# POLICY ISSUE

(NEGATIVE CONSENT)

March 15, 1996 SECY-96-057

FOR: The Commissioners

FROM: James M. Taylor
Executive Director for Operations

SUBJECT: RELOCATION OF EMERGENCY OPERATIONS FACILITY FOR SUSQUEHANNA STEAM ELECTRIC STATION

PURPOSE:

To request Commission approval for proposed relocation of the emergency operations facility (EOF) to serve the Susquehanna Steam Electric Station (SSES).

CATEGORY:

This paper covers a minor policy issue.

ISSUE:

Whether the EOF for SSES can be located 22 miles from the site rather than between 10 to 20 miles as specified by the Commission.

BACKGROUND:

On November 22, 1982, the Commission approved NUREG-0737, Supplement 1, which was subsequently promulgated in Generic Letter 82-33 dated December 17, 1982. Table 1 of NUREG-0737, Supplement 1, describes two options for locating the EOF. Option 1 provides for an EOF which meets radiological habitability requirements and is located within 10 miles of the site and a backup EOF that has no radiological habitability features and is located between 10 and 20 miles from the site. The existing SSES EOF conforms to this option. Option 2 provides for a single EOF that has no habitability features and is located between 10 and 20 miles from the site. The proposed EOF conforms to Option 2, except for its 22-mile distance from the plant.

CONTACT: Narvaez L. Stinson, NRR
(301) 415-2925

NOTE: TO BE MADE PUBLICLY AVAILABLE WHEN THE FINAL SRM IS MADE AVAILABLE

150043

In the Staff Requirements Memorandum M830302B, dated March 3, 1983, the Commission directed the staff to refer all exemption requests concerning location and habitability of EOFs to the Commission for a decision. This direction was reconfirmed in a memorandum from the Secretary, dated April 30, 1987 (Attachment 1).

DISCUSSION:

In a letter dated April 12, 1995, the Pennsylvania Power and Light Company (PP&L) proposed a revision to the SSES Radiological Emergency Response Plan that addressed the relocation of the SSES EOF (Attachment 2). During a meeting on May 16, 1995, at the NRC Regional I office in King of Prussia, Pennsylvania, PP&L provided additional information concerning the relocation of the EOF and other Emergency Plan changes for the SSES (Attachment 3 contains this meeting summary). Also, during a meeting with the Office of Nuclear Reactor Regulation on August 29, 1995, PP&L provided additional information pertaining to the activation time for the proposed EOF for the SSES (Attachment 4 contains this meeting summary). In a letter dated September 18, 1995, PP&L gave a summary of the effects of the installation of the Plant Integrated Computer System (PICSY) on emergency planning data requirements for Unit 1 and Unit 2 (Attachment 5). By letter dated October 2, 1995, PP&L submitted a revision to the letter dated April 12, 1995, revising the time to activate the proposed EOF (Attachment 6).

The current EOF is located approximately 2,500 feet southwest of the control structure. The SSES is required to have a backup EOF in accordance with the guidance in Table 1 of Supplement 1 to NUREG-0737 which specifies that the backup EOF should be between 10 and 20 miles from the site.

The current backup EOF is located at the PP&L Hazleton Service Center auditorium in Hazleton, Pennsylvania, which is approximately 13 air miles (22 miles driving distance) southeast of the SSES. Guidance in NUREG-0696 recommends that sites with an EOF within the 20-mile EPZ have a backup EOF located within 10 to 20 miles of the TSC for habitability concerns. On the basis that the proposed EOF will be located outside of the Emergency Planning Zone (EPZ), which eliminates the radiological habitability concerns of the current near site EOF, PP&L proposes to discontinue using the backup EOF if the new EOF location is approved.

The proposed new location for the EOF is PP&L's Northeast Division Headquarters, located approximately 3 miles east of Wilkes-Barre, Pennsylvania. As stated by PP&L in its letter of April 12, 1995, the relocation of the EOF to PP&L's Northeast Division Headquarters is closer to the Corporate Headquarters in Allentown, Pennsylvania, thereby improving the response time of the EOF staff traveling from the Corporate Headquarters to activate the proposed EOF. The response time of the corporate staff traveling to the proposed EOF location is 75 minutes, approximately 30 minutes less than to the existing EOF. On October 24, 1995, PP&L demonstrated that the proposed EOF could be activated within 90 minutes (75 minutes transportation time and 15 minutes activation time) after the declaration of a Site Area Emergency (SAE).

Currently, an interim EOF staff, composed of site personnel, reports to the EOF at an Alert classification to prepare the facility should activation become necessary. By letter dated December 1, 1995 (Attachment 7), PP&L stated that it does not plan to use an interim staff to ensure that the proposed EOF is operationally ready. The proposed EOF will be kept in a state of operational readiness with minimal set up required. In addition, as part of the EOF staff, three persons in close proximity to the facility arrive before the Allentown staff and provide additional assurance that the proposed EOF is operationally ready.

The proposed EOF will be staffed at an Alert classification. The proposed EOF will be activated by the permanent staff within 90 minutes after the declaration of an SAE. After facility activation, the EOF staff receives a turnover briefing from the Technical Support Center (TSC) staff. The proposed EOF is approximately 35 minutes by automobile from the plant and approximately 75 minutes by automobile from Allentown. To meet the staffing guidelines of NUREG-0696, PP&L has committed to have the permanent EOF staff report to the EOF at the declaration of an Alert. For events that are immediately classified at the SAE level or higher, the licensee intends to activate the TSC and EOF as rapidly as possible. The TSC would assume management of the emergency from the control room within one hour. The EOF staff would activate the EOF within 90 minutes after the declaration of an SAE or higher level emergency.

PP&L has been implementing the PICSY project at the SSES along with the relocation of the EOF. The PICSY project will combine the Safety Parameter Display System (SPDS) computer, the Plant Computer System computer, the Remote Data Analysis System (RDAS) computer and the Emergency Response Data System (ERDS) computer into one integrated computer system. The PICSY for Unit 2 has been completely installed, and, therefore, can provide the proposed EOF with data from the SPDS, Plant Computer System, RDAS, and ERDS. However, the SPDS for Unit 1 will not be available in the proposed EOF until the PICSY is installed on this unit. Installation of the PICSY for Unit 1 is scheduled to be completed by the end of the fourth quarter of 1996. Until then, the SPDS for Unit 1 will be available in the TSC and the Emergency Data System will be available in the proposed EOF.

To compensate for not having the SPDS displays available for Unit 1 in the proposed EOF, SSES will assign a person to the SPDS terminal in the TSC should an Alert be declared. This person's only function will be to transmit the SPDS data to the proposed EOF by telephone or facsimile. PP&L states that the data available in the proposed EOF will meet the regulations for accident assessment and the protective action recommendation requirements.

The NRC staff observed an activation drill for the proposed EOF on October 24, 1995. During this drill, PP&L successfully demonstrated that the proposed EOF could be activated within 90 minutes. On the basis of PP&L's submittal, additional information provided during the subsequent meetings, and the successful activation of the proposed EOF within 90 minutes, the NRC staff recommends approval of PP&L's revision of the SSES Radiological Emergency Response Plan. Relocation of the EOF two miles beyond the 10 to 20 mile distance is included in this plan revision.

By letter dated March 29, 1995 (Attachment 8), Charles P. Wynn of the Pennsylvania Emergency Management Agency (PEMA), stated that PP&L's "commitment to provide a facility equal to, or better than, your current EOF is an excellent basis for our continued cooperation in assuring the health and safety of the citizens of Pennsylvania."

By letter dated February 27, 1995 (Attachment 9), the Columbia County Department of Environmental Safety indicated its knowledge of PP&L's submittal to the NRC requesting approval for the relocation of the SSES's EOF to Wilkes-Barre, Pennsylvania. Also, by letter dated February 27, 1995 (Attachment 10), the Luzerne County Emergency Management Agency indicated its knowledge of PP&L's submittal to the NRC requesting approval for the relocation of the SSES's EOF to Wilkes-Barre, Pennsylvania.

The Federal Emergency Management Agency has reviewed the documentation for PP&L's proposal to relocate the SSES's EOF and, by letter (Attachment 11), indicated that it has no objections.

CONCLUSION:

The staff concludes that the proposed EOF meets the guidance in Table 1 of NUREG-0737, Supplement 1, with the exception that it is located 2 miles beyond the 10- to 20-mile distance established by the guidance. Despite this exception, the staff believes the proposed EOF and location are acceptable.

RECOMMENDATION:

Unless directed otherwise by the Commission, the staff intends to approve within 10 days of the date of this paper the proposed relocation of the SSES EOF to PP&L's Northeast Division Headquarters in Wilkes-Barre, Pennsylvania.

James M. Taylor
Executive Director
for Operations

NOTE: In the absence of instructions to the contrary, SECY will notify the staff on Monday, April 1, 1996 that the Commission, by negative consent, assents to the action proposed in this paper.

DISTRIBUTION:

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|---|---|
| Commissioners | OPA |
| OGC | OCA |
| OCAA | REGION I |
| OIG | EDO |
| | SECY |

ATTACHMENT 1

NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

OFFICE OF THE SECRETARY

April 30, 1987

MEMORANDUM FOR: Victor Stello, Jr., Executive Director for Operations

FROM: Samuel J. Chilk, Secretary

SUBJECT: SECY-87-67 - EXCEPTION FOR THE EMERGENCY OPERATIONS FACILITY DESIGN FOR THE OCONEE NUCLEAR STATION

The Commission has no objection to the staff's proposed approval of the Duke Power Company's request for an exception to the location, radiological habitability, and backup requirements for the Oconee Emergency Operations Facility.

The Commission (with Chairman Zech and Commissioners Asselstine and Carr approving) has agreed that future requests for exceptions to EOF requirements should continue to be submitted to the Commission. Commissioner Roberts agreed with the staff's request to act on future requests.

Copies:
Chairman Zech
Commissioner Roberts
Commissioner Asselstine
Commissioner Bernthal
Commissioner Carr
OGC (H Street)
GPA

ATTACHMENT 2

Pennsylvania Power & Light Company
Two North Ninth Street • Allentown, PA 18101-1179 • 215/774-5151

Robert G. Byram
*Senior Vice President-Nuclear*
610/774-7502
Fax: 610/774-5019

APR 12 1995

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Station P1-137
Washington, DC 20555

SUSQUEHANNA STEAM ELECTRIC STATION
PROPOSED REVISION TO THE EMERGENCY
PLAN: MOVING THE EOF TO THE NORTHEAST
DIVISION HEADQUARTERS
PLA-4298 FILE R41-2

Docket Nos. 50-387
and 50-388

The purpose of this letter is to transmit for the NRC's staff review and approval a proposed revision to the Susquehanna SES Emergency Plan. Pennsylvania Power & Light Company has determined that certain portions of this revision can not be implemented without NRC approval. This proposed revision contains six major changes to the Emergency Plan. These changes are:

1. Relocation of the Emergency Operations Facility (EOF) to PP&L's Northeast Division Headquarters in Plains Township, east of Wilkes-Barre (NRC approval required),

2. EOF Activation (NRC approval required),

3. The use of interim data until Safety Parameter Display System (SPDS) displays are installed (NRC approval required),

4. Relocation of Emergency Response Data System (ERDS) to the control structure to be activated by Technical Support Center (TSC) personnel,

5. Retention of routine dose calculations by TSC throughout the entire emergency,

6. Organizational structure changes.

These changes came about as a result of PP&L's evaluation of its performance in the Emergency Management Area and of the lessons learned from the preparation for Federal Field Exercise III

(FFE-III). PP&L recognizes that enhancements can be made in the Emergency Management Area, to better utilize personnel and to better serve the public. We believe that these changes improve our ability to manage an emergency.

## RELOCATION OF EOF

The proposed new location for the EOF is PP&L's Northeast Division Headquarters. The Northeast Division Headquarters is located in Plains Township approximately 3 miles east of Wilkes-Barre, PA just off PA Route 115. The proposed EOF is about 22 miles from the TSC and therefore, NRC approval is required prior to relocating the EOF. The proposed EOF is accessible by two major highways (Interstate I-81 and the PA Turnpike) and is approximately 15 minutes from the Scranton/Wilkes-Barre Airport. Except for the staffing time recommendation and SPDS availability, the new EOF will meet the guideline of NUREG 0696 Section 4. These exceptions are discussed later in this submittal.

The new EOF provides several advantages over the existing EOF.

- The proposed EOF is closer to the Corporate Headquarters in Allentown and more easily accessed by the staff responding from Allentown. Therefore, the response time of the staff to the proposed EOF location is approximately 30 minutes faster than responding to the existing EOF.

- The field offices for the host county, PEMA, DFO and FRMAC are expected to be located in the Wilkes-Barre area. Having the EOF located in the vicinity of these field offices will increase the coordination efficiency with these agencies during the recovery phase of the event.

- Our Media Operations Center (MOC) is located in the same building; therefore, access to technical information is readily available to the Public Information Manager (PIM). This will improve the PIM's ability to respond to questions from the media and the public.

- The EOF will be located outside the Emergency Plan Zone; therefore, the backup EOF will not be necessary. Any radiological concerns at the current EOF due to its location will not be a concern at the new location.

Attachment 1 shows the relative locations of our existing and proposed emergency response facilities.

## ACTIVATION OF THE EOF

The guidance in NUREG 0696 states that the EOF shall be functional within one hour of activation at the Site Area Emergency. Currently to meet this guidance, an interim EOF staff, composed of site personnel, is notified and reports to the EOF at an Alert classification to prepare the facility should activation become necessary. This interim staff activates the EOF within one

hour of the Site Area Emergency declaration and takes the turnover from the TSC. The permanent EOF staff is activated upon the declaration of a Site Area Emergency. Most of the permanent EOF staff, whose normal work location is Allentown, would arrive at the existing EOF between one hour forty-five minutes and two hours after the declaration of the Site Area Emergency. The permanent EOF staff would then take the turnover from the interim staff. This arrangement presently meets the guidelines of NUREG-0696; however, there are two staff turnovers within three hours of declaring the Site Area Emergency.

PP&L has determined that it would be impractical to use plant personnel as an interim staff to activate the proposed EOF until the permanent staff arrives. The proposed EOF is approximately 35 minutes by automobile from the plant and approximately one hour and fifteen minutes by automobile from Allentown. Using the existing plan would require the interim staff to manage the emergency for less than one hour before turning over the management to the permanent staff. This is inefficient and can introduce additional communication difficulties with respect to the management of the emergency.

To meet the intent of the NUREG-0696 guidance, PP&L proposes to have the permanent EOF staff report to the EOF at the declaration of an Alert. PP&L believes this provides reasonable assurance the EOF would be fully functional within one hour of the declaration of a Site Area Emergency. The exceptions are fast moving events or events immediately classified at the Site Area Emergency level or higher. For events that begin at the Site Area Emergency level or higher, the TSC and EOF would be activated at the classification. The TSC would assume management of the emergency from the control room within one hour. The EOF staff would arrive at the EOF in less than one and one-half hours after the declaration of a Site Area Emergency or higher. The EOF would be fully functional and take command of the emergency in less than one hour after their arrival at the EOF. This proposed activation of the EOF does not decrease the effectiveness of PP&L's response to an emergency since for the time it takes for the EOF staff to respond the TSC has adequate staffing to manage the emergency. Also not having an interim staff reduces the number of turnovers in the management of an emergency and thus reduces the possibility of introducing communication difficulties into the management of an emergency.

**SPDS**

A major plant improvement project called the Plant Integrated Computer System (PICSY) project is being implemented at Susquehanna SSES. This project will combine the Safety Parameter Display System (SPDS) computer, the Plant Computer System computer, the Remote Data Analysis System (RDAS) computer and the Emergency Response Data System (ERDS) computer into one integrated computer system. The present completion schedule is for the Unit 2 PICSY to be installed by the end of fourth quarter of 1995 and the Unit 1 PICSY to be installed by the end of the fourth quarter of 1996.

NUREG-0696, Section 5.2 requires that SPDS displays be available in the EOF. However, SPDS displays will not be available in the proposed EOF until the Plant Integrated Computer System (PICSY) is installed. As stated above the installation of PICSY is presently scheduled

for the fourth quarter of 1995 for Unit 2 and the fourth quarter of 1996 for Unit 1. SPDS will remain available in the TSC. The Emergency Data System (EDS) will be available in the proposed EOF. EDS is comprised of information sent to the NRC via ERDS and selected technical and critical function parameters. This data is updated every three minutes and can be used for manual trending of information. Attachment 2 is an example the EDS available information.

To compensate for not having SPDS displays available for Unit 1 and Unit 2, a person will be assigned to the additional SPDS terminal in the TSC. This person's only function is to provide a link with the proposed EOF to transmit SPDS data. This person can transmit the SPDS data either by phone or by fax. PP&L believes that this temporary compensatory measure is equivalent to having SPDS available in the proposed EOF. The data available in the proposed EOF will meet the regulations for accident assessment and the protective action recommendation requirements.

## OTHER EMERGENCY PLAN CHANGES

1. Organizational Changes

   The EOF staff has been reorganized to strengthen its response capability. The positions directly reporting to the Recovery Manager have been realigned thus allowing him to manage the emergency more efficiently. Those positions directly reporting to the Recovery Manager are:

   - Assistant Recovery Manager who is responsible for assisting the Recovery Manager as requested and for replacing the Recovery Manager should the Recovery Manager be unable to fulfill his position.

   - Engineering Support Supervisor who has the responsibility for the engineering resources and for providing technical information to the Recovery Manager.

   - Dose Assessment Supervisor who is responsible for the radiological data and for providing recommendations for protective actions and classification of the emergency to the Recovery Manager.

   - EOF Support Supervisor who is responsible for the operation of the EOF and for the formal communications with off-site agencies.

   - Liaison Support Supervisor who is responsible for assuring that the County, State and Federal agencies are kept informed of situation and taking care of their needs and responding to their questions.

   - Public Information Manager who is responsible for providing the media and public with timely, accurate information about the emergency.

In addition the existing engineering support function in the EOF is supplemented with a systems engineer and a nuclear fuel engineer as well as an electrical engineer and a mechanical engineer. Depending upon the type of engineering support needed to address the emergency, additional engineering resources can be called in to assist the support staff.

The General Office Engineering Support Center facility is no longer needed since additional engineering support has been added to the EOF staff. The engineering leads at the EOF can call in additional engineering staff as needed to respond to the emergency. The General Office Support Center has been eliminated from the Emergency Plan.

These changes to the organization do not involve a reduction in effectiveness of the Emergency Plan.

2. Radiological Changes

Currently the responsibility for providing dose calculations is transferred to the EOF from the TSC when the EOF is fully functional. In this revision the responsibility for providing the dose calculations will remain in the TSC. The TSC personnel will provide the results of the dose calculations to the EOF personnel for their use in the classification of the event. The EOF personnel will have the capability to perform routine dose calculations and will perform the study case calculations. Having the capability to perform dose calculations in the EOF meets the guidance of NUREG-0696. Therefore, having the TSC retain responsibility for dose calculations does not reduce the effectiveness of the Emergency Plan.

3. ERDS

Currently ERDS is located in the EOF and must be activated within one hour of an Alert classification. In this revision the ERDS will be relocated to the control structure and activated by TSC personnel. This change meets the requirements for ERDS and does not reduce the effectiveness of the Emergency Plan.

4. NRC Near Site Location

Currently the NRC's near site location is the EOF. In relocating the EOF to Wilkes-Barre, the new NRC near site location will be in the TSC. Sufficient space has been allocated for NRC personnel.

All changes to the Emergency Plan are shown on the mark up pages in Attachment 3.

**STATE AND LOCAL COUNTY REVIEW**

The proposed changes have been reviewed with both local counties (Columbia and Luzerne) and the Commonwealth of Pennsylvania. The local counties and the Commonwealth of Pennsylvania do not object to the moving of the EOF. PP&L will continue to work with the counties and Commonwealth of Pennsylvania to assure that any comment they may have are resolved.

**IMPLEMENTATION**

PP&L requests that this revision be approved as soon as possible in order to support our plan to accomplish the move this year.

If you have any questions, please contact Mr. C. T. Coddington at (610) 774-7915.

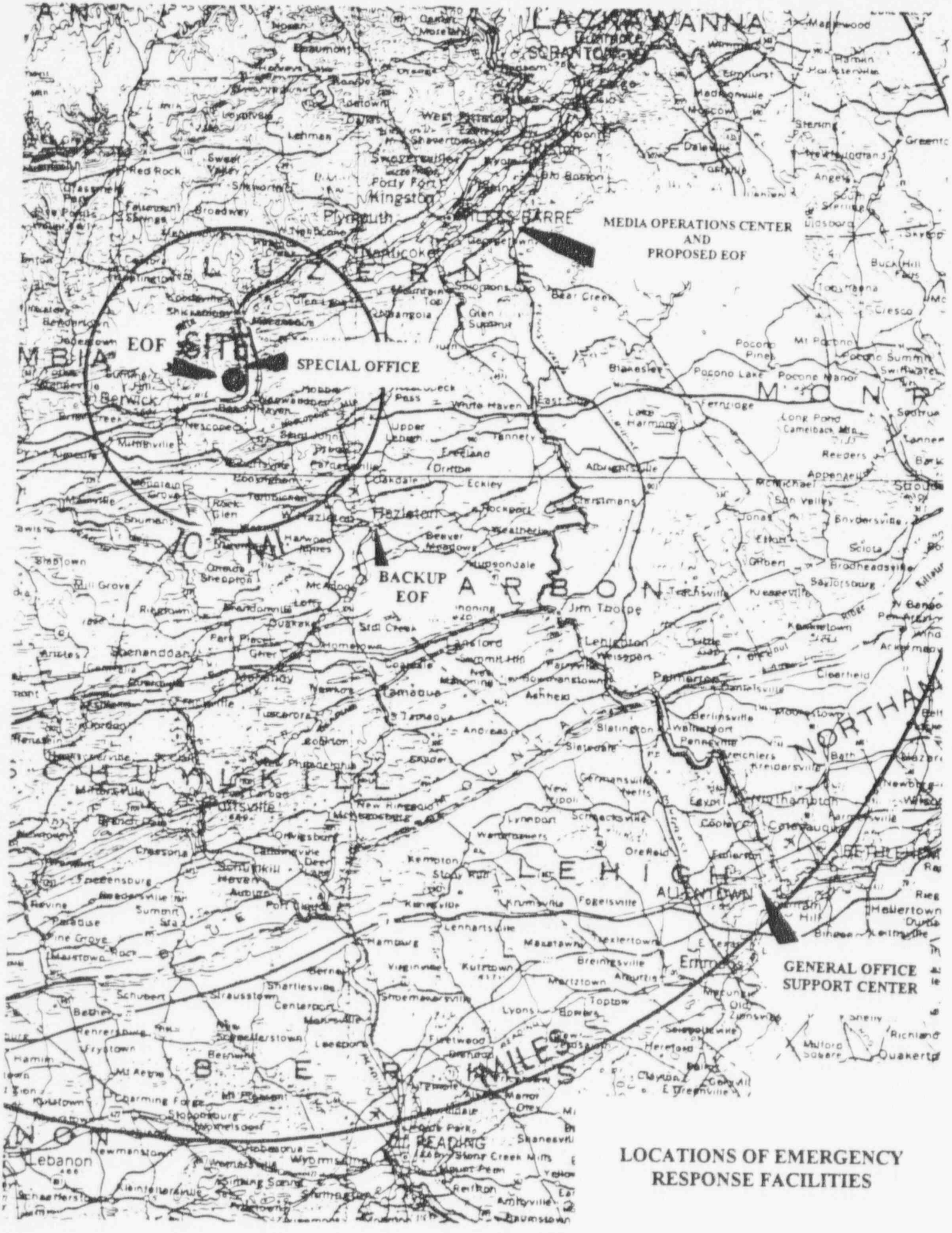
Very truly yours,

R. G. Byram

Attachment

cc: NRC Region I
Ms. M. Banerjee NRC Sr. Resident Inspector-SSES
Mr. R. Keimig Section Chief-Region I
Mr. C. Poslusny, Jr. NRC Sr. Project Manager-OWFN

Attachment 1


MEDIA OPERATIONS CENTER
AND
PROPOSED EOF
SPECIAL OFFICE
BACKUP
EOF
GENERAL OFFICE
SUPPORT CENTER
LOCATIONS OF EMERGENCY
RESPONSE FACILITIES

Attachment 2

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**********************************
***        DRILL DATA          ***
***  EMERGENCY DATA SUPPORT    ***
***  MEDIA OPERATIONS CENTER   ***
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PP&L TECHNICAL PARAMETERS
DATA SHEET 1 OF 3

