Docket

12/3/74

Docket Nos. 50-460/513

V. Moore, Assistant Director for Light Water Reactors, Group 2, L

RADIOACTIVE WASTE MANAGEMENT AND ASSOCIATED SECTIONS FOR WASHINGTON NUCLEAR PROJECT, UNITS 1 AND 4, SER

Plant Name: Washington Nuclear Project, Units 1 and 4
Licensing Stage: CP
Docket Numbers: 50-460/513
Responsible Branch: LWR 2-3
Project Leader: T. Cox
Description of Response: Radioactive Waste Management and Associated Sections for SER
Requested Completion Date: December 2, 1974
Review Status: Complete

Enclosed are the Radioactive Waste Management and associated sections for Washington Nuclear Project, Units 1 and 4.

The applicant has proposed to use state-of-the-art technology for the liquid, gaseous, and solid radwaste systems. In Amendment 11, the applicant has committed to apply the design guidelines contained in Effluent Treatment Systems Branch-Position Number 1 for his liquid, gaseous, and solid radwaste systems. On this basis, we find the proposed liquid, gaseous, and solid radwaste systems to be acceptable.

/S/

Robert Tedesco, Assistant Director
for Containment Safety
Directorate of Licensing

Enclosure:
As stated

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SAFETY EVALUATION REPORT
WASHINGTON NUCLEAR PROJECT, UNITS 1 & 4
Docket Nos. 50-460 and 50-513

11.0 Radioactive Waste Management

11.1 Summary Description

The radioactive waste systems will consist of the liquid waste system, the gaseous waste system, and the solid waste system. The liquid waste system will process waste liquid streams such as equipment drains, coolant leakage, demineralizer regenerant liquids, decontamination and laboratory waste liquids, and laundry and shower waste water. The treated liquid waste will be recycled for reuse if the plant water balance requires makeup and if the water quality is adequate. The liquid waste systems will utilize evaporation, reverse osmosis, demineralization, and filtration for removal of radioactive material, chemical impurities, and particulates.

Gaseous wastes will be generated during the operation of the plant from degassing primary coolant, from vents for equipment handling radioactive materials, and due to leakage from systems and components containing radioactive material. The gaseous waste system will treat gaseous streams for radioactive material removal by filtration, adsorption, and holdup for radioactivity decay. The treated gas streams will be released to the environment.

Solid wastes will be generated during plant operation. The wastes will consist of waste materials such as contaminated clothing, reverse osmosis concentrates, boron recovery evaporator bottoms, demineralizer resins and discarded radioactive components and tools. Treatment will consist of solidification, packaging, and shipping to a licensed burial site. Each unit will have separate liquid, gaseous and solid radioactive waste management systems.

In Amendment 11, the applicant has agreed to incorporate the guidelines of ETSB Position No. 1 for the liquid, gaseous, and solid radwaste systems. Our evaluation is based on this commitment.

In the Draft Environmental Statement (DES) for Washington Nuclear Projects Units 1 and 4, we performed an evaluation to determine the quantities of radioactive materials that will be released in the liquid and gaseous plant effluents, and that will be shipped offsite as solid wastes for burial. In that evaluation we considered waste flows, waste activities, and equipment operating performance that are consistent with normal plant operation, including anticipated operational occurrences, over the life of the plant.

The parameters used in the DES evaluation, along with their bases, are given in Appendix B to WASH-1258. Modified versions of the ORIGEN and STEFFEG Codes, which were the liquid and gaseous calculational models, are given in Appendix C to WASH-1258. Our evaluation of the system decontamination factors, along with a listing of plant dependent parameters, is given in Table 3.5.1 of the DES.

11.2 Liquid Radwaste Treatment System

11.2.1 Description and Evaluation

In our evaluation of the liquid radwaste system we have considered: 1) the system's capability to reduce radioactive releases to "as low as practicable" levels based on expected radwaste inputs over the life of the plant; 2) the system's capability to maintain releases below the limits in 10 CFR Part 20 Appendix B, Table 2, Column II, during periods of fission product leakage at design levels from the fuel; 3) the system's capability to meet the processing demands of the station during anticipated operational occurrences including back to back refueling; 4) the quality group classification and seismic category applied to the system design; and 5) the design features incorporated to preclude uncontrolled releases of radioactive materials due to tank overflows. The process and effluent monitoring design capabilities are considered in Section 11.5.

