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October 15, 1998

**C. Lance Terry**  
*Senior Vice President  
& Principal Nuclear Officer*

U. S. Nuclear Regulatory Commission  
Attn: Document Control Room  
Washington, DC 20555

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)  
DOCKET NOS. 50-445 AND 50-446  
REQUEST FOR NRC REVIEW AND APPROVAL OF  
CHANGES TO CPSES EMERGENCY PLAN

Gentlemen:

The purpose of this letter is to request review and approval of certain proposed changes to the CPSES Emergency Plan.

TU Electric is submitting herein certain proposed changes to the CPSES Emergency Plan for the NRC staff to review and approve prior to implementation at CPSES. These changes, except as noted below for Section 1, were categorized to be either in a "grey area" with respect to current guidance and understanding of what may be deleted or otherwise changed under 10 CFR 50.54(q) without prior NRC approval, or a potential decrease in the effectiveness of the current CPSES Emergency Plan and therefore require prior NRC approval. Some of the Section 1 proposed changes are of lesser significance and may not fit the above categorization; however, these changes have been included in this submittal because they are small, were identified at the same time, and are not deemed to warrant processing as a separate amendment. All of the proposed changes herein have been reviewed and approved by CPSES management and the CPSES Station Operations Review Committee (SORC).

Attachment 1 provides a description of the proposed plan changes and associated justifications. Attachment 2 provides a marked-up copy of the current plan pages affected. Attachment 3 provides the proposed new plan pages reflecting these changes.

TU Electric requests that the NRC staff review and approve these changes prior to February, 1999.

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If there are any questions concerning this submittal, please contact  
Mr. Norman Hood, Emergency Planning Manager, at (254) 897-5889.

Sincerely,

*C. L. Terry*

C. L. Terry

By: *Roger D. Walker*

Roger D. Walker  
Regulatory Affairs Manager

CLW/grj  
Attachments

c - Mr. E. W. Merschoff, Region IV  
Mr. J. I. Tapia, Region IV (clo)  
Ms. G. M. Good, Region IV  
Mr. B. Murray, Region IV (clo)  
Resident Inspectors, CPSES (clo)  
Mr. T. J. Polich, NRR

DESCRIPTION AND JUSTIFICATION OF PROPOSED CHANGES TO THE CPSES EMERGENCY PLAN

**P. 1-10, Section 1.2.2 "Local Services Support"**

Change Description:

Delete the sentence "The following organizations are the local support groups which have agreed to provide services, if requested:" and the six (6) organizations immediately following in bullets. Revise the preceding sentence which refers to letters of agreements in Section 15.0, Appendix H, to add the words "which identifies the local services support organizations".

Justification:

This information is identified for deletion because it is redundant to information provided in Appendix H. Section 1.2.2 continues to state that letters of agreements are maintained with each local services support agency. Section 1.2.2 is also clarified to identify these local agencies by reference to Appendix H which provides a list of the letters of agreement maintained and includes those local support agencies being deleted from Section 1.2.2.

**P. 1-11, Section 1.2.3 "Private Sector Support"**

Change Description:

Delete the underlined words in the sentence: "The following organizations have agreed to provide services, if requested:"

Justification:

This change is for clarification. A self-assessment concluded that the underlined words implied that a letter of agreement exists with the organizations (following) described in bullets. CPSES does not maintain a letter of agreement with all of the organizations described (i.e., American Nuclear Insurers; Westinghouse, Corp).

**P. 1-12, Section 1.2.4 "State Agencies"**

Change Descriptions:

1. Delete the word "lead" from the description of the State Division of Emergency Management (DEM).
2. Revise the description of the Texas Department of Health (TDH).

Justifications:

1. This change is for clarification. A self-assessment concluded that the use of the words "lead agency" in the description for the DEM implied that there is more than one (1) coordinating agency for the State's emergency response. The Texas DEM is the one and only designated coordinating agency for the State of Texas.
2. This change is for clarification. The revised wording more accurately reflects the role of the TDH as described in the State of Texas Emergency Management Plan.

**P. 1-13, Section 1.2.5 "Federal Agencies"**

Change Description:

Delete statements concerning the NRC's mobile laboratory.

Justification:

The NRC Region IV Office no longer has this response capability.

**Table 1.1 "Staffing Requirements For Emergencies"**

Change Descriptions:

1. Revise the task of providing technical support to the onshift STA by changing the "additions within minutes of Alert" column requirements to delete the Engineer responding at 40-minutes and add one additional member to the TSC Engineering Team responding at 70-minutes. This change effectively moves this technical support from a 40-minute response to a 70-minute response.
2. Revise footnote annotations of (\*) and (\*\*\*) to (a) and (b), respectively.

3. Add footnote (c) as applicable to the onshift minimum staffing column. This footnote allows, upon exercising certain compensating actions, a temporary exception to the onshift minimum staffing requirements due to unforeseen circumstances (e.g., personal illness).

Justifications:

1. This change is related to one aspect of guidance found in NUREG-0654/FEMA-REP-1 (Rev. 1), Table B-1 "Minimum Staffing Requirements for NRC Licensees for Nuclear Power Plant Emergencies", which recommends that the onshift STA position be supported within about 30-minutes with one additional individual who can provide technical support in the area of core/thermal hydraulics. The CPSES Emergency Plan is currently approved for a 40-minute support response.

The justification for allowing the change to a 70-minute responder (support would come via the TSC Engineering Team) is based on the following:

a) The current understanding of the development and timing of reactor core degradation/melting during a postulated severe accident is documented in NUREG-1465 "Accident Source Terms for Light-Water Nuclear Power Plants" published in 1994. NUREG-1465 information postulates that significant core degradation/melting first occurs at longer times post-accident than previously believed (i.e. as postulated in the reactor safety study of WASH-1400, published in 1975, which is one basis for NUREG-0654, Table B-1 response timing). NUREG-1465 contends that, for PWRs, during the first 30-minutes only a small fraction of the core inventory of radionuclides could be released into containment, and the onset of significant fuel damage occurs at over an hour post-accident. This more current understanding of the timing sequence for PWR post-accident core damage (i.e., damage occurs after a longer time period post-accident than previously believed) acts to increase the creditable planning basis for the time from the initiating event to start of atmospheric release and therefore reduces the immediacy for providing augmented technical support. Additionally, it is recognized that information for quantifying fuel damage would not be required, or available, until some time after the TSC is expected to be activated. For example, NUREG-0737, Supp. 1, recognizes that determining the level of fuel damage requires chemistry data/analysis and provides the expectation that this sampling/analysis be completed within 3 hours from the decision to do so.

b) The CPSES TSC Engineering Team (which would be increased from 3 to 4 members and assume this responsibility) would have sufficient personnel resources to take on this technical support and is staffed/activated in a time frame (within 70 minutes of Alert) adequate to meet the required support needs (see item above).

c) The recent development and availability of the CPSES Emergency Response Guidelines and Severe Accident Management Guidelines enhance the resources immediately available to the onshift operating crew and serve to make the initial response to a severe accident situation more manageable. The availability of these guidelines reduces the level and/or immediacy of augmentation support that may be required from the STA.

d) Since NUREG-0654 was issued in November, 1980, the accident assessment capabilities of nuclear power plants (including that for CPSES in the area of core/thermal hydraulic evaluation) have been greatly enhanced by the installation and application of new systems/equipment such as the Safety Parameter Display System (SPDS) and the Radiation Monitoring System (PC-11 at CPSES). Parameters such as core exit thermocouple temperature, reactor vessel water level, containment radiation level, etc., are easily monitored and trended using these systems. These systems are readily available to assist Control Room staff in the early stages of an accident and were not accounted for in minimum staffing considerations of NUREG-0654, Table B-1.

2. This change enhances table readability and reduces the potential for misinterpretation.
3. This footnote addition allows a temporary exception to minimum staffing that is consistent with similar provisions allowed for the onshift crew in the CPSES Technical Specifications and FSAR. Proposed footnote (c) is intended to be used by the onshift staff, especially during backshift or weekends, in response to certain situations such as sudden illness, family emergency, or in the case of the CPSES pre-identified onshift medical responders (i.e., Chemistry Technicians), to allow care for, or transport of, injured plant personnel to the hospital. Similar temporary staffing exceptions are already allowed by either the CPSES Technical Specification Administrative Controls (6.2.2), FSAR (Table 13.1-2) or the regulations of 10 CFR 50.54(m)(2)(i) note 1 for the minimum staffing of onshift Radiation Protection Technicians, Chemistry Technicians, Fire Brigade members or licensed operators.

These temporary exception criteria are recognized precedences with the NRC for allowing short time absence from required minimum onshift staffing to accommodate unforeseen situations (e.g., unexpected individual sickness, accident, etc.). The short exception period proposed (2 hours) and the related compensatory measures (replacement call-in), coupled with the very small chance of an exception being exercised coincident with a declared emergency event, make this change reasonable for ANY onshift position when weighed against the benefit to an affected individual and the rather onerous logistics that would otherwise be required to meet 24-hours-a-day minimum staffing. It is inconsistent with the established precedences to not be able to apply some form of temporary exception criteria. It is also not practical

or reasonable to add several additional personnel to the prescribed minimum staffing complement just to cover the remote chance that an individual will have to leave the site via a subject absence.

As an example in support of this discussion, a recent CPSES off-hours event occurred in which one of the two required onshift Radiation Protection Technicians had a family emergency and left the site after getting supervision concurrence and promptly calling for a replacement Radiation Protection Technician. In this event the position was vacant for about 1 hour (consistent with Operations procedures and the TS allowance) but was a literal noncompliance with the CPSES Emergency Plan's Table 1.1 minimum staffing requirements.

#### **Table 1.2 "Predetermined Response Actions"**

##### Change Description:

Add a predetermined response action statement to "recommend protective actions to offsite officials" at classification of a General Emergency.

##### Justification:

This response action is already stated under the purpose of a General Emergency in plan Section 1.1.2, but was not originally included in Table 1.2. This change provides consistency between Table 1.2 and Section 1.1.2 and makes Table 1.2 "more complete" as a summary of the important predetermined response actions.

#### **P. 3-1 thru 3-4, Section 3 "Notification Methods and Procedures"**

##### Change Description:

Revise and reformat all Section 3 information.

##### Justification:

Section 3 has been extensively revised and reformatted. Information in current Sections 3.0 through 3.6 is revised and relocated to new proposed Sections 3.0 and 3.1. These changes reformat/clarify content, define "Initial Notification" and "Followup Notification" and identify to whom these notifications are sent, specify the content of the Initial and Followup notifications, identify time requirements for these notifications, and allow State and local authorities to specify the frequency for receiving Followup Notifications if their need is different from 1-hour. The

responsibility of the Shift Manager currently in Section 3.1 for ensuring (initial) notifications after an emergency is declared at CPSES is deleted based on similar statements already in plan Sections 1.1.2.1 and 1.1.2.2.

Information in current Section 3.7 "Public Warning" is rearranged, revised and relocated to new proposed Section 3.2. These changes are editorial.

Information in current Section 3.8 "Methods of Providing Public Information Regarding Protective Action Measures" is revised and relocated to new proposed Section 3.3. Specific references to "a booklet or other publications" and "posters and stickers" are changed to "printed media" which is a more generic term with the same intent. Statements in Section 3.8 concerning the Emergency Alert System (EAS) and preformatted messages are relocated to new Section 3.2. The Section 3.8 sentence that refers to what may be addressed in messages transmitted to the public is deleted on the basis that it is unneeded detail and/or conjecture, and is covered by the statement that preformatted messages (for the public) are included in the county and State plans.

#### **P. 7-3, Section 7.3.1 "Onsite Radiological Assessment"**

##### Change Description:

1. Change "Chemistry/Environmental Technicians" to Chemistry Technicians"
2. Change the responsibility statement of the Technical Support Center (TSC) Onsite Radiological Assessment Coordinator (ONRAC) and Emergency Operations Center (EOF) Radiation Protection Coordinator (RPC) for functions of onsite and offsite radiological assessment and survey activities to be effective upon activation of the TSC and EOF, instead of the declared emergency classifications of Alert and Site Area Emergency, respectively. This change also deletes "onsite" from the scope of the overall radiological assessment responsibilities assumed by the RPC when the EOF is activated.

##### Justification:

1. Change reflects the current position title and CPSES organizational responsibility assignments.
2. A CPSES self-assessment concluded that this responsibility statement needed to be clarified. Changes allow assumption of responsibilities independent of declared emergency classification and clarify the intended shift of responsibilities between the ONRAC in the TSC and the RPC in the EOF.



**P. 7-3, Section 7.3.2 "Offsite Radiological Assessment"**

Change Description:

Change the RPC's responsibility for assuming the coordination of offsite radiological monitoring and assessment from "In the event a Site Area Emergency or General Emergency is declared" to "Once the EOF is activated".

