70-1151

Westinghouse
Electric Corporation

Commercial Nuclear
Fuel Division

Drawer R
Columbia South Carolina 29250
(803) 776 2610

NRC-94-012

March 25, 1994

U.S. Nuclear Regulatory Commission
ATTN: Mr. T. Wenck
Fuel Cycle Licensing Branch
Division of Fuel Cycle & Safeguards, NMSS
Washington, D.C. 20555

Dear Mr. Wenck:

REF: License SNM-1107/Radiological Contingency Plan Update

Westinghouse Electric Corporation hereby requests a license amendment to incorporate the revised Site Emergency Plan changed pages into the existing license effective March 25, 1994. Enclosed are seven copies of the March 25, 1994 revision of the Columbia Plant Site Emergency Plan.

Attached also is a Summary of Significant Changes in the Site Emergency Plan. This revision is a result of lessons learned from the October 1993 exercise, 1993 drills; unusual events; requested changes from SC-DHEC, the South Carolina Emergency Preparedness Division (SCEPD) and Richland County Department of Emergency Services; and other criteria. This revision does not dilute or reduce the plan's effectiveness.

If you need any further information regarding this distribution, please contact me at (803) 776-2610, Extension 3247.

Sincerely,

WESTINGHOUSE ELECTRIC CORPORATION

Edward Reitler, Manager
Regulatory Engineering

cc: A. J. Nardi

160034

NFOA
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RE-EKR-94-004
From CNFD-Columbia
A/N 426-3247
Date March 25, 1994
Subject SITE EMERGENCY PLAN REVISION

To All Holders of the Site Emergency Plan

Attached are revisions to the Site Emergency Plan and Implementing Procedures for your incorporation into your manual. These revisions are a result of lessons learned from the October 1993 exercise; 1993 drills; unusual events; requested changes from SC-DHEC, South Carolina Emergency Preparedness Division (SCEPD) and Richland County Department of Emergency Services; and other criteria, and are effective immediately.

Where a change was made, the entire section or procedure was revised to facilitate incorporation into your plan. Simply replace to existing section with the revised section in its entirety.

Attached is a list of significant changes.

Training sessions are being planned for emergency responders and will include these revisions. Meanwhile, contact me if you have any questions on any of these changes.

Edward Reitler, Manager
Regulatory Engineering

MARCH 25, 1994 SEP REVISION

SIGNIFICANT CHANGES

1. Preface

   - Corrected titles.

2. Section 3

   - Revised 3.1.1 to add clarification for "controlled deterioration of nuclear criticality safety barriers" to incorporate NRC Bulletin 91-01 revisions.

   - Revised 3.1.2 to add clarification for "uncontrolled deterioration of nuclear criticality safety barriers" to incorporate NRC Bulletin 91-01 revisions.

   - Revised 3.1.1, 3.1.2 and 3.1.5 to provide clarification for classifications of events.

   - Revised 3.1.2, 3.1.3 and 3.2.1.2 to require notification of Richland County Department of Emergency Services immediately following notification of SC-DHEC for Alerts and Site Area Emergencies.

   - Revise 3.2.1.2 (11) to delete "Bureau of Radiological Health." Notifications will now go to the Nuclear Emergency Planning Section of SC-DHEC. See CSEP-0013.

   - Delete 3.2.1.2 (13).

3. Section 4

   - Revised 4.3.5 to delete "Bureau of Radiological Health" and correct title for South Carolina Emergency Preparedness Division. Notification will now go to the Nuclear Emergency Planning Section of SC-DHEC. See CSEP-0013.

4. Section 7

   - Added a requirement to document the quarterly communication checks as suggested by the NRC.

- Added Section 7.8 requiring annual independent audits of the emergency program.

5. CSEP-0005-A

   - Revised 7.0.10 to assure that exposure rates and meteorological conditions are considered when determining habitability of assembly areas.

   - Deleted 7.0.19 regarding notifications of offsite agencies because it does not belong in this procedure.

6. CSEP-0007

   - Added L. Brazell as Alternate Search Coordinator.

7. CSEP-0011

   - Revised 7.1.1 to clarify the need for prompt activation of the fire alarm and Emergency Warning Light System at the first indication of a UF6 release to assure prompt evacuation and to minimize the probability of personnel walking into a release.

8. CSEP-0012-A

   - Revised 2.0 to assure that nurses evacuate to the appropriate area to treat victims.

9. CSEP-0012-B

   - Revised 2.0 to assure that nurses evacuate to the appropriate area to treat victims.

10. CSEP-0013

    - Replaced "Bureau of Radiological Health" with "Nuclear Emergency Planning Section."

    - Added 7.2.1.D regarding oil or hazardous material spills.

    - Modified 7.2.2.J and 7.2.3.H to add a reference to Section 3 of the Site Emergency Plan.

    - Revised 7.2 to incorporate new provisions of 10CFR20 regarding notifications.

- Added direct telephone line numbers for use by NRC and SC-DHEC (Table I). These numbers ring in the Emergency Operations Center.

- Added cellular phone number (Table I).

- Revised Table II to add the Nuclear Emergency Planning Section as the primary contact and reorder the list.

- Revised Table IV to add the Nuclear Emergency Planning Section as the primary contact.

- Added Table VIII for SC-DHEC personnel.

11. CSEP-0015

- Revised to incorporate requirement for documenting qualifications for Emergency Brigade members.

- Revised to incorporate Emergency Brigade level criteria.

12. CSEP-0017-A

- Revised Figures 1 and 2 to clarify graphs.

13. CSEP-0019

- Revised 7.0.5 to add Emergency Classification Logic Flow diagrams as CSEP-0019-6, CSEP-0019-7 and CSEP-0019-8.

- Revised 7.0.5 to add the Nuclear Emergency Planning Section as the primary contact and require notification of Richland County Department of Emergency Services immediately following notification of SC-DHEC.

- Added a new Section 8 to provide guidance for classifying events, moving from one classification to another and for terminating events.

- Revised new 9.1 to assure that exposure rates and meteorological conditions are considered when determining habitability of assembly areas.

- Revised new 9.2 to assure that the Emergency Brigade is briefed on their mission, incident conditions, hazards and possible equipment needs before deployment.

14. CSEP-0020

- Revised 7.0.6 to delete "Bureau of Radiological Health."

15. CSEP-0024

- This is a new procedure describing standard Voice Communications System announcements and posting of signs to alert personnel of events.

16. CSEP-0025

- This is a new procedure providing a checklist/duties for the Emergency Operations Center and describing NRC actions in the event of an Alert and above.

17. Appendix A

- Updated the ESBU Emergency Committee letter with the 2/28/94 revision.

18. Appendix C

- Revised the Listing of Implementing Procedures.

SITE EMERGENCY PLAN

WESTINGHOUSE ELECTRIC CORPORATION

COMMERCIAL NUCLEAR FUEL DIVISION

COLUMBIA, SOUTH CAROLINA

APRIL 1990

REVISED: NOVEMBER 30, 1990
MARCH 31, 1992
SEPTEMBER 20, 1992
APRIL 30, 1993
MARCH 25, 1994

PREFACE

A. PURPOSE

The Columbia Site Emergency Plan provides guidance for contending with emergency situations with the fundamental objective of protecting the health and safety of the general public, plant employees, and plant visitors. The plan defines duties of individuals and groups under emergency conditions and provides the means of interfacing the plan with various on-site and off-site groups. Information submitted in this plan has been developed in accordance with applicable Nuclear Regulatory Commission regulations and guidelines (10CFR Part 70 and NRC Regulatory Guide 3.67). This plan is supplemented by a "Hazardous Materials Emergency Response and Best Management Practices Plan" to respond to EPA SARA Title III regulations.

B. RESPONSIBILITIES

Westinghouse Management has overall responsibility for maintaining a state of readiness to implement emergency plans for the protection of plant personnel, the general public and property from hazards associated with ionizing radiations originating within a company facility. The authority for developing emergency control measures is delegated to the Emergency Director and an emergency team reporting in a line sequence.

Organizations and facilities are described for dealing with a spectrum of accidents ranging from minor on-site incidents to those that could cause site evacuation.

C. RESPONSIVE ACTIONS

Responsive actions are listed in three phases.

- The initial phase includes actions directed toward the protection of personnel and the elimination of the potential for further exposure to the hazard.
- In the second phase, immediate and planned actions are directed toward termination of the incident, containment of the effluent, establishment of incident boundaries, establishment of control, channeling of information, and protection of the facility and equipment.
- The third phase is to restore the facility and equipment.

* To respond effectively, utilizing these phases, emergencies are classified according to increasing severity: Local emergency, Alert or Site Area emergency. If the incident has off-site ramifications involving the health and safety of the general population, the South Carolina Emergency Preparedness Division (SCEPD) Radiological Response Plan would be invoked. If off-site evacuation is necessary, after advice from the South Carolina Department of Health and Environmental Control or South Carolina Emergency Preparedness Division (SCEPD), the Governor will initiate this action using local law enforcement.

*

D. DEFINITIONS

* Airborne Derived Air Concentration (DAC) - 10 CFR 20 allowable radioactive material contamination limits for uranium in air. In-plant air (restricted area) equivalent to 2×10^{-11} uCi/ml for Columbia Site Class Y isotopic enrichment.

*

Annual Limit on Intake (ALI) - means the derived limit for the amount of radioactive material taken into the body of an adult worker by inhalation or ingestion in a year. ALI is the smaller value of intake of a given radionuclide in a year by the reference man that would result in a committed effective dose equivalent of 0.05 SV (5 REMs) or a committed dose equivalent of 0.5 SV (50 REMs) to any individual organ or tissue.

Class D Material - This type of material is considered to be transported through the body rapidly with minimal lung retention. It is cleared rapidly, in days. Examples of this class are uranium hexafluoride and uranyl nitrate.

Class W Material - This type of material is considered to be moderately transportable through the body with moderate lung retention. Clearance from the lung is a matter of weeks. Examples are: uranium oxide and ammonium diuranate.

Class Y Material - This type of material is considered nontransportable in the body with avid lung retention. Clearance from the lung takes years. One example is high-fired uranium dioxide.

Criticality Accident - An uncontrolled, unshielded, self-sustained nuclear fission reaction which releases high levels of radiation.

* Derived Air Concentration (DAC) - means the concentration of a given radionuclide in air which, if breathed by the reference man for a working year of 2,000 hours under conditions of light work (inhalation rate 1.2 cubic meters of air per hour), results in an intake of one Annual Limit of Intake (ALI).

*

Design Basis Accidents (DBA) - Postulated event or sequence of events leading to a condition for which the confinement system must meet its functional goals. A DBA represents the most drastic event that must be designed against, and thus is the limiting design case.

Emergency Staff - A management group responsible for decision making in coordination with the Emergency Director.

Emergency Brigade - A group of specially-trained employees designated to assemble following the occurrence of an accident or emergency situation who will act to terminate the incident.

Exercise - A major test of the integrated capability of the basic elements existing within emergency preparedness plans. The scenario used will not be generally known to most exercise participants.

Incident - As used in this manual, incident refers to any event not within normal conditions and potentially can cause personal injury or radiation exposure.

Off-Site - In this manual, off-site refers to any properties beyond the Columbia Site property lines.

On-Site - All land within the Columbia Site property line, use of which must be authorized by Westinghouse Electric Corporation.

Projected Dose - Estimate of radiation dose which affected population groups may potentially receive if no protective action was taken.

Rad - The unit of absorbed dose in units of gray (rads) (100ergs/g). Total Effective Dose Equivalent (TEDE) - the sum of the deep dose equivalent (for external exposures) and the committed effective dose equivalent (for internal exposures).

* Total Effective Dose Equivalent (TEDE) - The sum of the internal dose to the whole body over 50 years (due to deposited radioactive materials) and the external whole body dose.

Unrestricted Effluent Concentrations - Are equivalent to the radionuclide concentrations which, if inhaled or ingested continuously over the course of a year, would produce a total effective dose equivalent of 0.5 mSV (50 mREM).

*

Transportable - Dissolved upon contact with extracellular fluids and translocated to the blood.

Uptake - The quantity of radioactive material entering the nose and/or mouth during inhalation that is not exhaled and thus enters extracellular fluids. It differs from intake, which is the total quantity entering the nose and/or mouth and is the product of exposure and breathing rate.

Whole Body Dose - The amount of ionizing radiation energy absorbed per unit mass of the body measured in units of gray (rads).

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REVISION RECORD

REVISION NO.	DATE OF REVISION	PAGES REVISED	REASON
1	30 NOV 90	xi	Revise revision record
1	30 NOV 90	3.14	Add bomb threat information
1	30 NOV 90	4.11	Change "scenario" to event and add type of radionuclide and/or hazardous material
1	30 NOV 90	6.2	Initiate frequency for cellular telephone testing
1	30 NOV 90	6.4	Initiate frequency for testing meteorological unit
1	30 NOV 90	7.2	Specify Emergency Brigade training frequency
1	30 NOV 90	7.3	Specify critique method
1	30 NOV 90	7.4	Initiate 60 day review period by outside agencies
2	31 MAR 92	xi	Revise revision record
1	31 MAR 92	3.1	Add "controlled deterioration of nuclear criticality safety barriers" to "Local" category
1	31 MAR 92	3.2	Add "Uncontrolled deterioration of nuclear criticality safety barriers" to "Alert" category
1	31 MAR 92	3.3-3.6	Revise typographical format
1	31 MAR 92	3.7	Describe incidents of deterioration of nuclear criticality safety barriers
1	31 MAR 92	3.8-3.13	Revise typographical format
2	31 MAR 92	3.14	Revise typographical format
1	31 MAR 92	3.15-3.16	Delete due to revising typographical format
1	31 MAR 92	A.1-A.4	Revise and update letters of agreement
1	31 MAR 92	A.8-A.10	Revise and update letters of agreement
1	31 MAR 92	C.1	Revise Implementing Procedures Listing
1	30 SEP 92	v, vi	Revise Table of Contents
3	30 SEP 92	xi	Revise Revision Record
1	30 SEP 92	5.21	Revise Evacuation Map
2	30 SEP 92	C.1	Revise Listing of Implementing Procedures
4	30 APR 93	All Pages	Complete Rewrite
5	25 MAR 94	*	Major revision (*See NRC-94-012 dated 3/25/94)

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SECTION 3

TYPES OF ACCIDENTS AND CLASSIFICATIONS

3.1 CLASSIFICATION SYSTEM

The respective types of emergencies are described in the following paragraphs.

3.1.1 Local Emergency

A Local emergency is defined as a minor incident situation which deviates from normal operation, but has minimal potential for escalation to a serious emergency. Releases of radioactivity from the plant and site environs will be limited to extremely small fractions of the EPA Protective Action Guideline Exposure levels. Typical events which fall in this classification are:

*
- UF_6 or Toxic Gas Release where the energy causing the release can be isolated within approximately 15 minutes, the source is confined, and there is no threat of further escalation
- Minor powder/liquid spill which can be cleaned up within approximately 24 hours
- Rupture of a containment vessel or line
- Loss of primary power/city water supply
- Ventilation malfunction where there is no threat of release to the environment
- Fire which can be extinguished within approximately 15 minutes
- Combustible gas pop where there is no threat of release to the environment
- Hazardous weather warning
- Civil Disorder
- Loss of Communication
- Contaminated Casualty Transfer
- Controlled deterioration of nuclear criticality safety barriers

"Controlled deterioration of nuclear criticality safety barriers" includes cases where the double contingency principle is violated but control is re-established within four hours after the initial observation of the event.

*

RESPONSE ACTIONS

1. Promptly form emergency organization. Notify Regulatory Engineering as required. Evacuate portions of the manufacturing area as is required.
2. Assess and respond

3. Terminate source of the problem
4. Dispatch health physics monitoring team and medical personnel if required
5. Perform complete maintenance on malfunctioning systems
6. Close out or escalate to a higher status. Make appropriate notifications if the incident is reclassified to a higher status.
7. Verbally notify the US-NRC within 24 hours concerning any deterioration of nuclear criticality safety barriers.

3.1.2 Alert

An Alert is defined as a situation in which events may occur are in progress or have occurred that could lead to a release of radioactive or hazardous material to the environment but that the release is not expected to require a response by off-site organizations to protect persons off-site or result in any off-site consequences. Complete plant evacuation is not anticipated, although protective evacuations or isolations of certain plant areas may be necessary. Environmental sampling and some off-site monitoring may be required. Any releases are expected to be limited to small fractions of the EPA Protective Action Guideline exposure levels. The emergency response organization will be mobilized, either in a standby mode that will activate some portions of the organization or full mobilization, depending upon the severity of the event.

Typical events falling in this classification are (Events are classified as an Alert if they might affect radioactive or hazardous materials or safety systems.):

* • UF_6 or Toxic Gas Release, where the energy causing the release cannot be isolated within approximately 15 minutes, the source is not confined or escalation of the release is probable
- Powder/Liquid Spill which cannot be cleaned up within 24 hours and threatens the environment
- Ventilation System Failure which may have an impact on the environment
- Fire which cannot be extinguished within approximately 15 minutes
- Natural Phenomena (Earthquake, Flood, Hurricane, Tornado)
- Upgrades From Local Category
- Bomb Threat
- Ongoing Security Intrusions Lasting Greater than approximately 15 Minutes
- Explosion which may have an impact on the environment
- Hazardous Material Release where the energy causing the release cannot be isolated within approximately 15 minutes, the source is not confined or escalation of the release is probable.
- Uncontrolled deterioration of nuclear criticality safety barriers
- Aircraft Crash Impacting Facility

"Uncontrolled deterioration of nuclear criticality barriers" include cases where, (1) moderation is used as the primary criticality control, or (2) more than a safe mass of fissionable material is involved (regardless of the type of controls used to satisfy the double contingency principle), -- that meet one or more of the following criteria:

*

1. Any event that results in the violation of the double contingency principle, as defined in ANSI 8.1, and where the double contingency principle cannot be re-established within 4 hours after the initial observation of the event.
2. The occurrence of any unanticipated or unanalyzed event for which the safety significance of the event or corrective actions to re-establish the double contingency principle are not readily identifiable.
3. Any case where it is determined that a criticality safety analysis was deficient and where the necessary controlled parameters were not established or maintained.
4. Any event involving a controlled parameter previously identified by the NRC or the licensee as requiring immediate reporting to the NRC and where the double contingency principle cannot be re-established within 4 hours after the initial observation of the event.

*

RESPONSE ACTIONS

* 1. Promptly form emergency organization. Promptly inform SC-DHEC within 15 minutes of Alert incident declaration. Notify the US-NRC immediately following the State notification, not to exceed one hour of declaration. Notify Richland County Department of Emergency Services immediately following notification of NRC.

*

2. Augment resources and activate Emergency Brigade, Regulatory Operations, and other support personnel. Promptly notify Regulatory Engineering. Bring key emergency personnel to a standby status. Set up communications.
3. Secure operations, stop any releases and perform monitoring.
4. Dispatch on-site health physics monitoring teams.
5. Provide periodic plant status reports to off-site authorities.
6. Provide off-site authorities with dose estimates for actual releases.
7. Escalate to Site Area emergency class if appropriate. Notify all appropriate external agencies concerning incident classification upgrade.
8. Close out by verbal summary to off-site authorities. A written summary will be submitted for all incidents where a plant evacuation has been initiated.

3.1.3 Site Area Emergency

A Site Area emergency constitutes a condition in which events may occur, are in progress, or have occurred that could lead to a significant release of radioactive or

hazardous material and could require a response by off-site response organizations to protect persons off-site. Protective actions may include complete evacuation of facility areas and relocation of assembly areas. Off-site releases are not expected to exceed EPA Protective Action Guidelines exposure levels except near the site boundary. The emergency response organization will be fully mobilized and the event may result in request for off-site organizations to respond to the Site. Radiation and contamination levels may require restricting areas off-site. Environmental sampling and off-site monitoring required.

Typical events falling into this classification are (events are classified as a Site Area emergency if they have affected radioactive or hazardous materials or safety systems:)

- Significant Deterioration of Conditions under the Alert Category
- Major Fire Involving Offsite Threat or Loss of Physical Control of the Facility
- Criticality
- Complete Ventilation System Failure
- Severe Natural Phenomena (Earthquake, Flood, Hurricane Force Winds, Tornado Striking Facility)
- Major Hazardous Material Release Involving Offsite Threat or Loss of Physical Control of the Facility
- Major Explosion Involving Offsite Threat or Loss of Physical Control of the Facility
- Major UF_6 Release Involving Offsite Threat or Loss of Physical Control of the Facility
- Major Powder Spill Involving Offsite Threat or Loss of Physical Control of the Facility
- Imminent or Actual Loss of Physical Control of the Facility
- Any other Condition that Warrants Activation of Off-site Emergency Response Organizations or Precautionary Notification of the Public near the Site.

RESPONSE ACTIONS

1. Promptly notify SC-DHEC within fifteen minutes of Site Area emergency incident declaration and the US-NRC immediately following the State notification, not to exceed one hour of declaration. Notify Richland County Department of Emergency Services immediately following notification of NRC.

2. Augment resources and activate the Emergency Brigade. Activate the Emergency Staff. Notify the Westinghouse Energy and Utility Systems Emergency Coordinator and the Corporate Crisis Center that a Site Area emergency has been declared at the Columbia Site.

3. Secure operations, stop the release, perform monitoring and regain control of radioactive material.
4. Dispatch on-site health physics monitoring teams.
5. Dedicate an individual for plant status reports.
6. Call in staff technical experts.
7. Provide meteorological and dose assessments to off-site authorities.
8. Close out or reduce emergency class by briefing off-site authorities followed by written summary within 8 hours of closeout.

3.1.4 Transportation Emergency

A Transportation Emergency constitutes a condition in which a vehicle carrying radioactive or hazardous materials is involved in an off-site accident requiring emergency response. The accident may involve off-site emergency response, may require response by Columbia Plant personnel, and may result in personnel injuries/exposures and a release to the environment.

