ATTACHMENT 1

Implementing Procedures
In This Submittal

Volume 3A

Updated Table of Contents

M-2 Revision 6

G-2 Revision 2

M-1 On-The-Spot-Change

M-2 On-The-Spot-Change

Volume 3B

Updated Table of Contents

EF-3 Revision 1

EF-7 Revision 1

EF-5 On-The-Spot-Change

ATTACHMENT 2

Location of Bracketed Privacy/Proprietary Information

Procedure M-2, Revision 6:

On Page 1 of 3

On Appendix Z (last attachment)

Procedure G-2, Revision 2:

Attachment: "Emergency Organization Call List" On each of 28 pages

Procedure M-1, Revision 7, On-The-Spot-Change:

On Page 1 of 1

Procedure M-2, Revision 6, On-The-Spot-Change:

On Page 1 of 1

Procedure EF-3, Revision 1:

Last seven attachments:

- "EOF Activation Checklist for the Advisor to the County Emergency Organization (ACEO)"
- "EOF Activation Checklist for the Interim Radiological Recovery Manager (RERM)"
- 3. "EOF Activation Checklist for the Interim EARS Operator"
- 4. "EOF Activation Checklist for the Interim Operations and Analytical Recovery Manager (OARM)"
- "EOF Activation Checklist for the Interim Public Information Recovery Manager (PIRM)"
- 6. "EUF Activation Checklist for the Technical Advisor to the PIRM"
- 7. "Auxiliary Trailer Call Out List"

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EMERGENCY PLAN

IMPLEMENTING PROCEDURES

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NUMBER EP M-2

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RAGE 1 OF 3

CEPARTMENT OF NUCLEAR PLANT CRERATIONS DIABLO CANYON POWER PLANT UNIT NO(S) 1 AND 2

EMERGENCY PROCEDURE TITLE: NONEMPLOYEE INJURY OR ILLNESS (THIRD PARTY)

SCOPE

This procedure describes the actions which are to be taken in the event of an injury or illness involving a nonemployee which is incurred in connection with Company operations either on or in the vicinity of the plant site.

IMMEDIATE ACTIONS

The employee(s) who are at the scene shall:

- Render all necessary first aid.
- Notify the control room (Shift Foreman) as soon as practical.

SUBSEQUENT ACTIONS

The Shift Foreman shall direct all subsequent actions until relieved by the Long Term Site Emergency Coordinator (if the situation warrants it). Such actions should include the following:

- Sound emergency signal, code override, or other general warning signal to clear the area if the situation warrants it.
- 2. Dispatch additional first aid personnel such as the project construction EMT ______ to the scene of the injury or illness if required. Personnel who have not been instructed to provide assistance at the scene should remain on their jobs and stay clear of the affected area.
- Call an amoulance or physician if the situation warrants it. The practices which are to be followed if this step is necessary are given in the following section of this procedure.
- Secure the names and addresses of all witnesses (both Company and noncompany).
- Perform the notifications required by Appendix Z.

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TITLE NONEMPLOYEE INJURY OR ILLNESS (THIRD PARTY)

An accident report should be completed as soon as practical either on Form 62-6226 "Report of Miscellaneous Accident," or Form 62-4542, "Report of Automobile Accident," as is appropriate. The accident report should be forwarded to the plant clark for processing.

POLICIES TO BE FOLLOWED WHEN REQUESTING OUTSIDE ASSISTANCE

If a third party requires medical care, the following policies should be followed by Company personnel who secure assistance.

- If the injured or ill individual is in a condition where he can speak for himself, call the physician which he requests. If an ambulance is required, call the ambulance which he requests.
- If the injured or ill individual cannot speak for himself, but friends, relatives, or his employer are present, leave the matter of his care to them.
- If an injured or ill individual cannot speak for himself, and friends, relatives, or employer, or public officials are not present or will not take change, call a local ambulance service and have the injured or ill person sent to the San Luis Obispo General Hospital for treatment.
- Whenever a physician or an ambulance is called, it should be clearly stated by the employee making the call that this is not Company responsibility and is made not on behalf of the Company but of the injured or ill person or for his benefit, or until family, friends, employer, or public officials can take charge.
- An injured or ill third party should only be transported in a Company vehicle in the event of an extreme emergency when the delay associated with securing an ambulance might result in a significant deterioration of the injured person's condition.

POLICIES TO BE FOLLOWED IN THE EVENT OF RADIOACTIVE CONTAMINATION

If the injured or ill individual is significantly contaminated with radioactive material or overexposed, the matter will be treated in the same manner as would a similar incident involving a Company employee (see Emergency Procedure R-1 "Personnel Injury (Radiologically related) and/or Overexposure).

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TITLE NONEMPLOYEE INJURY OR ILLNESS (THIRD PARTY)

REFERENCES

PGandE Standard Practice 250.

PGandE Claims Department Circular Letter No. 19, 10/1/49. 2.

NRC Information Notice 80-06, "Notification of Significant Events."

ATTACHMENTS

- Form 62-6226, "Report of Miscellaneous Accident." Form 62-4542, "Report of Automobile Accident."
- 3. Appendix Z, Emergency Procedure Notification Instructions

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PACIFIC GAS AND ELECTRIC COMPANY DEPARTMENT OF NUCLEAR PLANT OPERATIONS DIABLO CANYON POWER PLANT UNIT NOS. 1 and 2

TITLE: EMERGENCY PROCEDURE NOTIFICATION INSTRUCTIONS

APPENDIX Z

- When this emergency procedure has been implemented, and upon direction from the Shift Foreman, proceed as follows:
 - a. Notify the Plant Manager, Plant Superintendant, Supervisor of Chemistry and Radiation Protection or their designated alternates.
 - b. Contact the Division Field Claims Investigator:

Mr. C. O. Schreil at Office Home

If the Field Claims Investigator cannot be promptly reached (at office, home, or on mobile division radio), the General Office Department of Safety, Health, and Claims shall be immediately notified in his place. A list of appropriate personnel is attached to Emergency Procedure M-1 or notification of appropriate personnel will be handled by the System Dispatcher if requested.

- c. Designate this event a <u>significant event</u> if, in the opinion of the shift forman, the injury will require treatment or observation which will last longer than 48 hours, or in any case of a fatality. Notify the NRC Bethesda Operation's center within one hour, as a minimum, using the red phone in the Control Room. Gather sufficient information from all sources so that the phone call is meaningful. Refer to Operating Procedure 0-4 "Operating Order (One Hour Reporting Requirements to NRC)" for a suggested format for reporting. Notify the NRC that your call is pursuant to 10 CFR Part 50.72 (Notification of Significant Events).
- d. In addition to the notifications performed above, also notify the following, if NRC is notified, Supervising Nuclear Generation Engineer (Personnel and Environmental Safety) or his alternate in the Department of Nuclear Plant Operation:

Mr. W. H. Fujimoto PGandE Plant Ext. Home

Pacific Gas and Electric Company

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REVISION 2

8/11/82

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DATE

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DEPARTMENT OF NUCLEAR PLANT OPERATIONS DIABLO CANYON POWER PLANT UNIT NO(S)

TITLE:

EMERGENCY PROCEDURE ESTABLISHMENT OF THE ON-SITE EMERGENCY

ORGANIZATION

APPROVED:

PLANT MANAGER

SCOPE

This procedure describes the responsibilities and the actions required by plant personnel for establishing the On-site Emergency Organization and indicates the preferred candidates to fill each position as required by Administrative Procedure NPAP A-5.

GENERAL

- The transition from a normal operating organization to an On-site 1. Emergency Organization involves the following three basic steps:
 - Filling appropriate On-site Emergency Organization positions on an interim basis with personnel who are immediately available on-site a. at the time of the emergency. See Figure 1 for the description of the "Suggested Interim Emergency Organization."
 - Notifying plant personnel off-site and on-site that their b. assistance is required.
 - Filling positions in the long-term emergency organization, as described in Figure 2, "Long-Term Emergency Organization," appropriate plant personnel as they arrive at the Control Room, Operations Support Center, Technical Support Center, or the Emergency Operations Facility.
 - Plant personnel shall be assigned to emergency organization positions on an interim or long-term basis and are ranked in order of preference 2. according to Attachment 1, "Emergency Organization Call List." Interim position-holders shall be responsible for performing the duties of the position as described in Table 1, "On-site Emergency Organizations' Responsibilities," until relieved by the long-term position-holder. Form 69-9370, "Site Emergency Organization Assignments" may be used to record emergency assignments.
 - Notification of required personnel is made using the listed numbers and call sequence in Form 69-10297, "Emergency Organization Call List." The preferred position holders should be contacted when possible. An "on-call" rotation for essential positions in the emergency organization is maintained in accordance with Administrative Procedure

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TITLE: ESTABLISHMENT OF THE ON-SITE EMERGENCY ORGANIZATION

A-3, Supplement 1. The on-call person may be called if the preferred position holder is not immediately available or whenever judged necessary by the Shift Foreman.

- 4. The Shift Foreman shall remain in the Control room, where he is responsible for overall command and control of the emergency. He shall assume the position of the interim Site Emergency Coordinator. He shall not become totally involved in any single operation but shall maintain a broad perspective of operational conditions affecting the safety of the plant, in compliance with Nuclear Plant Administrative Procedure, NPAP A-102.
- 5. When an emergency is declared and notification of plant staff and offsite response organizations is in process, incoming phone calls on the plant emergency number shall be answered and the plant emergency number shall be provided to offsite personnel needing to contact the plant. Calls on the normal plant number will be answered to the extent possible without interfering with the emergency response.

INITIATING CONDITIONS

Notification and establishment of the On-site Emergency Organization shall be initiated by the Shift Foreman when he declares an Unusual Event, Alert, Site Area or General Emergency in accordance with Emergency Procedure G-1, "Accident Classification and Emergency Plan Activation."

IMMEDIATE ACTIONS

- 1. The Shift Foreman shall assume the position of the interim Site Emergency Coordinator, assess the situation, and appoint members of the on-site operating staff to assume the positions shown in Figure 1, "Interim Site Emergency Organization," as he deems necessary to terminate or mitigate the emergency. The interim Site Emergency Coordinator shall appoint as a minimum those assignments required for the emergency classification by Emergency Procedure G-1. In all cases this includes:
 - a. An Emergency Liaison Coordinator who shall conduct the required notification of off-site personnel and agencies in accordance with EP G-3, "Notification of Off-site Organization:."
 - b. An Emergency Operations Coordinator, who posse ses an Operator's License, to be responsible for insuring that all operational matters are taken care of.

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TITLE: ESTABLISHMENT OF THE ON-SITE EMERGENCY ORGANIZATION

NOTIFICATION OF AN UNUSUAL EVENT

- The interim Site Emergency Coordinator shall contact as a minimum position holders for the long-term emergency organization positions indicated by the Unusual Event Stop Callout Point per Form 69-10297 "Emergency Organization Call List." Personnel contacted shall inform the caller as to whether they will proceed to their emergency response location or remain on standby status.
- Additional plant personnel may be called out as deemed necessary by any
 of the above personnel.
- All notifications shall be recorded, Form 69-10297 "Emergency Organization Call List," should be used for initial callout. Form 69-9221, "Emergency Notification Record" or a log should be used to record incoming calls or calls to persons not on Form 69-10297.

NOTIFICATION OF AN ALERT

- The interim Site Emergency Coordinator shall contact position-holders to fill positions in the long-term emergency organization per Form 69-10297, "Emergency Organization Call List." During normal working hours, sounding of the Site Emergency Signal may be used as a means of establishing the emergency organization.
- The interim Site Emergency Coordinator shall appoint an Emergency Liaison Coordinator who shall conduct the required notification of off-site personnel and agencies in accordance with EP G-3, "Notification of Off-site Organizations."
- 3. During off-normal hours or if sounding the Site Emergency Signal is not desirable, the interim Site Emergency Coordinator shall appoint a Liaison Assistant who shall notify necessary plant personnel per this procedure. The Liaison Assistant may perform the callout from the control room area or may be dispatched to the Technical Support Center (TSC) to activate the TSC telephone switchboard to receive incoming emergency calls and complete plant staff notification.
- 4. A second Liaison Assistant may be assigned to coordinate message dissemination between the Site Emergency Coordinator and the Emergency Liaison Coordinator.
- 5. As a minimum, one long-term position holder for the positions with personnel "on-call" listed in Form 69-10297 shall be notified and directed to report to their emergency locations. The interim Site Emergency Coordinator may designate additional personnel as required for the specific situation by calling other personnel as deemed necessary.

NUMBER EP G-2

REVISION 2

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TITLE ESTABLISHMENT OF THE ON-SITE EMERGENCY ORGANIZATION

 Notify the Security Shift Supervisor to prepare for incoming plant personnel.

- 7. Support staff called on-site (other than essential position holders with predesignated response locations) should be directed to report to the Security Building lunchroom (OSC). Upon arrival, they will call the TSC or Control Room to receive further direction.
- 8. All notifications shall be recorded, Form 69-10297 "Emergency Organization Call List should be used for initial callout. Form 69-9221, "Emergency Notification Record" or a log should be used to record incoming calls or calls to persons not on Form 69-10297. The Site Emergency Coordinator shall be periodically informed of the personnel that have been notified.

NOTIFICATION OF SITE AREA EMERGENCY

- Follow the same notification process as described under Notification of an Alert.
- 2. If long-term emergency position holders and support staff are already on station, notify them of the escalation or reduction of the emergency classification. Particular care should be given to notifying personnel at the following locations:
 - a. TSC or Control Room (depending on location of the Site Emergency Coordinator)
 - b. EOF, and monitoring teams under the control of EOF.
 - OSC and Security Shift Supervisor
 - d. Personnel who may be performing emergency actions in various areas of the plant site (other than at emergency facilities).

NOTIFICATION OF A GENERAL EMERGENCY

- Follow the same notification procedure as described under Notification of a Site Area Emergency.
- 2. If long-term emergency position holders and support staff are already on station, notify them of the escalation of the emergency classification. Particular care should be given to notifying personnel at the following locations:

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TITLE: ESTABLISHMENT OF THE ON-SITE EMERGENCY ORGANIZATION

- a. TSC or Control Room (depending on location of the Site Emergency Coordinator)
- b. EOF, and monitoring teams under the control of the EOF.
- c. OSC and Security Shift Supervisor
- d. Personnel who may be performing emergency actions in various areas of the plant site (other than at emergency facilities).

SUPPORTING PROCEDURES

EP G-1, "Accident Classification and Emergency Plant Activation"

EP G-3, "Notification of Off-site Organizations"

EP G-4, "Personnel Assembly and Accountability"

TABLES

On-site Emergency Operating Organization - Responsibilities

FIGURES

- Suggested Interim Emergency Organization
- Long-term Emergency Organization

ATTACHMENTS

- Form 69-10297, "Emergency Organization Call List."
- 2. Form 69-9370, "Site Emergency Organization Assignments."
- Form 69-9221, "Emergency Notification Record."

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TITLE: ESTABLISHMENT OF THE ON-SITE EMERGENCY ORGANIZATION

TABLE 1 ON-SITE EMERGENCY ORGANIZATION RESPONSIBILITIES

Site Emergency Coordinator A.

- Prior to being relieved by the Site Emergency Coordinator, the Interim Site Emergency Coordinator is responsible for the following in addition to the duties and responsibilities of the Shift Foreman:
 - Make the initial evaluation and classification of the situation.
 - Assign plant staff personnel to positions in the Site *b. Emergency Organization.
 - Notify, or direct the notification of: C.
 - Plant staff personnel
 - Company off-site emergency organizations

 - Local noncompany emergency support groups San Luis Obispo County, California Office of Emergency Services and the Nuclear Regulatory Commission
 - Authorize the sounding of the site emergency signal. *d.
 - Authorize the evacuation of the plant site and specify the *e. appropriate evacuation route.
 - Authorize overtime and other expenses associated with *f. establishing and maintaining an appropriate site emergency organization.
 - Provide direction for all emergency response operations *g. performed by Company personnel in the San Luis Obispo County Area.
 - Maintain liaison with off-site emergency support groups. *h.
 - Make protective action recommendations regarding evacuation, *i. sheltering, confiscation of food, or other emergency measures to local government agencies.
 - Authorized any extraordinary emergency measures, such as the use of company emergency personnel exposure limits.

Responsibility that may not be delegated.