Justification:

A CPSES self-assessment concluded that this responsibility statement needed to be clarified. Change allows the RPC to assume this responsibility earlier and independent of event emergency classification. At CPSES the EOF is staffed and may be activated at an Alert. This change also clarifies the intended shift of this responsibility between the ONRAC in the TSC and the RPC in the EOF.

**P. 8-2, Section 8.1.6 "Radioprotective Drugs"**

Change Description:

Revise to add a sentence on the maintenance of Potassium Iodide (KI) supplied by TU Electric and clarify a statement of KI use with respect to the contents of State or local government emergency plans and procedures.

Justification:

Change adds a clarifying sentence which states that KI supplied by TU Electric to onsite and offsite locations is maintained in accordance with provisions given in Appendix J of the CPSES Emergency Plan. Section 8.1.6 is also clarified to more correctly reflect what is described in the State and local plans or procedures with respect to KI use. The sentence stating what is described in the State or local government emergency plans and procedures is being changed to replace the words "describe KI use respective to emergency response personnel and institutionalized persons" with "describe KI use respective to offsite personnel". The current wording in the CPSES Emergency Plan is inconsistent with the current wording in the State and local county plans. The State and local county plans are also currently in a state of flux on the subject of KI and this proposed change to the CPSES Emergency Plan allows for greater flexibility and/or consistency with possible future revisions to the State and county plans.

**P. 12-2, Section 12.2.4 "Radiological Monitoring Drills"**

Change Description:

Revise to provide consistency with other statements in the CPSES Emergency Plan and change the scope of monitoring activities to be performed in drills by CPSES personnel assigned to radiological monitoring teams.

Justification:

This change provides consistency with statements in CPSES Emergency Plan Sections 1.0 and 1.2.4 and clarifies that CPSES personnel assigned to radiological monitoring teams shall participate in annual drills for performance of air sampling/beta-gamma exposure rate determinations and should participate in drills to collect other environmental samples. The proposed change takes partial exception to annual drills for sampling/analyzing some environmental sample media (NUREG-0654 criteria N.2.d) by implying that CPSES personnel are not required to collect/monitor media other than air (i.e., water, vegetation and soil). These environmental media are primarily a responsibility of State monitoring personnel. The State of Texas (Bureau of Radiation Control) and CPSES have had discussions on this responsibility and have agreed that the State has the lead for collecting/analyzing the sample media of water, vegetation and soil. CPSES personnel should only maintain an assistance capability in this area in order to assist, if necessary, State agencies during an Ingestion Pathway phase. This position is consistent with guidance provided in NUREG-0654, Appendix 5 "Glossary" which clarifies responsibilities that must be assigned among various organizations and states, in part: "Where the guidance in this document indicates a function that must be performed, emergency planners at all levels, must decide and agree among themselves, which organization is to perform such function."

- Appendix B "Time/Distance/Dose (Thyroid) Curve For A LOCA Condition At CPSES"
- Appendix C "Time/Distance/Dose (Whole Body Gamma) Curve For A LOCA Condition at CPSES"
- Appendix D "Time/Distance/Dose (Whole Body Total) Curve For A LOCA Condition at CPSES"

Change Description:

Delete Appendix B,C and D from the CPSES Emergency Plan.

Justification:

This change deletes pre-1980 required graphs that compare reference thyroid or whole body dose values (including old 10 CFR Part 20 organ dose limits) to the doses that were estimated to be received by individuals at certain times and distances downwind of CPSES following a design basis accident (LOCA) and a radioactive release. These graphs were to provide a means for quickly assessing potential offsite dose consequences and aiding offsite protective action decision making. The graphs were originally developed per the guidance of Revision 0 (11/75) and Revision 1 (3/77) of Regulatory Guide (RG) 1.101 "Emergency Planning and Preparedness for Nuclear Reactors" which specified that graphs of post-LOCA time/distance/dose be prepared and provided in the emergency plan contents (Appendix) as described by RG 1.70, "Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants".

In August, 1980, the NRC upgraded its requirements for emergency preparedness in amendments to 10 CFR 50 (45 FR 55402). The NRC withdrew the guidance of RG 1.101 (Revision 1) in September, 1980, because it did not reflect the new requirements. In Revision 2 of RG 1.101, the NRC published new guidance (October, 1981) which endorsed the provisions of NUREG-0654 (FEMA-REP-1) as the preferred method to demonstrate compliance with the planning standards of 10 CFR 50.47. NUREG-0654 does not suggest development or inclusion of these graphs as part of an acceptable emergency plan. Subsequent developmental revisions of the CPSES Emergency Plan have failed to remove these obsolete graphs from the Appendices.

In the current CPSES Emergency Plan, which has been developed to the guidance of RG 1.101 Revisions 2 & 3 and has substantially incorporated the provisions of NUREG-0654, the graphical information in Appendices B, C and D is not used or referenced. These appendices are not currently used as a planning basis for offsite evacuations as was originally intended by RG 1.70, nor are they used as a tool during emergency response at CPSES. The current CPSES Emergency Plan, via NUREG-0654 guidance and provisions incorporated within Sections 7.0 "Accident Assessment" and 8.0 "Protective Response", encompasses the intent of these graphs. Finally, there is no mention of these appendices in the CPSES Safety Evaluation Report (SER) or supplements, related NRC inspection reports or correspondence.

Based on the above, it was determined that the subject graphs were not used as a licensing basis for the CPSES Emergency Plan and that deletion of the graphs should be acceptable.

**P. J-2 thru J-4, Appendix J "Emergency Equipment And Supplies"**

Change Description:

Revise all Appendix J information.

Justification:

This change revises all information to eliminate redundancy, unnecessary and meaningless detail, ambiguities and erroneous information, and delete certain listed items of equipment/supplies. This Appendix continues to reflect the intent of NUREG-0654, Section H 'Emergency Facilities and Equipment', paragraph 11, which states: "Each plan shall, in an appendix, include identification of emergency kits by general category (protective equipment, communications equipment, radiological monitoring equipment and emergency supplies."

Certain items of equipment/supplies are being deleted from the Appendix listing. TU Electric no longer maintains respirators or plastics in the CPSES Emergency Response Facilities (ERFs). TU Electric does not believe this to be a compliance issue because of the following:

a) The current Appendix J listing of equipment/supplies is stated as being "representative of that which is maintained" and "the specific inventory of equipment and supplies for each facility or location is prescribed by and maintained in accordance with Emergency Plan Procedures (EPPs)". This wording is intended to mean that the Appendix J listing of supplies/equipment maintained is "typical" with the "actual" supplies/equipment maintained being specified by the EPPs and related quarterly inventory logs;

b) A previous CPSES Emergency Plan description of respiratory protection equipment (RPE) (e.g., full-face respirators, particulate and sorbent canisters, etc.) maintained in the ERFs was revised and clarified in Revision 22, effective June 25, 1995. Revision 22 deleted the description of RPE in the ERFs (except for Self Contained Breathing Apparatus (SCBAs) and provided clarifying discussions of what protective measures may be implemented instead. The Appendix J listing of RPE was inadvertently not revised with the Revision 22 changes. This proposed change updates Appendix J and provides consistency with the sections of the CPSES Emergency Plan that were previously changed in Revision 22 (Section 6.2 "Operations Support Center"; 6.11 "Emergency Equipment and Supplies"; 8.4 "Provisions for Protecting Onsite Emergency Response Personnel"; and 8.4.1 "Respiratory Protection"). The Revision 22 justification was that RPE is readily available if needed from other plant locations and supplies maintained by Radiation Protection. Also, coincident with implementing the new 10 CFR Part

20 regulations and related new polices concerning RPE, the unevaluated use of RPE against airborne radionuclide hazards was generally reprioritized by nuclear power licensees to a last resort in lieu of other protective measures. Some reasons for not using RPE include: An unevaluated use of RPE may actually increase an individuals radiation exposure; increased personal safety considerations and slower response times must also be considered due to physical and mental stress, fogging/limited vision, limited communications, etc.; by employing a combination of ERF habitability monitoring, other protective measures and administrative controls (e.g. external exposure thresholds, DAC-hr tracking, ingestion of KI, and/or relocation), RPE use by ERF and offsite team personnel will not normally be required.

**P. Q-4. Appendix Q "Definitions"**

Change Description:

Add a definition titled "Periodic Definitions" that defines the terms "monthly", "quarterly", "semi-annual or semi-annually", "12-months", and "annual or annually" as used in the CPSES Emergency Plan.

Justification:

Change adds a definition of each frequency term used in describing events/tasks that are required to be performed on a regular periodic basis. This change is added for clarification. The definitions added are specific to use in the CPSES Emergency Preparedness Program and are to be used in meeting timely implementation/maintenance of those periodic CPSES Emergency Plan requirements that are tracked and/or scheduled by the CPSES Emergency Planning or Nuclear Overview Department action item tracking systems. These definitions have been reviewed for consistency with guidance documents. The proposed definition of "12-months" is consistent with NRC staff Memorandum dated August 28, 1990 from Phillip F. McKee, Chief, Reactor Safeguards Branch, Office of Nuclear Reactor Regulation, on the subject "Guidance-- Definition of "Every 12 Months" and information in NRC Inspection Module #81034. The proposed definition of "annual" is consistent with information documented in NRC Inspection Report 50-445/446 95-21, Section 4.1.

ATTACHMENT 2 TO TXX-98207  
MARKED-UP COPY OF CURRENT PAGES AFFECTED

1.1.3 RECOVERY

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Actions taken to return the plant to an operational status or maintain long-term safe shutdown condition after the emergency response actions have been completed. If a recovery effort is deemed necessary, the CPSES Recovery Organization is established in accordance with Section 11.0 "Recovery and Reentry."

1.2 EMERGENCY RESPONSE SUPPORT AND RESOURCES

1.2.1 Corporate Support

TU Electric maintains sufficient management and personnel resources at the CPSES site to effectively staff (24 hours) the CPSES Emergency Response Organization and its intended emergency mitigation functions. This arrangement preempts the need for a separate organization of offsite corporate personnel to be identified for, and incorporated in, the CPSES Emergency Response Organization; however, in the event of an emergency requiring assistance from offsite organizations, TU Electric management is fully committed to providing other resources to assist the CPSES Emergency Response Organization. Examples of other corporate capabilities existing within TU Electric include public information services, materials procurement services, contract manpower and construction services, legal and insurance services, and additional technical support.

1.2.2 Local Services Support

The local response organizations involved with emergencies at CPSES are the Hood County and Somervell County Emergency Organization. Each county has an emergency operations plan which describes the counties emergency response. The County Judge is in charge of the emergency organizations and has the legal authority for protective action decision making within their respective county. To assist the county emergency organizations, TU Electric sends a representative who is familiar with station operations and the CPSES Emergency Plan to each county Emergency Operations Center. The representative functions as an advisor and may act as liaison between the county officials and the CPSES Emergency Response Organization; however, these representatives are not company spokespersons.

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Support from local organizations may be obtained through direct notification to the individual organization. Letters of Agreement from each organization to provide their respective emergency assistance to CPSES are maintained onsite. A list of Letters of Agreement is provided in Section 15.0, Appendix H.

*which identifies the local services support organizations*

~~The following organizations are the local support groups which have agreed to provide services, if requested:~~

- ~~● Somervell County Volunteer Fire, Rescue, and EMS Service - local fire fighting support~~ 26
- ~~● Somervell County Sheriff - law enforcement, assist evacuation efforts, traffic controls, security~~ 25
- ~~● Hood County Sheriff - law enforcement, assist evacuation efforts, traffic controls, security~~
- ~~● Lake Granbury Medical Center - treatment of contaminated injured~~ 27
- ~~● Big D Ambulance Service (Granbury) - transportation of contaminated injured~~ 26
- ~~● Walls Regional Hospital - treatment of contaminated injured personnel~~ 26

### 1.2.3 Private Sector Support

Support from private sector organizations may be obtained through direct notification to the individual organization. The following organizations ~~have agreed to provide services, if requested:~~

- Westinghouse Corporation

Westinghouse Corporation, the designer for the Nuclear Steam Supply System (NSSS), has an emergency response group which provides for emergency engineering assistance to facilities having a NSSS designed by Westinghouse. This assistance is available on a 24-hour/day, 7-day/week basis. Details of the response is contained in the Westinghouse Emergency Response Plan.

- Institute of Nuclear Power Operations (INPO)

INPO is an industry technical association whose Emergency Preparedness Division acts as a clearinghouse for maintaining a roster of individuals and skills available to each utility for augmenting the onsite ERO. INPO also serves as a clearinghouse for maintaining an inventory listing of material, equipment, and services which may be used to supplement onsite resources. Details of the response is contained in a letter of agreement.

- Houston Lighting and Power

The South Texas Project provides a backup service for analyzing Post Accident Samples. A Letter of Agreement outlines the analyzing capabilities of the South Texas Project Laboratory.

