REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:8211230414 DOC.DATE: 82/11/18 NOTARIZED: NO DOCKET #
FACIL:50-387 Susquehanna Steam Electric Station, Unit 1, Pennsylva 05000387
50-388 Susquehanna Steam Electric Station, Unit 2, Pennsylva 05000388
AUTH.NAME AUTHOR AFFILIATION
CURTIS,N.W. Pennsylvania Power & Light Co.
RECIP.NAME RECIPIENT AFFILIATION
SCHWENCER,A. Licensing Branch 2

SUBJECT: Forwards info addressing concerns raised by INEL re NUREG-0621, "Control of Heavy Loads at Nuclear Power Plants." Previous util commitments fulfilled.

DISTRIBUTION CODE: B001S COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 5
TITLE: Licensing Submittal: PSAR/FSAR Amdts & Related Correspondence

NOTES:

	RECIPIENT ID CODE/NAME		COPIES LTTR	COPIES ENCL	RECIPIENT ID CODE/NAME		COPIES LTTR	COPIES ENCL
	NRR/DL/ADL		1	0	NRR LB2 BC		1	0
	NRR LB2 LA		1	0	PERCH,R.	01	1	1
INTERNAL:	ELD/HDS4		1	0	IE FILE		1	1
	IE/DEP EPDS	35	1	1	IE/DEP/EPLB	36	3	3
	NRR/DE/AEAB		1	0	NRR/DE/CEB	11	1	1
	NRR/DE/EQB	13	2	2	NRR/DE/GB	28	2	2
	NRR/DE/HGEB	30	1	1	NRR/DE/MEB	18	1	1
	NRR/DE/MTEB	17	1	1	NRR/DE/QAB	21	1	1
	NRR/DE/SAB	24	1	1	NRR/DE/SEB	25	1	1
	NRR/DHFS/HFEB	40	1	1	NRR/DHFS/LQB	32	1	1
	NRR/DHFS/OLB	34	1	1	NRR/DL/SSPB		1	0
	NRR/DSI/AEB	26	1	1	NRR/DSI/CPB	10	1	1
	NRR/DSI/CSB	09	1	1	NRR/DSI/ICSB	16	1	1
	NRR/DSI/METB	12	1	1	NRR/DSI/PSB	19	1	1
	NRR/DSI/RAB	22	1	1	NRR/DSI/RSB	23	1	1
	REG FILE	04	1	1	RGN1		3	3
	RM/DDAMI/MIB		1	0				
EXTERNAL:	ACRS	41	6	6	BNL(AMDTS ONLY)		1	1
	DMB/DSS (AMDTS)		1	1	FEMA-REP DIV	39	1	1
	LPDR	03	2	2	NRC PDR	02	1	1
	NSIC	05	1	1	NTIS		1	1

ADL

TOTAL NUMBER OF COPIES REQUIRED: LTTR 53 ENCL 46

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:8112[illegible] DOC.DATE: 81/11/16 NOTARIZED: NO DOCKET #
FACIL:50-387 Susquehanna Steam Electric Station, Unit 1, Pennsylva 05000387
50-388 Susquehanna Steam Electric Station, Unit 2, Pennsylva 05000388
AUTH.NAME AUTHOR AFFILIATION
CURTIS,N.W. Pennsylvania Power & Light Co.
RECIP.NAME RECIPIENT AFFILIATION
SCHWENCER,A. Licensing Branch 2

SUBJECT: Forwards info addressing concerns raised by NRC re NUREG-0612, "Control of Heavy Loads at Nuclear Power Plants." Previous util commitments fulfilled.

DISTRIBUTION CODE: [illegible] COPIES RECEIVED:LTR __ ENCL __ SIZE:______
TITLE: Licensing Submittal: PSAR/FSAR Amdts & Related Correspondence

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL
ACTION:	[illegible]	1	0	[illegible]	1	[illegible]
	[illegible]	1	0	[illegible]	1	1
INTERNAL:	[illegible]	1	0	[illegible]	1	1
	[illegible]	1	1	[illegible]	3	3
	[illegible]	1	[illegible]	[illegible]	1	1
	[illegible]	1	2	[illegible]	2	2
	[illegible]	1	1	[illegible]	1	1
	[illegible]	1	1	[illegible]	1	1
	[illegible]	1	1	[illegible]	1	1
	[illegible]	1	1	[illegible]	1	1
	[illegible]	1	1	[illegible]	1	0
	[illegible]	1	1	[illegible]	1	1
	[illegible]	1	1	[illegible]	1	1
	[illegible]	1	1	[illegible]	1	1
	[illegible]	1	1	[illegible]	1	1
	[illegible]	1	[illegible]	[illegible]	3	[illegible]
	[illegible]	1	[illegible]			
EXTERNAL:	[illegible]	[illegible]	[illegible]	[illegible]	1	1
	[illegible]	1	1	[illegible]	1	1
	[illegible]	2	2	[illegible]	1	1
	[illegible]	1	1	[illegible]	1	1