TITLE: ESTABLISHMENT OF THE ON-SITE EMERGENCY ORGANIZATION

- The Site Emergency Coordinator will establish the emergency response organization in the TSC and then relieve the individual who initially assumed the interim Site Emergency Coordinator duties (normally the Shift Foreman) and assume the following duties.
 - a. Prior to the time that the corporate Recovery Manager assumes his position at the Emergency Operation Facility, the Site Emergency Coordinator is responsible to:
 - *1) Provide direction for all emergency response operations performed by Company personnel in the San Luis Obispo County Area.
 - *2) Authorize any recommendations of the Company regarding evacuation, confiscation of food, or other emergency measures, to noncompany emergency support groups.
 - *3) Authorize changes in the Emergency Action Level classification to off-site authorities.
 - *4) Authorize any extraordinary emergency measures, such as the use of company emergency personnel exposure limits.
 - 5) Request assistance as necessary for on-site or off-site radiation monitoring from federal agencies, either through the county/state emergency response organization once established, or directly.
 - b. Coordinate and direct all on-site activities.
 - c. Maintain liaison with off-site amergency support groups providing on-site assistance and support the corporate Recovery Manager in the development of a coordinate recovery action plan for on-site.
 - d. Recommend changes in Emergency Action Level Classification to the Recovery Manager.
 - e. Manager TSC Operations through the three TSC Emergency Coordinators. This includes collecting and analyzing the technical information necessary for assessment of plant operational aspects, providing technical counsel in support of the Control Room (CR), assessment of radiological release potential, and determination of actual or potential release rates,

^{*}Responsibility that may not be delegated.

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on-site exposure monitoring and contamination control, repair of plant components or systems as required by the emergency and/or consequences, and on-site personnel accountability.

- f. Provide management direction to the Control Room (CR) through the Emergency Operations Coordinator.
- g. Provide management direction to the Operational Support Center (OSC) through the Emergency Maintenance Coordinator.
- h. Assign plant staff personnel to positions in the On-site Emergency Organization as appropriate.
- *i. Authorize overtime and other expenses associated with maintaining an appropriate On-site Emergency Organization throughout the recovery period.
- j. Establish and maintain on-site personnel accountability.
- *k. Authorize the evacuation of the plant site and specify the appropriate evacuation route.
- *). Obtain the Recovery Managers approval prior to authorizing any extraordinary emergency measures such as the use of Company emergency personnel exposure limits.

B. Emergency Liaison Coordinator

This position provides control of verbal and written communications to and from the site with the following duties and responsibilities:

- Handle communications to and from the site and between site emergency response groups.
- As directed by the Site Emergency Coordinator, notify plant staff and other affected individuals and organizations of the emergency and their assignments.
- 3. Maintain contact with on-site and off-site emergency supporting groups, regulatory agencies, and monitoring teams and transmit instructions and information to and from the Site Emergency Coordinator.

^{*}Responsibility that may not be delegated.

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 Maintain records of incoming and outgoing messages. Operate communications equipment and develop message content as required to support the above.

5. Provide general assistance to the Site Emergency Coordinator.

C. Liaison Assistant

 Assist the Emergency Liaison Coordinator in communications and recording messages and carrying out his assigned duties.

D. Emergency Maintenance Coordinator

This position provides coordination of maintenance, repair and material deployment in response to the emergency situation with the following duties and responsibilities:

- At the direction of the Site Emergency Coordinator fabricate and set up any special equipment necessary for recovery operations.
- Provide management direction to the Operational Support Center Supervisor and maintenance organizations.
- Coordinate the movement and accountability of support personnel brought to the site.
- Provide general advice and assistance in these matters to the Site Emergency Coordinator and other evaluations personnel.

E. Maintenance Organizations

Electrical, mechanical and instrument coordinators are assigned to provide technical advice in these areas and supervise maintenance, repair or installation of special equipment required to respond or recover from the emergency at the direction of the Emergency Maintenance Coordinator.

F. Operations Support Center Supervisors

These positions are initially filled by the designated assembly area supervisors assigned to the access control and adjacent cold machine shop in-plant assembly areas. (See EP G-4 "Personnel Assembly and Accountability.") These persons are responsible for personnel accountability in these areas and immediate dirpatch of fire fighting, maintenance, search and rescue and/or radiological monitoring personnel to assist the shift staff in response to the emergency.

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Following the initial response, personnel called from off-site or out of plant assembly areas will initially assemble at the plant security building lunchroom where a maintenance foreman will be designated Operational Support Center (OSC) supervisor to coordinate assignment of personnel to tasks designated by the control room or technical support center and maintain accountability of personnel dispatched from the OSC.

G. Emergency Evaluations and Recovery Coordinator

This position provides overall technical coordination of the plant response activities with the following duties and responsibilities:

- Evaluate the safety consequences of the occurrence and advise the Site Emergency Coordinator accordingly of appropriate response actions and on-site and off-site recommended protective measures.
- Advise the Site Emergency Coordinator on technical matters relating to nuclear and radiological safety.
- Provide coordination and supervision of all company support teams operating at or in the vicinity of the site.
- Provide coordination and supervision of all company technical support work as part of the overall recovery program developed by the Site Emergency Coordinator and Recovery Manager.
- Advise the Site Emergency Coordinator of actions and findings of company support groups.
- Assist the Site Emergency Coordinator in determining personnel deployment to emergency support assignments.
- Provide operation and control of emergency data transmission systems, and review and evaluate plant data.

H. Emergency Radiological Advisor

This position provides overall coordination of radiological aspects of the emergency with the following duties and responsibilities:

 Advise the Site Emergency Coordinator and/or Emergency Evaluations and Recovery Coordinator on matters relating to radiological safety.

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- He shall be responsible for coordinating and supervising radiological surveys and investigations, both in plant and near site. He will work with the Radiological Emergency Recovery Manager in making an overall assessment of radiological conditions.
- Coordinate and supervise all on-site radiological surveys and investigations, and provide management of the on-site radiation protection program.
- 4. Assist the Emergency Evaluation and Recovery Coordinator in operation and control of radiological emergency data transmission systems, review and evaluation of data from these systems, and development of data and status updates for transmission off-site

I. Site Chemistry and Radiation Protection Coordinator

This position assists the Emergency Radiological Advisor in coordinating on-site radiological protection and chemical and radiological surveys and investigations. These duties include the following:

- Personnel exposure monitoring and record keeping.
- 2. Radiological and chemical analysis of in-plant samples.
- In-plant surveys and establishment of radiation and/or contamination control area boundaries.
- Determine radiation protection access requirements for entry to controlled areas.
- Maintain proper records and logs.
- Keep the Emergency Radiological Advisor and/or the Emergency Evaluation and Recovery Coordinator informed of actions and findings.

J. EARS Operator - TSC

This position assists the Emergency Radiological Advisor in radiological data processing.

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K. Emergency Radiological Monitoring Teams

Emergency radiological teams will be 2-man teams established for near site and off-site monitoring in the event of a radiological release emergency. They have the following duties and responsibilities:

Near Site Team(s):

- Perform radiation surveys in and around the plant site and obtain appropriate samples for analysis.
- Maintain communications with the Control Room or Technical Support Center for reporting monitoring results and maintaining cognizance of the emergency situation.
- Establish controlled access areas to contain or limit the spread of radioactive contamination, as appropriate.
- Issue personnel protective equipment and clothing.
- Establish and post radiation and/or contamination area boundaries.
- 6. Monitor personnel and evaluate their exposure, if required.
- Maintain proper records and logs.
- Keep the Emergency Radiological Advisor and/or the Emergency Evaluation and Recovery Coordinator informed of their actions and findings.

Off-Site Team(s):

- Perform radiation surveys at off-site locations as designated by the Radiological Emergency Recovery Manager and obtain appropriate samples for analysis.
- Maintain communications with the Emergency Operations Facility and Mobile Environmental Monitoring Laboratory for reporting results and maintaining cognizance of the emergency situation.
- Coordinate monitoring activities and reporting of results with the county personnel assigned to the monitoring team.
- Provide recommendations regarding establishing controlled access areas and determining the boundaries of such areas in cooperation with county personnel assigned to the monitoring team.

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- Assist in monitoring personnel and evaluating their exposure as required.
- Maintain proper logs and records.
- Keep the Radiological Emergency Recovery Manager informed of their actions and findings.

L. Emergency Operations Coordinator

This position provides senior plant management representation in the control room.

- Manage Operational Activities.
- Supervise the Shift Foreman in the operational control of the plant.
- 3. Advise the Site Emergency Coordinator on operational matters.

M. Emergency Operations Advisor

This is a position filled by an individual knowledgeable in operational matters to provide general operational advice and assistance to the Site Emergency Coordinator and other evaluations personnel in the TSC. This position may be assigned other operational duties such as radwaste management as required by the situation.

N. Shift Engineer

This is a position in the normal operating organization which shall remain filled throughout the emergency recovery period. The initial function of this individual is to assist the Shift Foreman in the evaluation of the occurrence, possible consequences, and possible courses of action. In the long term, this position may assist in the Control Room or TSC on plant evaluation or radiological evaluation, as required by the occurrence.

N. Fire Brigades

These teams are responsible for on-site fire suppression activities.

O. Evacuation Coordinator

This is a temporary position to coordinate evacuation of non-essential personnel from the site if warranted by the situation. It would normally be assigned to the security force staff but may be assigned to a member of the emergency planning staff.

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P. Evacuation Team

These are temporary positions consisting of a group leader and a monitor who will accompany the evacuees in the event a site evacuation is necessary. The basic functions of this team are to:

- 1. Assure that the evacuees stay together and take the correct route.
- Assist in personnel accountability at the evacuation off-site assembly area.
- Secure radiation survey equipment and survey personnel and vehicles at the collection area and arrange for decontamination as required.

Q. First-Aid and Medical

Although the importance of providing prompt first-aid is well recognized, no provisions are include for establishing a first-aid team. All plant staff shall receive first-aid training and are authorized to take action to the extent justified. Personnel in the immediate area of the injured personnel, or as dispatched by the Site Emergency Coordinator, will provide care until off-site assistance arrives.

R. Data Processing

These positions provide engineering assistance to the Emergency Evaluation and Recovery Coordinator in performing those duties relating to evaluation of plant core/thermal hydraulics, electrical and mechanical data, coordination of technical support work, operation of computer systems and other on-site emergency response activities.

S. Advisor to the County Emergency Organization

The function of this position is to activate and provide interim management of the Emergency Operations Facility and be available to advise the County Emergency Organization on the meaning and significance of information being transmitted from the site. Basic duties and responsibilities include:

 Prior to the arrival of the Recovery Manager and until relieved, act as the EOF Director to activate the utility portion of the Emergency Operation Facility (EOF and UDAC trailers). In this capacity, specific functions include:

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- a) Direct the activation of the utility portion of the Emergency Operation Facility (trailer) by appropriately energizing equipment and activating communications.
- b) Provide administrative and management direction of the EOF interim staff in carrying out the duties of the Radiological Emergency Recovery Manager, the Public Information Recovery Manager, the Operations and Analytical Recovery Manager, and the EOF-EARS operator.
- c) Keep the Site Emergency Coordinator informed and serve as his single point contact at the EOF.
- Keep the senior county response staff member advised of plant conditions and recommended protective actions.
- Coordinate security of the EOF, UDAC and EOC with the Sheriff's office.
- T. Interim Radiological Emergency Recovery Manager

This position assists the Advisor to the County Emergency Organization in coordination and direction of all off-site radiological assessment activities and development of radiological status information, until relieved by the corporate Radiological Emergency Recovery Manager. Basic duties and responsibilities include:

- Develop radiological data and status information for approval and distribution to EOF, UDAC and EOC personnel.
- Direct the activities of off-site monitoring teams and the mobile environmental monitoring laboratory, maintain records, and provide findings in status reports.
- Perform dose projections and provide radiological assessment information for the determination of protective action recommendations.
- U. EARS Operator -- EOF

This position assists the Radiological Emergency Recovery Manager in the performance of his duties, including activation and operation of the EARS computer system, activation and operation of the health physics radio system and communication with off-site monitoring teams and maintenance of logs and record and preparation of status reports as directed, until relieved by the corporate EOF EARS operator.

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V. Interim Operations and Analytical Recovery Manager

This position assists the Advisor to the County Emergency Organization in providing plant status information and coordination of local off-site emergency response activities, as directed, until relieved by the Corporate Operations and Analytical Recovery Manager. Basic duties and responsibilities include:

- Activation and operation of plant data computer systems for obtaining plant data.
- Preparation of plant status updates for approval and distribution to EOF, UDAC and EOC personnel.
- Coordination and direction of off-site response activities involving local support, including activation and operation of radio and telephone systems and maintaining proper records of communications.
- W. Interim Public Information Recovery Manager

This position assists the Advisor to the County Emergency Organization in formulating news releases concerning the emergency condition, obtaining approval of the release, and coordinating the news release with county and corporate public information personnel. It is staffed by a local public information representative until relieved by the Corporate Public Information Recovery Manager.

X. Technical Advisor to the Public Information Recovery Manager

This position assists the Public Information Recovery Manager by providing technical assistance in the preparation of news releases and participation in news media briefings.

Y. Monitoring Team Liaison Coordinator

This position assists the Radiological Emergency Recovery Manager in communications with monitoring teams, the mobile van, UDAC and other emergency response locations until relieved by the Corporate Monitoring Director.

County Liaison

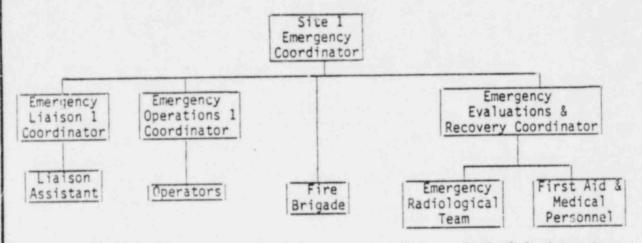
This position assists the Advisor to the County Emergency Organization by facilitating the flow of information between the EOF and EOC.

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FIGURE 1 TYPICAL ON-SHIFT EMERGENCY ORGANIZATION AND ASSIGNMENTS



Position

Typical Assignment

Interim Site Emergency Coordinator (See Table 1 for responsibilities)

Shift Foreman (Shift Engineer if not available)

Interim Emergency Liaison Coordinator1 (Develops notification messages and performs off-site notification)

Shift Control Technician, or Auxiliary Operator

Interim Emergency Operations Coordinator 1 Sr. Control Operator or Control Operator (Provides operational control of the plant)

Interim Emergency Evaluations & Recovery Shift Engineer (Assisted by Shift C&RP Coordinator (Plant and Radiological Assessment)

Technician if necessary)

Liaison Assistants (Notifies plant staff, coordinates message dissemination among liaison personnel)

Shift Control Technician, Shift Clerk or Auxiliary Operator

Assignments per the Interim Site Emergency Coordinator

Fire Brigade Emergency Radiological Team See Emergency Procedure M-6 or R-6 Shift C&RP Technician and Aux. Operator (if required)

First Aid and Medical

Operators

Employees at the scene

Required Assignments

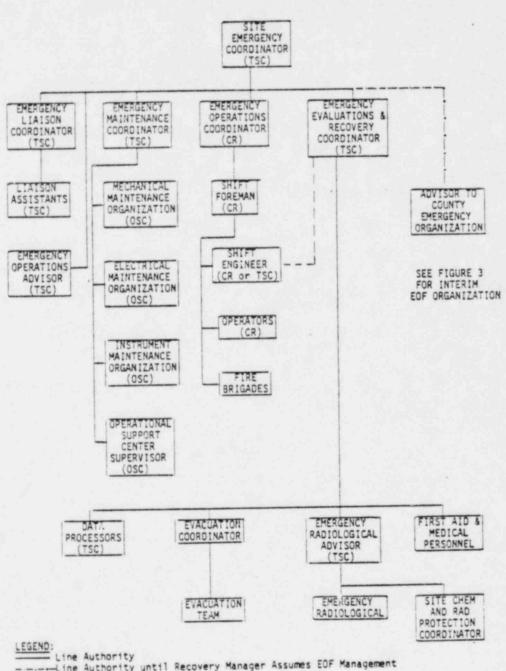
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FIGURE 2 LONG-TERM EMERGENCY ORGANIZATION



----Line Authority until Recovery Manager Assumes EOF Management

EOF - Emergency Operations Facility TSC - Technical Support Center OSC - Operational Support Center

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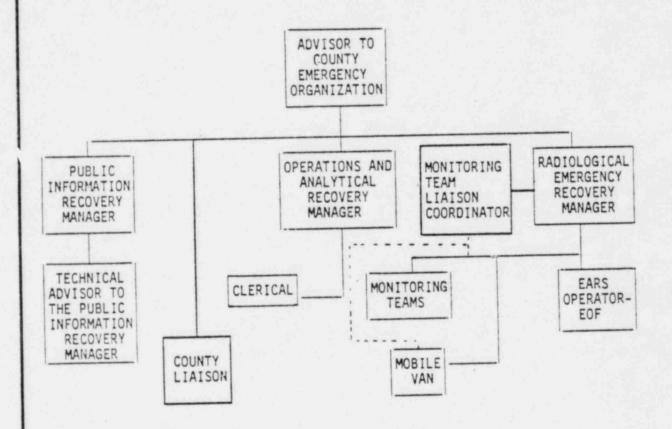
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FIGURE 3

INTERIM EOF ORGANIZATION



-----Indicates Communication Channel

Call Out Instructions:

1. Instact one person for each position.

2. seriact first listed available person (preferred position holder); if unavailable, contact the next available person

3. with a * are designated for on-call rotation.

the event, emergency classification and position person is called for.

resonnel to report to assigned location for Alert Classification or higher; optional for unusual event.

