

TRIP REPORT

To: Power Authority of the State
of New York (PASNY)

Date of Trip: May 26-27, 1982

Location: James A. FitzPatrick Nuclear
Power Plant
Oswego, New York

Project: 504-5506-01

FRC Task: 04092

Title: Radiological Effluent
Technical Specifications

Trip Made By: C. Fernandez, Sr. Staff Engineer
S. Chen, Sr, Staff Engineer

NRC Staff Present:

F. Congel, Chief Radiological Assessment Branch
T. Jackson, Radiation Specialist, I & E Region I
P. Polk, Project Manager

PASNY Personnel Contacted:

B. Gorman, PASNY/JAF/ Environmental Supervisor
J. Gray, PASNY/ Nuc. Gen./ Acting Dir. of Licensing
S. Mascialli, PASNY/JAF/ Senior Radiological Engineer
A. McKeen, PASNY/JAF/ Asst. to Rad. & Env. Supt.
E. Mulcakey, PASNY/JAF/ Rad. & Env. Supt.

Purpose of Meeting

To discuss proposed changes to the J.A. FitzPatrick Radiological Effluent Technical Specifications (RETS) and to discuss the Offsite Dose Calculation Manual (ODCM).

Discussion

This was the first site visit by the FRC RETS review team to the J.A. FitzPatrick Nuclear Power Plant. The meeting was conducted at the plant site in Oswego, New York. FRC's initial review of the proposed changes to the RETS and the technical requirements for the ODCM were the main topics of discussion. The deficiencies in the Licensee's proposed RETS and ODCM were discussed and deviations from NRC requirements were pointed out.

The NRC staff presented copies of a draft of NUREG-0472, Rev. 3 which incorporates feedback from previous site visits and represents the current NRC position on the RETS. The proposed model RETS in most cases provided flexibility, clarifications, and new guidelines which were readily acceptable to the Licensee.

FRC presented two draft technical evaluation reports in which the Licensee's proposals were evaluated against the NRC requirements item by item:

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1. Comparison of Plant and Model Radiological Effluent Technical Specifications, Power Authority of the State of New York, February 26, 1982.
2. Technical Review of Plant Offsite Dose Calculation Manual, Power Authority of the State of New York, February 26, 1982.

For the majority of the items discussed at the meeting, the Licensee presented clarifications and agreed to either change the specifications to meet NRC requirements or write justifications for deviations from NRC requirements. The Licensee intends to incorporate the proposed Model RETS Rev.3 requirements in the re-submittal of the RETS. The attached updated draft comparison reports for the RETS and ODCM reflect the resolutions and changes agreed at the meeting.

Summary of Major Issues

The following is a list of the major deficiencies in the Licensee's proposed RETS. The attached updated draft technical review report dated February 26, 1982 and revised August 10, 1982 reflects the resolutions achieved. Each of the following items will be addressed by the Licensee in the forthcoming RETS re-submittal.

1. Deficiencies were found in the definitions section of the RETS. Definitions for Dose Equivalent I-131, Source Check, Solidification, Gaseous Radwaste Treatment System, Ventilation Exhaust Treatment System, Purge-Purging, and Venting were not addressed. New definitions given in proposed Model RETS Rev. 3 for Member(s) of the Public, Unrestricted Area, and Site Boundary are to be included in the RETS.
2. Deviations in the frequency of calibration and scope of channel functional test in the surveillance requirements of liquid effluent monitors were identified.
3. The requirement for tank level indicating devices for outdoor liquid holdup tanks was not addressed.
4. The following deviations in gaseous effluent instrumentation were identified:
 - a. Requirement for alarm/trip setpoints for gaseous effluent monitors was not addressed.
 - b. Requirement for hydrogen/oxygen monitors in the main condenser offgas treatment system explosive gas monitoring system was not addressed.
 - c. Action to be taken with monitors inoperable was not addressed.
 - d. Gaseous effluent flow rate monitors to be included in the RETS upon completion of plant modifications.

