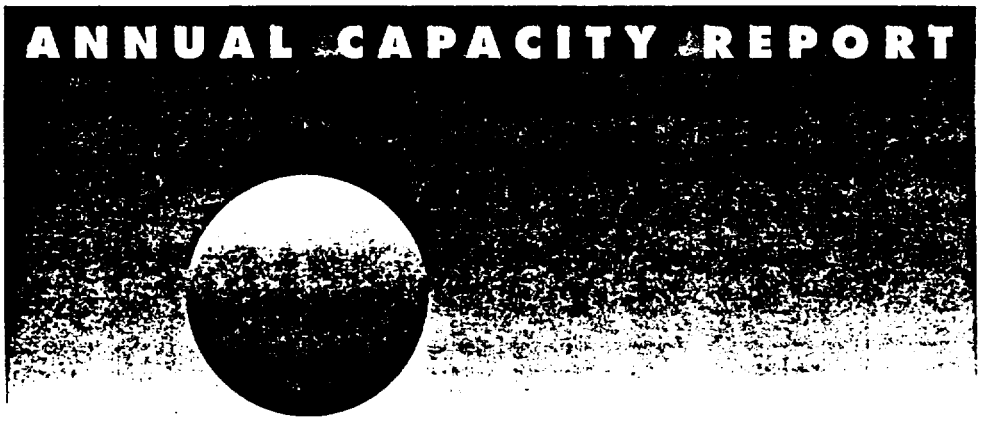
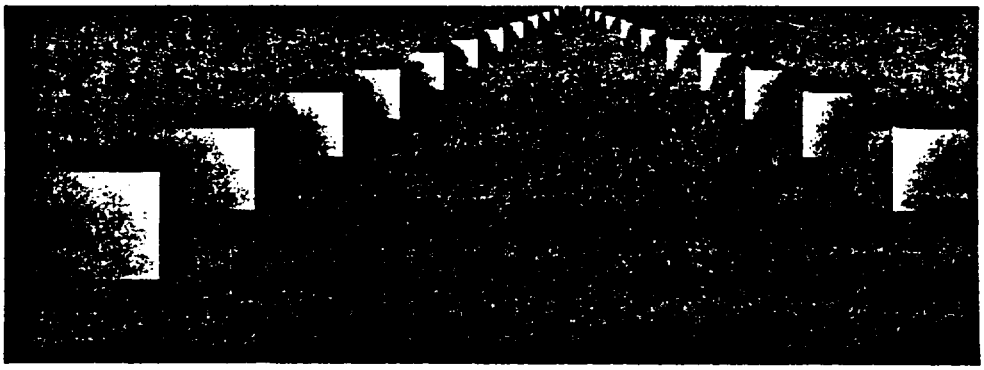
DOE/RW-0457

ACCEPTANCE PRIORITY RANKING
&
ANNUAL CAPACITY REPORT





U.S. DEPARTMENT OF ENERGY
OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT
WASHINGTON, DC 20585

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1.0 INTRODUCTION

The Nuclear Waste Policy Act of 1982, as amended (the Act)[1], assigns the Federal Government the responsibility for the disposal of spent nuclear fuel and high-level waste. The Director of the Department of Energy's Office of Civilian Radioactive Waste Management (the Department) is responsible for carrying out the functions assigned to the Secretary of Energy by the Act. Section 302(a) of the Act authorizes the Secretary to enter into contracts* with the owners and generators** of commercial spent nuclear fuel and/or high-level waste. The Standard Contract for Disposal of Spent Nuclear Fuel and/or High-Level Radioactive Waste[2] (Standard Contract) established the contractual mechanism for the Department's acceptance and disposal of spent nuclear fuel and high-level waste. It includes the requirements and operational responsibilities of the parties to the Standard Contract in the areas of administrative matters, fees, terms of payment, waste acceptance criteria, and waste acceptance procedures. The Standard Contract provides for the acquisition of title to the spent nuclear fuel and/or high-level waste by the Department, its transportation to Federal facilities, and its subsequent disposal.

The Standard Contract requires the Department to issue an annual Acceptance Priority Ranking (APR) report and an Annual Capacity Report (ACR). The APR establishes the order in which the Department allocates the projected acceptance capacity for commercial spent nuclear fuel. The ACR applies projected nominal acceptance rates for the system to the priority ranking in the APR, resulting in individual allocations for the owners and generators expressed in metric tons of uranium (MTU). These capacity allocations, as listed in the ACR, form the basis for the Purchasers' submittal of Delivery Commitment Schedules (DCS). As specified in the Standard Contract, the ACR is for planning purposes only and, thus, is not contractually binding on either DOE or the Purchasers.

