DAVIS-BESSE

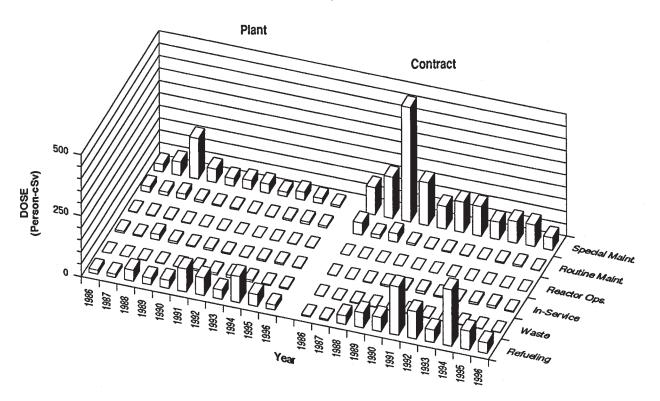




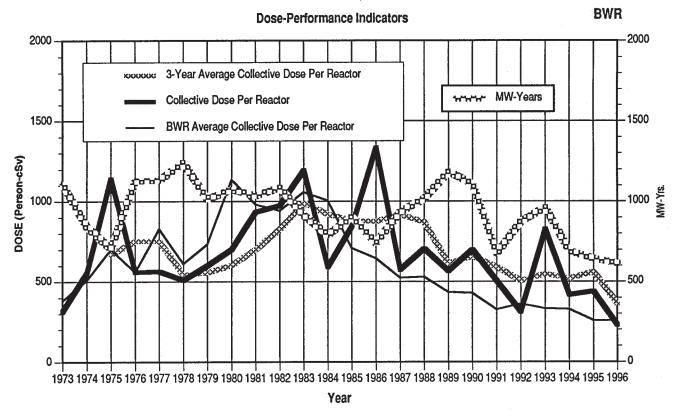


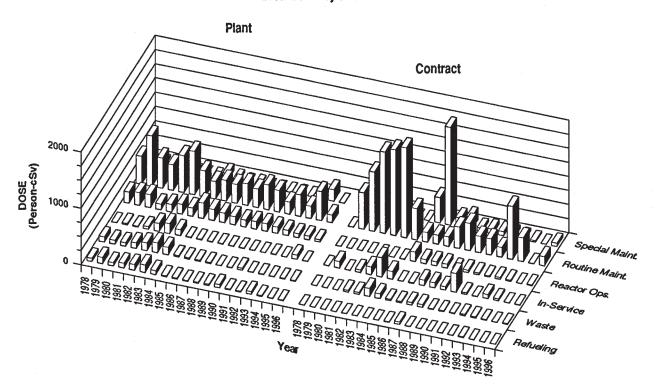
#### Breakdown by Job Function

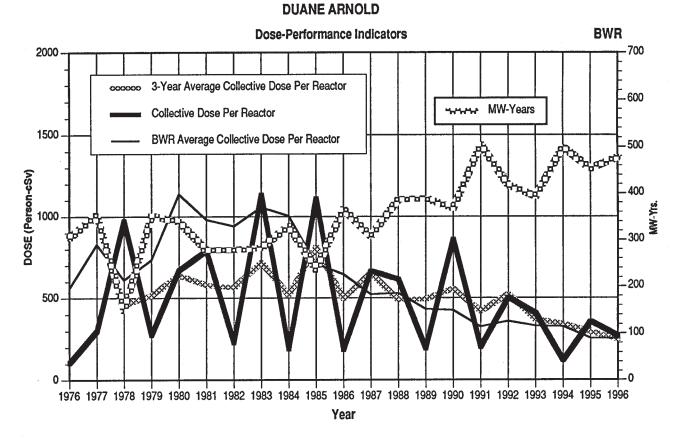
Year

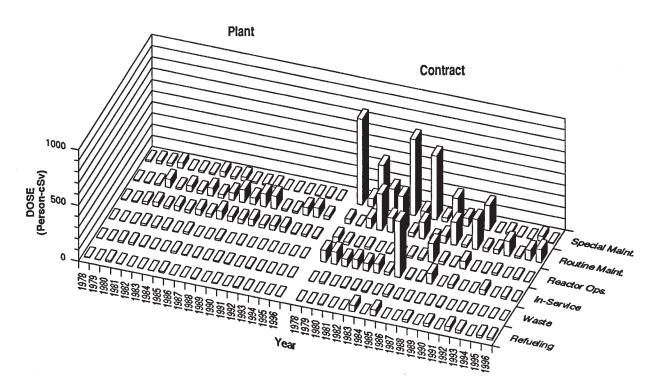


# APPENDIX E (continued) DRESDEN 2, 3

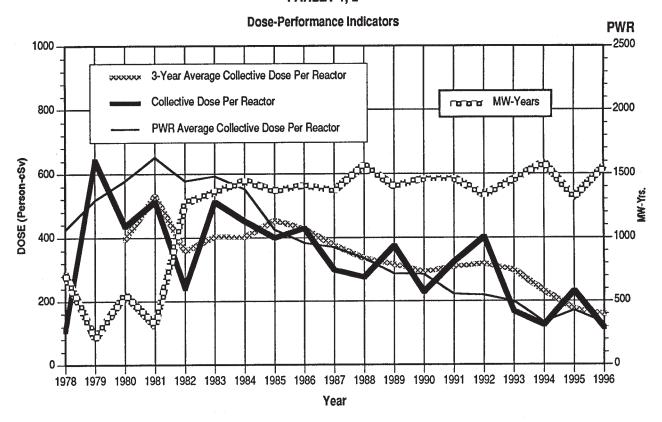


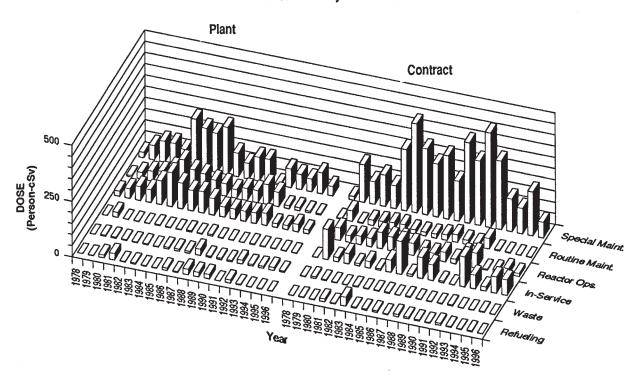




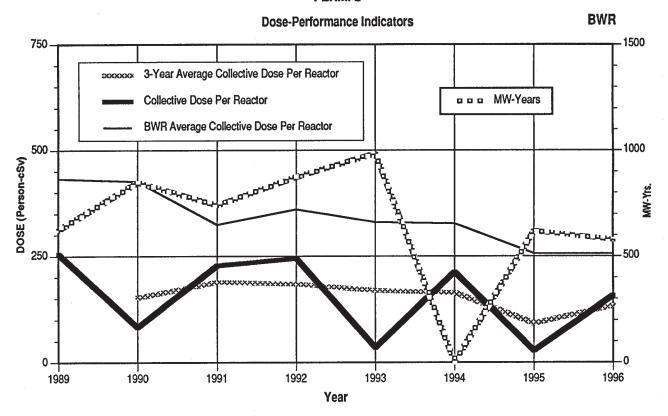


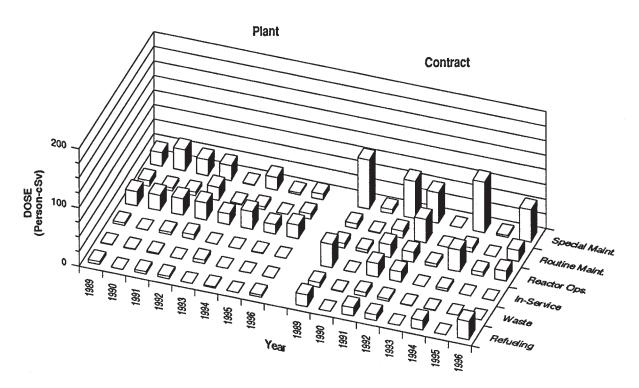
## APPENDIX E (continued) FARLEY 1, 2



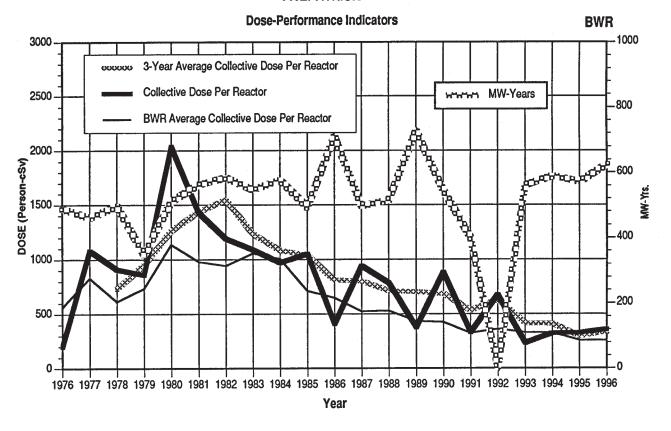


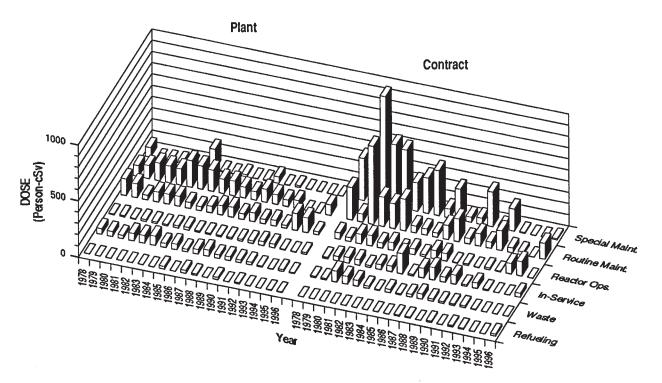
#### FERMI 2



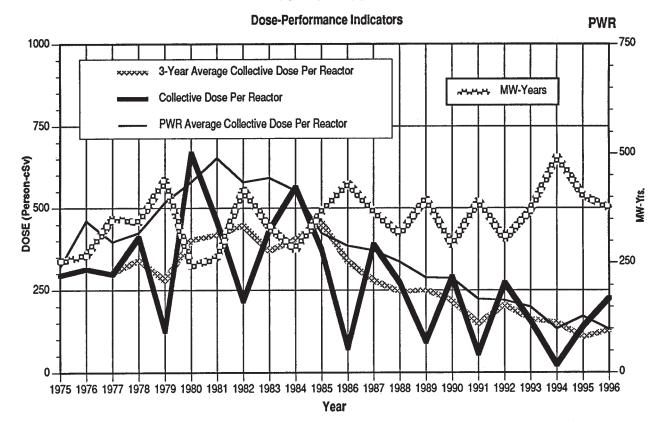


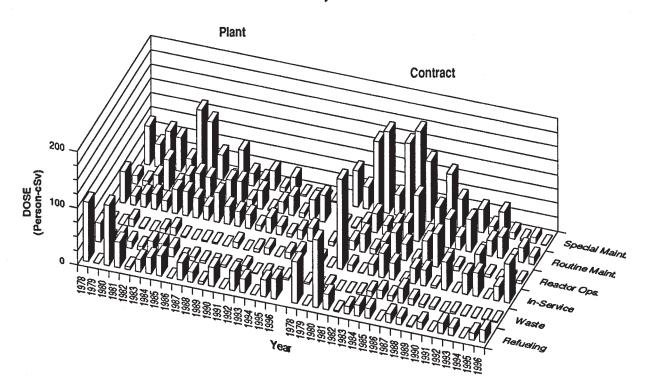
#### **FITZPATRICK**

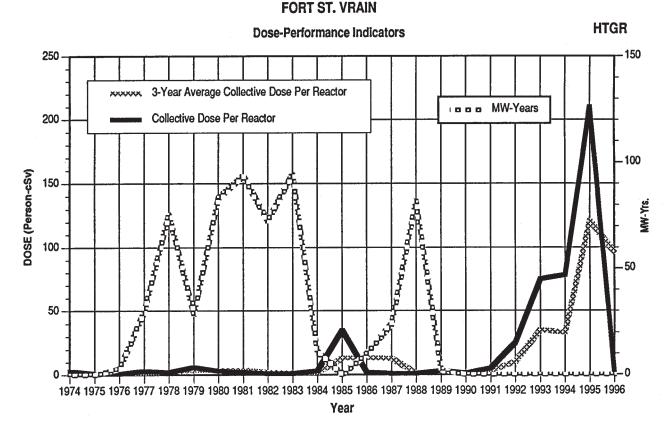


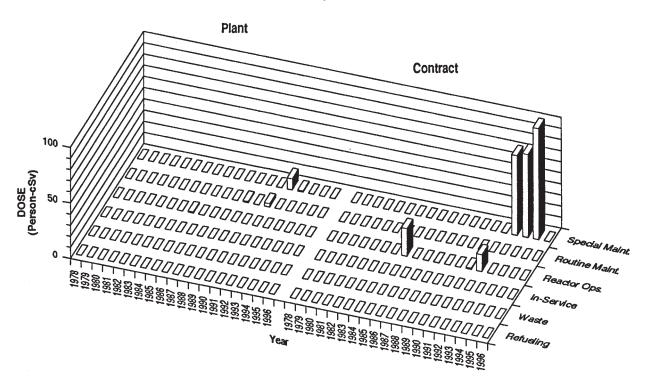