The Boron Recycle System (BRS) will process shim bleed and equipment drain waste, collected inside the reactor containment, as well as process equipment drain wastes and tank overflows wastes, from components outside reactor containment. BRS wastes will be processed by means of evaporation and demineralization. Each unit will be is provided with two BRS evaporators, with design capacities of 22,600 gpd each. We calculate the average expected waste flows to the BRS to be 29,000 gpd/reactor. The difference between the expected flows and the total design capacity of 45,200 gpd will provide adequate reserve for processing surge flows.

Liquid radwastes from the general services building drains will be collected in sumps and transferred to the liquid radwaste receiver tanks. The contents of the tanks will be processed through a reverse osmosis module and two demineralizers in series on a batch basis and pumped directly to one of the liquid waste test tanks for final testing prior to recycle for inplant use or release to the cooling tower blowdown. Tritiated liquid radwastes and aerated liquid radwastes will be segregated by separate sump and transfer systems; however, both types of liquid radwaste will be processed through the same reverse osmosis modules and demineralizer trains. Tritiated wastes will be recycled to the reactor coolant distillate storage tank while aerated wastes will be recycled to the reactor coolant distillate storage tank, condensate makeup tank, or the reprocessed water system, depending on the tritium content. The design capacities of the two reverse osmosis modules and four demineralizers are 10 gpm each. Two parallel trains of one reverse osmosis module and two series-connected demineralizers will be provided. Interconnections will be provided for operational flexibility. Contents of collection tanks will be pumped batchwise to process feed tanks where the pH will be adjusted on a batch basis for optimum reverse osmosis membrane efficiency. We estimate the average input to the liquid radwaste system to be 1800 gpd per reactor. Since the system can handle approximately 28,800 gpd per reactor based on the capacity of two parallel reverse osmosis modules, we find the system adequate for meeting the demands during normal operation, including anticipated operational occurrences.

Turbine building sump wastes will normally be released without treatment after monitoring for radioactivity.

Once through steam generators will be used and therefore no steam generator blowdown treatment system will be provided.

Our evaluation of the liquid radwaste treatment systems for normal operation is given in the Draft Environmental Statement (DES) for Washington Nuclear Project, Units 1 and 4. As indicated in the DES, we have determined that the proposed liquid radwaste treatment systems will be capable of reducing the release of radioactive materials in liquid effluents to approximately 0.1 Ci/yr/reactor, excluding tritium and dissolved gases. An isotopic listing of our calculated liquid source term is given in Table 3.5.2 of the DES. Based on that evaluation, we have found that the release of radioactive materials in liquid effluents will not result in whole body or critical organ doses in excess of 5 mrem/yr at or beyond the site boundary, and radioactive materials released in liquid effluents, exclusive of tritium and dissolved gases, will not exceed 5 Ci/yr/reactor. We have reviewed the effects of reactor operation with 1% of the operating fission product inventory in the core being released to the primary coolant. We have determined that under these conditions, the concentrations of radioactive materials in liquid effluents will be a small fraction of the limits in 10 CFR Part 20, Table 2, Column II.

The liquid radwaste system components will be designed to Quality Group D (Augmented) and non-seismic Category I classification, and will be located in a structure designed to seismic Category I requirements, consistent with our guidelines. The quality group designations of the equipment are listed in Table 11.2.1.

The system will be designed to preclude the uncontrolled release of radioactive materials due to overflows from indoor and outdoor tanks by providing level instrumentation which will alarm in the control room, and by means of curbs and seismic Category I dikes to collect spillage and retain it for processing. We consider these provisions to be capable of preventing the uncontrolled release of radioactive materials to the environment. We find the applicant's proposed system design to be acceptable.

11.2.2 Findings

The liquid radwaste system includes the equipment and instrumentation to control the release of radioactive materials in liquid effluents. The scope of our review included the system's capability to reduce releases of radioactive materials in liquid effluents to "as low as practicable" levels in accordance with 10 CFR Parts 20 and 50.36a, considering normal operation and anticipated operational occurrences, and the design provisions incorporated to preclude uncontrolled releases of radioactive materials in liquids due to leakage or overflows in accordance with General Design Criterion 60.

The review has included an evaluation of effluent releases based on the proposed treatment processes. Included in the review were piping and instrumentation diagrams, schematic diagrams, and descriptive information from the PSAR.