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*Individual contracts are based upon the Standard Contract for Disposal of Spent Nuclear Fuel and/or High-Level Radioactive Waste (10 CFR Part 961).

**Owners and generators of spent nuclear fuel and high-level waste who have entered into agreements with the Department and/or have paid fees for purchase of disposal services are referred to as "Purchasers."

In reviewing the data provided by Purchasers for preparation of the 1993 APR, the Department determined that discrepancies in the weights of the discharged fuel assemblies existed. These discrepancies were between the information provided by Purchasers on Annex B to Appendix G of the Standard Contract and information being provided by Purchasers on the Nuclear Fuel Data Form, RW-859. The Department initiated a review to determine the cause of these discrepancies in order to ensure consistency and accuracy of the detailed information used in the APR. This review, which was limited to fuel that was permanently discharged, incore, or temporarily discharged as of April 7, 1983, resulted in numerous minor adjustments to previously reported APR values. Previous editions of the APR, which reported discharges to a 0.01 MTU level of precision, required numerous adjustments as Purchasers implemented various fuel management activities. The Department has determined that this level of precision is not necessary for allocating nominal waste acceptance capacity. Therefore, beginning with this publication, all discharges in the APR will be listed to the 0.1 MTU level of precision. Consequently, the ACR and subsequent DCS reviews will also be to the 0.1 MTU level of precision. Since this change in precision was applied uniformly to the entire APR, changes from the 1992 report caused by the change in precision are not individually explained, however all other changes reported by the Purchasers are listed and explained in Appendix C. In all cases, adjustments to previously reported values have been made by rounding up to the next highest 0.1 MTU. An annual nominal waste acceptance capacity was used to assure that no Purchaser had been impacted adversely with respect to a waste acceptance allocation as compared to an allocation reported in previous editions of the ACR.

The length and thoroughness of this review delayed the issuance of the 1993 ACR and APR. The information from the 1993 APR and ACR is combined with this report. In an effort to reduce the administrative burden associated with the publication of separate ACR and APR reports, the Department has decided to issue a consolidated APR/ACR Report for 1994 and subsequent years. The 1994 APR/ACR Report has been printed in a loose-leaf binder format, to allow for the updating of selected pages rather than revision of the entire report.

1.1 BASIS FOR THE ACCEPTANCE PRIORITY RANKING

As required by the Standard Contract, the APR is based on the date the spent nuclear fuel was permanently discharged, with the oldest spent nuclear fuel, on an industry-wide basis, given the highest priority. The phrase "date the spent nuclear fuel was permanently discharged" means the date the reactor went subcritical for the purpose of permanently discharging the spent nuclear fuel, as reported to the Department by the Purchasers on the Nuclear Fuel Data Form, RW-859. The APR is the basis for allocating projected spent nuclear fuel (SNF) acceptance capacity in the ACR. The 1994 APR listing is based on SNF discharges through December 31, 1993. The APR listing has been included as Appendix A.

Revisions to the information base of this APR were, and in the future will be, addressed consistent with the Department's May 15, 1991, communication on the opportunity to verify the accuracy of the information contained in the draft version of the 1991 APR. Discharges that were not identified during the comment period on the draft 1991 APR were assigned a Ranking Date (i.e. the end of the priority ranking of the report year). Future discharges will be added to the priority ranking based on their date of permanent discharge. If SNF currently designated as temporarily discharged is redesignated as permanently discharged (without subsequent irradiation), the date of redesignation will become the Ranking Date, instead of the date of actual discharge. Reinserted assemblies, previously designated as permanently discharged, will be removed from the priority ranking. Appendix C itemizes all of the differences between the 1992 APR and the 1994 APR which have resulted in changes to the overall ranking.

1.2 BASIS FOR THE ANNUAL CAPACITY REPORT

The ACR (see Appendix B) applies a 10-year projected nominal waste acceptance rate to the APR, resulting in individual capacity allocations. In the previous ACR, the projected nominal acceptance rate was based on the assumption of SNF acceptance beginning in 1998 at a Monitored Retrievable Storage facility prior to repository operations. Due to the uncertainty associated with the date of commencement of operation of the waste management system, the annual nominal waste acceptance rates are presented by year(s) of operation of the system rather

than by specific calendar year(s). The projected nominal acceptance rates also reflect the capacity limit imposed by the Act on such a storage facility prior to repository operations. These projected nominal waste acceptance rates are presented in Table 1. The Department will continue to process DCS submittals on an annual basis.