#### **FORT CALHOUN**

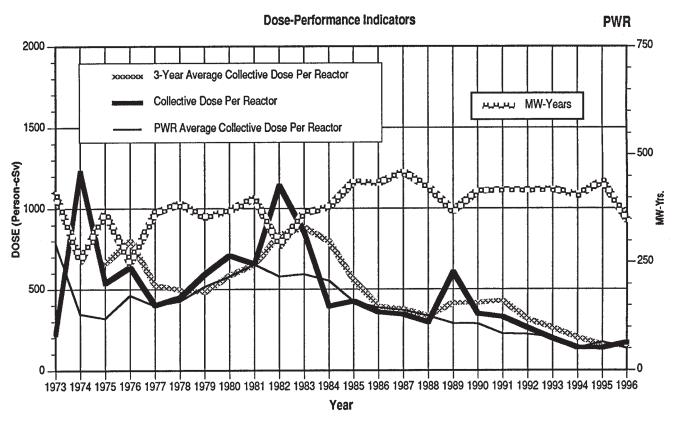


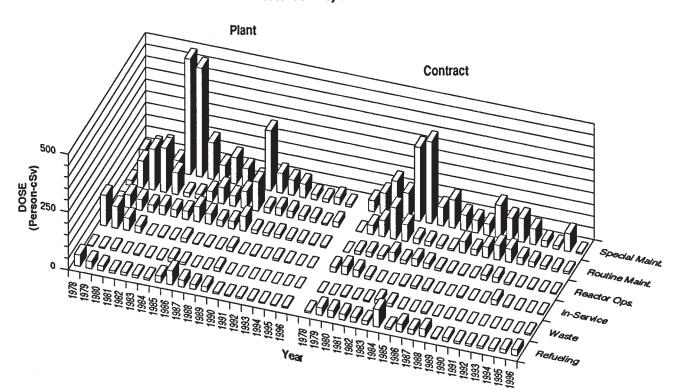




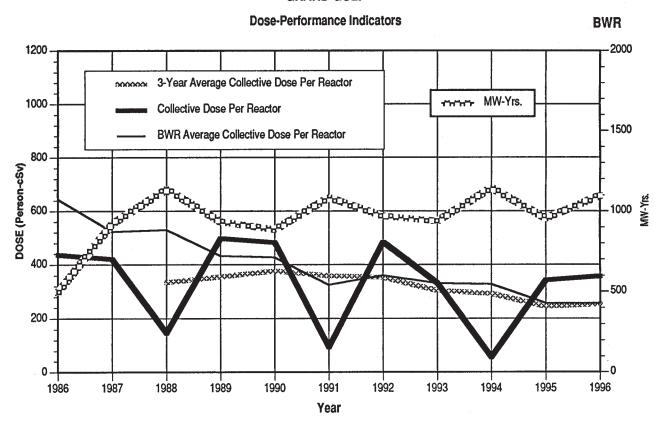


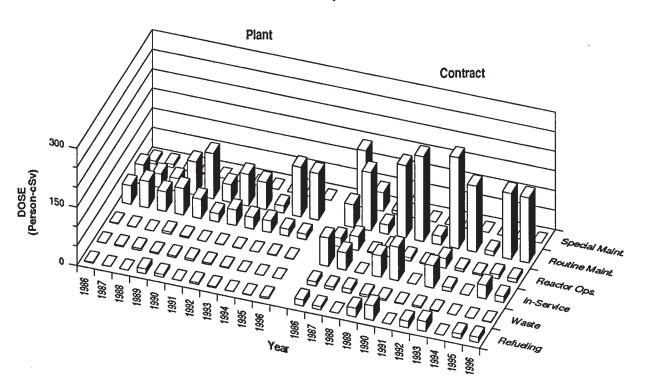
## APPENDIX E (continued) GINNA



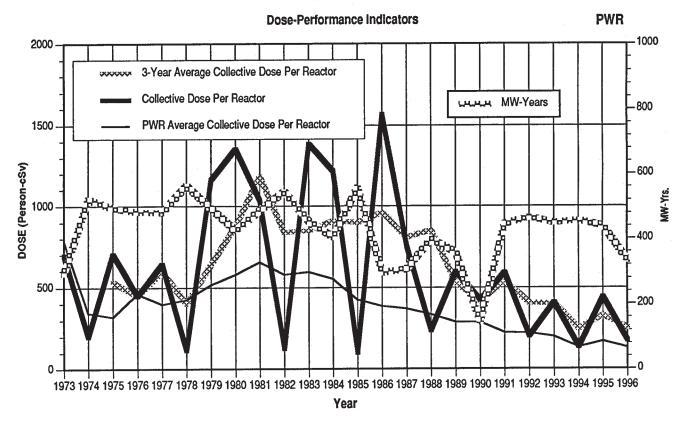


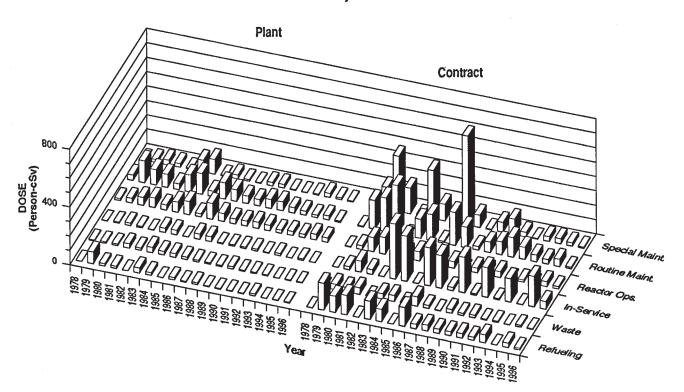
## APPENDIX E (continued) GRAND GULF



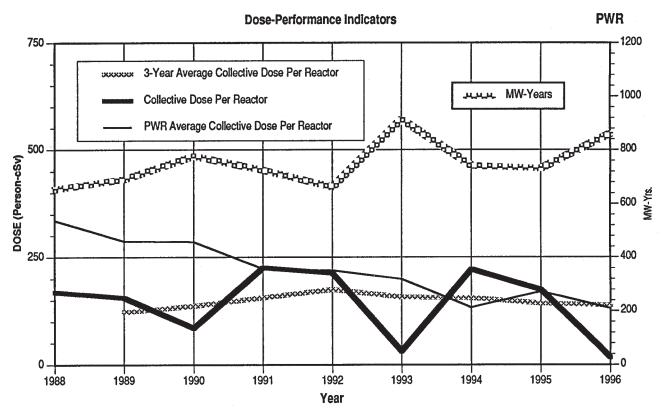


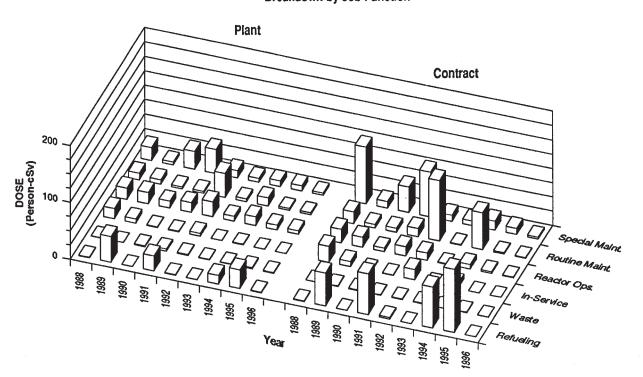
#### **HADDAM NECK**



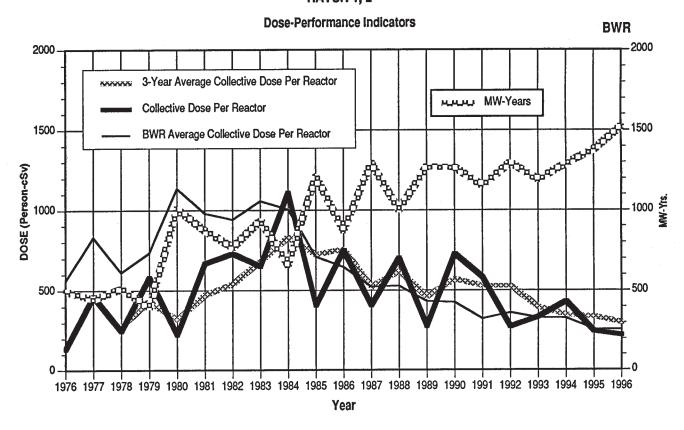


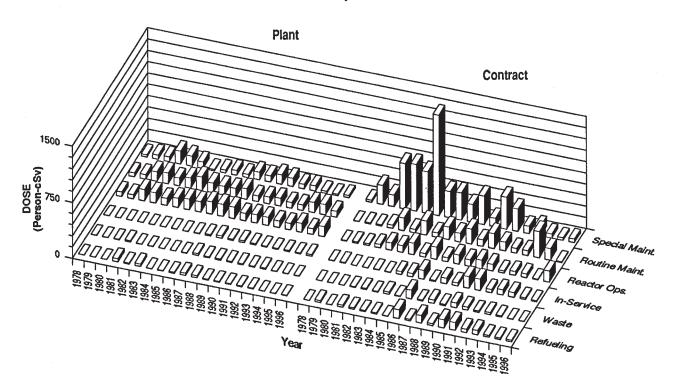
## APPENDIX E (continued) HARRIS



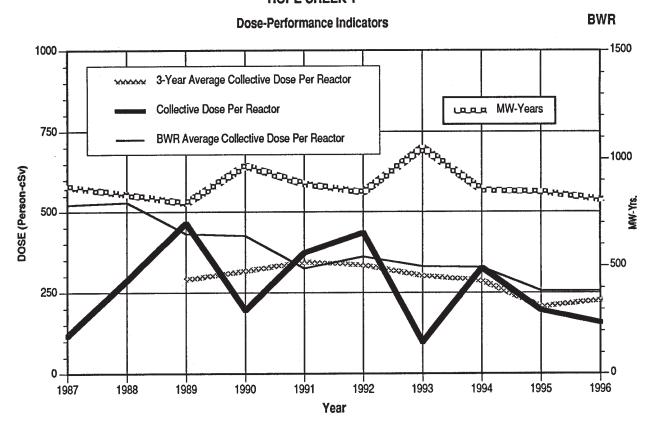


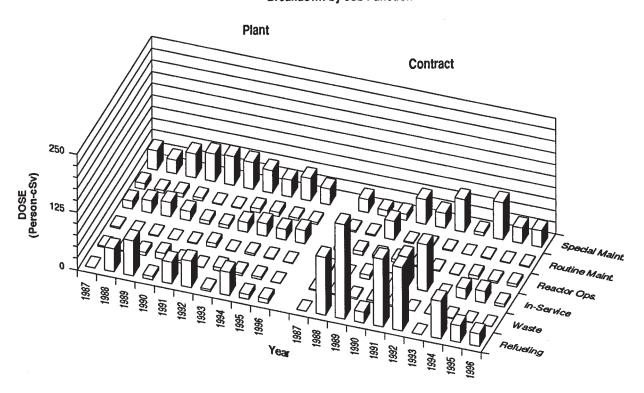
# APPENDIX E (continued) HATCH 1, 2



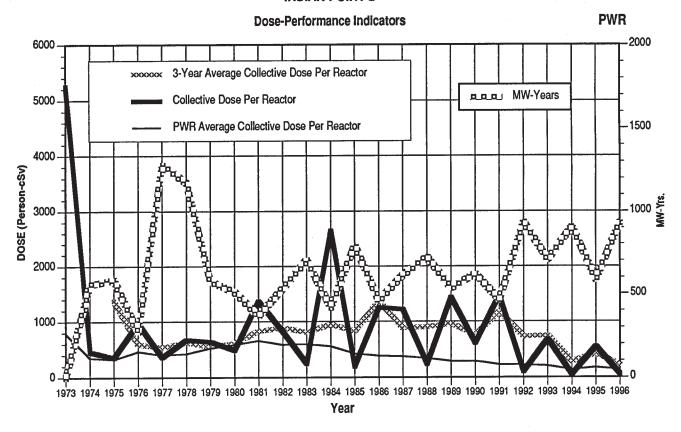


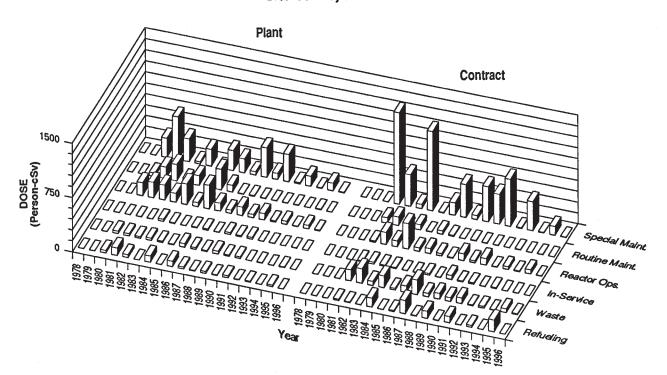
