

TO: DISTRIBUTION

MANUAL EMERGENCY PLAN IMPLEMENTING PROCEDURES

Date October 26, 1982

Please remove: (1) Index and/or Revision Control Page(s) and (2) Procedure or Procedure Page(s) listed below and insert the revised material.

INSTRUCTIONS

	REMOVE		INSERT	
	Rev.	Date	Rev.	Date
Revision Control Sheet	10	9/23/82	11	10/26/82
EPIP 2.2	3	2/1/82	4	10/4/82

Subsequent to making the above changes, sign and date the notice below, detach it at the bottom line and return it to the addressee.

60/10
NRC-NRR

NOTICE OF RECEIPT OF REVISION NOTIFICATION

TO: DAEC SUPPORT SERVICES
P.O. Box 351, Cedar Rapids, Iowa 52406

This acknowledges receipt of revision notification to the Procedure(s) _____

EPIP 2.2

dated 10/26/82 and updating of Procedure(s) in accordance with the notification

instructions.

8211160029 821108
PDR ADOCK 05000331
F PDR

signature: _____

Date: _____

EMERGENCY PLAN IMPLEMENTING PROCEDURES

REVISION CONTROL SHEET

Revision No. 11Revision Date 10/26/82

Page/Proc	Date	Rev.	Page/Proc	Date	Rev.	Page/Proc	Date	Rev.
INDEX	6-1-82	4						
1.1	3-1-82	1						
1.2	6/9/82	2						
2.1	1/15/82	2						
2.2	10/4/82	4						
2.3	12/2/81	0						
3.1	3/1/82	2						
3.2	3/1/82	3						
3.3a	10/21/81	1						
3.3b	6/15/82	1						
4.1	7/19/82	3						
4.2	5/11/81	0						
4.3	10/19/81	1						
4.4	7/30/82	1						
4.5	5/13/82	0						
5.1	11/24/81	1						
5.2	11/24/81	1						
6.1	5/11/81	0						
6.2	5/11/81	0						
6.3	3/1/82	1						
6.4	3/3/82	2						

EMERGENCY PLAN IMPLEMENTING PROCEDURE	EPIP - 2.2
ACTIVATION AND OPERATION OF THE TECHNICAL SUPPORT CENTER	Page 1 of 23
	Revision 4
	Date - 10/4/82

1.0 PURPOSE

This procedure provides instructions for activation and operation of the Technical Support Center (TSC) to provide emergency coordination and technical support during an emergency condition.

2.0 APPLICABILITY

2.1 This procedure shall be implemented upon declaration of an emergency classified as an Alert, Site Emergency, or General Emergency. It is applicable to all site management and technical personnel assigned to the TSC and/or responsible for the emergency functions of the TSC.

2.2 During an event classified as an Unusual Event, the Emergency Coordinator, at his discretion, may activate the TSC.

3.0 RESPONSIBILITIES

3.1 Emergency Coordinator

3.1.1 Coordinate accident assessment and analyses efforts with the Radiological and EOF Manager to determine the potential or actual radiological impact of the emergency condition upon the public.

3.1.2 Coordinate efforts with the Emergency Support Manager, as necessary, to return the plant to a stable, safe condition.

3.1.3 Ensure performance of required actions by the Site Emergency Response Organization. See EPIP 2.3 "Emergency Coordinator Duties".

3.2 Technical Support Center Supervisor

3.2.1 Ensure that actions required to physically place the TSC into operation are accomplished.

3.2.2 Provide management and over all direction to the TSC staff during emergency response and recovery efforts. See TSC Supervisors Checklist Attachment 7.

3.3 Site Radiation Protection Coordinator

3.3.1 Perform initial dose assessment evaluations.

EMERGENCY PLAN IMPLEMENTING PROCEDURE	EPIP - 2.2
ACTIVATION AND OPERATION OF THE TECHNICAL SUPPORT CENTER	Page 2 of 23
	Revision 4
	Date - 10/4/82

- 3.3.2 Coordinate and direct radiation protection activities at the site. See attached checklist (Attachment 8, "Site Radiation Protection Coordinator's Checklist").
- 3.3.3 Determine priorities for the collection of radiological data and samples used to compute downwind dose projections and perform trend analysis based upon changing plant radiological and meteorological conditions.

3.4 Technical and Engineering Supervisor

- 3.4.1 Provide supervision and technical direction to the TSC technical staff associated with analytical and engineering efforts.
- 3.4.2 Coordinate and provide direction, as required, for all repair/corrective action efforts which are undertaken to aid in achieving stable plant conditions and terminating any uncontrolled radioactive releases.
- 3.4.3 Identify the need for and coordinate engineering and analysis assistance provided by the Engineering and Technical Support Supervisor in the EOF.

3.5 Security and Support Supervisor

- 3.5.1 Ensure that overall plant security is not degraded and that personnel accountability is established and maintained.
- 3.5.2 Ensure that administrative and logistical support needs are provided to the DAEC emergency response organization.
- 3.5.3 Define and coordinate, as required, additional administrative, logistic and procurement needs with the Support Services Coordinator in the EOF.

