

ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9101030327 DOC. DATE: 90/12/27 NOTARIZED: YES 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
 KEISER, H.W. Pennsylvania Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION
 LIEBERMAN, J. Ofc of Enforcement (Post 870413)

SUBJECT: Responds to violations noted in Insp Repts 50-387/90-17 &
 50-388/90-17 & forwards payment of civil penalty in amount
 of \$25,000 per Enforcement Action EA-90-156.

DISTRIBUTION CODE: IE14D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 8
 TITLE: Enforcement Action Non-2.790-Licensee Response

NOTES: LPDR 1 cy Transcripts. 05000387
 LPDR 1 cy Transcripts. 05000388

		COPIES		COPIES	
RECIPIENT ID CODE/NAME		LTTR	ENCL	RECIPIENT ID CODE/NAME	LTTR ENCL
PD1-2 LA		1	1	PD1-2 PD	1 1
THADANI, M		1	1		
INTERNAL: AEOD/DOA		1	1	AEOD/DSP/TPAB	1 1
DEDRO		1	1	NRR/DOEA/OEAB11	1 1
NRR/PMAS/ILRB12		1	1	NUDOCS-ABSTRACT	1 1
OE DIR		1	1	OE FILE 01	1 1
REG FILE 02		1	1	RGN1 FILE 03	1 1
RGN2/DRSS/EPRPB		1	1		
EXTERNAL: NRC PDR		1	1	NSIC	1 1
NOTES:		2	2		

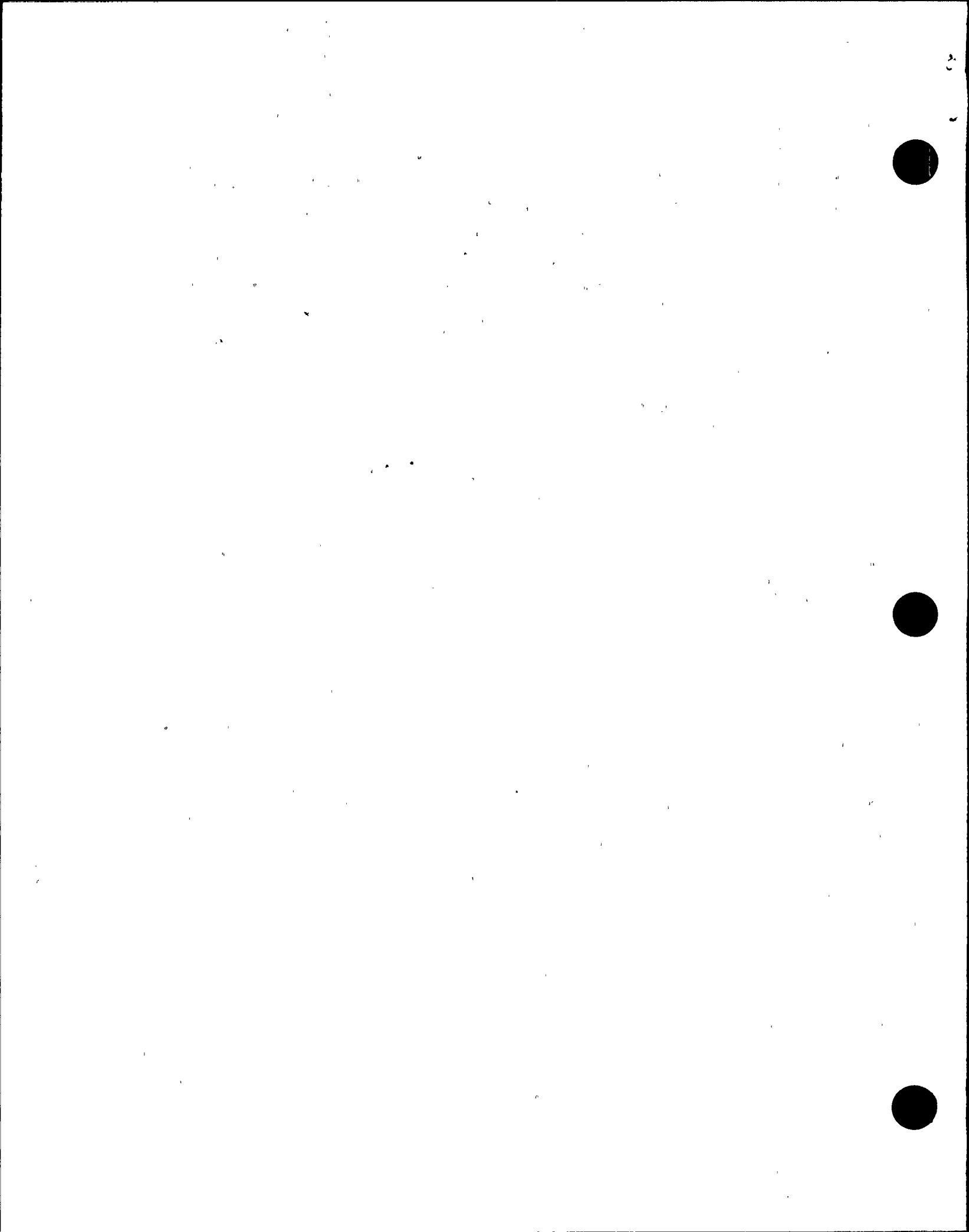
NOTE TO ALL "RIDS" RECIPIENTS:

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 18 ENCL 18

R
I
D
S
/
A
D
D
S

R
I
D
S
/
A
D
D
S





Pennsylvania Power & Light Company

Two North Ninth Street • Allentown, PA 18101-1179 • 215/774-5151

Harold W. Keiser
Senior Vice President-Nuclear
215/774-4194

DEC 27 1990

REPLY TO A NOTICE
OF VIOLATION

Mr. James Lieberman, Director
Office of Enforcement
U.S. Nuclear Regulatory Commission
Attn.: Document Control Desk
Washington, D.C. 20555

SUSQUEHANNA STEAM ELECTRIC STATION
RESPONSE TO ENFORCEMENT ACTION 90-156
PLA-3494 **FILES R41-2/R41-1C**

Docket Nos. 50-387
and 50-388

Dear Mr. Lieberman:

Pursuant to 10CFR2.201, Pennsylvania Power & Light Company hereby provides the attached response to the Notice of Violation for Enforcement Action 90-156 dated November 27, 1990. Payment in the amount of \$25,000 is enclosed.

The notice required submittal of a written reply within thirty (30) days of the date of the letter. We trust that the commission will find the attached response acceptable.

Very truly yours,

H. W. Keiser

Attachment
Affidavit

cc: NRC Region I
Mr. M. C. Thadani, NRC Project Manager
Mr. G. S. Barber, NRC Sr. Resident Inspector
Mr. T. T. Martin, Regional Administrator, Region I

*w/ check
& 25,000
#0001458*

*IEIA
" "*



AFFIDAVIT

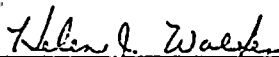
COMMONWEALTH OF PENNSYLVANIA)
: SS
COUNTY OF LEHIGH)

I, HAROLD W. KEISER, being duly sworn according to law, state that I am Sr. Vice President - Nuclear of Pennsylvania Power & Light Company and that the facts set forth on the attached response to Enforcement Action 90-156 are true and correct to the best of my knowledge, information and belief.

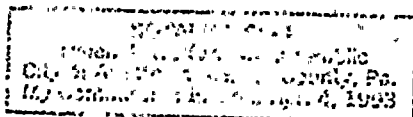


Harold W. Keiser
Sr. Vice President - Nuclear

Sworn to and subscribed
before me this 27th day
of December, 1990.



Notary Public





REPLY TO A NOTICE OF VIOLATION

VIOLATION I (387/90-17-03; 388/90-17-03)

10 CFR Part 50, Appendix B, Criterion XVI, Corrective Action, requires, in part, that measures be established to assure that conditions adverse to quality, such as nonconformances, are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and that corrective action is taken to preclude repetition. The corrective action taken shall be documented and reported to appropriate levels of management.

10 CFR 50.49(f) requires, in part, that each item of electrical equipment important to safety must be qualified by appropriate testing, analysis, or a combination thereof.

Contrary to the above, the licensee identified, in 1988, conditions adverse to quality associated with the environmental qualification (EQ) of equipment (as described in a. and b. below), but failed to take effective corrective action, as of August 31, 1990.