The basis for acceptance in our review has been conformance of the applicant's design, design criteria, and design bases for the liquid radwaste system to the Commission's Regulations and to applicable Regulatory Guides, as referenced above, as well as staff technical positions and industry standards.

Based on the foregoing evaluation, we conclude that the proposed liquid radwaste system is acceptable.

11.3 Gaseous Radwaste Treatment System

11.3.1 Description and Evaluation

In our evaluation of the gaseous radwaste treatment system we have considered: 1) the system's capability to reduce radioactive releases to "as low as practicable" levels based on expected gaseous waste inputs and radioactive leakage rates over the life of the plant,

2) the system's capability to maintain releases below the limits in 10 CFR Part 20, Appendix B, Table 2, Column I during periods of fission product leakage at design levels from the fuel, 3) the system's capabilities to meet the processing demands of the station during anticipated operational occurrences, and 4) the quality group classification and seismic category applied to the system design. The process and effluent monitoring design capabilities are considered in Section 11.5.

In our evaluation we have considered the following systems:

(1) Radioactive Gaseous Waste System

(2) Main Condenser Offgas System

(3) Ventilation Exhaust Systems

11.3.1.1 Radioactive Gaseous Waste System

The Radioactive Gaseous Waste System (RGWS) will process gases (1) stripped from the primary coolant in the CVCS and BRS, (2) from the reactor coolant drain tank cover gas and miscellaneous tank cover gas systems and (3) from the FailedFuel Detection System (an estimated 500 ft^3/yr of potentially contaminated nitrogen). All of the listed sources enter the RGWS header upstream of the compressor. The gases, consisting mostly of nitrogen, hydrogen, and small amounts of radioactive gases will be mixed with the 40 scfm recirculating nitrogen stream to keep the composition below the flammable limits. The gases will be compressed by one of two 40 scfm capacity compressors and passed through one of two 1.4 scfm capacity recombiners, where the hydrogen is recombined with oxygen and removed as water from the system. The compressed gases will be stored in four gas decay tanks (600 cu.ft. each) at 75 psig. One tank will be filling while being used in the recirculating stream, while one will be venting to the atmosphere, one tank will be holding up gases, and the fourth tank will be kept in reserve to accomodate unexpected operational occurrences. The gases will held for approximately 90 days before they are released to the atmosphere, thus only small amounts (approximately 1,000 Ci/yr/reactor) of krypton-85 and xenon-133 will be discharged to the environment.

11.3.1.2 Main Condenser Offgas System

Radioactive gases from the main condenser vacuum pumps will normally be released without treatment. If concentrations of particulates or iodine exceed predetermined levels, a standby system consisting of HEPA filters and charcoal adsorbers can be placed in operation to reduce releases.

11.3.1.3 Ventilation Exhaust Systems

Ventilation exhausts from the primary auxiliary area of the general services building, from the safeguards building, and from the containment building purge system will be processed through HEPA filters and charcoal adsorbers prior to release. In addition, the containment building atmosphere will be recirculated through HEPA filters and charcoal adosrbers prior to purging. The recirculation system has a capacity of 30,000 cfm, which is sufficient to reduce the iodine-131 concentration by a factor of 77 in 16 hours of operation.

Ventilation exhausts from the radwaste processing area of the general services building will be passed through HEPA filters prior to release. Ventilation exhausts from the fuel handling area of the general services building will normally be released without treatment but can be exhausted through HEPA filters and charcoal adosrbers when effluent concentrations exceed a predetermined level. The turbine building ventilation exhausts will be released without treatment.

The plant ventilation systems will be designed to induce air flows from potentially less radioactively contaminated areas to areas having a greater potential for radioactive contamination. Potentially contaminated building areas will be maintained at a slightly negative pressure with respect to the exterior pressure to promote collection of radioactive materials by the ventilation system and allow dispersion through roof and plant vent exhausts while reducing exfiltration. The ventilation system will have adequate capacity to limit radioactive material concentrations in areas within the plant that are accessible during operation to below the limits in 10 CFR Part 20.

Based on the proposed equipment, capacities of the components, and estimated flow quantities, we consider the gaseous radwaste treatment system capacity adequate for normal operation and anticipated operational occurrences.