# APPENDIX E (continued) HOPE CREEK 1



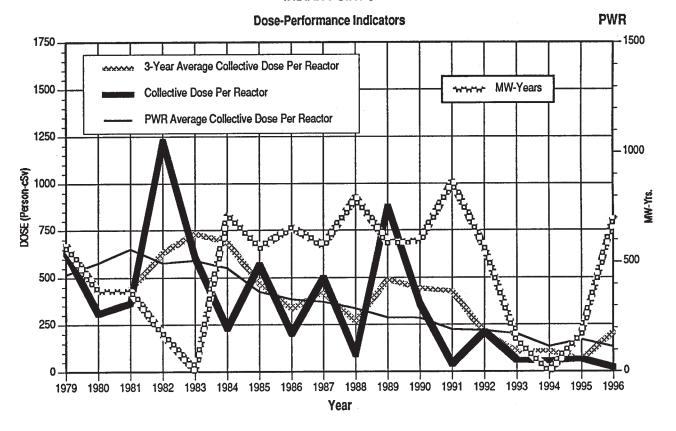


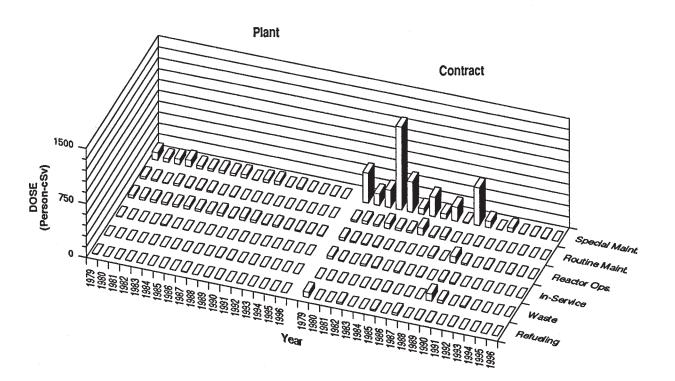
## **INDIAN POINT 2**



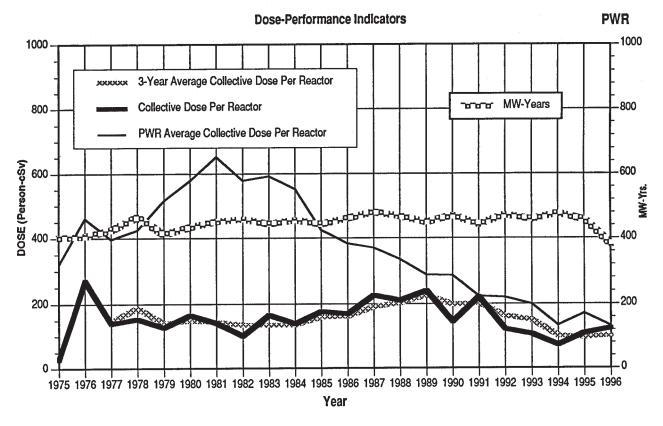


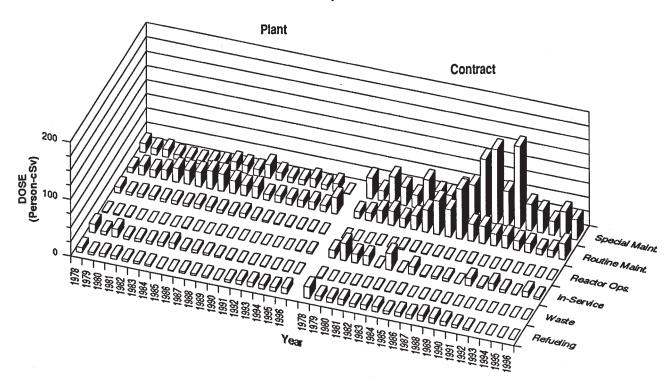
#### **INDIAN POINT 3**



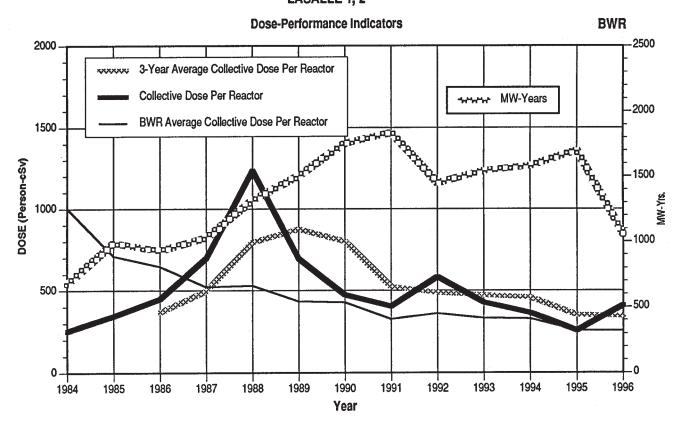


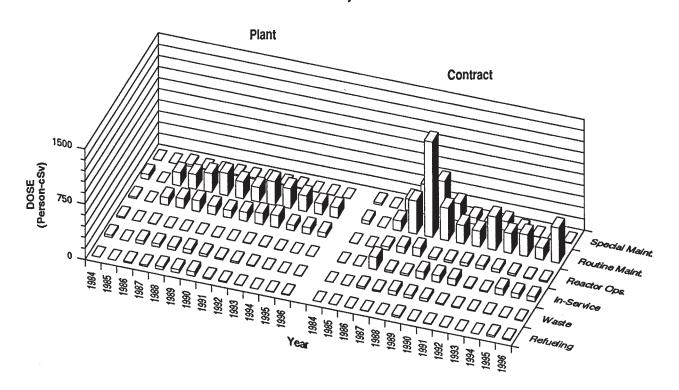
#### **KEWAUNEE**



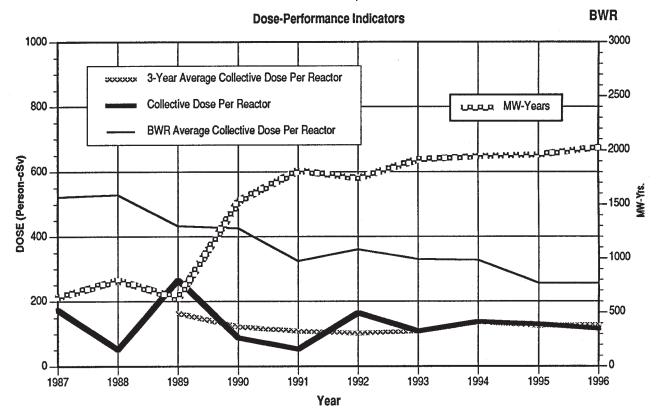


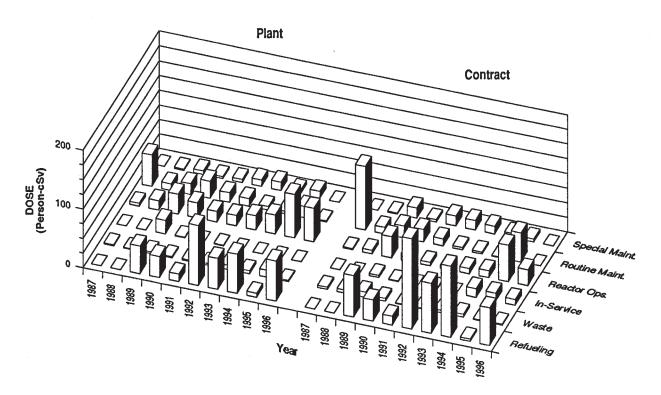
# APPENDIX E (continued) LASALLE 1, 2

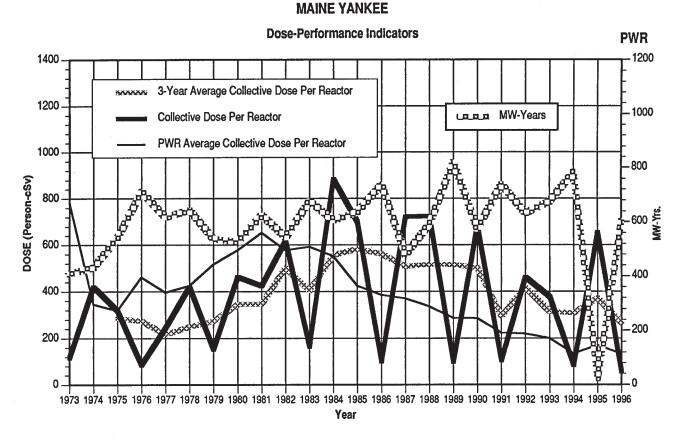


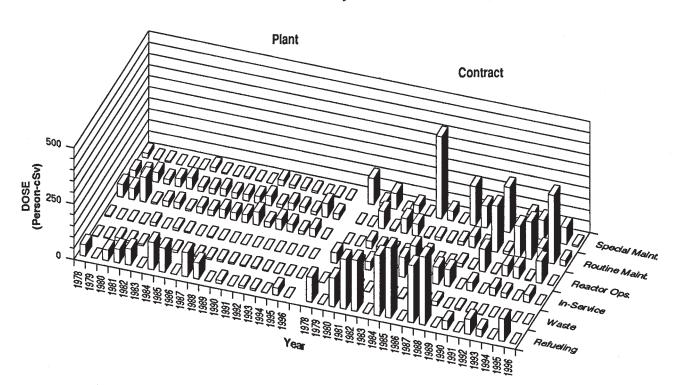


## LIMERICK 1, 2

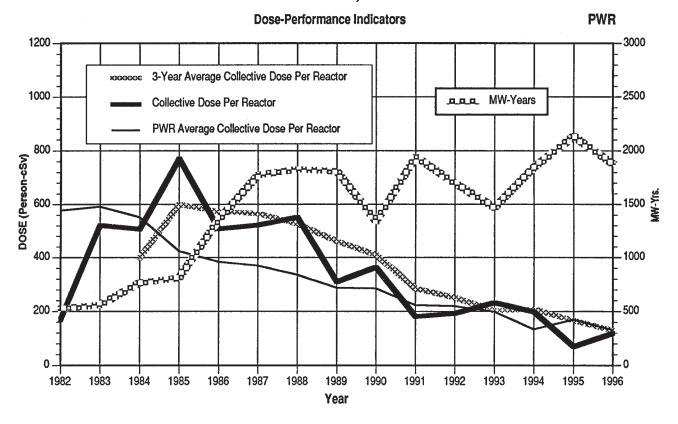


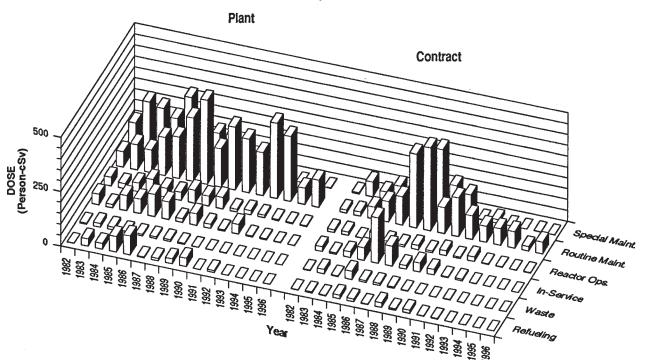




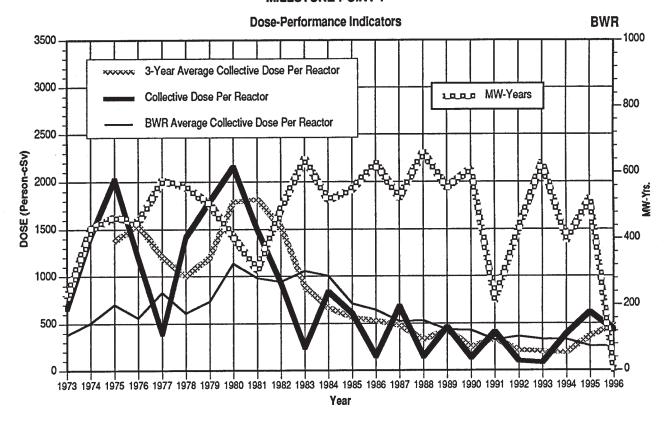


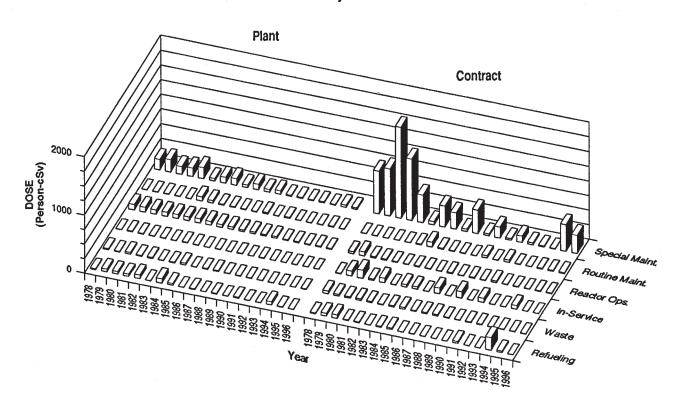
## MCGUIRE 1, 2



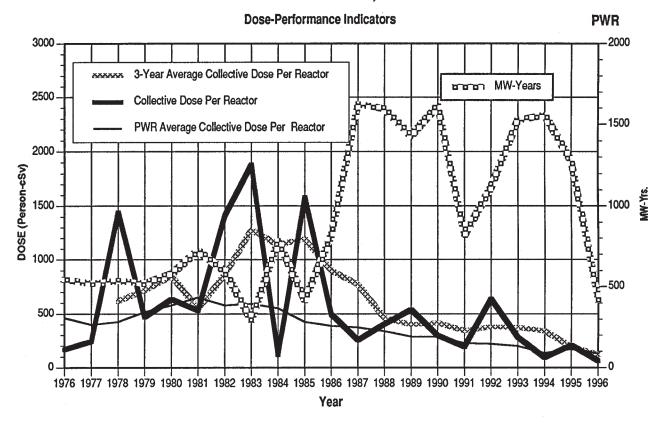