RESPONSE ACTIONS:

1. If the initial notification of a transportation accident is received by Security, the caller will be referred to CHEMTREC and Security will notify the Emergency Coordinator.
2. The Emergency Coordinator will promptly form the emergency organization using the call list from Table V of CSEP-0013.
3. Assess and respond.
4. Dispatch off-site response team if necessary.
5. Notify DOT in accordance with the requirements of 49 CFR 171.15 and 49 CFR 171.16, as follows:

   At the earliest practicable moment, each carrier who transports hazardous materials (including hazardous wastes) shall give notice after each incident that occurs during the course of transportation in which:
   a. A person is killed, or
   b. A person receives injuries requiring his or her hospitalization, or
   c. Estimated carrier or other property damage exceeds $50,000, or
   d. An evacuation of the general public occurs lasting one or more hours, or
   e. One or more major transportation arteries or facilities are closed or shut down for one hour or more, or
   f. The operational flight pattern or routine of an aircraft is altered, or
   g. Fire, breakage, spillage, or suspected radioactive contamination occurs involving shipment of radioactive material, or
   h. A situation exists of such a nature (e.g., a continuing danger to life exists

at the scene of the incident) that, in the judgment of the carrier, it should be reported to the DOT even though it does not exceed the above criteria.

6. Provide courtesy notifications to NRC and appropriate State agencies (see CSEP-0013).
7. Provide notification to the organization to which the shipment was being delivered to alert them to the incident (e.g., nuclear power plant, waste burial site, etc.).

3.1.5 Examples of Classifiable Events

The purpose of the following is to provide examples of classifiable events for each classification level to provide Emergency Coordinators and Emergency Directors with guidance.

1. UF_6 RELEASES

*

Local -- The release is confined primarily to the building, and the ventilation system is expected to control the material. The immediate area of the release such as the UF_6 Bay, Kiln Room, ADU Conversion Area, etc., may be evacuated as a precaution (i.e., partial evacuation). Air samples confirm that the release is confined as above, dissipated quickly, and has been terminated in a timely manner. Bioassay may be initiated to determine personnel exposures, but no exposures greater than 40 DAC-Hrs are expected. The UF_6 cylinder valve or UF_6 block valves can be closed within approximately 15 minutes to isolate the UF_6 cylinder. There is minimal threat of escalation to the environment.

Alert -- The release involves a visible cloud which encompasses the entire area (e.g., UF_6 Bay). The UF_6 valve or block valves cannot be closed within approximately 15 minutes. UF_6 vapors may escape into adjacent areas of the plant. Some gas escapes the building, but site boundary concentrations are expected to be a small fraction of permissible values. The ventilation system is not able to contain the release to the confines of the building. The entire Chemical Area is evacuated as a precaution. Assistance from off-site organizations is not required. Bioassay is initiated to determine personnel exposures. Exposures greater than 40 DAC-Hrs are possible, but exposures greater than 0.05 Gray (5 Rads) TEDE are not expected.

Site Area -- The ventilation system cannot contain the release and visible $UF_6/UO_2F_2/HF$ is escaping the building. Assistance from off-site organizations is requested. Detectable concentrations of UO_2F_2/HF are probable at the site boundary. Off-site protective actions are probable.

2. FIRES

Local -- The fire is confined to a ventilated enclosure or other process equipment, with smoke confined primarily to the building. The ventilation system is expected to control the material. Responding personnel (Emergency Brigade or Operators) immediately identify the source of the fire and extinguish the fire within approximately 15 minutes. The immediate area of the fire may be evacuated as a precaution (i.e., partial evacuation). Air samples confirm that the smoke is confined to the building. Bioassay may be initiated to determine personnel exposures, but no exposures greater than 40 DAC-Hrs are expected.

Alert -- The fire breaches containment and smoke escapes into the adjacent areas. Some smoke escapes the building, but site boundary concentrations are expected to be a small fraction of permissible values. The Emergency Brigade responds to extinguish the fire. The ventilation system is able to contain the smoke primarily to the confines of the building. The entire Chemical Area is evacuated as a precaution. Assistance from off-site organizations is not required (the Emergency Brigade extinguishes the fire) although the fire cannot be extinguished within approximately 15 minutes. Bioassay is initiated to determine personnel exposures. Exposures greater than 40 DAC-Hrs are possible, but exposures greater than 0.05 Gray (5 Rads) TEDE are not expected.

Site Area -- The ventilation system cannot contain the smoke and visible/contaminated smoke is escaping the building or the fire has penetrated the building walls or roof. Assistance from off-site organizations is requested. Detectable concentrations of radioactive materials are probable at the site boundary. Off-site protective actions are probable.

3. EXPLOSION

Local -- A hydrogen "pop" has occurred which causes minor damage to adjacent equipment. Air samples are elevated initially but return to normal within a few minutes. The source of the "pop" is determined and controlled. The area adjacent to the event is evacuated (i.e., partial evacuation) as a precaution. Bioassay may be initiated to determine personnel exposures, but no exposures greater than 40 DAC-Hrs are expected.

Alert -- A hydrogen explosion occurs at one of the calciners, causing major damage to the calciner and adjacent equipment. Uranium powder escapes containment. The cause of the explosion cannot be immediately determined. Damage to equipment cannot be immediately determined. The effects of the explosion are contained within the confines of the building. Assistance from off-

site organizations is not required. The entire Chemical Area is evacuated as a precaution. Bioassay is initiated to determine personnel exposures. Exposures greater than 40 DAC-Hrs are possible, but exposures greater than 0.05 Gray (5 Rads) TEDE are not expected.

Site Area -- A hydrogen explosion blows a hole in the roof of the building. The ventilation system cannot contain the release and radioactive material is released. Assistance from off-site organizations is requested. Detectable concentrations of radioactive materials are probable at the site boundary.

*

3.2 RANGE OF POSTULATED ACCIDENTS

3.2.1 Criticality

3.2.1.1 General Description

One of the most serious credible, although highly improbable, accidents postulated to occur in a fuel fabrication plant would be a nuclear criticality accident. A nuclear criticality in a fuel fabrication plant would result in an unplanned, uncontrolled, unshielded, self-activated nuclear fission chain reaction, releasing potentially dangerous high levels of neutron and beta-gamma radiation at the source. Typical estimates of the median total number of fissions per incident equal 2E+17. It is deemed unlikely that this would occur, since engineered controls as outlined in Section 2.1 would insure against assembling a sufficient quantity of moderated uranium in an unfavorable geometry.

License SNM-1107 and amendments thoroughly document designed criticality control criteria. Regulatory Affairs procedures in the 300 series assure proper in-plant implementation.

3.2.1.2 Response Procedure

1. At the sound of the criticality alarm siren all personnel shall evacuate at a fast pace to designated assembly points via the nearest exit. Use an alternate exit if there is evidence the incident occurred between you and the exit.
2. Assist visitors and/or injured personnel but do not delay evacuation.
* 3. At the assembly point, evacuating personnel will notify their supervisor or the Emergency Coordinator that they are present and accounted for. Each supervisor will immediately notify the Emergency Coordinator concerning missing persons and the status of his personnel using the automated COMET database or the manual method if problems are encountered with COMET.

*

4. An immediate decision will be made if a search and rescue mission is necessary.

Reentry to recover unaccounted for personnel is the responsibility of the Emergency Director. The Radiation Protection Component will advise the Emergency Director concerning external radiation levels and airborne concentration levels. Appropriate health physics emergency instrumentation consisting of 1) a GM Beta-Gamma Survey Instrument, 2) a portable ion chamber survey instrument, 3) pocket dosimeters, 4) respiratory protection will be used to verify the incident conditions. Noting a radiation field in excess of 0.25 mGray/hr (25 mRads/hr) constitutes verification.

A maximum whole body dose of 0.03 Gray (3 Rads) is allowed for incident verification. Refer to Table 5.6. Re-entry for rescue missions should only be made after the following have been considered.

a) the degree of hazard
b) the time of stay
c) the approved route
d) unrestricted retreat route
e) respiratory protection and protective clothing requirements

* Reentry for other than rescue missions is prohibited until a complete evaluation, authorized by the Emergency Coordinator, can be performed. The basis for making this decision will be monitoring results conducted by Regulatory Affairs. *

5. All evacuated personnel will immediately notify the radiation protection component if nausea is experienced.
6. The preliminary location of the affected plant area may be determined by observation of the gamma alarm system readout panel at the Main Guard Station.
7. The Radiation Protection Component will assure that the dose levels are acceptable at the assembly points, i.e. normally less than 0.05 mGray/hr (5 mRads/hr). If the dose levels are elevated, the assembly points will be moved to acceptable areas.
8. Potential false alarms will be investigated by the Radiation Protection Component at the request of the Emergency Director. A survey team, consisting of two radiation monitors, will approach the facility as per step four and validate the alarm level. If no unusual radiation levels (> 0.25 mGray/hr (25 mRads/hr), are encountered, the Emergency Director shall initiate action to determine the cause of the false alarm and terminate the emergency.
9. Whole body emergency exposure criteria will be limited to:
   a) 0.25 Gray (25 Rads) exposure - To eliminate a source or potential source that represents a hazard.
   b) 0.75 Gray (75 Rads) exposure - Lifesaving operations such as rescue and search for known missing persons.
10. Radiation Monitors shall:

a) Determine the extent of personnel radiation exposure by 1) indium foil counting, 2) the "quick sort" method.
b) Survey all personnel for contamination.
c) Provide decontamination assistance.
d) Determine additional action requirements based on the following radiation exposure limits:
   1. 0-0.05 Gray (0-5 Rads): No additional action required.
   2. 0.05-0.25 Gray (5-25 Rad): Medical attention required.
   3. Over 0.25 Gray (25 Rads): Immediate medical attention required.

* 11. All plant and staff emergency organizations will immediately form. If the incident occurs during minimum shift coverage, the alternate Emergency Director will immediately notify the Emergency Director, Emergency Staff Members, and the Regulatory Affairs Manager. Immediate off-site notification will be given to South Carolina Department of Health and Environmental Control, Richland County Department of Emergency Services and the Nuclear Regulatory Commission.

12. The Regulatory Protection Component will utilize site boundary air samplers to perform environmental monitoring in determining if off-site action is considered necessary.

*

3.2.1.3 Miscellaneous

Thermoluminesence Detectors (TLD) are provided to all employees assigned to Radiation Areas within the plant. Personnel identification badges containing indium foil are issued to all personnel and visitors at the Columbia Site who could be involved in a nuclear accident. Neutron activation foil type criticality accident dosimeters are also located in various areas in the plant. In the event of an accident, these dosimeters would be used to evaluate radiation exposure at all locations within the plant.

High and low range pocket dosimeters are maintained in the emergency cabinets. These will be available to auxiliary emergency teams, such as the Emergency Brigade, Medical Department, etc., for use in case of a nuclear criticality. The calculations of neutron exposure to the indium foils will be the same as outlined in the Implementing Procedures.

Dose to personnel without badges will be determined by quick sort count of Na-24 activity in the exposed person's body.

3.2.1.4 Controlled Deterioration of Nuclear Criticality Barriers (Local)

A Local emergency will be declared in event of any of the following nuclear criticality safety situations as defined in Procedure RA-107 involving significant deterioration of safety barriers:

(1) Only a single contingency is required for criticality to be possible;
(2) Loss of a barrier, when no more than one control system remains for each additional barrier described in the subject system's double contingency analysis;
(3) A license-specified contingency interlock fails to function on demand under an actual process upset condition;
(4) A criticality safety limit is intentionally violated by an individual taking advantage of a safety margin; or,
(5) An incident or re-calculation, involving a computer analysis of an operating system, discloses a potential K_{eff} significantly greater than that of the approval analysis.

All response actions under the Local emergency category in Section 3.1.1 will be implemented; and NRC will be notified within 24-hours. The event will be upgraded to an Alert if conditions mandate escalation to the higher level.

3.2.1.5 Uncontrolled Deterioration of Nuclear Criticality Safety Barriers (Alert)

The Site Emergency Plan will be immediately activated in event of an ongoing nuclear criticality safety situation involving major deterioration of safety barriers as defined in Procedure RA-107. An immediate decision will be made by the Emergency Director regarding activation of the criticality alarm for personnel evacuation from the facility. Necessity for activation of CSEP-0005 will be evaluated, and appropriate actions will be taken. All response actions under the Alert category in Section 3.1.2 -- such as notification of NRC within one hour -- will be implemented.

3.2.2 Fire

General procedures to be instituted in case of a fire are described in the following paragraphs.

Fire alarms and pull boxes are located throughout the manufacturing plant and office areas. The fire alarm system sounds a general alarm. The fire alarm location is registered in a central Processing Unit located at the Main Guard Station. The guard will identify the specific location of the alarm using the plantwide voice communication system.

The Emergency Brigade will respond to the alarm and take steps necessary to protect life and property. The Emergency Brigade functions under the direction of the Emergency Coordinator. The Manager of Regulatory Engineering serves as the Columbia Site Fire Marshal, directing all on-site firefighting missions. Each member of the Emergency Brigade is thoroughly indoctrinated concerning the hazards of radiation and the techniques to be used in fighting fires involving radioactive materials. Refer to section

5.3.1. The security force shall maintain an open traffic access lane to allow outside groups to respond to the incident. In addition to the Emergency Brigade, backup support is available from the City of Columbia Fire Department.

Employees in the immediate area will evacuate immediately as the personal hazard dictates or at the request of Supervision or Emergency Brigade member. In leaving the area, care should be exercised to avoid open flame and/or smoke. Strategic equipment will be shut down as necessary on a time-available basis.

Anyone else in the area should assume an alert condition and stay clear of the fire area and the Emergency Brigade. During evacuation, employees shall use the established plant evacuation routes and assembly areas.

3.2.3 Explosions

General procedures to be followed in case of an explosion are as follows:

1. Turn off all equipment as the situation warrants.
2. Supervision shall notify all personnel in the area to evacuate.
3. If necessary, the entire plant will be evacuated by sounding the fire alarm, which is manually activated from the Main Guard Station or by local pull boxes and through notification of personnel by their local supervisor.
4. Notify the Security and Services Manager so he can evaluate the situation and provide further instructions.
5. Permit only those persons into the area who are essential to evaluating and controlling the release of material.

3.2.4 Natural Phenomena: Earthquake, Strong Winds, Tornados and Floods

General information on earthquakes, high winds and floods is given in the following paragraphs.

3.2.4.1 Earthquakes

* Nearby tremors have been recorded at less than Modified Mercali IV effect at the site. Therefore, the probability of a significant effect from an earthquake is very low. If an earthquake occurs, safe shutdown procedures would be initiated according to Section 9.1.

*

3.2.4.2 Strong Winds, Tornados

NOAA weather report radio service will be monitored 24 hours per day by the guard service. Should an extremely hazardous condition develop, the chief security guard or

his designee will immediately notify operations of the hazardous weather alert. The Regulatory Affairs Manager and the Plant Manager will make decisions as necessary to eliminate exposure to adverse conditions.

3.2.4.3 Floods

* The Westinghouse Columbia Plant is located at an elevation of approximately 140 feet above mean sea level (MSL) and the Congaree River has a normal maximum pool of elevation of about 129 feet adjacent to the Columbia Plant.

*

If flood conditions are imminent, the Emergency Coordinator would initiate a safe shutdown of equipment; secure staged waste material, and secure all SNM stored in moderation controlled areas.

3.2.5 UF_6 Releases

A UF_6 release is a condition which results in a substantial accidental discharge of uranium hexafluoride gas from a contained system to the ambient atmosphere. The gas immediately hydrolyzes to form uranyl fluoride. During the hydrolysis reaction substantial quantities of hydrogen fluoride gas, a toxic vapor, are released. The following corrective actions shall be performed:

1. Activate the Fire Alarm and The Emergency Warning Light System. Use the voice communication system to provide additional information on the release.
2. Evacuate affected areas, avoiding the plume, and control reentry.
* 3. Adjust the ventilation system to control incident; minimize releases to the environment.

*

4. Close all doors to the UF_6 Bay.
5. Emergency Brigade members will don fresh air breathing apparatus in the pressure-demand mode for immediate evaluation of the situation. Supervision or the Emergency Coordinator will determine if additional protective clothing is needed according to the magnitude of the release.
6. Isolate the problem.
7. Close UF_6 cylinder valve with external operator.
8. Develop a plan for controlling and terminating the emergency.
9. Implement plan.
10. Give medical attention to all personnel exposed to hazardous vapors. The Radiation Protection Component will perform evaluations of all exposed personnel.
11. Decontaminate, survey, and release affected areas when acceptable airborne concentration levels have been reached.

12. Terminate the emergency.
13. Submit an incident report.

3.2.6 Release of Radioactive Material

The spread of radioactive contamination within the facility will generally result from spills, fires, or explosions. Emergency procedures adapted from NBS Handbook 48 are given here as a guide. It must be recognized that these procedures are guidelines and any specific emergency will call for further adaptation and changes in procedures.

3.2.6.1 Major Spills Involving Radiation Hazards to Personnel

1. The immediate Supervisor of the area shall notify all persons not involved in the spill to vacate the area at once. Limit the movement of displaced persons to confine the spread of contamination. If the spill is widespread, it may be necessary to request general evacuation of the Chemical Area using the voice communication system.
2. If the spill is liquid and the hands are protected, right the container.
3. If the skin is contaminated with the liquid, flush thoroughly.
4. If the spill is on the clothing, discard outer or protective clothing at once.
5. Evacuate the area, avoiding the spill area.
6. Notify Regulatory Operations as soon as possible.
7. Develop a plan for controlling and terminating the incident.
8. Immediately don the required respiratory protection equipment before performing any corrective actions. The Radiation Protection Component will advise concerning requirements. Decontaminate the area.
9. Store all recovered uranium in critically safe, geometrically controlled containers.
10. Monitor all persons involved in the spill and cleanup.
11. Permit no person to resume work in the area without the approval of the Radiation Protection Component.
12. Submit a complete history of the accident and subsequent activity to the Radiation Protection Component.

3.2.6.2 Minor Spills Involving No Radiation Hazard to Personnel

1. Notify all other persons in the immediate area at once.
2. Don appropriate respiratory protection equipment, if needed.
3. Survey individuals before they become dispersed; change clothes as necessary.
4. Permit only the minimum number of persons necessary to deal with the spill into the area.
5. Confine the spill immediately.
6. Decontaminate. Make a plan first.

a. Liquid Spills: Use protective gloves.
Wet mop directly or drop absorbent material on spill and mop.

b. Dry Spills: Gloves must be worn.

* Vacuum with approved vacuum cleaner, taking care not to spread the contamination and damp mop. Do not use a broom.

*

Small quantities of water may generally be used except where chemical reaction with the water would generate an air contamination.

7. Store all recovered uranium in critically safe, geometrically controlled containers.
8. Submit a complete history of the accident and subsequent remedial or protective measures to the Radiation Protection Component.

3.2.7 Release of Hazardous Materials or Toxic Fumes

1. Shut down equipment and processing as the situation warrants.
2. Notify all personnel in the immediate area to evacuate.
3. As necessary, other respective manufacturing areas will be evacuated by using the voice communication system or sounding the fire alarm.
4. Notify the Safety Engineer or Emergency Coordinator so he can evaluate the toxicity of the material and give directions. Consult applicable Material Safety Data Sheets (MSDS) in a clear area. Notify the Regulatory Operations Department if there is a potential for a concurrent radioactive material release.
5. Permit only those persons into the area who are essential to evaluating and controlling the release of material. Terminate the source.
6. Activate the "Hazardous Material Response Plan" as is necessary if the release is external to the plant.

* 7. All hazardous materials must be handled to avoid contact with the skin and to minimize inhalation. Because of characteristics of hydrofluoric acid, extreme measures must be used to avoid exposures. See the "Hazardous Material Response Plan."

*

3.2.8 Civil Disturbance

The Security and Services Manager will activate the guard force to respond to civil disturbance situations. The Emergency Director will convene with the Emergency Staff and initiate action as required to protect life and property. The Richland County Sheriff's department and other outside agencies may be summoned. The Emergency Coordinator shall assemble the Emergency Brigade in an alert condition. Supervision will shut down equipment and secure respective facilities in an orderly manner. The Emergency Director will advise concerning a general employee evacuation.

3.2.9 Bomb Threat

If a bomb threat is received, the information will be documented and the call will be transferred to the Security and Services Manager or the Human Resources Manager or their respective alternates. The following minimum information will be recorded.

- Location of the bomb
- Time the bomb is set to detonate
- Sex of the caller
- Type of voice, accent, mannerisms, or other identifying peculiarities
- Background noises
- Time and duration of the call
- Record exact language used

This information will be transmitted to the Emergency Director or his alternate and a decision will be made if an immediate evacuation is warranted.

* The Manager of Maintenance (alternate is the Manager of ADU Conversion and URRS) is designated the Search Coordinator. He will search the premises in coordination with the Security and Services Manager. Outside help will be summoned from The South Carolina Law Enforcement Division if a bomb is located. The Emergency Director will immediately decide which areas need to be evacuated. The Fire Alarm buzzer signal in combination with the voice communication system and notification by immediate supervisor will be used to evacuate personnel. Supervision shall perform accountability operations to ensure the safety of their responsible units. A detailed "Bomb Threat Plan" is maintained by the Security and Services Manager.

*

3.2.10 Loss of Power/Water

The following procedures will be instituted in the event of a loss of power/water incident.

Power

1. Shut down processes and turn off critical equipment when operation must be immediately ceased to avoid damage or severe accidents.
2. The Emergency Coordinator will assure proper operation of the emergency diesel generator for emergency power.
3. Activate emergency warning light system.
4. Evacuate all other personnel from the Chemical areas. Supervisors will ensure accountability for their individual units. Emergency squad members or operations personnel remaining in the area will wear appropriate respiratory protection.
5. When power returns, all equipment shall be checked by Maintenance and supervisors to ensure normal operations.

6. All ventilation equipment and hoods must be operating before reentry and initiation of work.
7. Regulatory Operations will release Chemical areas after performing airborne particulate analyses and assuring limits are below maximum permissible concentration.
8. The general reentry will be effected by turning off the emergency warning light system and by Supervisors notifying their units at the assembly points.

Water

1. Shut down processes and turn off critical equipment where operation must be ceased to avoid damage or severe accidents.
2. When water supply is restored, check all affected equipment to ensure normal operations.