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Site Emergency Coordinator			*1. R.C. Thornberry Plant Manager			-		-	1.7.4.4
(Assigned to (TSC)		-	*2. R. Patterson Plant Superintendent					_	
			*3. J. M. Gisclon Plant Engineer					H	
	_		*4. W. B. Kaefer Tech. Asst. to the Plan	t Mgr.		-		_	
			5.			-	, L.,	-	

1. Insert date person is not available.

2. Insert date person assumes "on-call" responsibility. (Person on call will postess the pager for this position) NOT FOR PUBLIC DISCLOSURA

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- 1. Contact one person for each position.
- Contact first listed available person (preferred position holder); if unavailable, contact the next available person
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- Describe event, emergency classification and position person is called for.

Personnel to report to assigned location for Alert Classification or higher; optional for unusual event.



Insert date person is not evailable. N. 13 (30)/5

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Personnel to report to assigned location for Alert Classification or higher; optional for unusual event



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EMERGENCY ORGANIZATION CALL LIST

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rersonnel to report to assigned location for Alert Classification or higher; optional for unusual event,

111.111.111 CONTRACTOR H/P FREQ. PAGER CALL GROUP CALL HOME PHONE/ PLANT PHONE W. A. O'Hara Sr. Chem & Rad Prot. Eng Sup. of Chem & Rad Prot. NAME/NON-EMERGENCY TITLE *3. H. W. C. Fong Chem & Rad Prot. Eng. *1. J. V. Boots POS. ON-CALL AVAILI Rach tell and it Cal North Design paulit 5 or

(.) | Out Instructions:

1. Contact one person for each position.

2. Contact first listed available person (preferred position holder); if unavailable, contact the next available person

1. Persons with a * are designated for on-call rotation.

4. Describe event, emergency classification and position person is called for.

Personnel to report to assigned location for Alert Classification or higher; optional for unusual event.

186. OBGARIZ. POSTITOR	VATE 1	ON-CALL POS. WOLDER ²	NAME/NON-EMERGENCY TITLE	HOME PHONE/ PLANT PHONE	H/P FREQ. PAGER CALL # GROUP CALL #	CONTACTED YES NO	, 1 IME	MIST BE IN
Lacrgency Liaison			*1. T. J. Martin Training Supervisor		7			
Coordinator (Assigned to 1.6)	-		*2. J. E. Molden Trng. Coord.					
			*3. W. F. Steinke Trng. Coord.			Margar and Section		
			*4. R. Fisher Power Prod. Engineer		1-		Contraction in	
	-		5.		1			

" 9000/5 5 1. Insert date person is not available.

 Insert date person assumes "on-call" responsibility. (Person on call will possess the pager for this position)

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Call Out Instructions:

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2. Lantact first listed available person (preferred position holder); if unavailable, contact the next available person

3. Persons with a * are designated for on-call rotation.

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MOTT: Personnel to report to assigned location for Alert Classification or higher; optional for unusual event.

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Advisor to the Lounty Imerg.			1. W. B. Kaefer Tech. Asst. to Plant Man		1		_		
(Assigned to LOL)			*2. W. J. Keyworth Sr. Pow. Prod. Eng.(Staf	1		-		-	
			*3. T. E. Brake Pow. Prod. Eng. (Staff)			-	_		
			*4. W. B. Scott Pow. Prod. Eng. (Staff)			-			
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the tyency Operations Advisor		(No On- Call Person	1. J. A. Sexton Sup. of Operations		
(Assigned to ISC)		for this position	2. S. R. Fridley General Operating Foreman		
			3. T. J. Martin Training Supervisor		
			4. W. G. Crockett Sr. Power Prod. Eng. (Operations)		

Call Dut Instructions:

- 1. Contact one person for each position.
- 2. Contact first listed available person (preferred position holder); if unavailable, contact the next available person
- a. Porsons with a * are designated for on-call rotation.
- 4. We will be event, emergency classification and position person is called for.

1011. Personnel to report to assigned location for Alert Classification or higher; optional for unusual event.

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Lucromacy Main- tenance Coor-			*1. D. A. Backens Supervisor of Maintenance					
(Assigned to [SC]			*2. D. B. Miklush Asst. Maint. Supv.		_		-	
			*3. R. Nanninga Sr. Pow. Prod. Eng. (Maint)					
			4. W. R. Ryan Gen. Maing. Foreman		-			
			5.					

HOIF: 1) Stop call out at this point for the Unusual Event Classification, continue for high classification. Determine if the Site Emergency Coordinator requires additional personnel.

Operations Support Center Supervisus Request the Emergency Maintenance Coordinator to assign a maintenance foreman as OSC support center supervisor.

bearing a 1. Insert date person is not available.

?. Insert date person sames "on-call" responsibility.

(Person on call will passes the pager for this in an)

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tail Out Instructions:

1. Contact one person for each position.

2. Contact first listed available person (preferred position holder); if unavailable, contact the next available person

. Persons with a * are designated for on-call rotation.

4. Describe event, emergency classification and position person is called for.

1811: Personnel to report to assigned location for Alert Classification or higher.

1.01 RG. 4005ARTZ. 200.1110N	NOT AVAIL I	ON-CALL POS. HOLDER ²	NAME/NON-EMERGENCY TITLE	HOME PHONE/ PLANT PHONE	H/P FREQ. PAGER CALL # GROUP CALL #	CORTACTED YES NO	TIME	WILL BE IN
acte chemistry a finite cont for a char			1. H.W.C. Fong Chem & Rad Prot. Eng.			_		
Communicator (Academed to			*2. M J. Peterson					
Acess Control)			*3. J. R. Knemeyer Chem & Rad Prot. Eng.					
			*4. D. R. Clifton Chem & Rad Prot. Foreman	n				
			*5. R. S. Snyder Chem & Rad Prot. Foreman	n				
			*6. L. Vulchev Chem & Rad Prot. Foreman	0				
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18 0075 9 1. Insert date person is not available.

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1. Contact one person for each position.

2. Compact first listed available person (preferred position holder); if unavailable, contact the next available person

3. Persons with a * are designated for on-call rotation.

4. Describe event, emergency classification and position person is called for.

NULL: Personnel to report to assigned location for Alert Classification or higher.

POSTITION	NOT AVAIL ABLE	ON-CALL POS. HOLDER ²	NAME/NON-EMERGENCY TITLE	HOME PHONE/ PLANT PHONE	H/P FREQ. PAGER CALL # GROUP CALL #	CONTACTED YES 163	1101	WILL BE IN
Out-of-Plant Fonitoring & In-Plant		(No on- call person	1. D. R. Clifton Chem & Rad Prot. Foreman			-		-
Chemistry & Radiation Protession		The state of the s	2. R. S. Snyder Chem & Rad. Prot. Forema	,				
Personnel (Six assigned			3. L. A. Vulchev Chem & Rad Prot. Foreman					
to mobil van garage; six assigned to			4. H. W. C. Fong Cham & Rad Prot. Eng.			-		
plant)			5. J. R. Knemeyer Chem & Rad. Prot. Eng.				-44	
			6. W. A. O'Hara Sr. Chem & Rad. Prot. En	ng.				
Water St. T. Co.	The Contract		1 6 1-111-1 055 6					

NOTE: Degreest a minimum of six personnel for initial Off-Site Monitoring Teams.

We dequest a minimum of six C&RP Personnel for in-plant monitoring and chemistry.

3. A minimum of two of the above personnel are "on-call" as Emergency Radiological Advisor or site Chemistry and Radiation Protection Coordinator.

Call Out Instructions:

1. Contact one person for each position.

2. Contact first listed available person (preferred position holder); if unavailable, contact the next available person

3. Persons with a * are designated for on-call rotation.

4. Describe event, emergency classification and position person is called for.

DOTE: Personnel to report to assigned location for Alert Classification or higher.

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150/10F (No o call Assistance pers	Office Supervisor				
for	ion) 2. J.C. Ferrari Asst. Office Supervisor				
	3. C.D. Wooten Asst. Office Supervisor				
	4. M.A. Huff First Plant Clerk				
	5.				
	6.		-	-	

Call Out Instructions:

1. Contact one person for each position.

Z. Contact first listed available person (preferred position holder); if unavailable, contact the next available person

3. Troops with a * are designated for on-call rotation.

4. A scribe event, emergency classification and position person is called for.

BilE: Personnel to report to assigned location for Alert Classification or higher.

10 ftd, 600 v., Z. 105 t l 10H	NOT AVAIL ABLE	ON-CALL POS. HOLDER ² NAME/NON-EMERGENCY TITLE	HOME PHONE/ PLANT PHONE H/P FREQ. PAGER CALL # GROUP CALL #	CONTACTED YES NO	TIME	WILL BE IN
Interim IOF-EARS		(No on- call Pwr. Prod. Eng. (Staff)		-	-	
Operator (= timed to = time)		for this position) 2. D. R. Unger Chem and Rad Prot. Engr				
		3.		-	- Carlotte	
	-	4.			-	
		5.			M-1000000-11	

fall out Instructions:

1, instact one person for each position.

3. Persons with a * are designated for on-call rotation.

4. Inscribe event, emergency classification and position person is called for.

Millsommel to report to assigned location for Alert Classification or higher.

THES. ORGANIZ. Englished	AVAIL T	ON-CALL POS. HOLDER ²	NAME/NON-EMERGENCY TITLE		ON) AL TE		WILL B	
Interna Operations and Analytical		(No On- call person	1. W. T. Rapp Sr. Nuclear Gen. Engr.					
Recovery Manager (nosigned to		The state of the s	2. K. C. Doss Sr. Nuclear Gen. Engr.				\$100 E-1	
fue)	1		3,			_		
			4.					
			5.			-		

Call but Instructions:

1. Contact one person for each position.

amitact first listed available person (preferred position holder); if unavailable, contact the next available person

I Describe event, emergency classification and position person is called for.

North: Personnel to report to assigned location for Alert Classification or higher.

FIRE RG. 400(A)(12.11) Function	NOT AVAILI ABLE	ON-CALL POS. HOLDER ²	NAME/NON-EMERGENCY TITLE	HOME PHONE/ PAGER CALL # PLANT PHONE GROUP CALL #	CONTACTED YES NO	TIME	WILL BE IN YES NO
faterin Fublic		(Both persone) carry	1. Sue Brown Public Information	(Home) (PG&E)			
b sovery Lanager (Assigned		pagers)	2. George Sarkision Public Information	(Home) (PG&E)			
Lo 70F)	-		3. Pam Zweifel Manager, CATF	(PG&E)			
			4.				
			5.	ال	_/14		

Call but Instructions:

1. Contact one person for each position.

2. Contact first listed available person (preferred position holder); if unavailable, contact the next available person

3. Persons with a * are designated for on-call rotation.

4. Describe event, emergency classification and position person is called for.

More). Personnel to report to assigned location for Alert Classification or higher.

fina. gazatt. Postfor	NOT AVAIL ABLE	ON-CALL POS. HOLDER ²	NAME/NON-EMERGENCY TITLE	HOME PHONE/ PLANT PHONE	H/P FREQ. PAGER CALL # GROUP CALL #	CONTINU	TIME	ulti bt in
Inches of Advised	-	(No On- Call	1. W. J. Keyworth Sr. Pow. Prod. Eng.(Staf	f				
In the Public -Intersection Processy Manager (Assigned to EOF)	-	Person for this position	2. T. E. Brake Pow. Food. Eng. (Staff)					_
			3.					******
			4.					
	-		5.	_				

0f 28 Page

Call Out Instructions:

(100) (100)

69-16297

Contact one person for each position.

Contact first listed available person (preferred position holder); if unavailable, contact the next available person Reverbe event, emergency classification and position person is called for.

Total Personnel to report to assigned location for Alert Classification or higher.

WILL OF TR			1.		
TIMI		1			1
50m & 1ED YES 6.19					
PAGER CALL # COMESSIED GROUP CALL # YES AND					
HOME PHONE/ PLANT PHONE					
NAME/110N-EMERGENCY TITLE	(Personnel 1. Roland Richardson rotate Dept. of Engr. Research	pager as required) Dept. of Engr. Research	3.	4.	.5.
ON-CALL POS. HOLDER ²	(Personnel rotate	pager as required)			
AVAII I ANAII I			1		1
HARM. UNGARIZZY PUSTY FOR	Favironmental	Laboratory Operator			

These personnel also may be contacted by mobil radio in their assigned company cars--use H.P. frequency.

Call Out Instructions:

1. Contact one person for each position.

2. Instact first listed available person (preferred position holder); if unavailable, contact the next available person

3. Tersons with a * are designated for on-call rotation.

4. Describe event, emergency classification and position person is called for.

home. Personnel to report to assigned location for Alert Classification or higher.

I BERG. GOLANIZ. GOLATION	AVAIL 1	ON-CALL POS. HOLDER ²	NAME/NON-EMERGENCY TITLE	HOME PHONE/ PLANT PHONE	H/P FREQ. PAGER CALL # GROUP CALL #	CONTAG YES	LIME	WILL BE IN YES _NO
falls Squiator			*1. Martin Mak Chem & Rad Prot. Analyst					
(Assigned to ISC)			*2. J. N. Johnson Chem & Rad Prot. Analyst					
			*3. R. H. Garacci Chem & Rad Prot. Analyst					
			4.					
			5.		٦			

181 1. Insert date person is not available.

NOT FOR PUBLIC DISCLOSURE

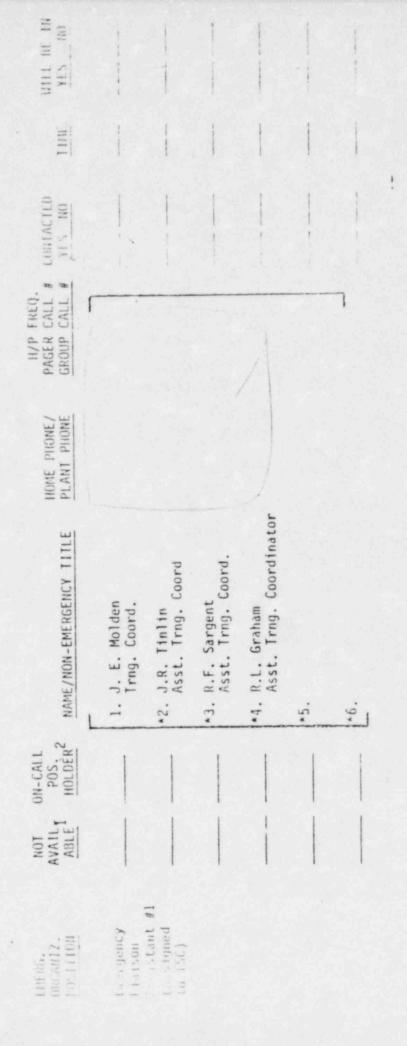
 Insert date person assumed "on-call" responsibility. (Person on call will possess the pager for t' position)

Tall Out Instructions:

Contact first listed available person (preferred position holder); if unavailable, contact the next available person Persons with a * are designated for on-call rotation. Contact one person for each position.

Describe event, emergency classification and position person is called for.

NOTE: Personnel to report to assigned location for Alert Classification or higher.