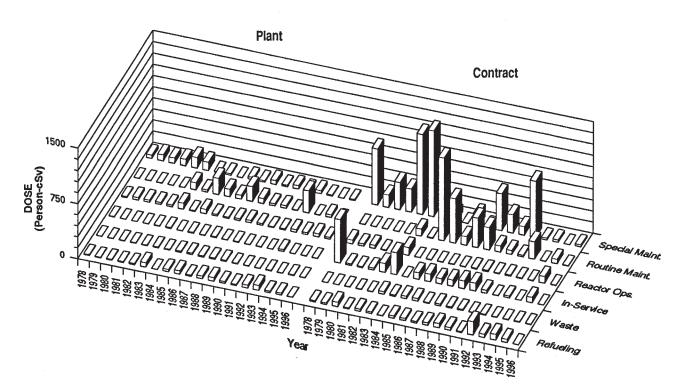
#### **MILLSTONE POINT 1**



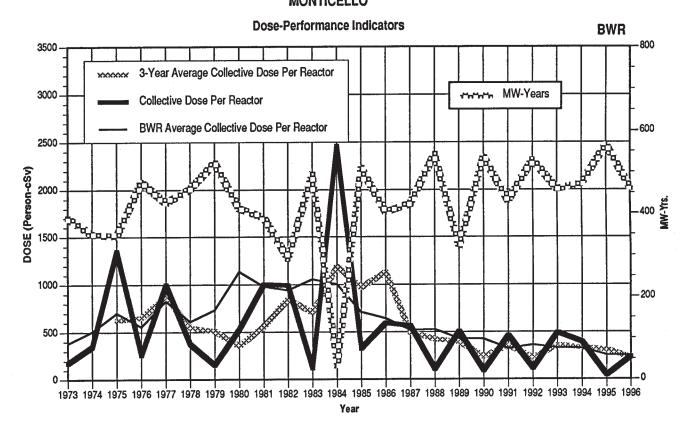


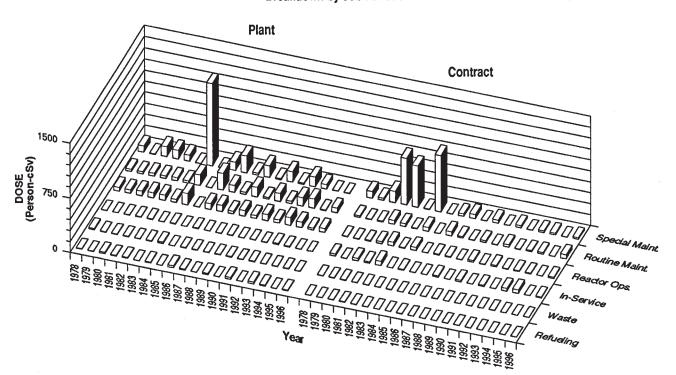
## **MILLSTONE POINT 2, 3**



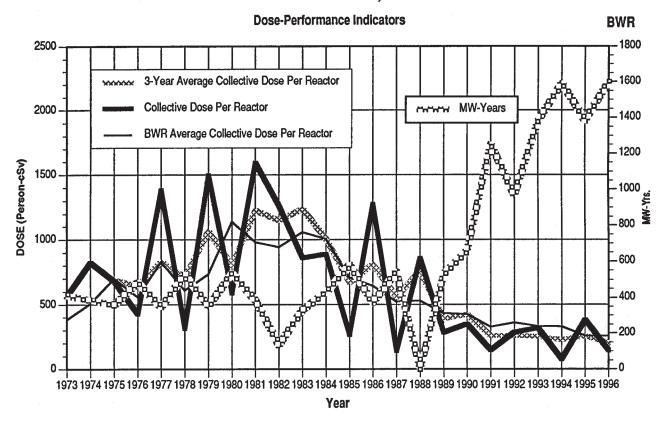


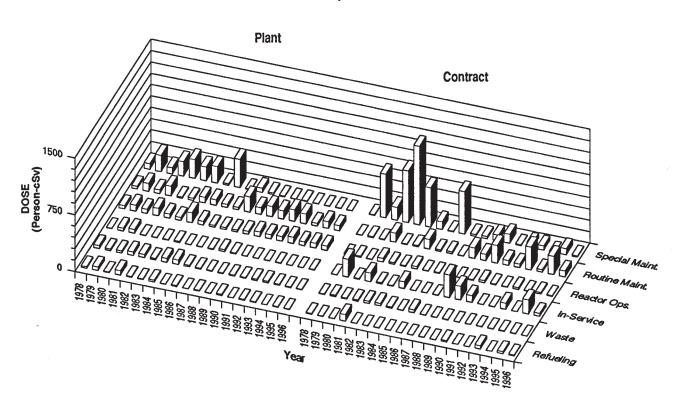
## APPENDIX E (continued) MONTICELLO



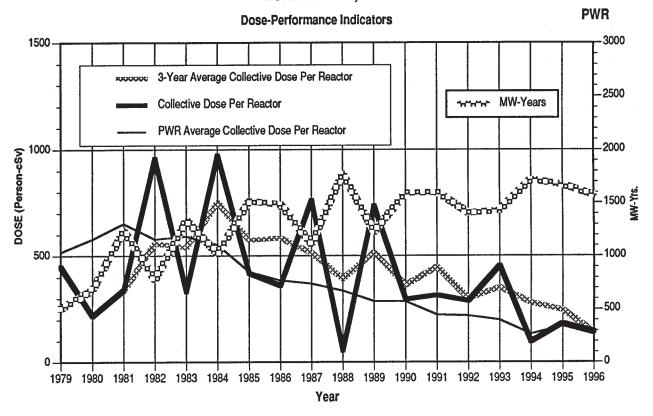


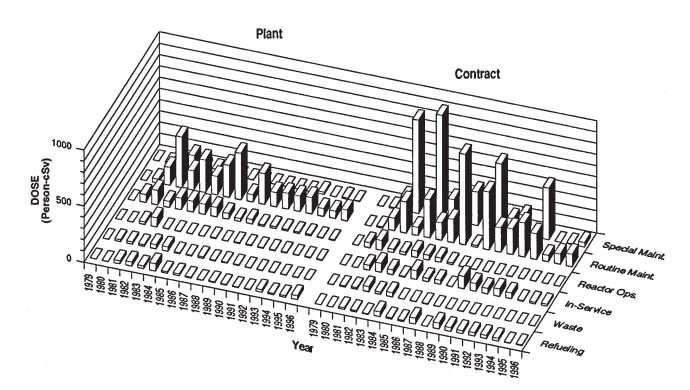
## **NINE MILE POINT 1, 2**



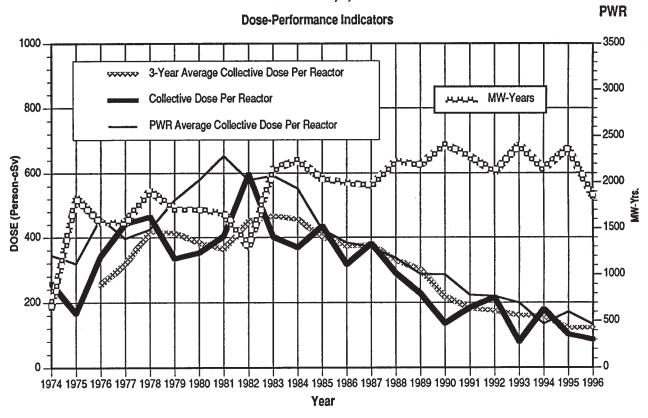


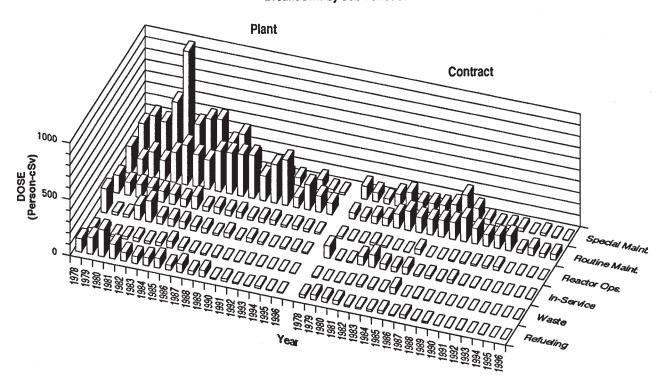
## NORTH ANNA 1, 2



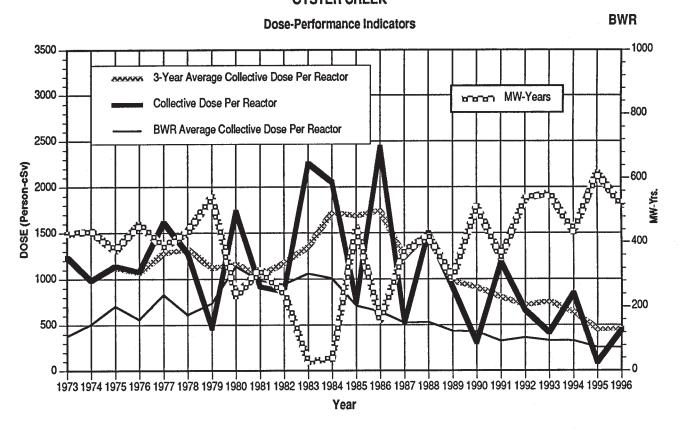


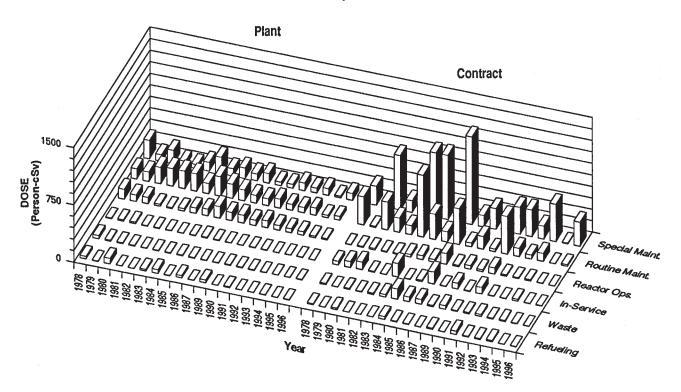
## **OCONEE 1, 2, 3**



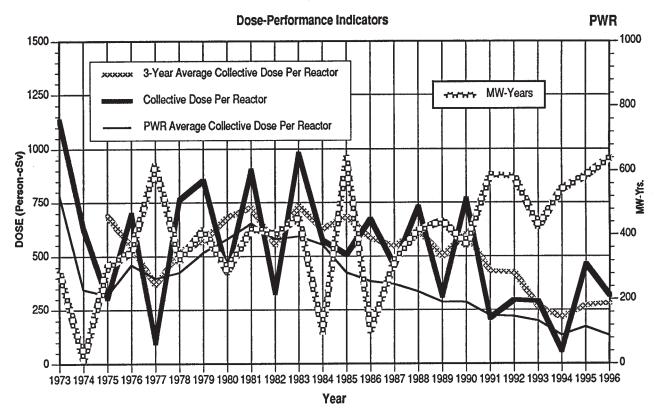


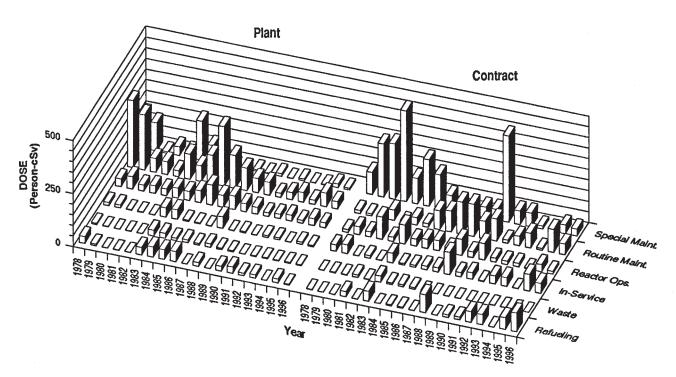
# APPENDIX E (continued) OYSTER CREEK

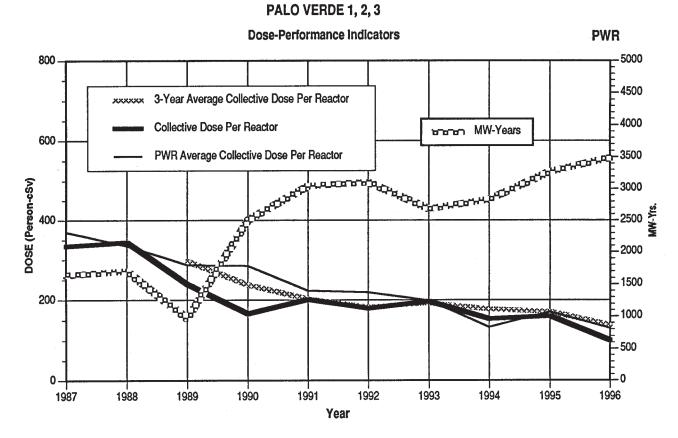