- American Nuclear Insurers (ANI)

TU Electric maintains a policy with ANI. ANI has agreed to assume responsibility for promptly assisting members of the public who may be adversely affected by an event at CPSES. This insurance policy alleviates the immediate financial burden that may be incurred by members of the public due to evacuation and relocation associated with an incident. ANI will have their representatives on the scene, prepared to commence the distribution of emergency funding at the earliest possible time, on a 24-hour a day basis.

### 1.2.4 State Agencies

The State of Texas has developed a Radiological Emergency Management Plan as a part of the State of Texas Emergency Management Plan. The fundamental legislation providing the basis for emergency response by civil authorities is the Texas Disaster Act of 1975, as amended. This act creates a Division of Emergency Management. The Division of Emergency Management is part of the Governor's office and is placed under the Director of the Texas Department of Public Safety by an Executive Order of the Governor. The duties and responsibilities of the principle and support agencies of the State of Texas are summarized below. The Commissioners of the Texas Department of Agriculture and the Texas Department of Health are responsible for implementing protective actions within the Ingestion Exposure EPZ in accordance with the Texas Emergency Management Plan. A detailed discussion of the state's response is contained in the Texas Emergency Management Plan and supporting Letters of Agreement. See Section 15.0, Appendix H for a list of Letters of Agreement.



Division of Emergency Management

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The Division of Emergency Management (DEM) is the ~~lead~~ agency responsible for coordinating overall response to emergency situations in the State of Texas. The Director, DEM, assumes overall direction and control of the state's response to an emergency condition at CPSES.

Texas Department of Public Safety

The Texas Department of Public Safety (DPS) serves as the primary communication contact and coordinates emergency communications between CPSES and the State of Texas, Hood and Somervell Counties. The DPS coordinates with the local law enforcement officials and assists in maintaining traffic control, protecting life and property, establishing road-blocks, and alerting and warning persons in the affected area. The Highway Patrol Captain in District 6A Waco, Texas serves as Chairman of the Disaster District Committee. Requests for assistance from the local county EOC's are forwarded to District 6A. Requests that exceed the District's capability are forwarded to the state EOC in Austin. Response time for DPS personnel from the Disaster District Office in Waco to the station is approximately 2 hours.

Texas Department of Health

*providing technical assistance and advice to local governments during*

The Texas Department of Health (TDH), Bureau of Radiation Control (BRC) is the responsible agency for ~~responding to~~ a radiological emergency at CPSES. Once notified of a Site Area or General Emergency by DEM, the BRC will establish a communication link from their Austin office to the station. The BRC dispatches response teams to the station in accordance with provisions of the Texas Radiological Emergency Management Plan. The BRC response is directed by the Bureau Chief. The response team is capable of providing environmental sampling and radiological monitoring, including a mobile radiological laboratory. This laboratory serves to analyze low-level radiological environmental samples. CPSES provides telephone and electrical hook-ups for use by the laboratory. It is expected that BRC personnel and the laboratory should arrive at pre-determined locations within approximately four hours of notification. Space and telephone lines have been provided in the EOF for the response team. The BRC also provides assessment of offsite hazards and protective action recommendations.

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1.2.5 Federal Agencies

The CPSES Emergency Coordinator is authorized to request federal assistance on behalf of the station under provisions of the Federal Radiological Emergency Response Plan. The CPSES Emergency Coordinator requests federal assistance by contacting the NRC. The Federal Emergency Management Agency (FEMA) is also a federal agency responding to CPSES.

To support the federal emergency response efforts, the following facilities are available:

- Airports: Granbury, Cleburne, Stephenville, Meacham in Fort Worth, Love Field in Dallas, and Dallas-Fort Worth International
- Motels: Granbury, Cleburne, Stephenville, Dallas, and Fort Worth
- CPSES: Working space within the CPSES Emergency Response Facilities (ERFs) has been allocated for co-location of NRC personnel. Phones are available for NRC personnel within the ERFs.

#### Nuclear Regulatory Commission

Specific responsibilities assigned to the NRC include:

Notification of FEMA whenever a radiological event occurs or when there is a high potential for such an event.

Monitoring operational data and assuring that adequate information and recommendations are being provided to offsite agencies.

As a back-up to CPSES, providing a technical assessment of onsite radiological and plant conditions to FEMA and other federal agencies, and keeping state and local offsite agencies apprised of any operational discussions that may affect offsite protective actions.

In coordination with CPSES and state and local offsite agencies, disseminate onsite data to FEMA and federal agencies, the news media, and the general public.

Methods of notifying the NRC are discussed in Section 3.0, "Notification Methods and Procedures." The NRC may be expected onsite within 4 hours of receiving notification of the event.

~~The NRC also has a mobile laboratory with the capabilities to analyze Post Accident Samples and environmental samples. Hook-ups are available at the NIOSH to operate this laboratory.~~

#### Federal Emergency Management Agency

FEMA is responsible for coordinating all offsite federal agency responses. Specific responsibilities assigned to FEMA include:

Coordination of federal support to state and local officials.

Dissemination of data on offsite support actions to the federal agencies.

FEMA may send personnel to the EOF to coordinate activities with CPSES, NRC, and the state.

TABLE 1.1  
STAFFING REQUIREMENTS FOR EMERGENCIES  
PAGE 1 OF 2

FUNCTIONAL AREA	TASK	ONSHIFT (c)	ADDITIONS WITHIN MINUTES OF ALERT		ADDITIONS AT SAE OR GE
			40	70	
Station Operations	Assessment of Operational Aspects	Shift Manager (SRO) Unit Supervisor (SRO) Reactor Operators (RO) (2) Plant Equipment Operators (4)		Plant Equipment Operator	
Emergency Direction and Control (b)	Direction and control of onsite emergency activities as Emergency Coordinator.	Shift Manager (SRO) (a)		TSC Manager	EOF Manager
Communications	Notify station, local, state, and federal personnel and maintain communications.	I&C Technician  Communicator (a)		TSC Communications Coordinator  TSC ENS Communicator	EOF Communications Coordinator
Security	Site access control and personnel accountability	Security Shift Supervisor  Security Officers (Per Security Plan)	Local Support		EOF Security Coordinator
Public Information	Approve release of public information	Shift Manager (a)		TSC Manager (a)	Company Spokesperson
Logistics	Obtain/Expedite needed resources for the ERO.	Shift Manager (a)		TSC Communications Coordinator (a)	EOF Logistical Support Coordinator
Station System Engineering	Coordination/Control  Technical Support	  Shift Technical Advisor	  <del>Engineer</del>	TSC Engineering Team Coordinator  TSC Eng Team (4)	

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TABLE 1.1  
STAFFING REQUIREMENTS FOR EMERGENCIES  
PAGE 2 OF 2

FUNCTIONAL AREA	TASK	ONSHIFT (c)	ADDITIONS WITHIN MINUTES OF ALERT		ADDITIONS AT SAE OR GE
			40	70	
Radiological Assessment	In-plant Survey	R.P. Technician		R.P. Technician (2)	
	Chem/ Radiochemistry	Chemistry Technician		Chemistry Technician	
	Onsite Surveys	R.P. Technician		R.P. Technician	
	Offsite Surveys		R.P. Technicians (2)	Vehicle Drivers (2)	
	Dose Assessment	Shift Technical Advisor (a)	TSC OnRAC	EOF Dose Assessor	
	Protective Actions	R.P. Technicians (2) (a)	R.P. Technicians (2)	R.P. Technicians (2)	
	Coordination/Control	Shift Manager (a)	TSC OnRAC (a)		EOF R.P. Coordinator
System Corrective Action	Emergency Repair and Damage Control (ERDC)	Plant Equipment Operator (a) Mechanic Electrician I&C Technician		OSC Manager Mechanic Electrician I&C Technician	
Fire	Fire Fighting	Fire Brigade (5) (a)	Local Support		
Medical	Rescue Operations and First Aid	Safety Services Technician Chemistry Technician (a)	Local Support		
TOTAL		18	5	<del>22</del>	6

(a) May be provided by onshift or augmentation personnel assigned other functions.

(b) Shift Manager serves in this capacity until relieved by a designated individual (Section 1.1.2.2).

(c) The minimum crew composition may be one (1) less than the minimum specified for any position for a period of time not to exceed two (2) hours in order to accommodate unexpected absence, provided immediate action is taken to fill the required position. This exception does not permit any crew composition to be unmanned upon shift turnover due to an oncoming crew member being late or absent.

add footnote

Revision 27  
July 24, 1998

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TABLE 1.2  
PREDETERMINED RESPONSE ACTIONS  
PAGE 1 OF 1

PREDETERMINED RESPONSE ACTIONS	NOUE	ALERT	SAE	GE
Notify state and local authorities within 15 minutes of declaring the event.	X	X	X	X
Notify the Nuclear Regulatory Commission (NRC) immediately after notification of the state and local authorities but not later than one (1) hour after declaring the event.	X	X	X	X
Staff and activate the Emergency Response Facilities: Technical Support Center (TSC) Operations Support Center (OSC) Emergency Operations Facility (EOF)		X <sub>1</sub>	X	X
Activate the Emergency Response Data System (ERDS) as soon as possible but not later than one (1) hour after declaring the event.		X	X	X
Assess the event and respond accordingly.	X	X	X	X
Dispatch Onsite Survey Teams.		X	X	X
Dispatch Offsite Monitoring Teams.			X	X
Provide periodic plant status updates to offsite authorities.	X	X	X	X
Provide periodic assessments of meteorological conditions to offsite authorities.		X	X	X
Provide periodic media briefings.			X	X
Provide senior onsite technical and management staff available for consultation with NRC and state on periodic basis.			X	X
Provide release rate and dose projection information.		X	X	X
Escalate to more severe class, if appropriate.	X	X	X	
Closeout the event with verbal summary to offsite authorities followed by written summary.	X <sub>2</sub>	X <sub>2</sub>	X <sub>2</sub>	X <sub>2</sub>

add

- 1 EOF activated at the SAE.
- 2 Notification Message Form used to closeout the emergency may be used to satisfy the requirements of verbal notification and written summary to offsite agencies.

NOUE Notification of Unusual Event  
 SAE Site Area Emergency  
 GE General Emergency

Recommend protective actions to offsite officials

			X
--	--	--	---

3.0 NOTIFICATION METHODS AND PROCEDURES

This <sup>chapter</sup> section describes methods <sup>for notifying</sup> and procedures by which CPS/EP personnel transmit emergency information to local and state authorities, and subsequently, from such ~~the CPS/EP Emergency Response Organization (ERO) in the event of a declared emergency classification at CPS/EP.~~

~~authorities to the public. Details required in initial and follow-up messages are described, as are types of news releases which may be used to provide public information.~~

Also

Emergency Plan Procedures (EPP's) describe processes for ~~notifying the CPS/EP Emergency Organization and maintaining the CPS/EP Notification Roster, contain emergency telephone numbers for offsite agencies and contain message format for transmitting information to local and state (EOC's).~~ The process of notifying the

performing these notifications

EPPs also describe maintenance of the CPS/EP ERO Roster and the Emergency Facility Telephone Directory that lists emergency telephone numbers for ~~onsite~~ agencies and authorities.

Emergency Operations Centers

Upon declaration of an emergency at CPS/EP, the CPS/EP Emergency Organization ~~uses~~ and the CPS/EP Security Shift Supervisor are notified either the plant page party system, the intraplant telephone system or commercial telephone. The pager system, described in Section 4.6, is an alternate means to notify selected members of the ERO.

using

Offsite agencies are notified via dedicated telephone, commercial telephone or telecopier.

More information regarding communication systems may be found in Chapter 4.

~~This section~~ <sup>plan chapter</sup> Also describes how the populace within the 10-mile Emergency Planning Zone (EPZ) is alerted to and advised of a CPS/EP emergency by local officials.

3.1 INITIAL NOTIFICATION

Following declaration of an emergency at CPS/EP, the on-duty Shift Manager ensures the following are notified:

- a. Hood and Somervell County Emergency Operations Centers
- b. Texas Department of Public Safety in Waco, Texas
- c. ~~On-duty Security Shift Supervisor~~ (relocated to 3.0)
- d. NRC Operations Center > (new 3.1.2)
- e. ~~Emergency Organization personnel~~ (relocated to 3.0)

INSERT

relocated in new 3.1.1

3.2 VERIFICATION OF INITIAL NOTIFICATION

Authenticity of initial notification provided to Hood and Somervell County Emergency Operations Centers and Texas Department of Public Safety shall be verified as specified in operating procedures of Texas Department of Public Safety Communications Center, Region 6 Headquarters, Waco, Texas.

relocated in new 3.1.1

INSERT in new 3.1.1

10

INITIAL notifications from CPSES to local and State authorities are performed when the following conditions occur:

- Initial declaration of an emergency classification  
(Notification of Unusual Event, Alert, Site Area Emergency, General Emergency)
- Escalation of an emergency classification
- Initial Protective Action Recommendation (PAR)
- Change in a PAR
- Emergency termination

INITIAL notifications shall begin no later than fifteen (15) minutes after one of the above conditions are met.