Insert date person is not available. 161 970000

NOT FOR PUBLIC DISCLOSURE

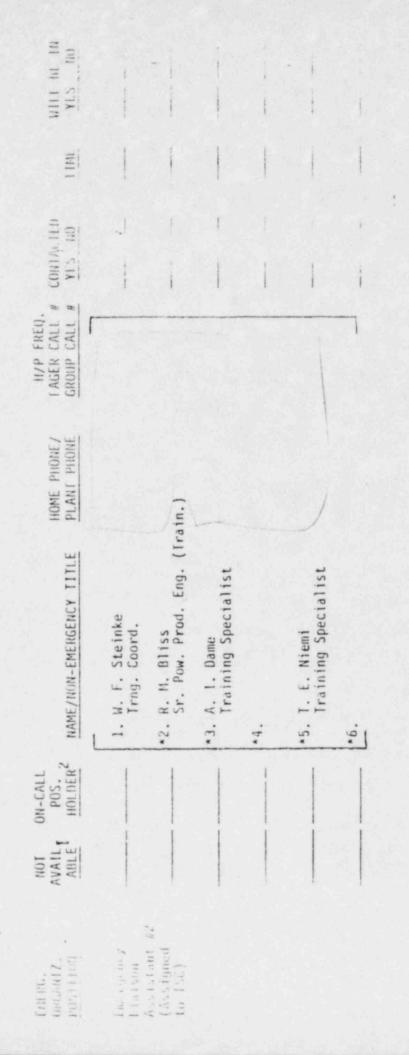
(Person on call will possess the pager for this position) Insert date person assumed "on-call" responsibility.

.

Call that Instructions:

- It tantact one person for each position.
- Contact first listed available person (preferred position holder); if unavailable, contact the next available person
 - 3. Persons with a * are designated for on-call rotation.
- Describe event, emergency classification and position person is called for.

Personnel to report to assigned location for Alert Classification or higher; optional for unusual event.



DODE. TOT 1. Insert date person is not available.

NOT FOR PUBLIC DESCRIPTION

2. Insert date person assumed "on-call" responsibility. (Person on call will possess the pager for 'position)

Call Out Instructions:

Contact one person for each position.

Contact first listed available person (preferred position holder); if unavailable, contact the next available person

Persons with a * are designated for on-call rotation.

4. Describe event, emergency classification and position person is called for.

Personnel to report to assigned location for Alert Classification or higher; optional for unusual event.

1+6. 6	NOT AVAIL ABLE	ON-CALL POS. HOLDER ²	H/P FREQ. HOME PHONE/ PAGER CALL # PLANT PHONE GROUP CALL #	CONTACTED	TIME WILL BE IN
Data Processor No. 1 (Assigned			1. L. F. Womack Sr. Pwr. Prod. Eng. (Computer)		
to TSC)			*2. D. A. Remington Pwr. Prod. Eng. (Computer)		
			*3. T. Black Pwr. Prod. Eng. (Computer,		
			*4. J. D. Brady Pow. Prod. Eng. (Planning)	-	
			*5. G. V. Johnson Engineering Trainee (Computer,		
			*6.		

DC0075 211 1. Insert date person is not available.

2. Insert date person assumed "on-call" responsibility. (Person on call will possess the pager for this position)

Call Out Instructions:

!. Contact one person for each position.

2. Contact first listed available person (preferred position holder); if unavailable, contact the next available person

1. Persons with a * are designated for on-call rotation.

4. Describe event, emergency classification and position person is called for.

NOTE: Personnel to report to assigned location for Alert Classification or higher; optional for unusual event.

(A) (B) (C) (C) (C) (C) (C) (C) (C) (C) (C) (C	NOT AVAIL ABLE	ON-CALL POS. HOLDER ²	NAME/NON-EMERGENCY TITLE HOME PHONE/ PLANT PHONE	H/P FREQ. PAGER CALL # GROUP CALL #	0.1E0 NO	11111	WILL BE THE
Data Processor No. 2			1. V. R. Foster Sr. Pow. Prod. Eng.		•		
(Assigned to IsC)			*2. J. K. Bigelow Pow. Prod. Eng. (Nuclear				
			*3. W. E. Vidalin Pow. Prod. Eng. (Nuclear				
			*4. K. Wallace Pow. Prod. Eng. (Nuclear)				
			*5. R. M. Luckett Pow. Prod. Eng. (Nuclear)				
		-	*6.				

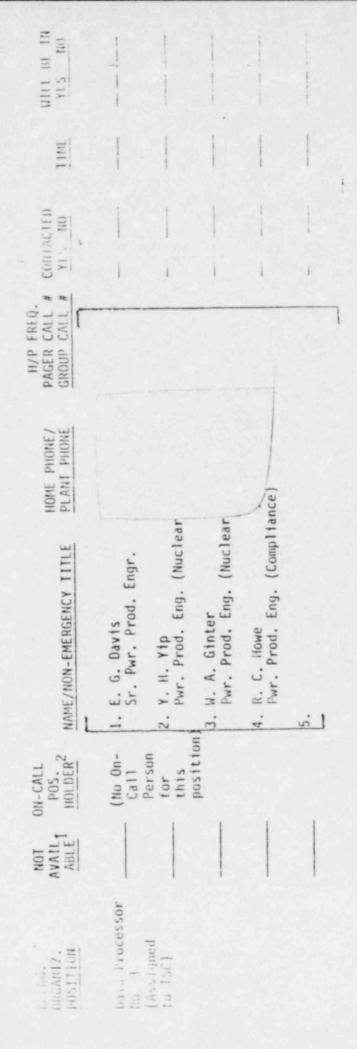
160. B. 221 1. Insert date person is not available.

Insert date person assumed "on-call" responsibility.
 (Person on call will possess the pager for 'position

EMERGENCY ORGA

Call Out Instructions:

- Contactione person for each position.
- Contact first listed available person (preferred position holder); if unavailable, contact the next available person
 - Persons with a * are designated for on-call rotation.
- Describe event, emergency classification and position person is called for.
- Will; Personnel to report to assigned location for Alert Classification or higher.



Call Dut Instructions:

2. Instact first listed available person (preferred position holder); if unavailable, contact the next available person

1. Persons with a * are designated for on-call rotation.

4. Describe event, emergency classification and position person is called for.

NOTE: Personnel to report to assigned location for Alert Classification or higher.

11815 086A(117. P051110N	NOT ON-CALL POS. ABLE HOLDER	2	HOME PHONE/ PLANT PHONE	H/P FREQ. PAGER CALL # GROUP CALL #	CON (1110 Y1 , 710	TIME	MILL III. III.
Instrument Haintenance		1. R. J. Kosmala Asst. PPE, I & C					
Coordinator (Assigned to U ^c t.)		2. D. D. Malone Sr. I&C Supervisor				-	
		*3. N. A. Regoli 1&C Supervisor					
		- *4. M. W. Stephens Instrument Foreman					
		- *5 J. M. Rappa Instrument Foreman					
		- 6. R. J. Tucker Instrument Foreman					

Diou/5 24 1. Insert date person is not available.

Insert date person assumed "on-call" responsibility. (Person on call will possess the pager for the

NOT FOR PUBLIC DISCLOSURE

(a)) Out Instructions:

1. Contact one person for each position.

2. Contact first listed available person (preferred position holder); if unavailable, contact the next available person

3. Persons with a * are designated for on-call rotation.

4. Describe event, emergency classification and position person is called for.

Mann: Personnel to report to assigned location for Alert Classification or higher.

EMERG. ORGANIZ. POSTITION	NOT AVAIL ABLE	ON-CALL POS. HOLDER ²	NAME/NON-EMERGENCY TITLE	HOME PHONE/ PLANT PHONE	PAGER CALL # GROUP CALL #	CONTACTED NO NO	TIME	MILL BE 10
l irical			*1. D. L. Bauer Pow. Prod. Eng. (Elec.)			,		
(Assigned to 050)			*2. G. M. Zocher Electrical Foreman					
			*3. A. M. Aquino Electrical Foreman				-	
			4.					
			5.				,	

160075 25 1. Insert date person is not available.

Insert date person assumed "on-call" responsibility.
 (Person on call will passess the pager for this position)

(all but Instructions:

1. Contact one person for each position.

P. Contact first listed available person (preferred position holder); if unavailable, contact the next available person

Persons with a * are designated for on-call rotation.

Describe event, emergency classification and position person is called for.

Personnel to report to assigned location for Alert Classification or higher.

PHENG. URGANIZ. POSITION	NOT AVAIL ABLE	ON-CALL POS. HOLDER ²	NAME/NON-EMERGENCY TILLE	PLANT PHONE	H/P FREQ. PAGER CALL # GROUP CALL #	CONTA YES	TINE	WILL BUTE
Mechanical Maintenance			*1. J. W. Large Pow. Prud. Ena (Mech.)	in				
Coordinator (Assigned to OSC)			*2. B. A. Green Euchanical Foreman					
			*3. B. Coiton mechanical Foreman					
			*4. J. D. Albers Mechanical Foreman					
			*5. J. E. Strahl Mechanical Foreman					

De Bill. 26 1. Insert date person is not available.

2. Insert date person assumed "on-call" responsibility. (Person on call will possess the pager for the nosition)

Call Out Instructions:

2. Contact first listed available person (preferred position holder); if unavailable, contact the next available person

 Persons with a * are designated for on-call rotation. 4. Describe event, emergency classification and position person is called for.

NOTE: Personnel to report to assigned location for Alert Classification or higher.

EMERG. ORGANIZ. POSTITION	NOT AVAIL ABLE	ON-CALL POS. HOLDER ²	NAME/NON-EMERGENCY TITLE	HOME PHONE/ PLANT PHONE	PAGER CALL # GROUP CALL #	AF2 NO	TIME	MILE RE IN
Radiological		(No On- Call	1. A. O. Taylor Chem & Rad. Prot. Engr.					
Processor (Assigned to ISC)		Person for this position)	2. D. R. Unger Chem & Rad. Prot. Engr.					
			3.					
			4.					
			5.					

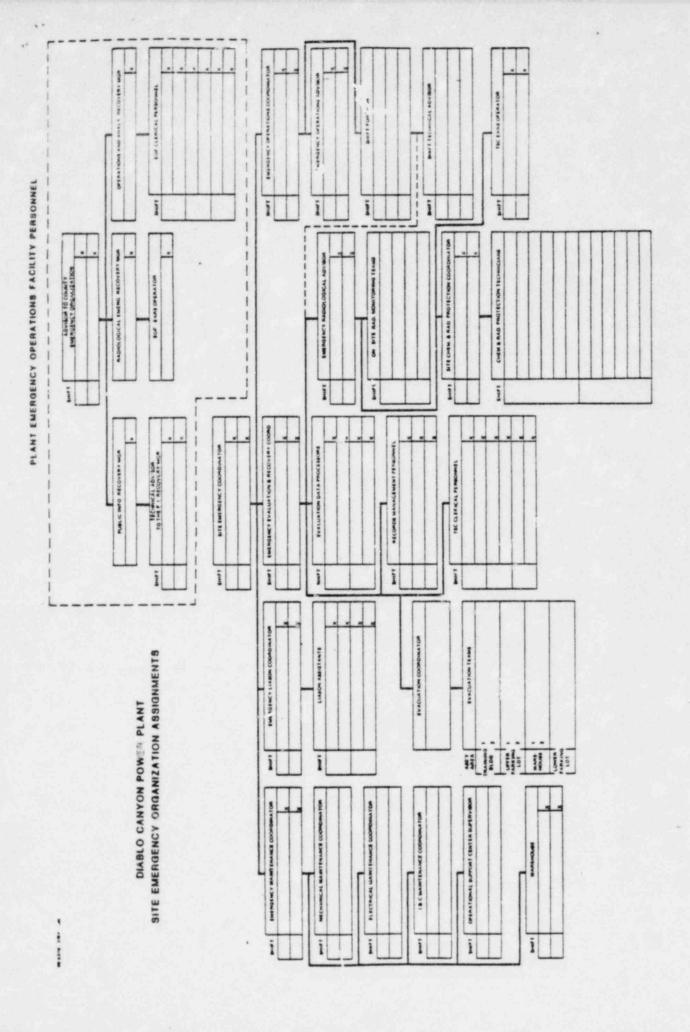
Call Cal Instructions:

- 1. Contact one person for each position.
- 2. Contact first listed available person (preferred position holder); if unavailable, contact the next available person
- 1. Persons with a * are designated for on-call rotation.
- 4. Describe event, emergency classification and position person is called for.

Hall: Personnel to report to assigned location for Alert Classification or higher.

EMERG. URGANIZ. PUSTITOR	VALL I	ON-CALL POS. HOLDER ²	NAME/NON-EMERGENCY TITLE	HOME PHONE/ PLANT PHONE	H/P FREQ. PAGER CALL # GROUP CALL #	CONTACTED YES NO	11ME	WILL BE IN YES 100
Record. Monagement (Assigned		(No On- Call Person	1. C. Leon Meyers Records Analyst					
to f(f)		for this Position)			2			
			3. D. S. Rivkin Document Control Supv.					
			4.					
			5.		ل			

6011: Call Security Shift Supervisor and provide a list of personnel coming onsite when callout is complete.



65-9221 3/82 (100)

DEPARTMENT OF PY AR PLANT OPERATIONS DIABLO CANTON POWER PLANT

EMERGENCY NOTIFICATION RECORD

RE SPOITSE										
	Harmon Co. C. Co.						Property of the Property of		1	
PIESSAGE GIVEN		The second of th		Section 2 definition of the section	A THE PERSON AND A	The second secon	many tree data data territoria de Justinia de Justinia de Lance	A MANAGEMENT OF THE PARTY OF TH	The state of the second st	
ВУ	13								1	
REACHED									a parent out own parents and area to	
TIME										
AFFILIATION										The second secon
PERSON CALLED							Management of the second of the contract of		* *******	

PGSE
Nuclear Plant Operations
69-10709 (4/82)

PROCEDURE ON-THE-SPOT CHANGE

	Procedure No. EP M-1 Rev 57 Unit No. 1 2 1825
1 1	Type of Chunge FERMANENT (grown) TEMPORARY (yellow); Expiration Cate
	Requesting Department Technical Assistant Originator W. J. Keyworth
	Proposed Change: (Does this alter the intent of original procedure? Yes No) (Does it constitute an unreviewed safety/environmental question? YES NO)
	Appendix Z - ps 1 d 1
	item d:
	Revise Mr. W. H. Fuginoto's home phono number
DRIGINATOR	from (415) 799-5687
ORIGI	I3 (415) 799-5080
	Change in phone number Notorizations IMS - IN. B Karfer 10/6/82
	Authorizations: (Plant Management Staff w/SRO License) Date*
	Immediate distribution to the Control Room and affected work areas required? YES NO Initial Distribution By:
DOCUMENT	PSRC Review and Plant Manager's approval no later than 10/20/82 Date above "plus 14 days
	Review Date
PSHC POST CHANGE REVIEW	PSRC recommends approval Yes No Plant Manager's Approval N/A Meeting Number
95	Follow-up To Rejected On-the-Spot Change Additional Information Action Taken/Remarks:
REO	
DIST	RIBUTION: Same as Original Others Please additional sheets

PGSE
Miciae Pan Operations

PROCEDURE ON-THE-SPOT CHANGE

	Procedure No. EP M-Z Row 56 Unit No. 1 2 1824
	THE Injury To Nonemplayer (Third Ponty) Type of Change: PERMANENT (green) TEMPORARY (yellow); Expiration Date Requesting Copartment Technical Assistant Originator W. J. Keyworth
	Proposed Change: (Does this alter the intent of original procedure? Yes Proposed Change: (Does it constitute an unreviewed safety/environmental question? YES (2010)
	Appendix Z - ps 141
	Revise Mr. W. H. Fusimoto's home phone number
DRIGINATOR	
ORIC	from (45) 799-5687 To (415) 799-5080
	Change in phone number
	Authorizations: 4/16/82 (Plant Management Staff w/SPIO License) (Date:
	Immediate distribution to the Control Room and affected work areas required? YES NO Initial Distribution By: Distributed To: Control Room Others
DOCUMENT	Date Received by Document Control 10/6/82 PSRC Review and Plant Manager's approval no later than 10/20/82 Date above *plus 14 days
PSAC POST CHANGE REVIEW	PSRC recommends approval Yes No Plant Manager's Approval N/A Meeting Number
σĘ	Follow-up To Rejected On-the-Spot Change Additional Information
REQ.	
DISTE	RIBUTION: Same as Original Others Please see additional cheets

CURRENT

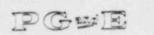
EMERGENCY PLAN

IMPLEMENTING PROCEDURES

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EF-2	Activation of the Operational Support Center	1
EF-3	Activation of the Emergency Operations Facility	1
EF-4	Activation of MEML	0
EF-5	Emergency Equipment, Instruments & Supplies	1
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		Issued
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RB-10	Protective Action Guidelines	0
RB-11	Emergency Off-Site Dose Calculations	1
RB-12	Mid and High Range Plant Vent Radiation Monitors	0
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Pacific Gas and Electric Company

NUMBER EF-3

REVISION 1

DATE 9/9/82

PAGE 1 OF 4



DEPARTMENT OF NUCLEAR PLANT OPERATIONS
DIABLO CANYON POWER PLANT UNIT NO(S) 1 AND 2

EMERGENCY PROCEDURE

TITLE: ACTIVATION AND OPERATION OF THE EMERGENCY

OPERATIONS EACHLITY

APPROVED:

LANT MANAGER

10/18/82 DATE

SCOPE

This procedure describes the actions to be taken in the event it becomes necessary to activate and operate the Emergency Operations Facility (EOF). The EOF is considered to include all facilities provided by PGandE at the San Luis Obispo County Sheriff's Complex, including the EOF, UDAC, other office trailers and the Media Center.