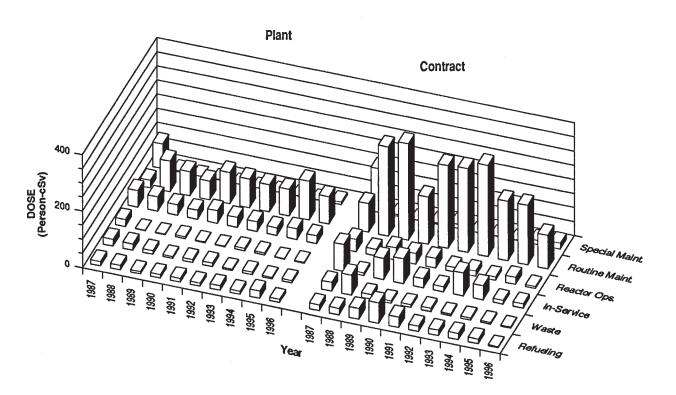


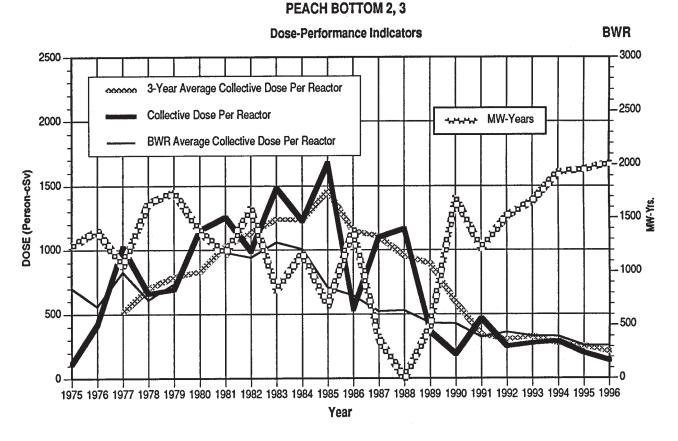
# APPENDIX E (continued) PALISADES

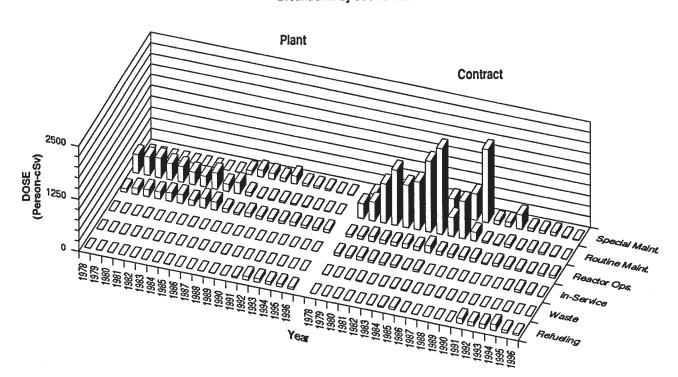




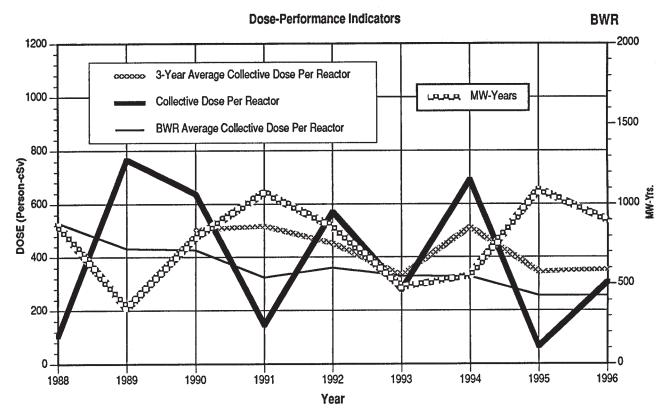


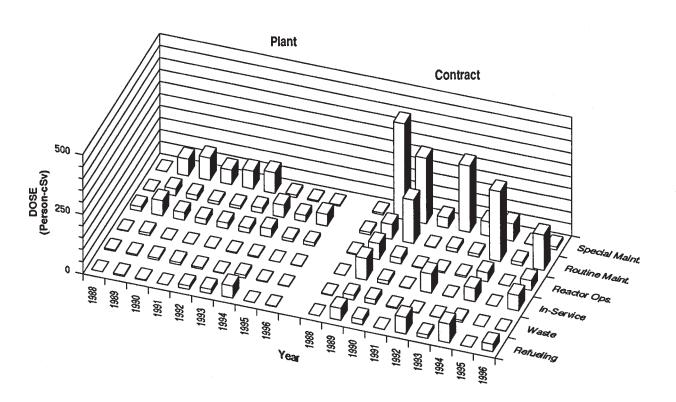




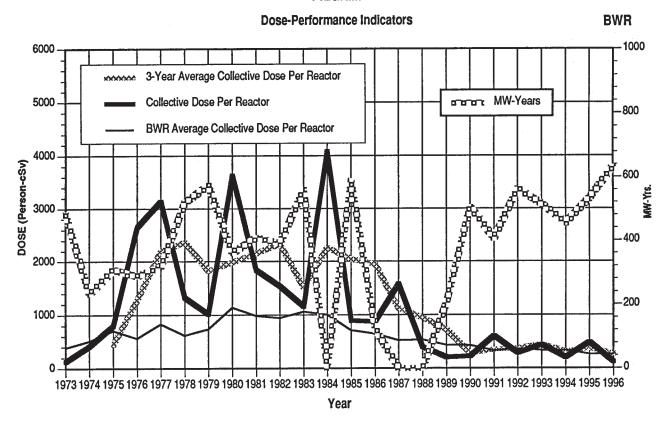


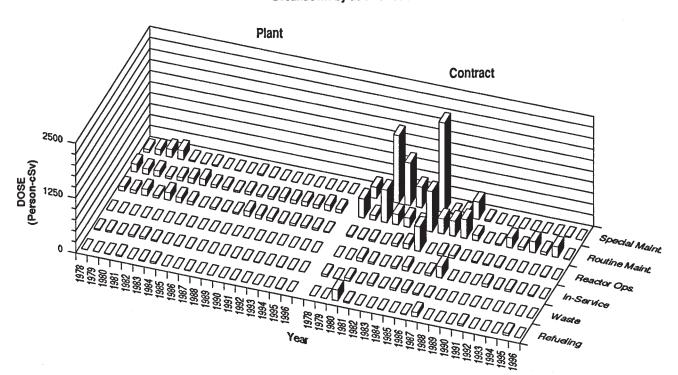
# APPENDIX E (continued) PERRY

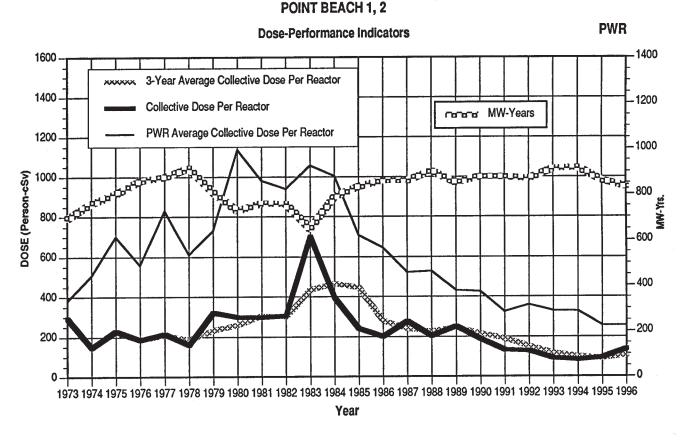


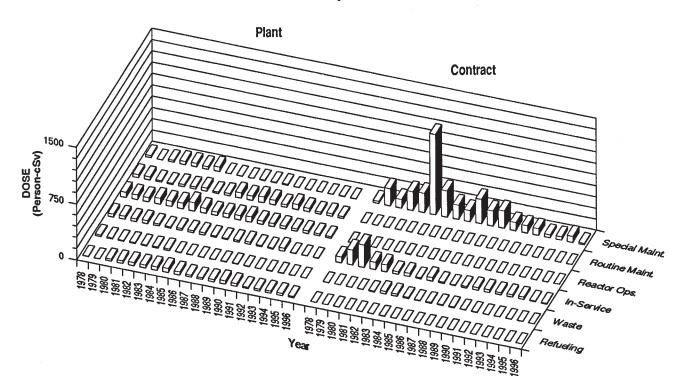


#### **PILGRIM**

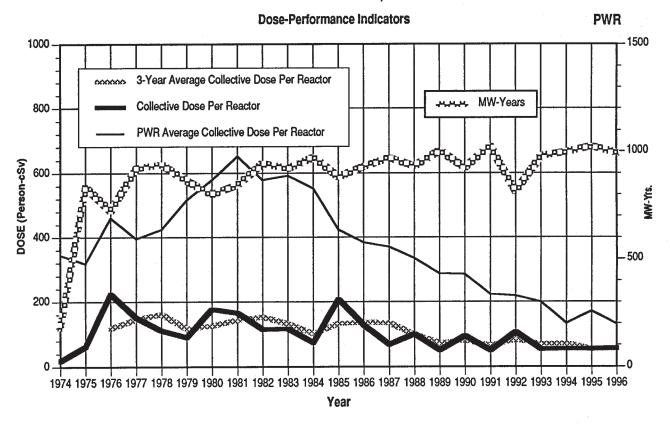


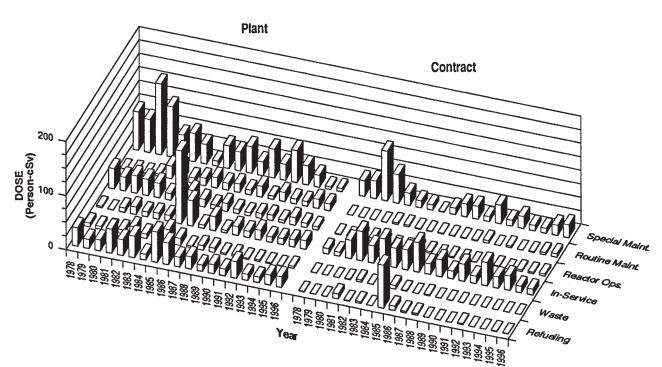




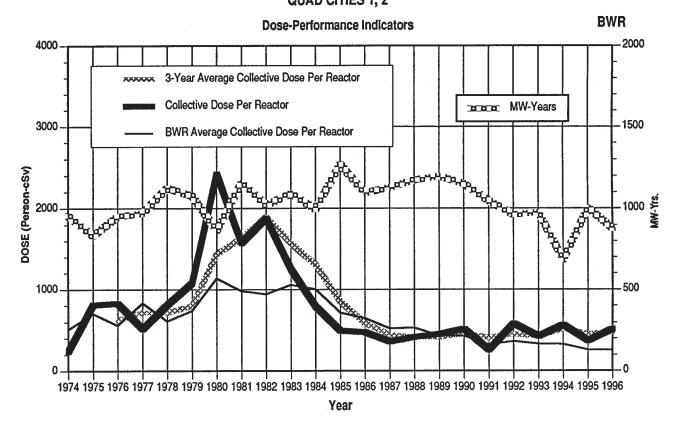


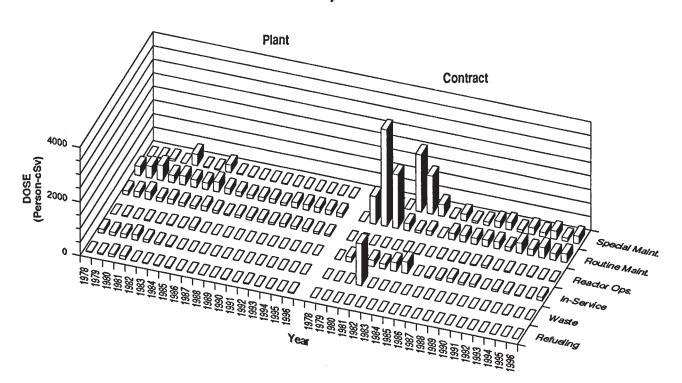
## **PRAIRIE ISLAND 1, 2**



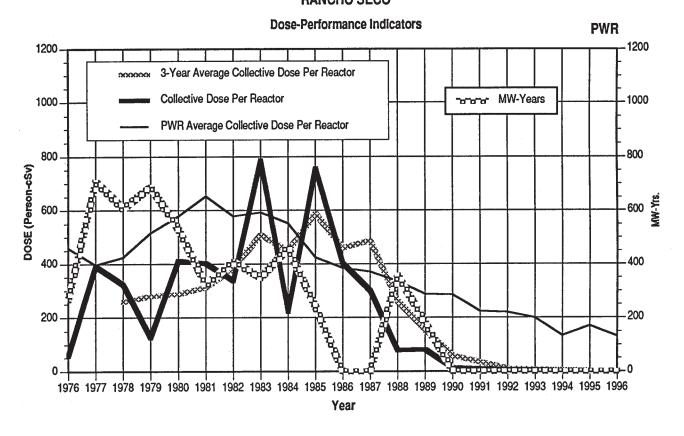


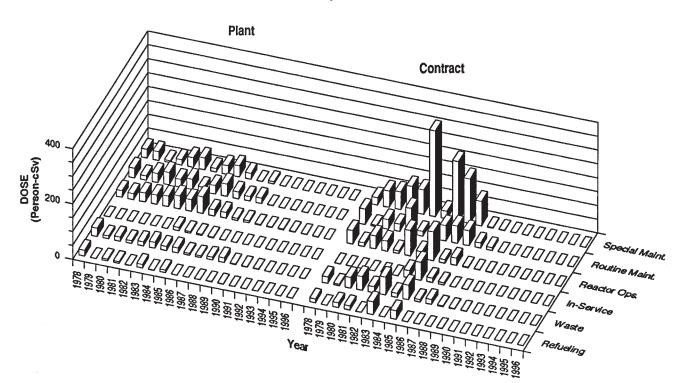
# APPENDIX E (continued) QUAD CITIES 1, 2