3.3 DETECTION OF ACCIDENTS

3.3.1

Alert	Mechanism for Detection
• Bomb Threat	Telephone or written notification
• Security Intrusions	Visual; telephone threat
• Earthquake	Sensation of trembling
• Fire	Activation of sensor, pulling fire alarm box, audible alarm or visual observation
• Explosion	Audible or visual detection of event
• UF_6	Activation of audible interlocked alarm or visual detection
• Powder Spill	Visually noted
• Ventilation System Failure	Alarm noted or visual
• Transportation Accident	Telephone notification
• Hazardous Material Release	Visual or detection of odor
• Hazardous Weather Impacting Plant	Visual
• Flooding	Visual

3.3.2 Site Area Emergency

Criticality	Audible detection of Nuclear Criticality Alarm System

SECTION 4

ORGANIZATIONAL CONTROL OF EMERGENCIES AND RESPONSIBILITIES

4.1. Plant Emergency Organization

Details of the plant emergency organization are described in the following paragraphs.

The local organization chart for the Columbia Plant is shown in Figure 4.1. The Columbia Plant Manager, as SNM-1107 license holder, is responsible for compliance with all NRC license conditions.

4.2. Emergency Organization

The Columbia site emergency organization is shown in Figure 4.2. The Columbia Plant Manager is the site Emergency Director. He is assisted by a disaster evaluation team, the Emergency Staff. If the Emergency Director is not present, the first responding Emergency Staff member will function as the Emergency Director and lead the emergency response. During regular operating conditions, when the plant manager is not present, an alternate is named from the group of Emergency Staff managers.

During an emergency, other managers and supervisors involved will oversee the actions required to end the emergency. The line manager will assist and advise the Emergency Coordinator.

The Emergency Staff members will:

- function as the alternate Emergency Director if the Plant Manager is not on site
- assemble officially and support the Emergency Director during incident conditions above the Alert level
- consult and advise with the Emergency Director in their respective areas of expertise

During reduced operations or backshifts when the Plant Manager or alternate Emergency Staff member is not on site, one of the Emergency Coordinators (see CSEP-0013), will assume the role of Emergency Director and lead all emergency responses.

Individuals will be assigned specific responsibilities or authority in the emergency organization by reason of their training, experience, or management responsibilities. Before being assigned to the emergency organization, the qualification of individuals in the three areas mentioned, will be reviewed by the Manager of Radiation Protection Component.

4.2.1 Direction and Coordination

4.2.1.1 The responsibilities of the Emergency Director are:

- Direct emergency responses above the Alert level. Advise team as is required at the Alert level and below.
- Assist with incident classification
- Assemble Emergency Staff organizations
- Maintain contact with corporate W E&US Emergency Committee and Corporate Crisis Center
- Authorize changes in policies required to cope with emergencies
- Maintain communication with off-site, governmental agencies and assure notification is made
- Authorize re-entry plans in rescue situations
- Initiate on-site evacuation
- Approve information releases

The Emergency Coordinator will:

- Function as the alternate Emergency Director if the Emergency Director or Alternate Emergency Staff Member is not present.
- Supervise the evacuation of building personnel.
- Authorize and direct a rescue team if necessary.
- Consult and communicate at necessary intervals with the Emergency Director.
- Evaluate conditions and, if warranted, activate the site emergency organization. Maintain direct communication with Health Physics response team.
- If needed, authorize and direct the activities of reentry teams and the Site Emergency Brigade.
- If needed during plant emergencies, authorize the Security Force to call for outside assistance from local police, fire departments, and other service groups.
- Classify the incident and ascertain that the appropriate organizations and/or individuals have been notified.

4.2.2 Plant Staff Emergency Assignments

The staff emergency assignments are described as follows:

- Plant Systems Operations

  The supervisors and shift personnel on duty are responsible for plant operations.

- Radiological Survey and Monitoring

  The Radiation Protection Component at the Columbia Plant is responsible for radiological survey, area release, and environmental monitoring. If an emergency occurs, the Radiation Protection personnel on duty will form a health physics response team and monitor evacuating personnel and assist as necessary with rescue operations. On shifts with only one Regulatory Operations technician, the technician will monitor the environment after all evacuees have been cleared and any necessary rescue operations completed. Under such conditions, additional Regulatory Operations technicians will be summoned from call lists (see CSEP-0013). For weekends or other periods when the facility is closed, assigned facility personnel are on call to evaluate a situation and determine necessary action.

- Fire Fighting

  The Columbia Site has a volunteer Emergency Brigade equipped with a fire truck. In an emergency, the Brigade would function under the direction of the Emergency Coordinator.

- Rescue Operations

  Reentry to recover unaccounted-for-personnel is the responsibility of the Emergency Staff under the direct guidance of the Emergency Director.

  The Radiation Protection Component will advise the Emergency Coordinator concerning external radiation dose levels and airborne concentration levels. Entry should be made only after the following have been considered: (1) the degree of hazard, (2) the time of stay, (3) approach route, (4) unrestricted retreat route, and (5) respiratory protection and protective clothing requirements. Then entry should be made only by trained individuals familiar with plant operations who understand the hazards of the situation.

- First Aid

  Selected shift supervisors are trained in first aid.

- Decontamination

  Decontamination (other than criticality) is normally the responsibility of the supervisor assigned to the area involved. The effectiveness of the decontamination effort is monitored by the Radiation Protection Component. During an accident condition, other than criticality, Radiation Protection Component personnel will periodically monitor the area until license release limits are met. On shifts with limited personnel, call-in will be used. Contaminated personnel requiring medical treatment will be transported to Richland Memorial Hospital per procedures detailed in the Implementing Procedures.

- Security and Access Control

  Actions taken by the Site Security Force during an emergency are detailed in the Physical Security Plan. The Site Security Force maintains radio and telephone communication with local law enforcement agencies for quick response if assistance is required. They will assure an open traffic access lane exists for outside groups to respond.

- Repair and Damage Control

  The line and staff maintenance organization responsible for the facility involved will be used to mitigate the effects of an emergency condition.

- Personnel Accountability

  Each supervisor and manager shall act as the local emergency director for his responsible unit and account for all his personnel with the Emergency Director, or his alternate, and advise as necessary concerning the status of his personnel.

- Record Keeping

  The Emergency Coordinator documents the steps necessary to analyze the scope of the emergency and the actions necessary to mitigate the effects of the emergency to provide a record of the incident. Radiological information such as radiological survey data, internal and external personnel exposures, decontamination activities, and information from off-site surveys will be maintained by the Radiation Protection Component. The normal records kept by

the Site Security Force will record events involving Site security procedures and systems.

- Communications

  Off-site communication capabilities to local law enforcement agencies are maintained by the Site Security Force. Portable radios are available. The Site Security Force maintains a call-list for all key personnel. When directed by the Emergency Coordinator, the security guard in charge at the Main Guard Station will call key personnel. Personnel calls regarding personal safety of individuals will be referred to the Human Resources Manager. Public inquires and news media contacts will be referred to the Public Relations Coordinator. Releases of information will be issued as described in Section 8.3.

*

4.2.3 Energy Systems Emergency Organization

*

The Energy Systems emergency organization is described in the following paragraphs.

Normal Organization

The normal organization for the Westinghouse Commercial Nuclear Fuel Division is shown in Figure 4.3.

4.2.4 Emergency Organization

The Energy Systems emergency organization is composed of members authorized to act for the Corporation to effectively handle major off-site contamination, public relations, and the health and safety of the immediate community.

The Energy Systems Emergency Coordinator or his alternate shall be informed immediately of the incident. Notification of the Energy Systems Emergency Coordinator will be the responsibility of the Columbia Plant Emergency Director. The Energy Systems Emergency Coordinator will then summon the Corporate Emergency Committee to meet.

* The Energy Systems Emergency Committee shall include these areas of responsibility:

*

- Emergency Coordinator - Responsible for overall directing and planning of Committee activities in response to an emergency. This Committee will provide administrative, technical, logistic, public relations, financial, security, health physics, and medical support. He will keep upper levels of management informed of the status of the emergency.

- Public Relations - Responsible for contacting and issuing public release statements to the news media. All Westinghouse statements or comments issued shall have the approval of this/these officers or their alternates.

- Manpower Resources - Responsible for locating and providing critical manpower for the affected site, preparing a reference list of corporate maintenance, instrument, and labor personnel available to use throughout the emergency, preparing a supplementary list of outside sources of critical manpower and technical assistance as required.

- Financial Resources - Responsible for authorizing the commitment of significant corporate expenditures for immediate use.

- Logistics - Responsible for locating and providing supplies, tools, vehicles, equipment, and machinery needed at the Site.

- Medical/Health Physics - Responsible for directly assisting groups at site of incident in handling of specific capability of Health Physics and Medical personnel to assist the site. They will also make available outside sources of assistance in unique types of incidents requiring specialized assistance.

- Security/Legal - Responsible for providing assistance in these areas.

4.3 NOTIFICATION AND OFF-SITE ASSISTANCE

If there is an emergency, it will be necessary to notify certain individuals or organizations (Federal, State and local). The current listing of those individuals or organizations requiring notification is given in the Implementing Procedure CSEP-0013.

4.3.1 On-site Notification Channels

Notification of on-site personnel in the event of an incident can occur in several ways:

* The Columbia Plant has two alarms which can effect general evacuation; the Fire Alarm System and the Criticality Evacuation Alarm System. The Criticality Evacuation Alarm System is a continuous-sounding siren which indicates a high radioactivity level caused by a nuclear chain reaction. This alarm will cause the immediate evacuation of all personnel to established assembly areas in the plant with the exception of the main office areas. The main office areas are evacuated via the Voice Communication System. All personnel will evacuate promptly via the nearest exit unless there is evidence that the incident occurred between an individual and the exit. In that event, an individual selects

the next closest exit. The Fire Alarm or the voice communication system can signal initiation of any other plant emergency condition that may require evacuation. Personnel working in the Chemical (airborne radioactivity) Area will evacuate immediately upon sounding of the fire alarm upon hearing a verbal announcement over the voice communications system. Local supervisors will notify personnel when to evacuate areas other than the airborne radioactivity area. The Chemical Area warning light system will be observed to avoid entering an area that would increase the individual's exposure to the emergency condition. In general, evacuation is by the nearest exit (with the exception of a UF_6 release) to limit the time of exposure during the emergency condition. Personnel should avoid exiting through the UF_6 Bay during a UF_6 release. Personnel in other areas will assume an alert condition and evacuate as the emergency team deems necessary. General reentry into the Chemical Area will not be permitted until the blue beacons on the Warning Light System have been deactivated.

*

4.3.2 Site Emergency Staff and Management

In the event of an emergency, the Emergency Coordinator is responsible for assuring that the Emergency Director and the Emergency Staff have been notified. An updated telephone list will be maintained for notification of appropriate plant personnel in Implementing Procedure CSEP-0013.

4.3.3 Medical

As the situation warrants, the Emergency Coordinator will have one or more of the following notified:

- Site Medical and Emergency Response Team
- Richland Memorial Hospital, Columbia, S. C.
- Richland County Emergency Medical Service (Ambulance), Columbia, S. C.

4.3.4 Fire

The Site Emergency Brigade is advised of a fire by a fire alarm system which sounds over the entire site. If necessary, outside firefighting support from the City of Columbia can be requested by the Emergency Director or his alternate. If additional help is needed from other surrounding communities, their help would be requested by the City of Columbia Fire Department.

4.3.5 State of South Carolina

* The Emergency Director will be responsible for assuring that the South Carolina Department of Health and Environmental Control, is notified. They, in turn, will be

responsible for notifying the South Carolina Emergency Preparedness Division (SCEPD) and the Department of Energy assistance team.

*

The State will be immediately notified of any incident which is classified as an Alert level event or greater.

4.3.6 Richland County Sheriff and South Carolina Highway Patrol

If assistance is required from either of these two groups, their assistance will be requested by radio or telephone by the Site Security Department. Any other police assistance would be requested by the Richland County Sheriff.

4.3.7 ANI (American Nuclear Insurers)

This group will be notified where an incident may require immediate notification of State and/or Federal Agencies or results in a request for assistance of off-site emergency support groups such as medical, local, or state agencies either to care for the injured or to protect the public. The Emergency Director will assure the notification of Westinghouse Corporate Insurance and ANI.

4.3.8 Corporate Notification

If an incident of sufficient magnitude involves the public, requires off-site support, or involves Corporate funding and assistance, the Site Emergency Director will assure notification of the Energy Systems Emergency Coordinator, or his alternate, and the Corporate Crisis Management Team.

4.3.9 Nuclear Regulatory Commission (NRC) - Region II

The Site Emergency Director will notify the NRC Region II in the event of an incident or threatened incident as required by Title 10 Code of Federal Regulations, Part 20. He will also notify them if an incident involves off-site release or potential radiation exposure in which the general public could be involved. The NRC will be notified immediately following the State notification and within one hour under any incident classified as an Alert level incident or greater. Appropriate notifications will also be made such as required in 10CFR20, 10CFR70, 10CFR71, NRC Bulletin 91-01 and other applicable criteria.

4.4 COORDINATION WITH OFF-SITE GROUPS

Written agreements have been reached with the off-site groups listed below with regard to the type of support that will be furnished to the Westinghouse Columbia Site in the

event of an emergency. These agreements have been developed to ensure that there is a clear understanding of assigned responsibilities and that there will be proper coordination of activities in the event of an emergency. Letters of agreement with off-site support groups are given in Appendix A. They will be reviewed annually and renewed at least every four years or more frequently if needed.

4.4.1 Savannah River Site Radiological Assistance Team (DOE)

In the event of an emergency, the Department of Energy Radiological Assistance Team will respond with radiological assistance as needed to aid in protection of unnecessary exposure to people and minimize the spread of radioactive contamination.

4.4.2 Richland County Sheriff's Office and South Carolina State Highway Patrol

The Richland County Sheriff and the South Carolina Highway Patrol will assist as necessary.

4.4.3 State of South Carolina

In the event of an emergency, the State of South Carolina Department of Health and Environmental Control will respond with radiological assistance, as needed, to aid in controlling exposure of the public and minimize the spread of radioactive contamination.

* They will also coordinate the efforts of the South Carolina Emergency Preparedness Division and the Richland County Department of Emergency Services. Request for assistance of DOE-Savannah River Site will also be coordinated by the State of South Carolina.

*

4.4.4 Richland Memorial Hospital

An agreement has been entered into with the Richland Memorial Hospital wherein they will provide hospital service, evaluation, and treatment of human radiation exposure or injury. A staff providing technological assistance will be made available.

4.4.5 City of Columbia Fire Department

A letter of understanding exists such that the Columbia Fire Department will respond to support firefighting efforts and emergency calls if the Emergency Brigade requires additional support.

4.4.6 Richland County Emergency Medical Service

This organization will respond with ambulance service as required.

4.5 INFORMATION TO BE COMMUNICATED

4.5.1 Regulatory Agencies

Emergency events requiring formal notification to the U.S. Nuclear Regulatory Commission and South Carolina Department of Health and Environmental Control will initiate communication of certain information. As a minimum, this information will include:

(1) Description of event
(2) Classification and magnitude
(3) Description of injuries or fatalities sustained
(4) Description of property damage
(5) Current facility status
(6) Types of radioisotopes and/or hazardous material released
(7) Recommended protective actions

Notification forms will also be used for supplying information to Richland Memorial Hospital regarding transportation of contaminated casualties.

COLUMBIA SITE PLANT ORGANIZATION

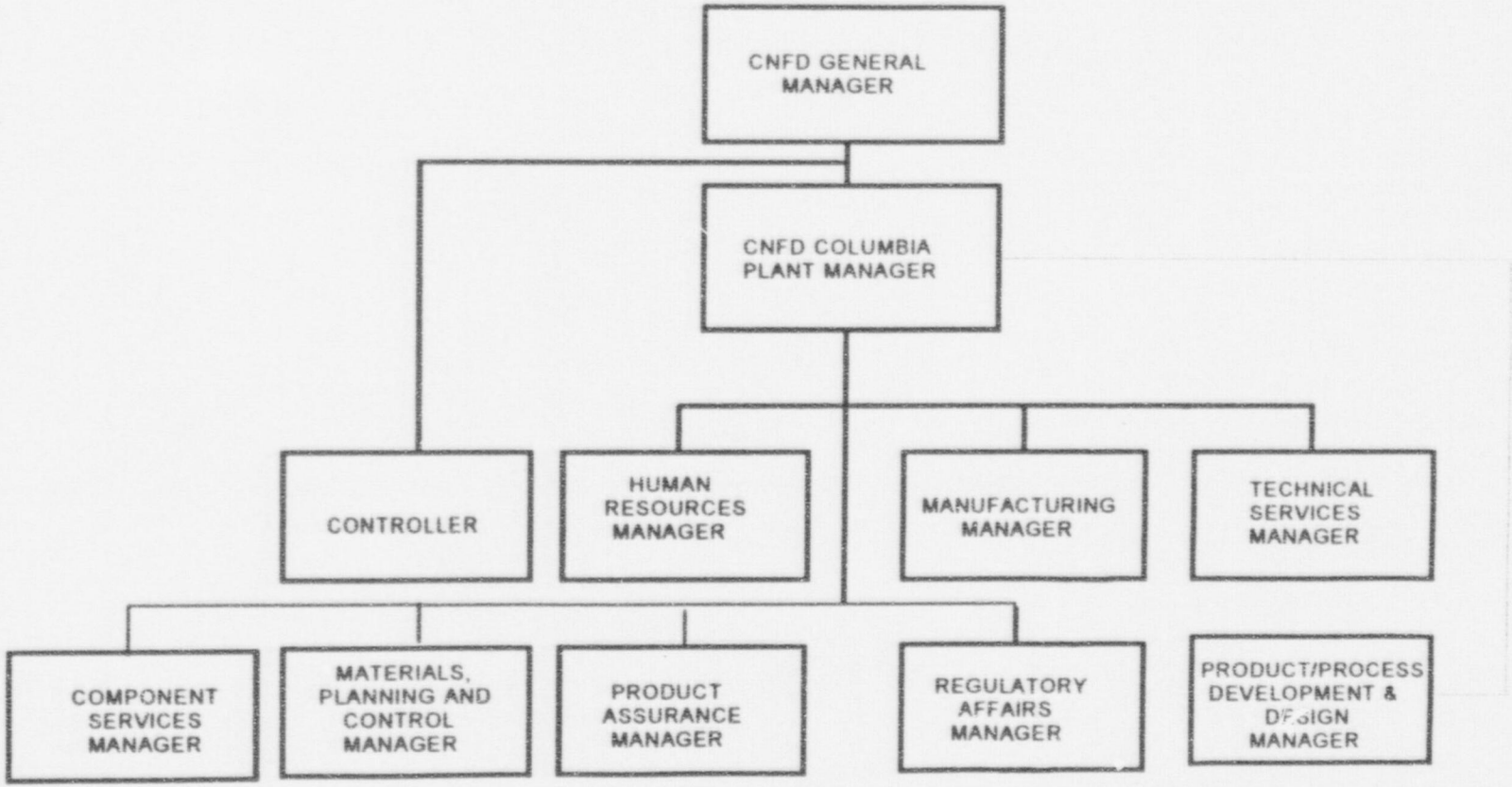

FIGURE 4.1

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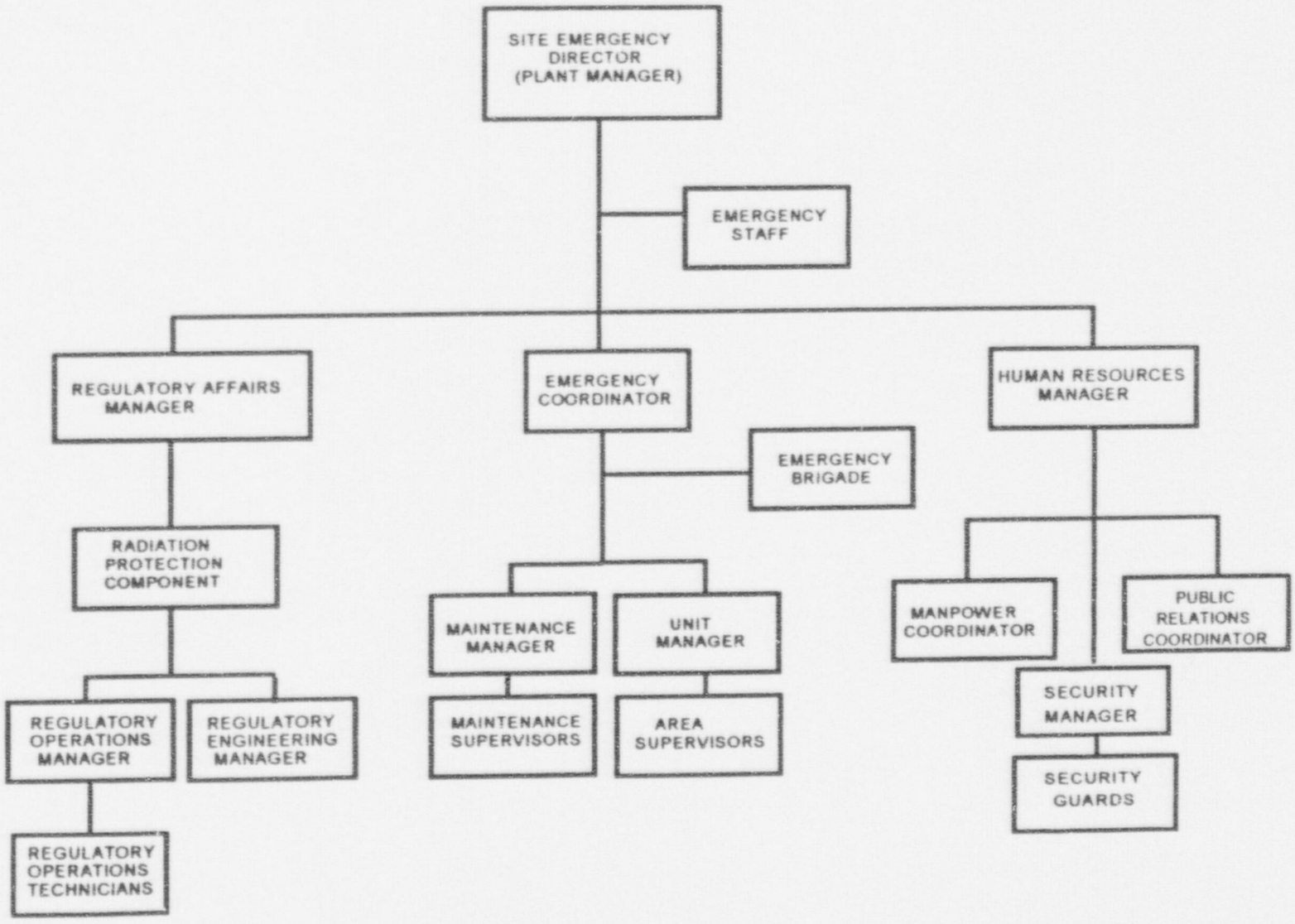