GENERAL

The principal purpose of the EOF is to provide a location for management of overall emergency response and facilitate the coordination of emergency response activities between PGandE, county, state and federal agencies. The EOF is co-located with the San Luis Obispo County Emergency Operations Center (EOC). The EOF serves as the headquarters for the Recovery Manager in directing emergency response and recovery efforts. the EOF/EOC provides a central point of data assessment for PGandE, federal, state and local agencies. It also serves as a centralized location for dissemination of information to the public.

INITIATING CONDITIONS

The criteria for activating the EOF will be, but is not limited to the declaration of an Alert, Site Area, or General Emergency as defined in EP G-1, "Accident Classification and Emergency Plan Activation".

IMMEDIATE ACTIONS

1. Upon declaration of an Alert, Site Area, or General Emergency at the Diablo Canyon Power Plant, the Shift Foreman shall assume the duties of the Site Emergency Coordinator and shall notify personnel to staff the EOF in accordance with EP G-3, "Notification of Offsite Emergency Organizations" and EP G-2, "Establishment of the Onsite Emergency Organization".

Note: The Recovery Manager shall notify the corporate emergency organization in accordance with Procedure 1.1 of the Corporate Emergency Response Plan following his notification.

1 AND 2

NUMBER EF J REVISION 1 DATE 9/9/82 PAGE 2 OF

TITLE: ACTIVATION AND OPERATION OF THE EMERGENCY OPERATIONS FACILITY

SUBSEQUENT ACTIONS

- Plant personnel assigned to the EOF shall activate the EOF by first notifying the officer on duty at the San Luis Obispo Sheriff's Dispatch Center, that the EOF is to be activated, and then proceeding with their activation checklist.
- EOF equipment shall be checked or placed in an operational status by the initial person arriving at the EOF, in accordance with Form 69-10781-1 "EOF Initial Activation Checklist".
- 3. Plant personnel assigned to the EOF will continue to their assigned duties until relieved by corporate EOF Personnel, or dismissed by the Site Emergency Coordinator. Personnel relieved may be re-assigned to other emergency response functions, or may provide backshift coverage of corporate EOF functions, as needed.
- 4. If an event is classified as an Alert, the Advisor to the County Emergency Organization should determine if corporate EOF personnel are proceeding to the EOF, and if not, arrangements to provide relief plant personnel at the EOF may be needed.
- 5. If informed that additional state and/or federal personnel will be arriving, refer to Form 69-10782 "EOF Auxiliary Trailer Call Out List" for the required personnel to move the trailers into position. The door key to all three trailers is located in a "Hide-A-Key" box in the recovery managers desk.

SUPPORTING PROCEDURES

G-1, "Accident Classification and Emergency Plan Activation"
G-2, "Establishment of the Onsite Emergency Organization"
G-3, "Notification of Offsite Organizations"
EP EF-6 "Activation of the Emergency Assessment and Response System"
EP EF-7 "Activation of the Nuclear Data Communications System"

FIGURES

Organization Chart

DIABLO CANYON POWER PLANT UNIT NO(S) 1 AND 2

NUMBER 2F-3
REVISION 1
DATE 9/9/82
PAGE 3 OF

4

ACTIVATION AND OPERATION OF THE EMERGENCY OPERATIONS FACILITY

ATTACHMENTS

- 1. 69-10781-1 EOF Initial Activation Checklist
- 69-10781-2 EOF Activation Checklist for the Advisor to the County Emergency Organization.
- 69-10781-3 EOF Activation Checklist for the Interim Radiological Recovery Manager.
- 4. 69-10781-4 EOF Activation Checklist for the Interim EARS Operator.
- 69-10781-5 EOF Activation Checklist for the Interim Operations and Analytical Recovery Manager.
- 69-10781-6 EOF Activation Checklist for the Interim Public Information Recovery Manager.
- 69-10781-7 EOF Activation Checklist for the Technical Assistant to the Public Information Recovery Manager.
- 8. 69-10781-8 EOF Auxiliary Trailer Call Out List. .

DIABLO CANYON POWER PLANT UNIT NO(S) 1 AND 2

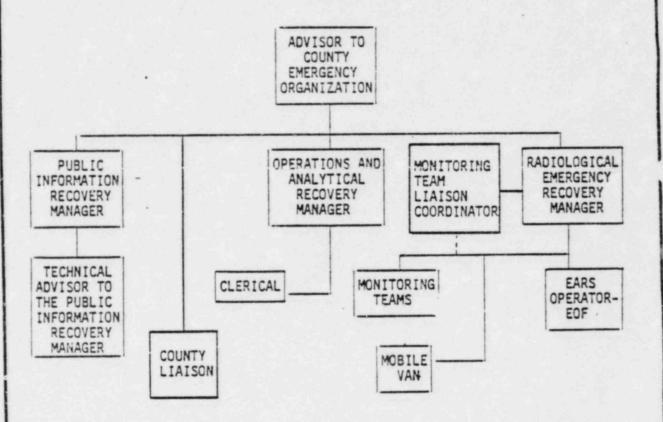
NUMBER EF-3 REVISION 9/9/82 DATE PAGE 4 OF

4

TITLE: ACTIVATION AND OPERATION OF THE EMERGENCY

OPERATIONS FACILITY

FIGURE 1 INTERIM EOF ORGANIZATION



-----Indicates Communication Channel

PACIFIC GAS AND ELECTRIC COMPANY DEPARTMENT OF NUCLEAR OPERATIONS DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

TITLE: EOF INITIAL ACTIVATION CHECKLIST

- 1. Check for adequate fuel supply in emergency diesel generator.
- 2. Check circuit breakers. (All breakers on except 50 Amp).
- In communications Room, switch the DC circuit breakers NOS 1-13 to the on position.
- 4. Switch on the Panafax machine and the copier.
- Set the heat pump switch on the thermostat to the auto position and the thermostat to comfortable setting.
- 6. Check operability of alarming count rate meter in RERM's office.

- TOTATO GAS AND ELECTRIC COMMAN OF CORRECT OF MUSICERS CREATTONS OF MUSICERS PLANT UNIT MOS. 1 AND 2 .

TITLE: EOF ACTIVATION CHECKLIST FOR THE ADVISOR TO THE COUNTY EMERGENCY ORGANIZATION (ACED)

- If you are the initial person at the EDF, see Form 69-10781-1, "EDF Initial Activation Checklist", first.
- 2. Use the recovery manager's office.
- Establish manning status of EOF (use Figure 2, Interim EOF Organization).
- Contact shift clerk for callout status of positions not yet filled.
- Call out any additional EOF personnel required, the County Liaison and the Monitoring Team Liaison Coordinator will require callout if not already done.
- 6. Contact the Liaison Coordinator at the TSC
 - a. Provide status of EOF activation and provide names and positions of personnel at the EOF.
 - b. Determine nature of emergency.
 - c. Determine general plant status.

If the TSC is not yet functional - call the control room liaison coordinator

- 7. Contact the corporate Liaison coordinator at CIRC
 - a. Provide tatus of EOF activation and provide names and positions of personnel at the EOF.
- 8. Get emergency information updates from the RERM and OARM.
- Contest the Site Emergency Coordinator at the TSC to and obtain permission to brief the county emergency organization and assure responsibility for updating the county EOC/UDAC.

PACIFIC SAS AND ELECTRIC COMPANY
DEPARTMENT OF NUCLEAR OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

- Contact county personnel at the EDC and UDAC (use county liaison as needed).
 - a. Provide Status of EOF activation.
 - b. Provide briefing on plant status.
 - c. Inform them that updates are to be provided through the EOF, and information to the sheriff's dispatch office will cease.

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PACIFIC GAS AND ELECTRIC COMPANY DEPARTMENT OF NUCLEAR OPERATIONS DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

TITLE: EOF ACTIVATION CHECKLIST FOR THE INTERIM RADIOLOGICAL RECOVERY MANAGER (RERM)

- If you are the initial person at the EOF, see Form 69-10721-1, "EOF Initial Activation checklist," first.
- 2. Use the RERM's office.
- Check manning status for EARS operator, field terms, and field team liaison coordinator, and assist in filling positions as needed.
- Establish contact with emergency radiological advisory (ERA) in the TSC.
 - a. Provide status of EOF activation and provide names and positions of personnel at the EOF.
 - b. Determine nature of emergency.
 - c. Determine general plant status.
 - d. Obtain the available information on radiological conditions.

If the TSC is not yet functional, call the interim emergency evaluations and recovery coordinator (STA)

- Report status to the Advisor to the County Emergency Organization (ACEO).
- 6. Establish contact with UDAC under direction from the AECO.
- 7. Establish contact with the field teams at the MEML garage or through the service center
- 8. Direct field teams as required. Coordinate these activities with the ERA.
- Provide radiological data to the clerk for distribution as required, using forms found in Emergency Procedure G-3. Brief the AECO and UDAC as needed.
- Evaluate plant radiological conditions and provide states and recommendations to the ACEO as required.

PACIFIC GAS AND ELECTRIC COMPANY
DEPARTMENT OF NUCLEAR OPERATIONS
DIAGLO CANYON POWER PLANT UNIT NOS. 1 AND 2

TITLE: EOF ACTIVATION CHECKLIST FOR THE INTERIM EARS OPERATOR

- If you are the initial person at the EOF, see Form 69-10781-1, "EOF Initial Activation Checklist," first.
- 2. Contact EARS operator in TSC . If the TSC is not yet functional, call the interim emergency evaluations and recovery coordinator (STA).
- Activate EARS equipment as per Emergency Procedure EF-6, "Activation of the Emergency Assessment and Response System."
- Provide assistance to RERM as required in obtaining additional personnel, radiological calculations, contacting field teams, etc.

PACIFIC GAS AND ELECTRIC COMPANY DEPARTMENT OF MUCLEAR OPERATIONS DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

TITLE: EOF ACTIVATION CHECKLIST FOR THE INTERIM OPERATIONS AND ANALYTICAL RECOVERY MANAGER (CARM)

- If you are the initial person at the EOF, see Form 69-1078-1, "EOF Initial Activation Checklist," first.
- Contact Shift Clerk to determine clerk call out status, if clerks are not yet available.
- Activate Nuclear Data Communications System (NDCS) terminal as per Emergency Procedure EF-7, "Activation of the Nuclear Data Communications System."
- 4. Contact data processor in the TSC status of the NDCS terminal.

and provide

Call the liaison coordinator in the TSC that you are ready to receive plant data.

and inform

- 6. Report status to the ACEO.
- Have a clerk distribute radiological and plant data sheets as they become available, using forms found in Emergency Procedure G-3. Provide briefings to the AECO as needed.
- 8. Have a clerk maintain chronological status on poster board on north wall of operations office, in addition to the plant and radiological status boards.

PACIFIC GAS AND ELECTRIC COMPANY
DEPARTMENT OF NUCLEAR OPERATIONS
DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

TITLE: EOF ACTIVATION CHECKLIST FOR THE INTERIM PUBLIC INFORMATION RECOVERY MANAGER (PIRM)

- 1. Contact the Technical Advisor to the PIRM and have him brief you on emergency status. Begin preparation of a news bulletin as soon as sufficient information is available. (Refer to Emergency Procedure OR-2, "Release of Information to the Public).
- Contact additional PGandE local public information personnel to assist if not already done.
- Establish communications with the county public information organization.
- 4. Determine plans for contacting the news media.
- 5. Contact the comporate public information coordinator is and provide status and media contact plans.
- 6. Participate in media ... s as per Emergency Procedure OR-2.

PACIFIC GAS AND ELECTRIC COMPANY DEPARTMENT OF NUCLEAR OPERATIONS DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

TITLE: EOF ACTIVATION CHECKLIST FOR THE TECHNICAL ADVISOR TO THE FIRM

- If you are the initial person at the EOF, see Form 59-10781-1, "EOF Initial Activation Checklist," first.
- 2. Contact and be briefed by the RERM and the OARM.
- 3. Determine plant status.
- 4. Contact the liaison coordinator in the TSC . to clarify details if necessary.
- Assist PIRM in preparing news releases, contacting personnel, and supporting the county news organization in news releases as per Emergency Procedure OR-2, "Release of Information to the Public."

PACIFIC GAS AND ELECTRIC CGMPANY DEPARTMENT OF NUCLEAR OPERATIONS DIABLO CANYON POWER PLANT UNIT NOS. 1 AND 2

TITLE: AUXILIARY TRAILER CALL OUT LIST

Call Out Instructions:

- 1. Contact only one person.
- Contact first listed available person (preferred position holder); if unavailable, contact next available person.

	-		
1.	A.G. Callahan	Company Phone: Home Phone:	
2.	John Zeagler	Company Phone: Home Phone:	
3.	Ron Large	Company Phone: Home Phone:	

Pacific Gas and Electric Company

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DEPARTMENT OF NUCLEAR PLANT OPERATIONS

DIABLO CANYON POWER PLANT UNIT NO(S) 1 AND 2

EMERGENCY PROCEDURE

ACTIVATION OF THE NUCLEAR DATA

COMMUNICATIONS SYSTEM

PLANT MANAGER

SCOPE

This procedure describes the activation of the Nuclear Data Communications Systems (NDCS) in the event the Technical Support Center (TSC), Corporate Incident Response Center (CIRC), and Emergency Operations [__lity (EOF) are activated.

GENERAL

The 1 2S is located in the TSC, Administration Building (ADMIN), EOF, and CIRC. Each of these facilities, except the EOF, has similar computer equipment to be used for data communications during an ALERT, SITE AREA EMERGENCY, or GENERAL EMERGENCY at the Diablo Canyon Power Plant and also for day-to-day data processing. It should be noted that the NDCS network, except at the EOF, will be in continuous operation 24 hours per day. Plant data from Unit 1 and Unit 2 is continuously sent to each facility's NDCS processor for storage on disk and retrieval upon demand. The EOF has a keystation and matrix printer for plant data retrieval and trending.

Plant data is stored at each facility on one disk file. At any given time, the maximum plant data storage on disk will be 24 hours.

Upon activation of the TSC, the Emergency Evaluations and Recovery Coordinator (EERC) or his designated representative is responsible to assure that the TSC NDCS is activated and operational. The EERC is also responsible for verification of the Administration Building NDCS, archiving the present PDFILE, and activating the communications link between the CIRC and the ADMIN NDCS in the event the TSC NDCS becomes inoperable. The Advisor to the County Emergency Organization or the Operations and Analytical Recovery Manager is responsible for activation of the EOF keystation and matrix printer. The NDCS located in the CIRC is activated by the General Office Nuclear Safety and Engineering staff.

Plant data transmitted by the NDCS will be used by the Site Emergency Coordinator, Recovery Manager, and their staffs to provide technical direction, coordination, and control of the recovery effort.

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TITLE:

ACTIVATION OF THE NUCLEAR DATA

COMMUNICATIONS SYSTEM

INITIATING CONDITIONS

The Shift Foreman declares that the plant is in an ALERT, SITE AREA EMERGENCY, or GENERAL EMERGENCY status as defined in Emergency Procedure G-1, "Accident Classification and Emergency Plan Activation," and initiates those activities necessary to activate and staff the TSC and EOF, as required.

ACTIVATION OF THE TSC NDCS

- In the TSC, the Emergency Evaluations and Recovery Coordinator or his designee shall:
 - a. Verify or accomplish the following on the TSC NDCS equipment:
 - Processor "SYSTEM POWER" switches "ON" (located in back of processor).
 - 2) Processor "ON-OFF" pushbutton in.
 - 3) Control console "POWER" switch "ON."
 - 4) Control console "LINE/LOCAL" switch on "LINE."
 - 5) Disk: "READY" light on.
 - 6) Disk: "CLEAR FAULT" pushbutton light off.
 - Disk: "WRITE PROTECT" pushbutton light off.
 - 8) Control console matrix printer "POWER" pushbutton light on.
 - Control console matrix printer "SELECT" pushbutton light on.
 - 10) Control console matrix printer "OFF LINE" switch in "MODE 1" (located on rear of printer).
 - 11) For each line printer, "POWER SWITCH" is "ON" (located on rear of printer).
 - 12) For each line printer, depress the "ON" and "RUN" . pushbutton.
 - 13) For each keystation "0 1" switch in "1".