3.6 Control Room Coordinator

- 3.6.1 Provide assistance and direction as required, to the Shift Supervising Engineer to establish stable plant conditions and terminate uncontrolled radiological releases.
- 3.6.2 Coordinate, as required, with the TSC Supervisor for analytical, engineering, and maintenance assistance.

EMERGENCY PLAN IMPLEMENTING PROCEDURE	EPIP - 2.2
ACTIVATION AND OPERATION OF THE TECHNICAL SUPPORT CENTER	Page 3 of 23
	Revision 4
	Date - 10/4/82

3.6.3 Ensure that the TSC is kept fully informed regarding plant status and operational events in progress.

3.6.4 Ensure that plant parameters indicative of the emergency condition and important from the stand point of determining the condition of the core are recorded and trended.

4.0 Instructions

4.1 Activative of the TSC shall be performed as follows:

4.1.1 A security guard will be dispatched by the Security Shift Supervisor to:

- a. Unlock the TSC Communications Room, the TSC emergency locker and the ventilation room.
- b. Activate the emergency ventilation system. Record time and date started in Technical Support Center HVAC Filter Unit Operating Log.

NOTE

Upon termination of the emergency or when directed by the TSC Supervisor, secure the ventilation system and relock all areas and cabinets. Record time and date stopped in Technical Support Center HVAC Filter Unit Operating Log.

4.1.2 The TSC Supervision shall ensure that the following are successfully completed:

- a) Check the radiation monitors provided at the ventilation system intake and in the TSC. If monitors are trending upscale or alarming, initiate radiation and airborne sampling activities to determine habitability of the TSC.
- b) Energize and verify operability of the continuous air monitor.
- c) Assure the initiation of the emergency ventilation system by Security and time and date started recorded in Technical Support Center HVAC Filter Unit Operating Log.
- d) Establish and verify operability of the communications links as follows (see Attachment 3):
 - 1) Intercom to the SCP, Access Control and Control Room

EMERGENCY PLAN IMPLEMENTING PROCEDURE	EPIP - 2.2
ACTIVATION AND OPERATION OF THE TECHNICAL SUPPORT CENTER	Page 4 of 23
	Revision 4
	Date - 10/4/82

- 2) Red Telephone with the NRC (Hot Line) between the NRC Personnel in Region III and/or Bethesda, Md.
- 3) Security/Rad Survey Radio to the Central Alarm Station.
- 4) Plant Operating Radio to the Central Alarm Station.
- 5) Telephones (dedicated lines as established).
- e) Energize and verify operation of the Control Room TV monitors.
- f) Update the Parameter Status board to insure that all TSC personnel are apprised of critical plant parameters, major problems, and operational activities in progress.
- g) Initiate the TSC operations log.
- h) Verify that access control in and out of the TSC has been initiated by the Security Shift Supervisor. Use Attachment 1 as a guide to control access. The Emergency Coordinator or the TSC Supervisor can authorize additional personnel as required.
- i) Verify that notification of personnel has been initiated per EPIP 1.2, "Notification of Emergency Response Personnel and Offsite Support Agencies".
- j) Verify TSC manning status using Attachments 1 & 2 as guidance. The DAEC Emergency Response Organization is shown on Attachment 2.
- k) Verify TSC set-up and layout as identified on Attachment 4.

4.2 Operation of the TSC

4.2.1 The TSC, under the overall supervision of the TSC Supervisor, shall perform the following key functions:

- a) Provide assistance to SSE in determining the optimum method(s) available for terminating the transient and radiological releases that may be in progress.
- b) Coordinate, as necessary, engineering, temporary modification, and emergency repair work that will assist in mitigating the consequences of the event.

EMERGENCY PLAN IMPLEMENTING PROCEDURE	EPIP - 2.2
ACTIVATION AND OPERATION OF THE TECHNICAL SUPPORT CENTER	Page 5 of 23 Revision 4 Date - 10/4/82

- c) Evaluate changes in system and radiological parameters that have occurred or which are projected to occur and recommend re-classification of the event, as warranted, to the Emergency Coordinator.
- d) Communicate with local, state, federal and corporate organizations as required to facilitate application of the combined resources of such support groups and to permit decisions regarding protection of the public based upon current information.

NOTE:

If the EOF is not manned, provide plant status and radiological information as requested to the Linn and Benton County Emergency Operations Centers and the State of Iowa Office of Disaster Services.

4.2.2 To facilitate the performance of the above tasks the Control Room Coordinator will insure that updated plant status information is transmitted to the Technical Support Center:

- a) Plant and Radiological parameters to be displayed are indicated in Attachments 5 and 6. Radiological data may be transmitted directly to the Site Radiation Protecting Coordinator via the dedicated line located on the back panel.
 - b) Plant parameters will normally be transmitted using the VAX computer to facilitate simultaneous updating of the Emergency Operations Facility.
 - c) During the initial stages of the event status information shall be updated at 15 minute intervals except as modified in step d).
 - d) The Control Room Coordinator in conjunction with the TSC Supervisor will modify the frequency of information transmittal as appropriate and may elect to add or delete specific parameter based upon the event and plant condition.
- 1) If parameters are added, such information will be transmitted verbally until re-programming of the VAX can be accomplished.