FIGURE 4.2

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W CNFD ORGANIZATION

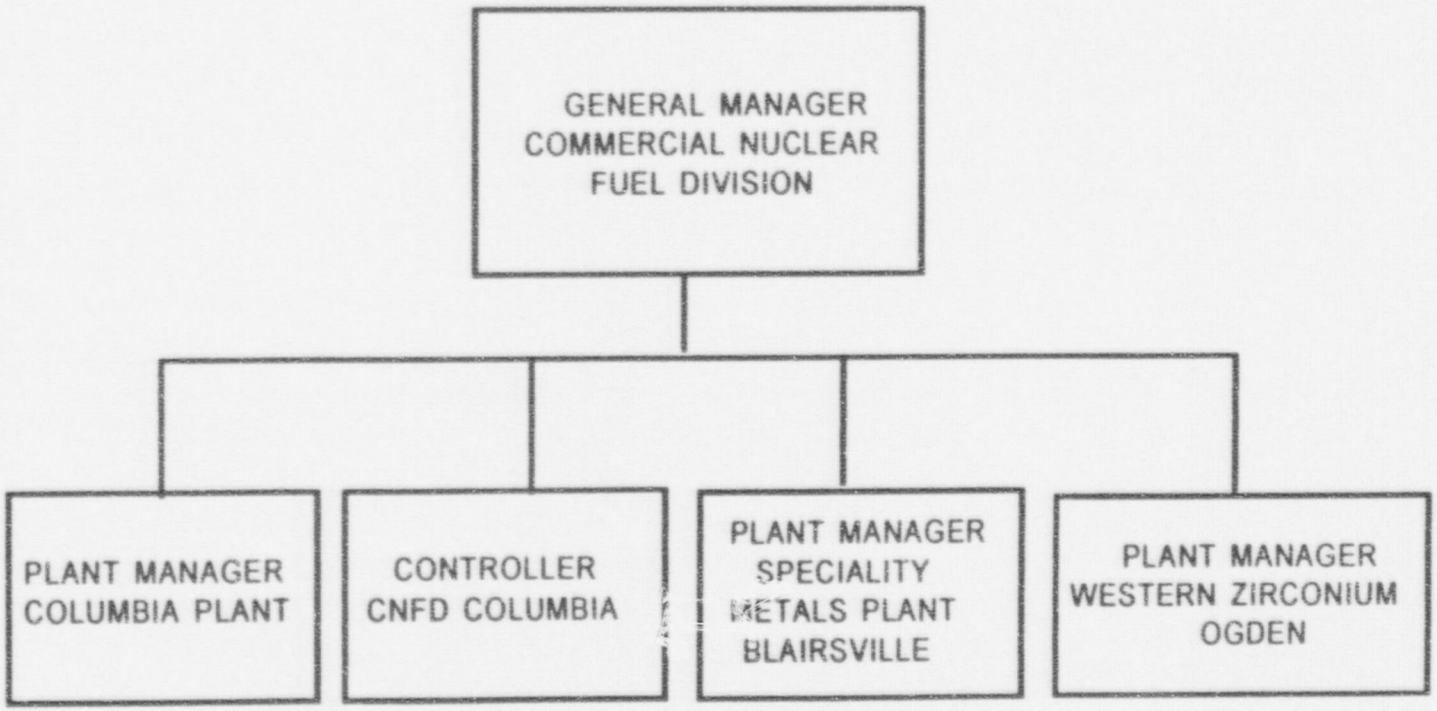

FIGURE 4.3

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WESTINGHOUSE ELECTRIC CORPORATION

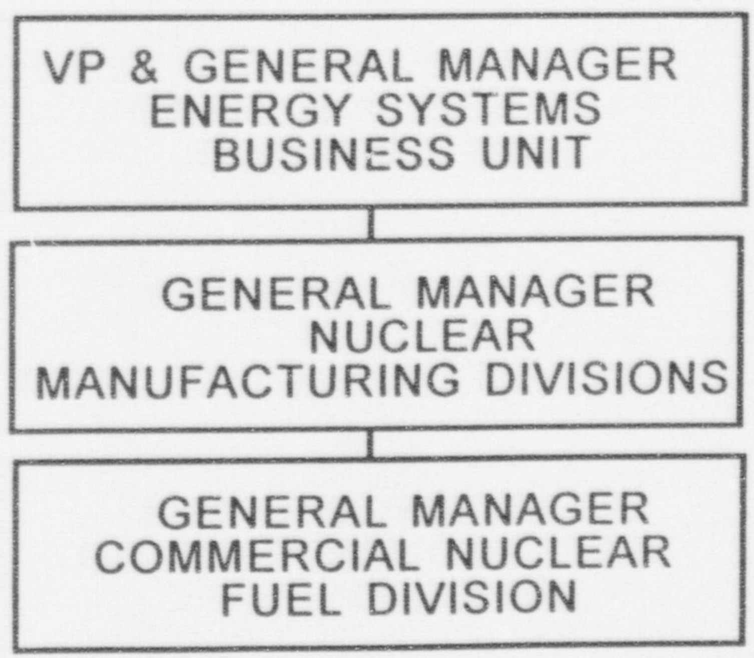

FIGURE 4.4

c:\a&\docu\emerplan\epfig4-4.ged

SECTION 7

MAINTAINING EMERGENCY PREPAREDNESS CAPABILITY

7.1 WRITTEN PROCEDURES

Written implementing procedures will be established containing detailed instructions on emergency response and statements of responsibility based on the policy established in this Site Emergency Plan. These procedures will clearly define duties, responsibilities, action levels, and actions to be taken by each functional group or individual in response to emergency conditions. It is expected that these procedures will undergo changes to maintain them in a state of emergency preparedness. Individual procedures will be approved by the Manager of the Radiation Protection Component or his alternate and the Emergency Director or his alternate.

Certain copies of the Implementing Procedures will be issued to plant personnel responsible for emergency response functions on a controlled distribution list. Updated copies of all revised procedures will be provided to all controlled copyholders.

At a minimum, the Site Emergency Plan and procedures will be reviewed annually to ensure that the overall emergency preparedness program is being adequately maintained.

Emergency response actions take precedence over security and safeguards measures during an emergency.

7.2 TRAINING

All Columbia Site personnel will receive a thorough orientation on all emergency plans and procedures required to ensure their safety. These personnel will be informed of changes in emergency plans and procedures at scheduled safety meetings. Persons with specific duties during an emergency will receive additional training appropriate to their respective assignments. The Radiation Protection Component Manager will be responsible for coordinating the training effort. Personnel on temporary assignment and visitors will be given sufficient indoctrination to deal with emergencies in which they may be involved. Training will be performed in accordance with schedules and lesson plans and will use the "performance based" concept.

7.2.1 Emergency Director Training - Members of the Emergency staff who may serve as alternates to the Emergency Director will receive annual training in:

- Supervision of emergency teams
- Interpretation of data and estimations of radiation exposure
- Coordination and communication with off-site groups.

7.2.2 Emergency Monitoring Training

This training will be given annually to health physics personnel who may be required to perform surveys during reentry. It will include instruction in the selection and use of survey instruments and air-sampling equipment and in reentry criteria.

7.2.3 First Aid Training

Selected shift supervisors will be required to attend a First Aid training course.

7.2.4 Emergency Brigade Training

Emergency Brigade Training will include as a minimum review of the following items:

- Firefighting methods
- Team duties
- Use of protective clothing and respiratory Protection
- Radiological emergency and radiation response training
- Hazardous material and oil spill response
- Control of utilities and emergency diesels
- Personnel rescue
- First aid
- Use of preplanning scenarios

The training sessions will be conducted a minimum of four times per year under the direction of the Regulatory Engineering safety engineer. An Emergency Brigade member must attend at least 75% of the training annually to remain qualified.

7.2.5 Security Training

All security personnel will be given training on an annual basis to cover security aspects of the plan.

7.2.6 Off-site Groups

Off-site groups, such as fire departments, police and ambulance and other medical services, who may participate in on-site activity will be encouraged to attend a Columbia Site training course to ensure that they are familiar with the plant layout and actions

required of them in the event of an incident. Off-site group training will be offered annually and will include exposure guidelines, personnel monitoring devices and basic contamination control principles.

7.3 DRILLS

On-site drills involving specific areas of emergency response will be performed simulating radiation emergencies and the fire control emergency. These drills will be performed biennially on each shift in the years in which exercises are not required. Pre-planned scenarios which are known to the participants will be used. Outside agency participation may be simulated or used as is deemed necessary. These drills will:

- Test the adequacy of timing and content of the emergency procedures
- Test emergency equipment and instrumentation
- Keep affected personnel aware of their role
- Test communications networks
- Integrate the emergency organization network into action

7.4 EXERCISES

One biennial on-site exercise will be performed involving a full-scale test of the entire emergency response organization. Off-site organizations shall be invited to participate in the biennial exercise; however, participation is not required. Exercises will use most probable site specific preplanned scenarios. The scenario shall not be known to most exercise participants. Exercise objectives shall be established; both the objectives and scenario will be provided to the NRC at least 60 days before the exercise. Controllers and observers may be utilized to insure proper conduct of the exercise, evaluate the effectiveness of personnel, the procedures, readiness of equipment and instrumentation and to recommend needed changes. Acceptable performance will be based upon successfully implementing the objectives. A critique will be performed following the exercise to evaluate the appropriateness of the Site Emergency Plan, Implementing Procedures, facilities, equipment, personnel training, and overall effectiveness. The official critique will be conducted by the Controller group and an individual outside the Regulatory Affairs department. The Emergency Plan Administrator will review the critique, assign responsibilities for corrective action, and assure deficiencies are corrected.

7.5 REVIEW AND UPDATING OF THE PLAN AND PROCEDURES

The Site Emergency Plan will be formally reviewed and updated on an annual basis by the Radiation Protection Component. This review and updating will incorporate changes that are desirable as a result of personnel training sessions, drills, exercises, critiques or

facility modifications to processes, kinds of material at risk or plant organization. A review may be requested at any time by any member of the Emergency Staff. Following approval by the Emergency Director, the procedures will become effective.

Between the period of formal review, changes in the Site Emergency Plan may be required to maintain a state of emergency preparedness. It is recognized that these changes will be of varying nature and will not require the same degree of review. Any such temporary changes will be made by the Manager of the Radiation Protection Component. These changes will be communicated to controlled copyholders by written notification. Major changes will be reviewed by the complete Emergency Staff. If changes or additions to procedures involve an unreviewed safety question, these matters will be referred to the Site Safety Policy Committee.

Employees will be periodically informed of changes to the Site Emergency Plan through training sessions. Off-site support organizations will be apprised of changes affecting them before putting them into effect, and they will be allowed 60 days to comment on the revised plan prior to submitting the revision to the Nuclear Regulatory Commission.

Certain copies of the Site Emergency Plan are controlled and registered to specific holders. All changes will be communicated to these holders. A revision record will be incorporated as a part of the annual review to reflect all prior changes in the plan.

7.6 EMERGENCY EQUIPMENT AND SUPPLIES

To ensure the operational readiness of radiological emergency supplies and equipment, the Radiation Protection Component will perform the following:

- Semiannual calibration on all portable emergency instrumentation designated for emergency use.
- Conduct quarterly inspections for all emergency equipment and supplies designated for emergency use. The purpose of the inspection is to insure that the inventory is correct and that the supplies are adequate and functional.
- Maintenance will be performed as soon as possible on malfunctioning items. Broken or missing equipment will be replaced.

7.7 COMMUNICATION CHECKS

* Quarterly communication checks will be performed and documented to verify and update all necessary telephone numbers.

7.8 INDEPENDENT AUDITS

Perform annual independent audits of the emergency preparedness program including the SEP and Implementing Procedures, training activities, emergency facilities, equipment, supplies, records, etc.

The auditor shall have knowledge of emergency preparedness and shall not have direct responsibility for implementing the emergency preparedness program. Audit recommendations shall be reviewed and implemented as appropriate.

*

E&RS 94-012

ESBU Environmental & Regulatory Services
284-4645
February 28, 1994
ES Emergency Committee Update

Energy Systems Emergency Committee Members
Site Health Physics Groups

cc: Ted Plenderleith

An ES Emergency Committee was appointed in 1976 per NRC regulations requiring the establishment of a "Headquarters Capability" for Westinghouse ES sites having NRC radioactive materials licenses. Each Westinghouse site has its own site emergency plan which is required to be updated to reflect annual changes. As part of the annual update requirement, I am reminding ES Emergency Committee members of their responsibilities. For your convenience I have attached a brief summary of individual member's responsibilities.

Committee membership was listed by management positions in a letter to the USNRC in order to reduce notification to the NRC concerning personnel changes. The individual currently responsible for each of the committee positions is as follows:

Emergency Coordinator	N. D. Woodson
Alternate Emergency Coordinator	T. A. Christopher
ESBU Public Relations	R. M. Cotton
Resources	R. J. Johnson
Financial	R. R. Moore
Legal	F. R. Coates
Medical/Health Physics	A. T. Sabo/A. J. Nardi
Security/Safeguards	T. J. Plenderleith/M. S. Nicholson

Attached is a set of instructions for notification of the ES Emergency Committee members and a telephone call list. Although this ES "Headquarters Capability" exists, the responsibility of each site to establish and maintain an emergency response capability to adequately handle emergency situations at their sites does not change.

Andy Sabo

A. T. Sabo, Manager
Environmental & Regulatory Services

form/emergency/022894

ENERGY AND UTILITY SYSTEMS EMERGENCY COMMITTEE RESPONSIBILITIES

Each major Westinghouse Materials Licensed Site (Columbia and Waltz Mill) has its own site Emergency Plan including a site Emergency Staff. The ES Emergency Committee members will augment the existing Site Emergency Staffs, both in emergency planning and in the performance of certain functions required to cope with a radiological emergency. The ES Emergency Committee in no way reduces or relieves the responsibility of the existing site emergency staffs to meet their specific obligations.

The office of the ES Emergency Coordinator or his alternate shall be informed of the incident. This notification requirement of the ES Emergency Coordinator or alternate will be the responsibility of the site emergency staff. The ES Emergency Coordinator will as required initiate committee response to the site situation. When required, the ES Emergency Committee members will assemble at the Energy Systems Emergency Response area (Bay 501, Westinghouse Energy Center) to discharge their responsibilities.

Area of Responsibility:

Emergency Coordinator - Will direct the Committee's activities in response to a radiological emergency at an ES site. This committee will have the capability to deal with administrative, public relations, medical, technical, financial, logistic and security matters.

Alternate Emergency Coordinator - Will direct the Committee's activities in the absence of the Emergency Coordinator and will augment the site's capability in obtaining required support for emergency personnel, e.g., transportation, temporary quarters, special equipment and supplies procurement.

Manager, ESBU Public Relations - Will augment the site's public relations communications officer. All Westinghouse statements or comments released to the news media shall have the approval of this member or the ES Emergency Coordinator.

Director, Resources, Energy Systems - Will augment the site requirements for additional critical manpower by coordinating requests to other ES divisions.

Controller, ESBU - Will augment the site controller in the event that significant corporate expenditures are required for immediate use.

Attorney, Law Department - Will provide consultation as required to enable staff members to evaluate corporate responsibility in regard to regulatory and legal requirements.

Manager, Environmental & Regulatory Services, ES - Will maintain an ES response capability involving needs in medical radiation emergencies for the site to use as required and will augment the site's medical and health physics staff in obtaining required assistance to adequately handle radiation cases and health physics problems.

Manager, Corporate Security, Westinghouse Headquarters - Will augment the site security and safeguards program for facilities having special security requirements.

ES EMERGENCY COMMITTEE NOTIFICATION INSTRUCTIONS

Site Responsibilities

Certain Westinghouse NRC licensed sites conduct emergency preparedness drills. Each time a preparedness drill is conducted, or in the event of a real emergency, the site is required to notify the ES Emergency Committee. The sites will use the Westinghouse Energy Center Security Center as their notification/communications center. (Telephone (412) 374-4019 or 374-4020).

In the event of a real emergency, the local Site Emergency Committee shall make the decision whether or not to request the ES Emergency Committee to provide assistance. However, the ES Emergency Committee shall always be notified that a real emergency situation exists.

WEC Security Station Responsibilities - Drills

1) Log-in the date, time, name, and telephone number of person making notification, name of site holding drill, and other information the site may offer.

2) For drills conducted during normal work hours, the guard shall notify the offices of Messrs. N. D. Woodson and T. A. Christopher that a Westinghouse emergency preparedness drill is being held. Guard will pass on information received from site. (Note: Guard need not talk directly with Messrs. Woodson and Christopher).

3) For drills conducted during irregular work hours and weekends, the guard shall record the information received from the site. Guard will pass on this information to the offices of Messrs. N. D. Woodson and T. A. Christopher in a timely manner on the next regular workday.

4) No other actions need be taken by WEC security guards. The above actions establish that the proper communications link to corporate management levels has been achieved in accordance with site emergency drill requirements.

WEC Security Station Responsibilities - EMERGENCIES

1) Log-in the date, time, name, and telephone number of person making notification, name of site involved, and other information the site may offer. Establish whether the site involved is requesting the assistance of the ES Emergency Committee.

2) Notify all members of the ES Emergency Committee that an emergency situation exists and provide them with the information received from the site.

ENERGY SYSTEMS EMERGENCY COMMITTEE CALL LIST

Notification by Local Site

This committee is activated by calling the Security Station at the Westinghouse Energy Center.

ENERGY CENTER SECURITY STATION (Bell) 374-4020 or 374-4019
(WIN) 284-4020 or 284-4019

Notification by Security Guard - (All Bell numbers in 412 area code except as noted)

Responsibility	Name	Office Telephone (WIN)	Office Telephone (Bell)	Home Telephone
Coordinator.	N. D. Woodson	284-6500	374-6500	963-7015
Alternate Coordinator	T. A. Christopher	284-3700	374-3700	856-8463
Public Relations	R. M. Cotton	284-6805	374-6805	733-7851
Manpower Resources	R. J. Johnson	284-6520	374-6520	221-3199
Financial Resources	R. R. Moore	284-6510	374-6510	366-3448
Medical and Health Physics	A. T. Sabo	284-4645	374-4645	327-7336
	A. J. Nardi	284-4652	374-4652	421-5243
Legal	F. R. Coates	284-4123	374-4123	941-8846
Security	M. S. Nicholson	272-3097	642-3097	343-4571
	T. E. Plenderleith	284-6750	374-6750	823-6506

APPENDIX C

LISTING OF IMPLEMENTING PROCEDURES

Procedure Number	Revision Number	
0001	1	Preparation and Revision of Emergency Procedures
0002	1	Release of Hazardous Materials or Toxic Fumes
0003	1	Fire Control
0004	1	Retrieval of Nuclear Criticality Accident Badges Following a Nuclear Criticality Accident
0005-A	3	Nuclear Criticality Evacuation Assembly Areas, Accountability, Rescue Operations
0006	1	Civil Disturbance
0007	2	Bomb Threat
0008	1	Loss of Power/Water
0009	2	Release of Radioactive Material, Powder and Liquid Spills
0010	1	Explosions
0011	3	UF_6 Releases
0012-A	2	Emergency Medical Contamination Detection and Treatment
0012-B	2	Contaminated Casualty Transfer
0013	5	Emergency Notification of On-site and Off-site Organizations
0014	1	Hazardous Weather Warning
0015	2	Emergency Brigade Organization
0016-A	1	Activation of Emergency Brigade
0016-B	2	Activation of Health Physics Response Team
0017-A	2	Establishing Downwind Concentrations Utilizing Ground Level Release Diffusion Factor and Stack Data
0017-B	1	Establishing Meteorological Conditions and Calculating Downwind Concentrations Using Uniform Direction Wind Model
0017-C	1	Establishing the Source Term for Released Material
0017-D	1	Calculating the Dose Commitment Due to Exposure to Airborne Radioactive Material
0018	2	Emergency Communications (Two-way Radios)
0019	3	Emergency Action Procedure Guide
0020	3	Loss of Communication
0021	2	Emergency Coordinator Designation
0022	0	Transportation Emergency
0023	0	Issuing Press Releases
0024	0	Voice Communications Announcements
0025	0	Emergency Operations Center Checklist/Duties1

TITLE: NUCLEAR CRITICALITY EVACUATION ASSEMBLY AREAS, ACCOUNTABILITY, RESCUE OPERATIONS

1.0 PURPOSE:

THE PURPOSE OF THIS SECTION IS TO ESTABLISH A PROCEDURE FOR EVACUATION, ACCOUNTABILITY AND RESCUE OF PERSONNEL FROM PLANT AREAS IF A NUCLEAR CRITICALITY INCIDENT SHOULD OCCUR.

2.0 POLICY AND SCOPE:

IN THE EVENT OF A CRITICALITY ACCIDENT IN THE PLANT, THE CRITICALITY ALARM SIRENS WILL BE AUTOMATICALLY ACTIVATED, AND PERSONNEL WILL BE EVACUATED TO AND ACCOUNTED FOR AT PREDESIGNATED ASSEMBLY POINTS. RESCUE OPERATIONS MAY BE ATTEMPTED IF THE POTENTIAL RADIATION DOSE DOES NOT INDICATE AN ABNORMAL RISK.

3.0 REFERENCES:
3.1 REPLACES CSEP-0005-A, REV. 2.
3.2 CSEP-0005-A-1, "RADIATION DOSE DETERMINED BY 'INDIUM FOIL COUNTING' METHOD"
3.3 CSEP-0005-A-2, "INSTRUMENT READING VERSUS RADIATION DOSE DETERMINED BY 'QUICK-SORT' METHOD"
3.4 CSEP-0005-A-3, "PERSONNEL EXPOSURE DATA"
3.5 CSEP-0005-A-4, "EMERGENCY EVACUATION ABSENTEE LOG"
3.6 CSEP-0005-A-5, "PERSONNEL CONTAMINATION DATA"
3.7 CSEP-0005-A-6, "DOSE VS. EXPOSURE TIME (MINUTES)
3.8 FIGURE 5.1, "PLANT EVACUATION ROUTES AND ASSEMBLY POINTS, COLUMBIA SITE"
3.9 CSEP-0005-B, "COMET EVACUATION ACCOUNTABILITY"
3.10 CSEP-0013, "EMERGENCY NOTIFICATION OF ON-SITE AND OFF-SITE ORGANIZATIONS."