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TITLE: ACTIVATION OF THE NUCLEAR DATA

- 14) For each keystation "LOCAL TEST" switch in "O".
- 15) For each keystation "DUPLEX" switch in "1".
- 16) For each keystation "KEY CLICK" switch in "O".
- 17) In the TSC NDCS communication cabinet, "SFGO" switch "7101" in the "TSC" position.
- 18) In the TSC NDCS communications cabinet, the "8090" and "7163" pushbuttons in the "TSC" position.
- b. Verify the operation of all the components of the NDCS by looking for the following messages being displayed on the system console and listening for a beep once a minute:

OS FSO1 JN=PD LFN=OD1 DEV=04 END OF FILE

X3 ING

X3 XMT

OS FSO1 JN=DL LFN=OPA DEV=03 END OF FILE

OS FSO1 JN=X3 LFN=RDR1 DEV=13 END OF FILE

X3 EOT

If all of these messages are being displayed then the system is fully operational. Skip steps c, d, e, f and verify the operation of the ADMIN NDCS by following the directions in Activation of Admin NDCS beginning at 1 c.

- c. Access what is working properly
 - At the console type in:

DA CR

where CR is the carriage return key.

The computer will respond and display which programs are "RUNNING." The following is a sample response:

OS KP RUNNING FAF4 2
OS PD RUNNING 157C 3
OS X3 RUNNING 2380 4
OS DL RUNNING 0D74 5

These programs must be running for the system to be fully active.

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ACTIVATION OF THE NUCLEAR DATA TITLE: COMMUNICATIONS SYSTEM

- Verify Harris is receiving plant data. d.
 - 1) Enter the following at the system consola: EX (PR), JN=PR CR
 - Verify that a line printer is printing plant parameters on a one minute interval.
 - If the data prints out on one minute intervals, cancel the program then skip to part e.

CA PR CR

If the data is not being received, cancel PD then execute it again. The following commands will accomplish this.

CA FD EX (PD), JN=PD

- 5) If the data is still not being received call the control room at 1224 to verify that the P250 computer is operating.
- If data is being received, verify that it is being stored on disc:
 - 1) Check for the following message on the console: OS FSO1 JN=PD LFN=OD1 DEV=04 END OF FILE .
 - Verify that the message is displayed about once a minute. If t is skip to part f.
 - If the message is not displayed on a regular interval 3) then enter the following at the console:

CA PD EX (PD), JN=PD

Then check for the following message on the console: OS FSO1 JN=PD LFN=OD1 DEV=04 END OF FILE

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TITLE: ACTIVATION OF THE MUCLEAR DATA CONSUMICATIONS SYSTEM

5) If the message is still not displayed then enter the following on the console:

CA KP - RH KEP2.JN=KP

Wait for the "KEP OPERATIONAL" message.

6) Go to the keystation (terminal) that has a T Bar switch connected to it. Place the switch in the PDREGAL position, cycle the power switch, wait for the blinking cursor to appear then login. The following is a sample login:

LOGIN AB, EOF1

Wait for the "ENTER CCMMAND" message to be displayed then enter the following:

EX POREGAL

NOTE: More information on PDREGAL is in Appendix 4

7) Check for the following message on the console:

OS FSO1 JN=PD LFN=OD1 DEY=04 END OF FILE

If this is displayed at regular intervals then the data is being stored on disc. Skip to part f.

8) If the data is not being stored on disc then enter the following on the console:

EX (PR), JN=PR

This will become the back-up data storage. Skip to the verification of the ADMIN NDCS

- f. Verify data is being transmitted to CIRC, SFGO Harris.
 - 1) Verify that the following messages are being displayed on the console:

X3 ING

X3 XMT

OS FSO1 JN=DL LFN=OPA DEV=03 END OF FILE

OS FSOI JN=X3 LFN=RDR1 DEV=13 END OF FILE

X3 EOT

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TITLE ACTIVATION OF THE NUCLEAR DATA

If the messages are being displayed then the NOCS is now fully operational. Skip to the ADMIN NOCS section.

2) If the massages are not being displayed then enter the following at the console:

DA

3) Verify that X3 and DL are "RUNNING." If they are not then go to the next step. If they are, enter the following commands at the console to cancel them:

CA X3

4) Enter the following commands to initialize X3 and DL:

RN X3,JN=X3 /PT /GO RN DL,JN=DL

NOTE: RN X3 initializes X3 to transmit on line 7101 which implies:

RCV=S7 SMIT=S8 PUN1=05

5) Verify X3 and DL are operational

NOTE: If X3 3TO massage appears repeatedly instead of the messages listed in step 1 of this part, then the CIRC Harris Computer is not receiving the data. The following phone numbers may be called to do this.

DCPP EXTENTIONS

These are DCPP extentions that go directly to CIRC in San Francisco. Other numbers are:

Terry Chu Dennis Gonzales

 If line 7101 can not be establish to transmit the data see Appendix 2 for alternate connections.

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ACTIVATION OF THE NUCLEAR DATA TITLE: COMMUNICATIONS SYSTEM

ACTIVATION OF ADMIN NDCS

- In the event the TSC NDCS is determined inoperable, the Emergency Evaluations and Recovery Coordinator or his designee shall:
 - In the TSC NDCS communications cabinet, verify or switch the "SFGO" "7101" switch to the "ADMIN" position.
 - In the TSC NDCS communications cabinet, verify or switch the "8090" and "7163" pushbuttons in the "ADMIN" position.
 - Verify or accomplish the following on the "ADMIN" NDCS equipment.
 - Processor "SYSTEM POWER" switches "ON" (located on back 1) of processor.
 - Processor "ON-OFF" pushbutton in. 2)
 - Control console "POWER" switch "ON." 3)
 - Control console "LINE/LOCAL" switch on "LINE." 4)
 - Disk: "READY" light on. 5)
 - Disk: "CLEAR FAULT" pushbutton light off. 6)
 - Disk: "WRITE PROTECT" pushbutton light off. 7)
 - Control console matrix printer "POWER" pushbutton light 8) on.
 - Control console matrix printer "SELECT" pushbutton 9) light on.
 - 10) Control console matrix printer "OFF LINE" switch in "MODE 1" (located on rear of printer).
 - 11) Line printer "POWER SWITCH" is "ON" (located on rear of printer).
 - 12) At line printer depress "ON" and "RUN" pushbuttons.
 - Verify Harris is receiving plant data.
 - 1) Enter the following at the system console: CR

EX (PR), JN=PR

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TITLE: ACTIVATION OF THE NUCLEAR DATA

- Verify that a line printer is printing plant parameters on a one minute interval.
- 3) If the data prints out on one minute intervals, cancel the program then skip to part e.

CA PR CR

4) If the data is not being received, cancel PD then execute it again. The following commands will accomplish this:

CA PD EX (PD), JN=PD

- 5) If the data is still not being received call the control room at 1224 to verify that the P250 Computer is operating. You may have to start the data sending program at the P250. (See Appendix 6)
- e. If data is being received, verify that it is being stored on disc:
 - Check for the following message on the console:
 OS FSO1 JN=PD LFN=OD1 DEV=O4 END OF FILE
 - Verify that the message is displayed about once a minute. If it is skip to part f.
 - 3) If the message is not displayed on a regular interval then enter the following at the console:

CA PD EX (PD),JN=PD

- 4) Then check for the following message on the console: 0S FS01 JN=PD LFN=0D1 DEV=04 END OF FILE
- 5) If the message is still not displayed then enter the following on the console:

CA KP RN KEP2.JN=KP

Wait for the "KEP OPERATIONAL" message.

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TITLE ACTIVATION OF THE NUCLEAR DATA
COMMUNICATIONS SYSTEM

6) Go to the keystation (terminal) that has a T Bar switch connected to it. Place the switch in the POREGAL position, cycle the power switch, wait for the blinking cursor to appear then login. The following is a sample login:

LOGIN AB, EOF1

Wait for the "ENTER COMMANO" message to be displayed then enter the following:

EX PDREGAL

NOTE: More information on PDREGAL is in Appendix 4.

7) Check for the following message on the console:

OS FSO1 JM=PD LFN=OD1 DEY=04 END OF FILE

If this is displayed at regular intervals, then the data is being stored on disc. Skip to part f.

8) If the data is not being stored on disc, then enter the following on the console:

EX (PR). JN=PR

This will become the back-up data storage. Skip to the verification of the ADMIN NDCS.

- f. If the TSC Harris is operable, then skip to the "Activation of EOF NDCS". If the TSC Harris is inoperable, then continue with this procedure.
- Verify data is being transmitted to CIRC, SFGO Harris.
 - Yerify that the following messages are being displayed on the console:

X3 ING

X3 XMT

OS FSO1 JN=DL LFN=OPA DEV=03 END OF FILE

OS FSO1 JN=X3 LFN=RDR1 DEV=13 END OF FILE

X3 EOT

If the messages are being displayed then the MDCS is now fully operational. Skip to the ADMIN NDCS section.

DIABLO CANYON POWER PLANT UNIT YO(3)

1 AND 2

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TITLE: ACTIVATION OF THE NUCLEAR DATA COMMUNICATIONS SYSTEM

 If the messages are not being displayed, true enter the following at the console:

DA

3) Verify that X3 and DL are "RUNNING". If they are not, then go to the next step. If they are, enter the following commands at the console to cancel them:

CA X3

4) Enter the following commands to initialize X3 and DL:

RN X3,JN=X3 /PT /GO RN DL.JN=DL

NOTE: RN X3 initializes X3 to transmit on line 7101 which implies:

RCV=S7 XMIT=S8 PUN1=05

5) Verify X3 and DL are operational

NOTE: If X3 BTO message appears repeatedly instead of the messages listed in step 1 of this part, then the CIRC Harris Computer is not receiving the data. The following phone numbers may be called to do this:

Terry Chu Dennis Gonzales

6) If line 7101 can not be established to transmit the data see Appendix 2 for alternate connections.

ACTIVATION OF EOF NOCS

- At the EOF, the Advisor to the County Emergency Organization or the Operations and Analytical Recovery Manager or their designed shall:
 - Varify or accomplish that situate TSG or ACMINI NOOS is operational.

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TITLE ACTIVATION OF THE NUCLEAR DATA

- b. Verify or accomplish the following on the EOF NDCS equipment:
 - 1) Keystation "O 1" switch in "1".
 - 2) Keystation "LOCAL TEST" switch in "0".
 - 3) Keystation "DUPLEX" switch in "1".
 - 4) Keystation "KEY CLICK" switch in "O".
 - 5) Verify "LOGIN" or "ENTER COMMAND" on keystation CRT.
 - 6) Matrix printer "POWER" pushbutton light on.
 - 7) Matrix printer "SELECT" pushbutton light on.
 - 8) Matrix printer "OFF LINE" switch in "MODE 1" (located on rear of printer).
- c. "Use of PARMDATA program" (see Appendix 5). The PARMDATA program allows selected display of plant data.
- d. Upon completion of a and b above, the EOF NDCS equipment shall be considered operable.

ACTIVATION OF CIRC NDCS

- 1. CIRC data processor shall:
 - Verify or accomplish the following on the CIRC NDCS equipment:
 - Processor "SYSTEM POWER" switches "ON" (located on back of processor).
 - 2) Processor "ON-OFF" pushbutton in.

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ACTIVATION OF THE NUCLEAR DATA TITLE. COMMUNICATIONS SYSTEM

- Control console "POWER" switch "ON". 3)
- Control console "LINE/LOCAL" switch on "LINE". 4)
- Disk: "READY" light on. 5)
- Disk: "CLEAR FAULT" pushbutton light off. 6)
- Disk: "WRITE PROTECT" pushbutton light off. 7)
- Matrix printe: "POWER" pushbutton light on. 8)
- Matrix printer "SELECT" pushbutton light on. 9)
- 10) Matrix printer "OFF LINE" switch in "MODE 1" (located on rear of printer).
- 11) Line printer "POWER SWITCH" is "ON" (located on rear of printer).
- 12) Depress line printer "ON" and "RUN" pushbuttons.
- Accept plant data from TSC:

The CIRC NDCS is brought up to accept data from TSC during the IPL (initial program load) of the Harris 1660 processor.

Type at the control console to check the status of X3 and ND program:

DA CR

If X3 is running, the control console would display:

OS X3 RUNNING...

If ND is running, the control console would display:

OS ND RUNNING ...

If X3 is not running, type at the control console:

RN XT, JN=X3 CR

/GO

CR

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TITLE: ACTIVATION OF THE NUCLEAR DATA COMMUNICATIONS SYSTEM

3) If ND is not running, type at the control console:

EX (ND). JN=ND CR

4) If both X3 and ND are not running, type at the control console:

RN XT, JN=X3 . CR /GO CR EX (ND), JN=ND CR

5) If X3 is running but it communicates with ADMIN instead of TSC, type at the control console:

CA X3 CR
Then repeat step b.2.
To check whether X3 communicates with ADMIN or TSC, type at the control console:

DP CR

The control console would display:

OS 55 ONLINE xx OS 56 ONLINE xx OS 57 ONLINE xx OS 58 ONLINE xx

If xx is X3 and it appears on the S5 and S6 lines, then X3 is communicating with ADMIN provided no patching has been done on the patch panels at either end. If xx is X3 and it appears on the S7 and S8 lines, then X3 is communicating with TSC provided no patching has been done on the patch panels at either end.

- c. Accept plant data from ADMIN:
 - If X3 is not running, type at the control console:

RN XA, JN=X3

CR

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2) If ND is not running, type at the control console:

EX (ND), JN=ND

3) If both X3 and ND are not running, type at the control console:

CR

RN XA,JN=X3 CR /GO CR EX (ND),JN=ND CR

4) If X3 is running but it communicates with TSC instead of ADMIN, type at the control console:

CA X3 Then repeat step C.1.

- d. Verify plant data is being received by the CIRC NDCS processor by:
 - 1) At the control console type in:

EX (PR), JN=PR CR

- Verify that the line printer is printing plant parameters on an approximate one minute interval.
- 3) The following typed in the control console will stop the printing of plant parameters:

CA PR CR

- e. At the control console, type in:
 - 1) RN KEP2, JN=KP CR
 - At any keystation, log in and type:

EX PDREGAL SKIP

- Use the remaining keystations to trend the plant data (See Appendix 5).
- Upon completion of a through e above, the CIRC NDCS can be considered activated and operable.

In the event b, c, d, or e above cannot be

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TITLE: ACTIVATION OF THE NUCLEAR DATA COMMUNICATIONS SYSTEM

accomplished, use Appendix 1, "Bootstrapping the NDCS Processor." For use of the switches and patch panel in the CIRC NDCS communications cabinet, see Appendix 3, "Use of the NDCS Switches and Patch Panels".

APPENDIXES

- 1. BOOTSTRAPPING THE NDCS
- 2. USE OF THE NDCS PATCH PANELS
- 3. USE OF PDREGAL PROGRAM
- 4. ARCHIVING PLANT DATA
- 5. PARAMETER DATA ANALYSIS PROGRAM USER'S MANUAL
- 6. INITIALIZATION OF DATA TRANSMISSION FROM P250

SUPPORTING PROCEDURES

EF-1, "ACTIVATION OF THE TSC".

EF-3, "ACTIVATION OF THE EOF"

REFERENCE

HARRIS USER'S MANUAL

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TITLE:

ACTIVATION OF THE NUCLEAR DATA COMMUNICATIONS SYSTEM

APPENDIX 1

BOOTSTRAPPING THE NDCS

INTRODUCTION

In the event bootstrapping of a NDCS processor is required, the following steps may be taken.

NOTE: When the processor is bootstrapped the following programs are automatically started:

> PD - P250 DATA LINK PR - DATA MONITOR RC - RECOVERY UTILITY

Leave PR running until KEP is established and PDREGAL is executing. This prevents a loss of data.