EMERGENCY PLAN IMPLEMENTING PROCEDURE	EPIP - 2.2
ACTIVATION AND OPERATION OF THE TECHNICAL SUPPORT CENTER	Page - 6 of 23
	Revision 4
	Date - 10/4/82

- 2) VAX re-program, if desired, will be completed as directed by the Control Room Coordinator.
 - e) Status information displayed should be recored before being charged to serve as a historical record.
- 4.2.3 Trending of important plant parameters will be accomplished as directed by the Control Room Coordinator in conjunction with the TSC Supervisor:
- a) Parametes to be trended include, but are not limited to:
 - 1) Nuclear Instrumentation
 - 2) Reactor Vessel Water Level and Pressure
 - 3) Contaiment Pressure and Temperature
 - 4) Suppresion Pool Water Level and Temperature
 - 5) Effluent Release Rates
 - b) Recorders installed in the Control Room should be used to the maximum extent possible. To enable more accurate trending the recorder may be placed on high speed.
 - c) Additional plant parameters will be trended, as appropriate, based upon the event and plant condition as identified by the Control Room Coordinator or TSC Supervisor.
 - 1) Trending of parameters will be accomplished manually at or by use of selected computer data points and trend recorders.
 - 2) To facilitate such trending, the Control Room Coordinator may elect to develop a log sheet format for recording reading which are taken or simply maintain VAX print out sheets.
 - d) Status and trend information thus developed will:
 1. Permit determinations to be made as to whether or not plant conditions are degrading.

EMERGENCY PLAN IMPLEMENTING PROCEDURE	EPIP - 2.2
ACTIVATION AND OPERATION OF THE TECHNICAL SUPPORT CENTER	Page 7 of 23
	Revision 4
	Date - 10/4/82

2. Provide input into Attachment 2 of EPIP 5.1, "Deactivation of the Emergency Response Organization"; hence serve as criteria to de-escalate the emergency classification.

4.2.4 Based upon the postulated (or known) initiating events and current plant status information, the TSC Engineering Staff, under the direct supervision of the Technical and Engineering Supervisor will perform the following functions:

- a) Evaluate available options which will aid in terminating the transient and enable the plant to be returned to a safe, stable configuration.
 - 1) As-built drawings, specifications and other engineering data shall be used to insure that technical evaluations are conducted with the latest information and that operational evolutions are properly planned.
 - 2) Where several alternative courses of action exist, decisions as to which course to follow will be as directed by the Emergency Coordinator.
- b) Where alternative courses of action taken to mitigate the consequences of the event are accomplished by placing systems in abnormal configurations, the effects such off-normal modes might have on future operational evolutions shall be evaluated.
 - 1) As appropriate emergency operating instructions for off-normal operating modes shall be developed.

NOTE

The Control Room Coordinator shall insure that operating personnel are briefed upon relief or shift turnover.

- c) Identify expected changes in plant status and potential radiological consequences to the public based upon operational activities in progress or which may be planned.
 - 1) Should conditions become worse, recommend escalation of the emergency classification, if appropriate.

EMERGENCY PLAN IMPLEMENTING PROCEDURE	EPIP - 2.2
ACTIVATION AND OPERATION OF THE TECHNICAL SUPPORT CENTER	Page 8 of 23
	Revision 4
	Date - 10/4/82

- 2) Should unexpected conditions occur, initiate action to stop the escalation and reevaluate alternative corrective action steps.
 - d) Assist the SSE with the identification of temporary modification or emergency repair work which, if accomplished, will assist in mitigating the consequences of the accident or terminating the release.
 - 1) Coordinate with the OSC Supervisor as prescribed in EPIP 4.3 "Rescue and Emergency Repair Work" to accomplish damage control and emergency repair work.
 - 2) Coordinate with the Emergency Support Manager for assistance which may be required by IELP Engineering Personnel to accomplish temporary modification activities.
 - e) Perform neutron and/or thermal hydraulic analysis, as appropriate, use the computer facilities available to assist with determining the status of the core, ECCS System operating capabilities, etc.
 - f) If radiological releases are in progress, provide assistance as required to the SSE in determining the source and evaluate the means available to terminate these releases.
- 4.2.5 The Site Radiation Protection Coordinator (SRPC) is responsible for the radiological safety of DAEC Personnel on site throughout the duration of the emergency. In addition he is responsible for the projections of radiological dose estimates off site until relieved by the EOF. The SRPC shall immediately proceed to the TSC and perform the following tasks:
- a) Determine initial airborne dose projections in accordance with EPIP 3.3, "Dose Projections."
 - b) Inform the Emergency Coordinator of the results of the dose projections, and recommend appropriate response actions.
 - c) Following completion of these tasks, proceed to the OSC as necessary, brief the OSC Supervisor and monitoring team personnel concerning plant conditions, dose projections, wind direction and velocity, release paths, and required monitoring.