DATE 09/13/94
TIME 09:33:05

| PT IDENT | DESCRIPTION | UNIT 1 DATA | UNIT 1 STAT | UNIT 2 DATA | UNIT 2 STAT | UNITS | NORMAL VALUES |
|---|---|---|---|---|---|---|---|
| NM551 | APRM A FLUX LEVEL | 0.00 | | 100.56 | | %PWR | 0 (SHUTDOWN) |
| NN109 | IRM A FLUX | 0.24 | | 13.27 | | % | 0 (SHUTDOWN) |
| NN10012 | SRM A LOG COUNT RATE | 6.92E+01 | | 0.00E-01 | B | CPS | 20 - VARIABLE |
| NM60022 | EX CORE LOG POWER A | 0.00 | B | 0.00 | B | %PWR | 0 (SHUTDOWN) |
| NBL0022 | WIDE RANGE RX LVL D | 24.38 | | 0.00 | B | INCHES | -150 - +60 |
| NFP51 | REACTOR PRESS SRU 4 | 802.84 | | 1032.75 | | PSIG | 0 - 1030 |
| NRT52 | RECIRC LOOP A PP SUCT TE | 463.32 | | 525.91 | | DEG F | 0.00 - 540.00 |
| NXL01 | SLC STOR TNK LVL | 186.21 | | 4775.00 | | GAL | 4600.0 - 5100.0 |
| NGF01 | HPCI PP DSCH LINE FLOW | 0.00 | | 299.99 | | GPM | 0 - 5000 |
| NIF01 | RCIC FLOW | 0.00 | | 0.00 | | GPM | 0 - 600 |
| NHF01 | RHR SYS A FLOW | 9779.38 | | 1060.64 | | GPM | 0 - 28000 |
| NHF02 | RHR SYS B FLOW | 0.00 | | 0.00 | | GPM | 0 - 28000 |
| MAT0012 | CONTN ATM TEMP 1A | 174.23 | | 0.00 | B | DEG F | 125 - VARIABLE |
| MAP0032 | DRYWELL PRESS A LOCA RNG | 6.53 | | 0.00 | B | PSIG | 0.3 |
| MAP0042 | DRYWELL PRESS B LOCA RNG | 6.53 | | 0.00 | B | PSIG | 0.3 |
| MAT0102 | SUPP CHAMBER ATM TEMP A | 109.58 | | 0.00 | B | DEG F | 80 - VARIABLE |
| MAL0032 | SUPPRESSION POOL LEVEL A | 24.68 | | 0.00 | B | FEET | 22.0 - 24.0 |
| MAL0042 | SUPPRESSION POOL LEVEL B | 24.68 | | 0.00 | B | FEET | 22.0 - 24.0 |
| MAT37 | SUP POOL D1 BULK TEMP | 111.88 | | 77.66 | | DEG F | 80 - VARIABLE |
| MAT38 | SUP POOL D2 BULK TEMP | 111.88 | | 78.17 | | DEG F | 80 - VARIABLE |
| CSL01 | COND STORAGE TANK 1 LVL | 68.10 | | 80.13 | | % | 0 - 80 |
| CSL02 | COND STORAGE TANK 2 LVL | 69.23 | | 77.94 | | % | 0 - 80 |
| MAR0012 | CONTNM ACC RANG HI RAD A | 8.54E-01 | | 0.00E-01 | B | R/HR | 2.0 (100% POWER, NO FUEL FAILURES) |
| MAR0022 | CONTNM ACC RANG HI RAD B | 1.02E+00 | | 0.00E-01 | B | R/HR | 2.0 (100% POWER, NO FUEL FAILURES) |
| PAR07 | ARM-07-OFFGAS BYP AREA | 0.29 | | 0.86 | | MR/H | 3.8 |
| MAR0052 | OFFGAS PRETREAT RAD A | 3.13E+01 | | 0.00E-01 | B | MR/H | 34 |
| MAR0062 | OFFGAS PRETREAT RAD B | 3.02E+01 | | 0.00E-01 | B | MR/H | 34 |
| MAR07 | RBCCW RAD | 8.00E+01 | | 7.05E+00 | | CPS | 60 |
| MAR0082 | SW EFFLUENT RAD | 6.42E+02 | | 0.00E-01 | B | CPS | 980 |
| MAR01 | MAIN STEAM LINE RAD A | 5.45E+01 | | 4.49E+02 | | MR/H | 1052 |
| MAR02 | MAIN STEAM LINE RAD B | 4.16E+01 | | 6.34E+02 | | MR/H | 698 |
| MAR03 | MAIN STEAM LINE RAD C | 3.60E+01 | | 7.01E+02 | | MR/H | 564 |
| MAR04 | MAIN STEAM LINE RAD D | 2.50E+01 | | 1.03E+03 | | MR/H | 739 |
| PAR15 | ARM-15-REFUEL FLR- NORTH | 1.50 | | 0.37 | | MR/H | 0.16 |
| SCPR | SUPPRESSION CHAMBER PRESS | 2.98 | | 0.00 | B | PSIG | -0.01 |

STATUS CODES (BLANK=GOOD, B=BAD, D=DELETED FROM SCAN, S=SUBSTITUTED, ?=SUSPECT DATA)

NOTE(S):
UNIT 2 SPDS COMPUTER - RDAS LINK IS DOWN. ALL UNIT 2 SPDS DATA IS BAD.

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**********************************************
***              DRILL DATA                ***
*** EMERGENCY RESPONSE DATA SYSTEM         ***
***      MEDIA OPERATIONS CENTER           ***
**********************************************
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DATE 09/13/94
TIME 09:33:05

CRITICAL SAFETY FUNCTION PARAMETERS
DATA SHEET 2 OF 3

| PT IDENT | DESCRIPTION | UNIT 1 DATA | UNIT 1 STAT | UNIT 2 DATA | UNIT 2 STAT | UNITS |
|---|---|---|---|---|---|---|
| **REACTIVITY CONTROL** | | | | | | |
| PWR | NUCLEAR INSTRUMENTS, POWER RANGE | 0.00 | B | 0.00 | B | % |
| NN109 | NUCLEAR INSTRUMENTS, INTER RNG A | 0.24 | | 13.12 | | % |
| NN112 | NUCLEAR INSTRUMENTS, INTER RNG D | 31.15 | | 10.75 | | % |
| NN115 | NUCLEAR INSTRUMENTS, INTER RNG G | 6.52 | | 8.75 | | % |
| NN116 | NUCLEAR INSTRUMENTS, INTER RNG H | 30.23 | | 10.65 | | % |
| NNX01 | IRM A RANGE SWITCH POSITION | 645.00 | | 3.00 | | |
| NNX04 | IRM D RANGE SWITCH POSITION | 67.39 | | 3.00 | | |
| NNX07 | IRM G RANGE SWITCH POSITION | 6.52 | | 3.00 | | |
| NNX08 | IRM H RANGE SWITCH POSITION | 0.00 | B | 3.00 | | |
| NNZ54 | IRM DET(S) NOT FULL POSITION | NO | | NO | | NO/YES |
| NNZ59 | IRM BYPASS | NO | | NO | | NO/YES |
| NN10012 | NUCLEAR INSTRUMENTS, SOURC RNG A | 6.87E+01 | | 0.00E-01 | B | CPS |
| NN10022 | NUCLEAR INSTRUMENTS, SOURC RNG B | 6.87E+01 | | 0.00E-01 | B | CPS |
| NN10032 | NUCLEAR INSTRUMENTS, SOURC RNG C | 6.82E+01 | | 0.00E-01 | B | CPS |
| NN10042 | NUCLEAR INSTRUMENTS, SOURC RNG D | 7.09E+01 | | 0.00E-01 | B | CPS |
| NPY0012 | SRM POSITION A | IN | | NOT IN | B | NOT IN/IN |
| NPY0022 | SRM POSITION B | IN | | NOT IN | B | NOT IN/IN |
| NPY0032 | SRM POSITION C | IN | | NOT IN | B | NOT IN/IN |
| NPY0042 | SRM POSITION D | IN | | NOT IN | B | NOT IN/IN |
| **CORE COOLING** | | | | | | |
| RWL | REACTOR VESSEL WATER LEVEL | 16.69 | | 0.00 | B | INCHES |
| NFF52 | FEEDWATER FLOW A INTO REACT SYST | 0.00 | | 4.70 | | MLBS/H |
| NFF53 | FEEDWATER FLOW B INTO REACT SYST | 0.00 | | 4.73 | | MLBS/H |
| NFF54 | FEEDWATER FLOW C INTO REACT SYST | 0.00 | | 4.66 | | MLBS/H |
| NIF01 | REACTOR CORE ISOLAT COOLING FLOW | 0.00 | | 0.00 | | GPM |
| **RCS INTEGRITY** | | | | | | |
| RXPR | REACTOR COOLANT SYSTEM PRESSURE | 811.78 | | 0.00 | B | PSIG |
| NCF01 | HIGH PRESSURE COOLANT INJEC FLOW | 0.00 | | 299.99 | | GPM |
| NHF01 | LOW PRESS COOLANT INJECT A FLOW | 9779.38 | | 1060.64 | | GPM |
| NHF02 | LOW PRESS COOLANT INJECT B FLOW | 0.00 | | 0.00 | | GPM |
| _PCS | CORE SPRAY COOLING SYSTEM FLOW | 0.00 | | 0.00 | B | GPM |
| RLL0042 | DRYWELL FLOOR DRAIN SUMP LEVEL A | 0.00 | | 0.00 | B | % |
| RLL0052 | DRYWELL FLOOR DRAIN SUMP LEVEL B | 0.00 | | 0.00 | B | % |

STATUS CODES (BLANK=GOOD, B=BAD, D=DELETED FROM SCAN, S=SUBSTITUTED, ?=SUSPECT DATA)

NOTE(S):
UNIT 2 SPDS COMPUTER - RDAS LINK IS DOWN. ALL UNIT 2 SPDS DATA IS BAD.

DATE 09/13/94
TIME 09:33:05

CRITICAL SAFETY FUNCTION PARAMETERS (CONT.)
DATA SHEET 3 OF 3

| PT IDENT | DESCRIPTION | UNIT 1 DATA | UNIT 1 STAT | UNIT 2 DATA | UNIT 2 STAT | UNITS |
|---|---|---|---|---|---|---|
| **RADIOACTIVITY CONTROL** | | | | | | |
| EGRPRX1 | RAD OF RELEASED PART -RX 1 VENT | 1.05E+01 | B | | C | UCI/MIN |
| EGRIRX1 | RAD OF RELEASED I131 -RX 1 VENT | 1.35E+00 | B | | C | UCI/MIN |
| EGRNRX1 | RAD OF RELEASED NBLGAS-RX 1 VENT | 0.00E-01 | B | | C | UCI/MIN |
| EGRPRX2 | RAD OF RELEASED PART -RX 2 VENT | 8.54E-01 | | | C | UCI/MIN |
| EGRIRX2 | RAD OF RELEASED I131 -RX 2 VENT | 1.24E+00 | | | C | UCI/MIN |
| EGRNRX2 | RAD OF RELEASED NBLGAS-RX 2 VENT | 5.74E+02 | | | C | UCI/MIN |
| EGRPTB1 | RAD OF RELEASED PART -TB 1 VENT | 2.82E+00 | B | | C | UCI/MIN |
| EGRITB1 | RAD OF RELEASED I131 -TB 1 VENT | 1.79E+00 | B | | C | UCI/MIN |
| EGRNTB1 | RAD OF RELEASED NBLGAS-TB 1 VENT | 0.00E-01 | | | C | UCI/MIN |
| EGRPSGTS | RAD OF RELEASED PART -SGTS VENT | 3.74E-02 | B | | C | UCI/MIN |
| EGRISGTS | RAD OF RELEASED I131 -SGTS VENT | 5.06E-02 | B | | C | UCI/MIN |
| EGRNSGTS | RAD OF RELEASED NBLGAS-SGTS VENT | 3.99E+01 | | | C | UCI/MIN |
| EGRPTB2 | RAD OF RELEASED PART -TB 2 VENT | 1.53E+00 | | | C | UCI/MIN |
| EGRITB2 | RAD OF RELEASED I131 -TB 2 VENT | 2.08E+00 | | | C | UCI/MIN |
| EGRNTB2 | RAD OF RELEASED NBLGAS-TB 2 VENT | 8.56E+02 | | | C | UCI/MIN |
| EGRPSITE | RAD OF RELEASED PART -SITE TOTL | 1.57E+01 | ? | | C | UCI/MIN |
| EGRISITE | RAD OF RELEASED I131 -SITE TOTL | 6.51E+00 | ? | | C | UCI/MIN |
| EGRNSITE | RAD OF RELEASED NBLGAS-SITE TOTL | 1.47E+03 | ? | | C | UCI/MIN |
| VDR001Z | RADIOACTIVITY OF RELEASED LIQ'DS | 1.18E+03 | | 0.00E-01 | B | CPM |
| VDF001Z | LRW DISCHARGE FLOW | 0.00 | B | 0.00 | B | GPM |
| PCA | RADIATION LEVEL IN THE DRYWELL | 9.39E-01 | | 0.00E-01 | B | R/HR |
| NAR01 | RADIATION LVL OF MAIN STM LINE A | 5.33E+01 | | 4.49E+02 | | MR/H |
| NAR02 | RADIATION LVL OF MAIN STM LINE B | 4.07E+01 | | 6.34E+02 | | MR/H |
| NAR03 | RADIATION LVL OF MAIN STM LINE C | 3.52E+01 | | 7.01E+02 | | MR/H |
| NAR04 | RADIATION LVL OF MAIN STM LINE D | 2.45E+01 | | 1.03E+03 | | MR/H |
| **CONTAINMENT CONDITIONS** | | | | | | |
| DWPR | DRYWELL PRESSURE | 6.57 | | 0.00 | B | PSIG |
| DWT | DRYWELL TEMPERATURE | 173.87 | | 0.00 | B | DEGF |
| SPT | SUPPRESSION POOL TEMPERATURE | 112.25 | | 0.00 | B | DEGF |
| SPWL | SUPPRESSION POOL WATER LEVEL | 24.70 | | 0.00 | B | FEET |
| HYDGN | DRYWELL HYDROGEN CONCENTRATION | 1.68 | | 0.00 | B | % |
| OXYGN | DRYWELL OXYGEN CONCENTRATION | 5.05 | | 0.00 | B | % |
| **MISCELLANEOUS PARAMETERS** | | | | | | |
| CSL01 | CONDENSATE STORAGE TANK 1 LEVEL | 68.10 | | 80.13 | | % |
| CSL02 | CONDENSATE STORAGE TANK 2 LEVEL | 69.23 | | 77.94 | | % |
| METULS | WIND SPEED AT REACTOR SITE -60M | 9.00 | | | C | MPH |
| METLLS | WIND SPEED AT REACTOR SITE -10M | 4.00 | | | C | MPH |
| METULD | WIND DIR AT THE REACT SITE -60M | 229.00 | | | C | DEGFR |
| METLLD | WIND DIR AT THE REACT SITE -10M | 218.00 | | | C | DEGFR |
| METSTAB | AIR STABILITY AT THE REACT SITE | A | | | C | STABA |
| EXERCISE | EXERCISE DATA | YES | | | C | NO/YES |

STATUS CODES (BLANK=GOOD, B=BAD, D=DELETED FROM SCAN, S=SUBSTITUTED, ?=SUSPECT DATA, C=COMMON: DATA IN UNIT 1 COLUMN ONLY)

NOTE(S):
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Attachment 3

# TABLE OF CONTENTS

## LISTING OF TABLES

## LISTING OF FIGURES



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# 1.0 DEFINITIONS

1.1 ACCIDENT - An unforeseen and unintentional event which may result in an emergency.

1.2 ALERT - An Emergency Condition, see definition 1.14.

1.3 ASSESSMENT ACTIONS - Those actions taken during or after an incident to obtain and process information that is necessary to make decisions to implement specific emergency measures.

1.4 CDE - The Committed Dose Equivalent; dose to an organ due to an intake of radioactive material consumed over a 50 year period.

1.5 COLUMBIA COUNTY EMERGENCY MANAGEMENT AGENCY (CEMA) - Emergency response coordinating agency for Columbia County, responsible for implementing off-site action upon direct notification from Susquehanna SES or PEMA.

1.6 CONTROL ROOM - The location of the Control Panels from which the reactor and its auxiliary systems are controlled.

1.7 CORPORATE MANAGEMENT COMMITTEE (CMC) - The PP&L Management group which determines major policy commitments for the company. The CMC membership includes the President of the company, and the other top executives.

1.8 CORRECTIVE ACTIONS - Those emergency measures taken to ameliorate or terminate an emergency situation.

1.9 DEPARTMENT OF ENVIRONMENTAL RESOURCES/BUREAU OF RADIATION PROTECTION (DER/BRP) - The State-level agency responsible to provide guidance and recommendations for specific off-site protective measures.

1.10 DOSE PROJECTION - A calculated estimate of the potential radiation dose to individuals at a given location, normally offsite, (determined from the quantity of radioactive material released and the appropriate meteorological transport and dispersion parameters).

1.11 DOSE RATE - The amount of radiation an individual can potentially receive per unit of time.

1.12 EMERGENCY ACTION LEVELS (EAL) - Operational or radiological parameters which, when exceeded, require the implementation of portions of this plan. EALs for various emergency conditions are specified in Table 5.1.

1.13 EMERGENCY ACTIONS - Those steps taken, as a result of exceeding an Emergency Action Level in the Emergency Plan, to ensure that the situation is assessed and that the proper corrective and/or protective actions are taken.

1.14 EMERGENCY CONDITION - The characterization of several classes of emergency situations consisting of exclusive groupings including the entire spectrum of possible radiological emergency situations. The four classes of emergencies, listed in increasing severity, which PP&L has incorporated into this Emergency Plan are outlined in Section 5.0 of this plan.

1.15 EMERGENCY COORDINATORS - Designated Susquehanna SES staff members responsible for coordinating specific emergency organization functions.

1.16 EMERGENCY DIRECTOR - The PP&L individual responsible for direction of onsite activities during an emergency at the Susquehanna SES.

1.17 EMERGENCY MANAGERS - Designated Susquehanna SES and General Office Personnel who are responsible for managing specific emergency organization functions.

1.18 EMERGENCY OPERATIONS CENTERS - Designated State and county emergency management agency headquarters facilities, designed and equipped for the purpose of exercising effective coordination and control over disaster operations carried out within their jurisdiction. located with the MOC in Plains Township, Pennsylvania

1.19 EMERGENCY OPERATIONS FACILITY - PP&L Emergency Response Facility ~~located near the reactor site~~ to provide continuous coordination and evaluation of PP&L activities during an emergency having or potentially having environmental consequences.

1.20 EMERGENCY PLAN BOUNDARY - Same as the legal site boundary with the exception of those sectors which border on U.S. Route 11, where Route 11 forms the boundary; used to calculate offsite dose rates, project dose to the public and to determine necessary protective actions.

1.21 EMERGENCY PLAN IMPLEMENTING PROCEDURES - Specific procedures defining in detail the action to be taken in the event of an emergency condition. The Emergency Plan Implementing Procedures will be separate from, but may incorporate and refer to, normal plant operating procedures and instructions and Emergency Plan Position Specific Procedures.

1.22 EMERGENCY PLANNING ZONE - There are two Emergency Planning Zones. The first is an area, approximately ten (10) miles in radius around the Susquehanna SES, for which emergency planning consideration of the plume exposure pathway has been given in order to ensure that prompt and effective actions can be taken to protect the public in the event of an accident. The second is an area approximately 50 miles in radius around the Susquehanna SES, for which emergency planning consideration of the ingestion exposure pathway has been given.

1.23 EMERGENCY PLAN POSITION SPECIFIC PROCEDURES - Procedures describing how to perform tasks assigned to emergency positions. Each procedure includes an overview of the position's tasks, detailed instructions, and relevant material. Used together, these procedures are designed to implement the Emergency Plan during a declared emergency.

1.24 EXCLUSION AREA - That area around Susquehanna SES within a radius of 1,800 feet (see Figure 8.1) determined in accordance with 10CFR100.11.

1.25 FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) - Within the context of this plan, serves as the primary contact for requests for Federal assistance; lead coordinator all non-technical federal response.

1.26 GENERAL EMERGENCY - An Emergency Classification. See definition 1.14.

~~1.27 GENERAL OFFICE ENGINEERING SUPPORT CENTER - The general office area activated for Nuclear Plant Engineering resources in support of technical problem resolution.~~

27
1.~~28~~ LDE - Lens Dose Equivalent; the external exposure to the lens of the eye.

28
1.~~29~~ LUZERNE COUNTY EMERGENCY MANAGEMENT AGENCY (LCEMA) - The host county emergency response coordinating agency, responsible for implementing off-site action upon either direct notification from the Susquehanna SES or from PEMA.

29
1.~~30~~ MEDIA OPERATIONS CENTER - The designated location from which news releases, press conferences and other media interfacing can be provided.

30
1.~~31~~ NUCLEAR REGULATORY COMMISSION (NRC) - Within the context of this plan, the Federal agency responsible for verifying that appropriate emergency plans have been implemented and for conducting investigative activities associated with a radiological emergency.

31
1.~~32~~ OFFSITE - Any area outside the PP&L site boundary surrounding the Susquehanna SES.

32
1.~~33~~ OFFSITE RADIOLOGICAL INCIDENT - Any radiation incident affecting areas beyond the site boundary and posing a significant threat to public health and safety.

33
1.~~34~~ ONSITE - The area within the PP&L site boundary surrounding Susquehanna SES.

34
1.~~35~~ OPERATIONAL SUPPORT CENTER (OSC) - The primary on-site assembly area for operations support team personnel during the initial phase of an emergency.

35
1.~~36~~ PENNSYLVANIA EMERGENCY MANAGEMENT AGENCY (PEMA) - Within the context of this plan, the lead state-agency for radiological emergency planning, response and recovery and for providing guidance to local government for development of radiological emergency plans and programs.

1.36 PLANT PROCEDURES - Those procedures utilized by the plant operations staff to control and manipulate the plant under both normal and abnormal circumstances.

1.37 POWER DISPATCHER - Individual manning the PP&L Power Control Center in the corporate headquarters in Allentown.

1.38 PROTECTED AREA - The area within the station inner security fence (Protected Area Barrier) designated to implement the requirements of 10CFR73.

1.39 PROTECTIVE ACTION GUIDES (PAG) - The projected dose to reference personnel, or other defined individual, from an unplanned release of radioactive material at which a specific protective action to reduce or avoid that dose is recommended.

1.40 PROTECTIVE ACTIONS - Those emergency measures taken for the purpose of preventing or minimizing off-site radiological exposures.

1.41 RADIATION DOSE - The quantity of radiation absorbed by the body or any portion of the body. A rem is a unit of dose measurement.

1.42 RADIOACTIVE MATERIAL - Any solid, liquid, or gas which emits radiation spontaneously.

1.43 RADIOLOGICAL EMERGENCY RESPONSE TEAM (RERT) - The response team from the Division of Radiological Health, State Board of Health, Pennsylvania Emergency Management Agency, and other State agencies, which will be dispatched to the scene of radiological emergencies. The team provides technical guidance and other services to local governments or an affected nuclear facility.

1.44 RADIOLOGICALLY CONTROLLED AREA (RCA) - The area enclosed by the outer perimeter of the Turbine, Reactor, Radwaste Buildings for the operating Units, portions of the Low Level Rad Waste Handling Facility and other areas designated by Health Physics.

1.45 RADIOLOGICALLY CONTROLLED AREA EVACUATION - Evacuation of nonessential individuals from some or all of the Radiologically Controlled Area.

1.46 RECOVERY ACTIONS - Those actions taken after the emergency to restore the plant as nearly as possible to its pre-emergency condition.

1.47 RECOVERY MANAGER - The PP&L individual responsible for the management of emergency response activities during an emergency at Susquehanna SES.

1.48 REM (Acronym for roentgen equivalent man) - A unit of measure of radiation dose in biological tissue.

1.49 REMOTE ASSEMBLY AREA - A designated area, outside the exclusion area, for the assembly of evacuated plant personnel, if necessary, during a Site Evacuation.

50
1.[illegible] SDE - Shallow Dose Equivalent; external exposure of the skin or extremity which is measured at 0.007 cm in tissue.

51
1.[illegible] SITE AREA EMERGENCY - An Emergency Condition. See definition 1.14.

52
1.[illegible] SITE EVACUATION - Evacuation of all nonessential personnel within the plant site area (the fenced in area of Susquehanna SES).

53
1.[illegible] STATE - The Commonwealth of Pennsylvania.

54
1.[illegible] STATION ASSEMBLY AREA - An area designated for the assembly of specific groups of individuals for the purpose of personnel accountability.