PROCEDURE

- Step 1.a accomplished in the "Activation of the "TSC NDCS" or Steps 1.a, 1.b, and 1.c in the "Activation of the ADMIN NDCS".
- On the processor pushbutton station, depress the following 2. pushbuttons:

SGL INIT DATA LOAD

3. At the control console, type in:

DT MM/DD/YY (where MM=month, DD=day, YY=year) TM HH:MM:SS (where HH=hours, MM=minutes, SS=seconds)

4. If the first line on the control console reads:

"OS ECOS MOUNTED DAMM2, DOXX BAD FILES CATALOGUED VOLUME" (where XX can be any digits), complete the following:

When the following prompts appear:

RC ANY VOLUMES TO BE RECOVERED ?? RC PLEASE ENTER YES (*Y) OR NO (*N)

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TITLE: ACTIVATION OF THE NUCLEAR DATA COMMUNICATIONS SYSTEM

Type in:

*Y CR

b. When the following prompt appears:

RC PLEASE ENTER VOLUME NAME (*) TO BE RECOVERED

Type in:

*ECOS CR

c. When the following prompt appears:

WRITE EOF FOR FILE??

PLEASE ENTER YES (*Y) OR NO (*N)

Type in:

*Y CR

d. For all other prompts that appear, type in:

*N CR

e. When the following appears:

RC RECOVERY UTILITY -- END EXECUTION OS JM60 JN=RE END EXECUTION

- f. Type in:
 - 1) RN KEP2, JN=KP

CR

2) As any keystation, log in and type

EX PDREGAL

SKIP

The ADMIN NDCS processor has been bootstrapped; continue with (g) for bootstrapping of the TSC NDCS processor.

g. Type in:

RN X3, JN=X3 CR

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COMMUNICATIONS SYSTEM

CR CR /PT /G0

h. Type in:

EX (DL), JN=DL CR

The TSC NDCS processor has been bootstrapped.

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TITLE:

ACTIVATION OF THE NUCLEAR DATA COMMUNICATIONS SYSTEM

APPENDIX 2

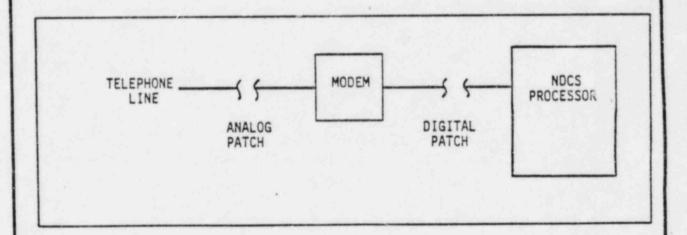
USE OF THE NDCS PATCH PANELS

INTRODUCTION

A communications cabinet is provided in the TSC Operations Center, the Administration Building computer room, and the CIRC computer room to enable transmission of data to various locations. These cabinets contain modems, telephone lines, patch panels, and switches. The patch panels and switches provide an alternate means of transmitting data in the event of modem or telephone line failure.

The patch panels at each location contain two types of patches, analog and digital. Analog patches are made on the telephone line side of a modem, while digital patches are made on the NDCS processor side of a modem (see Figure 1 below).

Figure 1



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TITLE: ACTIVATION OF THE NUCLEAR DATA COMMUNICATIONS SYSTEM

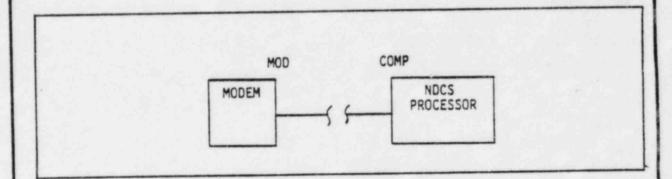
> Each analog and digital patch is further broken down into a telephone (TEL), modem (MOD), or computer (COMP) side patch as shown in the Figure 2.

Figure 2

Analog Patch

Tel Mod MODEM TELEPHONE LINE

Digital Patch



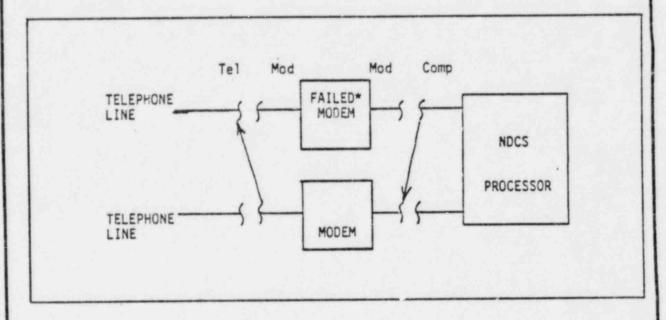
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> It is therefore possible to patch compatible modems in the event of a line or modem failure. Figure 3 illustrates how a patch can be in the event of a modem failure.

Figure 3

Modem Failure Patch



*Compatible modems

A modem failure patch as illustrated above requires only local patching. Reassignment of input or output ports of the two communicating NDCS processor is not necessary since data transmission is on the same telephone line. In the event of a telephone line, failure, patches at both NDCS processor locations are required; however, no input/output port reassignments are required. Figure 4 shows a telephone line failure patch configuration.

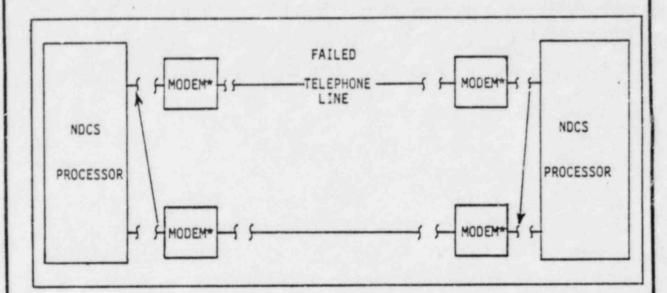
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Figure 4

Telephone Line Failure Patch



*Compatible modems

The analog switches located in the TSC communications cabinet provide a mechanism to allow data transmission from either the TSC or ADMIN NDCS processor to the CIRC processor, EOF keystation, and Boeing Computer Services.

PROCEDURE

Two lines are dedicated to data communications. Line "7101" is designated for communication between TSC and CIRC and line "7161" is designated for ADMIN and CIRC. One dial-up line may also be used for this type of communication if it is desirable.

Normal communication is considered inoperable if either the "7101" modem or the "7101" telephone line fails. Under such condition, corrective actions to reestablish communication are required. Patching is necessary to use other available modems or telephone lines.

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In the event of "7101" modem failure, see Step 1.1. In the event of "7101" telephone line failure, see Step 1.2. In the event that both lines "7101" and "7161" are inoperable, see Step 1.3.

1.1 Modem Failure

In the event that line "7101" modem is inoperable, switch to the "7161" modem using the following patching:

On the digital side, patch "7101" "COMP" into "7161" "MOD", and on the analog side, patch "7161" "MOD" into "7101" "TEL".

1.2 Telephone Line Failure

In the event that "7101" telephone line is inoperable, switch to line "7161" by the following procedure.

In the TSC, either patch digital "7101" "COMP" into "7161" "MOD" or analog "7101" "MOD" into "7161" "TEL".

In the CIRC, either patch digital "7161" "MOD" into "7101" "COMP" or patch analog "7161" "TEL" into "7101" "MOD".

1.3 Both "7101" and "7161" Failure

In the event that both "7101" and "7161" circuits (modems and/or lines) are inoperable, the dial-up line could be adopted for backup data communication. This can be achieved by entering commands from the processor control consoles at TSC and CIRC.

At the TSC processor control console, type in:

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At the CIRC processor control console, type in;

CA X3

CR

CA ND

CR

RN X3DIAL, JN=X3

CR

/G0

EX (ND), JN=ND

CR

Then using a dial data phone (4800 BAUD) call the appropriate CIRC data phone (415) 546-0346. When both parties are on the data phone line, both parties should depress the data pushbuttons, then replace the receivers.

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APPENDIX 3

USE OF POREGAL

INTRODUCTION

The PDREGAL program written in the REGAL language is to run on the Harris 1660 Computer. The purpose of PDREGAL program is to store plant data on a disk file.

DISCUSSION

The PDREGAL Program receives plant data from the PD program. The data is transferred between the two programs through a PSFUDO DEVICE (a first-in - first-out buffer). After receiving a set of data, PDREGAL will store it in the disk file PDFILE.

The disk file PDFILE is a relative record file containing 27361 lines of data. This file can store 24 hours of data. POREGAL stores 19 lines of data each minute.

EXECUTION

PDREGAL is run under the Harris system program called KEP. KEP activates the user keystations. With KEP running go to the keystation with the T BAR switch (only at TSC and ACMIN Harris Computers).

- 1. Place T BAR switch in PDREGAL position.
- 2. Cycle the power on the keystation.
- Press the ABORT key after the blinking cursor appears. PLEASE LOGIN will be displayed.
- 4. Enter the following to login:

LOGIN AB, EOF1

5. Then enter the following to execute the program.

EX PDREGAL

To terminate execution press the ABORT key several times. Once the program is terminated enter N to return to the ENTER COMMAND mode.

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APPENDIX 4

ARCHIVING PLANT DATA

During an ALERT, SITE AREA EMERGENCY, or GENERAL EMERGENCY the P250 plant data needs to be archived immediately after one of these conditions is declared, and every 24 hours while one of these three conditions exist.

REQUIREMENTS

- Both Harris Computers at DCPP must be operational and collecting data.
- 2; TSC Harris is sending data to CIRC.

The archiving process should be done with the ADMIN HARRIS. PDREGAL should remain in operation while the archiving takes place.

Mount the data archive tape. Skip pass the other files on the tape. Check the label to determine how many files are on the tape.

On the console enter the following:

TP T1,RL=80,BF=25

Then on a keystation enter the following:

EX ARCHIVE1 LOAD IN PROGRESS

The screen will clear and the following message will be displayed:

THIS PROGRAM REQUIRES THAT A TAPE BE MOUNTED ON THE TAPEDRIVE AND THE DRIVE BE PLACED ONLINE. SET THE BLOCKING FACTOR TO 25 PND THE RECORD LENGTH TO 80.

PRESS THE SPACE-BAR WHEN READY TO CONTINUE.

When the tape is ready to go and the appropriate commands have been entered, press the space-bar. The following messages will then be displayed:

PRESS THE BREAK KEY TO STOP

ARCHIVING (POFILE) NOW

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> The tape will start shortly after this and will run until the entire PDFILE is archived. As the message states, to stop press the BREAK key. The following additional messages are displayed when the BREAK key is pressed:

> > NOW IN A WAIT STATE

HAVE COPIED RECORDS

DO YOU WISH TO CONTINUE? Y OR N

By answering N (no) the program ends. If the question is answered Y (yes) the archiving resumes.

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APPENDIX 5

NUCLEAR PLANT OPERATIONS PARAMETER DATA ANALYSIS PROGRAM

USER'S MANUAL

Edward V. Bacho Engineering Computer Applications Pacific Gas and Electric Company

June 30, 1982

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PARMDATA User's Manual

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PARMOATA User's Manual

1.0 GENERAL DESCRIPTION

The PARMDATA program displays nuclear plant operation data received from the P250 computers at Diablo Canyon. The data can be displayed in a number of operator chosen formats that allow him to easily interpret the data. The program is run on a Harris computer using the KEP operating system. The P250 computer is connected to the Harris systems at both Diablo Canyon and 77 Beale Street via communications lines. The main device for both control and output of this program is a KEP station CRT.

The program is designed to allow the operator to examine the data received in several different formats (or screens). The screens are chosen from menus and are easily called. Two modes of operation are possible. In present mode, the data in the program is automatically updated as it is received. In past mode, the operator may choose any data received in the last 24 hours to examine. Both screens and modes of operation are altered through the use of PA keys. These keys (located along the top of the KEP keyboard) are defined on the screen and will produce the appropriate menus on the screen when activated. In addition, a Status Board Report can be produced on the system lineprinter. This report is also produced (PAST mode) or its options altered (PRESent mode) by the use of a PA key.

Each parameter received from the P250 has a value and a status associated with it. Any parameter whose status indicated that it is unreliable or off scan will be followed by an asterisk on the screen (e.g. 79.6*).

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PARMDATA User's Manual

2.0 PROGRAM OPERATION

2.1 STARTING PROGRAM

The program can be started once the user is logged into the KEP system. The system will print an "ENTER COMMAND:" prompt and the user will respond will a "EX PARMDATA" as shown below.

ENTER COMMAND: EX PARMDATA

2.2 IN CASE OF ABORT

There is a possibility that the program might abort if an improper input sequence is given. This possibility has been minimized. However, if it happens, the user's response should be to answer N (no) to the dump question and restart the program with EX PARMDATA. The program does not alter any data so the abort will not corrupt the data base.

2.3 PRECAUTIONS

Several precautions should be noted in using the program. There is some inherent delay involved in the execution. Response and execution of a feature might take as long as 15 seconds to complete. Hitting the PA key a second time should be avoided as it tends to confuse the machine and/or operator with its response. A good rule of thumb might be to let the cursor span the bottom of the screen (in present mode) ten times before an operation is retryed.

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PARMDATA User's Manual

3.0 STANDARD SCREEN

The screens displaying the data will have several common features that are described below. Changing the screen format or the arrival of new data will cause the screen to be cleared and the new 'ata printed.

3.1 TITLE OF SCREEN

The title of the screen being displayed will be printed on the left hand side of the top line of the screen.

3.2 TIME AND DATE

The time and date of the data are displayed on the right hand side of the top line. This time and date refer to when the data was taken which is not necessarily the actual time.

3.3 ERROR MESSAGES

Any error messages will be displayed on the left hand side of the second to last line on the screen. These error messages refer to the data currently being displayed on the screen. Explanations of the error messages can be found in Appendix A.

3.4 MODE OF OPERATION .

The mode of operation(PAST, PRESent) which the program is currently in is displayed on the right hand side of the second to last line on the screen. The mode of operation can be changed with the PA keys and this field will be changed with the first update of the screen.

3.5 TEMPORARY MESSAGES

Temporary messages give an indication of what the program is doing. They are displayed on the second to last line of the screen immediately to the left of the mode of operation. A READ message indicates that the program is currently reading in a new record from the data file. A AIT message (PRESent mode only) indicates the program is waitin; for a new record of data to arrive from the P250 computer.

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4.0 PA KEYS

The PA keys are used to alter the operation of the program. This could be the screen format, the mode of operation, or the operation of the lineprinter report. They keys can be pressed at any time and will be acted on when the program pauses. The program might therefore finish a screen output before acting on a PA key. However, if the program is in present mode waiting for the next record, it never pauses. In this case the BREAK key should be used to force a pause. Therefore, if in present mode, the BREAK key should be hit after hitting the PA key to cause the appropriate action. The function of each of the PA keys is explained below.

4.1 PA1 - SCREEN

This key causes the screen menu to be printed on the screen. This menu lists all possible screen formats for the data. The desired screen is chosen by entering its corresponding number. The subgroup screen will print an additional menu.

4.2 PA2 - LP

This key is associated with the Status Board Report printed on the lineprinter. If in past mode, the key causes the report to be printed for the data currently being examined. If in present mode, the key causes the status of the automatic Status Board Report to be displayed and any of its variables to be altered. This report can be set up to print every "n" minutes. The operator will be asked whether he wants the option on or off and the interval between reports desired.

4.3 PA3 - PAST

This key puts the program in past mode. The automatic updating of data will be disabled (Note: Data will still be received from the P250 but not displayed) and the time of the old data is to be examined will be requested. Any data received in the last 24 hours can be examined using one of the available screens. To change the data being examined, this key is pressed again.

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4.5 PA4 - PRESENT

This key puts the program in present mode. The automatic updating of data is reactivated and the latest data received displayed on the screen. The program will then go into wait mode until a new record is received from the P250.

4.6 PA5 - END

This key will cause the program to terminate and return the user to the KEP operating system.

4.7 PA29 - BREAK

This key is used to force a pause in the program so that the PA key can be acted on. This key need only be used during the WAIT state in present mode. It can be pressed either before or after the desired PA function key.

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5.0 SCREENS

There are five different types of screens in which the data can be displayed. The screen is chosed by pressing the PAl key (and BREAK key if necessary) and choosing from the menu. Any value on a screen followed by an asterisk is unreliable. Brief descriptions of the available screens are listed below.

5.1 REACTOR STATUS

This screen displays data on power levels, temperatures, and parameters associated with LOOP1 to LOOP4.

5.2 SUPPORT SYSTEMS AND CONTAINMENT STATUS

This screen displays data on pump parameters, flow parameters, and tank levels.

5.3 THERMOCOUPLE MAP

This screen displays a map of the reactor core and the thermocouple readings at different positions within the core.

5.4 SUBGROUPS

This screen displays any two subgroups of parameters. A subgroup contains ten related parameters. Each parameter includes its AP symbol, its description, and its actual value. A second menu is displayed when choosing the screen to specify the subgroups.