In the DES, we have determined that the proposed gaseous radwaste treatment systems and plant ventilation systems will be capable of reducing the release of radioactive materials in gaseous effluents to approximately 2,000 Ci/yr/reactor of noble gases and 0.032 Ci/yr/reactor of iodine-131. An isotopic listing of our calculated gaseous source term is given in Table 3.5.3 of the DES. Based on that evaluation, the release of radioactive materials in gaseous effluents will not result in an annual air dose, at or beyond the site boundary, in excess of 10 mrad for gamma radiation and 20 mrad for beta radiation, the annual thyroid dose to an individual will be less than 15 mrem considering the location of the nearest cow, 4.3 miles SE of the site and the annual quantity of iodine-131 released will not exceed 1 Ci for each reactor at the site.

Design Features

The RGWS will be located in the radwaste area of the General Services Building, which is a seismic Category I structure. The gas decay tanks will be designed to Quality Group C and seismic-Category I classification up to an including the second isolation valve. The compressors, recombiners and other system components will be designed to Quality Group D (Augmented) and non-seismic Category I classification, consistent with our guidelines. The quality group and seismic-category to which the equipment will be designed are listed in Table 11.3.1.

Most of the gas entering the RGWS during normal operations will be from the CVCS gas stripper, BRS evaporator, and cover gas displaced from the BRS holdup tanks containing hydrogen. To prevent oxygen inleakage into the system the vent header is designed to operate at a slightly positive pressure. The contents of the gas decay tanks will be continuously monitored for the presence of oxygen and hydrogen. When the oxygen content of the system exceeds 2% the system will be automatically isolated and an alarm in the control room will be activated. In this manner, the potential for explosive hydrogen/oxygen mixtures will be mitigated.

We find the system quality group and seismic design criteria along with the design provisions incorporated for the prevention of hydrogen explosions to be adequate.

11.3.2 Gaseous Radwaste System Evaluation Findings

The gaseous radwaste system includes the equipment and instrumentation to control the release of radioactive materials in gaseous effluents. The scope of our review included the system's capability to reduce releases of radioactive materials in gaseous effluents to "as low as practicable" levels in accordance with 10 CFR Parts 20 and 50.36a considering normal operation and anticipated operational occurrences, the quality group and seismic design criteria and the design provisions incorporated to reduce the potential for hydrogen explosions. The review has included an evaluation of effluent releases based on the proposed treatment processes and considering pathways due to process vents and leakage affecting building ventilation systems. Included in the review were piping and instrumentation diagrams, schematic diagrams, and descriptive information from the PSAR.

The basis for acceptance in our review has been conformance of the applicant's designs, design criteria, and design bases for the gaseous waste system to the applicable Commission Regulations and Regulatory Guides referenced above, as well as to staff technical positions and industry standards.

Based on the foregoing evaluation, we conclude that the proposed gaseous radwaste system is acceptable.

11.4 Solid Radwaste Treatment Systems

11.4.1 Description and Evaluation

In our evaluation of the solid radwaste treatment system we have considered: 1) the system design objectives in terms of expected types, volumes, and activities of wastes processed for shipment offsite, 2) the design capacities of system components, method of operation, and capability of meeting the demands of the station due to anticipated operational occurrences, 3) waste packaging and conformance to applicable Federal packaging regulations, 4) provisions for controlling potentially radioactive airborne dusts during baling operations, 5) seismic design and quality group classification, and 6) provisions for onsite storage prior to shipping.

"Wet" solid wastes consisting of demineralizer resins, reverse osmosis concentrates, boron recovery evaporator bottoms, and filter sludges will be solidified with a solidification agent and catalyst. "Dry" solid wastes consisting of ventilation air filters, contaminated clothing, debris, and miscellaneous tools and small equipment will be compacted by a ram device into 55 gal drums.

Wastes will be packaged in containers designed to meet the requirements of 49 CFR Parts 170-189. Shielding will be provided to maintain acceptable contact dose rates to meet the provisions of 10 CFR Part 71, "Packaging of Radioactive Material for Transport". The design includes provisions for decontaminating containers with unacceptable levels of surface contamination. Liquid decontamination wastes will be routed to the floor drain collection system.

Our evaluation of the solid radwaste treatment system for normal operation is given in the DES for Washington Nuclear Project Units 1 and 4. We determined that the expected solid waste volumes and activities shipped offsite from Units 1 and 4 will be 4,500 cu.ft./yr/reactor of solidified wet waste containing 5,000 curies (after 180 days decay) and 350 drums/yr/reactor of dry solid waste containing not more than 5 curies total. The storage capacity for solid waste has been designed to accomodate approximately four months accumulation of packaged solid waste. We find the storage capacity to adequate for meeting the demands of the station.