55
1.[illegible] TECHNICAL SUPPORT CENTER - A designated on-site location where the conditions during and after an accident can be analyzed to provide technical and radiological assessments of the accident to the Emergency Director.

56
1.[illegible] TEDE - Total Effective Dose Equivalent; integrated doses consisting of the sum of external doses from plume shine, 50 year committed effective dose equivalent from inhalation (CEDE), and 4 day ground shine doses.

57
1.[illegible] THYROID DOSE - Radiation exposure to the thyroid through inhalation or ingestion of radioactive materials.

58
1.[illegible] UNUSUAL EVENT - An Emergency Condition. See definition 1.14.

59
1.[illegible] WHOLE BODY EXPOSURE - Direct radiation exposure to the body from external sources.

# 2.0 ACRONYMS

| | | |
|---|---|---|
| 2.1 | ANS - | Alert Notification System |
| 2.2 | ARM - | Area Radiation Monitors |
| ~~2.3~~ | ~~BEOF -~~ | ~~Backup Emergency Operations Facility~~ |
| 2.3 | CAM - | Continuous Air Monitors |
| 2.4 | CEMA - | Columbia County Emergency Management Agency |
| 2.5 | CREOASS - | Control Room Emergency Outside Air Supply System |
| 2.6 | CTN - | Centrex Telephone Network |
| 2.7 | DAC | Derived Air Concentration |
| 2.8 | DCC - | Document Control Center |
| 2.9 | DER/BRP - | Department of Environmental Resources/Bureau of Radiological Protection |
| 2.10 | DOE - | U.S. Department of Energy |
| 2.11 | EAL - | Emergency Action Levels |
| 2.12 | ECCS - | Emergency Core Cooling Systems |
| 2.13 | ED - | Susquehanna Emergency Director |
| 2.14 | EMA - | Emergency Management Agency |
| 2.15 | EMC - | Emergency Management Coordinator (Municipality) |
| 2.16 | EOC - | Emergency Operations Center |
| 2.17 | EOF - | Emergency Operations Facility |
| 2.18 | EP - | Susquehanna SES Emergency Plan |
| 2.19 | EP-PS - | Emergency Plan Position Specific Procedures |
| 2.20 | EPZ - | Emergency Planning Zone |
| 2.21 | ERDS - | Emergency Response Data System |
| 2.22 | ERF - | Emergency Response Facility |
| 2.23 | ETN - | Electronic Tandem Network |
| 2.24 | FEMA - | Federal Emergency Management Agency |
| 2.25 | FPC - | Fuel Pool Cooling |
| 2.26 | FSAR - | Susquehanna SES Final Safety Analysis Report, Units 1 and 2 |
| 2.27 | FTS - | Federal Telecommunications System |
| ~~2.29~~ | ~~GOESC -~~ | ~~General Office Engineering Support Center~~ |
| 2.28 | HPCI - | High Pressure Coolant Injection System |
| 2.29 | LCEMA - | Luzerne County Emergency Management Agency |
| 2.30 | LCO - | Limiting Condition for Operation |
| 2.31 | LER - | License Event Report |
| 2.32 | LOCA - | Loss of Coolant Accident |
| 2.33 | MIDAS | Meteorological Information and Dose Assessment System |
| 2.34 | MOC - | Media Operations Center |
| 2.35 | MSIV - | Main Steam Isolation Valve |
| 2.36 | MSL - | Main Steam Line |
| 2.37 | NERO - | PP&L Nuclear Emergency Response Organization |
| 2.38 | NRC - | U.S. Nuclear Regulatory Commission |
| 2.39 | ODCM - | Offsite Dose Calculation Manual |
| 2.40 | OSC - | Operations Support Center |

| | |
|---|---|
| PAGs - | EPA Protective Action Guides |
| PASS - | Post Accident Sampling System |
| PCS - | Plant Computer System |
| PEMA - | Pennsylvania Emergency Management Agency |
| PNS - | Public Notification System |
| PORC - | Plant Operations Review Committee |
| PP&L - | Pennsylvania Power & Light Company |
| PSP - | Pennsylvania State Police |
| RCIC - | Reactor Core Isolation Cooling |
| RDAS - | Remote Data Analysis System |
| RHR - | Residual Heat Removal |
| RPS - | Reactor Protection System |
| Rx - | Reactor |
| SGTS - | Standby Gas Treatment System |
| SLC - | Standby Liquid Control |
| SOP - | Special Office of the President |
| SPDS - | Safety Parameter Display System |
| SPINGs - | System Particulate, Iodine, and Noble Gas Monitor (Vent Monitoring System) |
| SRC - | Susquehanna Review Committee |
| SRMS - | Susquehanna Records Management System |
| SSE - | Safe Shutdown Earthquake |
| SSES - | Susquehanna Steam Electric Station |
| TR - | Temperature Recorder |
| TSC - | Technical Support Center |
| UMC - | Unit Monitoring Console (PCS) |
| UPS - | Uninterruptable Power Supply |

# 6.0 ORGANIZATIONAL CONTROL OF EMERGENCIES

PP&L's Emergency Plan is based upon a four phase approach to accident response and mitigation.

Phase I - Immediate Response (Reference Figure 6.3 and Table 6.1). Phase I consists of identification of the emergency condition, initiation of prompt corrective action and initiation of prompt notification to local, state and federal agencies as well as appropriate members of PP&L's NERO. This initial phase is implemented by the on-shift organization. The on-shift organization has been staffed and trained to be capable of both safely operating the unit and quickly and effectively responding to an emergency condition. Initially, the Shift Supervisor, the highest ranking management individual on-shift, will assume the role of ED.

The Shift Supervisor, as ED:

a) Classifies the condition.

b) Initiates corrective actions and coordinates emergency management activities.

c) Designates a communications coordinator to notify off-site agencies and initiate call-in of selected personnel.

d) Notifies plant personnel over the PA system for accountability and/or evacuation.

e) Designates an OSC Coordinator who organizes and directs in-plant emergency team functions.

f) Notifies the Vice President-Nuclear Operations or his designated alternate, informs him of the situation, and requests relief if appropriate. For conditions under an Unusual Event the Shift Supervisor is likely to remain as ED through termination of the condition, due to probable short duration or low severity of the event.

g) Ensures that on-site emergency response individuals and groups are notified, using the PA system or direct communications. Depending on the nature and severity of the condition, TSC staffing may be called out.

h) Ensures that initial dose projections are done and makes resulting recommendations regarding off-site protective actions.

i) Ensures that off-duty station personnel are notified to assist as necessary with emergency activities. These notifications are made, via the radio paging system or by telephone backup, to individuals designated for off-duty availability status to fill key emergency response positions. Those key positions are identified in Section 6.0. Other off-duty personnel are called in as required.

Upon activation of Phase II, additional personnel are available, and control and dissemination of in-plant teams shifts from the CSC to the TSC.

Phase II - Activation of On-Site NERO - (Reference Figure 6.3 and Table 6.2) Upon notification by the on-shift organization, the VP-Nuclear Operations or his designated alternate, reports to the site to assume the role of ED. Support coordinators and staffs in areas of technical assessment, radiological assessment and operational coordination also report to the site. These individuals form the nucleus of the ED's Team and activate the TSC. The TSC is fully functional within 30 to 60 minutes of initial notification. As the ~~Plant Superintendent~~ VP-Nuclear Operations and his support coordinators arrive, they are briefed by the Shift Supervisor and then, in turn, assume responsibility from the Shift Supervisor for their particular areas of expertise. Emergency management activities, including communications, are under the control of the ~~Plant Superintendent~~ or his designated alternate; dose projection and assessment activities are directed by the Radiation Protection Coordinator; technical expertise is directed by the Tech Support Coordinator, the Operations Coordinator oversees Operations activities and the Damage Control Team Coordinator oversees in-plant damage control actions. The TSC takes over all emergency management and support activities from the on-shift organization, freeing them to devote their efforts towards establishing and maintaining the plant in a safe, stable condition.

Phase III - Activation of Off-site NERO - (Reference Figures 6.2~~A~~, ~~6.2b~~, 6.4, ~~6.5~~ and Table 6.2). This organization staffs the Emergency Operations Facility, ~~General Office Engineering Support Center~~, and Media Operations ~~Facility~~ Center to provide in-depth technical and off-site radiological assessment.

Insert 1 →

~~The Emergency Operations Facility is activated automatically at a Site Area Emergency, but can be activated earlier at the discretion of the Emergency Director or Recovery Manager. Upon activation of the Emergency Operations Facility, personnel shall report to the EOF and be prepared for full functional operation within one hour.~~

Functional operation will include:

- Management of overall emergency response
- Coordination of radiological and environmental assessment
- Determination of recommended protective actions
- Coordination of emergency response activities with Federal, State, local county and municipal agencies

~~Site based EOF personnel will be notified and report to the EOF at an ALERT classification to prepare the facility should activation become necessary. The EOF is initially staffed by Site personnel at an Alert classification. Upon activation, General Office personnel will be notified and report to the EOF as soon as reasonably possible.~~

~~NOTE: Site based personnel are capable of fully activating the Emergency Operations Facility.~~

INSERT 1

The Emergency Operations Facility is activated automatically at an Alert or higher emergency classification. Upon activation of the Emergency Operations Facility, personnel shall report to the EOF and be prepared to take over management of the emergency from the TSC at a Site Area Emergency or higher classification. When the initial emergency classification is a Site Area Emergency or higher, the EOF will take over the management of the emergency within one hour of the declaration of a Site Area Emergency. At the discretion of the Emergency Director or Recovery Manager the EOF can be activated and take over management of the emergency earlier.

~~The General Office Engineering Support Center is also staffed by personnel from the General Office. It is activated within one hour of notification, directed by the Engineering Support Manager, interfacing with the TSC and EOF. The EOF and GOESC, upon activation, will relieve the Emergency Director and the on-site organization of external responsibilities, allowing them to devote their entire efforts to in-plant activities.~~

Phase IV - Restoration - This phase leads ultimately to the return to service of the unit. The organizational and philosophical concepts that are utilized during this phase are highly dependent upon the nature of the emergency. The restoration phase does not begin until there is complete assurance that the plant is in a stable shutdown condition and that there are no inadvertent or unplanned significant release of radioactivity to the environment.

## 6.1 NORMAL OPERATING ORGANIZATION

The normal Operating Organization during working hours is illustrated in Figure 6.1. Minimum shift response during off-hours is as follows:

| | |
|---|---|
| 1 | Shift Supervisor (SRO) |
| 1 | Unit Supervisor (SRO) |
| 1 | Assistant Unit Supervisor (RO) |
| 2* | Licensed Operators (RO) |
| 1 | Shift Technical Advisor |
| 3* | Non-Licensed Operators |
| 1* | Health Physics Technician |
| 1 | Chemistry Technician |
| 1 | Security Shift Supervisor |
| 1 | Assistant Security Shift Supervisor |
| 10 | Security Officers |

* per unit

## 6.2 ON-SITE EMERGENCY ORGANIZATION-(PHASE II)

### 6.2.1 Emergency Director

The Shift Supervisor assumes the role of ED until he is relieved by the VP-Nuclear Operations, or his designated alternate. Typical alternates are the Manager - Nuclear Maintenance and the Manager - Nuclear Plant Services. When the TSC is activated, and the Shift Supervisor is relieved, the Shift Supervisor reassumes responsibility for plant operating functions in the control room.

The Shift Supervisor ensures that the VP-Nuclear Operations, or designated alternate, is promptly notified of an emergency condition.

The ED assumes full responsibility for the implementation and administration of the Emergency Plan and is responsible for assuring continuity of resources until he relinquishes those

responsibilities to the Recovery Manager. The responsibility and authority of the ED are set forth in Appendix E.

The ED cannot relinquish any of the above responsibilities until the arrival of and assumption of responsibilities by the Recovery Manager at the EOF. At that time, he may relinquish any of the above responsibilities except those related to maintaining the Unit in a safe shutdown condition with adequate core cooling and no uncontrolled radioactive material releases.

If the ED cannot perform this function during the emergency, he will be succeeded by the Operations Coordinator until another qualified Emergency Director arrives to assume this responsibility.

Functional responsibilities of the ED include:

a) Immediately upon notification of an existing or potential emergency, report to the Control Room and initiate assessment activities, including classification of the emergency and dose projections if appropriate.

b) Unilaterally implement the immediate on-site corrective and protective actions to bring the incident under control and mitigate its effects.

c) Assure that appropriate notifications and recommendations to off-site organizations are made within 15 minutes.

d) Appoint Emergency Coordinators for assistance with current and continuing emergency control, but assume those responsibilities until the positions are filled.

e) Augment the on-site NERO with duty roster personnel and other available station staff members as dictated by the emergency condition.

f) Continue reassessment of emergency status and make appropriate recommendations including protective actions to off-site organizations.

g) Ensure that information released is accurate and released through the proper channels.

h) Activate Emergency Facilities described in Section 8.0.

i) Assign technical liaison to EOCs if requested.

j) Communicate with and provide information to the Recovery Manager, ~~EOF Support Manager,~~ and Public Information Manager, ~~and Engineering Support Manager.~~

k) Issuance of Radioprotective Drugs in accordance with prescribed procedures and should include consultation with the Radiation Protection Coordinator and medical consultants.

l) Taking essential corrective action which may involve the risk of emergency radiation exposure to NERO personnel. Table 7.2 provides the basic criteria for this decision.

m) Request Federal assistance to augment NERO capabilities as necessary. Such requests should be coordinated with PEMA and/or DER/BRP.

6.2.2 Operations Coordinator

This position is filled by the ~~Manager of Nuclear Operations~~ Day Shift Supervisor or a designated alternate. Typical alternates are ~~the Shift Supervisor or the Plant Scheduling Supervisor~~ SRO qualified personnel.

Responsibilities:

a) Direct Control Room and in-plant operational activities through the Shift Supervisor.

b) Advise the ED on plant operations.

6.2.3 TSC Communicator

This position is initially filled by a Plant Control Operator. When the TSC is activated this position is typically filled by simulator instructors from the Susquehanna Training Center.

Responsibilities:

a) Make proper notification to off-site organizations.

b) Initiate call-in procedures as requested by the ED.

c) Function as liaison for emergency-related communications between the ED and on-site and off-site emergency groups.

d) Maintain communications with the NRC.

e) Maintain records concerning the emergency.

6.2.4 Health Physics Network Communicator

This position is filled by qualified Health Physics personnel when the TSC is activated.

Responsibilities:

a) Communicate radiological data to the NRC via the Health Physics Network.

6.2.5 Radiation Protection Coordinator

This position is filled by the Health Physics Supervisor. Typical alternates for this position are the qualified Health Physics personnel.

Responsibilities:

a) Perform ~~initial~~ dose projection ~~and off-site environmental assessment until relieved by the Interim Radiation Support Manager or Radiation Support Manager.~~

b) Provide radiological advice to the ED concerning on-site emergency activities.

c) Provide off-site and on-site protective action recommendations to the ED.

d) Maintain communication with and provide information to the ~~Interim Radiation Support Manager and the Radiation Support Manager~~. Dose Assessment Supervisor.

e) Maintain communication with and provide radiological information to DER/BRP until relieved by the ~~Interim Radiation Support Manager or Radiation Support Manager~~. Dose Assessment Supervison

f) Provide on-site radiation monitoring personnel for effluent release assessment.

g) Provide radiation monitoring personnel for emergency team efforts.

h) Direct personnel and area contamination control and decontamination activities.

Insert 2 ->

6.2.6 Technical Support Coordinator

This position is filled by ~~the Engineering and Installation Planning Supervisor. Typical alternates for this position are~~ System Engineering ~~management~~ personnel. supervisory

Responsibilities:

a) Analyze mechanical, electrical, and instrument and control problems; determine alternate solutions, design and coordinate the installation of short-term modifications.

b) Analyze thermohydraulic and thermodynamic problems and develop solutions.

c) Assist in the development of procedures necessary for conducting emergency operations.

d) Analyze conditions and develop guidance for the ED and operations personnel.

e) Resolve questions concerning Operating License requirements with NRC representatives.

f) Maintain lead technical responsibility, coordinating dissemination of technical work assignments to EOF. ~~and GOESC~~.

g) Maintain communication with and provide technical information to DER/BRP Technical. ~~until relieved by the Lead Technical Support Staffer or Site Support Manager.~~

INSERT 2

i) Provide dose projections to Dose Assessment Supervisor.

j) Perform initial off-site environmental assessment until relieved by the Dose Assessment Supervisor.

6.2.7 Administrative Coordinator

This position is filled by the Supervisor - Site Support. Typical alternates are Site Support management personnel.

Responsibilities:

a) Coordinate provisions for transportation, food and other logistical support for emergency personnel.

b) Provide personnel and work schedules for relieving emergency personnel.

c) Act as liaison with outside groups in providing additional resources such as manpower, equipment, supplies and transportation.

6.2.8 Security Coordinator

This position is filled by the Manager - Nuclear Security. The typical alternate for this position is a Security Supervisor.

Responsibilities:

a) Maintain plant security and institute appropriate contingency measures.

b) Account for personnel in accordance with EP-PS's.

~~c) Provide access and traffic control for off-site PP&L locations such as the EOF.~~

6.2.9 OSC Coordinator

This position is filled by the Assistant Unit Supervisor. If the AUS is unavailable the Shift Supervisor will designate a replacement.

Responsibilities:

a) Direct the activities of the in-plant Emergency Teams such as damage control, fire brigade and first aid and rescue until relieved by the TSC.

***NOTE***

The fire brigade leader is the Assistant Unit Supervisor. However, the coordination of various team activities is the responsibility of the OSC Coordinator.

b) Coordinating the availability and assignment of personnel supporting activities for the ED and other NERO managers until relieved by the TSC.

6.2.10 Damage Control Team Coordinator

maintenance supervising personnel

The Damage Control Team Coordinator position is filled by ~~the Supervisor - Maintenance/Outage Production Services.~~ A typical alternate would be the Maintenance Production Services Supervisor.

Responsibilities:

a) Ensure damage control resources are allocated on the right priorities by assigning tasks to available resources.

b) Dispatch in-plant teams.

c) Communicate with Operations and the Technical Support Coordinator.

6.2.11 TSC Radio Communicator

This position is filled by a Maintenance or I&C Engineer.

Responsibilities:

a) Maintain radio communications with all in-plant teams.

b) Maintain an up-to-date status of in-plant radiological conditions.

c) Track dose levels of in-plant team members.

6.2.12 Maintenance/I&C Coordinators

The Maintenance Coordinator position is filled by Maintenance Management personnel. The I&C Coordinator position is filled by I&C Management personnel.

Responsibilities:

a) Organizing, briefing, dispatching, and directing, as necessary, the on-site damage control teams.

b) Providing personnel assistance and support to in-plant teams as necessary.

c) Supporting technical group activities and operations as necessary.

6.2.13 Chemistry Coordinator

The Chemistry Coordinator position is filled by an ANSI qualified chemist. A typical alternate for this position would be a Senior Chemist.

Responsibilities:

a) Assemble and direct the activities of chemistry personnel to assure information on plant status is accurate and available.

## 6.3 OFF-SITE RESOURCES AND ACTIVITIES (PHASE II)

Notification of the Recovery Manager is made for all levels of emergencies by the Communications Coordinator in the Control Room or TSC. An on-call duty roster is kept in the CR and TSC.

Insert A

~~For an Unusual Event or Alert, if the Recovery Manager decides to activate the off-site NERO, the Communications Coordinator directs the Security Controller to notify all required personnel by contacting Security to activate the paging system or by direct telephone contact from the SCC Controller.~~

~~For a Site Area or General Emergency, EOF activation is automatic. EOF staff is notified via a paging signal generated by SSES Security or direct telephone from the SCC Controller. Field team call-in is initiated by the NEP Duty Planner.~~

### 6.3.1 EOF Organization

#### 6.3.1.1 Interim Radiation Support Manager

This position is filled by management personnel from the site having a health physics background. Typical alternates would be the Supervisor-Modification Installation or the Supervisor-Nuclear General Training.

Responsibilities

a) Until arrival of the Radiation Support Manager, manage interim radiological functions in the EOF.

- Offsite dose calculations, projections, and assessment.
- Make protective action recommendations to the Recovery Manager.
- Communicate with DER/BRP Radiological.
- Control field monitoring teams.

#### 6.3.1.2 Interim Recovery Manager

This position is filled by site supervision having a technical background. Typical alternates would be the Supervisor-Chemistry or the Manager-Nuclear Information Services.

INSERT A

At the desecration of the Recovery Manager, the EOF can be activated at an Unusual Event.

Activation of the EOF is automatic at an Alert, Site Area Emergency, or General Emergency classification. NERO is notified of the facility activation by the Alternate Security Control Center using the telenotification system.

Responsibilities

a) Until arrival of the Recovery Manager, act as the company representative, contributing a prognosis, knowledge, and data to federal and state agencies, and assume responsibility for:

- PP&L's emergency response effort to assure priority issues are being addressed and a common understanding of the situation exists.
- Represent the company in discussions with state and federal agencies.
- Reclassify the emergency based on continuing assessment of the situation.
- Make protective action recommendations.

6.3.1 Recovery Manager

This position is filled by the ~~Manager-Nuclear Regulatory Affairs~~ Vice President - Nuclear Engineering. The typical alternate is the Manager-~~Nuclear Safety Assessment~~ Independent Safety Evaluation Services.

If the Recovery Manager cannot perform this function during the emergency, he will be succeeded by the ~~Interim Recovery Manager or~~ the Assistant Recovery Manager.

Responsibilities:

a) Providing continuous coordination and evaluation of PP&L activities during an emergency having or potentially having environmental consequences.

b) Managing overall PP&L emergency response and assuring continuity of resources.

c) Acting as lead interface with off-site government agency officials.

d) Assure appropriate notifications and recommendations to offsite organizations are timely.

e) Continue reassessment of emergency status and make appropriate recommendations including protective actions to off-site organizations.

f) Ensure that information released is accurate and made through proper channels.

g) Directing the activities of all other EOF managers.

h) Request Federal assistance to augment NERO capabilities as necessary. Such requests should be coordinated with PEMA and/or DER/BRP.

i) Consider assigning a representative to the State and to the risk county EOCs. If conditions result in implementation of the Federal Radiological Emergency Response

Plan, assign a representative to the Federal Response Center, to the Federal Radiological Monitoring and Assessment Center, and, to the Joint Information Center (most likely the PIM).

Insert B →

6.3.1.3 ~~Lead Technical Support Staffer~~ Engineering Support Supervisor

This position is typically filled by ~~qualified engineers~~. Nuclear Engineering supervisory personnel.

Responsibilities:

manage Engineering support resources in the EOF.

a) ~~Analyze technical and radiological data, identifying inconsistencies~~.
Provide technical support to aid in the decision making process

b) ~~Further the response organization's understanding of the accident.~~

~~c) Provide technical information to the Recovery Manager and offsite agencies.~~

6.3.1.4 ~~Site Support Manager~~ EOF Support Supervisor

This position is filled by ~~the~~ a Senior Project Engineer ~~Cost and Scheduling~~. Nuclear Training Group. A typical alternate for this position is the Manager-Nuclear Training.

Responsibilities:

~~a) Access in-plant technical and radiological information.~~

b) Provide analysis of in-plant data to the Recovery Manager.

~~c) Provide analysis of in-plant data and support the needs of Federal and State Agency personnel located in the EOF.~~

d) Oversee formal communications leaving the EOF.

Insert C →

6.3.1.6 Administrative Support Manager

This position is filled by the Construction Resources Coordinator-SSES. A typical alternate is the Construction Foreman-Electrical.

Responsibilities:

a) Providing personnel and work schedules for relieving emergency personnel.

b) Providing housing, food, office equipment, etc., for off-site support personnel.

c) Making necessary contractual arrangements for the emergency response efforts.

d) Procuring equipment, supplies, and additional personnel needed to support the emergency response efforts.

INSERT B

6.3.1.2 Assistant Recovery Manager

This position is filled by personnel qualified for the position of Recovery Manager.

Responsibilities:

a) Provide assistance as requested by the Recovery Manager.

b) Take over the position of Recovery Manager should the Recovery Manager be unable to perform his duties during an emergency.

INSERT C

c) Oversee proper facility set-up

d) Provide administrative support

e) Oversee security

~~e) Providing additional manpower for scheduling activities deemed appropriate by the Recovery Manager.~~

6.3.1.7 ~~Radiation Support Manager~~ Dose Assessment Supervisor

This position is filled by the Supervisor - Operations Technology. ~~Typical~~ Alternates ~~are~~ the Supervisor - Environmental ~~and Chemistry~~ Services ~~and Supervisor - Radiological Services~~ - Nuclear.

