

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 7909110482 DOC. DATE: 79/08/20 NOTARIZED: NO DOCKET #  
 FACIL: 50-387 Susquehanna Steam Electric Station, Unit 1, Pennsylv 05000387  
 50-388 Susquehanna Steam Electric Station, Unit 2, Pennsylv 05000388

AUTH. NAME AUTHOR AFFILIATION  
 HEISS, R. A. Pennsylvania, State of  
 RECIPI. NAME RECIPIENT AFFILIATION  
 Division of Site Safety & Environmental Analysis

SUBJECT: Forwards evaluation of draft EIS re nuclear accident, spent fuel storage, water quality, radiation releases & fish population.

DISTRIBUTION CODE: C002B COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 4  
 TITLE: Environ. Comments

NOTES: SEND I & E 3 CYS FSAR & ALL AMDTS. L.A. I CY EVERYTHING (ORNL). ENCL ADVANCED TO P. LEECH.

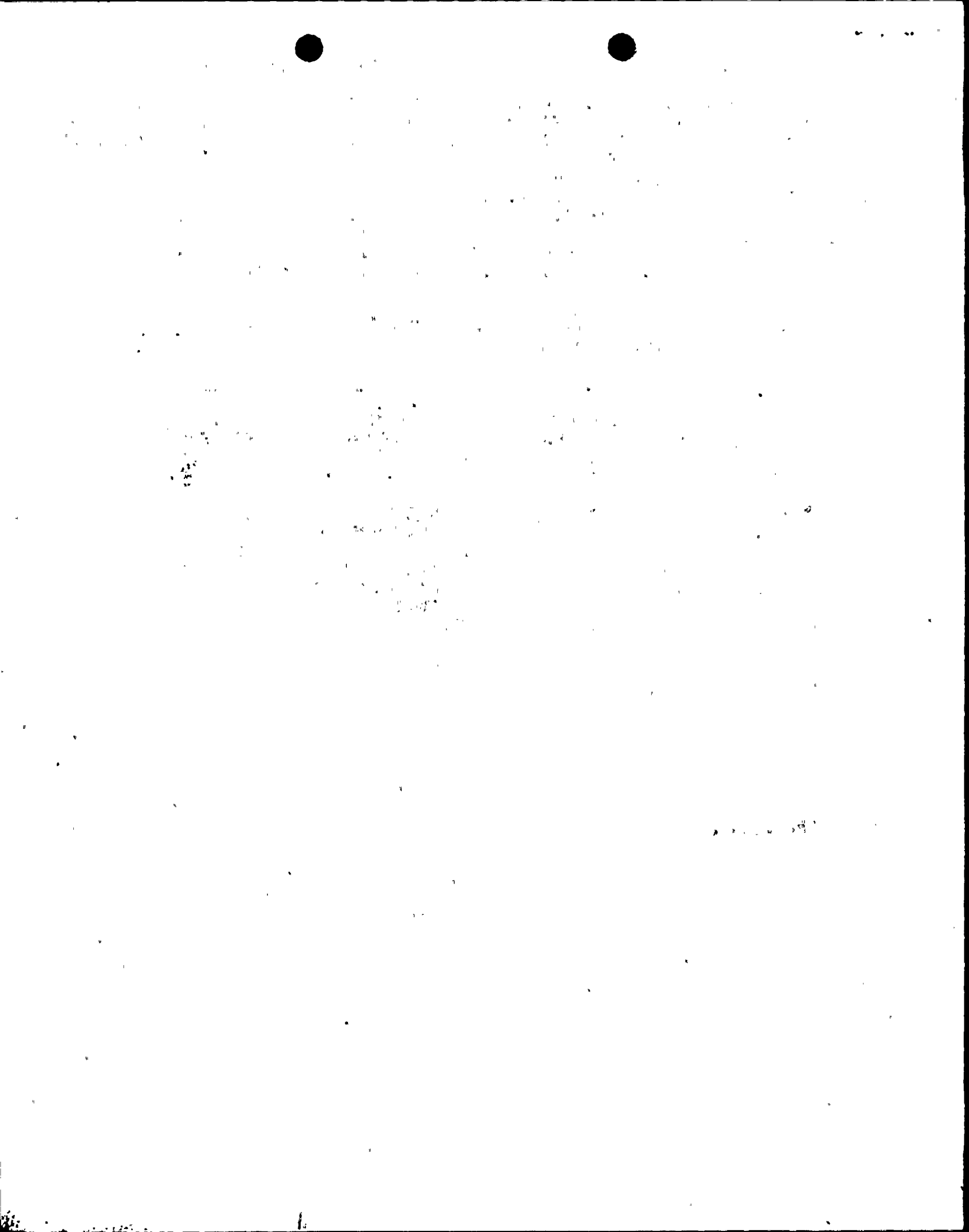
	RECIPIENT		COPIES			RECIPIENT		COPIES	
	ID CODE/NAME	LTR	ENCL	ID CODE/NAME		LTR	ENCL		
TION:	05 PM P LEECH	1	1	17 BC EPB #2	1	1	18 LA EPB #2	1	0.
TERNAL:	<u>01 REG FILE</u>	1	1	AD MOORE	1	0.	02 NRC PDR	1	1
	07 T&E	2	2	09 ENVN SPEC BR	1	1	10 CST BNFT ANL	1	1
	12 AD SITE TECH	2	2	11 TA/EDO	1	1	15 EFLT TRT SYS	1	1
	19 DIR DSE	1	1	14 ACIDENT ANALY	1	1	AD ENVIRON TECH	1	0
	AD SITE ANALY	1	0	16 RAD ASMT BR	1	1	DELD	1	0
TERNAL:	03 LPDR	1	1	04 NSIC	1	1	20 NATL LAB ANL	5	5
				ACRS	1	0			