Equipment in the solid radwaste system will be designed to Quality Group D (Augmented) and non-seismic Category I classifications. The solid radwaste processing area will be in a Seismic Category I structure, in conformance with our guidelines. The quality group and seismic Category to which the equipment will be designed are listed in Table 11.4.1. We find the system quality group and seismic design criteria to be acceptable.

11.4.2 Solid Radwaste System Evaluation Findings

The solid radwaste system includes the equipment and instrumentation for solidifying and packaging radioactive wastes prior to shipment offsite for burial. The scope of our review included the system's capability for processing the types and volumes of wastes expected during normal operation and anticipated operational occurrences in accordance with General Design Criterion 60, the provisions for handling wastes with regard to the requirements of 10 CFR Parts 20 and 71, and 40 CFR Parts 170-189, and the quality group classification and seismic design criteria.

The review has included the provisions for onsite storage and the provisions for controlling airborne dusts during dry waste compaction. Included in the review were piping and instrumentation diagrams, schematic diagrams, and descriptive information from the PSAR.

The basis for acceptance in our review is conformance of the applicant's designs, design criteria, and design basis for the solid radwaste system to the Commission's Regulations and the applicable Regulatory Guides, as referenced above, as well as staff technical positions and industry standards.

Based on the foregoing evaluation, we conclude that the proposed solid radwaste system is acceptable.

11.5 Process and Effluent Radiological Monitoring

11.5.1 System Evaluation and Description

In our evaluation of the process and effluent monitoring system we have considered the system's capability 1) to monitor all normal and potential pathways for release of radioactive materials to the environment, 2) to control the release of radioactive materials to the environment, 3) to monitor the performance of process equipment and detect radioactive material leakage between systems, 4) to periodically take samples for analyses for systems which are not amenable to continuous monitoring or where detailed isotopic analysis are required.

We have reviewed the locations and types of effluent and process monitoring provided. Based on the plant design and the continuous monitoring locations of gaseous and liquid effluents and sampling locations, we have concluded that all normal and potential release pathways will be monitored.

The design includes provisions for automatically terminating effluent releases in the event radiation levels in discharge lines exceed a predetermined level. Sampling and monitoring provisions will be provided for detecting radioactive material leakage to normally uncontaminated systems and for monitoring plant processes which affect radioactivity releases.

11.5.2 Process and Effluent Radiological Monitoring Evaluation Findings

The provisions for process and effluent radiological monitoring include the instrumentation and controls for monitoring and controlling the releases of radioactive materials in plant effluents and monitoring the level of radioactivity in process streams. The scope of our review included the provisions for monitoring and controlling the release of radioactive materials in plant effluents in accordance with General Design Criteria 60 and 64 and Regulatory Guide 1.21, and for monitoring radioactivity levels within the plant in process streams in accordance with General Design Criterion 13.

The basis for acceptance in our review has been conformance of the applicant's design, design criteria, and design bases for the process and effluent monitoring systems to the Commission's

Regulations as set forth in the General Design Criteria and to applicable Regulatory Guides, as referenced above, as well as staff technical positions and industry standards.

Based on the foregoing evaluation, we conclude that the proposed provisions for monitoring process and effluent streams meet the requirements of General Design Criteria 13, 60 and 64 and the guidelines of Regulatory Guide 1.21 and therefore, are acceptable.

15.24 <u>Postulated Radioactive Releases Due to Liquid Tank Failures</u>

We have evaluated the consequences of component failures which will result in contaminated liquid releases to the environs for components containing liquid radioactive materials located outside reactor containment. The scope of our review included the calculation of radionuclide inventories in station components at design basis fission product levels, the mitigating effects of the plant design, and the effect of site geology and hydrology.

The radwaste tank that will contain the highest total activity is the Tritiated Waste Collection Tank. This tank will have a volume of 12,000 gal. and is assumed to be 80% full with a liquid activity concentration of approximately 10 uCi/ml (based on a 1% operating power fission product release to the primary coolant).