5. Licensee proposed to use concentration averaging permitted under 10CFR20.106(a) for liquid effluent discharges in lieu of instantaneous concentration limits required by the model RETS. Licensee will comply with the model RETS requirements.
6. The following deviations in the sampling and analysis program for liquid and gaseous effluents were identified:
 - a. Lower limits of detection (LLDs) were not specified.
 - b. Principal gamma emitters in the gamma isotopic analysis were not specified.
 - c. Sampling for I-131, Fe-55, and dissolved noble gases liquid samples were not specified.
 - d. Sampling and analysis of discharge canal water instead of service water effluents is provided.
 - e. Tritium sampling over the spent fuel pool area was not specified.
7. Appendix I calendar year dose limits for liquid effluent doses, noble gas beta and gamma air doses, and radioiodine and particulate organ doses were not addressed.
8. Deviation in outside liquid holdup tank sampling frequency to determine tank curie content.
9. Deviation in main condenser air ejector gross radioactivity release rate limit.
10. Solid radioactive waste technical specifications were not fully addressed. Licensee will comply with requirements in proposed model RETS Rev.3.
11. Total dose from uranium fuel cycle sources in accordance with 40CFR190 was not addressed.
12. The table of sample locations given in the Radiological Environmental Monitoring Program should have given a generic description of sample locations instead of a detailed description.
13. The map defining the site boundary for radioactive gaseous and liquid effluents was not addressed.
14. The model RETS requirements for audits and written procedures was not fully addressed.
15. The Semi-annual Release Reports do not address the require-

ments for reporting total dose (40CFR190), solid waste shipped offsite, and unplanned releases reported on a quarterly basis.

16. Commitment for "Prompt Notification Reports" for offsite releases rates which exceed regulatory limits was not addressed.
17. Changes to the Process Control Program and to the Offsite Dose Calculation Manual were not addressed in the proposed RETS.

Flow Diagrams

Early in the meeting, FRC reviewed with the Licensee flow diagrams of the liquid and gaseous effluent release paths in order to establish a basis for the review of the effluent monitoring instrumentation. The initial diagrams presented by FRC were prepared using information contained in "Demonstration of Compliance with 10 CFR Part 50, Appendix I, James A. FitzPatrick Nuclear Power Plant, June 4, 1976. New flow diagrams which reflect the current effluent release paths have been prepared and are included on pages 6 and 7.

Offsite Dose Calculation Manual

The following is a list of the major deficiencies in the Licensee's proposed Offsite Dose Calculation Manual. The attached updated draft technical review report dated February 26, 1982 and revised August 10, 1982 reflects the resolutions achieved. Each of the following items will be addressed by the Licensee in the forthcoming ODCM re-submittal.

1. The near field average dilution factor used in liquid effluent dose calculations does not include the site specific factor for the mixing effect of the discharge structure.
2. For elevated releases from the main stack the contribution from the finite plume has not been addressed in the beta and gamma air doses.
3. The method of calculating projected doses for the liquid and gaseous effluent treatment systems was not addressed.
4. The method of calculating weighted average K_i (total body dose factor) used in noble total body dose calculations was not fully addressed.
5. Flow diagrams of the liquid and gaseous effluent treatment systems were not provided.
6. Figures and Tables of sample locations for the Radiological Environmental Monitoring Program were not provided.

Schedule

The Licensee projects that a RETS re-submittal will be ready by July 31, 1982. An ODCM re-submittal (or schedule for re-submittal) will be ready by July 31, 1982.