SEP 12 1979

LY  
 MOORE  
 EPB #2 BC  
 P. LEECH  
 EPB #2 LA

T ENV.  
 1

TOTAL NUMBER OF COPIES REQUIRED: LTR 33 ENCL 24  
 28 23



50-387



# Pennsylvania State Clearinghouse

P.O. BOX 1323 - HARRISBURG, PA. 17120 - (717) 787-8046  
783-3133

GOVERNOR'S OFFICE  
OFFICE OF THE BUDGET

August 20, 1979

Director,  
Division of Site Safety and  
Environmental Analysis  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

REGULATORY DOCKET FREE COPY

Dear Sir:

The Pennsylvania State Clearinghouse has received from your office copies of the Draft Environmental Impact Statement related to the operation of Susquehanna Electric Station Units 1 and 2.

These copies have been transmitted for various State agencies for their review and comment.

Attached please find the comments of our Department of Environmental Resources relative to the above EIS.

Please consider these comments the official response of the State Clearinghouse. Additional comments received from State agencies will be transmitted to your office for response and inclusion in the Final EIS as appropriate.

Thank you for your cooperation.

Sincerely,

*Richard A. Heiss*  
Richard A. Heiss,  
Supervisor

COOZ  
ES  
- 1  
ENCL ADVANCED  
TO P. LEECH

7909110482A

August 20, 1979

5-79-07-003

SUBJECT: Draft ES - Susquehanna Steam Electric  
Station Units 1 & 2 Operating Licenses

TO: Richard Heiss, Supervisor  
Pennsylvania State Clearinghouse

FROM: CLIFFORD L. JONES  
Secretary  
Department of Environmental Resources

The Department feels the Draft Environmental Statement (ES) for the Susquehanna Steam Electric Station should include a more detailed discussion of several important concerns, especially in light of the recent accident at Three Mile Island: 1) the environmental consequences of a Class 9 nuclear accident, 2) contingencies for long-term storage of spent fuel, 3) routine radiation releases, 4) certain water quality aspects, and 5) impacts on fish populations.