4.0 TERMS/DEFINITIONS: NONE.

5.0 REGULATORY REQUIREMENTS: THIS ENTIRE PROCEDURE IS OF REGULATORY SIGNIFICANCE.

6.0 RESPONSIBILITIES: SEE 7.0.

7.0 PROCEDURE:

1. AT THE SOUND OF THE CRITICALITY ALARM SIREN ALL PERSONNEL SHALL EVACUATE AT A FAST PACE TO DESIGNATED ASSEMBLY POINTS (SEE FIGURE 5.1) VIA THE NEAREST EXIT. THE SECURITY GUARD WILL EVACUATE THE OFFICE AREA USING THE VOICE COMMUNICATION SYSTEM. USE AN ALTERNATE EXIT IF THERE IS EVIDENCE THE INCIDENT OCCURRED BETWEEN YOU AND THE EXIT.
2. ASSIST VISITORS AND/OR INJURED PERSONNEL BUT DO NOT DELAY EVACUATION.
3. AT THE ASSEMBLY POINT EVACUATING PERSONNEL WILL SCAN THEIR BAR CODED BADGE THROUGH THE EXTERNAL READERS AT THE SOUTH AND EAST ASSEMBLY POINTS. ACCOUNTABILITY WILL BE INITIATED BY THE EMERGENCY COORDINATOR AFTER EVACUATION AND SCANNING IS COMPLETED, USING PROCEDURE CSEP-0005-B, OR MANUALLY ACCORDING TO PROCEDURAL ITEM 4. THE AUTOMATED COMET DATA BASE "TOTAL MISSING PERSONNEL" REPORT WILL BE USED FOR ACCOUNTABILITY. IF PROBLEMS ARE ENCOUNTERED, THE MANUAL METHOD DESCRIBED BELOW WILL BE USED.
4. A SIMULTANEOUS MANUAL ACCOUNTABILITY WILL ALSO BE INITIATED BY EACH SUPERVISOR, MANAGER, AND TEAM LEADER REVIEWING ATTENDANCE VERSUS EVACUEES PRESENT AT THE ASSEMBLY POINTS AND COMPLETING CSEP-0005-A-4

TITLE: NUCLEAR CRITICALITY EVACUATION ASSEMBLY AREAS, ACCOUNTABILITY, RESCUE OPERATIONS

DOCUMENTING THE STATUS OF PERSONNEL AND MISSING PERSONNEL. THIS EFFORT WILL CONTINUE UNTIL COMPLETE, OR IT WILL BE DISCONTINUED AS SOON AS AN OFFICIAL COMET DATA BASE REPORT CAN BE GENERATED.

5. AT THE ASSEMBLY POINTS, PERSONNEL WILL BE MONITORED FOR RADIATION AND CONTAMINATION. ALL PERSONNEL WILL REMAIN AT THE ASSEMBLY POINTS UNTIL DIRECTED OTHERWISE. CSEP-0005-A-3 AND CSEP-0005-A-5 WILL BE USED TO DOCUMENT RADIATION EXPOSURE AND CONTAMINATION SURVEY DATA.

6. IF MISSING PERSONNEL ARE DOCUMENTED, AN IMMEDIATE DECISION WILL BE MADE TO INITIATE A SEARCH AND RESCUE MISSION. RE-ENTRY TO RECOVER UNACCOUNTED FOR PERSONNEL IS THE RESPONSIBILITY OF THE EMERGENCY DIRECTOR. REGULATORY AFFAIRS GROUP WILL ADVISE THE EMERGENCY DIRECTOR CONCERNING EXTERNAL RADIATION LEVELS AND AIRBORNE CONCENTRATION LEVELS. APPROPRIATE HEALTH PHYSICS EMERGENCY INSTRUMENTATION CONSISTING OF 1) A GM BETA-GAMMA SURVEY INSTRUMENT, 2) A PORTABLE ION CHAMBER SURVEY INSTRUMENT, 3) POCKET DOSIMETER, 4) RESPIRATORY PROTECTION WILL BE USED TO VERIFY THE INCIDENT CONDITIONS. NOTING A RADIATION FIELD IN EXCESS OF 0.25M GRAY/HR(25M RADS/HR) CONSTITUTES VERIFICATION. A MAXIMUM WHOLE BODY DOSE OF 0.03 GRAY (3 RADS) IS ALLOWED FOR INCIDENT VERIFICATION. REFER TO TABLE CSEP-0005-A-6. RE-ENTRY FOR RESCUE MISSIONS SHOULD ONLY BE ATTEMPTED AFTER THE FOLLOWING HAVE BEEN CONSIDERED, AND A PLAN HAS BEEN DEVELOPED.
   A) THE DEGREE OF HAZARD
   B) THE TIME OF STAY
   C) THE APPROVED ROUTE
   D) UNRESTRICTED RETREAT ROUTE
   E) RESPIRATORY PROTECTION AND PROTECTIVE CLOTHING REQUIREMENTS

   REENTRY FOR OTHER THAN RESCUE MISSIONS IS PROHIBITED UNTIL A COMPLETE EVALUATION CAN BE PERFORMED.

7. ALL EVACUATED PERSONNEL WILL IMMEDIATELY NOTIFY REGULATORY OPERATIONS AND MEDICAL IF NAUSEA IS EXPERIENCED.

8. REGULATORY OPERATIONS WILL ASSURE THAT THE MAIN GUARD STATION AND THE EMERGENCY OPERATIONS CENTER CAN BE OCCUPIED. THIS WILL INCLUDE VERIFICATION AND FOLLOWUP TESTING OF ACCEPTABLE EXTERNAL DOSE RATES, AIRBORNE CONTAMINATION LEVELS, AND CONTAMINATION LIMITS. IF THE MEASURED LEVELS EXCEED NORMAL BACKGROUND LEVELS A SECONDARY CENTER WILL BE DESIGNATED.

9. THE PRELIMINARY LOCATION OF THE AFFECTED PLANT AREA MAY BE DETERMINED BY OBSERVATION OF THE GAMMA ALARM PANEL AT THE MAIN GUARD STATION.

* 10. REGULATORY OPERATIONS WILL ASSURE THAT THE DOSE LEVELS ARE ACCEPTABLE AT THE ASSEMBLY POINTS; I.E., NORMALLY LESS THAN 0.05M GRAY/HR (5M RADS/HR). IF THE DOSE LEVELS ARE ELEVATED, THE ASSEMBLY POINTS WILL BE MOVED TO ACCEPTABLE AREAS. WHEN RELOCATING PERSONNEL, CONSIDERATION WILL BE GIVEN TO METEOROLOGICAL CONDITIONS SUCH AS WIND DIRECTION.

*

11. POTENTIAL FALSE ALARMS WILL BE INVESTIGATED BY REGULATORY OPERATIONS AT THE REQUEST OF THE EMERGENCY DIRECTOR. A SURVEY TEAM, CONSISTING OF TWO RADIATION MONITORS, WILL APPROACH THE FACILITY AS PER STEP 6 AND VALIDATE THE ALARM LEVEL. IF NO UNUSUAL RADIATION LEVELS, >0.25M GRAY/HR (25M RADS/HR), ARE ENCOUNTERED, THE EMERGENCY DIRECTOR SHALL INITIATE ACTION TO DETERMINE THE CAUSE OF THE FALSE ALARM AND TERMINATE THE EMERGENCY.

12. THE REGULATORY AFFAIRS GROUP SHALL APPROVE ALL ENTRIES WHERE A

SUSPECTED PROBLEM EXISTS WITH EXTERNAL EXPOSURE. WHOLE BODY EMERGENCY EXPOSURE CRITERIA OF WESTINGHOUSE EMPLOYEES WILL BE LIMITED TO:

A) 0.25 GRAY (25 RADS) - TO ELIMINATE A SOURCE OR POTENTIAL SOURCE THAT REPRESENTS A HAZARD.

B) 0.75 GRAY (75 RADS) EXPOSURE - LIFESAVING OPERATIONS SUCH AS RESCUE AND SEARCH FOR KNOWN MISSING PERSONS.

13. EXPOSURE TO HOSPITAL AND AMBULANCE PERSONNEL SHALL BE LIMITED TO:

A) 0.03 GRAY (3 RADS) - (IF THERE IS AN ADEQUATE NUMBER OF ATTENDANTS SUCH THAT ROTATION MAY BE ACCOMPLISHED WITHOUT ENDANGERING THE PATIENTS.)

B) 0.05 GRAY (5 RADS) - (IF THE NUMBER OF ATTENDANTS IS LIMITED SUCH THAT PERSONNEL CANNOT BE ROTATED.)

C) 0.25 GRAY (25 RADS) - (FOR LIFESAVING MISSION.)

14. RADIATION MONITORS SHALL:

A) DETERMINE THE EXTENT OF PERSONNEL RADIATION EXPOSURE BY 1) INDIUM FOIL COUNTING OF THE PERSONNEL IDENTIFICATION BADGE, 2) THE "QUICK SORT" BODY COUNT METHOD USING AN EBERLINE E-120 SURVEY INSTRUMENT.

B) SURVEY ALL PERSONNEL FOR CONTAMINATION.

C) PROVIDE DECONTAMINATION ASSISTANCE.

D) DETERMINE ADDITIONAL ACTION REQUIREMENTS BASED ON THE FOLLOWING RADIATION EXPOSURE LIMITS:

1. 0-0.05 GRAY (0-5 RADS): NO ADDITIONAL ACTION REQUIRED.
2. 0.05-0.25 GRAY (5-25 RADS): MEDICAL ATTENTION REQUIRED.
3. OVER 0.25 GRAY (OVER 25 RADS): IMMEDIATE MEDICAL ATTENTION REQUIRED.

E) COLLECT TLD BADGES FROM ALL PERSONNEL FOR IMMEDIATE RUSH PROCESSING BY VENDOR.

15. EXTERNAL EXPOSURE DOSES SHALL BE DETERMINED USING TABLES CSEP-0005-A-1 AND CSEP-0005-A-2. DOSES SHALL BE NOTED ON CSEP-0005-A-3.

16. ALL PLANT AND STAFF EMERGENCY ORGANIZATIONS WILL IMMEDIATELY CONVENE. IF THE INCIDENT OCCURS DURING MINIMUM SHIFT COVERAGE, THE ALTERNATE EMERGENCY DIRECTOR WILL IMMEDIATELY NOTIFY THE EMERGENCY DIRECTOR, EMERGENCY STAFF TEAM MEMBERS, AND THE REGULATORY AFFAIRS MANAGER AT THEIR HOME TELEPHONES LISTED IN TABLE I, CSEP-0013. THE ALTERNATE EMERGENCY DIRECTOR MAY MAKE DIRECT NOTIFICATION IN ACCORDANCE WITH CSEP-0013 IF HE IS UNABLE TO CONTACT THE EMERGENCY DIRECTOR OR ALTERNATES.

17. NOTIFICATION AND CLASSIFICATION:
A CONFIRMED INCIDENT WILL BE CLASSIFIED AS A SITE AREA EMERGENCY AND IMMEDIATE OFFSITE NOTIFICATION WITHIN 15 MINUTES OF CLASSIFICATION WILL BE GIVEN TO SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (SC-DHEC), BUREAU OF RADIOLOGICAL HEALTH AND THE NUCLEAR REGULATORY COMMISSION AT TELEPHONE NUMBERS LISTED IN CSEP-0013.

18. THE REGULATORY AFFAIRS GROUP WILL UTILIZE SITE BOUNDARY AIR SAMPLERS TO PERFORM ENVIRONMENTAL MONITORING IN DETERMINING IF OFFSITE ACTION IS CONSIDERED NECESSARY.

*
*

8.0 ATTACHMENTS: NONE.

RADIATION DOSE DETERMINED BY "INDIUM FOIL COUNTING" METHOD

VERSUS

INSTRUMENT READING AND ELAPSED TIME

INSTRUMENT E-120 READING, CPM*	RADIATION DOSE IN RADS VERSUS ELAPSED TIME IN MINUTES											
	15 MIN.	30 MIN.	45 MIN.	60 MIN.	75 MIN.	90 MIN.	105 MIN.	120 MIN.	135 MIN.	150 MIN.	165 MIN.	180 MIN.
0-500	1	1	1	1	1	1	1	1	1	1	1	1
50-1,000	1	1	1	1	1	1	1	1	1	1	3	3
1,001-2,000	1	1	1	1	1	1	1	3	3	3	4	4
2,001-3,000	1	1	1	1	1	3	3	3	4	4	5	7
3,001-5,000	1	1	3	3	3	4	4	5	7	7	8	10
5,001-7,000	1	3	3	3	4	4	5	7	8	9	12	14
7,001-10,000	3	3	4	4	5	7	8	9	12	14	17	21
10,001-20,000	5	7	7	8	10	13	16	20	23	29	34	39
20,001-30,000	7	9	10	13	16	20	23	29	34	40	48	61
30,001-50,000	12	14	18	22	26	33	39	46	60	68	78	101
50,001-70,000	17	21	26	30	36	43	53	66	78	92	117	120
70,001-100,000	23	29	35	43	52	65	74	91	111	137	156	208

*Instrument probe held directly on foil.

INSTRUMENT READING VERSUS RADIATION DOSE

DETERMINED BY "QUICK-SORT" METHOD

INSTRUMENT E-120 READING, CPM*	RADIATION DOSE IN RADS VERSUS ELAPSED TIME IN MINUTES				
	51-100 LB.	101-150 LB.	151-200 LB.	201-250 LB.	OVER 250 LB.
0-500	34	18	12	9	7
501-1,000	70	35	23	18	14
1,001-1,050	104	53	34	26	21
1,501-2,000	139	70	46	35	29
2,001-2,500	174	87	59	44	35
2,501-3,000	OVER 200	104	70	52	42
3,001-4,000	OVER 200	139	92	69	56
4,001-5,000	OVER 200	173	116	86	70
5,001-7,500	OVER 200	200	174	130	104
7,501-10,000	OVER 200	OVER 200	OVER 200	182	139
10,001-12,500	OVER 200	OVER 200	OVER 200	OVER 200	174
12,501-15,000	OVER 200	OVER 200	OVER 200	OVER 200	OVER 200
15,001-20,000	OVER 200	OVER 200	OVER 200	OVER 200	OVER 200

*Instrument probe held directly on foil.

PROCEDURE: CSEP-0005-A-3
REVISION: 3

PERSONNEL EXPOSURE DATA

Radiation Monitor: _____ Date: _____

Approximate Time of Incident: _____

Type Instrument Used: _____ Model No.: _____

Check Source Reading: _____ Background Reading: _____

NAME	TIME	INDIUM FOIL DATA				QUICK-SORT DATA				ACTION REQUIRED
		CR, CPM	BKG, CPM	CR-BKG CPM	DOSE RADS	CR, CPM	BKG, CPM	CR-BKG CPM	DOSE RADS	

PROCEDURE: CSEP-0005-A-4
REVISION: 3

EMERGENCY EVACUATION ABSENTEE LOG

Name of Supervisor: _____ Department: _____

NAME	STATUS

Are all of your personnel accounted for? _____ If no, explain.

_____
_____
_____
_____
_____

Signed: _____ Date: _____

Supervisor of (Area) : _____

PROCEDURE: CSEP-0005-A-5
REVISION: 3

PERSONNEL CONTAMINATION DATA

Radiation Monitor: _____ Date: _____

Approximate Time of Incident: _____

Type Instrument Used: _____ Model No.: _____

Check Source Reading: _____ Background Reading: _____

NAME	PERSONAL CONTAMINATION DATA			ACTION REQUIRED
	CR. CPM	BKG. CPM	CR-BKG. CPM	

DOSE VS. EXPOSURE TIME (MINUTES)

CUMULATIVE WHOLE BODY DOSE, GRAYS (RADS)	ALLOWABLE EXPOSURE TIME, MINUTES, TO RECEIVE THE WHOLE BODY DOSES AT THE FOLLOWING RESPECTIVE EXPOSURE RATE								
	0.5 GRAY/ HR (50 RADS/ HR)	1 GRAY/ HR (100 RADS/ HR)	1.5 GRAY/ HR (150 RADS/ HR)	2 GRAY/ HR (200 RADS/ HR)	2.5 GRAY/ HR (250 RADS/ HR)	3 GRAY/ HR (300 RADS/ HR)	5 GRAY/ HR (500 RADS/ HR)	10 GRAY/ HR (1000 RADS/ HR)	50 GRAY/ HR (5000 RADS/ HR)
0.03 (3)	3.6	1.8	1.2	0.9	0.72	0.6	0.36	0.2	.04
0.25 (25)	30	15	10	7.5	6	5.0	3	1.5	0.3
0.75 (75)	90	45	15	22.5	18	15.0	9	4.5	0 9

Under extreme conditions for lifesaving operation. Acute whole body doses above 2 Gray (200 Rads) may cause death. Acute whole body doses above 10 Gray (1000 Rads) are usually fatal.

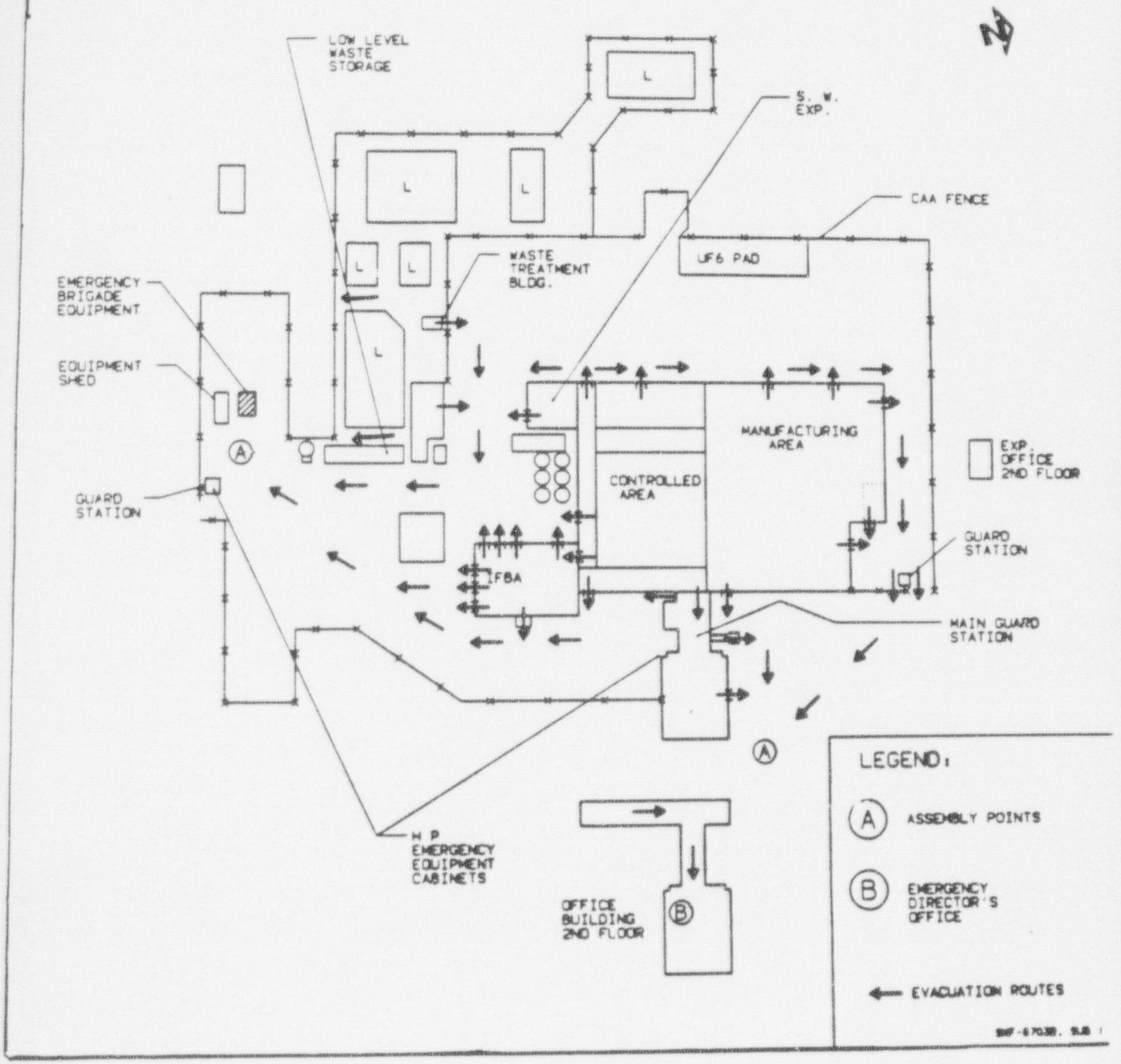

FIGURE 5.1 PLANT EVACUATION ROUTES AND ASSEMBLY POINTS, COLUMBIA SITE

COLUMBIA SITE EMERGENCY PROCEDURE

PROCEDURE NO: CSEP-0007 ISSUE DATE: 03/25/94
REVISION: 2 PAGE: 1 OF 3

TITLE: BOMB THREAT

1.0 PURPOSE:

TO ESTABLISH A PROGRAM OF PREPAREDNESS THAT WILL SAFELY HANDLE BOMB THREATS AND MINIMIZE LOST TIME.

2.0 POLICY AND SCOPE:

IT IS THE POLICY OF THE COLUMBIA PLANT TO BE CONSTANTLY PREPARED TO RECEIVE AND RESPOND TO BOMB THREATS. PRIOR PREPARATION AND AWARENESS WILL ALLOW BOMB THREATS TO BE HANDLED WITHOUT PANIC, WITH MAXIMUM PROTECTION FOR PERSONNEL AND PROPERTY SAFETY, AND WITH MINIMUM IMPACT ON WORK OPERATIONS. IT IS THE POLICY THAT PERSONNEL RECEIVING A BOMB THREAT WILL IMMEDIATELY REPORT THE THREAT TO SECURITY, AND THAT ALL PERSONNEL WILL THEN CONTINUE THEIR NORMAL ACTIVITIES UNTIL DIRECTED OTHERWISE BY THE SITE EMERGENCY DIRECTOR, EMERGENCY COORDINATOR, OR SEARCH COORDINATOR.