- a. The Licensee's Nonconformance Report No. (NCR) 88-0181, dated March 24, 1988 identified 21 motor actuators at Units 1 and 2 equipped with 250V DC Reliance motors which were not subjected to adequate Limitorque qualification testing. The licensee's evaluation of this nonconformance was inadequate in that it identified a similarity analysis which compared Reliance 125V DC with Reliance 480V AC motors, but did not show the applicability of the similarity analysis to the 250V DC motors.
- b. The Licensee's NCR No. 88-0520, dated July 11, 1988, identified 31 motor actuators at Units 1 and 2 operated with 250V DC control power which is twice as much as the 125V DC control power used in the Limitorque qualification testing for these motors. The evaluation of this nonconformance was inadequate in that it partially relied on a test report that included no pre-accident aging or radiation considerations, it failed to consider expected moisture intrusion and it failed to account for low resistance readings recorded for the torque switches, even at 120V DC.

RESPONSE

1. Admission of the Violation:

PP&L admits that NCR 88-0181 dated March 24, 1988 and NCR 88-0520 dated July 11, 1988 were not closed until November 15, 1990.

2. Reason for the Violation:

The violation resulted from inadequate programmatic control in that the confidence we had in our ability to qualify the equipment determined our schedule for implementation of corrective actions. Although a proper determination of operability was made, there was a failure to recognize that given the number of actuators affected and the existence of uncertainty with respect to qualification, the length of time between discovery and resolution represented a potentially significant safety concern.

3. Corrective Steps Taken and The Results Achieved:

The Limitorque operators in question have been qualified. Our analysis to verify qualification was provided to the Commission on November 30, 1990.

As presented to the NRC in a meeting on October 26, 1990, PP&L has taken steps to ensure that in the future, timeliness and corrective action consistent with the potential safety significance will be our standard in discrepancy management. In addition, long-standing equipment qualification issues are in the process of being closed.

As of September 20, 1990, there were thirty two (32) NCRs open which documented deficiencies associated with EQ. As of December 21, 1990 twenty (20) of these NCRs have been closed. The remaining twelve (12) NCRs will be closed prior to startup following the Unit 2 Fourth Refueling Outage (scheduled for May 1991).

All safety significant new issues will 1) receive prompt operability/ reportability determinations, and 2) receive an action plan and schedule for closure. Additionally, those issues confirmed to affect installed plant equipment (documented on an NCR) will be reviewed by the Plant Operations Review Committee monthly and prior to any unit startup.

Once scheduled, any extensions for resolution beyond one fuel cycle require approval by the Superintendent of Plant and the Manager-Nuclear Plant Engineering.

Our goal is closure of all safety significant deficiencies within one fuel cycle.

4. Corrective Steps to be Taken to Avoid Further Violations:

See item #3 above.

5. Date of Full Compliance:

Based on 3 above, PP&L is in full compliance.

VIOLATION II.A (387/90-17-01; 388/90-17-01)

10 CFR 50.49(a) requires each holder of a license to operate a nuclear power plant to establish a program for qualifying electric equipment identified in 10 CFR 50.49(b).

10 CFR 50.49(b) defines electric equipment important to safety and includes: (1) safety-related electric equipment, i.e., equipment relied upon to remain functional during and following design basis events; and (2) nonsafety-related electric equipment whose failure under postulated environmental conditions could prevent satisfactory accomplishment of the functions of safety-related equipment.

10 CFR 50.49(f) requires that each item of electric equipment important to safety be qualified by testing and/or analysis under postulated environmental conditions.

Contrary to the above, as of July 19, 1990 for Division 1, and July 21, 1990 for Division 2, certain items of electric equipment important to safety, namely, the polyurethane damper actuator seals for the ITT NH90 dampers for the Standby Gas Treatment System (SGTS) and the direct expansion (Dx) switchgear room cooling system, were not environmentally qualified. The seals were not environmentally qualified because they had been in service for a period of time exceeding that for which the seals were originally qualified.

RESPONSE

REFERENCE LER 387/90-016-00

1. Admission of the Violation:

PP&L admits that prior to July 19, 1990 for Division 1 and July 21, 1990 for Division 2 polyurethane damper actuator seals for the ITT NH90 dampers for the Standby Gas Treatment System and the direct expansion switchgear room cooling system were not environmentally qualified because they had been in service for a period of time exceeding that for which the seals were originally qualified.