~~3.3~~ INITIAL MESSAGES TO OFFSITE AUTHORITIES

The initial notification message transmitted to offsite authorities contains:

- a. Caller identification
- b. Class and brief description of emergency
- c. Whether a radiological release is in progress and areas/zones/sectors affected.
- d. Recommended protective actions, if any.

(relocated in new 3.1.1)

~~3.4~~ FOLLOW-UP NOTIFICATION

As the situation progresses, follow-up information is sent to offsite support/response authorities at intervals of approximately one hour or conditions change (i.e., change in protective action recommendations, emergency class escalation or de-escalation, termination of the emergency). This information is usually transmitted by telecopier but may be "announced" or transmitted by voice communications. Telecopier transmission of information uses commercial telephone systems, where voice communications may be by dedicated telephone or commercial telephone.

(relocated in new 3.1.3)

unless otherwise requested by these authorities.

(relocated in new 3.1.1)  
(relocated in new 3.0)

~~3.5~~ FOLLOW-UP MESSAGES TO OFFSITE AUTHORITIES

The following information, as it becomes available, is provided to offsite authorities in follow-up messages:

- a. Caller identification
- b. Emergency Classification
- c. Meteorological conditions (wind velocity, direction, temperature, atmospheric stability data, and form of precipitation, if any)
- d. Status of emergency response actions initiated
- e. Recommended offsite emergency response actions, including protective action measures
- f. Requests for onsite support from offsite organizations

(relocated in new 3.1.3)

~~3.6~~ INFORMATION PROVIDED TO TEXAS BUREAU OF RADIATION CONTROL

Upon request, the following information shall be provided to the Texas Bureau of Radiation Control:

- a. Type (airborne, waterborne or surface spill) and estimated duration of radiological release (actual or projected)
- b. Estimated quantity of radioactive material released and point of release



- c. Chemical and physical form of released material, including estimates of relative quantities and concentrations of noble gases, iodines and particulates
- d. Estimates of radioactive surface contamination, onsite or offsite.
- e. Actual or projected dose rates and integrated doses at the site boundary, and at two, five and 10 miles, and affected zones and sectors.
- f. Prognosis for escalation or termination of emergency based on current plant information.

relocated  
in  
new  
(3.1.3)

3. ~~7~~<sup>2</sup>

PUBLIC WARNING

The resident and transient population within the 10-mile EPZ is alerted to an emergency at CPSSES by an Alert and Notification System. The Alert and Notification System is comprised of a series of sirens which alert the populace to tune their televisions or radios to designated Emergency Alert System (EAS) stations to obtain current information and recommended protective actions.

The EAS provides emergency related information to the general public in the CPSSES area over radio station WBAP (820 AM) and television station KXAS-TV (Channel 5). Information and instructions provided to the general public via the EAS originates from county officials.

relocated  
in  
new  
(3.2)

Local officials, primarily County Judges and County Sheriffs, are responsible for operating the Alert and Notification System and providing messages to the EAS stations. CPSSES and state emergency response personnel provide recommendations to local officials concerning use of the system; however, only local officials can authorize use of the system in warning the public.

The Alert and Notification System consists of 66 sirens and was designed, installed and tested to meet the requirements of FEMA.

Operation of the Alert and Notification System is accomplished from either county's Emergency Operations Center (EOC). Normally, each county EOC will operate those sirens within its jurisdiction; however, if needed, either EOC can operate the entire system. The 10-mile EPZ is divided into quadrants. Sirens located in each quadrant are programmed to a unique control code. Each quadrant can be activated independently; however, each siren can be operated individually for purposes of testing.

TU Electric

~~CPSSES~~ retains ownership of, maintains and tests sirens as described in appropriate Emergency Plan Procedures.

↑  
CPSSES

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3.8

METHODS OF PROVIDING PUBLIC INFORMATION REGARDING PROTECTIVE ACTION MEASURES

*printed media*

Public warning, discussed previously, is part of the mechanism for providing information to the public. Preceding and continuing into the operation of CPSES, emergency response information is provided to the public within the 10-mile EPZ.

*Local*

Residents are provided ~~a booklet or other publication which provides instructions for emergency actions.~~ Information regarding emergency actions is also provided ~~on posters and stickers at various locations or establishments within the 10-mile EPZ and in local telephone directories.~~ Emergency related information is

transmitted via the Emergency Alert System (EAS). ~~Messages may address protective actions, the affected areas (zones), evacuation routes and relocation centers or may just provide information about the situation at CPSES.~~

~~Preformatted messages are included in county and state emergency response plans.~~

Additional information about public information is provided in Chapter 5 of this plan.

*relocated TO new 3.2*

*relocated TO new 3.2*

7.3.1 ONSITE RADIOLOGICAL ASSESSMENT

Initially, during an emergency condition, the on-shift Radiation Protection and Chemistry/~~Environmental~~ Technicians perform onsite and in-plant radiological assessment, and sampling activities, respectively, as directed by the Shift Manager.

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*Once the TSC is activated*

~~In the event the emergency escalates to an Alert~~, responsibilities for onsite and offsite radiological assessment and survey activities shall be assumed by the TSC Onsite Radiological Assessment Coordinator. As CPSSES Emergency Organization personnel become available, onsite radiological survey teams shall be formed as required and dispatched from the OSC. Onsite Survey Teams initially shall be composed of at least two members, at least one of which shall be a Radiation Protection technician. The Onsite Survey Team(s) perform required onsite and in-plant surveys in accordance with approved Emergency Plan Procedures.

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*Once the EOF is activated*

~~In the event the emergency escalates to a Site Area Emergency or General Emergency~~, overall responsibility for ~~onsite and~~ offsite radiological assessment shall be assumed by the EOF Radiation Protection Coordinator.

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Communications between the Control Room, TSC, OSC, EOF and the Onsite Survey Team(s) shall be conducted in accordance with Section 4.0 of this plan.

8

Transportation for Onsite Survey Team(s) is provided in accordance with Emergency Plan Procedures. Based on arrival time(s) of CPSSES Emergency Organization personnel, Onsite Survey Teams should be deployed within 15 to 30 minutes after arrival on site. Deployment time may vary due to duration of onsite briefing session, time required to obtain protective clothing and equipment and time required to prepare for entry into plant environs.

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7.3.2 OFFSITE RADIOLOGICAL ASSESSMENT

*Once the EOF is activated*

~~In the event a Site Area Emergency or General Emergency is declared~~, the EOF Radiation Protection Coordinator assumes responsibilities for coordinating offsite radiological assessment and monitoring activities. Each Offsite Radiological Monitoring Team should be composed of at least two members, one of which shall be a Radiation Protection technician.

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In the event that dose projection or onsite monitoring results indicate the potential for radioactivity release with offsite dose consequences, a Radiological Offsite Monitoring Team can be dispatched. Deployment time for the first offsite team dispatched is estimated to be within 55 to 70 minutes of an Alert or higher classification. This time includes team arrival, equipment check out and receiving a brief on expected radiological conditions.

The EOF Radiation Protection Coordinator and his staff dispatch Offsite Radiological Monitoring Teams to preselected points in affected downwind sectors. Offsite environmental monitoring locations are identified in Plant Procedures. At preselected points, the team should perform external dose measurements, obtain air samples, determine contamination levels and obtain vegetation and liquid samples as required. From this point the team can be moved to determine the plume boundary, centerline of the plume and other factors necessary to determine impact of the release on the public and environment. This monitoring shall continue, as required, during the emergency so the need for protection measures can be quickly assessed.

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8.1.3 MONITORING OF EVACUEES

During a site evacuation, if the evacuees are potentially contaminated, the Emergency Coordinator should direct evacuees to proceed for radiological monitoring at an offsite Reception Center. At this center, evacuees are logged in/out, monitored for contamination, and decontaminated if required.

8.1.4 RESPIRATORY PROTECTION

During an emergency, air sampling is performed throughout the site area to ensure protective measures are implemented in a timely manner. These protective measures may include external exposure thresholds, DAC-hr tracking, ingestion of radioprotective drugs, relocation, respiratory protective equipment, or a combination of the above. Respiratory protective equipment is available onsite for issue in accordance with Radiation Protection procedures.

8.1.5 PROTECTIVE CLOTHING

Protective clothing is available from storage areas and Radiation Protection supplies located throughout the site. This clothing is standard anti-contamination clothing and includes coveralls, hoods, gloves, and boots.

8.1.6 RADIOPROTECTIVE DRUGS

A thyroid blocking agent such as Potassium Iodide (KI), <sup>supplied</sup> ~~stockpiled~~ at various strategic onsite and offsite locations shall be offered to CPSES emergency response personnel in accordance with an Emergency Plan Procedure. <sup>shall be maintained in accordance with provisions of Section 15, Appendix J.</sup> State or local government emergency plans and procedures describe KI use respective to ~~emergency response personnel and institutionalized persons~~ <sub>offsite</sub>.

8.2 OFFSITE PROTECTIVE ACTIONS

Personnel and visitors offsite, but within the owner-controlled area, are warned of an emergency by the Security Organization or by Squaw Creek Park personnel in accordance with the Squaw Creek Plan for Response to Declared Emergencies at CPSES. Security personnel are notified of the emergency by Control Room personnel as described in Section 3.1. Squaw Creek Park personnel are notified of the emergency by the CPSES Security organization in accordance with Security procedures.

Protective action recommendations (PARs) are formulated during an emergency by CPSES personnel and are included in notifications to offsite authorities as specified in Section 3.0. These PARs are based on either existing plant conditions or projected offsite doses, and are updated as conditions warrant.

Offsite protective actions are then directed and implemented by State and local authorities based on the recommendations and information supplied by CPSES.

Specific protective actions to be recommended are based on the guidance of the EPA's "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents."

8.2.1 EMERGENCY PLANNING ZONES

Emergency Planning Zones (EPZ) have been established surrounding CPSES for planning purposes in the event of an accidental release of radioactive material from the site.

CPSES/EP

12.2.4

RADIOLOGICAL MONITORING DRILLS

*to prepare them to perform air sampling and beta-gamma exposure rate determinations within the 10-mile Emergency Planning Zone during the Plume Exposure Pathway phase.*

Station personnel assigned to radiological monitoring teams shall participate in annual drills which involve responses to onsite and offsite environmental monitoring.

These drills shall include collection and analysis of all sample media (e.g., water, vegetation, soil and air), and provisions for communications and record keeping.

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12.2.5

HEALTH PHYSICS DRILLS

Health physics drills shall be conducted semi-annually and involve response to and analysis of simulated elevated airborne and liquid samples and direct radiation measurements in the environment.

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In accordance with approved ALARA guidelines, an analysis of in-plant liquid samples with actual elevated radiation levels, including use of the Post-Accident Sampling System, shall be included in health physics drills annually.

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12.3 DRILL AND EXERCISE SCENARIOS

Drill and exercise scenarios are developed to provide a method to test and evaluate the CPSES Emergency Preparedness Program. These scenarios are designed to allow free play in decision-making and shall include, as appropriate:

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- a. Basic objective(s) of each drill and exercise, and appropriate evaluation criteria;
- b. Date(s), time period(s), location(s) and participating organizations;
- c. Simulated events;
- d. Time schedule of real and simulated initiating events;
- e. Narrative summary describing conduct of the exercise or drill which addresses simulated casualties, offsite fire department assistance, rescue of personnel, use of protective clothing, deployment of radiological monitoring teams, public information activities; and
- f. Description of arrangements for and advance materials to be provided to official observers.

6

6

The Emergency Planning Group is responsible for developing drill objectives, exercise objectives, and developing exercise scenarios. Scenarios and objectives developed for those exercises or drills requiring NRC and/or FEMA evaluation shall be approved by the Plant Manager\* and submitted to the NRC and/or FEMA for review and approval.

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\*See FSAR Section 13.1.