THIS PROCEDURE APPLIES TO THE RECEIPT OF BOMB THREAT CALLS, BOMB SEARCHES, AND POSSIBLE EVACUATION.

3.0 REFERENCES:
3.1 REPLACES CSEP-0007, REV. 1.
3.2 CSEP-0013, "EMERGENCY NOTIFICATION OF ON-SITE AND OFF-SITE ORGANIZATIONS."
3.3 CNFD SECURITY PLAN
3.4 CNFD SECURITY OPERATING PROCEDURE SEC-201

4.0 TERMS/DEFINITIONS: NONE.

5.0 REGULATORY REQUIREMENTS: THIS ENTIRE PROCEDURE IS OF REGULATORY SIGNIFICANCE.

6.0 RESPONSIBILITIES:
6.1 EMERGENCY DIRECTOR:
ANALYZES BOMB THREAT INFORMATION TO DETERMINE IF AN EVACUATION, LIMITED OR TOTAL IS REQUIRED. ASSUMES OVERALL RESPONSIBILITY FOR SECURITY; RECEIVES REPORTS OF BOMB THREATS AND COORDINATES AS IS NECESSARY WITH THE SEARCH COORDINATOR, EMERGENCY COORDINATOR, AND SECURITY & SERVICES MANAGER.
6.2 SEARCH COORDINATOR:
THE MANAGER OF MAINTENANCE SHALL FUNCTION AS THE SEARCH COORDINATOR TO DESIGNATE, ASSEMBLE, AND DIRECT THE SEARCH GROUP IN RESPONSE TO ALL BOMB THREATS; SHALL COORDINATE WITH THE EMERGENCY DIRECTOR AND EMERGENCY COORDINATOR TO DETERMINE IF EVACUATION IS WARRANTED; DECLARES "ALL CLEAR" WHEN SATISFIED THE BOMB THREAT HAS BEEN ELIMINATED.
6.3 SEARCH GROUP:
THIS GROUP CONSISTS OF TRAINED PREDESIGNATED MANAGEMENT PERSONNEL WHO WILL SEARCH THE AREA TO ATTEMPT TO LOCATE THE EXPLOSIVE DEVICE. UNDER NO CIRCUMSTANCES WILL THEY ATTEMPT TO HANDLE WHAT MAY BE AN EXPLOSIVE DEVICE.
6.4 SECURITY PERSONNEL:
UPON RECEIPT OF NOTIFICATION OF A BOMB THREAT FROM THE SECURITY & SERVICES MANAGER, SECURITY FORCE PERSONNEL WILL ACT TO DENY ENTRY TO THE CONTROLLED ACCESS AREA TO ALL PERSONNEL AND VEHICLES EXCEPT EMERGENCY PERSONNEL AND OTHER PERSONNEL AND VEHICLES SPECIFICALLY AUTHORIZED BY THE EMERGENCY DIRECTOR. THEY WILL KEEP THE ROADWAY LEADING TO THE CONTROLLED ACCESS AREA CLEAR FOR ANY RESPONDING EMERGENCY PERSONNEL. THEY WILL ACT AS DIRECTED BY THE SECURITY & SERVICES MANAGER, SUCH AS MAKING OFF-SITE NOTIFICATIONS. IF EMERGENCY PROCEDURES ARE IMPLEMENTED, ONE SECURITY OFFICER WILL ASSIST THE EMERGENCY BRIGADE IN ACCORDANCE WITH THOSE

TITLE: BOMB THREAT

PROCEDURES.

7.0 PROCEDURE:

1. UPON RECEIPT OF A TELEPHONED BOMB THREAT, THE SWITCHBOARD OPERATOR, OR ALTERNATE PERSON, WILL TRANSFER THE CALL TO THE SECURITY & SERVICES MANAGER, OR IN HIS ABSENCE, TO THE HUMAN RESOURCES MANAGER OR EMERGENCY COORDINATOR. INFORMATION REGARDING ANY OTHER TYPE OF BOMB THREAT (VERBAL, WRITTEN, OR OBSERVED) WILL IMMEDIATELY BE TRANSMITTED TO THE SECURITY & SERVICES MANAGER. THE SECURITY & SERVICES MANAGER OR ALTERNATE WILL ASSURE THAT IMMEDIATE NOTIFICATION IS MADE TO PERSONNEL IDENTIFIED ON THE "BOMB THREAT CALL LIST" (SEE 8.1)
2. THE FOLLOWING MINIMUM INFORMATION SHOULD BE RECORDED BY THE PERSON RECEIVING THE CALL:
   - LOCATION OF THE BOMB
   - SEX OF THE CALLER
   - AGE OF THE CALLER
   - TYPE OF VOICE, ACCENT, MANNERISM
   - BACKGROUND NOISE
   - TYPE OF BOMB AND PACKAGING IF NOTED
   - CALLERS NAME IF NOTED
   - RECORD EXACT LANGUAGE USED
3. THE SECURITY & SERVICES MANAGER WILL IMMEDIATELY NOTIFY THE EMERGENCY DIRECTOR AND THE SEARCH COORDINATOR CONCERNING THE INFORMATION RECEIVED. THE EMERGENCY STAFF WILL ASSEMBLE. AN IMMEDIATE EVACUATION DECISION WILL BE MADE BY THE EMERGENCY DIRECTOR.
4. THE EMERGENCY DIRECTOR OR ALTERNATE WILL NOTIFY THE SOUTH CAROLINA LAW ENFORCEMENT DIVISION (SLED) AND THE RICHLAND COUNTY SHERIFF.
5. CLASSIFICATION AND NOTIFICATION: THE INCIDENT WILL BE OFFICIALLY CLASSIFIED AS AN ALERT AND THE USNRC AND SC-DHEC WILL BE PROMPTLY NOTIFIED.
6. THE SEARCH COORDINATOR WILL DIRECT THE TRAINED SEARCH GROUP TO SEARCH AREAS HE DETERMINES NECESSARY. HE WILL ORGANIZE THE SEARCH AND DETERMINE WHEN THE SEARCH IS COMPLETE, AND DECLARE "ALL CLEAR" IF NO BOMB IS FOUND. HE WILL KEEP THE EMERGENCY DIRECTOR INFORMED REGARDING THE SEARCH STATUS. HE WILL DIRECT THE SECURITY & SERVICES MANAGER AND THE EMERGENCY DIRECTOR TO NOTIFY LAW ENFORCEMENT AUTHORITIES OF TERMINATION OF THE BOMB THREAT.
7. IF A SUSPECT DEVICE IS NOTED AN IMMEDIATE ISOLATION ZONE WILL BE ESTABLISHED EVACUATING ALL PERSONNEL FROM THE IMMEDIATE AREA. UNDER NO CIRCUMSTANCES WILL SITE PERSONNEL ATTEMPT TO HANDLE THE EXPLOSIVE DEVICE. TWO-WAY RADIOS WILL NOT BE USED IN THE VICINITY OF THE DEVICE.
8. OUTSIDE ASSISTANCE WILL BE SOLICITED FROM THE SOUTH CAROLINA LAW ENFORCEMENT DIVISION (SLED) AND THE RICHLAND COUNTY SHERIFF TO HANDLE REMOVAL OF EXPLOSIVE DEVICES.
9. ADDITIONAL AREAS OR COMPLETE EVACUATION MAY BE CONSIDERED AT THE DISCRETION OF THE EMERGENCY DIRECTOR. THE FIRE ALARM BUZZER SIGNAL AND VOICE COMMUNICATION SYSTEM WILL BE USED TO ACCOMPLISH EVACUATION.
10. SUPERVISION SHALL ACCOUNT FOR THEIR RESPECTIVE UNITS TO ENSURE THEIR SAFETY.
11. THE EMERGENCY COORDINATOR AND THE SEARCH COORDINATOR SHALL COMMUNICATE THE "ALL CLEAR SIGNAL" WHEN SATISFIED THE BOMB THREAT IS NEUTRALIZED. AN APPROPRIATE CLOSE OUT WILL BE MADE WITH ALL

IMPLEMENTING PROCEDURES AND BMP PLAN TO ASSURE THAT ALL ASPECTS OF THE PLANS ARE COMPLETED IN A TIMELY MANNER.

4. IN THE EVENT OF AN ALERT CLASSIFICATION, THE NRC WILL ENTER INTO A "MONITORING" OR "STANDBY" MODE IN THEIR REGION II INCIDENT RESPONSE CENTER WITHIN 10-15 MINUTES OF BEING NOTIFIED. IN THE EVENT OF A SITE AREA EMERGENCY, THE NRC WILL ACTIVATE A REGION II TEAM TO RESPOND TO THE COLUMBIA PLANT. WHILE THIS TEAM IS IN TRANSIT TO THE COLUMBIA PLANT, NRC HEADQUARTERS OPERATIONS CENTER WILL ASSUME COMMAND. AT ALL OTHER TIMES, NRC REGION II (THE REGIONAL ADMINISTRATOR) IS IN CHARGE OF THE REGULATORY ASPECTS OF THE EMERGENCY. THE NRC SERVES AS THE LEAD FEDERAL AGENCY (LFA), WITH RESPONSIBILITIES FOR INTERFACING WITH OTHER FEDERAL AGENCIES. THEIR ROLE IS ALSO TO ASSIST THE COLUMBIA PLANT AS NECESSARY IN THE FACILITATION OF THE RESPONSE AND ASSIST AS NECESSARY IN MAKING APPROPRIATE CALCULATIONS. THEY ARE ALSO RESPONSIBLE FOR PUBLIC HEALTH AND SAFETY. NOTE: THE ABOVE DOES NOT IN ANY WAY TAKE AWAY FROM THE RESPONSIBILITIES OF THE COLUMBIA PLANT TO PROPERLY RESPOND TO EMERGENCIES.

5. FOR ALERT CLASSIFICATIONS AND ABOVE, THE NRC WILL ESTABLISH DIRECT TELEPHONE LINES TO THE COLUMBIA PLANT, INCLUDING A MANAGEMENT COUNTERPART LINK WITH THE EMERGENCY DIRECTOR AND POSSIBLY OTHER DIRECT LINES TO ADDRESS HEALTH PHYSICS ISSUES AND TO DETERMINE THE ENGINEERING STATUS OF THE PLANT.

6. EOC PERSONNEL SHOULD BE PREPARED TO ADDRESS THE FOLLOWING QUESTIONS WHICH ARE LIKELY TO BE ASKED BY NRC OR SC-DHEC PERSONNEL;

6.1 IS THE FACILITY IN CONTROL OF THE EVENT?

6.2 ARE PLANT CONDITIONS STABLE? DEGRADING?

6.3 IS ANY MATERIAL RELEASED OFFSITE? QUANTITIES? ESTIMATES ARE ACCEPTABLE.

6.4 WHAT IS THE WORST CASE SCENARIO?

6.5 HAVE ANY PEOPLE BEEN AFFECTED BY THE EVENT, BOTH ONSITE AND OFFSITE? INJURIES? EXPOSURES?

6.6 WHAT IS THE WIND SPEED AND DIRECTION?

6.7 IS THERE ANY NEED TO DISPATCH NRC PERSONNEL TO THE SITE?

6.8 WHAT QUANTITIES OF MATERIAL HAVE BEEN RELEASED? FROM THE PROCESS? FROM THE BUILDING?

6.9 PROVIDE A CONTACT FOR THE SC-DHEC FIELD TEAM.

8.0 ATTACHMENTS: NONE.

TITLE: EMERGENCY OPERATIONS CENTER CHECKLIST/DUTIES

1.0 PURPOSE:

THIS PROCEDURE PROVIDES A CHECKLIST OF RESPONSIBILITIES FOR PERSONNEL MANNING THE EMERGENCY OPERATIONS CENTER (EOC).

2.0 POLICY AND SCOPE

THE EOC WILL BE MANNED AT THE DISCRETION OF THE EMERGENCY DIRECTOR. THE EMERGENCY DIRECTOR OR HIS DESIGNEE WILL ASSIGN DUTIES TO THE ALTERNATE EMERGENCY DIRECTORS AND OTHER APPROPRIATE PERSONNEL IN ACCORDANCE WITH GUIDANCE IN THIS PROCEDURE.

3.0 REFERENCES: NONE

4.0 TERMS/DEFINITIONS: NONE

5.0 REGULATORY REQUIREMENTS: THIS ENTIRE PROCEDURE IS OF REGULATORY SIGNIFICANCE.

6.0 RESPONSIBILITIES:

6.1 EMERGENCY DIRECTOR:

1. MAN THE EOC, AS APPROPRIATE, IN RESPONSE TO INCIDENTS.
2. THE EOC IS REQUIRED TO BE MANNED FOR SITE AREA EMERGENCIES.

6.2 ALTERNATE EMERGENCY DIRECTORS:

1. ASSIST THE EMERGENCY DIRECTOR IN RESPONDING TO EMERGENCIES.

7.0 PROCEDURE:

1. THE EOC WILL BE MANNED BY THE EMERGENCY DIRECTOR, ALTERNATE EMERGENCY DIRECTORS AND OTHER PERSONNEL IDENTIFIED BY THE EMERGENCY DIRECTOR AT THE DISCRETION OF THE EMERGENCY DIRECTOR AFTER THE APPROPRIATE EVACUATIONS FROM THE FACILITY AND ACCOUNTABILITY OF PERSONNEL.
2. UPON MANNING THE EOC, THE EMERGENCY DIRECTOR WILL ESTABLISH RESPONSIBILITIES AND DUTIES FOR EACH PERSON.
3. THE FOLLOWING ARE EXAMPLES OF DUTIES TO BE PERFORMED IN THE EOC:
   - 3.1 ASSUME COMMAND AND CONTROL OF THE EMERGENCY, INCLUDING RE-ENTRY PLANS IN RESCUE OPERATIONS, REQUESTING OFFSITE ASSISTANCE IF REQUIRED AND COORDINATING WITH THE EMERGENCY COORDINATOR REGARDING PERSONNEL ACCOUNTABILITY AND ASSEMBLY AREA HABITABILITY.
   - 3.2 ESTABLISH RADIO COMMUNICATIONS WITH THE EMERGENCY COORDINATOR AND ASSIGN A PERSON THE RESPONSIBILITY OF MONITORING ALL TRANSMISSIONS.
   - 3.3 CHOOSE A PERSON TO RECORD ALL ACTIVITIES DURING THE EVENT.
   - 3.4 ASSURE THAT THE EVENT IS PROPERLY CLASSIFIED.
   - 3.5 MAKE APPROPRIATE NOTIFICATIONS IN ACCORDANCE WITH CSEP-0013 AND FOLLOWUP CALLS AS REQUIRED. ASSURE THAT ATTACHMENTS A, B AND C ARE COMPLETED AS APPROPRIATE TO DOCUMENT INFORMATION TRANSMITTED TO THESE AGENCIES.
   - 3.6 ASSIGN A PERSON(S) TO MAN THE TELEPHONES TO HANDLE ANY INCOMING CALLS FROM OFFSITE RESPONSE GROUPS. NOTE THAT THERE ARE TWO DIRECT TELEPHONE LINES TO THE EOC FOR USE IN ESTABLISHING DIRECT CONTACT WITH OUTSIDE AGENCIES.
   - 3.7 ASSIGN A PERSON RESPONSIBILITIES FOR INITIATING PRESS RELEASES AND/OR STATEMENTS.
   - 3.8 ASSIGN A PERSON TO SCAN THE SITE EMERGENCY PLAN AND

TITLE: VOICE COMMUNICATIONS ANNOUNCEMENTS

EMERGENCY COORDINATOR OR HIS DESIGNEE.

3. THE FOLLOWING WORDING SHOULD BE USED FOR THE FOLLOWING EMERGENCIES WHEN DIRECTED BY THE EMERGENCY COORDINATOR OR HIS DESIGNEE:

3.1 IF THE EMERGENCY COORDINATOR CALLS AND IDENTIFIES THE EMERGENCY AS A FIRE, MAKE THE FOLLOWING ANNOUNCEMENT. MAKE EACH ANNOUNCEMENT THREE TIMES:
"YOUR ATTENTION PLEASE, A FIRE HAS BEEN DETECTED IN THE XXXX AREA. PERSONNEL IN THE IMMEDIATE AREA OF THE INCIDENT SHOULD EVACUATE." (OR MAKE THE ANNOUNCEMENT AS DIRECTED BY THE EMERGENCY COORDINATOR).

3.2 IF THE EMERGENCY COORDINATOR CALLS AND IDENTIFIES THE EMERGENCY AS A UF6 GAS RELEASE, MAKE THE FOLLOWING ANNOUNCEMENT. MAKE EACH ANNOUNCEMENT THREE TIMES:
"YOUR ATTENTION PLEASE, A UF6 GAS RELEASE HAS BEEN DETECTED IN THE (UF6 BAY/ADU CONVERSION AREA/MAP AREA). PERSONNEL IN THE CHEMICAL AREAS SHALL EVACUATE IMMEDIATELY. AVOID ANY VISIBLE VAPOR CLOUDS." (OR MAKE THE ANNOUNCEMENT AS DIRECTED BY THE EMERGENCY COORDINATOR).

3.3 IF THE EMERGENCY COORDINATOR CALLS AND IDENTIFIES THE EMERGENCY AS A CHEMICAL SPILL, MAKE THE FOLLOWING ANNOUNCEMENT. MAKE EACH ANNOUNCEMENT THREE TIMES:
"YOUR ATTENTION PLEASE AN (ACID SPILL, AMMONIA SPILL, CHEMICAL SPILL, ETC.) HAS BEEN DETECTED IN THE XXXX AREA. PERSONNEL IN THE IMMEDIATE AREA OF THE INCIDENT SHOULD EVACUATE." (OR MAKE THE ANNOUNCEMENT AS DIRECTED BY THE EMERGENCY COORDINATOR).

3.4 IF THE EMERGENCY COORDINATOR CALLS AND IDENTIFIES THE EMERGENCY AS A POWDER/LIQUID SPILL, MAKE THE FOLLOWING ANNOUNCEMENT. MAKE EACH ANNOUNCEMENT THREE TIMES:
"YOUR ATTENTION PLEASE A (POWDER OR LIQUID SPILL) HAS BEEN DETECTED IN THE XXXX AREA. PERSONNEL IN THE IMMEDIATE AREA OF THE INCIDENT SHOULD EVACUATE." (OR MAKE THE ANNOUNCEMENT AS DIRECTED BY THE EMERGENCY COORDINATOR).

4. IN THE EVENT OF A "FALSE" ALARM, MAKE THE FOLLOWING ANNOUNCEMENT. MAKE EACH ANNOUNCEMENT THREE TIMES:
"YOUR ATTENTION PLEASE, THE CONDITION CAUSING THE ALARM HAS BEEN CLEARED."

5. ANY ADDITIONAL ANNOUNCEMENT WILL BE AUTHORIZED BY THE EMERGENCY COORDINATOR OR HIS DESIGNEE.

6. WHEN AN EMERGENCY HAS BEEN TERMINATED, MAKE THE FOLLOWING ANNOUNCEMENT. MAKE EACH ANNOUNCEMENT THREE TIMES:
"YOUR ATTENTION PLEASE, THE EMERGENCY HAS BEEN TERMINATED. RETURN TO YOUR WORK AREA AS DIRECTED BY YOUR SUPERVISOR." (OR MAKE THE ANNOUNCEMENT AS DIRECTED BY THE EMERGENCY COORDINATOR).

7. SIGNS ARE AVAILABLE FOR POSTING IF NECESSARY, TO ALERT PERSONNEL TO THE EMERGENCY. THE SECURITY GUARDS ARE RESPONSIBLE FOR POSTING THESE SIGNS AT THE MAIN GUARD STATION, GATE 1 TRUCK GATE AND THE LOBBY/RECEPTION AREA SO THAT PERSONNEL CAN OBSERVE THE SIGNS AS THEY ENTER THE FACILITY. THE SIGNS SHOULD BE POSTED IN CONSPICUOUS LOCATIONS SO THAT PERSONNEL CAN OBSERVE THEM ON THEIR WAY TO THEIR WORK LOCATIONS (DO NOT POST THE SIGNS ON THE EXTERIOR DOORS). SECURITY GUARDS SHOULD ALSO VERBALLY ALERT INCOMING PERSONNEL TO THE EMERGENCY IF POSSIBLE.

8.0 ATTACHMENTS: NONE.

COLUMBIA SITE EMERGENCY PROCEDURE

PROCEDURE NO: CSEP-0024 ISSUE DATE: 03/25/94
REVISION: 0 PAGE: 1 OF 2

TITLE: VOICE COMMUNICATIONS ANNOUNCEMENTS

1.0 PURPOSE:

THIS PROCEDURE DESCRIBES THE PROCESS FOR MAKING VOICE COMMUNICATIONS SYSTEM ANNOUNCEMENTS FOLLOWING ACTIVATION OF ALARMS, OR WHEN DIRECTED BY THE EMERGENCY COORDINATOR, AND ALERTING PLANT PERSONNEL TO AN EMERGENCY CONDITION. THE PURPOSE OF THIS PROCEDURE IS TO STANDARDIZE THE ANNOUNCEMENTS TO ASSURE THAT THE INFORMATION IS CLEARLY TRANSMITTED TO EMPLOYEES AND EMERGENCY RESPONDERS.

2.0 POLICY AND SCOPE:

IN THE EVENT OF AN ALARM, THE SECURITY GUARDS ARE RESPONSIBLE FOR MAKING AN INITIAL ANNOUNCEMENT ON THE VOICE COMMUNICATIONS SYSTEM AND FOLLOWUP ANNOUNCEMENTS AS DIRECTED BY THE EMERGENCY COORDINATOR.

3.0 REFERENCES:
3.1 THIS IS A NEW PROCEDURE.
3.2 CSEP-0003, "FIRE CONTROL."
3.3 CSEP-0016-A, "ACTIVATION OF EMERGENCY BRIGADE."