EMERGENCY PLAN IMPLEMENTING PROCEDURE	EPIP - 2.2
ACTIVATION AND OPERATION OF THE TECHNICAL SUPPORT CENTER	Page 9 of 23 Revision 4 Date - 10/4/82

- d) Recompute dose projections if there is any significant changes in the radiological or meteorological parameters.
- e) Perform trend analysis to anticipate changes in offsite exposures affecting the Protective Action Guide Levels. Data to be collected and utilized shall include but not be limited to:
 - 1) Offgas stack monitor data from the Control Room panel 1C-02 readout and from the Access Control emergency cabinet #5. (cabinet #5 is adjacent to the security turnstiles)
 - 2) Meteorological data (available from back panel).
 - 3) Off gas stack gas and a particulate samples.
 - 4) Off site portable radiation instrument readings and air sample data.
 - 5) Plant ARM data.
 - 6) Population exposure times.
 - 7) Off site dose estimates, utilizing the above data input, may be projected forward in time to assure the PAGs are not exceeded, ie: degrading plant conditions may infer that off site releases could increase significantly hence justifying a decision to take protective action off site prior to supporting off gas stack radiological data.

4.2.6 The Security and Support Supervisor shall ensure the performance of the following functions:

- a) Assure that accountability checks are initiated and are progressing in an expeditious manner.
- b) Assure that the fire and evacuation alarms and related announcements made over the paging system are clear, concise and meaningful.
- c) Determine existing and projected administrative support needs and provide direction to the Administrative Supervisor.

EMERGENCY PLAN IMPLEMENTING PROCEDURE	EPIP - 2.2
ACTIVATION AND OPERATION OF THE TECHNICAL SUPPORT CENTER	Page 10 of 23
	Revision 4
	Date - 10/4/82

- d) As directed by the TSC Supervisor define the requirements and provide direction to the Administrative Supervisor to provide long range personnel, material, facilities, food and other logistical support for the on site emergency response team.
- e) Assist the TSC Supervisor in the performance of his duties.

4.2.7 The Administrative Supervisor shall ensure the performance of the following functions:

- a) Provide telephone switchboard operator, copy machine and telefax operators as required.
- b) Assign typing and clerical assistance.
- c) Coordinate warehouse support services, procurement and expediting of materials.
- d) Provide life support services, ie; food, clothing, sleeping arrangements, etc.

4.2.8 Technical Engineers, Shift Technical Advisors, Reactor Engineers and GE Engineers shall provide technical support for plant stabilization, repair and corrective action operations.

5.0 REFERENCES

- 5.1 Iowa Electric Light and Power Company Corporate Emergency Response Plan
- 5.2 Duane Arnold Energy Center Emergency Plan

EMERGENCY PLAN IMPLEMENTING PROCEDURE	EPIP - 2.2
ACTIVATION AND OPERATION OF THE TECHNICAL SUPPORT CENTER	Page 11 of 23
	Revision 4
	Date - 10/4/82

6.0 ATTACHMENTS

1. Manning Status Checklist
2. DAEC Emergency Response Organization
3. Communications with TSC
4. TSC layout
5. Plant Status Information
6. Radiological Status Information
7. TSC Supervisor's Checklist
8. Site Radiation Protection Coordinator's Checklist

APPROVED BY: David H. Munn DATE 10-22-82
Plant Superintendent-Nuclear

REVIEWED BY: BR York DATE 10/21/82
Operations Committee Chairman

APPROVED BY: BR York DATE 10/21/82
Assistant Plant Superintendent-Operations

ATTACHMENT 1TSC MANNING STATUS

Emergency Coordinator	(P) Dan Mineck (1) Bob York (2) John Vinguist (3) Dave Wilson (4) Rick Hannen	_____ _____ _____ _____
TSC Supervisor	(P) Bob York (1) Dave Wilson (2) John Vinguist (3) Rick Hannen (4) Gary VanMiddlesworth	_____ _____ _____ _____
Site Radiation Protection Coordinator	(P) Keith Young (1) Bob Dye (2) Ed Parsons (3) Rad Waste Supervisor	_____ _____ _____ _____
Technical & Engineering Supervisor	(P) John Vinguist (1) Dave Wilson (2) Rick Hannen (3) Gary VanMiddlesworth	_____ _____ _____ _____
Security and Support Supervisor	(P) Dave Wilson (1) Jim Sparano (2) Jerry Davis (3) Mike Sparks	_____ _____ _____ _____
Electrical Maintenance Supervisor	(P) Jerry Sweiger (1) Larry Voss	_____ _____
Mechanical Maintenance Supervisor	(P) Dick Rockhill (1) George Fulford	_____ _____
Administrative Supervisor	(P) Jerry Davis	_____

EMERGENCY PLAN IMPLEMENTING PROCEDURE	EPIP - 2.2
ACTIVATION AND OPERATION OF THE TECHNICAL SUPPORT CENTER	Page 13 of 23 Revision 4 Date - 10/4/82

ATTACHMENT 1

TSC MANNING STATUS
(Continued)

NRC Representative	(P) Larry Clardy (1) Chrissosmotos (Quad Cities)	_____ _____
IELP Nuclear Generating Engineering Personnel	(P) Bill Ellis (Mechanical) (P) Clare Bleau (Electrical)	_____ _____
Communicators	(P) Ken Peveler (P) Mike Chandler (P) Linus Drouhard (P) Jeff Nelson (P) Taj Mohanned (1) Gene Havlic (2) Syam Ray	_____ _____ _____ _____ _____ _____ _____
Rad Chemistry Technician		_____

EMERGENCY PLAN IMPLEMENTING PROCEDURE	EPIP - 2.2
ACTIVATION AND OPERATION OF THE TECHNICAL SUPPORT CENTER	Page 14 of 23
	Revision 4
	Date - 10/4/82