Responsibilities:

a) Evaluating the magnitude and effects of actual or potential radioactive releases from the plant.

b) Recommending appropriate offsite protective measures to the Recovery Manager.

c) Recommending appropriate emergency classifications to the Recovery Manager.

d) Communicating with the Radiation Protection Coordinator in the TSC and with DER/BRP radiological personnel.

e) Controlling field monitoring teams.

6.3.1.8 EOF Communicator

This position is typically filled by personnel assigned to the Nuclear Training Center.

Responsibilities:

Insert D →

a) Assume responsibility from the TSC for offsite notifications.

b) Transmit information about the emergency to offsite organizations.

c) Function as liaison for questions received from other organizations.

d) Maintain a record of emergency notifications.

6.3.2 Media Operations Center

The ED ensures that the MOC (Figure 6.4) is promptly notified and provided with available details of the emergency. The MOC staff transmits information regarding the emergency and items of potential interest to municipal groups, initiates appropriate news releases and responds to questions from public information representative. After the Recovery Manager assumes control of the EOF, ~~he updates~~ the Public Information Manager reports to the Recovery Manager.

INSERT D

6.3.1.6 Liaison Support Supervisor

This position is filled by personnel from the Nuclear Licensing Group.

Responsibilities:

a) Support the Recovery Manager with the off-site agency interface.

b) Provide technical assistance to the off-site agencies.

6.3.2.1 Public Information Manager

This position is filled by the Special Assistant to the President - Susquehanna. Typical alternate is ~~the Manager-Energy Information-Susquehanna.~~ a Senior Public Information Specialist.

Responsibilities:

a) Serving as official company spokesman.

b) Preparing and disseminating SSES information to the public via the news media.

c) Interpreting plant status information for the news media and other agencies.

d) Arranging for news media conferences.

e) Rumor control.

~~6.3.3 General Office Support Facilities~~

~~Emergency Support from the General Office is provided from the General Office Engineering Support Center (GOESC).~~

~~The GOESC is located in the Corporate Offices in Allentown. Activation of the GOESC is automatic during a SITE AREA or GENERAL EMERGENCY, and may also occur in an UNUSUAL EVENT or ALERT if the Recovery Manager deems such action appropriate.~~

~~6.3.3.1 Engineering Support Manager (ESM)~~

~~This position is filled by the Manager-Nuclear Technology. A typical alternate is the Supervisor-Nuclear Fuels Engineering.~~

~~Responsibilities:~~

~~a) Provide technical information and management support to the Emergency Director and Recovery Manager.~~

~~b) Provide priority guidance to the Engineering Support Leader and staff.~~

~~c) Support technical needs of the Site Support Manager.~~

6.3.3 Local Off-Site Support Services

The ED ensures that appropriate off-site emergency support groups are contacted to provide the type and level of assistance which may be necessary to deal with the existing emergency condition. The organizations listed below may be contacted for assistance. Methods available for contacting these support groups include direct telephone communications with individual

organizations, use of the 911 telephone system for emergency services, and message relay through LCEMA or CEMA.

- Salem Township Fire Company No. 1 (fire and rescue)
- East Berwick Hose Company No. 2 (fire and rescue)
- Shickshinny Area Volunteer Ambulance Association (ambulance service)
- Shickshinny Fire Department (fire)
- Nescopeck Ambulance Association (ambulance service)
- Hobbie Volunteer Fire Company (ambulance service)
- Pond Hill-Lilly Lake Fire Company (ambulance service)
- Hunlock Creek Ambulance Association (ambulance service)
- Berwick Hospital (medical treatment)
- Geisinger Medical Center (backup medical treatment and Life Flight helicopter service)
- ~~Helgeson Scientific Services (backup medical support)~~
- Pennsylvania State Police (traffic control and other assistance)
- Reliance Fire Co. (fire)

## 6.3 Off-Site Support Services

An emergency at SSES may require additional technical services and equipment. This type of assistance may be obtained from the organizations listed in Table 6.3.

## 6.4 COORDINATION WITH PARTICIPATING GOVERNMENT AGENCIES

The ED, and upon EOF activation, the RM, ensures that off-site authorities are notified and apprised of emergency events at SSES.

Notification of an Unusual Event is primarily to ensure that the authorities are cognizant of the details of events which may arouse public concern and initiate inquiries by news media or members of the public.

# TABLE 6.2

## MINIMUM ON-SITE AND OFF-SITE EMERGENCY ORGANIZATION CAPABILITIES

| MAJOR FUNCTIONAL AREA | LOCATION | MAJOR TASKS | POSITION TITLE OR EXPERTISE | ON SHIFT | AVAILABILITY 30-60 MIN. | AS SOON AS REASONABLY POSSIBLE |
|---|---|---|---|---|---|---|
| Damage Control | OSC/TSC | Overall Coordination | OSC Coord. | 1 | | |
| | | | Radio Comm. | 1 | 1 | |
| | | Mgmt. of Damage Control Teams | Damage Control Team Coord. | | 1 | |
| | | | TSC Radio Comm. | | 1 | |
| | | Chemistry Sampling | Chemistry Tech. | 1 | | |
| | | Mechanical Repair | Mech. Maintenance | | 1 | |
| | | Electrical Repair | Elec. Maintenance | | 1 | 1 |
| | | I&C Repair | I&C Tech. | | 1 | |
| | | Radwaste Ops. | Radwaste Operator | 1 | 1 | |
| Fire Fighting | | | | 5 | Local Support | |
| Rescue/First Aid | | | | 3 | Local Support | |
| Site Access Control & Personnel Accountability | On Station | Security, Comm., Personnel Accountability | Security SS | 1 | | |
| | | | Security Ass't SS | 1 | | |
| | | | Security Controlr | 2 | | |
| | | Emerg. Sec. Mgmt. | Security Officers | 10 | | |
| | TSC | | Security Coord. | | 1 | |
| Technical Assessment and Operations Support | Control Room | Engrg. & Eval. | Shift Tech. Adv. | 1 | | |
| | TSC | Mgmt. of Support Resources | Tech. Support Coordinator | | 1 | |
| | | | Operations Coord. | | 1 | |
| | EOF | Mgmt. of Support Resources | ~~Site~~ Support ~~Mgr~~. | | | 1 |

## TABLE 6.2 (Continued)

## MINIMUM ON-SITE AND OFF-SITE EMERGENCY ORGANIZATION CAPABILITIES

| | | | | | | |
|---|---|---|---|---|---|---|
| Technical Assessment & Operations Support (Cont'd.) | TSC | Engineering Eval. & Operations Support | Reactor Engr./Thermal Hydraulics | | 1<br>1 | |
| | | | I&C Engr. | | 1 | |
| | | | Chemistry/ Radiochemistry | | 1 | |
| | | | Mechanical Engr. | | 1 | |
| | | | Overall Plant Design | | 1 | |
| | | | Mechanical Systems | | 1 | |
| | ~~GOESC~~ | ~~Engineering Eval. & Operations Support~~ | ~~Plant/Refueling Operations~~ | | 1 | |
| | | | Fire Protection* | | 1 | |
| | | | Chemical Engr./ | | 1 | |
| | | | Radiochemistry* | | | |
| | | | Radwaste Mgmt./ | | 1 | |
| | | | Decontamination* | | | |
| | | | Plant Maintenance* | | 1 | |
| | | | Vendor/AE Support* | | | 1 |
| | | | ~~Engr. Support Mgr.~~ | | 1 | |
| | EOF | Engineering Eval. & Operations Support | Overall Plant Design | | | 1 |
| Plant Operations and Assessment of Operational Aspects | Control Room and/or Plant Proper | Establish and maintain safe shutdown condition | Shift Supv.(SRO) | 1 | | |
| | | | Unit Supv.(SRO) | 1 | | |
| | | | Control Room Operator (RO) | 2 | | |
| | | | Non-Licensed Operators | 3 | | |
| Emergency Direction and Control | Control Room<br>TSC<br>EOF | Overall Emergency Management & Coordination | Shift Supv. | 1 | | |
| | | | Emergency Dir. | | 1 | |
| | | | Recovery Mgr. | | | 1 |

* Available from Nuclear Engineering in Allentown.

## TABLE 6.2 (Continued)

## MINIMUM ON-SITE AND OFF-SITE EMERGENCY ORGANIZATION CAPABILITIES

| | | | | | | |
|---|---|---|---|---|---|---|
| Notification/ Communication | Control Room | Notify PP&L, State, Local & Federal personnel & maintain communication | Comm. Coord. | 1 | | |
| | TSC | | Comm. Coord. | | 2 | |
| | EOF | | Comm. Coord. | | 2 | |
| | SCC | | Security Controller | 1 | | |
| Radiological Accident Assessment & Support of Operational Accident Assessment | TSC | Overall Mgmt. & Coordination | Rad. Protection Coordinator | | 1 | |
| | EOF | Overall Mgmt. & Coordination | ~~Rad. Support Mgr.~~ Dose Assessment Supervisor | | | 1 |
| | ~~EOF~~ | | Survey Team Pers. | | 2 | 2 |
| | TSC | On-Site Surveys | Survey Team Pers. | | 2 | 4 |
| | EOF | Off-Site Surveys | Health Physics | 2 | 2 | 2 |
| | OSC | Radiation Protection | Trained Personnel | | | |
| | | o Access Control<br>o HP Coverage<br>o Personnel Monitoring<br>o Dosimetry | | | | |
| | OSC | Radiochemistry/ Chemistry Analysis | Chemistry Tech. | 1 | 1 | |
| | EOF | Accident Assessment & Characteristics | Plant Operations/ Refueling Ops. | | | 1 |
| | | | Fire Protection | | | 1 |
| | | | Chemical Engr./ Radiochemistry | | | 1 |
| | | | Radwaste Mgmt./ Decontamination/ Rad Control/HP | | | 1 |
| | | | Plant Maintenance | | | 1 |
| | EOF | Off-Site Dose ~~Calc. and~~ Assessment | Rad Assessment ~~Team~~ Staff | | ~~3~~ | ~~2~~ 3 |

## TABLE 6.3

## ADDITIONAL ASSISTANCE FROM OUTSIDE PP&L

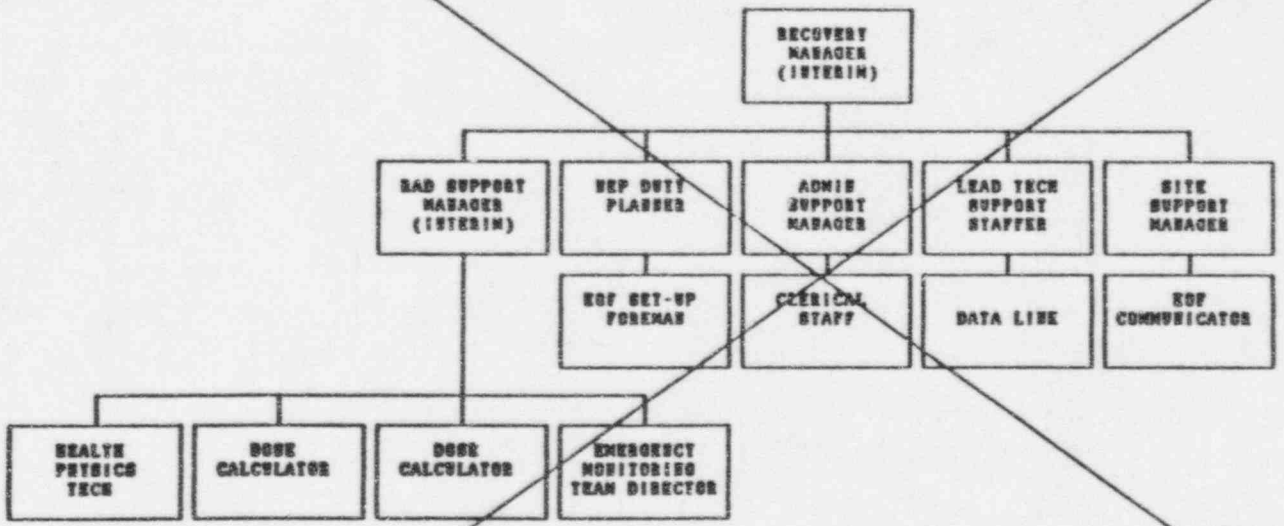
| Name/Address | Emergency Function | Availability (Hours) | Reporting Location |
|---|---|---|---|
| 1. Committed Resources | | | |
| o General Electric<br>San Jose, CA 95125 | Engineering advise & Analysis for NSSS equipment | N/A | GE facilities in San Jose |
| | Operations and Maintenance expertise on NSSS equipment | 48 | EOF ~~(Site Support Manager)~~ |
| o Bechtel<br>San Francisco, CA 94119 | Engineering & Analysis | N/A | Bechtel Facilities in San Francisco |
| | Engineering Expertise | 48 | EOF ~~(Lead Tech Support Staffer)~~ |
| o INPO<br>Atlanta, GA 30339 | Operations & Maintenance Expertise | On Call 24 hrs. a day | EOF ~~(Lead Tech Support Staffer)~~ |
| | Dissemination of Information | NA | INPO HQ in Atlanta |
| o PJM Nuclear Utility Support Group | Operations, Maintenance Radiological personnel for augmenting emergency staffing | 4 | EOF ~~(Site Support Manager)~~ |

*NOTE: The Technical Section maintains the information necessary to contact appropriate vendors in case of an emergency.*

# EMERGENCY ORGANIZATION

## EMERGENCY OPERATIONS FACILITY

(One Hour Activation)




Rev. 18, 05/93

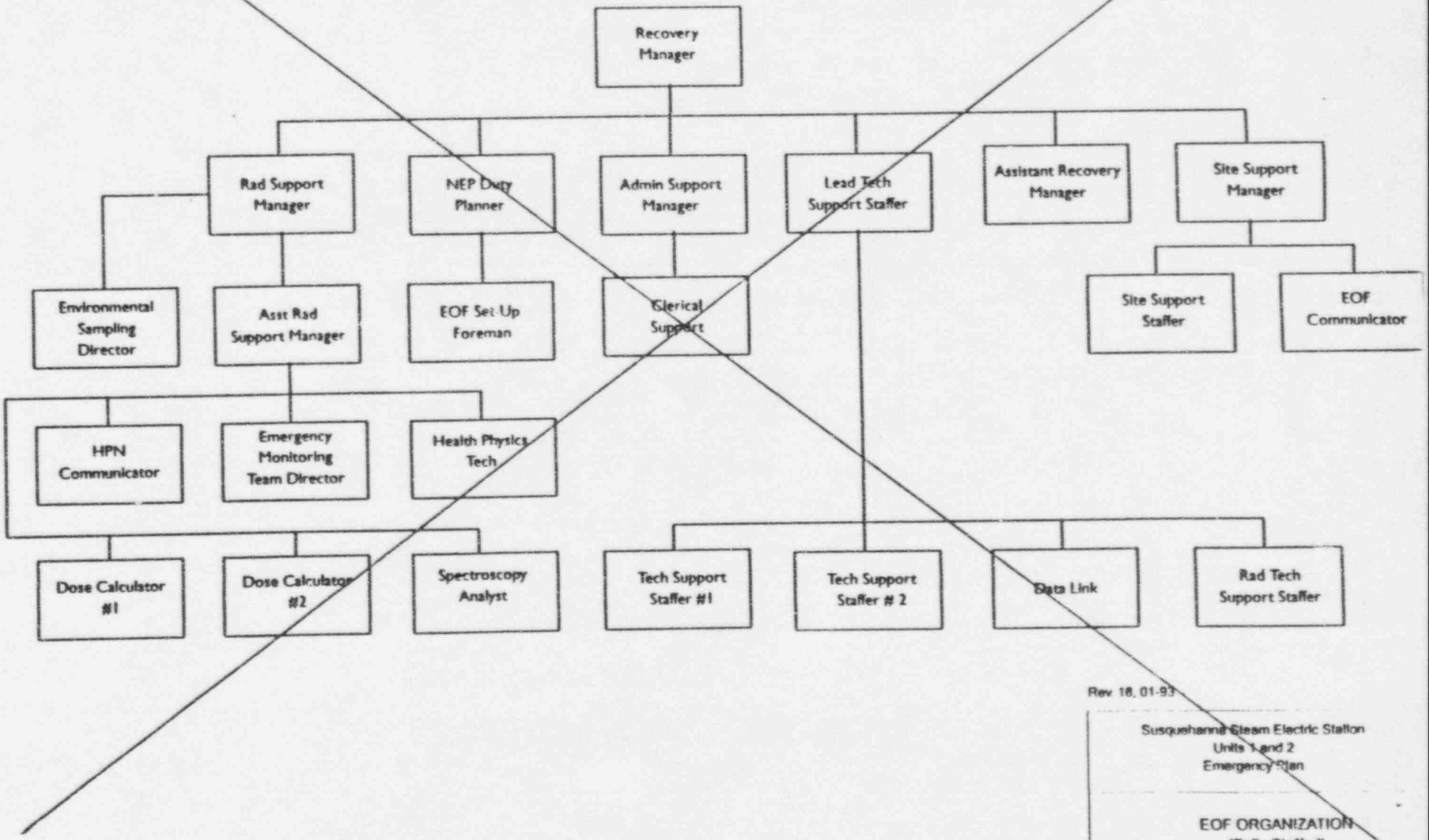
Susquehanna Steam Electric Station
Units 1 and 2
Emergency Plan

EOF ORGANIZATION
(One Hour Activation)

FIGURE 6.2a

# EMERGENCY ORGANIZATION

## EMERGENCY OPERATIONS FACILITY
## (Fully Staffed)



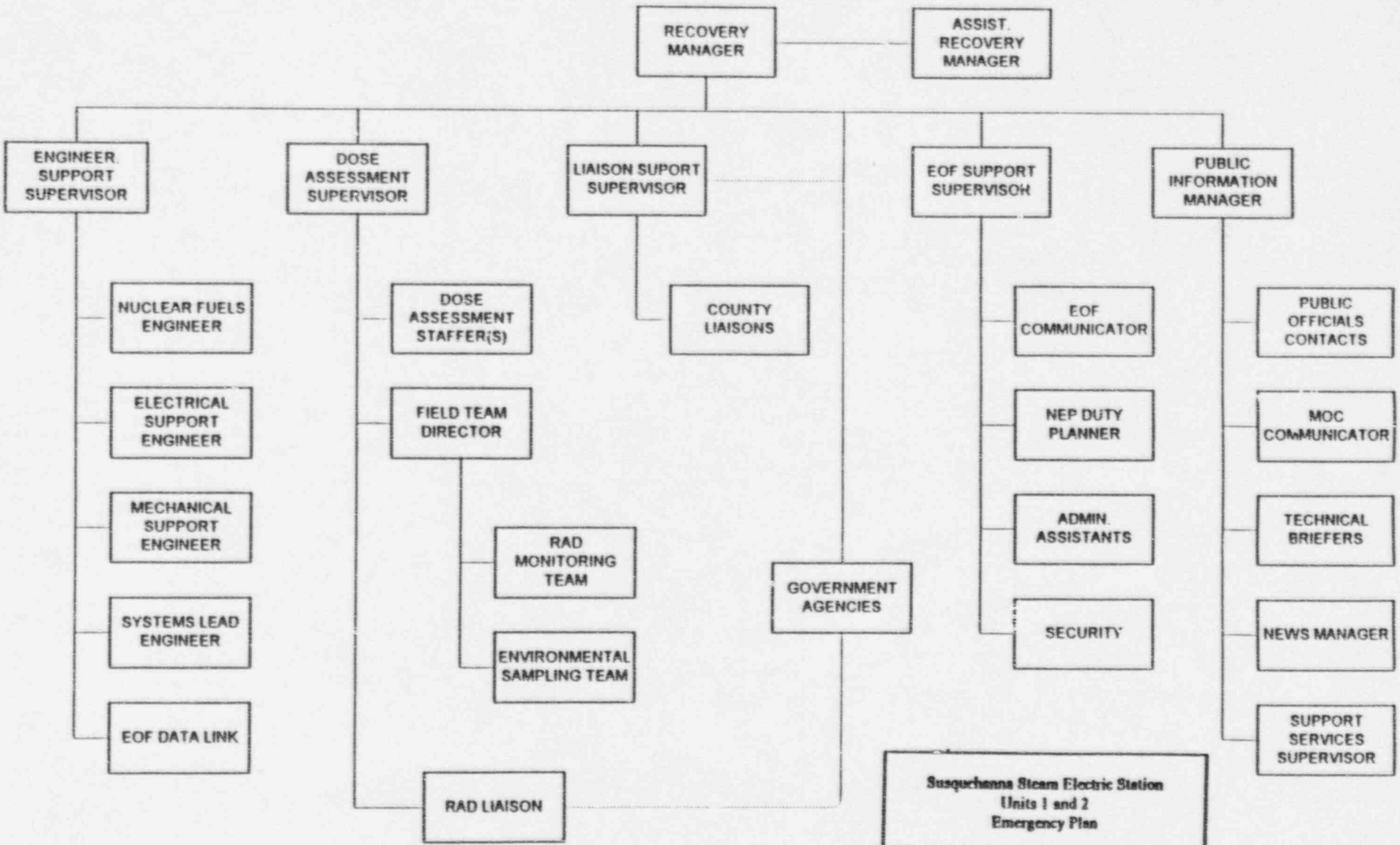

Rev 18, 01-93

Susquehanna Steam Electric Station
Units 1 and 2
Emergency Plan

EOF ORGANIZATION
(Fully Staffed)