4.0 TERMS/DEFINITIONS:
4.1 VOICE COMMUNICATION SYSTEM -- LOUDSPEAKER SYSTEM FOR THE PLANT TO ALERT PERSONNEL TO EMERGENCY CONDITIONS.

5.0 REGULATORY REQUIREMENTS: THIS ENTIRE PROCEDURE IS OF REGULATORY SIGNIFICANCE.

6.0 RESPONSIBILITIES:
6.1 SECURITY GUARDS:
1. MAKE ANNOUNCEMENTS IN ACCORDANCE WITH THIS PROCEDURE, AND POST WARNING SIGNS.
6.2 EMERGENCY COORDINATORS:
1. PROVIDE EMERGENCY INFORMATION TO THE SECURITY GUARDS REGARDING EMERGENCIES AS SOON AS POSSIBLE.

7.0 PROCEDURE:
1. WHEN AN ALARM SOUNDS, THE SECURITY GUARD AT THE MAIN GUARD STATION WILL MAKE ONE OF THE FOLLOWING ANNOUNCEMENTS AS APPROPRIATE. MAKE EACH ANNOUNCEMENT THREE TIMES:
1.1 FOR ACTIVATION OF A MANUAL PULL STATION:
"YOUR ATTENTION PLEASE, MANUAL PULL STATION MPXX HAS BEEN ACTIVATED IN THE XXXX AREA."
1.2 FOR ACTIVATION OF A SMOKE DETECTOR:
"YOUR ATTENTION PLEASE, SMOKE DETECTOR SDXX HAS BEEN ACTIVATED IN THE XXXX AREA."
1.3 FOR ACTIVATION OF A HEAT DETECTOR:
"YOUR ATTENTION PLEASE, HEAT DETECTOR HDXX HAS BEEN ACTIVATED IN THE XXXX AREA."
1.4 FOR ACTIVATION OF A FLOW SWITCH:
"YOUR ATTENTION PLEASE, FLOW SWITCH FSXX HAS BEEN ACTIVATED IN THE XXXX AREA."
1.5 FOR ACTIVATION OF A HALON FLOW SWITCH:
"YOUR ATTENTION PLEASE, HALON FLOW SWITCH HFXX HAS BEEN ACTIVATED IN THE XXXX AREA."

2. DO NOT MAKE ANY OTHER ANNOUNCEMENTS UNLESS DIRECTED TO DO SO BY THE

TITLE: LOSS OF COMMUNICATION

8.1 LISTING OF "BY-PASS" LOCATIONS AND NUMBERS FOR THE MERIDIAN SYSTEM:

THESE LOCATIONS WILL BE AUTOMATICALLY SWITCHED TO A SOUTHERN BELL TRUNK LINE IN CASE OF COMPLETE POWER FAILURE. NOTE: ONLY ANALOG PHONES CAN BE USED. THEY MUST BE PLUGGED INTO THE JACK NUMBER LISTED BELOW OR INTO A BYPASS JACK WHEN A DIGITAL PHONE EXISTS AT THAT LOCATION.

AREA	LOC. NO.	S. BELL TRUNK
GUARD HOUSE: MAIN X. 3298 SECONDARY X. 3263)	242	776-2610
COMPUTER ROOM (X. 3385)	212	776-1586
HR OFFICE (X. 3202)	257	776-6010
REGULATORY OFFICE (X. 3746)	902	776-0863
MAINTENANCE OFFICE (X. 3524)	131	776-5181
MANUFACTURING OFFICE (X. 3218)	3	776-4298
ADU CONTROL ROOM (X. 3500)	190	776-2614
MAP CONTROL ROOM (X. 3461)	172	776-2616
REGULATORY OPERATIONS (X. 3397)	220	776-2643
MEDICAL (NURSE) (X. 3220)	284	776-2618
EMERGENCY OPZRATIONS CENTER	919	776-7142
CNFD GENERAL MANAGER OFFICE	912	776-0492
MAIN SWITCH GEAR (X. 3471)	1014	783-6510
MAIN LOBBY (X. 3450)	966	776-2612

COLUMBIA SITE EMERGENCY PROCEDURE

PROCEDURE NO: CSEP-0020 ISSUE DATE: 03/25/94
REVISION: 3 PAGE: 1 OF 2

TITLE: LOSS OF COMMUNICATION

1.0 PURPOSE:

THIS PROCEDURE DOCUMENTS THE RESPONSE FOLLOWING LOSS OF COMMUNICATIONS CAPABILITY.

2.0 POLICY AND SCOPE:

IN THE EVENT OF LOSS OF COMMUNICATION, BACKUP SYSTEMS ARE AVAILABLE TO ASSURE MAINTENANCE AND AVAILABILITY OF COMMUNICATIONS CAPABILITY.

3.0 REFERENCES:
3.1 REPLACES CSEP-0020, REV. 1.
3.2 CSEP-0013, "EMERGENCY NOTIFICATION TO ON-SITE AND OFF-SITE ORGANIZATIONS."
3.3 CSEP-0019, "EMERGENCY ACTION PROCEDURE GUIDE."

4.0 TERMS/DEFINITIONS: NONE.

5.0 REGULATORY REQUIREMENTS: THIS ENTIRE PROCEDURE IS OF REGULATORY SIGNIFICANCE.

6.0 RESPONSIBILITIES: SEE 7.0.

7.0 PROCEDURE:

1. NORMAL COMMUNICATION CONSISTS OF THE SOUTHERN BELL NETWORK AND MERIDIAN DIGITAL AND ANALOG PHONES.
2. SHOULD A POWER FAILURE OR MECHANICAL MALFUNCTION INTERRUPT THE MERIDIAN SYSTEM, BACKUP TRUNK LINE EXTENSIONS ARE PROVIDED WHICH SWITCH TO ANALOG PHONE EXTENSIONS. IF A DIGITAL PHONE IS IN SERVICE, THE PHONE MUST BE REPLACED WITH AN ANALOG PHONE TO FUNCTION PROPERLY. ATTACHMENT 8.1 LISTS BY-PASS LOCATIONS.
3. SHOULD A COMPLETE PLANT SYSTEM BREAKDOWN OCCUR, A BACKUP CELLULAR TELEPHONE IS AVAILABLE IN THE SECURITY OFFICE ADJACENT TO THE MAIN GUARD STATION. THE TELEPHONE NUMBER IS LISTED IN CSEP-0013.
4. PORTABLE TWO-WAY RADIOS ARE AVAILABLE AT THE MAIN GUARD STATION AND WILL BE USED ACCORDING TO CSEP-0019 IN THE EVENT OF LOSS OF COMMUNICATION.
5. BATTERY POWERED MEGAPHONES ARE AVAILABLE IN THE HEALTH PHYSICS EMERGENCY CABINETS.
* 6. IN THE EVENT OF A COMPLETE LOSS OF EXTERNAL COMMUNICATION CAPABILITY, THE INCIDENT WOULD BE CLASSIFIED AS A LOCAL EMERGENCY. IF THE OUTAGE CANNOT BE PROMPTLY RESTORED, SC-DHEC SHOULD BE NOTIFIED AND APPRISED OF THE SITUATION.

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8.0 ATTACHMENTS: 8.1

COLUMBIA SITE EMERGENCY PROCEDURE

PROCEDURE NO: CSEP-0011 ISSUE DATE: 03/25/94
REVISION: 3 PAGE: 1 OF 3

TITLE: UF6 RELEASES

1.0 PURPOSE:

THIS PROCEDURE DEFINES THE ACTIONS REQUIRED FOLLOWING AN ACCIDENTAL RELEASE OF URANIUM HEXAFLUORIDE, UF6.

2.0 POLICY AND SCOPE:

IN THE EVENT OF A UF6 RELEASE, CERTAIN RESPONSE AND CORRECTIVE ACTIONS WILL BE REQUIRED TO PROTECT THE PLANT POPULATION AND TO TERMINATE THE INCIDENT.

3.0 REFERENCES:
3.1 REPLACES CSEP-0011, REV. 2.
3.2 CSEP-0013, "EMERGENCY NOTIFICATION OF ON-SITE AND OFF-SITE ORGANIZATIONS."
3.3 10CFR 20.

4.0 TERMS/DEFINITIONS:
4.1 MPC: MAXIMUM PERMISSIBLE CONCENTRATION (EFFECTIVE PRIOR TO 1/1/94).
4.2 DAC: DERIVED AIR CONCENTRATION (EFFECTIVE 1/1/94).

5.0 REGULATORY REQUIREMENTS: THIS ENTIRE PROCEDURE IS OF REGULATORY SIGNIFICANCE.

6.0 RESPONSIBILITIES: SEE 7.0.

7.0 PROCEDURE:
7.1 A UF6 RELEASE IS DEFINED AS A CONDITION WHICH RESULTS IN AN ACCIDENTAL DISCHARGE OF URANIUM HEXAFLUORIDE GAS FROM A CONTAINED SYSTEM TO THE AMBIENT ATMOSPHERE. THE GAS IMMEDIATELY HYDROLYZES TO FORM URANYL FLUORIDE. DURING THE HYDROLYSIS REACTION, SUBSTANTIAL QUANTITIES OF HYDROGEN FLUORIDE GAS, A TOXIC VAPOR, ARE ALSO RELEASED. RESPONDING PERSONNEL WILL PERFORM THE FOLLOWING CORRECTIVE ACTIONS IN THE EVENT OF A UF6 RELEASE.

* 1. AT THE FIRST INDICATION OF A UF6 RELEASE IN THE UF6 BAY OR ADU CONVERSION AREAS, THE FOLLOWING ACTIONS SHOULD BE IMPLEMENTED:
   A. THE INDIVIDUAL OBSERVING THE RELEASE REPORTS THE EVENT TO THE EMERGENCY COORDINATOR.
   B. ACTIVATE THE FIRE ALARM AND THE EMERGENCY WARNING LIGHT SYSTEM (INCLUDING THE ROTATING BLUE LIGHT SYSTEM AND THE MESSAGE PANELS). THIS CAN BE DONE BY ANYONE OBSERVING THE RELEASE.
   C. THE EMERGENCY COORDINATOR IMMEDIATELY INVESTIGATES TO CONFIRM THAT A UF6 RELEASE HAS OCCURRED AND THEN NOTIFIES THE SECURITY GUARD TO MAKE AN APPROPRIATE ANNOUNCEMENT OVER THE VOICE COMMUNICATIONS SYSTEM TO ALERT PERSONNEL:
      - ORDER THE APPROPRIATE EVACUATION ORDERS, OR
      - ANNOUNCE AN ALL-CLEAR.

2. IF THE RELEASE OCCURS IN THE ENCLOSED MAP AREA, THE MAP SUPERVISOR WILL IMMEDIATELY NOTIFY THE EMERGENCY COORDINATOR. THE EMERGENCY COORDINATOR WILL DETERMINE IF COMPLETE EVACUATION IS REQUIRED AND WHETHER THE FIRE ALARM AND THE EMERGENCY WARNING LIGHT SYSTEM NEED TO BE ACTIVATED.

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3. THE EMERGENCY COORDINATOR SHALL ASSURE ALL PERSONNEL EVACUATE THE AFFECTED AREAS IMMEDIATELY, SHALL ASSURE ACCOUNTABILITY OF PERSONNEL AS REQUIRED, AND LIMIT REENTRY TO EMERGENCY BRIGADE MEMBERS OR RESPONDING OPERATIONS PERSONNEL. DO NOT TAKE UNNECESSARY RISKS.

TITLE: UF6 RELEASES

4. THE EMERGENCY COORDINATOR SHALL DIRECT PERSONNEL TO ADJUST THE VENTILATION SYSTEMS TO CONTROL THE INCIDENT AND TO CLOSE ALL EXTERNAL DOORS TO THE UF6 BAY.
5. THE EMERGENCY COORDINATOR WILL EVALUATE THE SITUATION AND SUPERVISE RESPONSE ACTIONS. IF THE INCIDENT CAN BE IMMEDIATELY TERMINATED, THE INCIDENT WILL BE CLASSIFIED AS A LOCAL EMERGENCY. IF THE INCIDENT CANNOT BE IMMEDIATELY TERMINATED AND SIGNIFICANT EXPOSURES AND STACK RELEASES OCCUR, THE INCIDENT WILL BE DESIGNATED AND CLASSIFIED AS AN ALERT LEVEL INCIDENT. EVACUATE THE ENTIRE CHEMICAL AREA. USE TELEPHONE NUMBERS AS LISTED IN CSEP-0013 FOR NOTIFICATION REQUIRING NOTIFICATION OF SC-DHEC AND THE NRC.
6. EMERGENCY BRIGADE MEMBERS AND RESPONDING OPERATIONS PERSONNEL WILL DON FRESH AIR BREATHING APPARATUS IN THE PRESSURE DEMAND MODE FOR IMMEDIATE EVALUATION OF THE SITUATION. SUPERVISION OR THE EMERGENCY COORDINATOR WILL DETERMINE IF ADDITIONAL PROTECTIVE CLOTHING IS NEEDED BY THE MAGNITUDE OF THE RELEASE.
7. THE EMERGENCY COORDINATOR WILL DIRECT PERSONNEL TO ISOLATE THE PROBLEM.
8. CLOSE THE UF6 CYLINDER VALVE AND EVALUATE THE USE OF CO2 TO COOL THE CYLINDER VALVE.
9. IF THE RELEASE SITUATION CANNOT BE IMMEDIATELY CONTROLLED AND TERMINATED, THE BRIGADE MEMBERS WILL EVACUATE, MAKE A REENTRY PLAN IN PAIRS OF TWO DRESSED IN CLASS A ACID PROTECTION SUITS. THESE INDIVIDUALS WILL BE CONNECTED BY LIFELINE TO THE OUTSIDE. COMMUNICATIONS ARE TO BE MAINTAINED BY RESPONSE TEAM MEMBERS IN THE CHEMICAL AREA WITH THOSE STATIONED NEAR THE ENTRANCE POINT.
10. IF THE RELEASE CANNOT BE CONTAINED IMMEDIATELY, REGROUP AND ADVISE THE EMERGENCY DIRECTOR.
11. THE EMERGENCY BRIGADE SHOULD HOSE DOWN THE ACID SUITS ON RETURN TO THE OUTSIDE BEING CAREFUL OF HF ACID CONTAMINATION. NOTE: HF CAN CAUSE SEVERE SKIN BURNS.
12. MEDICAL SHALL GIVE IMMEDIATE MEDICAL ATTENTION TO ALL PERSONNEL EXPOSED TO HAZARDOUS VAPORS.
13. ALL PERSONNEL EXPOSED TO UF6/HF WILL SHOWER THOROUGHLY AND DRESS IN CLEAN COVERALLS.
14. THE EMERGENCY COORDINATOR WILL RESTRICT ENTRY INTO AFFECTED AREAS UNTIL UO2F2 HAS SETTLED. MAINTENANCE WILL VERIFY THE STATUS OF VENTILATION SYSTEMS AND CHANGE HEPA FILTERS AS REQUIRED. WHEN AIR SAMPLES INDICATE ACCEPTABLE AIRBORNE ACTIVITY LEVELS HAVE BEEN ACHIEVED (LESS THAN 1 TIMES MPC OR 1 TIMES DAC AS APPROPRIATE), GENERAL RESPONSE AND DECON REENTRY CAN BE AUTHORIZED. THEN, SURFACE CONTAMINATION SURVEYS WILL BE PERFORMED PER REGULATORY OPERATIONS PROCEDURES.
15. THE EMERGENCY COORDINATOR WILL DIRECT PERSONNEL TO CLOSE OUT THE INCIDENT WITH THE APPROPRIATE REGULATORY AGENCIES.
16. REGULATORY ENGINEERING OR REGULATORY OPERATIONS WILL PERFORM PERSONNEL EVALUATION SURVEYS TO DETERMINE THE DEGREE OF EXPOSURE OF AFFECTED PERSONNEL. AN IMMEDIATE DETERMINATION WILL BE MADE ACCORDING TO REGULATORY OPERATIONS PROCEDURES REGARDING WHICH INDIVIDUALS EXPOSED TO UF6 THAT ARE PLACED ON RESTRICTION AND MUST SUBMIT BIOASSAY SAMPLES. FOLLOWING DECONTAMINATION, ADDITIONAL SURVEYS WILL BE PERFORMED UNTIL THE RESPECTIVE AREAS AND EQUIPMENT CAN BE RELEASED.
17. POINT SOURCE STACK SAMPLES AND ENVIRONMENTAL AIR SAMPLES WILL BE ANALYZED IMMEDIATELY, IF IT IS DEEMED NECESSARY BY REGULATORY ENGINEERING. APPROPRIATE NOTIFICATION OF SC-DHEC AND THE NRC WILL

REGULATORY AGENCIES.

8.0 ATTACHMENTS:

8.1 BOMB THREAT CALL LIST

IN THE EVENT OF A BOMB THREAT INVOLVING THE ACTUAL IDENTIFICATION OF AN EXPLOSIVE DEVICE, CONTACT THE FOLLOWING PLANT PERSONNEL IN THE PRIORITY LISTED. SEE CSEP-0013 FOR TELEPHONE NUMBERS.

1. SECURITY & SERVICES MANAGER - PHILL STROUD
2. MANAGER, HUMAN RESOURCES - STEVE DELLER
3. SITE EMERGENCY DIRECTOR - JIM FICI
4. SEARCH COORDINATOR - GLENN LOWDER
5. ALTERNATE SEARCH COORDINATOR - LEVI BRAZELL

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8.2 BOMB THREAT OFF-SITE ASSISTANCE:

THE FOLLOWING OFF-SITE AGENCIES ARE AVAILABLE FOR ASSISTANCE:

1. RICHLAND COUNTY SHERIFF'S OFFICE
2. SOUTH CAROLINA LAW ENFORCEMENT DIVISION
3. COLUMBIA FIRE DEPARTMENT
4. AMBULANCE - RICHLAND COUNTY EMERGENCY MEDICAL SERVICE
5. U.S. NUCLEAR REGULATORY COMMISSION, REGION II, ATLANTA, GEORGIA
6. SC DEPARTMENT OF HEALTH & ENVIRONMENTAL CONTROL

TITLE: UF6 RELEASES

BE MADE IF THE RELEASE EXCEEDS 10CFR 20 LIMITS.

18. THE RESPECTIVE SUPERVISOR OR EMERGENCY COORDINATOR WILL OVERSEE AND DIRECT DECONTAMINATION EFFORTS WITH PROPER REGARD FOR MATERIALS BALANCE.
19. FOLLOWING TERMINATION OF THE INCIDENT, THE EMERGENCY COORDINATOR WILL GIVE THE "ALL CLEAR" SIGNAL FOR GENERAL RE-ENTRY.
20. AN IMMEDIATE INCIDENT REPORT WILL BE TRANSMITTED TO THE MANAGER, CONVERSION SERVICES. THE PROCESS ENGINEERING GROUP WILL PREPARE AN ENGINEERING REPORT OF THE INCIDENT WITHIN SEVEN DAYS.

8.0 ATTACHMENTS: NONE.

TITLE: EMERGENCY MEDICAL CONTAMINATION DETECTION AND TREATMENT

1.0 PURPOSE:

THIS PROCEDURE DEFINES THE METHODS USED FOR DETECTING RADIOACTIVE CONTAMINATION ON PERSONNEL AND DECONTAMINATION TREATMENTS.

2.0 POLICY AND SCOPE:

REGULATORY OPERATIONS PERSONNEL WILL SURVEY ALL INDIVIDUALS FROM THE INCIDENT AREA TO DETERMINE THOSE INDIVIDUALS WHO ARE CONTAMINATED. THESE INDIVIDUALS WILL BE SEGREGATED AND TREATED AS CONDITIONS WARRANT.

* THE MEDICAL DEPARTMENT WILL RELY ON EVALUATION MADE BY REGULATORY OPERATIONS WHO WILL ADVISE ON DECONTAMINATION PROCEDURES AND INJURIES OR SKIN BREAKS WHICH ARE CONTAMINATED. DO NOT DELAY MEDICAL TREATMENT TO DETECT CONTAMINATION IF THE INJURY IS SERIOUS. NURSES SHOULD EVACUATE TO THE SOUTH ASSEMBLY AREA TO EXPEDITE TREATMENT OF POTENTIAL VICTIMS UNLESS THERE IS EVIDENCE THAT INJURED PERSONS ARE LOCATED ELSEWHERE.

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3.0 REFERENCES:

3.1 REPLACES CSEP-0012-A, REV. 1.

4.0 TERMS/DEFINITIONS: NONE.

5.0 REGULATORY REQUIREMENTS: THIS ENTIRE PROCEDURE IS OF REGULATORY SIGNIFICANCE.

6.0 RESPONSIBILITIES: SEE 7.0.

7.0 PROCEDURE:

7.1. NOTIFICATION:

1. IMMEDIATELY NOTIFY REGULATORY OPERATIONS TO DETERMINE EXTENT OF CONTAMINATION.

7.2 SKIN CONTAMINATION:

1. A BETA-GAMMA AND ALPHA SURVEY IS PERFORMED WITH APPROPRIATE SURVEY INSTRUMENTS OVER THE ENTIRE BODY WITH THE CLOTHES ON. IF RADIOACTIVE CONTAMINATION IS FOUND, THE CLOTHING IS REMOVED AND A RESURVEY IS PERFORMED. IF RADIOACTIVITY IS FOUND, THE AREAS ARE MARKED AND COVERED TO PREVENT THE SPREAD OF CONTAMINATION.
2. SPECIAL CARE SHOULD BE TAKEN TO SURVEY AREAS UNDER THE FINGERNAILS, EARLOBES, AND BETWEEN SKIN FOLDS.
3. IN THE CASE OF SUSPECTED ALPHA OR BETA CONTAMINATION, FILTER PAPER SMEARS SHOULD BE TAKEN OF REPRESENTATIVE AREAS EVEN IF THE PORTABLE SURVEY DETECTOR SHOWS NO ACTIVITY. THE FILTER PAPER SMEARS ARE LABELED, PLACED IN INDIVIDUAL ENVELOPES, AND SENT FOR COUNTING. REGULATORY OPERATIONS PERSONNEL SHALL SURVEY, COLLECT, AND COUNT THE SMEARS.