In our evaluation we assumed the flow of ground water will move in the direction of the Columbia River. The water supply for the city of

Richland, Washington is taken from the Columbia River, at a point approximately 12 miles downstream from the plant. Based on the description of the site hydrology in the PSAR, we evaluated the liquid transit time for radwaste leakage to the Columbia River to be 6.2 years. Our evaluation assumes a ground water dilution factor of 64 and neglects decay during transit. Upon entering the river, concentrations would be diluted by mixing with a minimum stream flow of 36,000 cfs. Based on our evaluation, we conclude that a rupture of the tritiated waste collection tank will give a concentration at the intake of less than the limits of 10 CFR Part 20, Appendix B, Table II, Column 2.

15.24.1 Evaluation Findings

We evaluated the consequences of component failures which could result in contaminated liquid releases to the environs for liquid components containing radioactive materials located outside reactor containment. The scope of our review included the calculation of radionuclide inventories in station components at design basis fission product levels, the mitigating effects of the plant design, and the effect of site geology and hydrology. Radionuclide concentrations were calculated at the nearest potable water supply.

The basis for acceptance in our review has been that the postulated failures should not result in radionuclide concentrations in excess of 10 CFR Part 20 limits at the water sources considered above.

Based on the foregoing evaluation we conclude that the provisions incorporated in the applicant's design to mitigate the effects of component failures involving contaminated liquids are acceptable.

Table 11.2.1

Design Parameters of Principal Components Considered in Liquid Radwaste Evaluation

System	Components	Number	Capacity, ea.	Quality Group	Seismic Category
LWS	Waste Collection Tank A	1	2,400 gal.	D*	non-1
LWS	Waste Collection Tank B	1	12,000 gal.	D*	non-1
LWS	Waste Collection Tank C	1	35,000 gal.	D*	non-1
LWS	Demineralizer Flush Tank	1	15,000 gal.	D*	non-1
LWS	Laundry & Shower Tank	1	1,500 gal.	D*	non-1
LWS	Chemical Drain Tank	1	400 gal.	D	non-1
LWS	Decontamination Tank	1	5,000 gal.	D*	non-1
LWS	Liquid Waste Test Tank	4	7,000 gal.	D	non-1
LWS	Reverse Osmosis Unit	2	10 gpm	D*	non-1
LWS	Waste Demineralizers	4	10 gpm	D*	non-1
BRS	Mixed Bed Demineralizers	2	60 gpm	D*	non-1
BRS	BRS Evaporator	2	15 gpm	D*	non-1
BRS	BRS Evaporator Distillate Test Tank	2	8,200 gal.	D*	non-I
BRS	Distillate Demineralizer	2	60 gpm	D*	non-I
BRS	Distillate Storage Tank	2	96,000 gal.	D*	non-I
BRS	Deboratory Demineralizer	3	100 gpm	C	I
BRS	Boric Acid Storage Tanks	2	13,000 gal.	C	I
BRS	Reactor Coolant Bleed Holdup Tank	2	110,000 gal.	D*	non-I

*Augmented to provide additional quality assurance. Provisions include completely welded systems except where maintenance or testing requires flanged connections, materials certifications consistant with ASME Section III, DN-2121, and mandatory hydrostatic testing of all systems.

Design Parameters of Principal Components Considered in Gaseous Radwaste Evaluation

System	Component	Number	Capacity, ea.	Quality Group	Seismic Category
RWGS	Gas Decay Tank	4	600 ft^3	C	I
RWGS	Recombiners	2	40 scfm	D*	non-I
RWGS	Compressors	2	40 scfm	D*	non-I

Table 11.4.1

Design Parameters of Principal Components

Considered in Solid Radwaste Evaluation

System	Component	Number	Capacity, ea.	Quality Group	Seismic Category
SWS	Phase Separator Tanks	2	13,500 gal	D*	non-I
SWS	Solid Waste Measuring Tank	1	700 gal	D	non-I
SWS	Solid Waste Mixer	1	15-20 gpm	D	non-I
SWS	Solid Waste Decant Filter	1	180 gpm	D	non-I
SWS	Solid Waste Centrifuge	1	20 gpm	D	non-I
SWS	Solid Waste Hopper	1	75 ft^3	D	non-I
SWS	Resin Decay Tank	1	4,000 gal	D	non-I

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1. United States Atomic Energy Commission, "Final Environmental Statement Concerning Proposed Rule Making Action: Numerical Guides For Design Objectives And Limiting Conditions To Meet The Criterion "As Low As Practicable" For Radioactive Material In Light-Water Cooled Nuclear Power Reactor Effluents," WASH 1258, USAEC, Washington, D. C., July 1973.