TOTAL NUMBER OF COPIES REQUIRED: LTTR 55 ENCL 46

PP&L Pennsylvania Power & Light Company
Two North Ninth Street • Allentown, PA 18101 • 215 / 770-5151

Norman W. Curtis
Vice President-Engineering & Construction-Nuclear
215 / 770-5381

NOV 18 1982

Mr. A. Schwencer, Chief
Licensing Branch No. 2
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

SUSQUEHANNA STEAM ELECTRIC STATION
NUREG 0612
CONTROL OF HEAVY LOADS
ER 100450 FILE 841-2, 841-11, 842-6
PLA-1332

Docket Nos. 50-387
and 50-388

References:
1) letter dated 12/22/80; Eisenhut to all Licensees of Operating Plants and Applicants for Operating Licenses and Holders of Construction Permits
2) letter dated 6/22/81; Curtis to Eisenhut (PLA-857 - 6-month response to Reference 1)
3) letter dated 9/22/81; Curtis to Eisenhut (PLA-937 - 9-month response to Reference 1)
4) letter dated 6/4/82; Curtis to Eisenhut (PLA-1110 - Supplement to 9-month response to Reference 1)
5) letter dated 5/7/82; Schwencer to Curtis (draft TER, developed by INEL based on Reference 2)

Dear Mr. Schwencer:

On June 23, 1982, PP&L and NRC representatives held a telephone conference on the subject of NUREG 0612 (Control of Heavy Loads at Nuclear Power Plants) to discuss Idaho National Engineering Laboratory's (INEL) draft Technical Evaluation Report (TER) of PP&L's 6-month response (Reference 2) to Reference 1. The purpose of the attached report is to address concerns raised by INEL in Reference 5 and to confirm that previous PP&L commitments made in Reference 2 have been fulfilled. The report is organized in the same manner as the conference call. The number in parenthesis by each section title is the location of INEL's recommendation in the body of Reference 5.

B001

NOV 18 1982

If you have any questions or concerns regarding this matter, please contact Mr. Thomas E. Gangloff at (215) 770-5486.

Very truly yours,

N. W. Curtis
Vice President-Engineering & Construction-Nuclear

JES:saw
SB-7

Attachments

cc: R. L. Perch - NRC

RESPONSE TO DRAFT TER

1. Overview (2.1)

This submittal, as well as our six-month response to NUREG 0612, applies to Susquehanna Steam Electric Station Unit 1. A separate response is being prepared for Unit 2 which is still under construction.

2. Radioactive Release (2.2.1.C)

INEL stated that "PP&L should verify that the analyses [of handling systems] submitted are valid when the criterion of NUREG 0612 is applied . . ." PP&L did not rely on off-site dose calculations to justify postulated load drops. For this reason, our analyses are valid regardless of the allowable dose rate used; however, if this type of analysis is done in the future, the criterion of "less than 25 percent of the requirements of 10 CFR 100" will be used.

3. Marking of Safe Load Paths [2.3.1.C(1)]

Generic safe load paths have been marked on the floors of the reactor building 818'-1" deck and the diesel generator building.

4. Incorporate Safe Load Paths Into Procedures [2.3.1.C(2)]

Generic safe load paths have been incorporated into crane operating procedures for the diesel generator building and for the refueling floor. Work instructions for specific lifts include the safe load paths for the particular loads. (See Section 7 - Load Handling Procedures.)

5. Analyses of Specific Cranes [2.3.1.C(3)]

The analyses of specific cranes, as described in Attachment A to Reference 2, have been conducted. The results appear in PP&L's 9-month response (Reference 3), beginning on page 9.

Two cranes which were originally excluded from heavy loads analysis (listed in Table 1, Part A, of Reference 2) are now included in heavy loads analysis. Both of these cranes are potentially capable of carrying heavy loads over safety-related conduits located in the Unit 1 railroad bay and are discussed below.

> IH215, Reactor Building Equipment Shaft Service Crane (24 tons) - This crane is located at the top of the equipment shaft, just below the air-tight hatch in the refueling floor. Its purpose is to service the rail bay and intermediate levels of the reactor building without interrupting work on the refueling floor. Four safety-related conduits are routed along one wall of the shaft where they could be impacted by a potential load drop from this crane. PP&L is currently working on rerouting the conduit. In the interim, IH215 has been disabled by tagging the power supply and by removing that portion of the crane rails that extend over the equipment shaft. This prevents loads from being carried, and it will prevent the rails from falling in the event of an earthquake.