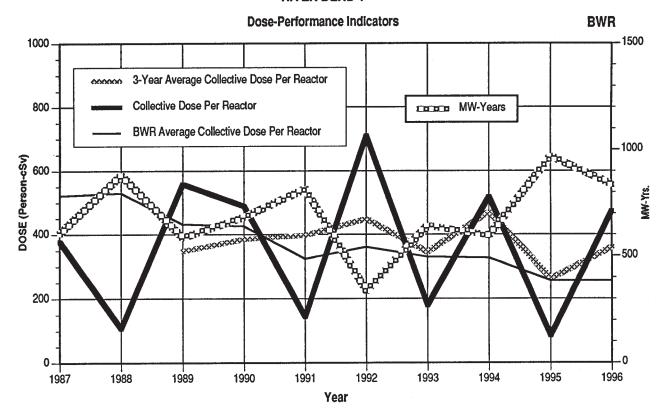


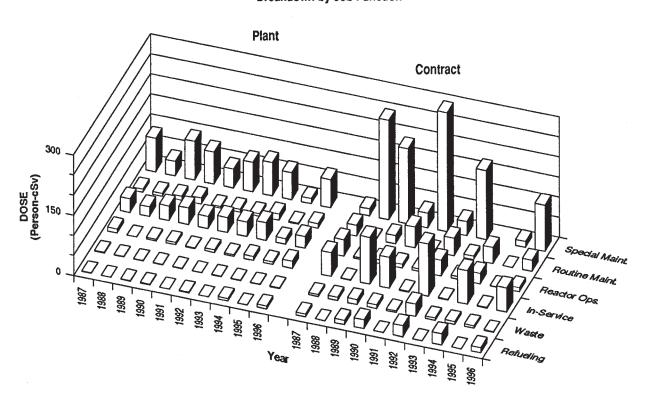
## APPENDIX E (continued) RANCHO SECO



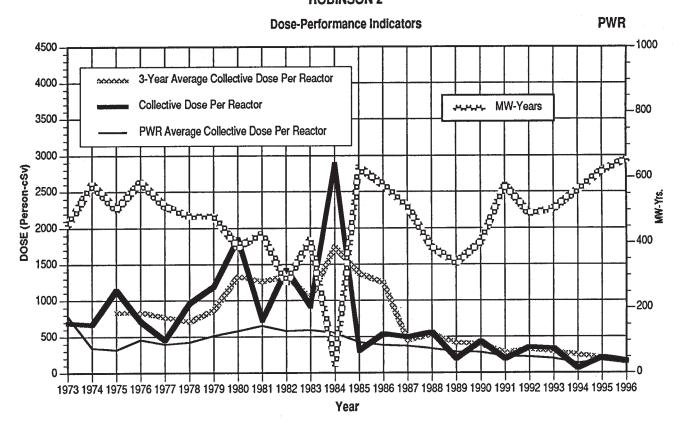


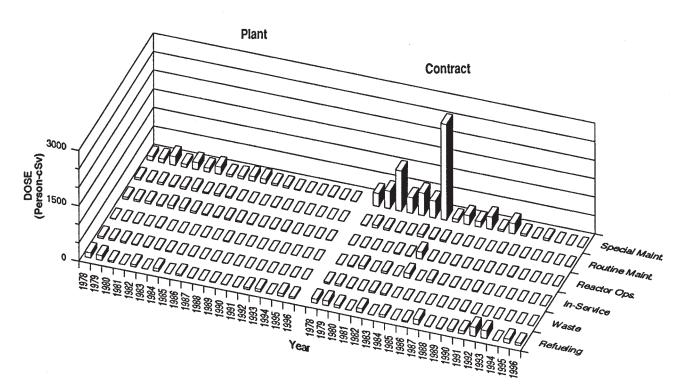
## **RIVER BEND 1**



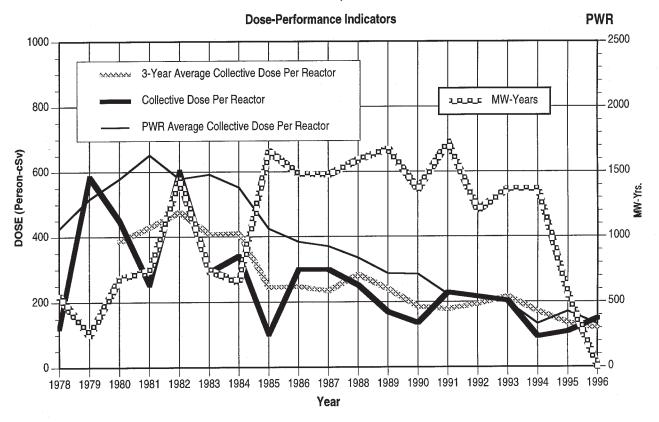


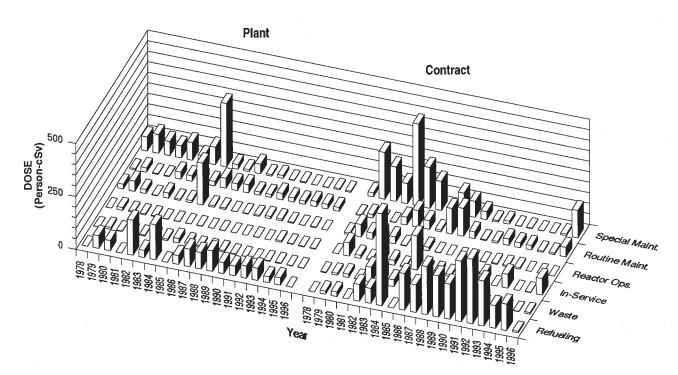
## APPENDIX E (continued) ROBINSON 2

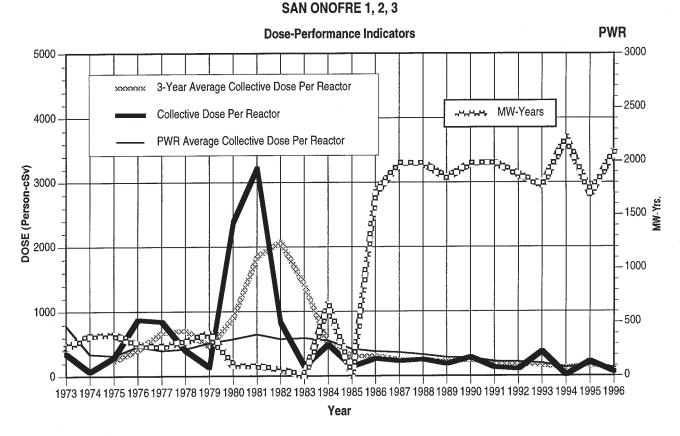


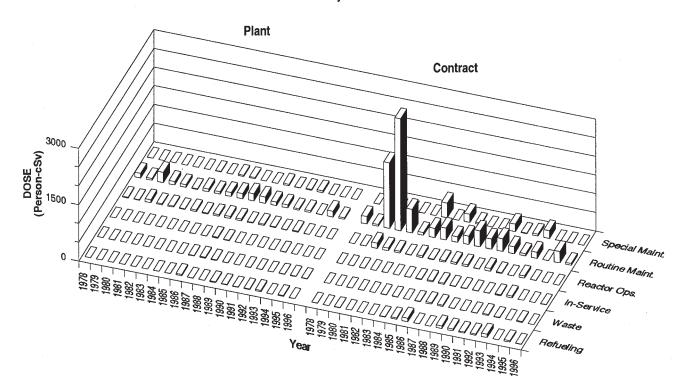


## **SALEM 1, 2**

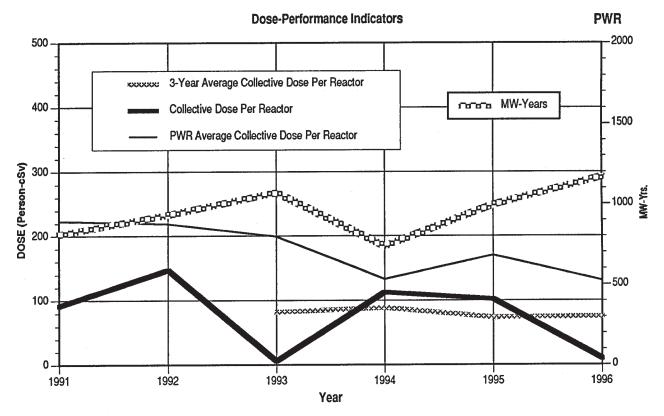


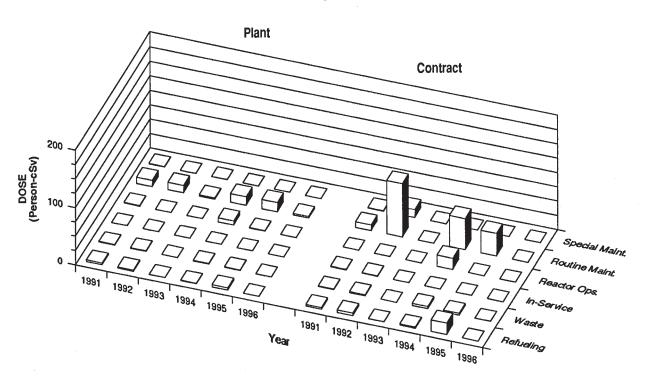




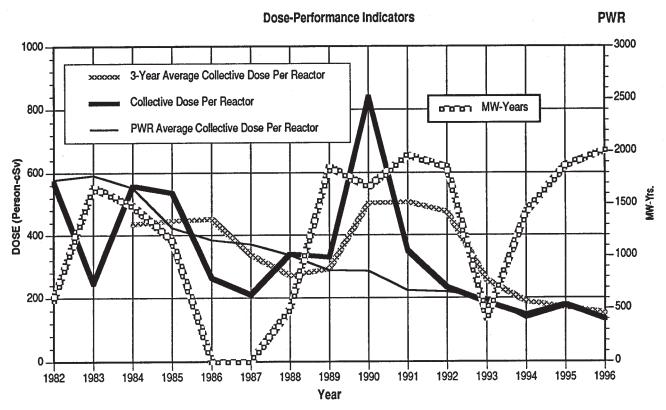


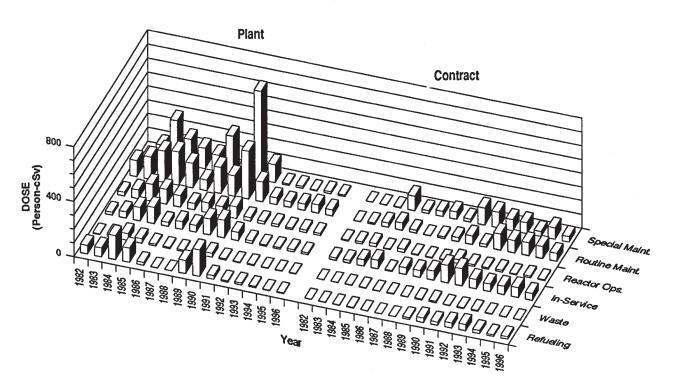
# APPENDIX E (continued) SEABROOK



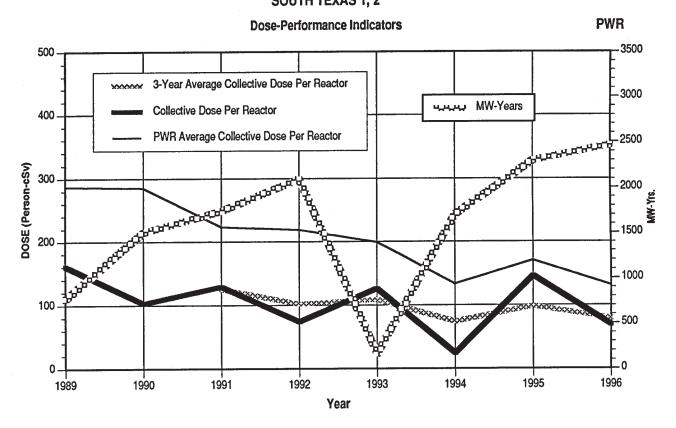


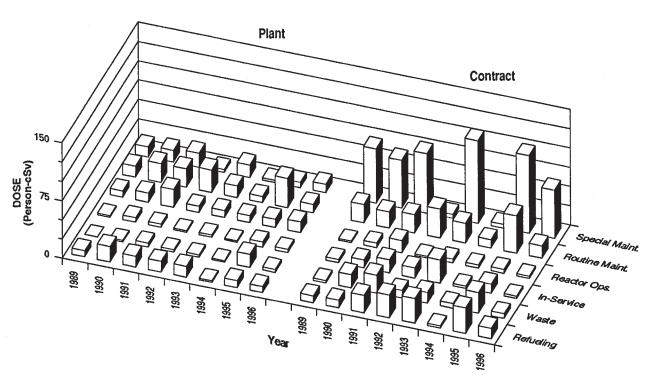
# APPENDIX E (continued) SEQUOYAH 1, 2



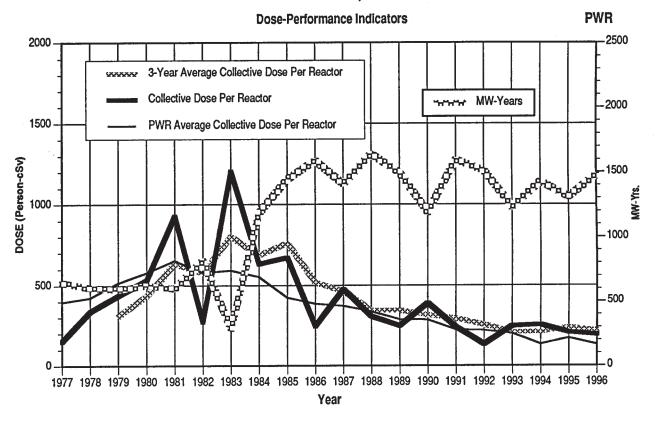


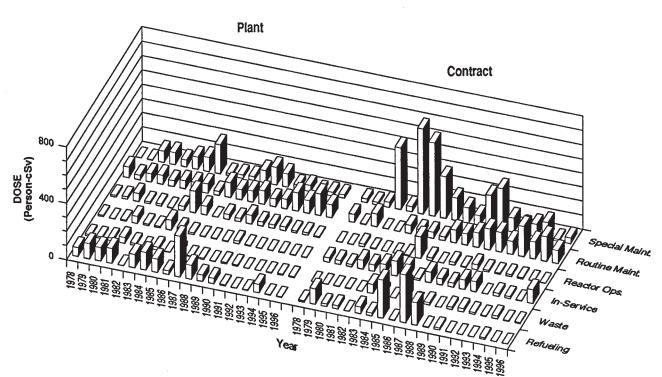
# APPENDIX E (continued) SOUTH TEXAS 1, 2