FIGURE 8.2b

# EOF NERO ORGANIZATION

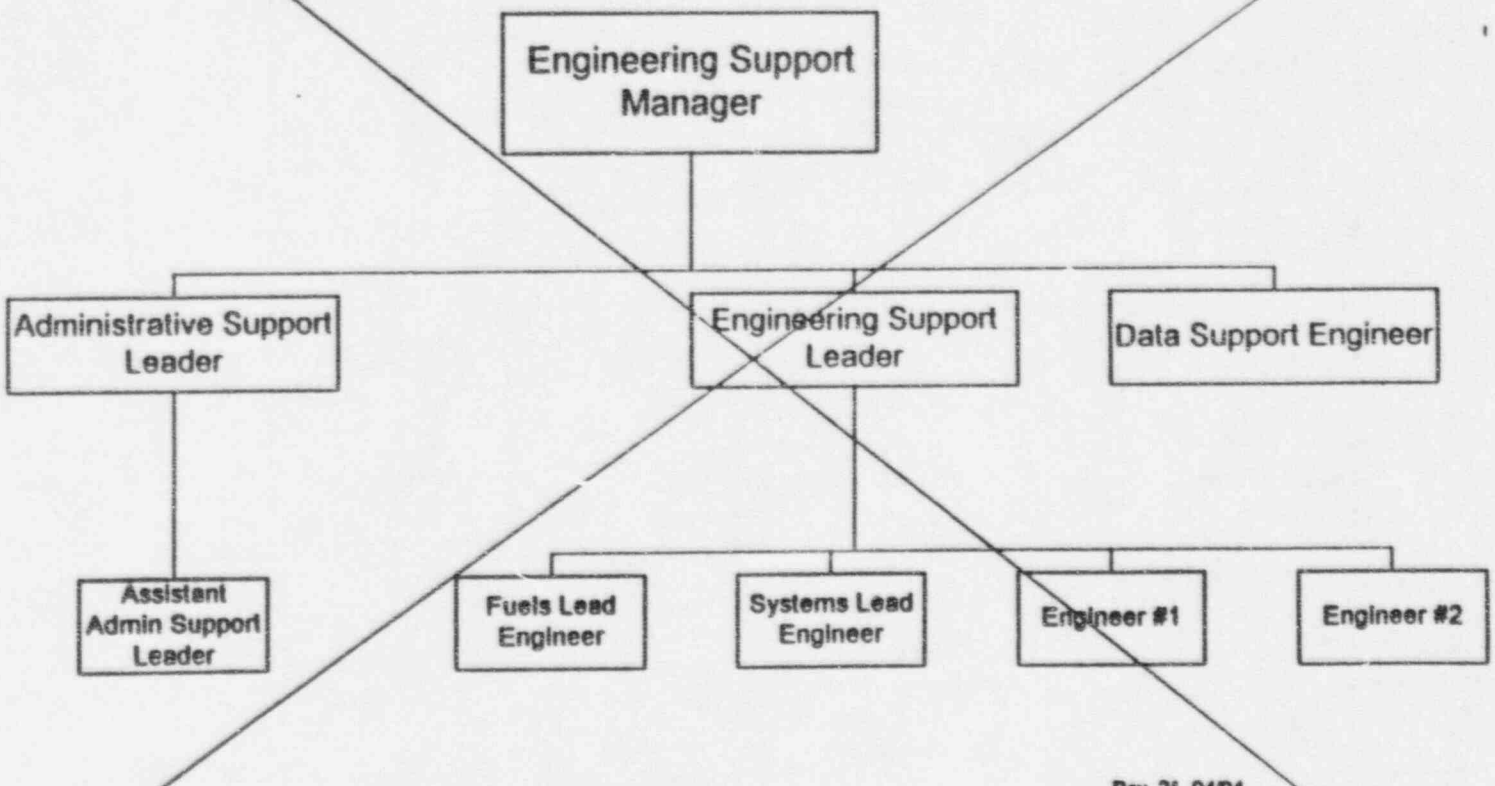



Susquehanna Steam Electric Station
Units 1 and 2
Emergency Plan

EOF ORGANIZATION

FIGURE 6.2

## GENERAL OFFICE ENGINEERING SUPPORT FUNCTION




Rev. 21, 04/94

Susquehanna Steam Electric Station
Units 1 and 2
Emergency Plan

GENERAL OFFICE EMERGENCY ORGANIZATION

FIGURE 6.5

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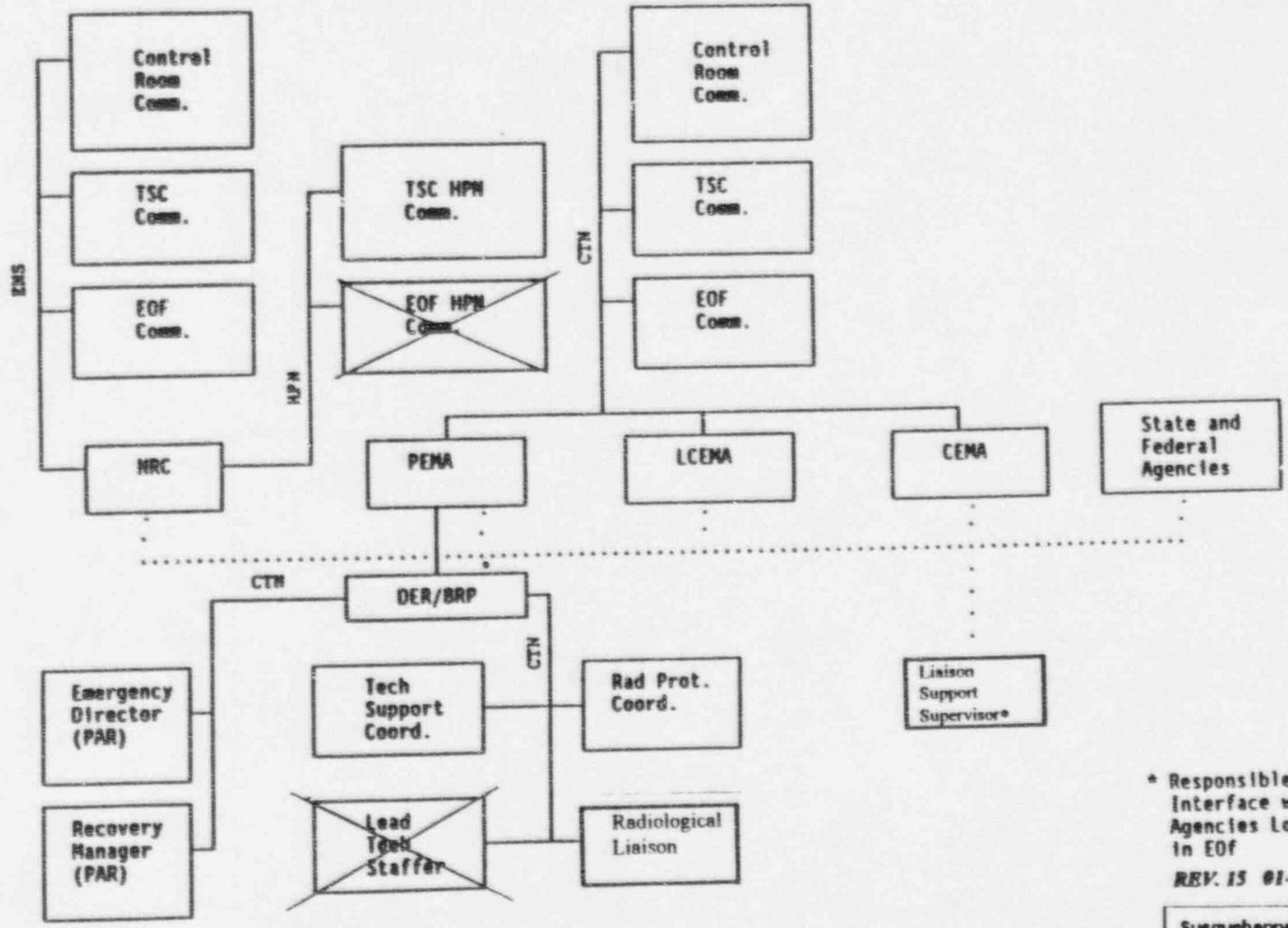
# *COMMUNICATION INTERFACES WITH OFFSITE AGENCIES*




* Responsible for Interface with Agencies Located in EOf

*REV. 15 01-92*

| Susquehanna Steam Electric Station<br>Units 1 and 2<br>Emergency Plan |
|---|
| COMMUNICATIONS INTERFACE WITH OFF-SITE AGENCIES<br>FIGURE 6.7 |

8.1.3.5.1 Telephones

The TSC uses the CTN system as primary communications with the ETN system available at various locations and the FTS 2000 reserved for federal government agencies.

8.1.3.5.2 Radio

The TSC has a four-channel 450 MHz UHF and a two-channel 150 MHz VHF radio system with digital voice privacy capability. The VHF radio is an emergency backup for communication with LCEMA, CEMA, ~~and GOESS~~, and to communicate with the field monitoring teams. The UHF radio provides primary and backup security, emergency, operational and maintenance communication links.

8.1.3.5.3 Public Address System

The system provides two-way communications at handset stations. Each station may originate and receive communication by switching to either a pager channel or to one of five non-interfacing party-line channels.

8.1.3.6 Power Supply

The TSC is part of the existing power block as described in Chapter 8.0 of the FSAR.

8.1.3.7 Instrumentation

The TSC utilizes the same field sensors and signal conditioning equipment which is provided to monitor plant systems. TSC instrumentation is identical to tne field instrumentation used to operate the plant. A detailed description of this instrumentation is provided in Chapter 7.0 of the FSAR.

8.1.3.8 TSC Data Presentation

The TSC includes human factors engineered man-machine capabilities to allow personnel to determine:

- plant conditions during normal operation
- plant steady-state conditions prior to an accident
- transient conditions producing an initiating event
- plant system dynamic behavior during an accident
- projected behavior and effects of offsite airborne radioactivity releases.

The man-machine interface is provided by devices tied to the SPDS, PCS, and RDAS in the TSC monitoring area: (Reference Figure 8.2).

a) Two CRTs housed in the SPDS console.

b) Two PCS UMCs which have graphic and parameter displays depicting the conditions of the plant systems.

c) Video copiers for hard copy output of SPDS and PCS data.

d) RDAS printer/terminal for display of meteorological and vent data.

8.1.3.9 Records and Documents

The TSC contains up-to-date records and references for use during emergency conditions. (Reference Appendix D). Records are updated and managed by the SRMS utilizing Plant Administrative Procedures.

8.1.3.10 Security

The TSC is located within a plant vital area and is subject to the vital area access controls as identified in FSAR Section 13.6.

## 8.2 PP&L OFF-SITE EMERGENCY CENTERS

### 8.2.1 Media Operations Center

For an Unusual Event,
~~Initially~~, the Susquehanna Energy Information Center, located on U.S. Route 11, is utilized as the Media Operations Center. ~~When the number of reporters anticipated is greater then the comfortable limits of the Information Center, or if a General Emergency is likely,~~ the Northeast Division Headquarters, located near Wilkes-Barre, will be activated as the Media Operations Center.
For other event classifications

### 8.2.2 Emergency Operations Facility

Wilkes-Barre
The EOF is an emergency response facility located near ~~the site~~. The EOF provides continuous management of PP&L activities during radiological emergencies which may have offsite impact.

Insert E-1
~~The site location of the EOF is in North Central Pennsylvania in Luzerne County approximately 5-1/4 miles north of the Borough of Berwick in Salem Township, approximately 2,500 feet southwest of the control structure (Reference Figure 8.1). The site fronts on County Road T-438. Direct access to the site is maintained over a 12' wide stoned roadway from Rt. T-438 to the 500kV Switchyard.~~

The non-emergency activities of the EOF are such that its main function is not degraded. The EOF provides office space for ~~the Nuclear Emergency Planning Group and computer maintenance personnel. Also, space is provided for training and operational support functions~~.
PP&L's Northeast Division Headquarters personnel.

#### 8.2.2.1 Architecture

EOF is a
The ~~16,500 square feet~~, one-story building ~~is a~~ rectangular structure, ~~167' long by 99' wide. The exterior walls are 12" reinforced concrete with a brick facing. The shed roof is a 9-1/2"~~ The building was constructed using standard building codes.

INSERT E

The EOF is located on East Mountain Road in Plains Township, off PA Route 115. (Five miles north of exit 36 of the Northeast Extension of the Pennsylvania Turnpike and one mile south of exit 47A of Interstate 81.)

~~reinforced concrete slab. The concrete was utilized to provide the required radiological protection.~~

~~Fifty parking stalls are provided at the EOF. In addition, parking space for five emergency response monitoring vans is provided at the side and rear of the building. Communication and power hookups are available for each van.~~

8.2.2.1.1 Spacial Layout Description

See Figure 8.3 for the spacial layout of the EOF.

~~The EOF is divided into three areas (Reference Figure 8.3):~~

A. EMERGENCY OPERATIONS RESPONSE

This area is composed of offices for a receptionist, PP&L emergency managers and support, NRC, and conferencing. There is also a central work area for 35 people.

B. SUPPORT AREAS FOR EMERGENCY RESPONSE

The areas provided are mechanical and electrical equipment, toilets, kitchen and eating facilities, storage areas and conference rooms.

C. COMPUTER ROOM

A computer room supports SPDS and RDAS and ERDS. Also, an adjoining computer work room is used to operate and maintain the computer equipment.

8.2.2.1.2 Fire Protection

a) Automatic wet pipe sprinklers on an ordinary hazard pipe schedule are provided throughout the building ~~except below the computer room floor and above ceilings where no combustible materials are present.~~

b) Computer Area

A total flooding, automatic Halon 1301 system protects the room volumes and the volume of the spaces beneath the floors of the computer room and computer work room with a 5% concentration.

c) The Halon system is actuated by a cross-zoned product of combustion detection system.

8.2.2.2 Structural Classification

The EOF is classified as a structure, the failure of which would not result in release of significant radioactivity, and is not required for reactor shutdown. This structure is classified as Non-Category I.

8.2.2.3 Habitability

Since the EOF is located outside the EPZ, no special hab tability requirements are required.

8.2.2.3.1 Post Accident Radiation Shielding

The EOF is designed to provide sufficient shielding to reduce by a factor of more than 5 the gamma radiation shine from external post accident sources, including both direct shine from the reactor building and from airborne radioactivity outside the EOF which is released from the reactor building. The walls and ceilings are designed to provide a minimum thickness of nine inches of concrete. Based on the attenuation of 0.7 MeV gamma radiation, this concrete provides a protection factor of greater than 5. In addition, all entrances, exits and penetrations have a labyrinth design which prevents direct shine from outside sources into any part of the building which is normally occupied without passing through at least nine inches of concrete.

8.2.2.3.2 HVAC

8.2.2.3.2.1 Design Basis

This system provides for control of environmental conditions in the EOF. It is designed to accomplish the following objectives:

a) Maintain a slightly positive pressure above atmosphere inside the EOF, in order to inhibit air leakage into the building. This is not applicable for operation during isolation mode.

b) Provide radiation protection from airborne fission products. The system may be manually transferred to one of two emergency modes. One mode provides for air circulation through HEPA Filters with intake from the outside; the other routes air through HEPA Filters with 100% recirculation.

c) Maintain airflow from areas of lesser to areas of greater potential radioactive contamination.

The equipment and the system components are not designed to meet seismic category I requirements or qualified as Engineered Safety Features. All HVAC equipment except HEPA filters are commercial grade quality. HEPA filters are suitable for nuclear application.

8.2.2.3.2.2 Safety Evaluation

The system, as designed, meets the EOF functional requirements as stated in NUREG-0696. The system includes a tie connection between the two supply air system ducts so that partial cooling can be provided in the event one of the units is not functioning.

8.2.2.3.3 Radiation Monitoring

a) Outside Air Intake Radiation Monitoring System.

This system consists of a radiation detector installed in the outside air intake duct and connected to electronic circuits which activate both audible and visual alarms when radiation levels of outside air exceed a preset trip point. The alarms can be heard in normally occupied areas of the EOF. When the alarm sounds, previously designated personnel will assess the need to place the HVAC System in an alternate mode of operation.

b) Iodine Sampling

The concentration of airborne radioiodine is determined by use of a portable low volume air sampler with silver zeolite cartridges.

8.2.2.4 Communications

The EOF communications system is comprised of three telephone networks (ETN, CTN, and FTS), VHF and UHF radios, and a PA system. They provide a reliable primary and back-up communications network.

8.2.2.4.1 Telephones

The EOF uses a combination of the CTN and ETN systems with the FTS system available for federal governmental agencies.

8.2.2.4.2 Radio

The EOF has both a four-channel 450 MHz UHF and a two-channel 150 MHz VHF radio system.

The VHF system is used as an emergency backup to the telephone system and to communicate with the field monitoring teams. The UHF radio allows EOF personnel to monitor security, emergency, operational, and maintenance communication links.

8.2.2.5 Power Reliability

~~8.2.2.5.1 Emergency Generator~~

~~The standby diesel generator is sized for complete operation of the facility. On loss of utility power, automatic transfer is made to the standby diesel generator which will accept load within ten seconds.~~

Power is supplied to the EOF via two independent underground lines that supply the industrial park complex.

8.2.2.5.2 Uninterruptable Power Supply (UPS)

The UPS system is completely static design with rectifier, batteries and inverter being the main components. The system is sized to carry all critical loads, which include computer equipment, security, emergency lighting, telephone and radio systems.

8.2.2.6 EOF Data Presentation

The EOF includes human factors engineered man-machine interface capabilities to allow personnel to:

- access environmental conditions
- coordinate radiological monitoring activities
- recommend implementation of off-site emergency plans
- monitor Emergency Response Data System

The system is designed to provide the interface to the following devices:

a) Separate CRTs for display of SPDS, PCS, and ERDS Data Link status.
b) Separate printers for hard copy output of PCS, SPDS and meteorological and vent data.
c) A color copier for hard copy output of SPDS.

8.2.2.7 Records and Documents

The EOF contains up-to-date references and records. Documents are managed by SRMS using plant administrative procedures.

8.2.2.8 Security

EOF access during an emergency is limited to authorized personnel. Intrusion detection devices monitor the EOF during unoccupied periods.

8.2.3 Backup Emergency Operations Facility

8.2.3.1 Function

The BEOF provides space and facilities for maintaining the continuity of primary EOF functions, dose projection and senior management decision making capability, during emergency conditions that require EOF personnel to evacuate the primary EOF or if the primary EOF is inaccessible.

8.2.3.2 Location

The location for the Backup EOF is 13 air miles from SSES, at the PP&L Hazleton Service Center auditorium on 344 South Poplar Street, Hazleton, PA. (Reference Figure 8.4)

8.2.3.3 EOF Evacuation/Backup EOF Activation

8.2.3.3.1 Evacuation Criteria

The Interim Radiation Support Manager or the Radiation Support Manager recommends evacuation of the EOF if one or more of the following radiological conditions is realized and verified:

a) Rad survey in EOF indicates whole body dose rate greater than 500 mrem/hr.

b) Personnel frisk and smears indicate widespread unmanageable contamination in and near the EOF.

c) Air sample readings in the EOF read greater than 75 DAC.

8.2.3.3.2 Functional Continuity During Evaluation

The Recovery Manager ensures a transfer of the following functions to the TSC until the Backup EOF is activated and operational:

a) Dose calculations
b) Field monitoring team direction
c) Communications, (except DER-Technical)
d) Dose assessment and protective actions.

The Recovery Manager also ensures that technical assessment capability and communications with DER-Technical are transferred to the GOESC.

8.2.3.4 Staffing

In order to perform the functional requirements mentioned above, the minimum staffing consists of the Recovery Manager, the Radiation Support Manager, the Site Support Manager, the Administrative Support Manager and their staffs.

The task functions of the minimum staff personnel required to ensure continuity of functions at the Backup EOF are the same as the normal EOF minimum staffing described in Section 6.0.

8.2.3.5 Spacial Layout Description

The available space at the Backup EOF can be set up in a configuration allowing access and coordination of information necessary to carry on the function of the EOF. Being located in a main PP&L Service Center provides for access to support facilities that may be needed in an emergency situation.

8.2.3.6 Communication

The BEOF communication system consists of normal telephone lines capable of reaching outside numbers and PP&L system extensions via the ETN.

Radio communication with the field monitoring teams is maintained with portable two-channel 150 mhz VHF radio units. These portable units also provide a backup means of communication with the TSC, GOESC, LCEMA and CEMA.

8.2.3.7 Data Evaluation

All pertinent data and evaluations will be transmitted to the BEOF and GOESC via telecopy and telephone.

8.2.3.8 Records and Documents

The following records are transported from the primary EOF to the Backup EOF upon activation:

- Emergency Plan Position Specific Procedures
- SSES Preparedness, Prevention and Contingency Plan
- SSES Hazardous Material Off-site Response Plan
- Radiological Records
- Plant Technical Specifications
- Current Emergency Plans for PP&L.

8.2.4 General Office Engineering Support Center (GOESC)

Located in Allentown, activated at the discretion of the Emergency Director/Recovery Manager or automatically at a Site Area Emergency. Upon activation, provides Nuclear Plant Engineering resources in support of technical problem resolution.

8.3 COUNTY AND STATE EMERGENCY CENTERS

8.3.1 County Emergency Centers

Both LCEMA and CEMA have EOCs which meet or exceed the minimum Federal criteria for sufficient space, communications, warning systems, self-sufficiency in supplies and accommodations and radiological protection factor. Both counties maintain full-time employees, providing 24-hour per day coverage at their EOC, to coordinate emergency planning and evaluation. "CTN" telephone connections exist between SSES and each County EOC.

Location of the county EOCs:

- Luzerne County
  Wilkes-Barre, Pennsylvania
- Columbia County Court House
  Bloomsburg, Pennsylvania

## 8.6 ADDITIONAL COMMUNICATIONS SYSTEMS

### 8.6.1 Commonwealth/Bell Telephone System

Two independent telecommunications networks exist to provide primary and backup telephone communications between ERFs and offsite agencies. These systems are the Centrex Telephone Network (CTN) and Electronic Tandem Network (ETN).

CTN extension locations include: Control Room, TSC, EOF, MOC, SOP, DER/BRP, ~~GOESC,~~ PEMA, LCEMA, and CEMA. This is the primary system for emergency communications.

### 8.6.2 Plant Emergency Alarm System

A plant emergency alarm system provides audible warning of emergency conditions to plant personnel. The system consists of a multi-tone generator, tone selector switch, area selector switch, and message tape recorder. The Emergency Alarm System is integral to the PA System and is powered via the Vital AC UPS. The Plant Emergency Alarm System is tested at least weekly.

## 8.7 ON-SITE FIRST AID AND MEDICAL FACILITIES

A first aid treatment facility, equipped with normal industrial first aid supplies, is located on the first floor of the S&A Building. Standard first aid kits are at designated locations throughout the station. Inventories are performed regularly.

## 8.8 DAMAGE CONTROL EQUIPMENT

Damage control equipment consists of normal and special purpose tools and devices used for maintenance functions throughout the station. The ED has access to keys for maintenance tool cribs, shops and other locations where damage control equipment is stored. Inventories are performed regularly.

## 8.9 INFORMATION SYSTEMS

Insert F →

### 8.9.1 Safety Parameter Display System

The purpose of the SPDS is to provide a continuous indication of the safety status of the plant. SPDS data aids the control room, and TSC staff in rapidly detecting abnormal operating conditions, by enabling the staff to achieve a timely status assessment without surveying the entire Control Room.

SPDS includes sensors and signals, data acquisition equipment, data preparation equipment, and a data display device. SPDS consists of ~~three~~ two separate software/hardware systems: separate systems serving the control room and the TSC for each unit, ~~and a third serving the EOF~~. Data for Unit 1 and Unit 2 is collected separately by dedicated Data Acquisition Systems.

INSERT F

The Plant Integrated Computer System (PICSY) project is being implemented at Susquehanna SSES. This project will combine the Safety Parameter Dispiay System (SPDS) computer, the Plant Computer System computer, the Remote Data Analysis System (RDAS) computer and the Emergency Response Data System (ERDS) computer into one integrated computer system. The completion schedule is for the Unit 2 PICSY to be installed by the end of fourth quarter of 1995 and the Unit 1 PICSY to be installed by the end of the fourth quarter of 1996. This section describes the information systems available after the EOF has been move to Wilkes-Barre and prior to the installation of PICSY on either unit. This section will be revised after the installation of PICSY on Unit 1.

8.9.1.5 Availability

This system has an availability in the 99% area above cold shutdown, and 80% area during cold shutdown. Availability calculations are performed on a regular basis.

The availability of the system is enhanced by a comprehensive maintenance program and with built-in facilities. Power supplies for SPDS are shown on Figure 8.5.

8.9.2 Plant Computer System

The PCS is used for emergency data configuration for the following reasons:

- It contains CRT graphic and trending capabilities.
- It provides for historical data recording and retrieval.
- It has flexibility to permit interfacing to additional I/O equipment.
- It has a proven high degree of reliability.
- It is capable of scanning and processing all of the data needed in the ~~EOF and~~ TSC that is not provided in SPDS.
- It is located in a secure area within the control structure.

8.9.2.1 Data Acquisition

The data acquisition employed by the PCS contains most parameters required by the ERF. The ERF data acquired by the PCS undergoes the normal validity and error checking applied to all PCS inputs. Isolation is applied to all safety-related signals.

8.9.2.2 Data Preparation

Display formats needed by the ERF are generated and stored within the PCS using the existing format generators. The system to manage the data is designed such that input/output processing overhead is minimized.

Proven system and application software has been developed which performs data display and system security. The data base includes raw data, data converted to engineering units, data checked on a real-time basis, and various types of calculated data. The system determines the data that is displayed and the available output format.
~~User interaction with the system is also determined by the software. Although identical, the I/O processes for data display in the TSC function independently of those for EOF.~~

8.9.2.3 Data Presentation

Two CRTs tied to the PCS provide for display functions in the TSC. Procedures and methods for keyboard call-up and error indication of TSC functions are identical to those in use in the control room. ~~There are also two CRT's in the EOF which are functionally identical to those in the TSC.~~

Data is presented in formats which are easy to understand and interpret. Variables not in a normal condition are presented with an indication of that condition. Alarms are represented by using the same color coding techniques as the control room computer. Output formats are designed according to human factors engineering criteria, and include pattern and coding techniques.

8.9.2.4 Availability

A minimum system availability of 97% can be guaranteed, based upon analytical calculations.

8.9.3 Remote Data Analysis System

The RDAS is used to provide meteorological and vent data for the following reasons:

- Flexible architecture to allow efficient interfacing to other data sources
- Proven high degree of reliability
- ~~Located in EOF computer area~~
- Redundant computer system design
- Duplicate system console and controls reside in PCS room in plant.

8.9.3.1 Data Acquisition

Data is acquired over a fiber optic data link from the PCS. This includes the meteorological, mode switch parameters, and radiological release data. All data inputs and outputs are retained in historical files for archive or later recall and analysis.

8.9.3.2 Data Presentation

The data can be printed in the ~~EOF and~~ TSC.