(1) Nuclear Accident

Section 6.2 - Table 6.2 lists the radiological consequences of all postulated accidents. Since the consequences of the Three Mile Island (TMI) accident were greater than those listed and since the sequence of failures were more severe than analyzed as a design basis accident, it could be considered as a Class 9 accident. Therefore, this type of scenario deserves more attention than a footnote in Table 6.2. A summary discussion of lessons learned from the TMI accident which are applicable to this plant should be included in the Final Environmental Statement (Operating Permit), with a more detailed discussion in the staff safety evaluation.

Table 5.1 - Section 5.3.6 states that the preoperational monitoring program delineated in Table 5.1 will be continued during the operational period. Based on experience gained as a result of the Three Mile Island accident, the number of direct radiation monitors (TLD's) would be totally inadequate for accident considerations.

The Draft ES should also evaluate the role and capability of state and local emergency management agencies in limiting the environmental health impacts of accidental radiation releases.

(2) Spent Fuel Storage

Section 4.5.5 - Radioactive Wastes - This section should be expanded to include contingencies for the long-term storage of spent fuel on site. This may be required if a decision has not been made on the final disposition of spent fuel after the plant has been operating for a few years.

### (3) Radiation Releases

Section 4.5.2 - Direct Radiation - The direct radiation dose of 2.7 mrad/yr calculated by the applicant could be low by about an order of magnitude based on a more sophisticated type of analysis. If this is indeed the case, the site could exceed a liberal interpretation of 40 CFR 190. It would appear that these various models could be confirmed or refined by measurements taken near several of the operating boiling water reactors (BWR's).

Table 4.5 - It appears from this table of expected annual releases that about 18% of the Xe-133, 23% of the I-131 and about 5% of the Cs-137 is released through operation of the gland seal and mechanical vacuum pump. Since this is an untreated and unfiltered pathway, the routing of this effluent through the off gas treatment system, a seemingly simple design change, would significantly reduce the yearly routine station effluent. In addition, it has been the experience of other boiling water reactors in the Commonwealth having similar system arrangements, that the instantaneous technical specification limits have been exceeded by operating the mechanical vacuum pump following certain types of plant shutdowns.

Section 3.1 and 3.2.3 - Section 3.1 states that the applicant has modified the liquid, gaseous and solid radwaste treatment systems. Since these systems were described in some detail in the Final Environmental Statement (Construction Permit), the major design changes and their impacts should be described in more detail in this document. This is especially true of the gaseous radwaste treatment system which has changed from a cryogenic distillation system to one utilizing charcoal delay beds.

### (4) Water Quality

The Draft ES is somewhat outdated with respect to the National Pollution Discharge Elimination System (NPDES) permit issued by Pennsylvania on July 31, 1979, the National Interim Drinking Water Standards for Specific Radionuclides and Recommended Water Quality Standards (Chapter 93) of the Pennsylvania Department of Environmental Resources. (Attached are the latest recommended standards which are expected to be adopted by the Environmental Quality Board on August 21, 1979).

The NPDES Permit issued by Pennsylvania limited iron to a maximum of 7 mg/l and an average of 4.6 mg/l. The Draft ES on page 4-5 at table 4.2 is not consistent with this permit requirement regarding the discharge.

The calculated radionuclide releases in liquid effluents is discussed in terms of dose commitments (pages 4-14, 4-15). The Department believes that the impact of radionuclide releases and resulting river quality concentrations should be compared to the National Drinking Water Standards.

The sulfate concentration in the river would be increased by approximately 10% to a value of 244 mg/l as a maximum which approaches the water quality standard of 250 mg/l. The Department would encourage that sulfuric acid be utilized such that the Saturation Index is a positive value, insofar as possible, to minimize sulfates in the discharge.

(5) Fish Population

The Department feels that additional studies are needed on entrainment and impingement relative to water intakes and that mitigative steps identified by the studies be followed.

The report indicates that turbulence caused by the jetted water from the discharge will scour the riverbed immediately downstream and that there may be some loss of spawning habitat. The Department believes that the effect of the discharge on macroinvertebrate should be evaluated.

Attachment