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5.5 DUMP

This screen is a utility to examine all 170 parameters in a record. It displays twenty parameters at a time on the screen. Each parameter lists its numeric status, its numeric value, and its character string as displayed on the other screens (the value and possibly an asterik). To list the next twenty parameters, the SKIP key is pressed. An E key will cause the screen to exit and return to the beginning. Because of this, it is best to change the screen using PAI before hitting the E key when a new screen is desired.

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6.0 MODES OF OPERATION

The program can operate in either PAST or PRESent mode of operation. The current mode is displayed in the bottom right hand corner of the screen and can be changed by the use of the PA3 or PA4 key.

In past mode, the operator is asked for a time of day and the program retrieves the data from the data file. The data file holds data from the last 24 hours with one record for every minute of the day. Once retrieved, the data may be displayed using any of the screens available. A Status Board Report from the lineprinter may be obtained by pressing the PA2 key. To replace the data with another record of data the PA3 key is pressed again and the new time entered.

In present mode, the program automatically updates the data when a new record is inserted into the data file by the P250. Therefore, the screen always displays the most current data received from the P250. In this mode, the cursor will scan across the bottom of the screen to indicate that it is working. The lineprinter can be set up to print a Status Board Report every "n" minutes. To turn this option off or on, and to choose the interval time "n" the PA2 key is pressed. The lineprinter's current status will be displayed and the new parameters asked for.

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7.0 STATUS BOARD REPORT

The Status Board Report is a report printed on the lineprinter and used to update the status board in the control room. It contains data on the reactor status, support status, containment status, and radiation readings. It is designed to fit on a standard 8 1/2" x 11" sheet. The report can be set up (in present mode) to print at some given interval of time (in minutes). To turn the option on or off and to change the interval time, the PA2 key is pressed. The program must be in present mode to change these parameters. In past mode, a Status Board Report can be generated for the current data being examined by pressing the PA2 key.

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APPENDIX A - ERROR MESSAGES

** WARNING - DATA IS NOT TODAYS **

This message indicates that the date on the data record currently on the screen does not match the system date on the Harris computer. This indicates that the data is old, possibly yesterday's data. The actual date of the data will be displayed on the screen. This error might also indicate a corrupted header on the record. The date might be corrupted and therefore not match the system data.

*** DATA CHECK ERROR ***

This error indicates that the data record was corrupted and could not be decoded. It could be caused by illegal or missing characters in the data record. All values that can not be read are marked with an asterisk. However, in this case there is a high probability that all the data is corrupted and therefore its validity should be questioned.

** ERROR - FILE READ FAILURE **

This indicates an error has occurred in accessing either the circular data file. (PDFILE) or the parameter description file (DESCRIPT/DATA). The file is either locked or a non-existent record has been accessed.

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APPENDIX B - SCREEN SAMPLES

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COMMUNICATIONS SYSTEM

CATA TIME # 0 00 DATA DATE 0/00/00 ***

INDICATE PARAMETER GROUPING TO MONITOR

1 REACTOR STATUS 2 SUPPORT SYSTEM AND CONTAINMENT STATUS 3 THERMOCOUPLE MAP 4 SUBGROUP DISPLAY

DIMP PARAMETER VALUES

SCREEN (1-5)2

PRES PAI-LOREEN PAZ-LP PAS-PAST PA4-PRES PAS-END (HIT BREAK IF NO RESPONCE)

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TITLE: ACTIVATION OF NUCLEAR DATA COMMUNICATIONS SYSTEM

**** REACTOR STATUS ********************* DATA TIME=15 45 DATA DATE= 9/19/82 ***

		нтон	EST	AVE	RAGE	E					
(NT)	RANGE RANGE E RANGE		0 0		0.0	0 1	RTP CAMP CKCS				
PRESSURIZER LEVEL	11. 2 PSIG 100. 0 LOOP1	% LOOP	2	LOOP	3		LOOP	4			
ALS IEIF	415.0 408.0	415	0	415 406	0		415. 408 120	0	4		
ROS FLOW SG LEVEL (MR)	120 0	120 -2. 250	3	120 -0 250	3		47	0	% PSIG		
STEAM FLOW	250 0 0 0* 199 2	-	0.	0	0.		0	0.	K BH		
SUBCOOLING 200. 4 INCORE T/C HOTT	F			AVERAGE	500	0.0				F	
PRT TEMP 48 4		-	1. 9	500 0 PS10		LEV		30	500 0	**PRE	3**
				DAT-END			IT B	REA	K IF N	WO RESPON	CE)

PAI-SCREEN PAZ-LP PA3-PAST PA4-PRES PA5-END (HIT BREAK IF NO R

**** SUPPORT SYSTEMS ************ DATA TIME=15 48 DATA DATE= 9/19/82 *** CHARGE PUMP FLOW 121.7 GPM LETDOWN FLOW 0.0+ GPM RHR PUMP FLOW TO HOT LEGS 1160 1 GPM FHR PUMP DISCHARGE TEMP (1) 66 7 (2) 77 3 F CC FLOW (A) 3057 0 (B) 3837 5 (C) 3103.7 GPM VCT FWST RWST CST 13 + % 62 0 % 99 3 % 369 3 % TANK LEVELS

PRESSURE (A) 0.0 PS10 (B) 0.0 PS10 TEMPERATURE 110 0 F

PA1-SCREEN PA2-LP PAS-PAST PA4-PRES PAS-END | HIT BREAK (F NO RESPUNCE)

DIABLO CANYON POWER PLANT UNIT NO(3)

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```
**** CORE EXIT THERMOCOUPLES **** DATA TIME*15 50 DATA DATE: 9,19,81 ***
                500.0
   TIC AVERAGE
                                       RV HEAD TEMPERATURES
                600 0
   HOTTEST TYC
                                         600.0
                                                              600 0 F
                                500 O
                                                   600 0
   TO OF HOTTEST
                  1 0
                                      600.0 -----
                                             500 0 ****
        600.0
                              600 0
                                      600.0
                                                  600 O
         600.0
                  600 0
                                 600 0
                                             600 0
            600 0
                          600 0
                                                  500 0 +-
                                      600.0
                    600 0
        600 0
                             600 0
                                             600 0
             600 0
                    600 0
                           9 8
                                  7 6
      15 14 13 12 11 11
                                                                **PRES**
```

PA1-SCREEN PA2-LP PA3-PAST PA4-PRES PA5-END (HIT BREAK IF NO RESPONCE)

. DATA TIME-15 54 DATA DATE: 9/19/82 *** RCS LOOP 1 AND 5/6 1-1 120 0 % RCL 1-1 FLOW F04004 119 9 RCL 1-1 FLOW F0401A RCL 1-1 T COLD RCL 1-1 T HOT S/G 1-1 NR LEVEL S/G STEAM PRESSURE S/G STEAM PRESSURE 408 0 T0406A 415 0 T0419A L0400A 250 0 PSIG L0403A P0400A -8 1 PSIG P0401A 234 4 KBH S/G 1-1 FW FLOW F0403A 0 04 KBH 8/8 1-1 STEAM FLOW F0405A SUCH CONTAINMENT PRESSURE 0 0 PSIG CONTAINMENT ATMOS & CCH DLOW PIODUA CONTAINMENT PRESSURE 110 0 F P1001A CONTAINMENT TEMPERATURE 2973 5 GPM 3797 5 GPM V0701A CCH HDR-A FLOH F06194 CCH HOH-B FLOW F0620A 3068 1 IPM ICH HOR-C FLOW F0621A 00 SPARE 00 SPARE 00 SPARE 00 SPARE **PRES** PAI-SCREEN PAZ-LP PAZ-PAST PA4-PRES PAS-END (HIT BREAK IF NO RESPONCE)

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```
********************************** DATA TIME=15 54 DATA DATE= 0,10,92 ***
                                                         SKIP TO CONTINUE
                               OUTVAL(IN) = 120 0
(NDEX= 1 STAT=0 VALUE= 120 0
                                                         E TO END
INDEX# 2 STAT#0 VALUE# 119 9
                                OUTVAL (IN) = 408 0
          STATED VALUE 408 0
INDEX
                                OUTVAL (IN) = 415 0
         STATED VALUE 415 0
INDEX#
                                OUTVAL (IN) = 30.0
INDEX= 5 STAT=0 VALUE= 30 0
                                             -()
                                 OUTVAL (IN) =
                                OUTVAL (IN) = 250
        7 STAT=0 VALUE= 250 0
INDEX.
                                 OUTVAL(IN) = -8 1
          STATED VALUE -9 1
INDEX
                                DITVALITNI = 234 4
           STATED VALUE 234 4
                               OUTVAL (IN) = 0 0+
INDEX#
           STAT=2 VALUE=
                          0 0
INDEX# 10
                  VALUE# 120 2
          STAT=1)
           STAT=0 VALUE= 120 0 OUTVAL(IN)= 120 0
 INDEX= 11
INDEX= 12
                                 DUTVAL (IN) = 408 0
           STATED VALUE 408 0
INDEX = 13
                                 OUTVAL ( IN) = 415. 0
                  VALUE - 415 0
           STAT=()
 INDEX = 14
                                 OUTVAL(IN) = 30 0
 INDEX= 15 STAT=) VALUE= 30 0
                                 OUTVAL (IN) = -2 9
           STATM)
                   VALUE -2 9
INDEX# 16
                                OUTVAL (IN) = 250 0
           STAT=0
STAT=0
STAT=0
                   VALUE - 250 0
 INDEX# 17
                   VALUE - 165 7
 INDEX= 18
 INDEX= 20 STAT=2 VALUE= 0.0 OUTVALIIN)= 0.0+
                                                                      **PRES**
 PAI-SCREEN PAZ-LP PAS-PAST PAA-PRES PAS-END ( HIT BREAK IF NO RESPONCE )
```

```
SKIP TO CONTINUE
INDEX=161 STAT=0 VALUE= 0.0
INDEX=162 STAT=0 VALUE= 0.0
INDEX=163 STAT=0 VALUE= 0.0
                               OUTVAL (IN) .
                                           0.0
                                                      E TO END
                               OUTVAL (IN) =
                                           0 0
                                            0 0
                               OUTVAL (IN)=
                               OUTVAL (IN)=
                                            0.0
INDEX#164 STATED VALUE
                         00
                                            00
                               OUTVAL (IN) =
INDEX=165 STATED VALUE=
                         0.0
                               DUTVAL (IN) .
                                            00
          STATHO VALUE
                          00
INDEX=156
                                            0.0
                               OUTVAL (IN)=
                          0.0
          STATED VALUES
INDEX=167
                                            0 0
                          0 0
                               OUTVAL (IN) .
          STATM) VALUE
INDEX=168
                                            00
INDEX=169 STAT=0 VALUE= 0 0 OUTVAL(IN)=
                                           00
INDEX#170 STAT#O VALUE# 0.0 OUTVAL(IN)#
```

**PRES

HIT BREAK IF NO RESPONCE) PAI-SCREEN PAZ-LP PAZ-PAST PA4-PRES PA5-END

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APPENDIX 6

INITIALIZATION OF DATA TRANSMISSION FROM P250

The procedure to start the P-250 sending the data for the PARMDATA program is as follows:

From the programmer console:

Push "ATTN INT" button

Type DH CORE/3916/

Push "RETURN" key

Push Space Bar

The location in core (3916) will be displayed in hexadecimal such as: 107F.

This word is the Auto Turbine Start Bid Word. Each bit controls the periodic yidding of a particular task. The bit arrangement for the above word is:

0001 0000 0111 1111

A "O" indicates the task is on periodic bid, and a "1" indicates it is not.

The 4th bit in the word controls the bidding of the B priority task which has been assigned to the program P250TSC, which is the program we are concerned with. In order to initiate the periodic bidding of the program, this bit must be changed to a "O". The procedure for this is:

Push "ATTN INT" button

Type MH CORE/3916/

Push "RETURN" key

Push Space Bar

Type 007F

Push "RETURN" key

NUMBER EP EF-7 REVISION 1 DATE 8/16/82 46 OF 46 PAGE

TITLE: ACTIVATION OF NUCLEAR DATA COMMUNICATIONS SYSTEM

Push Space Bar

Type !

Push "RETURN" key

Push Space Bar

The program will now begin executing at a predetermined frequency and will send the data to both the TSC and the administration building Harris Computers.*

*NOTE: This data can also be printed at the P-250 computer room by plugging in the AJ terminal into a provided RS-232 cable connector on the modem cart.

DISTRIBUTION: Same as Original

Others___

DIABLO CANYON POWER PLANT PROCEDURE ON-THE-SPOT CHANGE

2709	(4/02)						
1	Procedure No. EP EF-5 Rev. 1 Unit No. 1- 2 1 & 2 2						
1	Type of Change X PERMANENT (green) TEMPORARY (yellow); Expiration Date						
	Requesting Department CHEM AND RAD PROTECTION Originator Larry Moretti						
1	Proposed Change: (Does this after the intent of original procedure? Yes X No) (Does it constitute an unreviewed safety/environmental question? YES X NO)						
	Table 7 - Contents of Post-Accident Sample Kit is to be replaced by the revised Table 7, data 10/18/2						
	See attached Table 7, 10/18/12						
Он							
ORIGINATOR							
	하다. 그래, 얼마나 무게 하나 있는 아니라 하는 이 아니라 아니는 아니는 아니다 하나 하는데						
	그는 이 사람들은 바람이 하는 어느로 가는 나는 사람들이 되었다. 그는 사람들이 되었다.						
	Reason for Change: The previous Table 7 did not list all of the required equipment and listed						
	equipment not necessary for post-accident sampling at the IPLSS						
	Authorizations: Authorizations: Date Operation (Plant Management Staff w/SRO License) Date:						
	Immediate distribution to the Control Room and affected work areas required? WES NO Initial Distribution By: Distributed To: Control Room Distribution Distribut						
NTROL	Date Received by Document Control 10/18/82						
8	PSRC Review and Plant Manager's approval no later than						
CHANGE REVIEW CONTROL	PSRC recommends approval Yes No						
CHANGE	PSRC recommends approval Yes No Plant Manager's Approval N/A Neeting Number =						
	Follow-up To Rejected On-the-Spot Change Additional Information						
DEPARTM	tion Taken/Remarks:						
DE							

Please see additional sheets

TABLE 7 CONTENTS OF POST-ACCIDENTS SAMPLE KIT

	ITEM	QUANTITY
1. Inst	truction Binder	
b. c. d.	Sanford Marking Pens Red Marking Pens Black Marking Pens Ball Point Pens	2 2 2 2
	EP EF-5 Emergency Equipment, Instruments, Supplies CAP G-1	1
g.	Access to IPLSS Area, Post-Accident Sample Preparation, Handling, and analysis CAP G-2	.1
h.	Interim Post LOCA Sampling System Emergency Phone Directory Adhesive Backed Sample Labels	1 1 20
2. Mon	itoring Equipment	
b. c. d. e. f.	Teletector (Eberline 6112) Pocket Dosimeters (0-5R) Pocket Dosimeters (0-200 mr) Dosimeter Charger Finger Rings Dose Rate Meter (HP1-1010 or R0-2) Survey Meter (Eber. E-140) Pancake G-M Probe (Eber. HP-210 or HP-260)	1 2 2 1 1 12 1 1 1
a. b.	Tongs Forceps Silver Zeolite (AqZ) cartridges 12 cc Stainless Steel Liquid Sample Vessel 5 cc Shielded syringes 1 cc Shielded syringes Glass vials (14 cc) w/rubber stoppers Air Sample filter/cartridge holder assembly Surgical tubing (1/4") Duct tape Air Sample Particulate Filters (pkg of 10) Compressed Air Cylinders Air Cylinder Regulator Plastic Bags (15" x 30") B-D Hypodermic needles (LUER-LOK pgk of 12)	1 1 12 1 5 5 12 2 5 3 3 2 1 20 4

10/18/82

Contents of Post-Accidents Sample Kit Sampling Equipment (cont'd)

	ITEM	QUANTITY
	p. Radioactive labels q. LIQUID Sample Vessel adapter tubing	1 ro1
	(Plastic tubing w/male adapters)	2
4.	Miscellaneous Equipment	
	a. Protective Clothing Sets (coveralls, hood, booties, shoe covers, glov b. Stopwatch c. Calculator d. Crescent Wrench (8") e. Screwdriver f. Allen wrench (3/32") g. Masking Tape (2" wide rolls) h. Flashlight w/batteries i. Extra Batteries j. Allen wrench (5/64") k. Key to East gates outside elev 115'	res) 2 1 1 1 1 1 2 1 2 1 1 1 1 1 1 1 1 1 1