*station personnel assigned to radiological monitoring teams should participate in drills to collect environmental samples such as soil, water, and vegetation. These drills maintain station personnel capable to assist, if necessary, State agencies during the Ingestion Pathway phase.*

add

CPSES/EP

*delete*

APPENDIX B

TIME/DISTANCE/DOSE (THYROID)  
CURVE FOR A LOCA CONDITION  
AT CPSES

## APPENDIX B

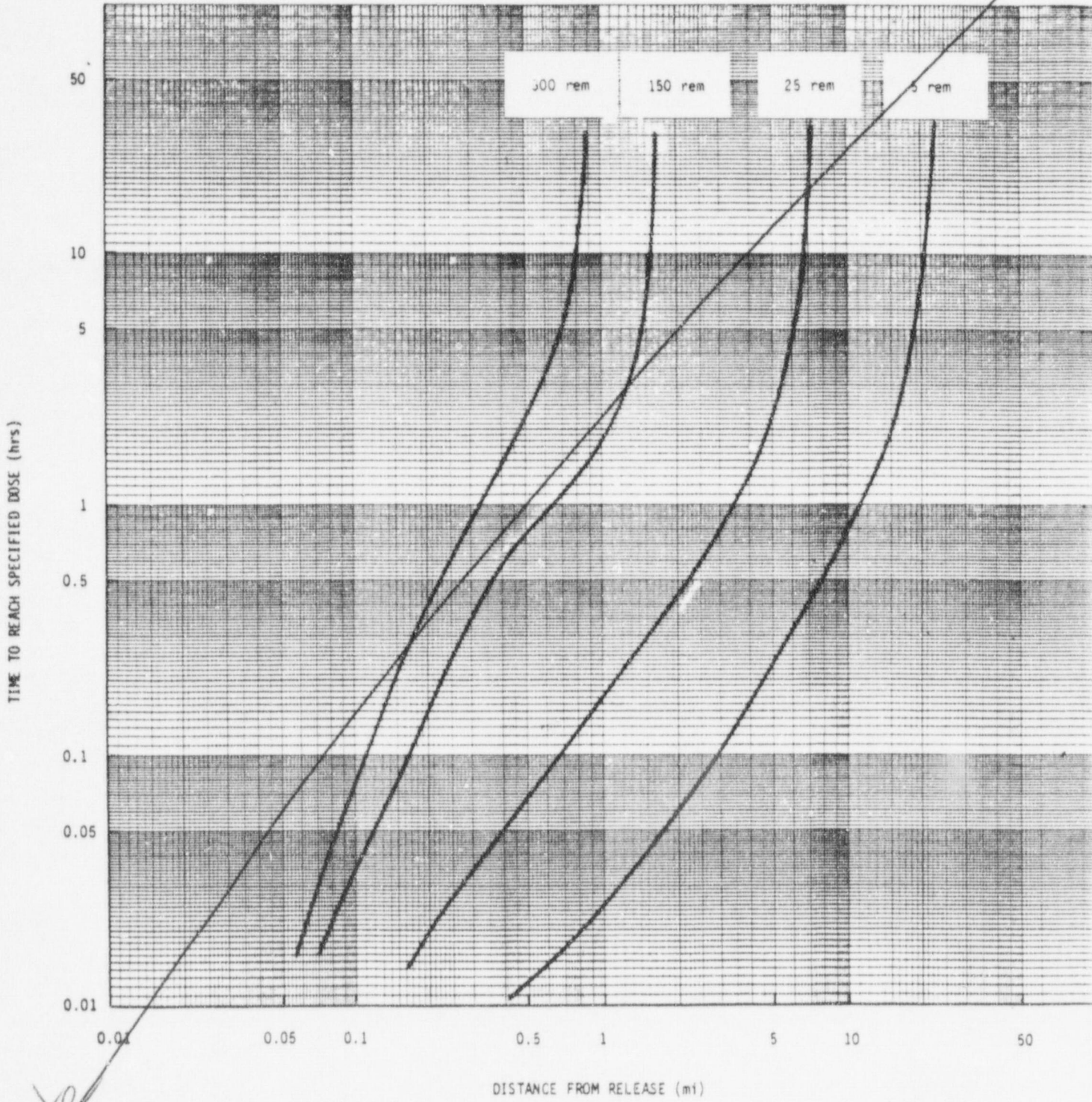
The graphs, Figures B1, C1 and D1 (appendices B, C, D, respectively), represent reference dose limits at x miles downwind and t hours following a postulated loss of coolant accident. The assumptions made to achieve these accident conditions are fully described in the FSAR, Section 15.6.5.4. The following is a synopsis of those assumptions:

10

Integrated doses to the thyroid and whole body are calculated using methods and assumptions in conformance with Regulatory Guide 1.4 and are:

- a. 25 percent of radioiodines are available for leakage in the following form:
  - 91 percent - element iodine
  - 5 percent - particulate iodine
  - 4 percent - organic iodides
- b. 100 percent of the radioactive noble gas inventory is available for leakage from containment.
- c. Effects of radiological decay during holdup in containment are taken into account.
- d. Containment spray system functions, reducing elemental radioiodines available for leakage by several orders of magnitude.
- e. Containment leak rate is 0.10 percent of containment volume per day during first 24 hours and 0.05 percent per day for duration of accident.
- f. Accident duration is 30 days.
- g. All releases are made at ground level.
- h. No credit is taken for depletion of effluent plume by decay or deposition.
- i. Breathing rate and iodine dose conversion factors are in the FSAR, Section 15.6.5.4.

*delete*



*delete*

REVISION 5  
OCTOBER 12, 1982

<b>COMANCHE PEAK STEAM ELECTRIC STATION EMERGENCY PLAN</b>
THYROID DOSE FOLLOWING LOCA
FIGURE B.1



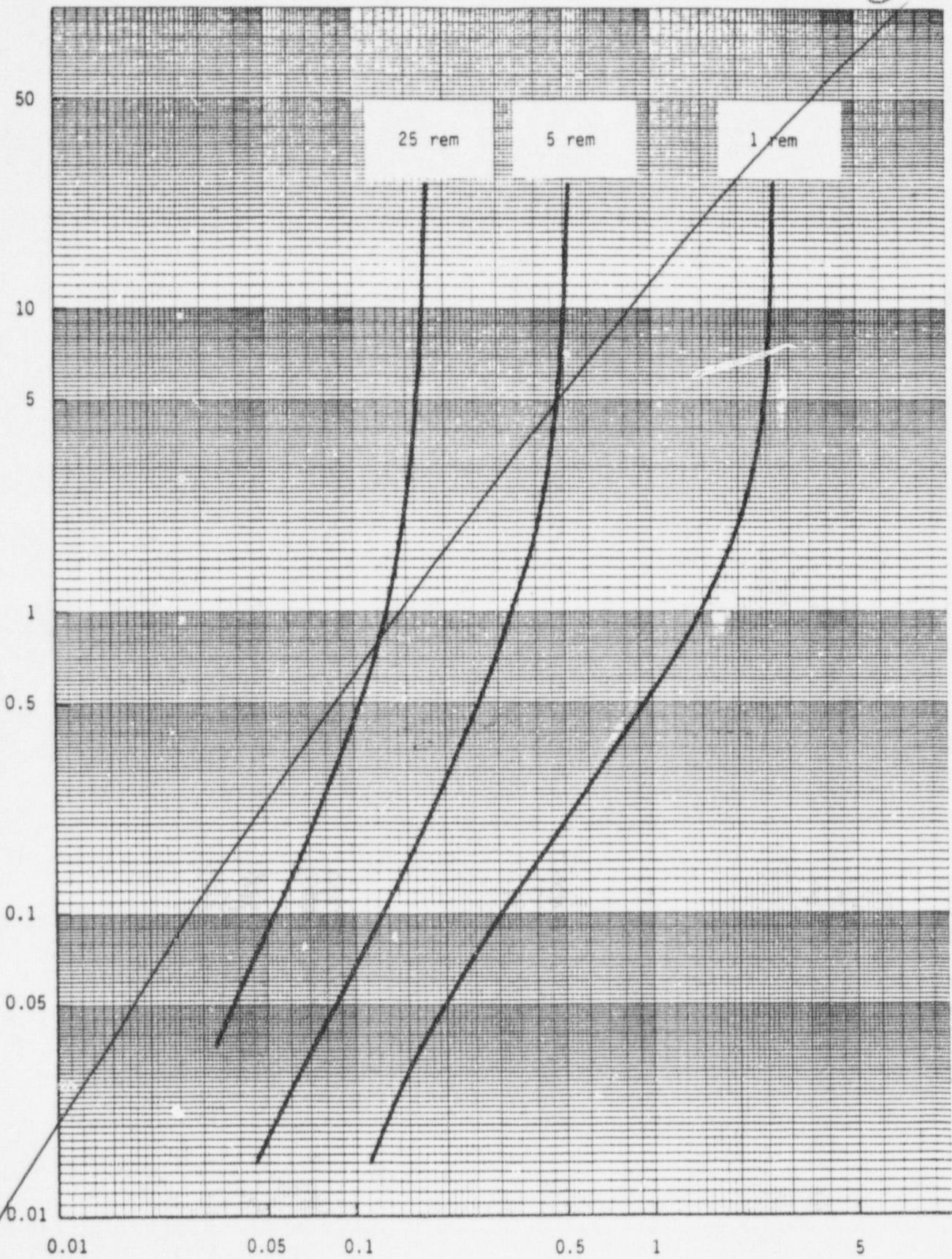
CPSES/EP

*delete*

APPENDIX C

**TIME/DISTANCE/DOSE (WHOLE BODY  
GAMMA) CURVE FOR A LOCA  
CONDITION AT CPSES**

TIME TO REACH SPECIFIED WHOLE BODY GAMMA DOSE (hrs)



*Delete*

DISTANCE FROM RELEASE (mi)

REVISION 5  
OCTOBER 12, 1982

**COMANCHE PEAK  
STEAM ELECTRIC STATION  
EMERGENCY PLAN**

WHOLE BODY GAMMA DOSE  
FOLLOWING LOCA

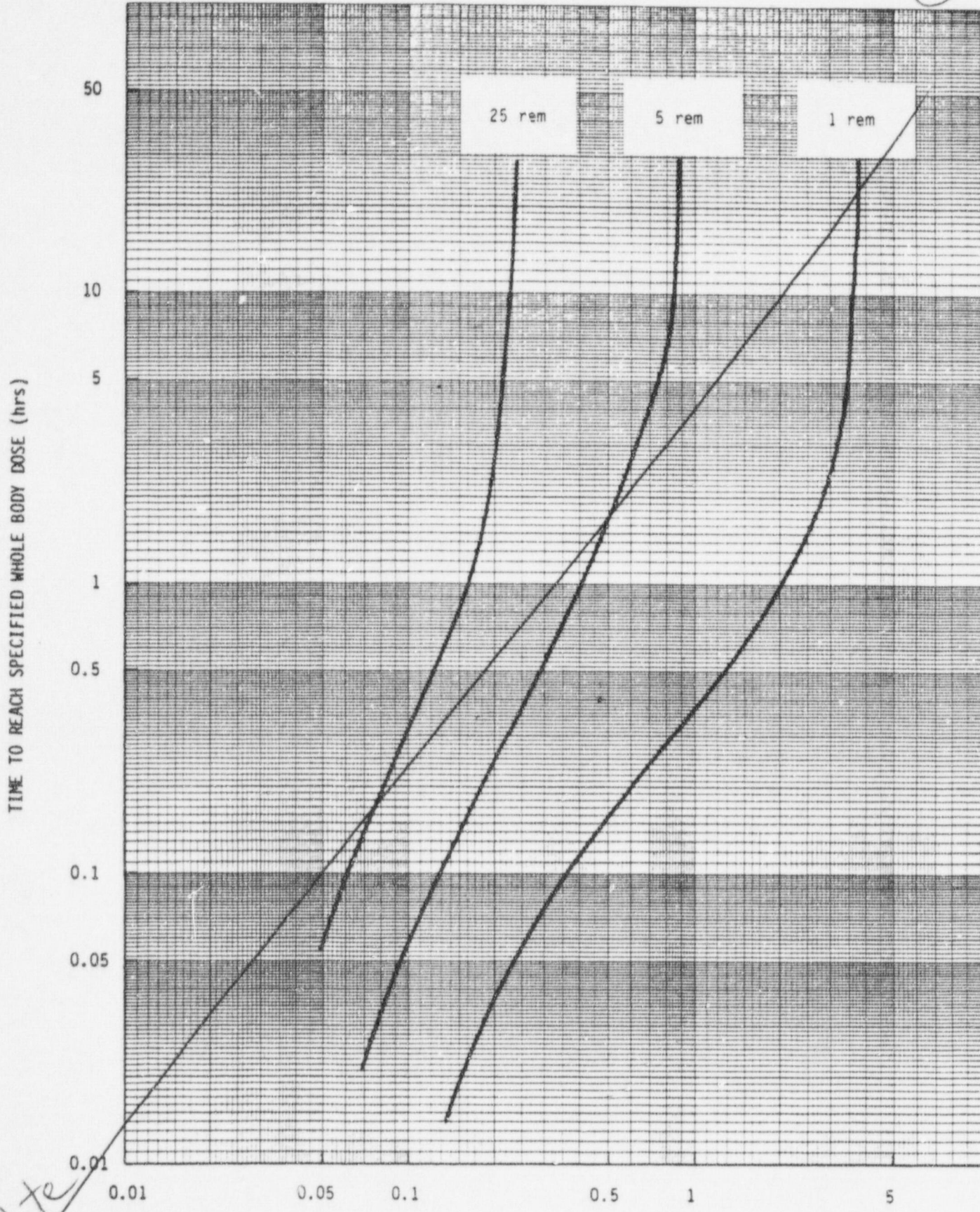
FIGURE C.1

CPSES/EP

*delete*

APPENDIX D

TIME/DISTANCE/DOSE (WHOLE BODY  
TOTAL) CURVE FOR A LOCA  
CONDITION AT CPSES



*delete*

DISTANCE FROM RELEASE (mi)

