ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9103180125 DOC.DATE: 91/03/08 NOTARIZED: NO DOCKET #
FACIL:50-244 Robert Emmet Ginna Nuclear Plant, Unit 1, Rochester G 05000244
AUTH.NAME AUTHOR AFFILIATION
MECREDY,R.C. Rochester Gas & Electric Corp.
RECIP.NAME RECIPIENT AFFILIATION
JOHNSON,A.R. Project Directorate I-3

SUBJECT: Forwards data reflecting current status of info in FES re plant operation,including transport of new fuel & transport of irradiated fuel.

DISTRIBUTION CODE: C001D COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 4
TITLE: Licensing Submittal: Environmental Rept Amdt & Related Correspondence

NOTES:License Exp date in accordance with 10CFR2,2.109(9/19/72). 05000244

	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL
	PD1-3 LA	3	3	PD1-3 PD	1	1
	JOHNSON,A	1	1			
INTERNAL:	AEOD/DSP/TPAB	1	1	NRR/DET/ESGB 8D	1	1
	OC/LEMB	1	0	OGC/HDS1	1	0
	REG FILE 01	1	1	RGN1 DRSS/RPB	1	1
EXTERNAL:	EG&G SIMPSON,F	2	2	NRC PDR	1	1
	NSIC	1	1			

Cert NO P9490750S6

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK, ROOM P1-37 (EXT. 20079) TO ELIMINATE YOUR NAME FROM DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

TOTAL NUMBER OF COPIES REQUIRED: LTTR 15 ENCL 13

RIDS/ADDS

RIDS/ADDS

ROCHESTER GAS AND ELECTRIC CORPORATION • 89 EAST AVENUE, ROCHESTER N.Y. 14649-0001

ROBERT C. MECREDY
Vice President
Ginna Nuclear Production

TELEPHONE
AREA CODE 716 546-2700

March 8, 1991

U.S. Nuclear Regulatory Commission
Document Control Desk
Attn: Allen R. Johnson
Project Directorate I-3
Washington, D.C. 20555

Subject: Environmental Issues Related to CP-OL
R.E. Ginna Nuclear Power Plant
Docket No. 50-244

Dear Mr. Johnson:

Attached to this letter is data which reflects the current status of certain information contained in the Final Environmental Statement related to the operation of R. E. Ginna Nuclear Power Plant Unit 1 (FES). Recent conversations between members of the RG&E staff and the NRC have identified a need for this information. The paragraph numbers associated with the data that is being provided correspond to specific paragraphs in the FES. Bold lettering replaces information presently provided in the FES.

Very truly yours,

Robert C. Mecredy

Robert C. Mecredy

JRJ/144
Attachment

xc: Mr. Allen R. Johnson (Mail Stop 14D1)
Project Directorate I-3
Washington, D.C. 20555

U.S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406

Ginna Senior Resident Inspector

Cert No P 249 075 056
C001
11

5.5.2 Transport of New Fuel

The new fuel for the reactor at the Ginna plant is slightly enriched uranium in the form of sintered uranium dioxide pellets. These pellets are stacked and sealed in Zircaloy-4 tubes to form 144-in.-long fuel rods. The fuel rods are fabricated into individual fuel assemblies of 179 rods: each assembly weighs (as UO_2) about 770 lbs. In each year of normal operation, about one fourth of these (32) will be replaced.

Fuel assemblies are currently shipped from the Westinghouse Corporation facility at Columbia, S.C., some 800 miles distant from the plant, and are shipped by truck in NRC-DOT-approved containers. About three truckloads, each containing up to twelve assemblies, will be required annually for replacement fuel.

Table 5.4 lists the radiological doses expected to result from exposure due to transportation of new fuel to the plant site of a typical light water power reactor. Assumptions defined under "normal conditions of transport" in Table 5.4 are conservative. The plant currently requires fewer truckloads to transport new fuel and radiation doses are substantially lower than those reported in Table 5.4.

5.5.3 Transport of Irradiated Fuel

The current U.S. policy prohibits the reprocessing of commercial spent nuclear fuel and Congress has, in accordance with the Nuclear Waste Policy Act of 1982 as amended, designated that discharged spent fuel be stored at utility sites until delivery and title transfer to DOE for permanent disposal in geologic repository.

Delays in the DOE program have resulted in a revised DOE schedule which indicates that a permanent repository will not be operational prior to 2010. However, the DOE is pursuing efforts to have an interim storage facility in place which would allow them to begin accepting spent fuel prior to the availability of a permanent disposal facility. To continue operation of the plant independent of DOE schedules, RG&E has made its own arrangements.

The Ginna plant spent fuel storage pool has been reracked to a maximum capacity of 1,016 positions designed to store fuel assemblies and non-fuel-bearing components. However, Spent Fuel Pool handling equipment provides access to a maximum of 988 positions.

Following the Cycle 19/20 core reload in Spring 1990, the spent fuel pool inventory consists of 598 fuel assembly and 37 non-fuel-bearing positions. After allowing for a full core discharge capability, the plant has 232 positions

remaining to store projected spent fuel discharges. Based on expected discharges of about 32 fuel assemblies per year, spent fuel pool storage capability allows operation through the Spring of 1999. The rod consolidation process is being explored and a demonstration program has been conducted. Rod consolidation would provide for operation beyond the year 2009 with full core discharge capability. If a Federal repository is not available by then, other methods of onsite storage, such as dry cask storage, could be employed.

Table 5.4 lists the radiological doses expected to result from exposure due to transportation of irradiated fuel to the plant site of a typical light water power reactor. Because the plant does not expect to transport irradiated fuel, radiation doses are bounded by the results in Table 5.4 which are considered to be highly conservative.

5.5.4 Waste in the form of resins or filters is shipped dewatered in 120 to 210 cubic foot High Integrity Containers. Approximately 150 curies of waste is shipped in this fashion a year and based on DOT regulations, the maximum dose rate at the exterior surface of the shipping container is less than 200 mr/hr. Approximately 5 high integrity containers are shipped each year.

The above volumes are predicated on the assumption that all waste water is processed using demineralizers. On occasion, waste water is evaporated with the result that activity remains in the evaporator bottoms rather than being deposited on resins. Should this method be used, only 120 curies of waste (primary resins and filters) would be shipped in the 2 High Integrity Containers and approximately 30 Curies of waste would be shipped (solidified in cement) in approximately 450 fifty-five gallon drums. Again, based on DOT regulations, the maximum surface dose rate of these containers is 200 mr/hr.

Most dry activated waste (mainly contaminated person anti-contamination clothing and plastic used in contamination control) is shipped in bulk form to a vendor for volume reduction and packaging. Bulk containers of varying sizes can hold up to 2600 cubic feet of material. Following processing by the vendor, approximately 50 curies (4000 cubic feet) of waste is delivered each year for disposal at Barnwell, South Carolina. The vendor is located in Oak Ridge, Tennessee and ships waste in containers that hold from 44.5 to 54.5 cubic feet when shipping super compacted waste and ships 55 gallon drums for the shipment of incinerated waste.

In total, Ginna delivers an average of 5000 cu. ft. with a content of 200 Curies of waste to disposal sites each year.

Either directly or through a vendor, the applicant continues to ship solid radioactive waste by truck to approved burial locations. Table S-4 of 10CFR51.52 shows the environmental impact expected to result from transportation of radioactive wastes to the burial site from a typical light water power reactor. The environmental impact from the operation of Ginna Station will remain within the restrictions of Table S-4 throughout plant life, including the requested license extension.