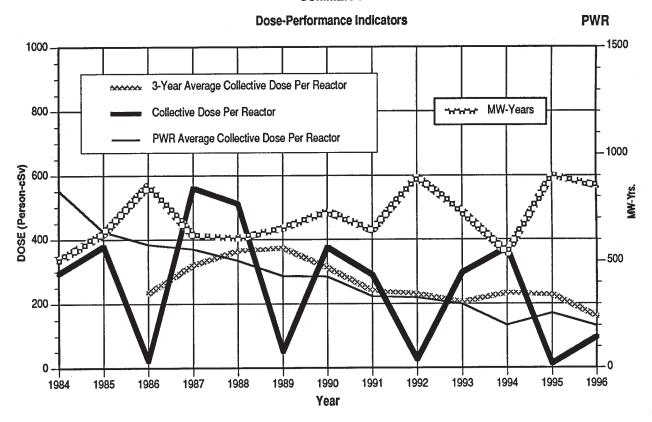


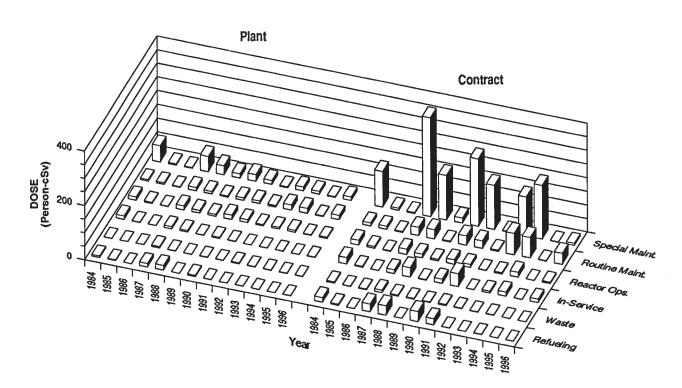
## ST. LUCIE 1, 2



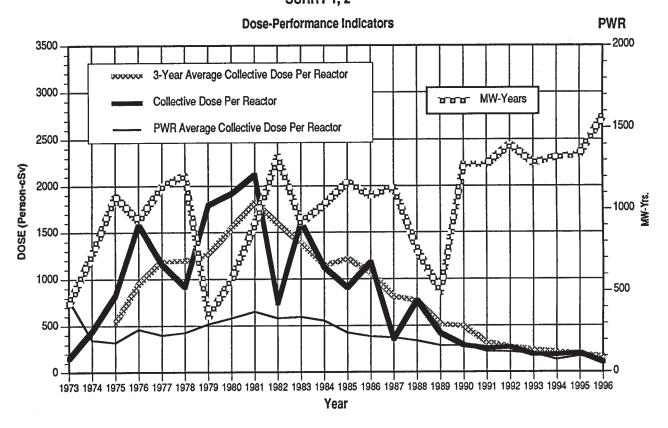


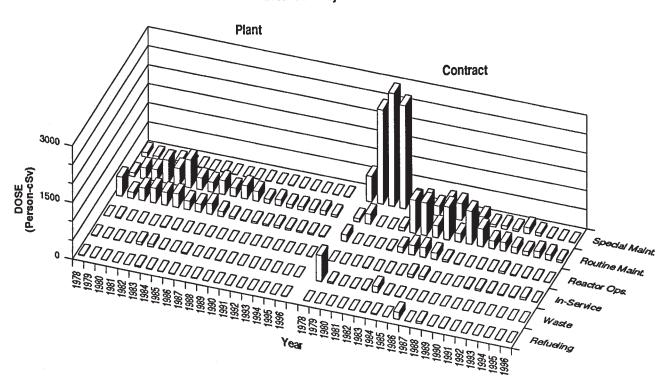
#### **SUMMER 1**



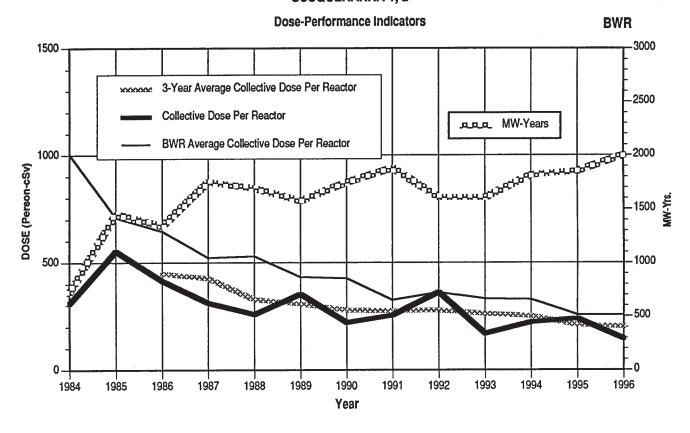


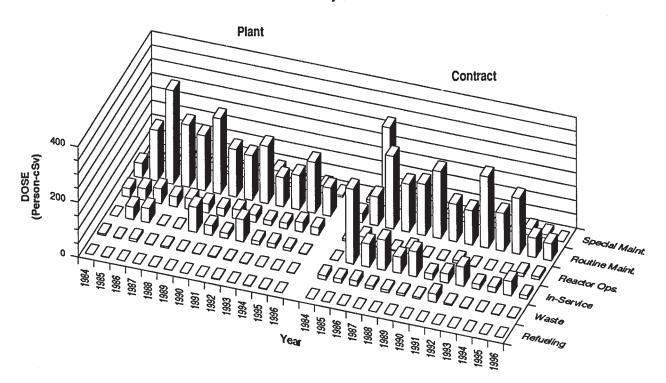
# APPENDIX E (continued) SURRY 1, 2



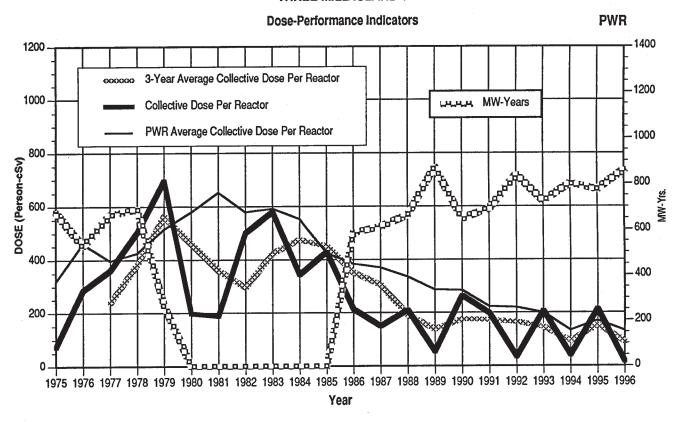


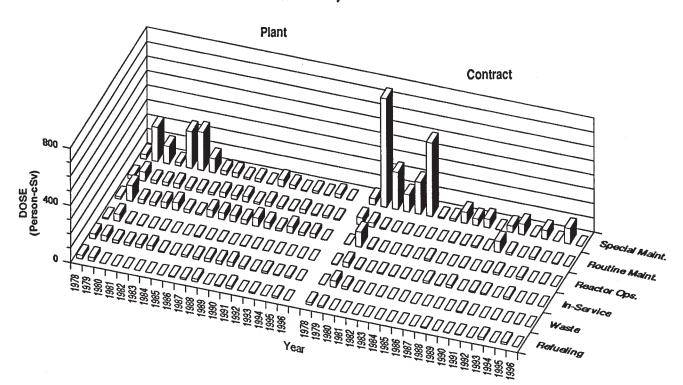
# APPENDIX E (continued) SUSQUEHANNA 1, 2



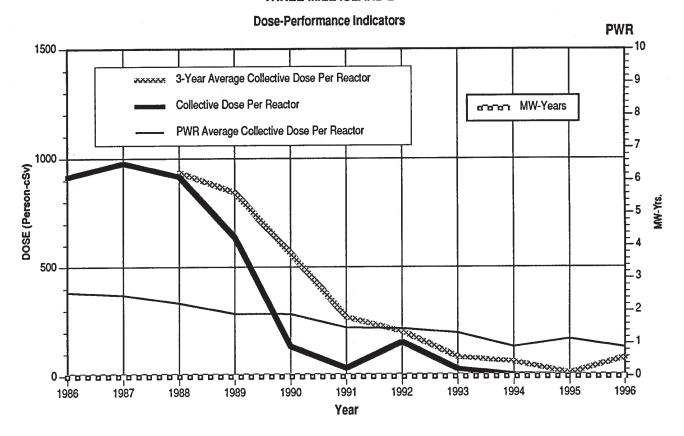


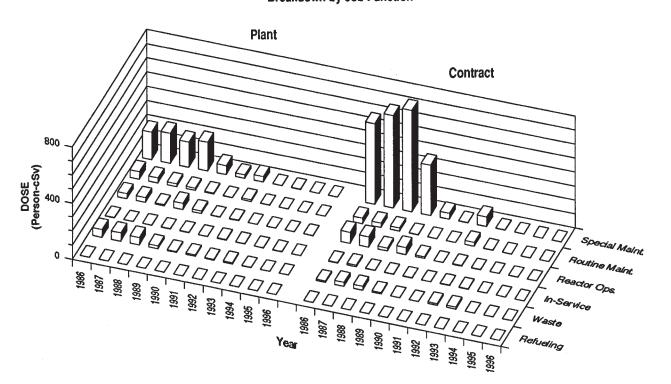
#### THREE MILE ISLAND 1



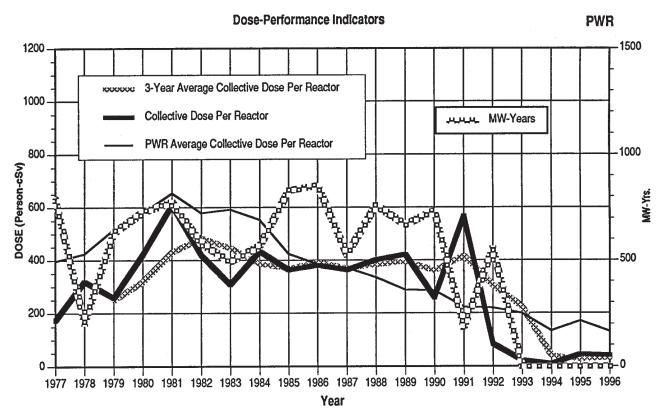


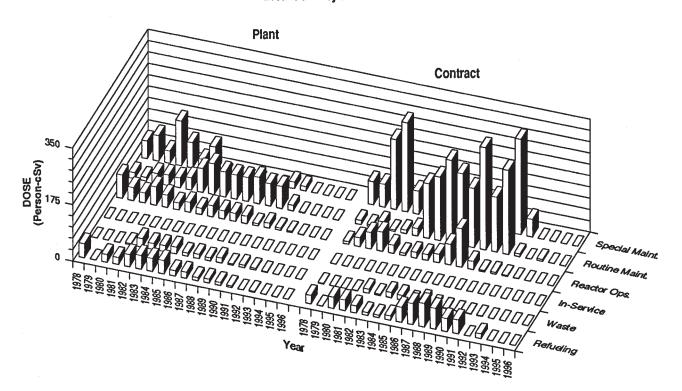
### **THREE MILE ISLAND 2**



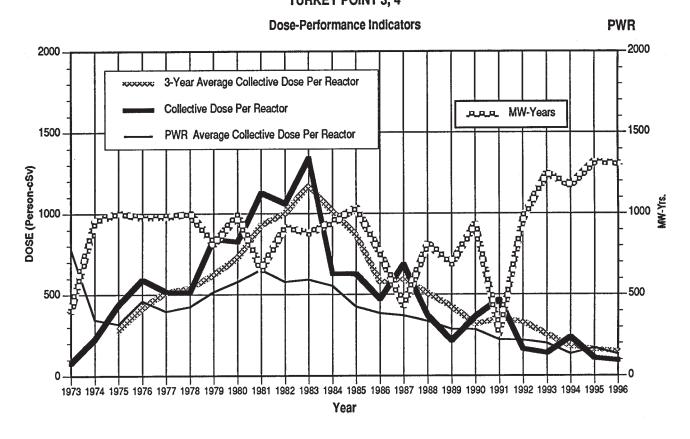


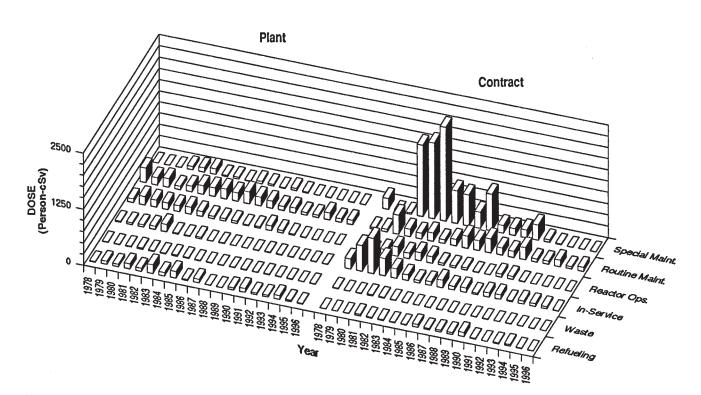
# APPENDIX E (continued) TROJAN



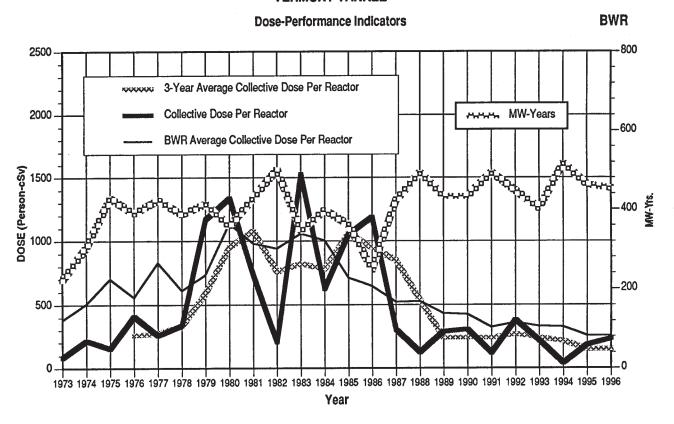


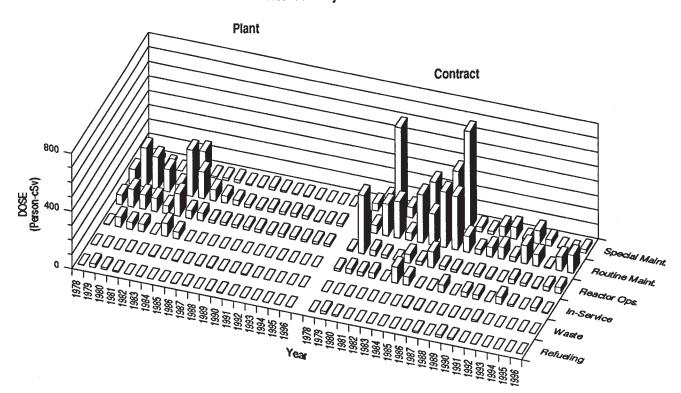
# APPENDIX E (continued) TURKEY POINT 3, 4