REVISION 5  
OCTOBER 12, 1982

**COMANCHE PEAK  
STEAM ELECTRIC STATION  
EMERGENCY PLAN**

---

WHOLE BODY TOTAL DOSE  
(GAMMA & BETA)  
FOLLOWING LOCA

---

FIGURE D.1

No Change  
TO THIS  
PAGE

APPENDIX J

Emergency Equipment  
and Supplies

EMERGENCY EQUIPMENT AND SUPPLIES

TU Electric maintains emergency equipment and supplies in the Control Room, Technical Support Center, Operations Support Center, Emergency Operations Facility, ~~and Nuclear Operations Support Facility (NOSF), local hospitals, and other offsite locations.~~ <sup>onsite and offsite facilities, cabinets, and footlockers. Onsite this equipment is staged in such places as</sup> ~~staged in such places as county hospitals, and Relocation Centers.~~ <sup>Emergency Operations Centers (EOCs),</sup>

~~At least three company vehicles shall be available for Offsite Monitoring Teams.~~ <sup>response</sup> ~~personnel~~ <sup>each equipped with equipment to support radiological monitoring, are available for use by</sup> ~~Three field monitoring kits are located at the NOSF. These kits are maintained for use by the field monitoring teams.~~ <sup>offsite</sup> ~~And equipment represented in the listing below.~~ <sup>Facilities contain supplies</sup>

~~The following list of equipment and supplies is representative of that which is maintained in the Emergency Response Facilities or the field monitoring kits. Because the specific tasks performed by facilities and monitoring teams are different, the equipment and supplies staged in each facility or kit may contain all or part of this list. The specific inventory of equipment and supplies for each facility or location is prescribed by and maintained in accordance with an Emergency Plan Procedure.~~ <sup>TYPE AND AMOUNT</sup> ~~identified on a facility inventory worksheet. The inventory worksheet is prescribed by and maintained in accordance with an Emergency Plan Procedure.~~ <sup>IN</sup>

I. Emergency Equipment and Supplies for Facilities

- ~~b Geiger-Mueller (GM) and Ionization Chamber~~
- ~~Dose Rate Instruments - Low Range~~
- ~~Dose Rate Instrument - High Range~~
- ~~Count Rate Instrument~~
  - ~~Pancake GM Detector~~
  - ~~Spare GM Tubes~~

- ~~b Air Sampler with~~
  - ~~Sample Collection Heads for~~
  - ~~Particulate Sample Filters and collectors~~
  - ~~Silver Zeolite (Agx) Filters~~
  - ~~Particulate and Silver Zeolite cartridges~~
  - ~~Alpha Monitoring Equipment~~ <sup>collectors</sup>
  - ~~Full Face Respirators (without filters)~~
  - ~~Particulate Canisters (for protection from airborne particulates)~~
  - ~~Sorbent Canisters (for protection from airborne Radioiodines)~~

The following listing, by category, represents typical emergency response equipment and supplies maintained

- Personal Protection and Dosimetry  
(items noted by (a))
- Radiological Monitoring  
(items noted by (b))
- Contamination Control  
(items noted by (c))
- Communications  
(items noted by (d))
- MISCELLANEOUS  
(items noted by (e))

~~Self Contained Breathing Apparatus (SCBA) and spare SCBA bottles are maintained for the Control Room; SCBAs are also maintained at the NOSF.~~ ~~Spare Air Bottles~~

- ~~Beta Gamma Thermoluminescent Dosimeters (TLDs)~~
- <sup>a</sup> ~~Dosimeters - Low Range~~
- ~~Dosimeters - High Range~~
- ~~Dosimeter Charger~~
- ~~FM Transceivers (Two-Way Radios) and Chargers~~ <sup>d</sup> Vehicle-installed radios, base stations, hand-held radios
- ~~Remote Speaker/Microphone Accessory for FM Transceiver~~
- <sup>a</sup> ~~Coveralls - Cloth~~
- ~~Coveralls - Disposable~~
- ~~Plastic Suits - Disposable~~ <sup>c</sup> Modesty clothing
- <sup>a</sup> ~~Shoe Covers - Rubber~~
- ~~Shoe Covers - Disposable~~
- <sup>a</sup> ~~Rubber Gloves~~
- ~~Glove Liners - Cotton~~
- ~~Caps~~
- <sup>a</sup> ~~Hoods~~
- <sup>a</sup> Thyroid Blocking (Potassium Iodide (KI))  
Drugs
- <sup>c</sup> ~~Decontamination Supplies~~
- <sup>c</sup> ~~Plastic Bags - Assorted Sizes~~
- <sup>c</sup> ~~Signs and Inserts~~ barricades
- ~~Barricade Rope or Ribbon~~
- <sup>c</sup> ~~Step-Off Pads~~
- <sup>c</sup> ~~Tape - Masking~~
- ~~Tape - Duct~~
- <sup>e</sup> ~~Portable Lights~~
- ~~Tools~~
- ~~Miscellaneous Forms, Procedures and Office Supplies~~ <sup>b</sup> Calculators <sup>e</sup>
- <sup>e</sup> ~~Instrument, check source, clerical supplies, maps, clipboards~~ <sup>e</sup>
- <sup>e</sup> ~~tweezers, etc.~~

~~II. Emergency Equipment and Supplies for Field Monitoring Kits~~

- ~~Dose Rate Instrument~~
  - ~~Count Rate Instrument~~
  - ~~Rancake GM Detector~~
  - ~~Spare GM Tubes~~
  - ~~Air Sampler~~
  - ~~Sample Collection Heads~~
  - ~~Particulate Sample Filters~~
  - ~~Silver Zeolite (AgX) Filters~~
  - ~~Full Face Respirators (without filters)~~
- } <sup>redundant listing</sup>  
 (See Instruments above)
- } <sup>redundant listing</sup>  
 (See Air Sampling Equipment above)

- ~~Particulate Cannisters (for protection from airborne particulates)~~
- ~~Sorbent Cannisters (for protection from airborne Radioiodines)~~
- ~~Beta Gamma Thermoluminescent Dosimeters (TLDs)~~
- ~~Dosimeters - Low Range~~
- ~~Dosimeter Charger~~
- ~~FM Transceivers (Two-Way Radios)~~
- ~~Remote Speaker/Microphone Accessory for FM Transceiver~~
- ~~Coveralls - Cloth (See Above)~~
- ~~Plastic Suits - Disposable~~
- ~~Shoe Covers - Rubber (See Above)~~
- ~~Shoe Covers - Disposable (See Above)~~
- ~~Rubber Gloves (See Above)~~
- ~~Glove Liners - Cotton~~
- ~~Caps~~
- ~~Hoods (See Above)~~
- ~~Potassium Iodide (KI) (See Above)~~
- ~~Plastic Bags - Assorted Sizes (See Above)~~
- ~~Signs and Inserts~~
- ~~Barricade Rope or Ribbon (See Above)~~
- ~~Tape - Masking (See Above)~~
- ~~Tape - Duct (See Above)~~
- ~~Portable Lights (See Above)~~
- ~~Tools~~
- ~~DC to AC Power Inverters (Installed in Dedicated Emergency Vehicles)~~
- ~~Miscellaneous Forms, Procedures and Office Supplies (See Above)~~

(See Dosimeters; TLDs Above) <sup>redundant</sup>

(See Radios Above) <sup>redundant</sup>

(See Above) <sup>redundant</sup>

(See Above) <sup>redundant</sup>

(See Above) <sup>redundant</sup>

(See Above) <sup>redundant</sup>

(See Above) <sup>redundant</sup>

(See Above) <sup>redundant</sup>

(See Above) <sup>redundant</sup>

(See Above) <sup>redundant</sup>

(See Above) <sup>redundant</sup>



NONESSENTIAL PERSONNEL

25

Personnel in one or more of the following categories:

Employees not having emergency response organization assignments, excluding on-shift Nuclear Operations personnel.

Visitors

Contractors (excluding Security organization), unless authorized by the Emergency Coordinator.

27

Individuals involved in non-operational activities permitted by the FSAR within the Exclusion Area.

25

Squaw Creek Park patrons.

Other persons who may be in a public access area or passing through the Owner Controlled Area.

27

OFFSITE

12

All areas not covered under the definition of "onsite."

ONSITE

The land area forming the peninsula on which CPSES is sited. The western boundary of this area is the western-most evaporation pond.

OPERATIONS SUPPORT CENTER (OSC)

25

The onsite emergency response staging area where the Emergency Repair and Damage Control Group personnel assemble and are dispatched during an emergency.

27

PLANT EVACUATION ROUTES

27

12

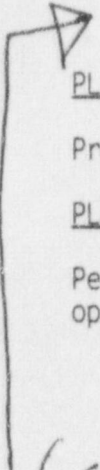
Predetermined evacuation routes designated by signs located throughout the plant.

PLANT PERSONNEL

17

Personnel employed or contracted by TU Electric who are involved in the operation, construction or maintenance at CPSES.

27



(See Insert next page)

INSERT 0  
TO Appendix Q

PERIODIC DEFINITIONS

The following definitions are applicable to those plan events/tasks which occur on a regular basis:

- "Monthly" means once during a calendar month;
- "Quarterly" means once during a calendar quarter;
- "Semi-annual" or "Semi-annually" means twice during a calendar year;
- "12 Months" means once per 12 months but not to exceed 13 months;
- "Annual" or "Annually" means once during a calendar year.

①

ATTACHMENT 3 TO TXX-98207

PROPOSED NEW PLAN PAGES

1.1.3 RECOVERY

Actions taken to return the plant to an operational status or maintain long-term safe shutdown condition after the emergency response actions have been completed. If a recovery effort is deemed necessary, the CPSES Recovery Organization is established in accordance with Section 11.0 "Recovery and Reentry."

1.2 EMERGENCY RESPONSE SUPPORT AND RESOURCES

1.2.1 Corporate Support

TU Electric maintains sufficient management and personnel resources at the CPSES site to effectively staff (24 hours) the CPSES Emergency Response Organization and its intended emergency mitigation functions. This arrangement preempts the need for a separate organization of offsite corporate personnel to be identified for, and incorporated in, the CPSES Emergency Response Organization; however, in the event of an emergency requiring assistance from offsite organizations, TU Electric management is fully committed to providing other resources to assist the CPSES Emergency Response Organization. Examples of other corporate capabilities existing within TU Electric include public information services, materials procurement services, contract manpower and construction services, legal and insurance services, and additional technical support.

1.2.2 Local Services Support

The local response organizations involved with emergencies at CPSES are the Hood County and Somervell County Emergency Organization. Each county has an emergency operations plan which describes the counties emergency response. The County Judge is in charge of the emergency organizations and has the legal authority for protective action decision making within their respective county. To assist the county emergency organizations, TU Electric sends a representative who is familiar with station operations and the CPSES Emergency Plan to each county Emergency Operations Center. The representative functions as an advisor and may act as liaison between the county officials and the CPSES Emergency Response Organization; however, these representatives are not company spokespersons.

Support from local organizations may be obtained through direct notification to the individual organization. Letters of Agreement from each organization to provide their respective emergency assistance to CPSES are maintained onsite. A list of Letters of Agreement is provided in Section 15.0, Appendix H, which identifies the local services support organizations.

### 1.2.3 Private Sector Support

Support from private sector organizations may be obtained through direct notification to the individual organization. The following organizations provide services, if requested:

- Westinghouse Corporation

Westinghouse Corporation, the designer for the Nuclear Steam Supply System (NSSS), has an emergency response group which provides for emergency engineering assistance to facilities having a NSSS designed by Westinghouse. This assistance is available on a 24-hour/day, 7-day/week basis. Details of the response is contained in the Westinghouse Emergency Response Plan.

- Institute of Nuclear Power Operations (INPO)

INPO is an industry technical association whose Emergency Preparedness Division acts as a clearinghouse for maintaining a roster of individuals and skills available to each utility for augmenting the onsite ERO. INPO also serves as a clearinghouse for maintaining an inventory listing of material, equipment, and services which may be used to supplement onsite resources. Details of the response is contained in a letter of agreement.

- Houston Lighting and Power

The South Texas Project provides a backup service for analyzing Post Accident Samples. A Letter of Agreement outlines the analyzing capabilities of the South Texas Project Laboratory.

- American Nuclear Insurers (ANI)

TU Electric maintains a policy with ANI. ANI has agreed to assume responsibility for promptly assisting members of the public who may be adversely affected by an event at CPSES. This insurance policy alleviates the immediate financial burden that may be incurred by members of the public due to evacuation and relocation associated with an incident. ANI will have their representatives on the scene, prepared to commence the distribution of emergency funding at the earliest possible time, on a 24-hour a day basis.