ATTACHMENT 2

DAEC EMERGENCY RESPONSE ORGANIZATION AND ALTERNATES

Emergency Coordinator	(P) Chief Engineer (1) Assistant Chief Engineer - Operations (2) Assistant Chief Engineer - Technical Support (3) Assistant Chief Engineer - Radiation Protection and Security (4) Maintenance Engineer
TSC Supervisor	(P) Assistant Chief Engineer - Operations (1) Assistant Chief Engineer - Radiation Protection and Security (2) Assistant Chief Engineer - Technical Support (3) Maintenance Engineer (4) Reactor and Plant Performance Engineer
Security and Support Supervisor	(P) Assistant Chief Engineer - Radiation Protection and Security (1) Security Guard Captain (2) Support Services Supervisor (3) Assistant Security Supervisor
Technical and Engineering Supervisor	(P) Assistant Chief Engineer - Technical Support (1) Assistant Chief Engineer - Radiation Protection and Security (2) Maintenance Engineer (3) Reactor and Plant Performance Engineer
Maintenance Engineer	(P) Maintenance Engineer
Site Radiation Protection Coordinator	(P) Radiation Protection Engineer (1) Assistant Radiation Protection Engineer (2) Health Physics Supervisor (3) Radwaste Supervisor
Reactor & Plant Performance Engineer	(P) Reactor and Plant Performance Engineer (1) Station Services Engineer (2) Results Engineer (3) Results Engineer
Technical Engineer	(P) Technical Engineer (1) Technical Engineer (2) Technical Engineer
Shift Technical Advisor	(P) Technical Group Leader (1) Shift Technical Advisor (2) Shift Technical Advisor (3) Shift Technical Advisor (P) Assistant Chief Engineer - Radiation Protection

EMERGENCY PLAN IMPLEMENTING PROCEDURE	EPIP - 2.2
ACTIVATION AND OPERATION OF THE TECHNICAL SUPPORT CENTER	Page of 23
	Revision 15 4
	Date - 10/4/82

ATTACHMENT 2

DAEC EMERGENCY RESPONSE ORGANIZATION AND ALTERNATES

(Continued)

Nuclear Station Services Engineer or Results Engineer	(P) Nuclear Station Services Engineer (1) Results Engineer
Electrical Maintenance Supervisor	(P) Electrical Maintenance Supervisor (1) Assistant Electrical Maintenance Supervisor
Mechanical Maintenance Supervisor	(P) Mechanical Maintenance Supervisor (1) Assistant Mechanical Maintenance Supervisor
NRC Representative	(P) Onsite NRC Representative (1) NRC Representative Quad Cities
IELP Nuclear Generating Engineering Personnel	(P) Technical Group Leader-Mechanical (1) Technical Group Leader-Electrical
Communicators	(P) Engineer - (Mechanical) (P) Technical Group Leader (P) Engineer - (Nuclear) (P) Engineer - (Mechanical) (P) Engineer - (Electrical) (1) Engineer - (Mechanical) (2) Engineer - (Electrical)
OSC Supervisor	(P) Health Physics Supervisor (1) Radwaste Supervisor (2) Assistant Radiation Protection Coordinator
Control Room Coordinator	(P) Operations Supervisor (1) Assistant Operations Supervisor
Control Room Supervisor	(P) Shift Supervising Engineer
Security	(P) Security Shift Supervisor (P) Security Force Communicator (P) Security Force Communicator

Note:

Operational Support will be provided by either the Operations Supervisor or Assistant Operations Supervisor from either the TSC or in the control Room.

(P) = Principal

(1), (2),.....Alternate in descending order

EMERGENCY PLAN IMPLEMENTING PROCEDURE	EPIP - 2.2
ACTIVATION AND OPERATION OF THE TECHNICAL SUPPORT CENTER	Page 16 of 23
	Revision 4
	Date - 10/4/82

ATTACHMENT 3

COMMUNICATIONS WITH TSC

<u>Communication System</u>	<u>TSC Links</u>
Dial Phones	Security Control Point, Control Room, Access Control, Emergency Operations Facility
Intercom	Operational Support Center, Control Room, Access Control
Red Phone (NRC Hot Line)	NRC, Bethesda, Maryland; Control Room, Emergency Operations Facility, NRC Resident
NRC Health Physics Network	Control Room, Access Control, NRC Resident, Security Control Point
Security/Rad Survey Radio	Secondary Alarm Station, Central Alarm Station, Radiological Monitoring Teams, Emergency Operations Facility, Security Control Point
Plant OPS Radio	Control Room, Central Alarm Station, Emergency Operations Facility, In-Plant Survey, and Rescue and Repair Teams
Weather Service (leased line telephone)	IWAS, State Emergency Operations Center, Linn, Benton County Emergency Operations Center
Dedicated Phone	Emergency Operations Facility, Control Room, Access Control, Security Control Point
Facsimile Equipment	Emergency Operations Facility, NRC, etc.