Table 1. Projected Nominal Waste Acceptance Rates for Spent Nuclear Fuel

Year	SNF (MTU)
Year 1	400
Year 2	600
Year 3	900
Year 4	900
Year 5	900
Year 6	900
Year 7	900
Year 8	900
Year 9	900
Year 10	900
TOTAL	8,200

Operation of the system with the nominal waste acceptance rates presented in Table 1 will result in the acceptance of 8,200 MTU of SNF for the first 10 years. This table provides only an approximation of the system throughput rates and is subject to change depending on Congressional action regarding the conditions for the siting, construction, and operation of an interim storage facility, if any, the repository, and the system design and configuration. The Department will further define and specify the system operating and waste acceptance parameters as the Program progresses, and inform the Purchasers accordingly. Until the SNF is accepted by the Department, Section 111(a)(5) of the Act assigns the waste owners and generators the primary responsibility to provide for, and pay the costs of, interim storage.

• The Tables in Appendix B list the Purchasers' annual allocations for each of the first 10 years*** of projected CRWMS operation. Table 2 presents a summary of all Purchasers' annual allocations based on the nominal waste acceptance rates for the 10-year period covered by this report. Fuel assembly reinsertions identified during the reporting period ending December 31, 1993, have resulted in changes to the APR. Additionally, modifications have been made to reflect changes in weight of certain fuel assemblies as determined from the review of the Annex B information. The allocations in years 1 to 10 have been adjusted to reflect; 1) reinsertions of SNF previously identified as being permanently discharged; 2) cycle discharge date correction; and 3) updated weights from Annex B information. However, the projected nominal waste acceptance rates were adjusted for each of the allocation years so that the acceptance queue would not be impacted. The notes to Appendix B, Tables B.1 through B.10, identify and document the reasons for the changes affecting the first 10 years of projected CRWMS operation.

*** The term "year," when used in reference to capacity allocation in this report, means the calendar year, beginning January 1 and ending December 31.

TABLE 2. SUMMARY OF PURCHASERS' ANNUAL ALLOCATIONS (MTU)[a]