### 1.2.4 State Agencies

The State of Texas has developed a Radiological Emergency Management Plan as a part of the State of Texas Emergency Management Plan. The fundamental legislation providing the basis for emergency response by civil authorities is the Texas Disaster Act of 1975, as amended. This act creates a Division of Emergency Management. The Division of Emergency Management is part of the Governor's office and is placed under the Director of the Texas Department of Public Safety by an Executive Order of the Governor. The duties and responsibilities of the principle and support agencies of the State of Texas are summarized below. The Commissioners of the Texas Department of Agriculture and the Texas Department of Health are responsible for implementing protective actions within the Ingestion Exposure EPZ in accordance with the Texas Emergency Management Plan. A detailed discussion of the state's response is contained in the Texas Emergency Management Plan and supporting Letters of Agreement. See Section 15.0, Appendix H for a list of Letters of Agreement.

- Division of Emergency Management

The Division of Emergency Management (DEM) is the agency responsible for coordinating overall response to emergency situations in the State of Texas. The Director, DEM, assumes overall direction and control of the state's response to an emergency condition at CPSES.

- Texas Department of Public Safety

The Texas Department of Public Safety (DPS) serves as the primary communication contact and coordinates emergency communications between CPSES and the State of Texas, Hood and Somervell Counties. The DPS coordinates with the local law enforcement officials and assists in maintaining traffic control, protecting life and property, establishing road-blocks, and alerting and warning persons in the affected area. The Highway Patrol Captain in District 6A Waco, Texas serves as Chairman of the Disaster District Committee. Requests for assistance from the local county EOC's are forwarded to District 6A. Requests that exceed the District's capability are forwarded to the state EOC in Austin. Response time for DPS personnel from the Disaster District Office in Waco to the station is approximately 2 hours.

- Texas Department of Health

The Texas Department of Health (TDH), Bureau of Radiation Control (BRC) is the responsible agency for providing technical assistance and advice to local governments during a radiological emergency at CPSES. Once notified of a Site Area or General Emergency by DEM, the BRC will establish a communication link from their Austin office to the station. The BRC dispatches response teams to the station in accordance with provisions of the Texas Radiological Emergency Management Plan. The BRC response is directed by the Bureau Chief. The response team is capable of providing environmental sampling and radiological monitoring, including a mobile radiological laboratory. This laboratory serves to analyze low-level radiological environmental samples. CPSES provides telephone and electrical hook-ups for use by the laboratory. It is expected that BRC personnel and the laboratory should arrive at pre-determined locations within approximately four hours of notification. Space and telephone lines have been provided in the EOF for the response team. The BRC also provides assessment of offsite hazards and protective action recommendations.

### 1.2.5 Federal Agencies

The CPSES Emergency Coordinator is authorized to request federal assistance on behalf of the station under provisions of the Federal Radiological Emergency Response Plan. The CPSES Emergency Coordinator requests federal assistance by contacting the NRC. The Federal Emergency Management Agency (FEMA) is also a federal agency responding to CPSES.

To support the federal emergency response efforts, the following facilities are available:

- Airports: Granbury, Cleburne, Stephenville, Meacham in Fort Worth, Love Field in Dallas, and Dallas-Fort Worth International
- Motels: Granbury, Cleburne, Stephenville, Dallas, and Fort Worth
- CPSES: Working space within the CPSES Emergency Response Facilities (ERFs) has been allocated for co-location of NRC personnel. Phones are available for NRC personnel within the ERFs.

- Nuclear Regulatory Commission

Specific responsibilities assigned to the NRC include:

Notification of FEMA whenever a radiological event occurs or when there is a high potential for such an event.

Monitoring operational data and assuring that adequate information and recommendations are being provided to offsite agencies.

As a back-up to CPSES, providing a technical assessment of onsite radiological and plant conditions to FEMA and other federal agencies, and keeping state and local offsite agencies apprised of any operational discussions that may affect offsite protective actions.

In coordination with CPSES and state and local offsite agencies, disseminate onsite data to FEMA and federal agencies, the news media, and the general public.

Methods of notifying the NRC are discussed in Section 3.0, "Notification Methods and Procedures." The NRC may be expected onsite within 4 hours of receiving notification of the event.

- Federal Emergency Management Agency

FEMA is responsible for coordinating all offsite federal agency responses. Specific responsibilities assigned to FEMA include:

Coordination of federal support to state and local officials.

Dissemination of data on offsite support actions to the federal agencies.

FEMA may send personnel to the EOF to coordinate activities with CPSES, NRC, and the state.

(6)

TABLE 1.1  
STAFFING REQUIREMENTS FOR EMERGENCIES  
PAGE 1 OF 2

FUNCTIONAL AREA	TASK	ONSHIFT <sup>(c)</sup>	ADDITIONS WITHIN MINUTES OF ALERT		ADDITIONS AT SAE OR GE
			40	70	
Station Operations	Assessment of Operational Aspects	Shift Manager (SRO) Unit Supervisor (SRO) Reactor Operators (RO) (2) Plant Equipment Operators (4)		Plant Equipment Operator	
Emergency Direction and Control <sup>(b)</sup>	Direction and control of onsite emergency activities as Emergency Coordinator.	Shift Manager (SRO) <sup>(a)</sup>		TSC Manager	EOF Manager
Communications	Notify station, local, state, and federal personnel and maintain communications.	I&C Technician  Communicator <sup>(a)</sup>		TSC Communications Coordinator  TSC ENS Communicator	EOF Communications Coordinator
Security	Site access control and personnel accountability	Security Shift Supervisor  Security Officers (Per Security Plan)	Local Support		EOF Security Coordinator
Public Information	Approve release of public information	Shift Manager <sup>(a)</sup>		TSC Manager <sup>(a)</sup>	Company Spokesperson
Logistics	Obtain/Expedite needed resources for the ERO.	Shift Manager <sup>(a)</sup>		TSC Communications Coordinator <sup>(a)</sup>	EOF Logistical Support Coordinator
Station System Engineering	Coordination/Control  Technical Support	  Shift Technical Advisor		TSC Engineering Team Coordinator  TSC Eng Team (4)	



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TABLE 1.1  
STAFFING REQUIREMENTS FOR EMERGENCIES  
PAGE 2 OF 2

FUNCTIONAL AREA	TASK	ONSHIFT <sup>(c)</sup>	ADDITIONS WITHIN MINUTES OF ALERT		ADDITIONS AT SAE OR GE
			40	70	
Radiological Assessment	In-plant Survey	R.P. Technician		R.P. Technician (2)	
	Chem/ Radiochemistry	Chemistry Technician		Chemistry Technician	
	Onsite Surveys	R.P. Technician		R.P. Technician	
	Offsite Surveys		R.P. Technicians (2)	Vehicle Drivers (2)	
	Dose Assessment	Shift Technical Advisor <sup>(a)</sup>	TSC OnRAC	EOF Dose Assessor	
	Protective Actions	R.P. Technicians (2) <sup>(a)</sup>	R.P. Technicians (2)	R.P. Technicians (2)	
	Coordination/Control	Shift Manager <sup>(a)</sup>	TSC OnRAC <sup>(a)</sup>		EOF R.P. Coordinator
System Corrective Action	Emergency Repair and Damage Control (ERDC)	Plant Equipment Operator <sup>(a)</sup> Mechanic Electrician I&C Technician		OSC Manager Mechanic Electrician I&C Technician	
Fire	Fire Fighting	Fire Brigade (5) <sup>(a)</sup>	Local Support		
Medical	Rescue Operations and First Aid	Safety Services Technician Chemistry Technician <sup>(a)</sup>	Local Support		
TOTAL		18	5	22	6

(a) May be provided by onshift or augmentation personnel assigned other functions.

(b) Shift Manager serves in this capacity until relieved by a designated individual (Section 1.1.2.2).

(c) The minimum crew composition may be one (1) less than the minimum specified for any position for a period of time not to exceed two (2) hours in order to accommodate unexpected absence, provided immediate action is taken to fill the required position. This exception does not permit any crew composition to be unmanned upon shift turnover due to an oncoming crew member being late or absent.

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TABLE 1.2  
 PREDETERMINED RESPONSE ACTIONS  
 PAGE 1 OF 1

PREDETERMINED RESPONSE ACTIONS	NOUE	ALERT	SAE	GE
Notify state and local authorities within 15 minutes of declaring the event.	X	X	X	X
Notify the Nuclear Regulatory Commission (NRC) immediately after notification of the state and local authorities but not later than one (1) hour after declaring the event.	X	X	X	X
Staff and activate the Emergency Response Facilities: Technical Support Center (TSC) Operations Support Center (OSC) Emergency Operations Facility (EOF)		X <sup>1</sup>	X	X
Activate the Emergency Response Data System (ERDS) as soon as possible but not later than one (1) hour after declaring the event.		X	X	X
Assess the event and respond accordingly.	X	X	X	X
Dispatch Onsite Survey Teams.		X	X	X
Dispatch Offsite Monitoring Teams.			X	X
Provide periodic plant status updates to offsite authorities.	X	X	X	X
Provide periodic assessments of meteorological conditions to offsite authorities.		X	X	X
Provide periodic media briefings.			X	X
Provide senior onsite technical and management staff available for consultation with NRC and state on periodic basis.			X	X
Provide release rate and dose projection information.		X	X	X
Recommend protective actions to offsite officials.				X
Escalate to more severe class, if appropriate.	X	X	X	
Closeout the event with verbal summary to offsite authorities followed by written summary.	X <sub>2</sub>	X <sub>2</sub>	X <sub>2</sub>	X <sub>2</sub>

- 1 EOF activated at the SAE.
- 2 Notification Message Form used to closeout the emergency may be used to satisfy the requirements of verbal notification and written summary to offsite agencies.

NOUE Notification of Unusual Event  
 SAE Site Area Emergency  
 GE General Emergency

### 3.0 NOTIFICATION METHODS AND PROCEDURES

This chapter describes methods for notifying local and State authorities and the CPSES Emergency Response Organization (ERO) in the event of a declared emergency classification at CPSES. Details required in INITIAL and FOLLOWUP messages are also described.

Emergency Plan Procedures (EPP's) describe processes for performing these notifications and contain the message format for transmitting information to local and State Emergency Operation Centers (EOCs). EPPs also describe maintenance of the CPSES ERO Roster and the Emergency Facility Telephone Directory that lists emergency telephone numbers for offsite agencies and authorities.

Upon declaration of an emergency at CPSES, the CPSES Emergency Response Organization and the CPSES Security Shift Supervisor are notified using either the plant page party system, the intraplant telephone system or commercial telephone. The pager system, described in Section 4.6, is an alternate means to notify selected members of the ERO.

Offsite authorities are notified via dedicated telephone, commercial telephone or telecopier.

More information regarding communication systems may be found in Chapter 4.

This plan chapter also describes how the populace within the 10-Mile Emergency Planning Zone (EPZ) is alerted to and advised of a CPSES emergency by local officials.

### 3.1 NOTIFICATIONS

#### 3.1.1 INITIAL Notifications

INITIAL notifications from CPSES to local and State authorities are performed when the following conditions occur:

- Initial declaration of an emergency classification (Notification of Unusual Event, Alert, Site Area Emergency, General Emergency)
- Escalation of an emergency classification
- Initial Protective Action Recommendation (PAR)
- Change in a PAR
- Emergency termination

INITIAL notifications shall begin no later than fifteen (15) minutes after one of the above conditions are met.

INITIAL notifications are made to the following offsite authorities/locations:

- Somervell County EOC
- Hood County EOC
- Texas Department of Public Safety in Waco, Texas

INITIAL notifications, either verbal or via Notification Message Form, to Somervell County EOC, Hood County EOC, and DPS Waco provide the following information:

- CPSES Communicator's name
- Emergency Classification and brief description of emergency
- Warning of whether an emergency-related radiological material release is occurring and IF so, what sectors and Emergency Response Zones (ERZs) are affected by the release.
- PARs, if any.

The first Notification Message Form sent from CPSES to offsite authorities is verified authentic as specified in operating procedures of the Texas Department of Public Safety Communications Center, Region 6 Headquarters, Waco, Texas.

3.1.2 Notification of NRC

The NRC Operations Center should be immediately notified after notification is made to those offsite authorities identified above. The NRC should always be notified within one hour of these notifications.

3.1.3 FOLLOWUP Notifications

FOLLOWUP notifications are made to status ongoing emergency response efforts.

FOLLOWUP notifications are made to offsite authorities approximately every hour unless otherwise requested by these authorities.

In addition to information required for an INITIAL notification, the following information is provided in the FOLLOWUP notification:

- Meteorological conditions (wind velocity, direction, temperature, atmospheric stability data, and form of precipitation, if any)
- IF needed, requests for onsite support.
- IF requested, by the Texas Bureau of Radiation Control:
  - (a) Type of radiological material release (whether actual or projected): airborne, waterborne or surface spill and estimated or known release duration
  - (b) Estimated or known quantities of radioactive material released.
  - (c) Point of release
  - (d) Chemical and physical form of released material, including estimates of relative quantities and concentrations of noble gases, radioiodines and particulates.
  - (e) Estimates or known quantities of radioactive surface contamination, onsite or offsite.