EMERGENCY PLAN IMPLEMENTING PROCEDURE	EPIP - 2.2
ACTIVATION AND OPERATION OF THE TECHNICAL SUPPORT CENTER	Page 17 of 23 Revision 4 Date - 10/4/82

ATTACHMENT 4

TSC LAYOUT
(See Attached Sheet)

TECHNICAL SUPPORT CENTER

JAN. 15, 1982

Note: 16 Station Telephones Have

- 1 Control Room
- 2 Access Control
- 3 Extension 272
- 4 EOP
- 5 Back Panel
- 6 Security Control Point
- 7 Radio, Security-R.P. (Planned)
- 8 Radio, Operations (Planned)

Emergency Communications

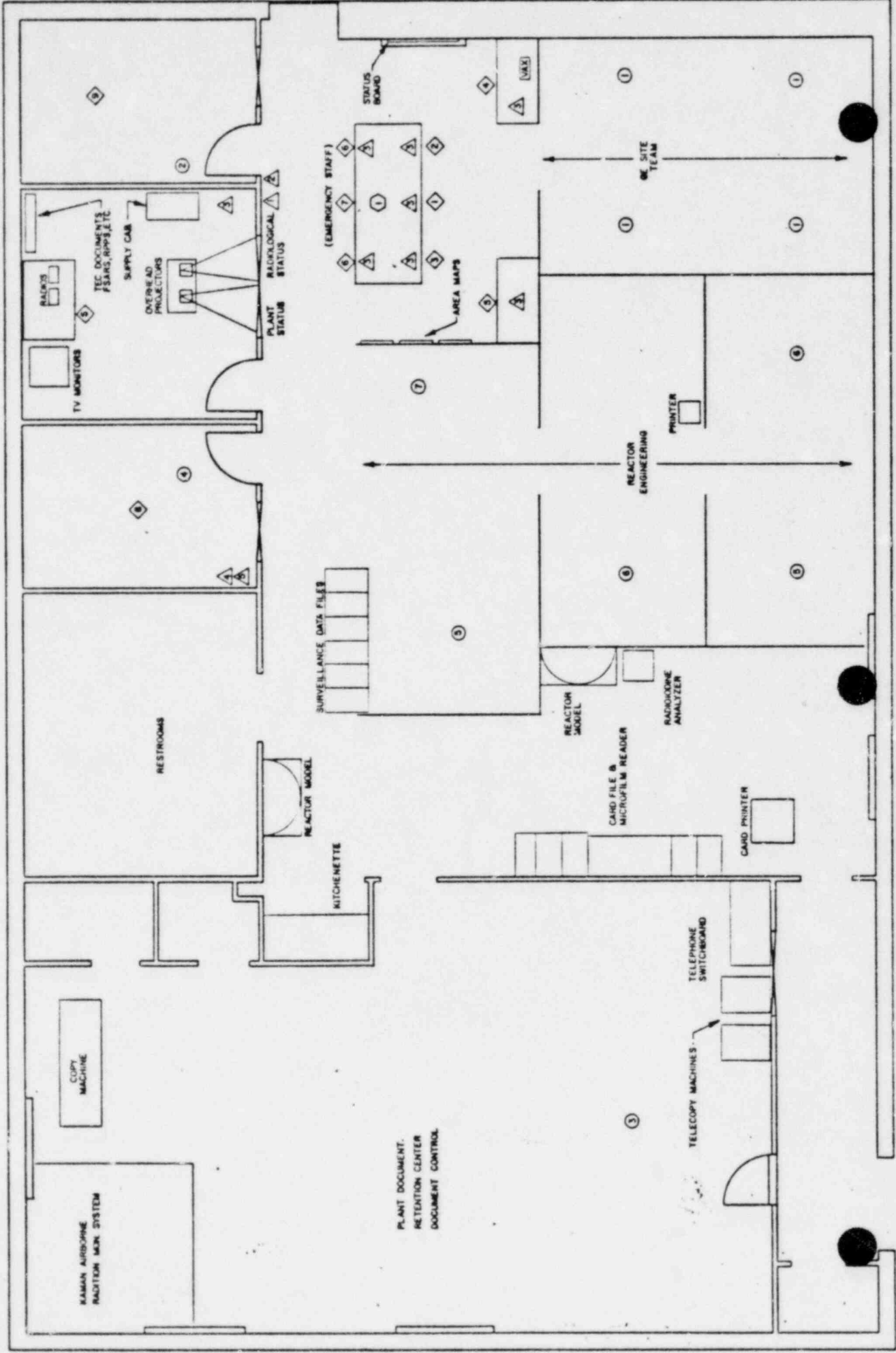
- △ Dedicated Outside Telephone
- △ TMS Telephone
- △ 16 Station (Headset Equipped) Telephones
- △ NRC - ERS Telephone
- △ NRC - HPS Telephone
- △ Intercom to Access Control, Security Control Point and Control Room

Other Telephones

- ① Ext. 238 & G.E. Dial Com
- ② Ext. 228
- ③ Ext. 228 & 214
- ④ Ext. 226
- ⑤ Ext. 243
- ⑥ Ext. 285
- ⑦ Ext. 243, 234, 226 & 263

Key Personnel

- ① Emergency Coordinator
- ② ISC Supervisor
- ③ Technical & Engineering Supervisor
- ④ Site Radiation Protection Coordinator
- ⑤ Security & Support Supervisor
- ⑥ Communicator
- ⑦ Log Book Recorder
- ⑧ NRC Representative
- ⑨ Administrative Support Supervisor