PURCHASER	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	TOTAL
ALABAMA POWER COMPANY	--	--	--	--	--	21.2	--	--	24.4	12.9	58.5
ARIZONA PUBLIC SERVICE	--	--	--	--	--	--	--	--	--	--	--
ARK POWER & LIGHT COMP	--	--	--	23.3	28.2	--	30.2	--	46.4	--	128.1
BABCOCK AND WILCOX COM	--	--	0.1	0.1	--	--	--	--	--	--	0.1[b]
BALTIMORE GAS & ELEC C	--	--	--	12.6	41.5	28.5	52.2	--	55.3	29.6	219.7
BOSTON EDISON COMPANY	--	3.9	25.5	82.6	--	--	11.5	5.6	--	42.7	171.8
CAROLINA POWER & LIGHT	--	70.1	24.3	23.7	50.5	32.1	20.6	93.1	--	49.6	364.0
CLEVELAND ELEC ILLUM C	--	--	--	--	--	--	--	--	--	--	--
COMMONWEALTH EDISON CO	21.1	60.5	154.5	121.9	164.2	175.3	66.9	107.8	98.2	98.3	1068.7
CONNECTICUT YANKEE ATO	65.5	22.5	19.8	21.8	21.9	20.2	--	21.9	--	21.9	215.5
CONSOLIDATED EDISON CO	3.0	27.7	32.8	--	27.1	--	28.3	2.3	22.2	--	143.4
CONSUMERS POWER COMPAN	--	2.5	87.4	2.7	27.4	3.5	26.5	--	2.9	30.8	183.7
DAIRYLAND POWER COOP	0.8	6.0	3.0	3.9	--	3.4	--	--	1.5	3.3	21.9
DETROIT EDISON COMPANY	--	--	--	--	--	--	--	--	--	--	--
U.S. DOE	22.8	6.4	3.3	4.5	7.3	72.9	16.4	--	3.3	20.0	156.9
DUKE POWER COMPANY	--	24.9	47.7	62.5	58.4	56.2	61.2	31.6	63.5	66.4	472.4
DUQUESNE LIGHT COMPANY	--	--	--	--	--	--	16.2	--	--	24.4	40.6
FLORIDA POWER & LIGHT	--	20.9	37.0	40.5	32.9	40.9	71.4	33.1	52.2	37.7	366.6
FLORIDA POWER CORP	--	--	--	--	1.4	--	26.1	20.5	--	30.2	78.2
G. E. URANIUM MGT.	145.2	--	--	--	--	--	--	--	--	--	145.2
GENERAL ATOMICS	0.1	0.1	--	--	0.1	--	--	0.1	0.1	0.1	0.1[b]
GEORGIA POWER COMPANY	--	--	--	0.8	4.5	--	35.3	--	56.4	15.2	112.2
GPU NUCLEAR	31.1	43.0	46.8	49.5	33.9	55.3	--	27.6	--	--	287.2
GULF STATES UTILITIES	--	--	--	--	--	--	--	--	--	--	--
HOUSTON LIGHTING & POW	--	--	--	--	--	--	--	--	--	--	--
IES UTILITIES, INC.	--	--	15.4	13.9	21.8	0.8	--	16.6	15.5	--	84.0
ILLINOIS POWER COMPANY	--	--	--	--	--	--	--	--	--	--	--
INDIANA & MICH ELEC CO	--	--	--	28.6	29.2	--	62.5	27.9	69.8	--	218.0
KANSAS GAS AND ELECTRI	--	--	--	--	--	--	--	--	--	--	--
LONG ISLAND POWER AUTH	--	--	--	--	--	--	--	--	--	--	--
LOUISIANA POWER AND LI	--	--	--	--	--	--	--	--	--	--	--
MAINE YANKEE ATOMIC	--	26.4	57.9	27.3	--	50.7	--	26.3	28.2	--	216.8
MISSISSIPPI POWER & LI	--	--	--	--	--	--	--	--	--	--	--
NEBRASKA PUB POWER DIS	--	--	--	23.6	13.8	--	31.2	28.7	21.0	--	118.3
NEW YORK POWER AUTH	--	--	--	25.9	3.7	51.1	34.7	30.0	--	69.8	215.2
NORTH ATLANTIC ENERGY	--	--	--	--	--	--	--	--	--	--	--
NIAGARA MOHAWK POWER C	9.4	49.0	38.9	30.8	--	31.2	--	--	36.9	--	196.2
NORTHEAST UTIL SVC COM	5.5	40.7	28.2	24.3	41.9	26.6	28.1	59.1	--	28.4	282.8
NORTHERN STATES POWER	--	26.2	83.6	29.9	33.9	17.6	32.6	43.3	35.7	16.1	318.9
OMAHA PUB POWER DIST	--	--	9.4	12.9	19.0	16.4	--	14.8	--	14.6	87.1
PACIFIC GAS AND ELECT	7.3	6.0	2.6	13.3	--	--	--	--	--	--	29.2
PENNSYLVANIA POWER & L	--	--	--	--	--	--	--	--	--	--	--
PHILADELPHIA ELEC COMP	--	--	36.3	68.1	47.7	48.8	51.7	51.3	40.6	50.8	395.3
PORTLAND GENERAL ELEC	--	--	--	--	0.5	--	--	24.4	16.1	17.0	58.0
PUB SVC COMPANY OF COL	--	--	--	--	--	--	--	--	--	--	--
PUB SVC ELEC & GAS COM	--	--	--	--	--	--	17.5	29.5	--	25.8	72.8
ROCHESTER GAS & ELEC	32.0	4.6	24.4	16.1	16.2	15.7	--	14.2	5.9	6.8	135.9
SACRAMENTO MUNICIP UTI	--	--	--	9.3	--	26.0	--	30.2	19.0	--	84.5
SOUTH CAROLINA ELEC &	--	--	--	--	--	--	--	--	--	--	--
SOUTHERN CALIF EDISON	35.6	20.5	19.3	19.3	--	19.2	--	19.3	--	--	133.2
TENNESSEE VALLEY AUTHO	--	--	--	--	58.7	5.5	115.6	66.0	116.2	52.4	414.4
TEXAS UTILITIES GENERA	--	--	--	--	--	--	--	--	--	--	--
TOLEDO EDISON COMPANY	--	--	--	--	--	--	--	--	--	25.1	25.1
UNION ELEC COMPANY	--	--	--	--	--	--	--	--	--	--	--
VERMONT YANKEE NUCLEAR	--	72.9	--	12.0	8.7	27.5	25.7	17.0	--	22.2	186.0
VIRGINIA POWER	--	8.2	69.4	43.9	54.7	20.2	23.4	32.9	29.0	52.8	334.5
WASH PUB POWER SUPPLY	--	--	--	--	--	--	--	--	--	--	--
WISCONSIN ELEC POWER C	16.3	43.1	19.8	27.1	36.8	24.9	9.7	12.9	16.1	21.8	228.5
WISCONSIN PUB SVC CORP	--	--	4.4	17.7	16.1	--	5.3	13.3	16.5	14.5	87.8
YANKEE ATOMIC ELEC COM	9.9	10.1	9.7	8.7	--	9.4	--	--	8.5	--	56.3
NOMINAL TOTAL	400.0	600.0	900.0	900.0	900.0	900.0	900.0	900.0	900.0	900.0	8200.0

a All allocations have been adjusted from the 1992 ACR to reflect the change in the degree of precision.
b These totals are not the sum of the annual allocations because the actual annual values are much less than .1 MTU.