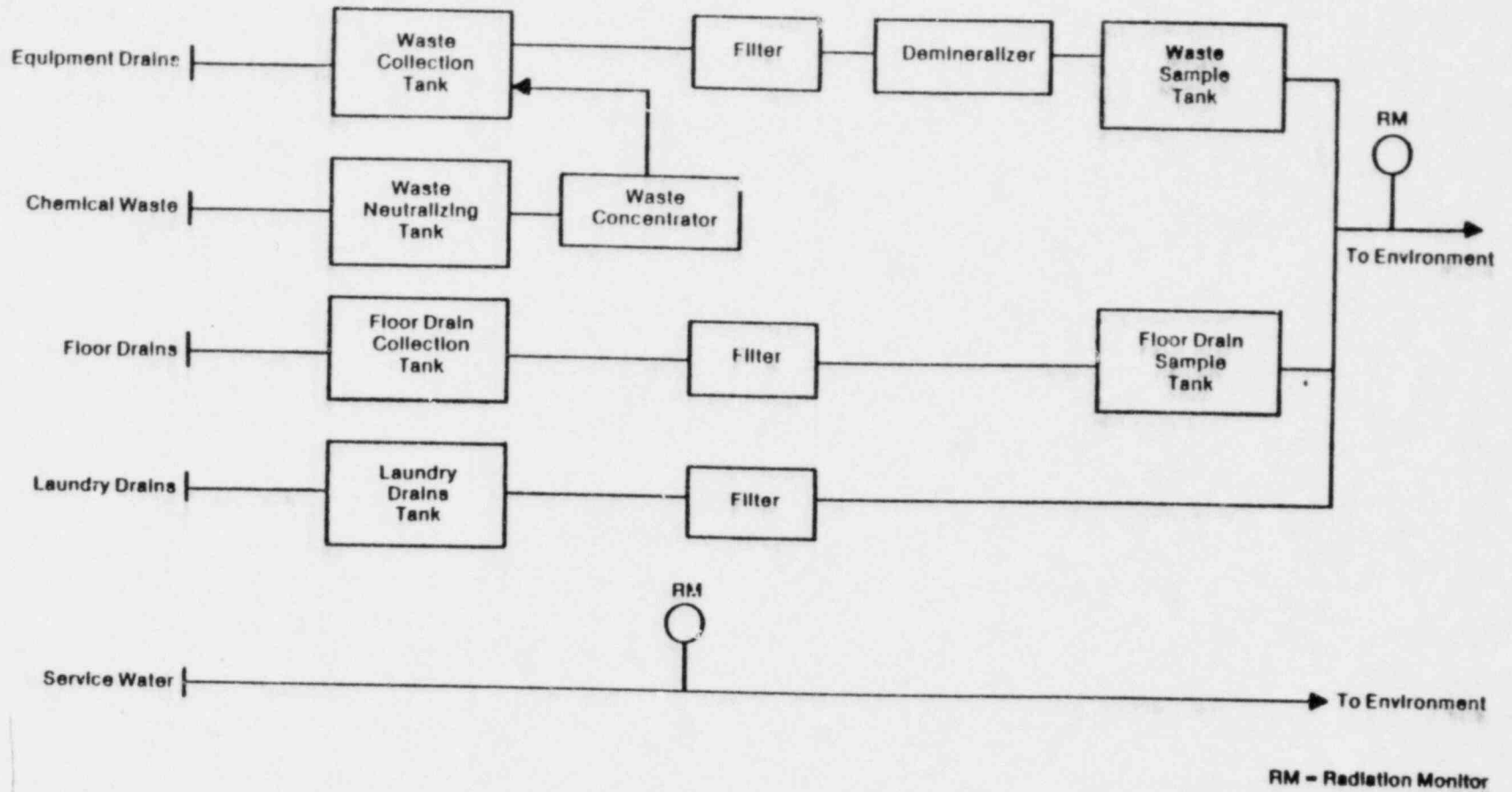
Claudio Fernandez

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Senior Staff Engineer

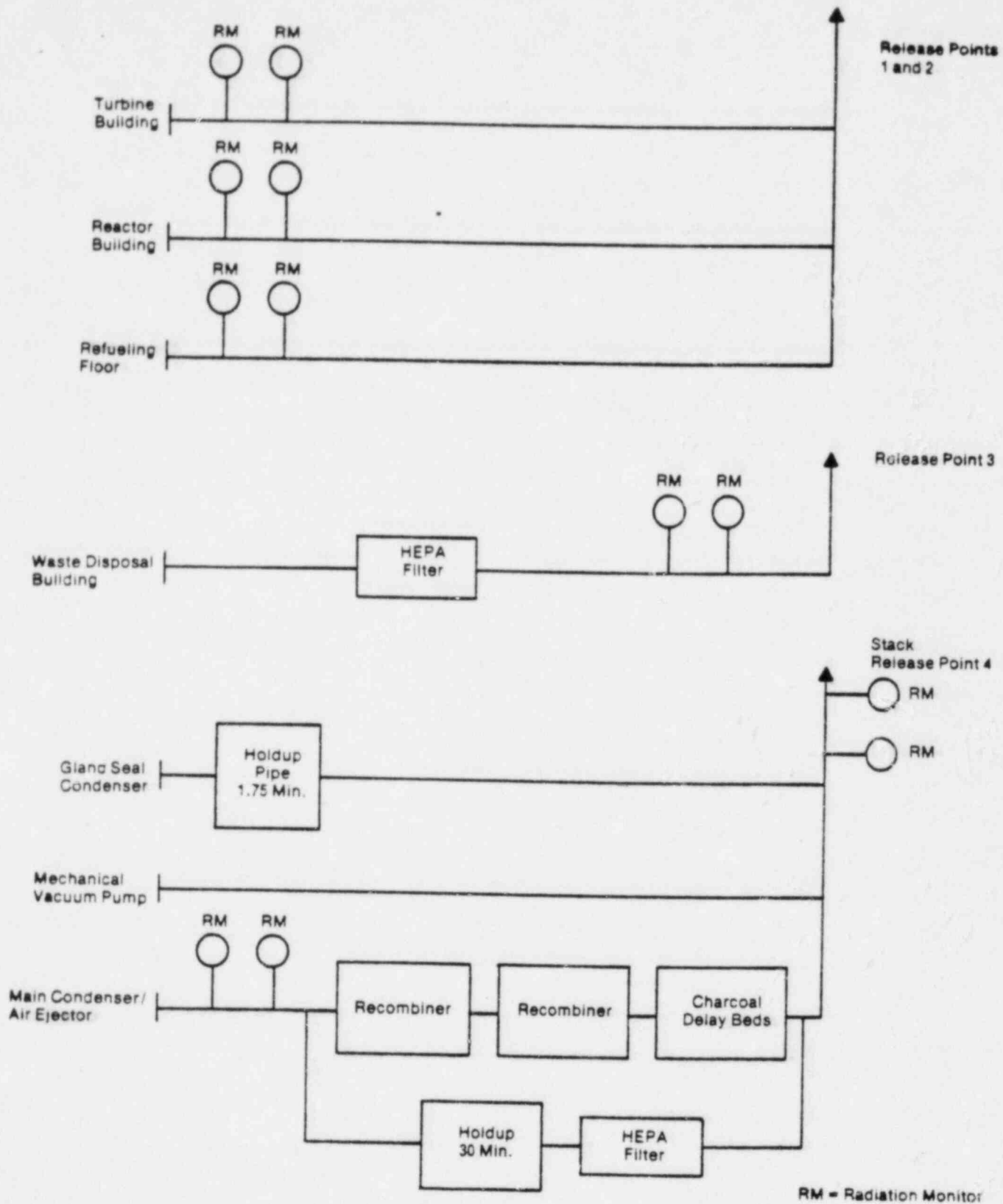
S. Pandey

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Project Manager

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Liquid Effluent Release Paths
James A. FitzPatrick Nuclear Power Plant



Gaseous Effluent Release Paths
James A. FitzPatrick Nuclear Power Plant