- (f) Actual or projected dose rates and integrated doses at the site boundary, and at two, five and 10 miles, and affected sectors and Emergency Response Zones (ERZs).
- (g) Prognosis for escalation or termination of emergency based on current plant information.

### 3.2 PUBLIC WARNING

An Alert and Notification System consisting of 66 sirens within the 10-Mile Emergency Planning Zone (EPZ) is owned, maintained and tested by TU Electric in accordance with CPSES Emergency Plan Procedures. The system was designed, installed and tested to meet the requirements of the Federal Emergency Management Agency (FEMA). The resident and transient population within the 10-mile EPZ is alerted to an emergency at CPSES by the Alert and Notification System. Upon being alerted by this system, the populace has been informed to tune their televisions or radios to designated Emergency Alert System (EAS) stations to obtain current information and recommended protective actions.

The Emergency Alert System (EAS) provides emergency related information to the general public in the CPSES area over radio station WBAP (820 AM) and television station KXAS-TV (Channel 5). CPSES and state emergency response personnel provide protective action recommendations to local officials; however, information and instructions provided to the general public via the EAS originates from the county officials.

Local officials, primarily County Judges and County Sheriffs, authorize use of and are responsible for operating the Alert and Notification System and providing messages to the EAS stations. Preformatted EAS messages are included in county and State emergency plans.

Operation of the Alert and Notification System is accomplished from either county's Emergency Operations Center (EOC). Normally, each county EOC will operate those sirens within its jurisdiction; however, if needed, either EOC can operate the entire system. The 10-mile EPZ is divided into quadrants. Sirens located in each quadrant are programmed to a unique control code. Each quadrant can be activated independently; however, each siren can be operated individually for purposes of testing.

### 3.3 METHODS OF PROVIDING PUBLIC INFORMATION REGARDING PROTECTIVE ACTION MEASURES

Public warning, discussed above, is part of the mechanism for providing information to the public. Preceding and continuing into the CPSES operations phase, emergency response information is provided to the public within the 10-mile EPZ. Local residents are provided printed media which provides instructions for emergency actions. Information regarding emergency actions is also provided by printed media at various locations or establishments within the 10-mile EPZ, and in local telephone directories. Additional information about public information is provided in Chapter 5 of this plan.

### 7.3.1 ONSITE RADIOLOGICAL ASSESSMENT

Initially, during an emergency condition, the on-shift Radiation Protection and Chemistry Technicians perform onsite and in-plant radiological assessment, and sampling activities, respectively, as directed by the Shift Manager.

Once the TSC is activated, responsibilities for onsite and offsite radiological assessment and survey activities shall be assumed by the TSC Onsite Radiological Assessment Coordinator. As CPSES Emergency Organization personnel become available, onsite radiological survey teams shall be formed as required and dispatched from the OSC. Onsite Survey Teams initially shall be composed of at least two members, at least one of which shall be a Radiation Protection technician. The Onsite Survey Team(s) perform required onsite and in-plant surveys in accordance with approved Emergency Plan Procedures.

Once the EOF is activated, overall responsibility for offsite radiological assessment shall be assumed by the EOF Radiation Protection Coordinator.

Communications between the Control Room, TSC, OSC, EOF and the Onsite Survey Team(s) shall be conducted in accordance with Section 4.0 of this plan.

Transportation for Onsite Survey Team(s) is provided in accordance with Emergency Plan Procedures. Based on arrival time(s) of CPSES Emergency Organization personnel, Onsite Survey Teams should be deployed within 15 to 30 minutes after arrival on site. Deployment time may vary due to duration of onsite briefing session, time required to obtain protective clothing and equipment and time required to prepare for entry into plant environs.

### 7.3.2 OFFSITE RADIOLOGICAL ASSESSMENT

Once the EOF is activated, the EOF Radiation Protection Coordinator assumes responsibilities for coordinating offsite radiological assessment and monitoring activities. Each Offsite Radiological Monitoring Team should be composed of at least two members, one of which shall be a Radiation Protection technician.

In the event that dose projection or onsite monitoring results indicate the potential for radioactivity release with offsite dose consequences, a Radiological Offsite Monitoring Team can be dispatched. Deployment time for the first offsite team dispatched is estimated to be within 55 to 70 minutes of an Alert or higher classification. This time includes team arrival, equipment check out and receiving a brief on expected radiological conditions.

The EOF Radiation Protection Coordinator and his staff dispatch Offsite Radiological Monitoring Teams to preselected points in affected downwind sectors. Offsite environmental monitoring locations are identified in Plant Procedures. At preselected points, the team should perform external dose measurements, obtain air samples, determine contamination levels and obtain vegetation and liquid samples as required. From this point the team can be moved to determine the plume boundary, centerline of the plume and other factors necessary to determine impact of the release on the public and environment. This monitoring shall continue, as required, during the emergency so the need for protection measures can be quickly assessed.

8.1.3 MONITORING OF EVACUEES

During a site evacuation, if the evacuees are potentially contaminated, the Emergency Coordinator should direct evacuees to proceed for radiological monitoring at an offsite Reception Center. At this center, evacuees are logged in/out, monitored for contamination, and decontaminated if required.

8.1.4 RESPIRATORY PROTECTION

During an emergency, air sampling is performed throughout the site area to ensure protective measures are implemented in a timely manner. These protective measures may include external exposure thresholds, DAC-hr tracking, ingestion of radioprotective drugs, relocation, respiratory protective equipment, or a combination of the above. Respiratory protective equipment is available onsite for issue in accordance with Radiation Protection procedures.

8.1.5 PROTECTIVE CLOTHING

Protective clothing is available from storage areas and Radiation Protection supplies located throughout the site. This clothing is standard anti-contamination clothing and includes coveralls, hoods, gloves, and boots.

8.1.6 RADIOPROTECTIVE DRUGS

A thyroid blocking agent such as Potassium Iodide (KI), supplied at various strategic onsite and offsite locations, shall be offered to CPSES emergency response personnel in accordance with an Emergency Plan Procedure. Quantities of KI supplied at the onsite and offsite locations shall be maintained in accordance with provisions of Section 15, Appendix J. State or local government emergency plans and procedures describe KI use respective to offsite personnel.

8.2 OFFSITE PROTECTIVE ACTIONS

Personnel and visitors offsite, but within the owner-controlled area, are warned of an emergency by the Security Organization or by Squaw Creek Park personnel in accordance with the Squaw Creek Plan for Response to Declared Emergencies at CPSES. Security personnel are notified of the emergency by Control Room personnel as described in Section 3.1. Squaw Creek Park personnel are notified of the emergency by the CPSES Security organization in accordance with Security procedures.

Protective action recommendations (PARs) are formulated during an emergency by CPSES personnel and are included in notifications to offsite authorities as specified in Section 3.0. These PARs are based on either existing plant conditions or projected offsite doses, and are updated as conditions warrant.

Offsite protective actions are then directed and implemented by State and local authorities based on the recommendations and information supplied by CPSES.

Specific protective actions to be recommended are based on the guidance of the EPA's "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents."

12.2.4 RADIOLOGICAL MONITORING DRILLS

Station personnel assigned to radiological monitoring teams shall participate in annual drills to prepare them to perform air sampling and beta-gamma exposure rate determinations within the 10-Mile Emergency Planning Zone during the Plume Exposure Pathway phase. These drills shall include provisions for communications and record keeping.

Station personnel assigned to radiological monitoring teams should participate in drills to collect environmental samples such as soil, water, and vegetation. These drills maintain station personnel capable to assist, if necessary, state agencies during the Ingestion Pathway phase.

12.2.5 HEALTH PHYSICS DRILLS

Health physics drills shall be conducted semi-annually and involve response to and analysis of simulated elevated airborne and liquid samples and direct radiation measurements in the environment.

In accordance with approved ALARA guidelines, an analysis of in-plant liquid samples with actual elevated radiation levels, including use of the Post-Accident Sampling System, shall be included in health physics drills annually.

12.3 DRILL AND EXERCISE SCENARIOS

Drill and exercise scenarios are developed to provide a method to test and evaluate the CPSES Emergency Preparedness Program. These scenarios are designed to allow free play in decision-making and shall include, as appropriate:

- a. Basic objective(s) of each drill and exercise, and appropriate evaluation criteria;
- b. Date(s), time period(s), location(s) and participating organizations;
- c. Simulated events;
- d. Time schedule of real and simulated initiating events;
- e. Narrative summary describing conduct of the exercise or drill which addresses simulated casualties, offsite fire department assistance, rescue of personnel, use of protective clothing, deployment of radiological monitoring teams, public information activities; and
- f. Description of arrangements for and advance materials to be provided to official observers.

The Emergency Planning Group is responsible for developing drill objectives, exercise objectives, and developing exercise scenarios. Scenarios and objectives developed for those exercises or drills requiring NRC and/or FEMA evaluation shall be approved by the Plant Manager\* and submitted to the NRC and/or FEMA for review and approval.

\*See FSAR Section 13.1.



15

CPSES/EP

APPENDIX B

Time/Distance/Dose (Thyroid) Curve  
for a LOCA Condition at CPSES

THIS APPENDIX HAS BEEN DELETED

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APPENDIX C

Time/Distance/Dose (Whole body, Gamma)

Curve for a LOCA condition at CPSSES

THIS APPENDIX HAS BEEN DELETED

|

APPENDIX D

Time/Distance/Dose (Whole body, Total)

Curve for a LOCA condition at CPSES

THIS APPENDIX HAS BEEN DELETED

APPENDIX J

Emergency Equipment  
and Supplies

EMERGENCY EQUIPMENT AND SUPPLIES

TU Electric maintains emergency response equipment and supplies in onsite and offsite facilities, cabinets, and footlockers. Onsite this equipment is staged in such places as the Control Room, Technical Support Center, Operations Support Center, Emergency Operations Facility and Nuclear Operations Support Facility (NOSF). Offsite this equipment is staged in such places as county Emergency Operations Centers (EOCs), hospitals, and Relocation Centers.

Self-Contained Breathing Apparatus (SCBAs) and spare SCBA bottles are maintained for the Control Room; SCBAs are also maintained at the NOSF.

Three company vehicles equipped to support radiological monitoring activities are available for use by Offsite Field Monitoring Teams. Three offsite field monitoring kits are located in the NOSF. The kits contain supplies and equipment represented in the listing below.

The specific type and amount of equipment and supplies in each onsite or offsite facility, location, or kit is identified on a facility inventory worksheet. The inventory worksheet is prescribed by and maintained in accordance with an Emergency Plan Procedure.

The following listing, by category, represents typical emergency response equipment and supplies maintained:

Personal Protection and Dosimetry

Coveralls, shoe covers, gloves, hoods  
Thyroid Blocking drugs (Potassium Iodide [KI])  
Thermoluminescent Dosimeters (TLDs), dosimeters

Radiological Monitoring

Geiger-Mueller (GM) and Ionization Chamber instruments  
Air Sampler, equipped with sampler head for particulates and silver zeolite collectors  
Particulate and Silver Zeolite collectors  
Calculators

Contamination Control

Modesty clothing, plastic bags, signs/barricades, Step-Off Pads, tape, decontamination supplies

Communications

Vehicle-installed radios, base stations, handheld radios

Miscellaneous

Portable lights, Instrument check source, clerical supplies, maps, clipboards, tweezers, etc.

NONESSENTIAL PERSONNEL

Personnel in one or more of the following categories:

Employees not having emergency response organization assignments, excluding on-shift Nuclear Operations personnel.

Visitors

Contractors (excluding Security organization), unless authorized by the Emergency Coordinator.

Individuals involved in non-operational activities permitted by the FSAR within the Exclusion Area.

Squaw Creek Park patrons.

Other persons who may be in a public access area or passing through the Owner Controlled Area.

OFFSITE

All areas not covered under the definition of "onsite."

ONSITE

The land area forming the peninsula on which CPSES is sited. The western boundary of this area is the western-most evaporation pond.

OPERATIONS SUPPORT CENTER (OSC)

The onsite emergency response staging area where the Emergency Repair and Damage Control Group personnel assemble and are dispatched during an emergency.

PERIODIC DEFINITIONS

The following definitions are applicable to those plan events/tasks which occur on a regular basis:

"Monthly" means once during a calendar month;

"Quarterly" means once during a calendar quarter;

"Semi-annual" or "Semi-annually" means twice during a calendar year;

"12 Months" means once per 12 months but not to exceed 13 months;

"Annual" or "Annually" means once during a calendar year.

PLANT EVACUATION ROUTES

Predetermined evacuation routes designated by signs located throughout the plant.

PLANT PERSONNEL

Personnel employed or contracted by TU Electric who are involved in the operation, construction or maintenance at CPSES.