2. Reason for the Violation:

The violation occurred when the postulated post-LOCA reactor building temperatures were changed in 1989 by calculation M-RAF-032. At that time equipment requiring requalification was identified by a search of the EQ index. This index contained



a field which was intended to identify the temperature for which items of equipment were qualified. The entries in that field for NH-90 actuators were incorrect and led to the erroneous conclusion that the NH-90 actuators were already qualified for temperatures higher than the new postulated post-LOCA temperatures. The temperature field of the EQ index was not quality controlled and should not have been used without confirmation of the data and this was not done.

3. Corrective Steps Taken and The Results Achieved:

To correct this discrepancy, two parallel paths were taken. An immediate action was taken to rework the subject equipment, replacing the polyurethane seals with ones made of viton. Seals made of viton material are qualified by EQDF-31B, Rev. 7. In parallel, analysis was done to determine the qualification status of the equipment. Replacement of the seals in three of the four actuators in question was accomplished prior to the analytical work being completed. Replacement of the seals in the fourth actuator (in the Standby Gas Treatment System) was accomplished after the analytical work was complete with a limiting condition for operation in effect. Replacement of the seals results in the actuators being in a qualified configuration.

In addition, our Nuclear Plant Engineering equipment qualification personnel have reviewed the qualification binders of all environmentally qualified equipment affected by the new post-LOCA reactor building temperatures to assure this error had not affected the qualification of other equipment. In this process, similar occurrences were identified. The affected equipment for these similar occurrences was evaluated and the information in the binders supported qualification; thus the equipment's operability was not affected.

4. Corrective Steps to be Taken to Avoid Further Violations:

To preclude a similar occurrence, the data in the temperature field of the Equipment Qualification Index was restricted to preclude its use until the data is verified. Additionally, personnel have been counselled regarding the necessity of using only quality controlled data or data which is confirmed with respect to its accuracy.

5. Date of Full Compliance:

Based on 3 above, PP&L is in full compliance.

VIOLATION II.B (387/90-17-02; 388/90-17-02)

10 CFR Part 50, Appendix B, Criterion V, Instructions, Procedures and Drawings, requires, in part, that activities affecting quality shall be prescribed by documented instructions or procedures and shall be accomplished in accordance with these instructions or procedures.

Licensee Procedure OPS-5, entitled "Deficiency Control System," Revision 4, dated May 18, 1988, Section 5.1 states, in part, that the licensee's deficiency control system is designed to promptly report and correct conditions identified as adverse to quality.

Licensee Procedures OPS-12, entitled "Administrative Control of Plant Operation," Revision 3, dated May 18, 1988, Section 5.5.8, states, in part, that in cases where required documentary evidence is not available, then the associated equipment and material must be considered non-conforming in accordance with OPS-5, Deficiency Control System.

Licensee Procedure EPM-QA-122, Rev. 0, dated December 29, 1989, Section 3.1.1 defines an engineering deficiency to include conditions adverse to quality, or nonconformances whose impact on plant equipment and hardware is not known and requires further analysis. Further, Section 5.2.1 of this procedure requires that each engineering discrepancy shall be documented on an Engineering Discrepancy Report.

Contrary to the above, when, on June 29, 1990, the licensee was informed of environmental qualification discrepancies related to polyurethane damper actuator seals for the ITT NH90 dampers referenced in Violation II.A, an engineering discrepancy report was not completed to assure resolution of this discrepancy until August 1, 1990.

RESPONSE

1. Admission of the Violation:

PP&L admits that a discrepancy or nonconformance report for the ITT NH90 damper actuator seals was not promptly generated following identification of the EQ deficiency of the actuator seals.

2. Reason for the Violation:

This violation resulted from a judgement made by engineering personnel with respect to the level of certainty required prior to generation of Engineering Discrepancy Reports. At the time of the event, engineering personnel took aggressive



and conservative actions to correct what they viewed as a potential deficiency. Discrepancy reporting was delayed because of a belief that a further investigation of the problem would resolve the concerns.

3. Corrective Steps Taken and The Results Achieved:

To avoid future occurrences with respect to deficiency reporting, we have procedurally lowered the threshold at which engineering discrepancy reports are generated. Engineering personnel have been trained on these procedural changes and counselled on the importance of prompt reporting of conditions adverse to quality and the need to recognize that where necessary documentary evidence is not available, associated equipment and material must be considered as an engineering deficiency and an EDR or NCR will be written.

4. Corrective Steps to be Taken to Avoid Further Violations:

No further actions are necessary.

5. Date of Full Compliance:

Based on 3 above, PP&L is in full compliance.