8.9.3.3 Availability

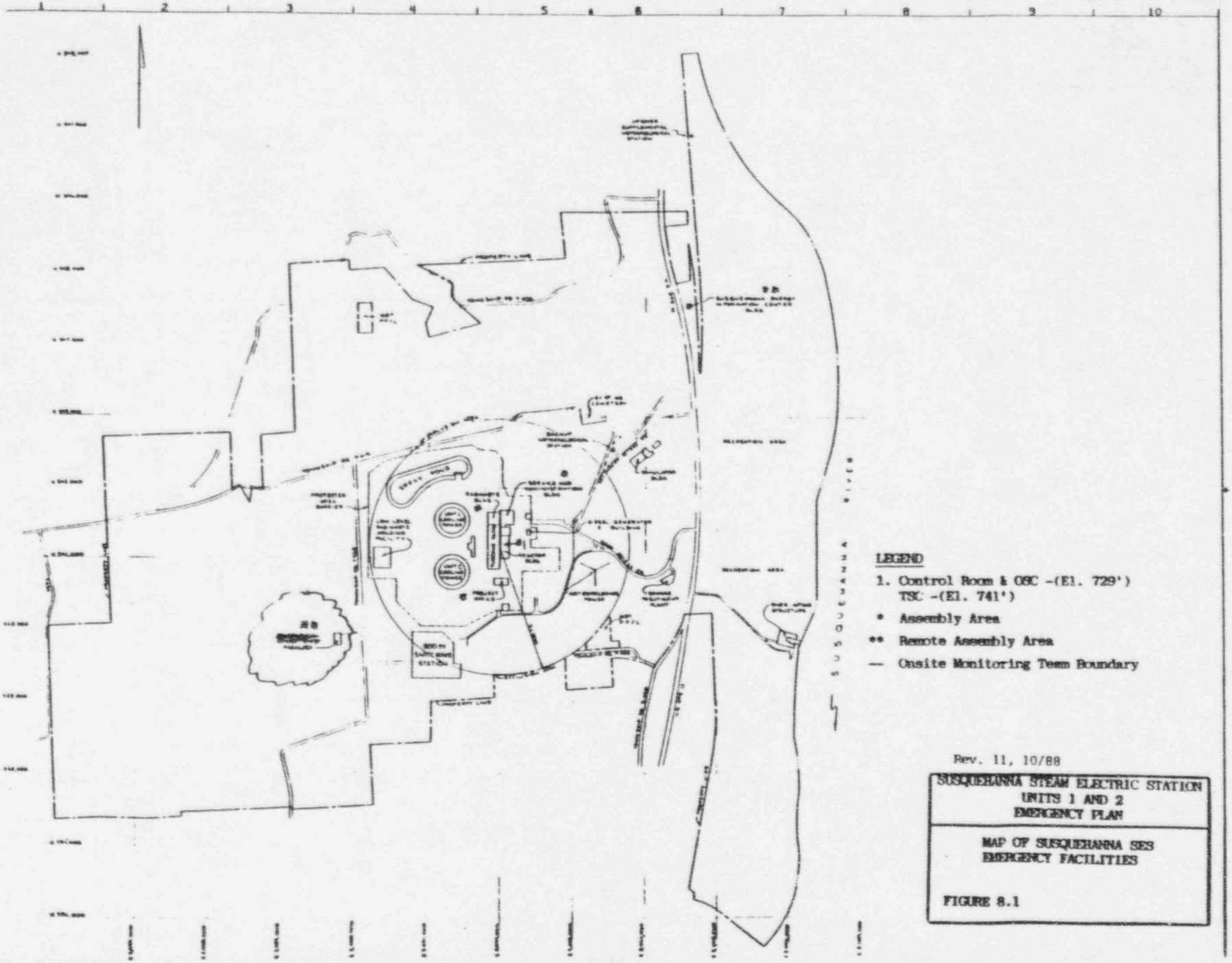
Based on previous system experience and two years of RDAS operational data, it is expected that the system should be able to achieve an availability of 98% or higher.

8.9.4 Emergency Response Data System

The purpose of ERDS is to transmit a limited set of plant performance parameters from the site to the Nuclear Regulatory Commission during an Alert or higher emergency classification.

8.9.4.1 Data Acquisition

Data required to support ERDS is acquired from plant process computer system data bases which include SPDS, PCS and vent monitor systems.




LEGEND

1. Control Room & OSC -(El. 729')
   TSC -(El. 741')

* Assembly Area

** Remote Assembly Area

— Onsite Monitoring Team Boundary

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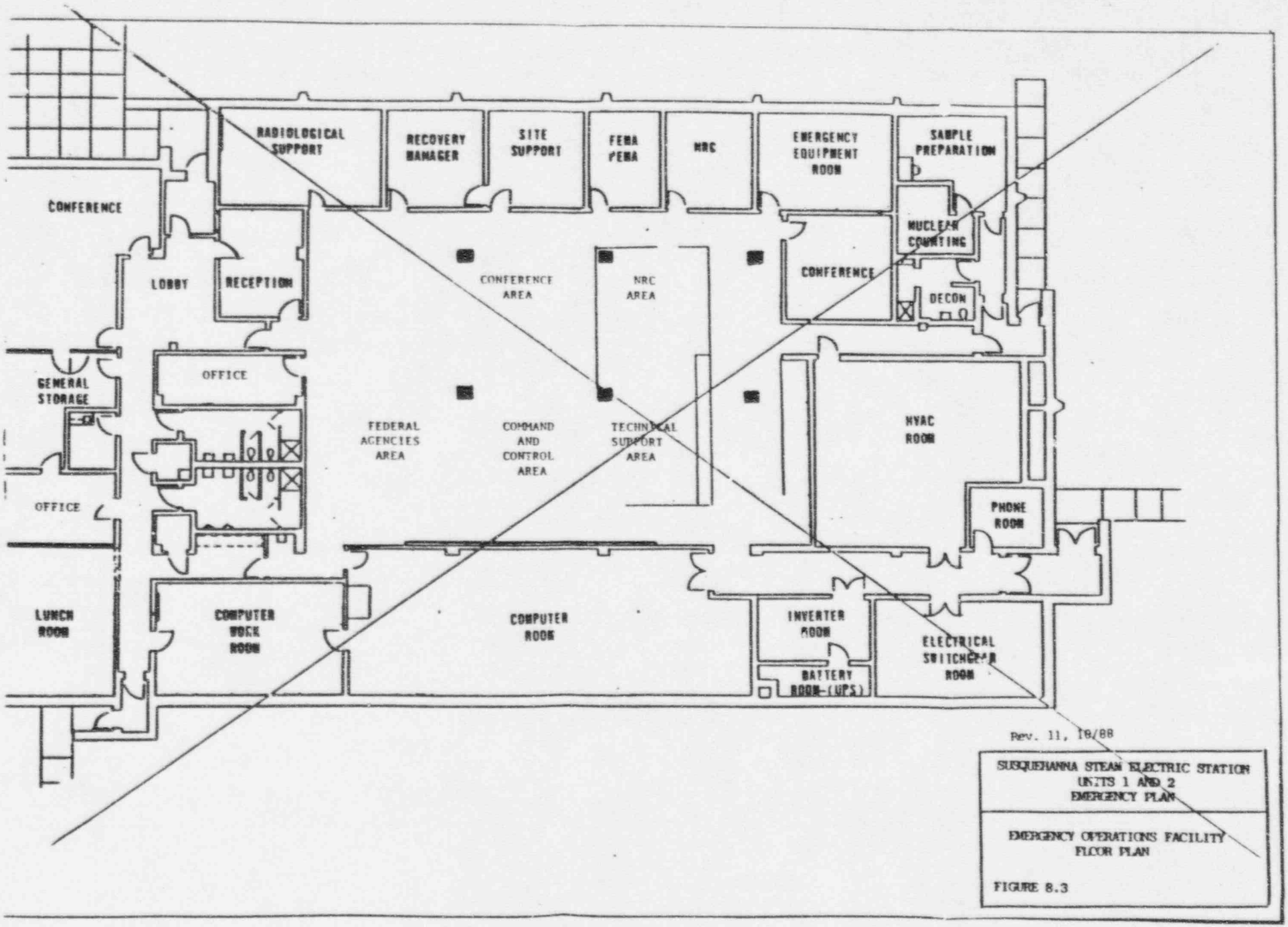
SUSQUEHANNA STEAM ELECTRIC STATION
UNITS 1 AND 2
EMERGENCY PLAN

MAP OF SUSQUEHANNA SES
EMERGENCY FACILITIES

FIGURE 8.1

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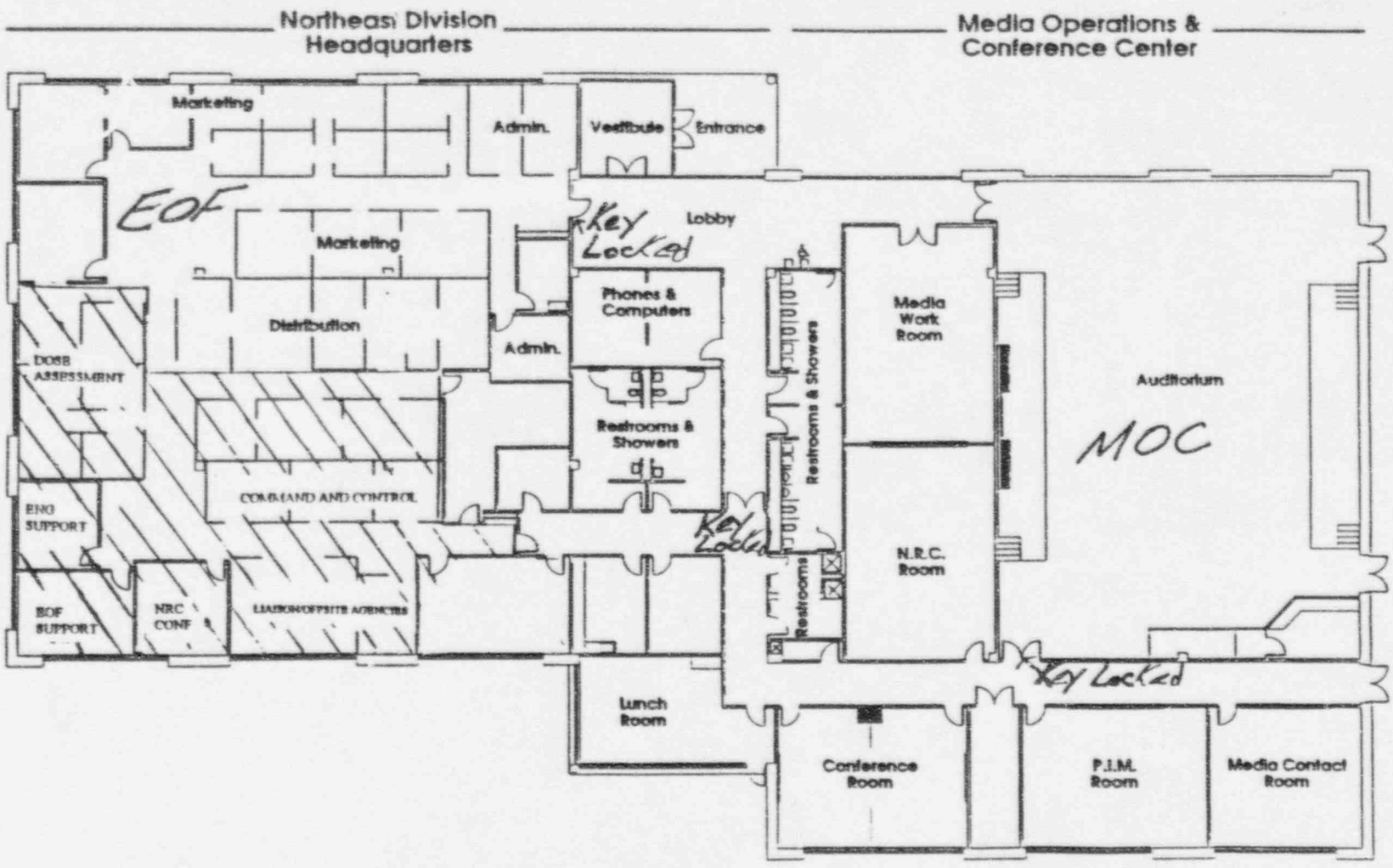
SUSQUEHANNA STEAM ELECTRIC STATION
UNITS 1 AND 2
EMERGENCY PLAN

EMERGENCY OPERATIONS FACILITY
FLOOR PLAN

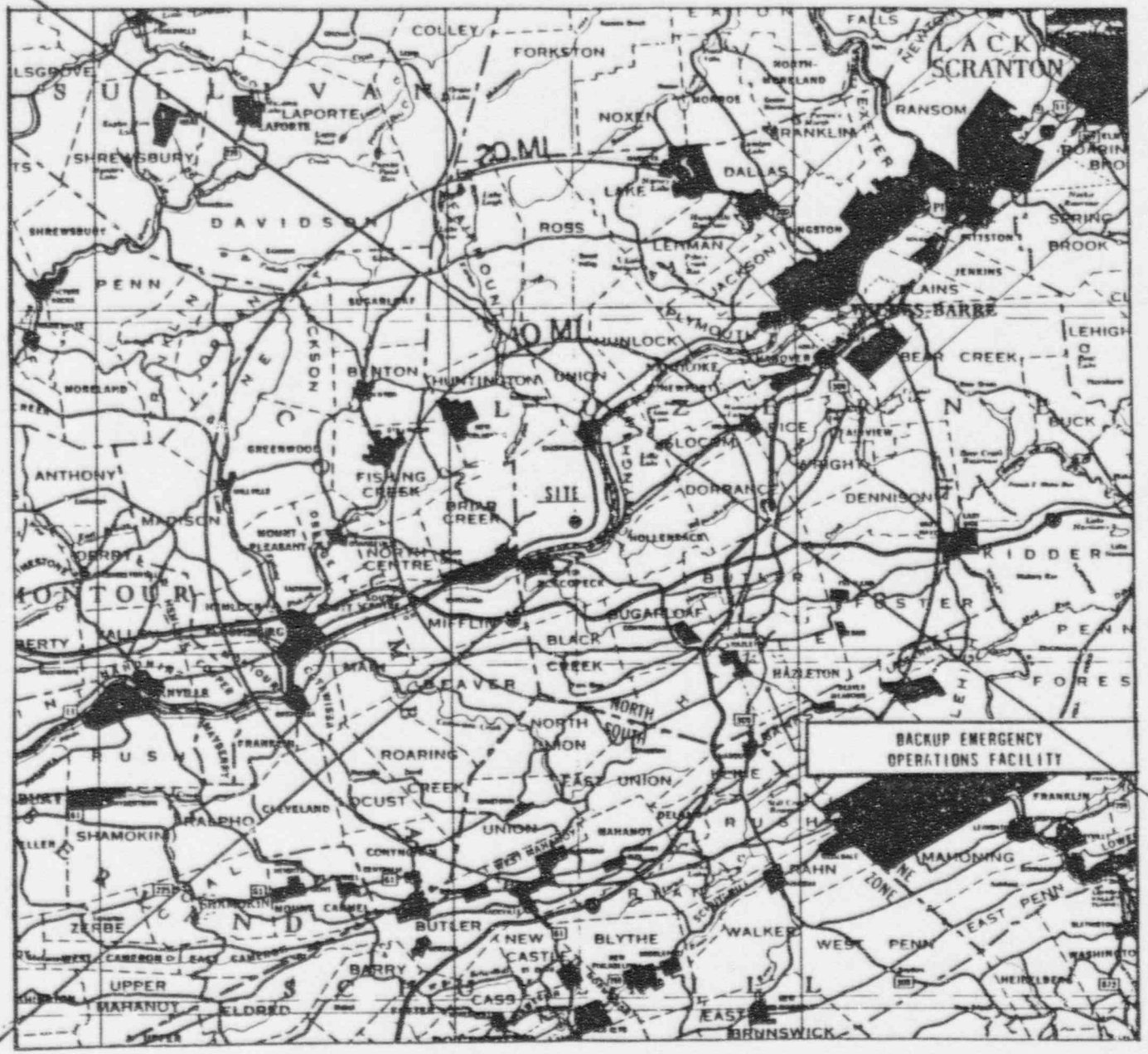
FIGURE 8.3




SUSQUEHANNA STEAM ELECTRIC STATION
UNITS 1 AND 2
EMERGENCY PLAN

EMERGENCY OPERATIONS FACILITY
FLOOR PLAN

FIGURE 8.3

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SUSQUEHANNA STEAM ELECTRIC STATION
UNITS 1 AND 2
EMERGENCY PLAN

LOCATION OF BACKUP EMERGENCY OPERATIONS FACILITY

FIGURE 8.4

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SUSQUEHANNA STEAM ELECTRIC STATION
UNITS 1 AND 2
EMERGENCY PLAN

FIGURE 8.4

Additional non-integrated drills and tests are conducted as follows:

- Quarterly fire drills
- Monthly communications drills with state and county agencies
- Monthly communications tests with the NRC.

Drill scenarios for major drills are prepared to involve participation of several emergency teams and all or specific parts of the NERO including varying degrees of participation of State, County, and Federal agencies and local off-site support organizations.

Following the conduct of drills, critiques are held to clearly identify deficiencies and action plans for resolution. Procedures are established to assure the timely implementation of corrective actions.

### 9.1.3 Overall Coordination of Nuclear Emergency Planning

Supervisor - Nuclear Emergency Planning

The ~~Manager-Nuclear Regulatory Affairs~~ is responsible for the overall coordination of all nuclear emergency planning activities. He is assisted in this effort by: the Vice President - Nuclear Operations for activities involving the Susquehanna Site, the Manager - Nuclear Training for on-site and off-site training, the Special Assistant to the President - Susquehanna for communications with the public and news media, ~~the Manager - Nuclear Department Support for assuring the operational readiness of the GOESC~~, and the Manager - Nuclear ~~Quality Assurance~~ for audits of Emergency Planning procedures.

Assessment Services

the Vice President - Nuclear Engineering for activities involving Nuclear engineering personnel

The ~~Manager-Nuclear Regulatory Affairs~~ is typically responsible for:

Supervisor - Nuclear Emergency Planning

- Revising of the SSES EP
- Revising of EP-PSs
- Conducting of integrated drills and exercises and communication drills
- Defining EP training scope for NERO
- Defining EOF and MOC EP Training
- Coordinating EP interface between State and Federal agencies
- Coordinating maintenance and testing of PNS
- Coordinating interface between state, county, municipal, and PP&L EPs
- Assuring operation of EOF ~~and BEOF~~.

## 9.2 REVIEW AND UPDATING

### 9.2.1 SSES Emergency Plan

Supervisor - Nuclear Emergency Planning

The ~~Manager-Nuclear Regulatory Affairs~~ is responsible for the review and revision of the SSES Emergency Plan, ensuring:

- A review of the SSES Emergency Preparedness Program, at least annually, by persons who have no direct responsibility for implementation of the program (10CFR50.54t). This includes a review of the SSES Emergency Plan.

# APPENDIX C

# SSES EMERGENCY PLAN

# POSITION SPECIFIC PROCEDURES

# (TYPICAL)

## APPENDIX C

## SSES EMERGENCY PLAN POSITION SPECIFIC PROCEDURES (TYPICAL)

On-Site Personnel

Emergency Director/CR
Emergency Director/TSC
Technical Support Coordinator
Operations Coordinator
Radiation Protection Coordinator
TSC Dose Calculator
HP Specialist
HP Radioman
HP Tech I (Oscar)
TSC Radio Communicator
Maintenance/I&C Coordinator
TSC Lead Engineer
Security Coordinator
Chemistry Coordinator
Chemistry Sampling Team
Administrative Support Coordinator
~~Dose Calculation Clerk~~
Radiation Protection Clerk
ED Logkeeper Clerk
TSC Radio Communicator Clerk
TSC Telecopier Clerk
TSC TOSS Clerk
Security Clerk
TSC Runner (Oscar)
CR Communicator
TSC Communicator
HPN Communicator
Data Technician
HP Tech II Dose Calculator
Damage Control Team Coordinator
OSC Coordinator

Off-Site Personnel

~~Recovery Manager (Interim)~~
Recovery Manager
Assistant Recovery Manager
~~Rad Tech Support Staffer~~
~~Tech Support Staffer #1 and #2~~

Off-Site Personnel (Cont'd.)

~~Health Physics Tech~~
County Liaison
~~Site Support Manager~~
~~Site Support Staffer~~
NEP Duty Planner
EOF Communicator
~~EOF Set-Up Foreman~~
~~Radiation Support Manager (Interim)~~
~~Radiation Support Manager~~
~~Assistant Radiation Support Manager~~
~~Environmental Sampling Director~~
~~Dose Calculator #1~~
~~Dose Calculator #2~~
~~Emergency Monitoring Team Director~~
~~Nearsite Monitoring Teams~~
~~Offsite Monitoring Team~~
~~Data Link (EOF)~~
~~Spectroscopy Analyst~~
Administrative ~~Support Manager~~
~~Rad Assessment Clerk~~
~~Rad Forms Clerk~~
~~Command and Control Clerk~~
~~EOF Telecopier Clerk~~
~~EOF TOSS Clerk~~
~~EOF Runner~~
~~Receptionist~~
~~EMTD Clerk~~
~~EOF Ingress/Egress Clerk~~
~~Technical Forms Clerk~~
~~Press Release Clerk~~
~~Tech Staff Clerk~~
~~Lead Tech Support Staffer~~
Public Information Manager
News Manager
Public Information Tech Briefer
Support Services Manager
MOC Communicator
Media/Public Officials Contact
Data Link (EOF)
Dose Assessment Supervisor
Dose Assessment Staffer
Field Team Director

## SSES EMERGENCY PLAN POSITION SPECIFIC PROCEDURES (TYPICAL)

Off-Site Personnel (Cont'd.)

MOC Writer
MOC Administrative Coordinator
MOC Ingress/Egress Clerk
PIM Logkeeper
MOC Runner
MOC Copy Clerk
~~General Office Operations Manager~~
~~Administrative Support Leader~~
~~Assistant Administrative Support Leader~~
~~Engineering Support Leader~~
Engineering Support ~~Manager~~ Supervisor
~~GO Support Clerk~~
~~GO Logkeeper~~
Nuclear Fuels ~~Lead~~ Engineer
Systems Lead Engineer
~~Data Support Engineer~~
~~Radiological Support Engineer~~
EOF Support Supervisor
Radiological Liaison
Liaison Support Supervisor
Electrical Support Engineer
Mechanical Support Engineer
Radiation Monitoring Teams
Environmental Sampling Teams

# APPENDIX D

# EQUIPMENT INFORMATION LISTINGS

## ENCLOSURE 9 TO APPENDIX D

### Typical Emergency Operations Facility Equipment

Plant Technical Specifications
Operating Procedures Manual
Emergency Operating Procedures Manual
Final Safety Analysis Report
Emergency Plan
Current Emergency Plans for: PEMA, LCEMA, CEMA
Rad Health Handbook
Offsite Dose Calculation Manual
Emergency Phone Directory
Emergency Planning Map with Offsite Monitoring Locations
Calculators
Microfilm/fiche Reader/Printers
Microfilm/fiche Storage Cabinet
Flashlight
First Aid Kit

### EOF HP/Decontamination Equipment/Supplies

Copy of HP-TT-624 - "Personnel Decontamination"
Personnel Contamination Report Forms
Disposable Gloves
Shoe Covers
Cotton Gloves
Coveralls
Detergent
Lotion Skin Cleaner
Cotton Tipped Swabs
Hand Brushes
Hand Cream
Disposable Razors
Scissors
Tweezers
Paper Towels
Masslin Cloths
Masking Tape
Assorted Sponges
Portable Frisker with Probe
Spare Frisker Probe and Cable
Survey Meter

HP/Decontamination Equipment/Supplies

Survey Meter
Low Volume Air Sampler
Particulate filter papers
Silver Zeolite Cartridges
Potassium Iodide Tablets
Low and High-range Self Reading Dosimeters
Dosimeter Charger
Anti-contamination Clothing
Full Face Respirators
Respirator Filters
Particulate Canister
Iodine Canister
SCBA Equipment
Smear Papers
Stopwatch
Spray Paint for Area Marking
Assorted Inserts for Signs
"Radioactive Material" Stickers and Tape
Masking Tape
Duct Tape
Plastic Sheeting
Poly Bags
Spare Batteries
Spare Fuses for Air Sampler

EOESC

Telephone instruments
Tape recorder
Big Picture Status Board
Reactor Parameter Board
Reactor Parameter Trending Board
Telephone Communication Boards (EOF & TSC)