EMERGENCY PLAN IMPLEMENTING PROCEDURE	EPIP - 2.2
ACTIVATION AND OPERATION OF THE TECHNICAL SUPPORT CENTER	Page 18 of 23
	Revision 4
	Date - 10/4/82

ATTACHMENT 5

PLANT STATUS INFORMATION

EMERGENCY CLASSIFICATION: REPORT TIME:
EVENT CODE: EVENT CODE DECLARATION TIME: REPORT DATE:

REACTIVITY CONTROL
All Rods In (Y/N):
SBLC System (Operable/Actuated):
SRM's Operable (Y/N):

REACTOR VESSEL WATER LEVEL
Normal range (Y/N): Increasing, Decreasing, or Stable(I/D/S):
Indicated Level In Inches:

ECCS STATUS
HPCI Operable, Inservice, or Bad (O/I/B):
RCIC Operable, Inservice, or Bad (O/I/B):
ADS Operable, Actuated, or Bad (O/A/B):
LPCI Operable, Inservice, or Bad (O/I/B):
Core Spray Operable, Inservice, or Bad (O/I/B):

REACTOR VESSEL DEPRESSURIZATION/COOLDOWN
Reactor Pressure (PSIG):
Isolated (Y/N):
Cooldown in Progress (Y/N):
Cooldown Rate (Deg F/HR):

PRIMARY CONTAINMENT
Isolated (Y/N):
Drywell Pressure (PSIG):
Drywell Temperature (Deg F):
Drywell Ventilation Off or In Service (O/I):
Containment Spray Operable, In Service, or Bad (O/I/B):
Torus Water Level Normal, High, or Low (N/H/L):
Torus Water Temp (Deg F):
Torus Water Recirc (Y/N):

SECONDARY CONTAINMENT
Isolated (Y/N):
SBGT System Operable, Inservice, or Bad (O/I/B):

ELECTRICAL POWER
Offsite Power Unavailable/In Service (U/I):
Diesel Generator #1 Operable/In Service/Bad (O/I/B):
Diesel Generator #2 Operable/In Service/Bad (O/I/B):

REACTOR COOLANT CHEMISTRY SAMPLE TIME:
Gross Activity Micro C/ml
Total Iodine Micro C/ml
I 131 Micro C/ml

EMERGENCY PLAN IMPLEMENTING PROCEDURE	EPIP - 2.2
ACTIVATION AND OPERATION OF THE TECHNICAL SUPPORT CENTER	Page 19 of 23 Revision 4 Date - 10/4/82

ATTACHMENT 6

RADIOLOGICAL STATUS INFORMATION

DATE _____ TIME _____

Release Path
 Off Gas Stack - Elevated
 Reactor/Turbine Building - Ground Level

Meteorological Conditions
 Wind Direction Out of _____ Towards _____
 Wind Speed _____ mph
 Stability Classification _____

Forecasted Weather Conditions (from _____)
 Winds Shifting To _____ at _____
 Wind Speed To _____ at _____

Dose Projection (based on input data at _____)
 Max Concentration Distance _____ meters
 Dose Rate _____

Plume Center Line Dose Rates -

	Whole Body	Thyroid	Plume Width
Site Boundary	_____	_____	_____
2 Miles	_____	_____	_____
5 Miles	_____	_____	_____
10 Miles	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Prompt Notification System
 Actuated Yes No
 Time _____

Potentially Affected Population Centers	Protective Action Recommendations
_____	_____
_____	_____
_____	_____
_____	_____

DAEC Habitability Status		
Control Room	Satisfactory	Evacuated
Technical Support Center	Satisfactory	Evacuated
Access Control/Locker Room	Satisfactory	Evacuated
Security Control Point	Satisfactory	Evacuated
Contractor Change Area	Satisfactory	Evacuated
Power Block Structure	Satisfactory	Evacuated

EMERGENCY PLAN IMPLEMENTING PROCEDURE	EPIP - 2.2
ACTIVATION AND OPERATION OF THE TECHNICAL SUPPORT CENTER	Page 20 of 23
	Revision 4
	Date - 10/4/82

ATTACHMENT 7
TSC SUPERVISOR'S CHECKLIST

Do not attempt to do all of these functions yourself unless adequate personnel are not available

TIME

- _____ (a) Initiate TSC supervisor's Log (EPIP 2.2, para. 4.1.2g), and assign an individual to maintain this log throughout the emergency.
- _____ (b) Ensure that radiation readings on the ventilation system and the monitor in the TSC have been checked. If monitors are trending upward or alarming ensure that a habitability survey is initiated. (EPIP 2.2, para. 4.1.2a)
- _____ (c) Ensure that the continuous air sampling monitor (EPIP 2.2, para. 4.1.2b) has been energized and verified operable.
- _____ (d) Assure that the ventilation filtration system has been activated (EPIP 2.2, para. 4.1.2c) and that time and date started recorded in Technical Support Center HVAC Filter Unit Operating Log.
- _____ (e) Verify TSC staffing (EPIP 2.2, Attachments 1 & 2) The following positions must be filled:
- _____ Emergency Coordinator
 - _____ TSC Supervisor
 - _____ Site Radiation Protection Coordinator
 - _____ Communicator #1
 - _____ Communicator #2
- _____ (f) Ensure that communications links have been established and verified; (EPIP 2.2, para. 4.1.2.d and Attachment 3)
- _____ (g) Ensure that the Control Room TV monitors (EPIP 2.2, para. 4.1.2e) have been energized and are operable
- _____ (h) Update the parameter status board to ensure that all TSC personnel are kept informed (EPIP 2.2, para. 4.1.2f)
- _____ (i) Verify that the switchboard has been manned.
- _____ (j) Verify that access control to the TSC has been established (EPIP 2.2, para. 4.1.2h)
- _____ (k) Verify that notification of personnel has been initiated (EPIP 1.2, para. 4.2.)