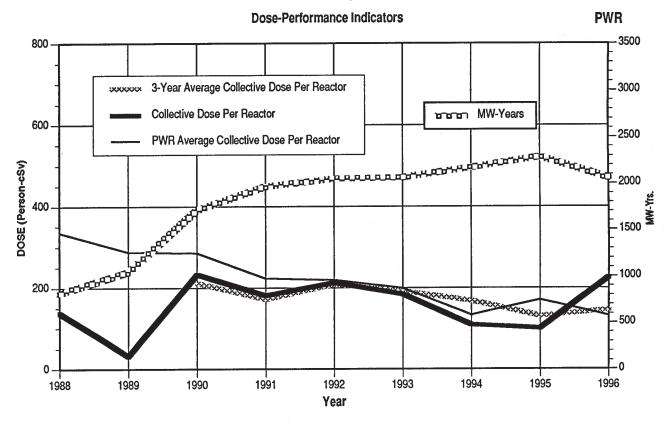


### **VERMONT YANKEE**

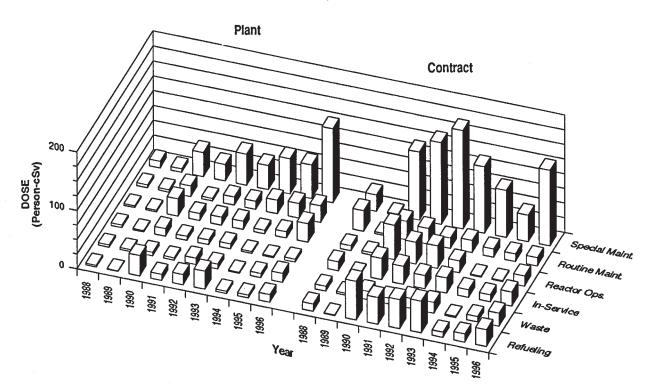




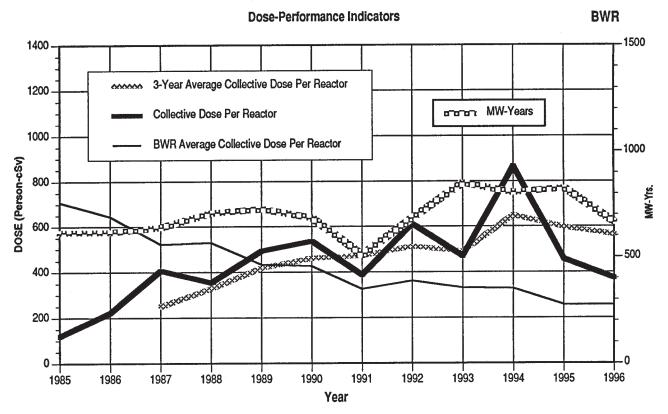
**VOGTLE 1, 2** 

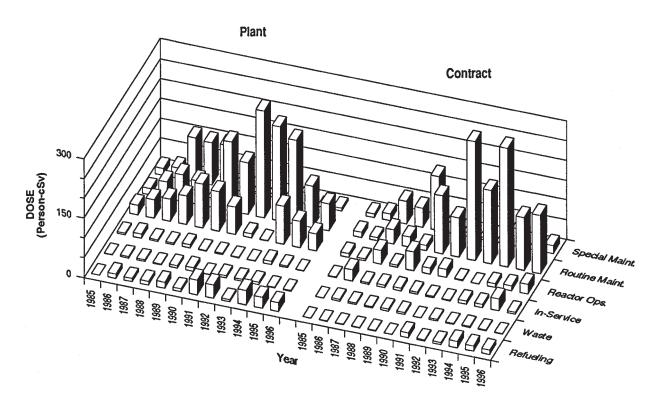


**Breakdown by Job Function** 

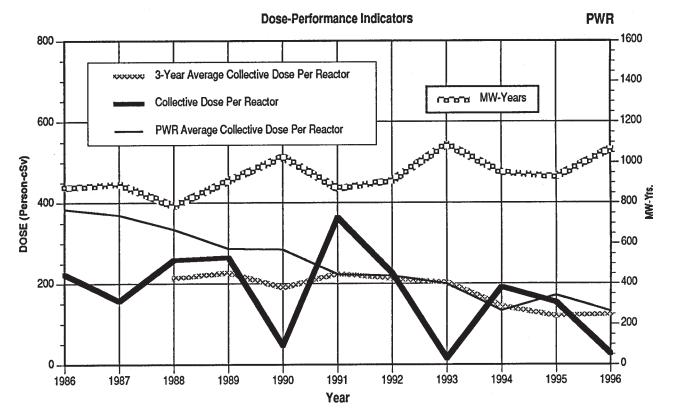


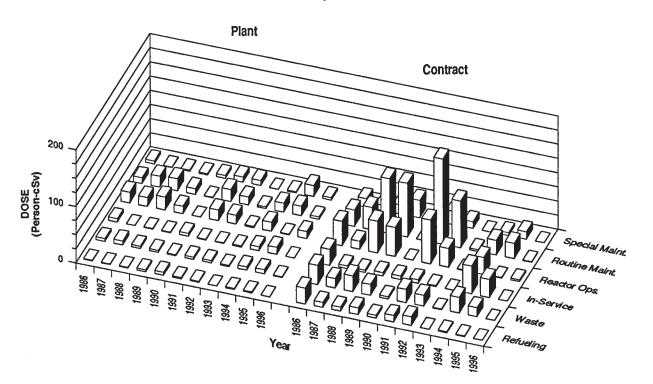
# APPENDIX E (continued) WASHINGTON NUCLEAR 2



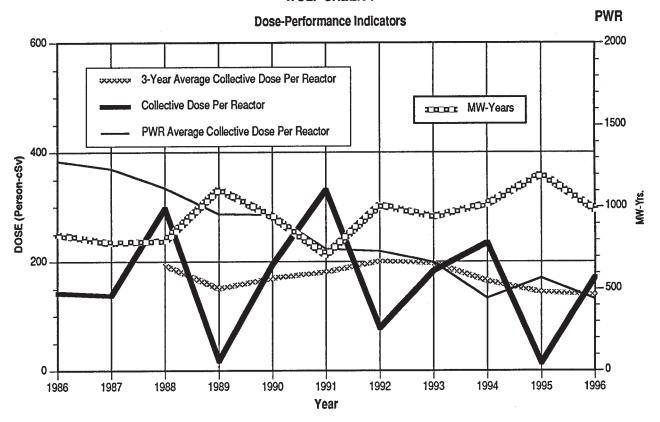


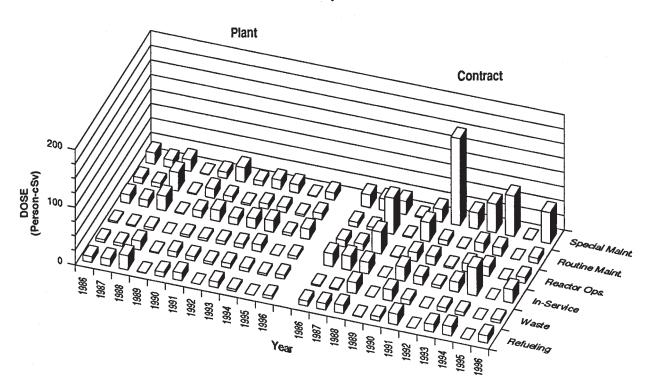
### **WATERFORD 3**

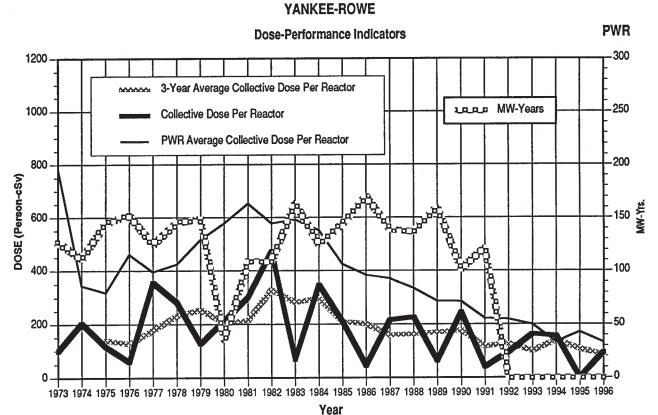


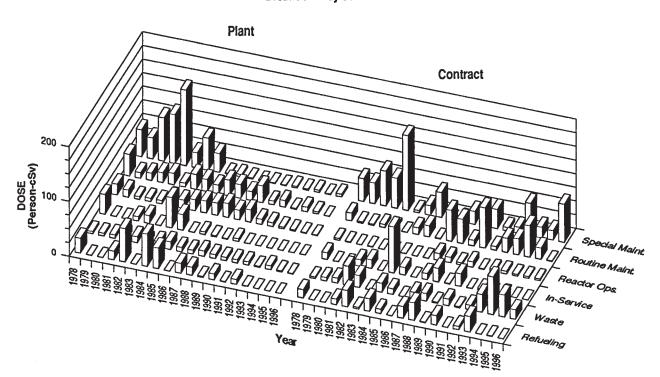


# APPENDIX E (continued) WOLF CREEK 1

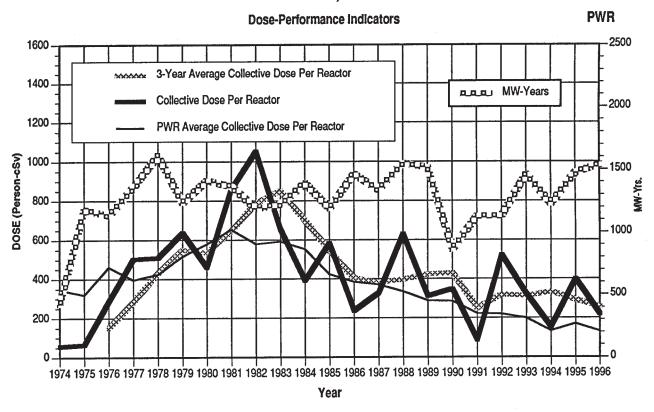


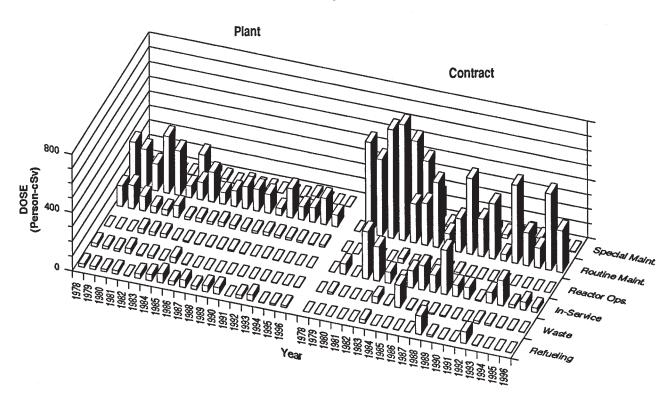






### **ZION 1, 2**





### **APPENDIX F**

# Summary of Annual Whole Body Dose Distributions by Year and Reactor Type

1988-1996

APPENDIX F\*

# SUMMARY OF ANNUAL WHOLE BODY DOSE DISTRIBUTIONS BY YEAR AND REACTOR TYPE

1988 - 1996

TOTAL COLLECTIVE DOSE (Person-		9,413	9,461	18,874	12,207	9,467	21,674	9,603	12,092	21,695	14,142	12,221	26,363	15,985	13,309	29,294	16,510	12,005	28,515	20,812	15,780	36,592	20,381	15,549	35,930	22,786	17,983	40,769	
NUMBER CC WITH MEAS. EXPOSURE		46,812	37,637	84,449	51,867	35,659	87,526	44,766	39,108	83,874	56,588	39,352	95,940	61,048	42,095	103,143	60,269	38,492	98,761	67,081	41,577	108,658	63,894	44,360	108,254	62,921	40,305	103,226	
TOTAL I		92,676	026,99	162,646	101,564	66,994	168,558	99,774	69,430	169,204	113,804	75,131	188,935	117,907	81,689	199,596	118,084	76,019	194,103	121,016	80,679	201,695	115,595	85,311	200,906	110,787	87,984	198,771	
	3.0- 4.0- 5- 6- 7- 8- 9- 10- 11- 4.0 5.0 6 7 8 9 10 1112 >12	- 12	97	85	33 4	32 1	25 5		9 86		33 1	51 1 1	34 2 1	6 6		17		99 14 1	70 44 1	90 43	5 41 1	5 84 1	74 66 11	5 33	39 99 11	9 127 4 1	215	8 342 9 1	
Number of Individuals with Whole Body Doses in the Ranges (rems or cSv)	0- 2.0- 0 3.0	968 42	74 26	42 68	17 93	60 32	77 125	34 17	06 198	40 215	52 83	62 151	14 234	02 245	56 204	68 449	72 371	02 299	74 670	63 590	52 625	25 1,215	39 674	52 515	01 1,189		59 1,129		
	0.75- 1.0- 1.0 2.0	1,196 9	1,452 1,374		1,769 1,717	1,567 1,360	3,336 3,077	1,347 1,034	2,191 2,306	3,538 3,340	2,224 2,052	2,224 2,662	4,448 4,714	2,287 2,602	2,339 2,866	4,626 5,468	2,462 2,972		4,437 5,574	3,267 4,363	2,493 4,162	5,760 8,525	2,997 4,739	2,544 3,962	5,541 8,701	3,541 5,405	2,397 4,859	5,938 10,264	
	0.50-	2,800	3,009	5,809	3,767	3,117	6,884	3,132	3,719	6,851	4,636	3,728	8,364	4,926	3,955	8,881	4,657	3,409	8,066	5,601	3,717	9,318	5,061	3,753	8,814	5,563	3,311		
	0.25-	7,745	6,456	14,201	8,947	6,332	15,279	7,599	6,754	14,353	9,665	6,400	16,065	10,259	6,883	17,142	9,387	5,732	15,119	10,591	5,992	16,583	9,336	6,323	15,659	9,260	5,609	14,869	
	0.10-	11,620	8,335	19,955	12,259	7,986	20,245	10,774	8,036	18,810	12,348	7,845	20,193	12,503	8,094	20,597	11,876	7,076	18,952	12,957	7,336	20,293	11,591	7,887	19,478	11,014	6,736	17,750	
	Meas. <0.10	22,441	16,985	39,426	23,311	15,264	38,575	20,863	15,898	36,761	25,579	16,340	41,919	28,220	17,740	45,960	28,514	17,384	45,898	29,669	17,210	46,879	29,419	19,343	48,762	27,177	16,044	43,221	
	No Meas urable	48,864	29,333	78,197	49,697	31,335	81,032	55,008	30,322	85,330	57,216	35,779	92,995	56,859	39,594	96,453	57,815	37,527	95,342	53,935	39,102	93,037	51,701	40,951	92,652	47,866	47,679	95,545	
	Number of Reac.	72	37	109	72	37	109	72	37	109	71	37	108	73	37	110	74	37	111	73	37	110	71	36	107	89	34	102	
	YEAR AND REACTOR TYPE	1996 - PWR	1996 - BWR	1996 - LWR	1995 - PWR	1995 - BWR	1995 - LWR	1994 - PWR	1994 - BWR	1994 - LWR	1993 - PWR	1993 - BWR	1993 - LWR	1992 - PWR	1992 - BWR	1992 - LWR	1991 - PWR	1991 - BWR	1991 - LWR	1990 - PWR	1990 - BWR	1990 - LWR	1989 - PWR	1989 - BWR	1989 - LWR	1988 - PWR	1988 - BWR	1988 - LWR	

\* Figures contained herein are uncorrected for the multiple reporting of transient individuals, and include only those reactors that have completed a full year of commercial operation in each of the years ind