# APPENDIX J

# NUREG-0654 PLANNING STANDARD AND EVALUATION CRITERIA CROSS REFERENCE TO SSES EMERGENCY PLAN

| NUREG-0654 PLANNING STANDARDS AND EVALUATION CRITERIA CROSS REFERENCE TO SSES EMERGENCY PLAN | |
|---|---|
| **APPLICABLE NUREG-0654 SECTION** | **SSES EMERGENCY PLAN** |
| C. Emergency Response Support and Resources | |
| 1.a | Chapter 6, Sections 6.2.1, 6.3.1.2, 6.4.3 |
| .b | Chapter 6, Section 6.4.3 |
| .c | Chapter 6, Section 6.4.3 |
| 2.a | N/A |
| .b | Chapter 6, Section 6.3.1.2 |
| 3. | Chapter 6, Section 6.4.3 |
| 4. | Appendix A |
| D. Emergency Notifications | |
| 1. | Chapter 5, Sections 5.1 and 5.2, Table 5.1 |
| 2. | Chapter 5, Section 5.1<br>Appendix F |
| E. Notifications, Methods and Procedures | |
| *NOTE: Appendix C lists the Emergency Plan Position Specific Procedures for the Nuclear Department Response Organization. Details for off-site communications are contained in individual procedures.* | |
| 1. | Appendix C, Position Specific Procedure for:<br>• Emergency Director, Control Room<br>• Emergency Director, TSC<br>• Technical Support Coordinator<br>• Radiation Protection Coordinator<br>• Control Room Communicator<br>• TSC Communicator<br>• ~~Health Physics~~ RP Communicator<br>• Recovery Manager<br>• EOF Communicator<br>• ~~Radiation Support Manager~~<br>• ~~Environmental Sampling Director~~<br>• ~~Lead Tech Support Staffer~~<br>Engineering Support Supervisor<br>→ Table 6.7 |
| 2. | Chapter 6, Appendix C<br>└ Radiological Liaison<br>Dose Assessment Supervisor |

| NUREG-0654 PLANNING STANDARDS AND EVALUATION CRITERIA CROSS REFERENCE TO SSES EMERGENCY PLAN | |
|---|---|
| **APPLICABLE NUREG-0654 SECTION** | **SSES EMERGENCY PLAN** |
| 3. | Appendix C, Position Specific Procedure for:<br><br>• CR Communicator<br>• TSC Communicator<br>• EOF Communicator |
| 4. | Chapter 6, Figure 6.7 |
| 4.a, b, c | Appendix C, Position Specific Procedure for:<br><br>• CR Communicator<br>• TSC Communicator<br>• EOF Communicator |
| 4.d, e, f, g, h, i, j, k, | Federal:<br><br>Appendix C, Position Specific Procedure for:<br><br>• CR Communicator<br>• TSC Communicator<br>• EOF Communicator<br>• HPN Communicator<br><br>State:<br><br>Appendix C, Position Specific Procedure for:<br><br>• Emergency Director, CR<br>• Emergency Director, TSC<br>• Tech Support Coordinator<br>• Rad Protection Coordinator<br>• Recovery Manager<br>• ~~Rad Support Manager~~ Dose Assessment Supervisor<br>• ~~Lead Tech Support Staffer~~ Engineering Support Supervisor<br>County:<br><br>Appendix C, Position Specific Procedure for:<br><br>• CR Communicator<br>• TSC Communicator<br>• EOF Communicator |

| NUREG-0654 PLANNING STANDARDS AND EVALUATION CRITERIA CROSS REFERENCE TO SSES EMERGENCY PLAN | |
|---|---|
| **APPLICABLE NUREG-0654 SECTION** | **SSES EMERGENCY PLAN** |
| .l | Federal:<br><br>Appendix C, Position Specific Procedure for:<br><br>• CR Communicator<br>• TSC Communicator<br>• HPN ~~(TSC)~~ Communicator<br>• EOF Communicator<br>• ~~HPN (EOF) Communicator~~<br><br>State:<br><br>Appendix C<br><br>• Emergency Director CR<br>• Emergency Director TSC<br>• Recovery Manager<br><br>County:<br><br>None (State recommends) |
| .m | Appendix C, Position Specific Procedure for:<br><br>• CR Emergency Director<br>• TSC Emergency Director<br>• Recovery Manager |
| .n | Appendix C, Position Specific Procedure for:<br><br>• CR Communicator<br>• TSC Communicator<br>• HPN Communicator<br>• EOF Communicator |
| 5. | N/A |
| 6. | Chapter 6, Section 6.4.1<br>Chapter 7, Section 7.1, 7.3.2<br>Chapter 8, Section 8.5.4 |

| NUREG-0654 PLANNING STANDARDS AND EVALUATION CRITERIA CROSS REFERENCE TO SSES EMERGENCY PLAN | |
|---|---|
| **APPLICABLE NUREG-0654 SECTION** | **SSES EMERGENCY PLAN** |
| 7. | Chapter 6, Sections 6.2, 6.2.1, 6.2.5, 6.3.1.2, 6.3.1.6<br><br>Appendix C, Position Specific Procedure for:<br><br>• CR Communicator<br>• TSC Communicator<br>• EOF Communicator<br><br>Chapter 7, Section 7.1.1 and Table 7.3 |
| F. Emergency Communications | |
| 1.<br><br>Dose Assessment Supervisor<br>Radiological Liaison<br>EOF Supp. Tech Supervisor | Figure 6.7<br><br>Appendix C, Position Specific Procedure for:<br><br>• Control Room Communicator<br>• TSC Communicator<br>• EOF Communicator<br>• HPN Communicator<br>• Emergency Director<br>• Recovery Manager<br>• Tech Support Coordinator<br>• Lead Tech Staffer<br>• Rad Protection Coordinator<br>• ~~Rad Support Manager~~<br>• ~~Site Support Manager~~ |
| 1.a | Chapter 8, Sections 8.1.2.5, 8.1.2.5.1, 8.1.3.5.3, 8.2.2.4, 8.2.2.4.1<br>Figure 6.7 |
| .b | Chapter 8, Sections 8.3.1 and 8.3.2<br>Figure 6.7 |
| .c | Chapter 8, Sections 8.1.3.5.2, 8.2.2.4.2<br>Figure 6.7 |
| .d | Chapter 8, Sections 8.2.2.4.3, 8.6.1<br>Figure 6.7 |
| .e | Chapter 6, Sections 6.0, 6.2 and 6.3 |
| .f | Chapter 8, Sections 8.1.3.5.2 and 8.2.2.4.2 |

| NUREG-0654 PLANNING STANDARDS AND EVALUATION CRITERIA CROSS REFERENCE TO SSES EMERGENCY PLAN | |
|---|---|
| APPLICABLE NUREG-0654 SECTION | SSES EMERGENCY PLAN |
| 8. | Chapter 7, Section 7.1.1<br>Appendix D, Enclosure 3 |
| 9. | Chapter 8, Section 8.1.2<br>Appendix D, Enclosures 1, 2 and 8 |
| 10. | Chapter 9, Section 9.3 |
| 11. | Appendix D |
| 12. | Chapter 6, Sections 6.0, 6.3.1.1, and 6.3.1.6 |
| I. Accident Assessment | |
| 1. | Chapter 5, Section 5.1<br>Appendix E |
| 2. | Chapter 7, Section 7.1<br>Table 8.1<br>Appendix D |
| 3.a | Chapter 7, Section 7.1<br>Table 8.1<br>Appendix D |
| .b | Chapter 7, Section 7.1<br>Table 8.1<br>Appendix D |
| 4. | Chapter 7, Section 7.1<br>Table 8.1<br>Appendix D |
| 5. | Chapter 7, Section 7.1.1.1 |
| 6. | Chapter 7, Sections 7.1.1.3.2 and 7.1.1.3.3 |
| 7. | Chapter 7, Section 7.1.1 |
| 8. | Chapter 7, Section 7.1.1 |
| 9. | Chapter 7, Section 7.1.1.2<br>Appendix D, Enclosures 4, 5 and 6<br>~~Appendix C, Position Specific Procedure for:~~<br>~~• Spectroscopy Analyst~~ |
| 10. | Chapter 7, Section 7.1.1<br>Table 7.3 |
| 11. | N/A |

| NUREG-0654 PLANNING STANDARDS AND EVALUATION CRITERIA CROSS REFERENCE TO SSES EMERGENCY PLAN | |
|---|---|
| **APPLICABLE NUREG-0654 SECTION** | **SSES EMERGENCY PLAN** |
| L. Medical and Public Health Support | |
| 1. | Chapter 6, Section 6.3.4<br>Chapter 9, Table 9.1<br>Appendix A<br>Appendix D |
| 2. | Chapter 7, Section 7.4.2 |
| 3. | N/A |
| 4. | Chapter 6, Section 6.3.4<br>Appendix A |
| M. Recovery and Reentry Planning and Postaccident Operations | |
| 1. | Chapter 6, Sections 6.0 and 6.5<br>Chapter 7, Section 7.3.2<br><br>Appendix C, Position Specific Procedure for:<br><br>• Emergency Director, Control Room<br>• Emergency Director, TSC<br>• Recovery Manager<br>• ~~Radiation Support Manager~~ → Dose Assessment Supervisor |
| 2. | Chapter 6, Section 6.5 and Figure 6.6<br><br>Appendix C, Position Specific Procedure for:<br><br>• Emergency Director, Control Room<br>• Emergency Director, TSC<br>• Recovery Manager |
| 3. | Chapter 6, Section 6.6 |
| 4. | Appendix C, Position Specific Procedure for:<br><br>• TSC Dose Calculator<br>• ~~EOF Dose Calculator #1~~<br>• ~~EOF Dose Calculator #2~~<br>• Rad Protection Coordinator<br>• ~~Rad Support Manager~~ → Dose Assessment Supervisor |
| N. Exercises and Drills | |
| 1.a | Chapter 9, Section 9.1.2 |
| .b | Chapter 9, Section 9.1.2 |

ATTACHMENT 3

April 13, 1995

LICENSEE: Pennsylvania Power and Light Company

FACILITY: Susquehanna Steam Electric Station, Units 1 and 2

SUBJECT: SUMMARY OF FEBRUARY 7, 1995 MEETING

On February 7, 1995 in Rockville, Maryland, the Pennsylvania Power & Light Company (PP&L) and the Office of Nuclear Reactor Regulation (NRR) staff met to discuss licensee plans to relocate the emergency operations facility (EOF) from the Susquehanna Steam Electric Station (SSES) Unit 1 and 2 site in Berwick, Pennsylvania, to Wilkes Barre, Pennsylvania, which is about 30 miles from the site. Enclosure 1 is a list of those individuals who attended the meeting and Enclosure 2 is a copy of the slides which were presented by PP&L staff during the meeting.

As discussed during the meeting, the EOF, currently located on site, is required to be staffed at the site area emergency level within 1 hour. Because of the distance of the site from the Allentown office, which takes about 1 hour and 40 minutes driving time, the 1-hour staffing is primarily made up of interim assignees taken from the on-site staff. This results in some operating staff being taken away from their primary post-accident operational duties until Allentown staff arrive at the EOF. The proposal is to move the EOF to Wilkes-Barre, which would be about a 1-hour and 10-minute trip for those driving from Allentown, and to man the EOF at the alert level with the permanent EOF assigned staff within about 90 minutes, and to have the EOF fully functional at the site area emergency. In addition, PP&L will be revising the organizational support structure for the emergency plan.

PP&L indicated that it was preparing its submittal package and would be providing it to the NRC in the spring. In addition, PP&L indicated that it plans to meet with state and Federal Emergency Management Agency staff to discuss the proposed changes. The staff indicated that it could review the package in approximately 2 months, and that it would require a Commission paper because of the fact that the new EOF location would be greater than 20 miles from the site.

John F. Stolz

for: Chester Poslusny, Project Manager
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-387/388

Enclosures: As stated

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

April 13, 1995

LICENSEE: Pennsylvania Power and Light Company

FACILITY: Susquehanna Steam Electric Station, Units 1 and 2

SUBJECT: SUMMARY OF FEBRUARY 7, 1995 MEETING

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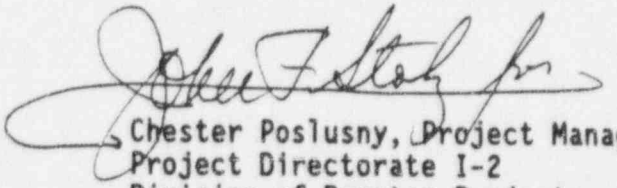

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Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-387/388

Enclosures: As stated

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FEBRUARY 7, 1995

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| C. T. Coddington | PP&L |
| J. Kenny | PP&L |
| S. Boynton | NRC/NRR |
| T. H. Essig | NRC/NRR |
| N. L. Stinson | NRC/NRR |
| A. M. Price | PP&L |

ENCLOSURE 1

ATTACHMENT 4

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

October 24, 1995

LICENSEE: Pennsylvania Power and Light Company

FACILITY: Susquehanna Steam Electric Station, Units 1 and 2

SUBJECT: SUMMARY OF AUGUST 29, 1995 MEETING

On August 29, 1995, Pennsylvania Power and Light Company (PP&L) and the Office of Nuclear Reactor Regulation staff met in Rockville, Maryland, to discuss the status of outstanding licensing issues for Susquehanna Steam Electric Station, Units 1 and 2. Enclosure 1 is a list of those who attended this meeting.

The meeting began with some general discussions about office streamlining and efforts to reduce the number of outstanding licensing actions over the next few months. The staff provided a summary of licensing action status and indicated that it expected to complete the approval and issue the set of outage related amendments before the upcoming Unit 2 refueling outage begins in September. Other items discussed by subject follow.

1. Emergency Operations Facility (EOF) Relocation Submittal

The PP&L staff discussed the justification for the proposed relocation of the EOF from the site in Berwick, PA., to Wilkes-Barre, PA., as included in the April 12, 1995, submittal. Enclosure 2 is a set of slides that were presented. The focus of the discussion was the fact that PP&L now estimates that the EOF can be effectively staffed by employees from the Allentown and Susquehanna site within 90 minutes. The staff indicated that this time period was reasonable and that it expects to recommend approval of the proposed move in a Commission paper being prepared. In addition, the staff suggested that PP&L conduct a limited, off-hours, unannounced call-out drill to demonstrate that the staff working in Allentown assigned to the EOF team can report to the new location within the 90-minute time frame. This would have to be completed before the staff would approve the relocation package. PP&L indicated that it would perform such a drill and would commit to such in a supplemental submittal.

2. Fire Protection Issues

PP&L provided an overview discussion of its fire protection program and focused on two issues of interest to the staff: the response to staff questions on its safe shutdown analysis and questions on a 10 CFR Part 50 Appendix R exemption regarding motor operated valve (MOV) hot shorts relative to the effects of a control room fire. Enclosure 3 is the set of slides that were presented.

For the safe shutdown analysis review, the staff provided a set of additional questions to the licensee (Enclosure 4) related to spurious actuations of redundant valves as a result of single, fire-induced, hot shorts in respective control circuits. During the discussion it was noted that there is a disagreement on the definition of multiple spurious actuations. The staff

indicated that any and all actuations precipitated by hot shorts must be considered one at a time in a given fire area and the appropriate mitigative design features or operator actions should be addressed. However, the licensee stated that it had not considered multiple occurrences of actuations in a given area in its evaluation. The PP&L staff agreed to reconsider its position and provide a response to the staff's questions.

Concerning the Appendix R exemption, the licensee provided a discussion of the status of its evaluation (Enclosure 3) regarding the interpretation of the requirements for the control room fire for the MOV hot short issue. It was emphasized that there were about 79 valves that must be considered as being susceptible to potential effects of hot shorts and that the estimated cost for new cable installation to minimize equipment damage due to hot shorts would require a cost of between $6-8 M. The staff indicated that its contractor is reviewing the August 2 submittal and will provide feedback by the end of October regarding this request for exemption.

/s/

Chester Poslusny, Senior Project Manager
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-387/388

Enclosures: As stated

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Chester Poslusny

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Docket Nos. 50-387/388

Enclosures: As stated

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## NRC MEETING WITH PP&L

## AUGUST 29, 1995

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| R. R. Sgarro | PP&L |
| M. Banerjee | NRC/NRR |
| R. Maiers | PADED-BRP |
| T. Gorman | PP&L |
| E. Jebsen | PP&L |
| B. Williams | PP&L |
| C. Burke | PP&L |
| K. Sullivan | NRR/BNL |
| A. Singh | NRR/DSSA |
| A. Bryant | NRR/DSSA |
| C. Myers | PP&L |
| A. Price | PP&L |
| F. Laughlin | NRC |
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| T. Essig | NRC/NRR |
| F. Kantor | NRR |
| W. Maier | NRC/NRR |
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Enclosure 1

ATTACHMENT 5

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**SUSQUEHANNA STEAM ELECTRIC STATION**
**EMERGENCY DATA AND THE PLANT**
**INTEGRATED COMPUTER SYSTEM**
**PLA-4362** **FILE R41-2**

**Docket Nos. 50-387**
**and 50-388**

The purpose of this letter is to inform the NRC Staff of the affect of the installation phase of the Unit 2 Plant Integrated Computer System (PICSY) project on electronically transmitted data for emergency planning. This project combines the Safety Parameter Display System (SPDS) computer, the Plant Computer System computer, the Remote Data Analysis System (RDAS) computer and the Emergency Response Data System (ERDS) computer into one integrated computer system.

Beginning September 16, 1995, the PICSY project will be installed in Unit 2 during the 7th Refueling and Inspection Outage and is scheduled for completion on October 14, 1995. The Unit 1 PICSY project will be installed in Unit 1 during the 9th Refueling and Inspection Outage which is scheduled to begin in September 1996.

The installation of the PICSY project on Unit 2 has been designed to minimize its affect on emergency planning data requirements. All necessary training and procedural changes have been identified to support the needs for implementing the PICSY project. Activities have commenced to assure operators and emergency response personnel have the appropriate training and procedural guidance to accommodate both the installation and subsequent operation of the new computer system.

The following is a summary of the affect of the installation on emergency planning data requirements including dose assessment for both Unit 1 and Unit 2.



A026

**Plant Computer**

During the installation of the Unit 2 PICSY project, data from the Unit 2 Plant Computer system will not be available in any emergency response facility. The loss of the electronically transmitted data from the Unit 2 Plant Computer will not decrease the effectiveness of operating the plant or managing an emergency since the data is available for verbal transmission from the Control Room and the relay rooms. The lack of data from the Plant Computer affects other information systems that are used in emergency planning such as the Remote Data Analysis System (RDAS), the Emergency Data System (EDS), and the Emergency Response Data System (ERDS).

**Safety Parameter Display System (SPDS)**

The following are the affects of the PICSY project on Unit 2 SPDS:

- The SPDS function in both the TSC and EOF will remain operable during the installation of Unit 2 PICSY except for a 3 day period for cutover to the new computer system which is scheduled near the end of the PICSY installation window.

- The SPDS function in the control room will be out of service during the entire installation of the PICSY project. If SPDS data were needed in the control room, this data could be obtained from the SPDS in the TSC that is located one floor above the control room. Also, the radiological release data is available from the Unit 1 SPDS that is unaffected by the installation of the PICSY project.

During the 3 day period for cutover, the SPDS function can be restored within 4 hours if required. These temporary changes to the SPDS do not decrease the effectiveness of responding to an emergency.

**Emergency Response Data System (ERDS)**

The temporary loss of electronically transmitted data during the entire installation window of the PICSY project does not decrease the effectiveness of responding to an emergency since either (1) the data points would not be available because of being in the Cold Shutdown or Refueling mode, (2) the data is available at remote locations to be verbally transmitted if required, or (3) the data is available from Unit 1. The outage of the Unit 2 plant computer only affects ERDS for Unit 2. Twenty-three out of 70 data points will be unavailable for electronic transmission during the Plant Computer outage. An additional 18 data points on both the Unit 1 and Unit 2 ERDS will be unavailable when the vent stack data control terminal interface with the RDAS computer system is taken out of service. These 18 vent stack data points will remain unavailable on the Unit 1 ERDS until the installation of the Unit 1 PICSY project on Unit 1 which is scheduled for the Fall of 1996. In the interim, these common vent stack data points will be transmitted via Unit 2 ERDS (after the PICSY project installation) to the NRC for an event on Unit 1. Table 1 lists

the data points that will be unavailable. The following provides an evaluation of the affect of not having this data:

- Condensate Storage Tank Level

  The condensate storage tank level is available from the Unit 1 plant computer and could be verbally transmitted if required. This information is also available in the control room via hard-wired recorders.

- Radiation Level of Main Steam Line

  In the Cold Shutdown or Refueling modes the Main Steam Line plugs and/or the MSIVs are closed; therefore, the Main Steam Lines are isolated and the radiation monitors would be reading downscale. This information is available in both the relay room and the control room via hard-wired recorders and indicators.

- Feedwater Flow

  In the Cold Shutdown and Refueling modes, the Feedwater system is not in operation. Therefore, the Feedwater flow would be reading downscale.

- High Pressure Coolant Injection Flow

  In the Cold Shutdown and Refueling modes, the High Pressure Coolant Injection System is not operable. Therefore, the High Pressure Injection Coolant flow would be reading downscale.

- Low Pressure Coolant Injection Flow

  The Low Pressure Coolant Injection flow can be obtained from hard-wired indicators and recorders in the control room and verbally transmitted if required.

- Reactor Core Isolation Coolant Flow

  In the Cold Shutdown and Refueling modes, the Reactor Core Isolation Coolant flow system is not operable. Therefore, the Reactor Core Isolation Coolant flow would be reading downscale.

- Intermediate Range Monitors

  In the Cold Shutdown and Refueling modes, the control rods are fully inserted; therefore, the power level would be below the lowest reading on the IRMs and they would be reading downscale. No postulated event would cause all the control rods to be withdrawn at the same time, therefore the need for the IRM readings would be small; however, the IRM readings can be

obtained from the hard-wired recorders located in the control room and can be verbally transmitted if required.

- Vent Stack Data

  The vent stack data is available from the control terminals in both the control room and TSC and from SPDS. This information can be verbally transmitted if required.

  After the installation of PICSY on Unit 2, the vent stack data will be available on Unit 2 only. If an incident should occur on Unit 1, both the Unit 1 and Unit 2 ERDS would be activated in order to provide the vent stack data which is common to both units.

The temporary loss of data from the Plant computer and the vent stack control terminal interface with RDAS does not decrease the effectiveness of our response to an emergency.

After the ERDS outage, the system will be tested and within 30 days following the installation of PICSY the data point library will be updated and transmitted to the NRC as required by regulation.

**EMERGENCY DATA SYSTEM (EDS)**

The temporary loss of electronically transmitted data during the installation of the PICSY project does not decrease the effectiveness of responding to an emergency since either (1) the data points would not be available because of being in the Cold Shutdown or Refueling mode, (2) the data is available at remote locations to be voice transmitted, or (3) the data is available to be voice transmitted from Unit 1. The outage of the Unit 2 plant computer only affects EDS for Unit 2. The vent stack data for both the Unit 1 and Unit 2 EDS will be unavailable for electronic transmission when the vent stack vent control terminal interface with RDAS is taken out of service. Table 2 lists the data points that will be unavailable. The following provides an evaluation of the lost data:

- Condensate Storage Tank Level

  The condensate storage tank level is available from the Unit 1 plant computer and could be verbally transmitted as needed. This information is also available in the control room via hard-wired recorders.

- Suppression Pool Bulk Temperature

  The Suppression Pool Bulk Temperature is available both in the control room via SPOTMOS and in SPDS in the TSC or EOF. The data can be verbally transmitted if required.

- Radiation Level of Main Steam Line

  In the Cold Shutdown or Refueling modes the Main Steam Line plugs and/or the MSIVs are closed; therefore, the Main Steam Lines are isolated and the radiation monitors would be reading downscale. This information is available in both the relay room and the control room via hard-wired recorders and indicators.

- RBCCW Radiation

  The RBCCW radiation level is available in both the relay room and the control room via hard-wired recorders and indicators. This information can be verbally transmitted if required

- Feedwater Flow

  In the Cold Shutdown and Refueling modes, the Feedwater system is not in operation. Therefore, the Feedwater flow would be reading downscale.

- Reactor Pressure

  The reactor pressure can be obtained from indicators in the control room and from SPDS. This information can be verbally transmitted if required.

- High Pressure Coolant Injection Flow

  In the Cold Shutdown and Refueling modes, the High Pressure Coolant Injection System is not operable. Therefore, the High Pressure Injection Coolant flow would be reading downscale.

- Low Pressure Coolant Injection Flow

  The Low Pressure Coolant Injection flow can be obtained from hard-wired indicators and recorders in the control room and verbally transmitted if required.

- Reactor Core Isolation Coolant Flow

  In the Cold Shutdown and Refueling modes, the Reactor Core Isolation Coolant flow system is not operable. Therefore, the Reactor Core Isolation Coolant flow would be reading downscale.

- APRM Flux

  The APRM flux readings can be obtained from indicators and recorders located in both the relay room and the control room. This information can be verbally transmitted if required.

the IRM readings would be small; however, the IRM readings can be obtained from the hard-wired recorders located in the control room and could be verbally transmitted if required.

- Recirculation Loop Temperature

  The recirculation loop temperature can be obtained from a recorder located in the control room. This data can be verbally transmitted if required.

- SLC Storage Tank Level

  The SLC storage tank level is available from indicators located in the control room. This data can be verbally transmitted if required.

- Area Radiation Monitors

  The area radiation monitor reading can be obtained from recorders and indicators located in both the control room and the relay room. This information can be verbally transmitted if required.

- Vent Stack Data

  The vent stack data is available from the SPING control terminals in both the control room and TSC and from SPDS. This information can be verbally transmitted if required.