EMERGENCY PLAN IMPLEMENTING PROCEDURE	EPIP - 2.2
ACTIVATION AND OPERATION OF THE TECHNICAL SUPPORT CENTER	Page 21 of 23
	Revision 4
	Date - 10/4/82

ATTACHMENT 7 (continued)

TSC SUPERVISOR'S CHECKLIST

- _____ (l) Ensure that appropriate personnel have been assigned to research drawings, specifications, test data and other engineering drawings. (EPIP 2.2, para 4.2.4)
- _____ (m) Provide plant status information as requested by the EOF and NRC (EPIP 2.2, para. 4.2.2 and 4.2.3)
- _____ (n) Assist the SSE with determining the source and means to terminate radiological releases (EPIP 2.2, para. 4.2.4.d and 4.2.4.f) and other actions necessary to return the plant to a safe condition (EPIP 2.2, para. 4.2.4.a)
- _____ (o) If the EOF is not manned, provide information to outside agencies (EPIP 2.2, para. 4.2.2 and 4.2.3)
- _____ (p) Evaluate the effects of off-normal modes of plant operation on future operations. (EPIP 2.2, para. 4.2.4.b)
- _____ (q) Develop operating instructions for and brief relief operating personnel on off-normal operating modes (EPIP 2.2, para. 4.2.4.b)
- _____ (r) Escalate the classification of the emergency should conditions become worse.
- _____ (s) Evaluate changes to the plant for potential consequences to the public and inform the EOF (EPIP 2.2, para. 4.2.4.c)
- _____ (t) Upon deactivation of the TSC (EPIP 5.1, para. 4.3.2):
 - _____ Return all facilities, equipment and supplies to their normal condition, location, etc.
 - _____ Assure that time and date for emergency ventilation stopped is record in Technical Support Center HVAC Filter Unit Operating Log.
 - _____ Identify the equipment needing repair, calibration, etc.
 - _____ Identify supplies that need to be replaced.
 - _____ Return personnel to normal duties and schedules.

EMERGENCY PLAN IMPLEMENTING PROCEDURE	EPIP - 2.2
ACTIVATION AND OPERATION OF THE TECHNICAL SUPPORT CENTER	Page 22 of 23 Revision 4 Date - 10/4/82

ATTACHMENT 7 (continued)

TSC SUPERVISOR'S CHECKLIST

_____ Notify all appropriate interfacing DAEC and corporate personnel of deactivation actions

_____ Compile all logs, notes, calculations, status sheets and related records.

_____ NAME _____ DATE _____

EMERGENCY PLAN IMPLEMENTING PROCEDURE	EPIP - 2.2
ACTIVATION AND OPERATION OF THE TECHNICAL SUPPORT CENTER	Page 23 of 23 Revision 4 Date - 10/4/82

ATTACHMENT 8

SITE RADIATION PROTECTION COORDINATOR'S CHECKLIST

TIME

- _____ (a) Determine if a release has occurred
- _____ (b) Check to assure that the back panel hot line is manned.
- _____ (c) Obtain meteorological data and pertinent Radiation Monitor Readings (Control Room panels, VAX)(EPIP 3.1, para. 4.4.2)
- _____ (d) Perform dose projections (EPIP 3.3, para. 4.2.5a)
- _____ (e) Recommend protective action to the Emergency Coordinator (EPIP 2.2, para. 4.2.5b)
- _____ (f) Instruct, dispatch, and coordinate monitoring teams (EPIP 3.1, para. 4.4.3) Ensure reentry teams are cognizant of emergency entry routes
- _____ (g) Direct the OSC Supervisor to dispatch personnel to relay intermediate and high range effluent monitoring data, as appropriate
- _____ (h) Direct the OSC Supervisor to dispatch personnel to collect a Reactor Coolant sample, as appropriate
- _____ (i) Direct the OSC Supervisor to dispatch personnel to collect a Drywell atmospheric sample, as appropriate
- _____ (j) Direct the OSC Supervisor to dispatch personnel to assess airborne activity for radioiodines, as appropriate (EPIP 3.1, para. 4.4)
- _____ (k) Evaluate survey data.
- _____ (l) Perform trend analyses to anticipate changes in radiological conditions. (EPIP 2.2, para. 4.2.5)
- _____ (m) Authorize changes to Administrative Exposure limits, as necessary (EPIP 3.1, para. 4.3.1c)
- _____ (n) Define requirements for additional radiological monitoring personnel and identify such needs to the Emergency Coordinator (EPIP 3.1).

_____ NAME _____ DATE _____