IH216, Railroad Bay Jib Crane (2 tons) - This crane is attached to the wall of the rail bay. Formerly, there were two alternate mounting points which, if used, would have allowed the load on the jib crane to pass over the conduits discussed above. However, electric power was never supplied to the two alternate locations, and they have since been deleted. The concern does not exist with the jib in its current location.

6. Deviations from Safe Load Paths [2.3.1.C(4)]

The safe load paths are recorded in "quality" procedures which fall under the auspices of AD-QA-101, "Procedure Program." The provisions of this procedure allow the implementation of a temporary change which involves signature of the plant shift supervisor and one other member of the plant management prior to implementation, and review by the Plant Operational Review Committee within 14 days of the implementation of the change.

7. Load Handling Procedures [2.3.2.C (1 and 2)]

Specific procedures have been written for the following loads. This list is extracted from Table 3.1-1 of NUREG 0612.

Load	Written Procedure?	Remark
1. Reactor Well Shield Plugs	Yes	-
2. Drywell Head	Yes	-
3. Vessel Head	Yes	-
4. Steam Dryer	Yes	-
5. Steam Separator	Yes	-
6. Pool Gates	Yes	-
7. Dryer/Separator Pit Shield Plugs	No	SSES Unit 1 has none
8. Slot Plugs	Yes	-
9. Spent Fuel Shipping Cask	No	Cask not yet purchased
10. Vessel Service Platform	Yes	-
11. Waste and Debris Cask	No	Cask not yet purchased
12. Vessel Heat Insulation	Yes	-
13. Replacement Fuel Racks	No	See note 1
14. Crane Load Block	No	See note 2
15. Plant Equipment	No	See note 1

NOTES:
1. The reactor building crane operating procedure, MT-99-001, includes a generic safe load path and general instructions for the handling of miscellaneous loads not covered by specific instructions.

2. The Unit 1 crane main hoist is single-failure-proof and the auxiliary hoist hook block is not a heavy load.

These procedures are available at the site for audit.

8. Training Procedures [2.3.3.C(1 and 2)]

Training procedures have been written as stated in previous responses. A sample was attached to Reference 3. These procedures are available at the site for audit.

9. Special Lifting Devices [2.3.4.C(1 and 2)]

The analyses of PP&L's specially designed lifting devices are reported in PP&L's 9-month response (Reference 3), as supplemented by PLA 1110, dated 6/4/82 (Reference 4). The design of the reactor head strongback, the dryer/separator sling, and the service platform sling are compared to ANSI N14.6-1978 (and ANSI B30.9-1971, as appropriate) on a point-by-point basis. Any differences are noted.

10. Slings [2.3.5.C(1 and 2)]

The subject of slings is also dealt with in PLA 1110 (Reference 4). All slings used at Susquehanna comply with ANSI B30.9-1971. Slings used on the refueling floor will also comply with section 5.1.1(5) of NUREG 0612.

The rigging of loads on the refueling floor is controlled by procedure MT-GM-008, "Refueling Floor Rigging Requirements." Loads are divided into two categories, those which are lifted with dedicated rigging, and those that are lifted by general purpose rigging. Attachment B to MT-GM-008 identifies those loads that are lifted by dedicated rigging.

Slings, which are components of dedicated rigging have been sized, such that their rated load is twice the tension that would be caused by the static weight alone. Dynamic effects are neglected due to the slow speed of the main hoist (i.e., 5 fpm).

Other loads on the refueling floor are lifted utilizing general purpose rigging. When the rigging is used with the main hoist of the reactor building overhead traveling crane, sling selection is based on twice the static weight of the load. Dynamic effects are neglected.

When general purpose rigging is used with other hoists, sling selection is based on the maximum combined static and dynamic load. The dynamic loads imposed by these hoists is considered to be 15% of the static weight.

MT-GM-008 also requires that individual slings be tagged to identify their rated capacity. This procedure is currently being approved and will be available for audit after 12/1/82.

11. Cranes (Inspection, Testing, and Maintenance) [2.3.6.C(1 and 2)]

The maintenance program described in Reference 2 has been completed and instituted. Procedure MT-GM-013, "Crane and Dedicated Chain Fall Mechanical Inspection," is available at the site for audit.

12. Crane Design (2.3.7.C)

SSES Unit 1 is in compliance.