## DOSE ASSESSMENT

The dose assessment program (MIDAS) obtains its vent stack inputs via manual entry from the Met/Vent printouts. Different sources for the input data are required because the Met/Vent printouts will not contain the vent stack data during the installation of the PICSY project since the control terminal interface with RDAS will be out of service. The required input data is available from the SPING control terminals in both the control room and the TSC. The temporary loss of the Met/Vent printouts does not decrease the effectiveness of our response to an emergency.

## TRAINING AND PROCEDURES

All necessary training and procedural changes have been identified to support the needs for implementing the PICSY project. Activities have commenced to assure operators and emergency response personnel have the appropriate training and procedural guidance to accommodate both the installation and subsequent operation of the new computer system.

If you have any questions, please contact Mr. C. T. Coddington at (610) 774-7531.

Very truly yours,

R. G. Byram

Attachment

copy: NRC Region I
Ms. M. Banerjee, NRC Sr. Resident Inspector
Mr. C. Poslusny, NRC Sr. Project Manager
Mr. R. Keimig Region I
Mr. F. Laughlin Region I

## TABLE 1

## ERDS POINTS UNAVAILABLE DURING PROCESS COMPUTER OUTAGES

| Process Comp. Pt. ID | Parameter Description |
|---|---|
| CSL01 | Condensate Storage Tank 1 Level |
| CSL02 | Condensate Storage Tank 2 Level |
| NAR01 | Radiation Level of Main Steam Line A |
| NAR02 | Radiation Level of Main Steam Line B |
| NAR03 | Radiation Level of Main Steam Line C |
| NAR04 | Radiation Level of Main Steam Line D |
| NFF52 | Feedwater Flow A into Reactor System |
| NFF53 | Feedwater Flow B into Reactor System |
| NFF54 | Feedwater Flow C into Reactor System |
| NGF01 | High Pressure Coolant Injection Flow |
| NHF01 | Low Pressure Coolant Injection A Flow |
| NHF02 | Low Pressure Coolant Injection B Flow |
| NIF01 | Reactor Core Isolation Cooling Flow |
| NN109 | IRM A Flux, % of Scale |
| NN112 | IRM D Flux, % of Scale |
| NN115 | IRM G Flux, % of Scale |
| NN116 | IRM H Flux, % of Scale |
| NNX01 | IRM A Range Switch Position |
| NNX04 | IRM D Range Switch Position |
| NNX07 | IRM G Range Switch Position |
| NNX08 | IRM H Range Switch Position |
| NNZ54 | IRM Detectors not Full in Position |
| NNZ59 | IRM Bypass |
| EGRPRX1 | Rad Release (Particulate) Reactor Building Vent Unit 1 |
| EGRIRX1 | Rad Release (I-131) Reactor Building Vent Unit 1 |
| EGRNRX1 | Rad Release (Noble Gas) Reactor Building Vent Unit 1 |
| EGRPRX2 | Rad Release (Particulate) Reactor Building Vent Unit 2 |
| EGRIRX2 | Rad Release (I-131) Reactor Building Vent Unit 2 |
| EGRNRX2 | Rad Release (Noble Gas) Reactor Building Vent Unit 2 |

**TABLE 1 (continued)**

| | |
|---|---|
| EGRPTB1 | Rad Release (Particulate) Turbine Building Vent Unit 1 |
| EGRITB1 | Rad Release (I-131) Turbine Building Vent Unit 1 |
| EGRNTB1 | Rad Release (Noble Gas) Turbine Building Vent Unit 1 |
| EGRPSGTS | Rad Release (Particulate) SGTS Vent |
| EGRISGTS | Rad Release (I-131) SGTS Vent |
| EGRNSGTS | Rad Release (Noble Gas) SGTS Vent |
| EGRPTB2 | Rad Release (Particulate) Turbine Building Vent Unit 2 |
| EGRITB2 | Rad Release (I-131) Turbine Building Vent Unit 2 |
| EGRNTB2 | Rad Release (Noble Gas) Turbine Building Vent Unit 2 |
| EGRPSITE | Rad Release (Particulate) Site Total |
| EGRISITE | Rad Release (I-131) Site Total |
| EGRNSITE | Rad Release (Noble Gas) Site Total |

## TABLE 2

## EDS POINTS UNAVAILABLE DURING PROCESS COMPUTER OUTAGE

| Process CPU PID | Parameter Description |
|---|---|
| CSL01 | Condensate Storage Tank 1 Level |
| CSL02 | Condensate Storage Tank 2 Level |
| MAT37 | Suppression Pool Bulk Temperature D1 |
| MAT38 | Suppression Pool Bulk Temperature D2 |
| NAR01 | Main Steam Line Radiation A |
| NAR02 | Main Steam Line Radiation B |
| NAR03 | Main Steam Line Radiation C |
| NAR04 | Main Steam Line Radiation D |
| NAR07 | RBCCW Radiation |
| NFF52 | Feedwater Flow A into Reactor System |
| NFF53 | Feedwater Flow B into Reactor System |
| NFF54 | Feedwater Flow C into Reactor System |
| NFP51 | Reactor Pressure |
| NGF01 | HPCI Pump Discharge Line Flow |
| NHF01 | RHR System A Flow |
| NHF02 | RHR System B Flow |
| NIF01 | RCIC Flow |
| NM551 | APRM A Flux Level |
| NN109 | IRM A Flux |
| NN112 | Nuclear Instrument, Intermediate Range D |
| NN115 | Nuclear Instrument, Intermediate Range G |
| NN116 | Nuclear Instrument, Intermediate Range H |
| NNX01 | IRM A Range Switch Position |
| NNX04 | IRM D Range Switch Position |
| NNX07 | IRM G Range Switch Position |
| NNX08 | IRM H Range Switch Position |
| NNZ54 | IRM Detectors Not Full in Position |
| NNZ59 | IRM Bypass |
| NRT52 | Recirculation Loop A Pump Suction Temperature |
| NXL01 | SLC Storage Tank Level |
| PAR07 | ARM-07-Offgas Area |
| PAR15 | ARM-15-Refuel Floor North |
| EGRPRX1 | Rad Release (Particulate) Reactor Building Vent Unit 1 |
| EGRIRX1 | Rad Release (I-131) Reactor Building Vent Unit 1 |

**TABLE 2 (continued)**

| | |
|---|---|
| EGRNRX1 | Rad Release (Noble Gas) Reactor Building Vent Unit 1 |
| EGRPRX2 | Rad Release (Particulate) Reactor Building Vent Unit 2 |
| EGRIRX2 | Rad Release (I-131) Reactor Building Vent Unit 2 |
| EGRNRX2 | Rad Release (Noble Gas) Reactor Building Vent Unit 2 |
| EGRPTB1 | Rad Release (Particulate) Turbine Building Vent Unit 1 |
| EGRITB1 | Rad Release (I-131) Turbine Building Vent Unit 1 |
| EGRNTB1 | Rad Release (Noble Gas) Turbine Building Vent Unit 1 |
| EGRPSGTS | Rad Release (Particulate) SGTS Vent |
| EGRISGTS | Rad Release (I-131) SGTS Vent |
| EGRNSGTS | Rad Release (Noble Gas) SGTS Vent |
| EGRPTB2 | Rad Release (Particulate) Turbine Building Vent Unit 2 |
| EGRITB2 | Rad Release (I-131) Turbine Building Vent Unit 2 |
| EGRNTB2 | Rad Release (Noble Gas) Turbine Building Vent Unit 2 |
| EGRPSITE | Rad Release (Particulate) Site Total |
| EGRISITE | Rad Release (I-131) Site Total |
| EGRNSITE | Rad Release (Noble Gas) Site Total |

ATTACHMENT 6

Pennsylvania Power & Light Company
Two North Ninth Street • Allentown, PA 18101-1179 • 610/774-5151

Robert G. Byram
*Senior Vice President-Nuclear*
610/774-7502
Fax: 610/774-5019

OCT 02 1995

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Station P1-137
Washington, DC 20555

SUSQUEHANNA STEAM ELECTRIC STATION
ADDITIONAL CHANGE TO THE PROPOSED
REVISION TO THE EMERGENCY PLAN:
MOVING THE EOF TO THE NORTHEAST
DIVISION HEADQUARTERS

Docket Nos. 50-387
and 50-388

PLA-4372 FILE R41-2

*References:* 1. *Letter (PLA-4298) dated 4/12/95, 'Proposed Revision to the Emergency Plan: Moving the EOF to the Northeast Division Headquarters', from R. G. Byram to NRC*

2. *Letter (PLA-4334), dated 4/10/95, 'Response to NRC Questions on EOF Move', from R. G. Byram to NRC*

This letter provides a revision to Pennsylvania Power & Light Company's proposed submittal on the relocation of the Emergency Operations Facility (EOF) in regard to the time to activate the EOF. As discussed at the meeting on August 29, 1995, we have reevaluated the time required to activate the new EOF. After evaluation of the required functions, driving time, personnel locations, the performance of the off-hours unannounced drill in July 1995, and procedures, we have concluded that the activation of the new EOF can be accomplished within 90 minutes of the declaration of a Site Area Emergency or higher. Therefore, a revision to our original submittal is required. The following revisions to our original submittal (Reference 1) are proposed:

- The section titled 'ACTIVATION OF THE EOF' in Reference 1 is superseded and replaced with the following:

**ACTIVATION OF THE EOF**

The guidance in NUREG 0696 states that the EOF shall be functional within one hour of activation at the Site Area Emergency. Currently to meet this guidance, an interim EOF staff, composed of site personnel, is notified and reports to the EOF at an Alert

classification to prepare the facility should activation become necessary. This interim staff activates the EOF within one hour of the Site Area Emergency declaration and takes the turnover from the TSC. The permanent EOF staff is activated upon the declaration of a Site Area Emergency. Most of the permanent EOF staff, whose normal work location is Allentown, would arrive at the existing EOF between one hour forty-five minutes and two hours after the declaration of the Site Area Emergency. The permanent EOF staff would then take the turnover from the interim staff. This arrangement presently meets the guidelines of NUREG-0696; however, there are two staff turnovers within three hours of declaring the Site Area Emergency.

PP&L has determined that it would be impractical to use plant personnel as an interim staff to activate the proposed EOF until the permanent staff arrives. The proposed EOF is approximately 35 minutes by automobile from the plant and approximately 65 minutes by automobile from Allentown. Using the existing plan would require the interim staff to manage the emergency for less than one hour before turning over the management to the permanent staff. This is inefficient and can introduce additional communication difficulties with respect to the management of the emergency.

To meet the intent of the NUREG-0696 guidance, PP&L proposes to have the permanent EOF staff report to the EOF at the declaration of an Alert. PP&L believes this provides reasonable assurance the EOF would be fully functional within one hour of the declaration of a Site Area Emergency. The exceptions are fast moving events or events immediately classified at the Site Area Emergency level or higher. For events that begin at the Site Area Emergency level or higher, the TSC and EOF would be activated at the classification. The TSC would assume management of the emergency from the control room within one hour. The EOF would be fully functional and take command of the emergency within 90 minutes after the declaration of a Site Area Emergency or higher. This proposed activation of the EOF does not decrease the effectiveness of PP&L's response to an emergency since for the time it takes for the EOF staff to respond, the TSC has adequate staffing to manage the emergency. Also not having an interim staff reduces the number of turnovers in the management of an emergency and thus reduces the possibility of introducing communication difficulties into the management of an emergency.

- Insert 1 to Page 6-2 of the Emergency Plan has been revised to state that the EOF will be functional and take command within 90 minutes of the declaration of a Site Area Emergency. The revised insert is attached.

- The layout of the new EOF (Figure 8.3) has been revised and is attached.

In order to validate our 90 minute activation time, we will perform an off-hours, unannounced drill in which we will demonstrate that the key EOF staff can be notified and physically report to the new EOF. Once the minimum staff needed to declare the EOF operational have reported to the EOF, we will terminate the drill. We will either add a reasonable allowance time for EOF post-arrival briefings and other initial duties to the physical drill time or actually test the takeover

portion to ensure that our commitment to assume command of the emergency within 90 minutes is met. If the NRC staff would like to observe this drill, please notify us.

If you have any questions, please contact Mr. C. T. Coddington at (610) 774-7531.

Very truly yours,

R. G. Byram

cc: NRC Region I
Ms. M. Banerjee, NRC Sr. Resident Inspector
[redacted], NRC Sr. Project Manager
Mr. R. Keimig Region I
Mr. F. Laughlin Region I

Upon activation of Phase II, additional personnel are available, and control and dissemination of in-plant teams shifts from the OSC to the TSC.

Phase II - Activation of On-Site NERO - (Reference Figure 6.3 and Table 6.2) Upon notification by the on-shift organization, the VP-Nuclear Operations or his designated alternate, reports to the site to assume the role of ED. Support coordinators and staffs in areas of technical assessment, radiological assessment and operational coordination also report to the site. These individuals form the nucleus of the ED's Team and activate the TSC. The TSC is fully functional within 30 to 60 minutes of initial notification. As the ~~Plant Superintendent~~ VP-Nuclear Operations and his support coordinators arrive, they are briefed by the Shift Supervisor and then, in turn, assume responsibility from the Shift Supervisor for their particular areas of expertise. Emergency management activities, including communications, are under the control of the ~~Plant Superintendent~~ or his designated alternate; dose projection and assessment activities are directed by the Radiation Protection Coordinator; technical expertise is directed by the Tech Support Coordinator, the Operations Coordinator oversees Operations activities and the Damage Control Team Coordinator oversees in-plant damage control actions. The TSC takes over all emergency management and support activities from the on-shift organization, freeing them to devote their efforts towards establishing and maintaining the plant in a safe, stable condition.

Phase III - Activation of Off-site NERO - (Reference Figures 6.2~~, 6.3~~, 6.4~~, 6.5~~ and Table 6.2). This organization staffs the Emergency Operations Facility, ~~General Office Engineering Support Center~~, and Media Operations ~~Facility~~ Center to provide in-depth technical and off-site radiological assessment.

~~The Emergency Operations Facility is activated automatically at a Site Area Emergency, but can be activated earlier at the discretion of the Emergency Director or Recovery Manager. Upon activation of the Emergency Operations Facility, personnel shall report to the EOF and be prepared for full functional operation within one hour.~~

Functional operation will include:

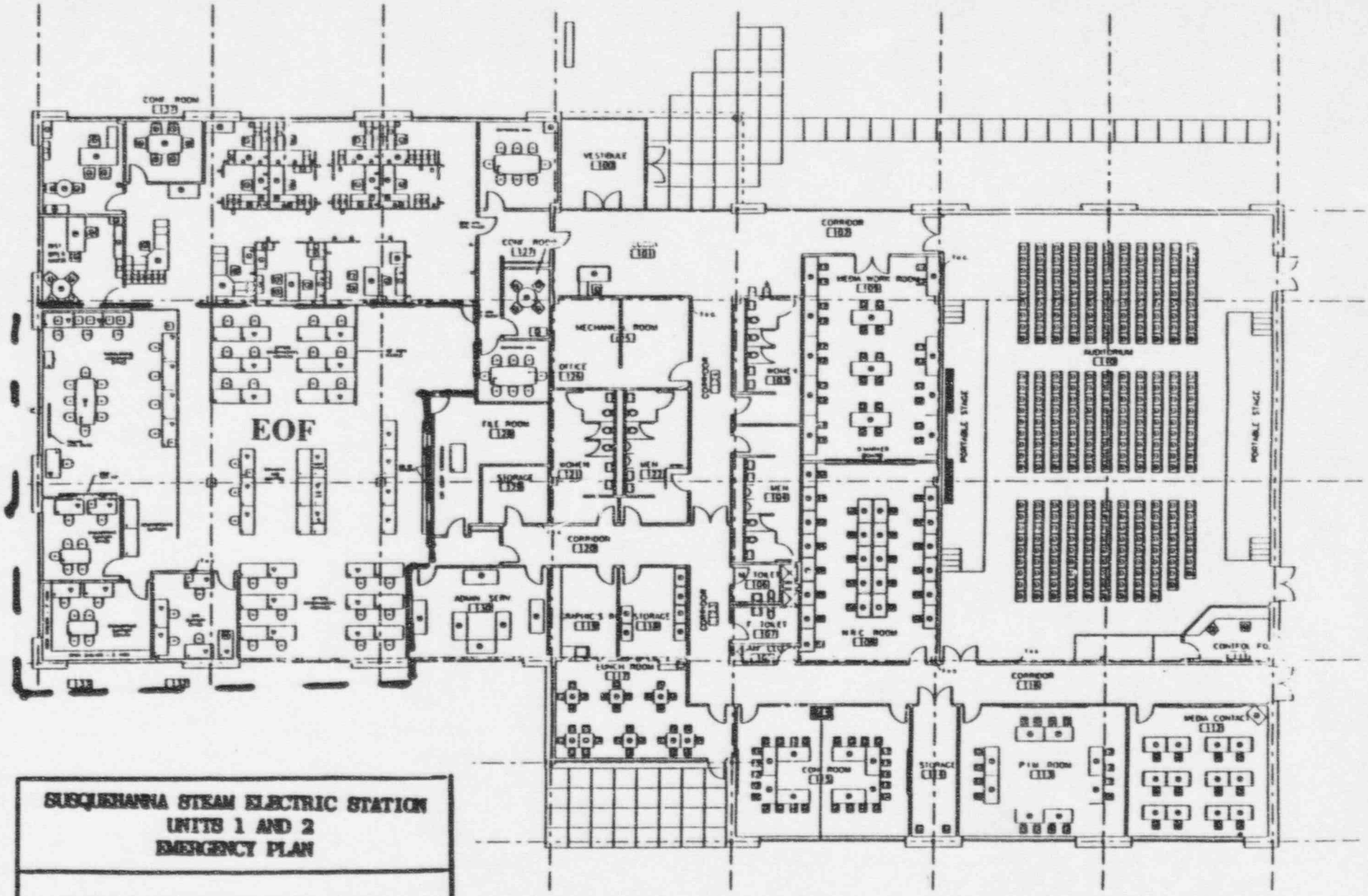
- Management of overall emergency response
- Coordination of radiological and environmental assessment
- Determination of recommended protective actions
- Coordination of emergency response activities with Federal, State, local county and municipal agencies

~~Site based EOF personnel will be notified and report to the EOF at an ALERT classification to prepare the facility should activation become necessary. The EOF is initially staffed by Site personnel at an Alert classification. Upon activation, General Office personnel will be notified and report to the EOF as soon as reasonably possible.~~

~~NOTE: Site based personnel are capable of fully activating the Emergency Operations Facility.~~

INSERT 1

The Emergency Operations Facility is activated automatically at an Alert or higher emergency classification. Upon activation of the Emergency Operations Facility, personnel shall report to the EOF and be prepared to take over management of the emergency from the TSC at a Site Area Emergency or higher classification. When the initial emergency classification is a Site Area Emergency or higher, the EOF will take over the management of the emergency within 90 minutes of the declaration of a Site Area Emergency. At the discretion of the Emergency Director or Recovery Manager the EOF can be activated and take over management of the emergency earlier.




**SUSQUEHANNA STEAM ELECTRIC STATION**
**UNITS 1 AND 2**
**EMERGENCY PLAN**

**EMERGENCY OPERATIONS FACILITY**
**FLOOR PLAN**

**FIGURE 8.3**

ATTACHMENT 7

PP&L Pennsylvania Power & Light Company

Two North Ninth Street • Allentown, PA 18101-1179 • 610/774-5151

**Robert G. Byram**
***Senior Vice President-Nuclear***
**610/774-7502**
**Fax: 610/774-5019**

DEC 01 1995

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Station P1-137
Washington, DC 20555

**SUSQUEHANNA STEAM ELECTRIC STATION**
**MAINTENANCE OF NEW EOF FACILITY** **Docket Nos. 50-387**
**PLA-4389 FILE R41-2** **and50-388**

During an August 29, 1995, meeting with the NRC staff, there was a discussion on how the new EOF would be maintained. The staff indicated that, according to PP&L, there would be an interim staff of people located closest to the new EOF facility to insure that it would be operationally ready when the EOF staff from Allentown arrives. This letter clarifies PP&L's position on the new EOF facility maintenance.

PP&L does not use an interim staff to assure that the new EOF is operationally ready. The new EOF facility will be kept in a state of operational readiness with minimal set up required. In addition, as part of the EOF staff, personnel in close proximity to the facility arrive prior to the Allentown staff and provide additional assurance that the EOF is operationally ready. These personnel fill the positions of EOF Support Supervisor, NEP Duty Planner and Field Team Monitor.

If you have any question, please contact Mr. C. T. Coddington at (610) 774-7531.

Very truly yours,

R. G. Byram

copy: NRC Region I
Ms. M. Banerjee, NRC Sr. Resident Inspector
Mr. C. Poslusny, Jr., NRC Sr. Project Manager

ATTACHMENT 8

Clinton

PENNSYLVANIA EMERGENCY MANAGEMENT AGENCY
BOX 3321
HARRISBURG, PENNSYLVANIA 17105-3321

March 29, 1995

Mr. Anthony Price
Supervisor of Nuclear Emergency Planning
Pennsylvania Power and Light Co.
P.O. Box 467
Berwick, PA 18603

Dear Mr. Price:

We appreciate your briefing our staffs on the progress of your plan to gain the Nuclear Regulatory Commission's approval to relocate your Emergency Operations Facility to the former Northern Division premises.

Your plan to collocate your Media Center and the Emergency Operations Facility has many advantages. Your commitment to provide a facility equal to, or better than, your current Emergency Operations Facility is an excellent basis for our continued cooperation in assuring the health and safety of the citizens of Pennsylvania.

Sincerely,

Charles P. Wynn
Director, FEMA

William P. Dornsife
Director, BRP

CPW/WPD/dby

cc: CA

ATTACHMENT 9

February 27, 1995

MEMO TO FILE

SUBJECT: EOF Relocation

The purpose of this memo is to document coordination of the relocation of the Susquehanna Steam Electric Station Emergency Operations Facility. The relocation was discussed with County and State Emergency Management officials and the Department of Environmental Protection/Bureau of Radiation Protection. The signature of the representative of those respective agencies indicates their knowledge of the relocation and specifics contained in the Nuclear Regulatory Commission submittal by Pennsylvania Power and Light. The purpose of the submittal is to provide information and request NRC approval of the relocation effort. This memo will be part of the submittal. It documents PP&L, State, and County officials are knowledgeable of the relocation and are working to coordinate the effects of the relocation on the state of emergency preparedness for SSES.

PEMA: See Attachment 8 Date: _____

LCEMA: See Attachment 10 Date: _____

CCDES: Irene M. Miller Date: 11/27/95

DER/BRP: _____ Date: _____

PP&L-NEP: _____ Date: _____

ATTACHMENT 10

PP&L

February 27, 1995

MEMO TO FILE

SUBJECT: EOF Relocation

The purpose of this memo is to document coordination of the relocation of the Susquehanna Steam Electric Station Emergency Operations Facility. The relocation was discussed with County and State Emergency Management officials and Department of Environmental Resources/Bureau of Radiological Protection. The signature of representatives of those respective agencies indicates their knowledge of the relocation and specifics contained in the Nuclear Regulatory Commission submittal by Pennsylvania Power and Light. The purpose of the submittal is to provide information and request NRC approval of the relocation effort. This memo will be part of the submittal. It documents PP&L, State, and County officials are knowledgeable of the relocation and are working to coordinate the effects of the relocation on the state of emergency preparedness for SSES.

See Attachment 8

PEMA

DER/BRP

James M. Sivacuse

LCEMA

PP&L Emergency Planning

See Attachment 9

CCDES

Take Care

ATTACHMENT 11

# Federal Emergency Management Agency

Washington, D.C. 20472

FEB 8 1996

PT-EX-RG

Mr. Dennis M. Crutchfield
Division of Reactor Program Management
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Crutchfield:

This is in response to the letter dated February 6, 1996, from Mr. Thomas H. Essig, of your staff to Mr. Ihor W. Husar, of my staff, requesting FEMA's review of Pennsylvania Power and Light's proposal to relocate the Emergency Operations Facility (EOF) for the Susquehanna Steam Electric Station (SSES) from its current near-site location to an existing corporate facility, twenty-two miles from the site, in Wilkes-Barre, Pennsylvania.

Based on our review of the documentation provided to us and the assurance that FEMA Region III and affected State and local officials agree to the suitability of the proposed new location, we have no objection to the establishment of the new EOF in Wilkes-Barre.

Should you have any questions concerning this matter, please contact Mr. Husar, Chief, State and Local Regulatory Evaluation and Assessment Branch, at (202) 646-4065.

Sincerely,

O. Megs Hepler, III

O. Megs Hepler, III
Director
Exercises Division
Preparedness, Training, and
Exercises Directorate