7.3. WOUND CONTAMINATION:

1. PERSONNEL WHO ARE IN A CONTAMINATED OR SUSPECTED CONTAMINATED AREA AND HAVE ANY WOUND (I.E., SKIN BREAK OR INJURY) WILL BE EVALUATED FOR RADIOACTIVE CONTAMINATION. GROSS EXTERNAL CONTAMINATION WILL BE REMOVED IMMEDIATELY IN THE CHEMICAL AREA. THE INJURED PERSON WILL BE TRANSPORTED TO THE MEDICAL FACILITY. THEN THE WOUND AREA WILL BE SURVEYED WITH END WINDOW GEIGER-MUELLER AND ALPHA DETECTING SURVEY METERS. IF THE SURROUNDING AREA IS CONTAMINATED, THEN THE WOUND IS CONSIDERED TO BE CONTAMINATED.
2. IF CONTAMINATION IS NOT FOUND BY SURVEY METER, THEN A STERILE

TITLE: EMERGENCY MEDICAL CONTAMINATION DETECTION AND TREATMENT

MOISTENED COTTON TIPPED APPLICATOR IS WIPED OVER THE WOUND PRIOR TO TREATMENT AND PLACED IN AN INDIVIDUALLY LABELED ENVELOPE AND RETAINED FOR COUNTING.
THE LABELED ENVELOPE SHOULD BE MARKED WITH THE PATIENT'S NAME, DATE, TIME, AND WOUND DESCRIPTION.

3. A WOUND IS CONSIDERED AS CONTAMINATED IF ANY RADIOACTIVE MATERIAL IS DETECTED WITHIN THE WOUND OR ON ADJACENT SKIN.
THE AREA OF THE SKIN AROUND THE WOUND IS SMEARED OR WIPED LIGHTLY WITH ONE OR MORE FILTER PAPERS, THEN PLACED IN INDIVIDUALLY LABELED ENVELOPES FOR COUNTING.
4. PERSONNEL HAVING CONTAMINATED WOUNDS WILL INITIATE LEAVING URINE BIOASSAY SAMPLES AT THE REQUEST OF REGULATORY OPERATIONS.

7.4 DETECTION OF INGESTED RADIOACTIVE MATERIAL:

1. "POTENTIAL INGESTION CASES" WILL BE ANY OF THE FOLLOWING:
   - ANY PERSON WHO HAS EATEN CONTAMINATED FOOD OR EATS IN A CONTAMINATED OR AIRBORNE AREA.
   - A STERILE COTTON TIPPED APPLICATOR SMEARED WITHIN THE MOUTH WHICH GIVES POSITIVE RESULTS.
   - A POSITIVE BETA-GAMMA, ALPHA SURVEY OR SMEAR ABOUT THE MOUTH.

7.5 INVIVO COUNTING AND SAMPLING:

THE MANAGER OF REGULATORY ENGINEERING WILL MAKE ARRANGEMENTS FOR INVIVO COUNTING OF SELECTED PERSONNEL.

7.6 TREATMENT OF WHOLE BODY CONTAMINATION:

1. PRIORITY FOR DECONTAMINATION WILL BE DETERMINED BY THE SERIOUSNESS OF NONRADIATION INJURY, THE LEVELS OF RADIATION DOSE BEING RECEIVED FROM THE SKIN OR OUTER CLOTHING CONTAMINATION, OR BY PERSONNEL INCREASING THEIR INTERNAL BODY BURDEN THROUGH CONTAMINATED WOUNDS.
2. CONTAMINATED CLOTHING WILL BE REMOVED; AREAS OF HIGH LEVEL RADIOACTIVITY ON THE BODY WILL BE LOCALIZED AND MARKED.
SHOWER OR WASH WITH WARM WATER AND A MILD SOAP THE AFFECTED AREAS OF THE BODY. USE CARE SO THAT CONTAMINATION FROM HIGH LEVEL AREAS IS WASHED OFF RATHER THAN SPREAD OVER CLEAN AREAS OF THE BODY.
3. CONTAMINATED WOUNDS SHALL BE DECONTAMINATED BEFORE CONCENTRATING ON OTHER CONTAMINATED BODY AREAS. THE WOUND SHALL BE PROTECTED SO AS NOT TO RECONTAMINATE IT WHILE DECONTAMINATING OTHER PARTS OF THE BODY. AFTER ALL CONTAMINATION HAS BEEN COMPLETED, THE WOUND SHALL BE PROPERLY TREATED.

7.7 TREATMENT OF CONTAMINATED WOUNDS:

1. CONTAMINATED WOUNDS SHALL BE TREATED SO AS TO ENCOURAGE BLEEDING THEREBY HELPING TO FLUSH OUT CONTAMINATION, IRRIGATE WITH COPIOUS AMOUNTS OF WATER, DO NOT WASH SKIN CONTAMINATION INTO THE WOUND. RESURVEY AT PERIODIC INTERVALS.
2. DECONTAMINATE SKIN AROUND THE WOUND AND SEAL THE WOUND WITH PLASTIC OR WATERPROOF TAPE. IF WOUND CANNOT BE DECONTAMINATED BY THE ABOVE PROCEDURES, REFER PATIENT TO A PHYSICIAN FOR POSSIBLE EXCISION OF CONTAMINATION.
URINE SAMPLES WILL BE COLLECTED FROM ALL CASUALTIES HAVING HAD A CONTAMINATED WOUND.

7.8 TREATMENT OF EYE, EYELID, NOSE, MOUTH AND EAR CONTAMINATION:

1. THE ONLY TREATMENT FOR CORNEAL CONTAMINATION IS COPIOUS IRRIGATION. INITIALLY, IT MAY BE NECESSARY TO START IRRIGATION WITH TAP WATER; BUT AS SOON AS POSSIBLE, SHIFT TO STERILE SALINE SOLUTION TO PREVENT CORNEAL EDEMA.
IF THE CORNEAL CONTAMINATION ACTS AS A FOREIGN BODY AND PRODUCES EYELID SPASM AND PAIN, THE NURSE OR PHYSICIAN MAY INSTILL 0.5% TETRACAINE OR PONTOCAINE AS A CORNEAL ANESTHETIC.

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2. IRRIGATION SHOULD CONTINUE FOR AT LEAST 15 MINUTES. AFTER DECONTAMINATION, THE NURSE OR PHYSICIAN INSTILLS NEOSPORIN OPHTHALMIC OINTMENT INTO THE CONJUNCTIVAL SAC. CONTAMINATED FOREIGN BODIES IMBEDDED IN THE CORNEA WILL BE REMOVED BY AN OPHTHALMOLOGIST.
3. TREATMENT OF EYELID CONTAMINATION IS ACCOMPLISHED BY HAVING THE PATIENT CLOSE EYE AND IRRIGATE LID WITH WATER FOR 5 MINUTES.
SURVEY WITH APPROPRIATE COUNTER OR MOISTENED COTTON TIPPED APPLICATOR. REPEAT BOTH STEPS IF CONTAMINATION PERSISTS.
IF CONTAMINATION STILL PERSISTS, APPLY ZNO2 OR A&D OINTMENT AND WIPE OFF GENTLY WITH A GAUZE. REPEAT AS NECESSARY TO REMOVE CONTAMINATION.
4. NO DECONTAMINATION OF THE NOSE WILL BE ATTEMPTED, AND THE INDIVIDUAL WILL BE REFERRED TO A PHYSICIAN.
GENERALLY, THE NOSE WILL CLEAR ITSELF OF FOREIGN MATERIAL IN 24 TO 48 HOURS AND THE MATERIAL WILL BE SWALLOWED. EXPECTORATION SHOULD BE ENCOURAGED. THE PATIENT WILL BE TREATED AS A POTENTIAL INGESTION CASE, AND URINE AND FECES WILL BE COLLECTED.
5. TREATMENT OF MOUTH CONTAMINATION IS ACCOMPLISHED BY HAVING THE PATIENT GARGLE WITH TAP WATER OR SALINE SOLUTION AT LEAST 15 TIMES. SURVEY THE MOUTH USING A COTTON TIPPED APPLICATOR. THE APPLICATOR AND THE EXPECTORATED GARGLE SOLUTION ARE THEN COUNTED FOR RADIOACTIVITY.
REPEAT AS NECESSARY UNTIL NO ACTIVITY IS FOUND. PATIENT IS CONSIDERED AS A POTENTIAL INGESTION CASE. THEREFORE, URINE AND FECES WILL BE COLLECTED.
6. TREATMENT OF EAR CONTAMINATION IS ACCOMPLISHED BY GENTLE IRRIGATION OF THE EAR CANAL WITH TEPID WATER. PERSISTENT CONTAMINATION OF THE EAR CANAL WILL BE REMOVED USING 3% HYDROGEN PEROXIDE SOLUTION. SURVEY OF THE EAR CANAL WILL BE WITH COTTON TIPPED APPLICATOR. SPECIAL CARE MUST BE TAKEN TO AVOID INJURY OF THE EAR CANAL LINING. FURTHER ATTEMPTS AT DECONTAMINATION WILL BE UNDERTAKEN BY A PHYSICIAN WITH THE EAR CANAL UNDER DIRECT VISUALIZATION.

8.0 ATTACHMENTS: NONE.

COLUMBIA SITE EMERGENCY PROCEDURE

PROCEDURE NO: CSEP-0012-B ISSUE DATE: 03/25/94
REVISION: 2 PAGE: 1 OF 2

TITLE: CONTAMINATED CASUALTY TRANSFER

1.0 PURPOSE:

TO DEFINE THE REQUIREMENTS AND PROCEDURES FOR TRANSFER OF CONTAMINATED CASUALTIES. NONCONTAMINATED PATIENTS WILL BE TREATED ACCORDING TO ROUTINE HOSPITAL ADMISSION PROCEDURES AND DO NOT REQUIRE REGULATORY OPERATIONS PARTICIPATION. IF A PATIENT IS THOROUGHLY DECONTAMINATED BELOW DETECTABLE LEVELS, AND DRESSED IN CLEAN CLOTHING, HE WILL BE DEEMED "NONCONTAMINATED".

2.0 POLICY AND SCOPE:

THE REQUIREMENTS AND PROCEDURES FOR TRANSFER OF CONTAMINATED CASUALTIES TO THE HOSPITAL AND THE TRANSPORT PROCEDURES ARE LISTED HERE. REFER TO CSEP-0012-A FOR THE APPROPRIATE PROCEDURE USED IN DETECTING AND REMOVING CONTAMINATION.

RICHLAND COUNTY EMERGENCY MEDICAL SERVICE WILL TRANSFER ALL CASUALTIES. THE RICHLAND MEMORIAL HOSPITAL WILL BE USED FOR RECEIVING CONTAMINATED CASUALTIES.

ALL INFORMATION OBTAINED AT THE HOSPITAL WILL BE FORWARDED TO THE MANAGER OF REGULATORY ENGINEERING.

* NURSES SHOULD EVACUATE TO THE SOUTH ASSEMBLY AREA TO EXPEDITE TREATMENT OF POTENTIAL VICTIMS UNLESS THERE IS EVIDENCE THAT INJURED PERSONS ARE LOCATED ELSEWHERE.
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3.0 REFERENCES:
3.1 REPLACES CSEP-0012-B, REV. 1.
3.2 CSEP-0012-B-1, "EMERGENCY INFORMATION TO BE GIVEN TO RICHLAND MEMORIAL HOSPITAL EMERGENCY ROOM HEAD NURSE."
3.3 CSEP-0012-B-2, "MEDICAL TREATMENT SLIP."
3.4 CSEP-0012-A, "EMERGENCY MEDICAL CONTAMINATION DETECTION AND TREATMENT."
3.3 CSEP-0013, "EMERGENCY NOTIFICATION OF ON-SITE AND OFF-SITE ORGANIZATIONS."

4.0 TERMS/DEFINITIONS: NONE.

5.0 REGULATORY REQUIREMENTS: THIS ENTIRE PROCEDURE IS OF REGULATORY SIGNIFICANCE.

6.0 RESPONSIBILITIES: SEE 7.0.

7.0 PROCEDURE:
7.1 HOSPITAL TRANSFER:

1. PER CSEP-0012-A AND FOLLOWING THE DECONTAMINATION EFFORT, IF ANY FIXED OR SMEARABLE CONTAMINATION ABOVE BACKGROUND IS DETECTED, THE PATIENT IS CONSIDERED CONTAMINATED.
2. THE PLANT NURSE, OR ALTERNATE MUST NOTIFY RICHLAND MEMORIAL HOSPITAL EMERGENCY SERVICES (SEE CSEP-0013, TABLE II) THAT A CONTAMINATED CASUALTY IS IN TRANSIT USING CSEP-0012-B-1 AND SUPPLYING ALL INFORMATION.
3. PREPARE THE CONTAMINATED CASUALTIES FOR TRANSPORTATION BY REMOVAL OF ALL CONTAMINATED CLOTHING AND SHOES, AND IF APPLICABLE, DECONTAMINATE THE PATIENT AS MAY BE PRACTICAL. DO NOT DELAY MEDICAL TREATMENT TO REMOVE CONTAMINATION IF THE INJURY IS SERIOUS. CONTAMINATED AREAS OF THE BODY WILL BE LOCALIZED AND NUMBERED USING

LIPSTICK, MARKING PENCIL, OR MERTHIOLATE, ETC., AND COVERED WITH PLASTIC AS IS APPROPRIATE. THE PATIENT WILL BE DRESSED IN CLEAN COVERALLS IF POSSIBLE.

4. SURVEY CONTAMINATED AREAS QUANTITATIVELY USING APPROPRIATE SURVEY METERS; ESTABLISH THE DOSE RATES AT BOTH THE SKIN AND ONE FOOT FROM THE SKIN.
5. IF PRACTICAL, THE PATIENT WILL BE PLACED BETWEEN A SHEET AND COVERED WITH A BLANKET. A PLASTIC SHEET WILL BE PLACED UNDERNEATH THE STRETCHER. THE SIDES MAY BE TAPED AS NECESSARY.
6. CSEP-0012-B-2 CONTAINING A MEDICAL TREATMENT SLIP AND A RADIATION EVALUATION SLIP WILL BE COMPLETED BY MEDICAL AND TAPED TO THE SHEET ON THE STRETCHER FOR SUBMITTAL TO EMERGENCY ROOM PERSONNEL.

7.2 CLASSIFICATION AND NOTIFICATION:

THE INCIDENT WILL BE CLASSIFIED AS A LOCAL EMERGENCY.

7.3 CASUALTY TRANSPORT:

1. THE PATIENT WILL BE TRANSFERRED BY CALLING RICHLAND COUNTY EMERGENCY MEDICAL SERVICE. RESPONSE TIME IS APPROXIMATELY 15 MINUTES.
2. IF A PATIENT IS INVOLVED IN A HIGH EXTERNAL EXPOSURE INCIDENT, REGULATORY OPERATIONS PERSONNEL WILL DETERMINE IF SHIELDING IS REQUIRED FOR THE AMBULANCE DRIVER AND WILL SUPPLY THE DRIVER WITH A TLD OR POCKET DOSIMETER TO BE WORN ON THE BACK. POCKET DOSIMETERS OR TLD BADGES ENCLOSED IN PLASTIC WILL ALSO BE PLACED ON THE PATIENT FOR CONTINUOUS MONITORING.
3. THE SECURITY GUARD WILL TRANSPORT THE PLANT NURSE OR ALTERNATE AND THE REGULATORY OPERATIONS TECHNICIAN TO RICHLAND MEMORIAL HOSPITAL.
4. THE REGULATORY OPERATIONS TECHNICIAN WILL ENSURE THE FOLLOWING:
   GROSSLY CONTAMINATED AREAS OF PATIENT ARE ENSHROUDED IN PLASTIC.
   THE PATIENT HAS COMPLETED MEDICAL AND RADIATION SLIPS.
   IF NECESSARY, THE VEHICLE DRIVER IS WEARING APPROPRIATE DOSIMETRY.
5. THE AMBULANCE WILL DRIVE TO THE RICHLAND MEMORIAL HOSPITAL EMERGENCY ROOM ENTRANCE AND WAIT UNTIL HOSPITAL RADIATION PROTECTION PERSONNEL PERMIT ADMISSION TO THE RECEPTION AREA.
6. IF ANY PROBLEMS ARE ENCOUNTERED WITH ADMISSION OF THE CONTAMINATED PATIENT, CALL THE MANAGER OF REGULATORY AFFAIRS, OR REGULATORY ENGINEERING, OR THE APPROPRIATE REGULATORY ENGINEER.
   WESTINGHOUSE REGULATORY OPERATIONS PERSONNEL WILL ASSURE THAT THE RECEPTION AREA IS PREPARED BEFORE ALLOWING DISEMBARKMENT.
7. REGULATORY OPERATIONS PERSONNEL WILL SURVEY THE VEHICLE AND DRIVER. PRIOR TO DEPARTING FROM THE HOSPITAL, THE AMBULANCE DRIVER MUST BE OFFICIALLY RELEASED BY THE REGULATORY OPERATIONS TECHNICIAN.

7.4 HOSPITAL RELEASE:

1. REGULATORY OPERATIONS PERSONNEL WILL SURVEY AREAS OF THE HOSPITAL IN WHICH THE PATIENT HAD ACCESS DURING TREATMENT. ALL HOSPITAL STAFF WHO CAME IN CONTACT WITH THE PATIENT SHALL ALSO BE SURVEYED. APPROPRIATE DECONTAMINATION OF CONTAMINATED AREAS AND STAFF SHALL BE ACCOMPLISHED. DECONTAMINATION LIMITS WILL BE CONSISTENT WITH THE RICHLAND MEMORIAL HOSPITAL PROCEDURES MANUAL.
2. ALL CONTAMINATED EQUIPMENT, CLOTHING, ETC., SHALL BE ENCLOSED IN PLASTIC, TAGGED WITH PROPER RADIATION TAGS, AND RETURNED TO THE COLUMBIA PLANT FOR DISPOSITION. REGULATORY OPERATIONS PERSONNEL ARE RESPONSIBLE FOR THE ABOVE.

7.5 RECORDS:

A COMPLETE HISTORY OF CASUALTY TRANSFER, HOSPITAL SURVEYS, AND RELEASE SHALL BE COMPLETED AND RETAINED BY REGULATORY ENGINEERING.

8.0 ATTACHMENTS: NONE.

PROCEDURE: CSEP-0012-B-1
REVISION: 2

EMERGENCY INFORMATION TO BE GIVEN
RICHLAND MEMORIAL HOSPITAL EMERGENCY ROOM HEAD NURSE

1. This is _____ _____ _____ from Westinghouse Commercial Nuclear Fuel Division, Columbia, South Carolina, calling to notify the Richland Memorial Hospital Emergency Room that (a) contaminated casualty (casualties) is (are) in transit. State specifically, "This patient is contaminated with radioactive material, and will require the use of your radiation emergency plan." If the patient is not contaminated with radioactive material, state specifically, "There is no radioactive contamination on the patient."

2. There is (are)_____ patient(s).

3. The accident involves the following:

   (a) external contamination _____,
   (b) internal contamination _____,
   (c) high external exposure _____.

4. The following degree of injuries were sustained:

   _____ _____

   _____

   _____.

5. The following level of contamination was sustained:

   _____

   _____

6. The following decontamination effort was made:

   _____

   _____

7. The estimated time of arrival is (current time plus 35 minutes)_____ _____.

8. The _____ _____ will be used for transportation.

PROCEDURE: CSEP-0012-B-2
REVISION: 2

MEDICAL TREATMENT SLIP

Patient's Name: _____

Date: _____

Patient's home address and telephone number: _____

_____

Brief description of medical injury: _____

List any overriding condition of concern, explain: _____

_____

Date and time of any drug administered: _____

RADIATION EVALUATION SLIP

Patient's Name: _____

Date: _____

List of contamination radionuclides - Uranium -: _____

Estimate of contamination levels of patient: _____

Time of localized skin contamination: _____

Site of contamination: _____

Brief description of previous decontamination procedures: _____

_____

Estimate of whole body or local area dose to the patient at the time of hospital admission:

_____

WESTINGHOUSE COMMERCIAL NUCLEAR FUEL DIVISION
DRAWER R - BLUFF ROAD
COLUMBIA, S.C. 29250

TITLE: EMERGENCY NOTIFICATION OF ON-SITE AND OFF-SITE ORGANIZATIONS

1.0 PURPOSE:

THIS PROCEDURE PROVIDES THE NECESSARY INFORMATION FOR THE NOTIFICATION OF BOTH ON-SITE AND OFF-SITE ORGANIZATIONS OF AN EMERGENCY SITUATION.

2.0 POLICY AND SCOPE:

PROMPT NOTIFICATION OF RESPONSIBLE PERSONNEL IS NECESSARY IN DEALING WITH ANY EMERGENCY SITUATION. IN ADDITION, VARIOUS LOCAL, STATE, AND FEDERAL AUTHORITIES MUST BE NOTIFIED IF THE SITUATION REQUIRES ASSISTANCE OR HAS ALREADY OR THREATENS TO INVOLVE OFF-SITE PERSONS. ADEQUATE INFORMATION IS PRESENTED IN THIS PROCEDURE ALONG WITH ASSIGNED RESPONSIBILITIES TO PERMIT NOTIFICATION OF ALL NECESSARY PERSONS OR ORGANIZATIONS. GUIDELINES ARE ALSO PRESENTED TO DEFINE THE CIRCUMSTANCES UNDER WHICH OUTSIDE AUTHORITIES ARE TO BE NOTIFIED. RECEIPT AND PROCESSING OF OFF-SITE TRANSPORTATION INCIDENT INFORMATION IS ALSO COVERED.

3.0 REFERENCES:
3.1 REPLACES CSEP-0013, REV. 4.
3.2 RA-107, "INTERNAL REPORTING, AND NRC NOTIFICATION OF UNUSUAL OCCURRENCES."
3.3 HAZARDOUS MATERIAL EMERGENCY RESPONSE AND BEST MANAGEMENT PRACTICES PLAN."
3.4 10CFR 20.

4.0 TERMS/DEFINITIONS: NONE.

5.0 REGULATORY REQUIREMENTS: THIS ENTIRE PROCEDURE IS OF REGULATORY SIGNIFICANCE.

6.0 RESPONSIBILITIES: SEE 7.0.
6.1 NOTIFICATION OF ON-SITE PERSONNEL:
THE EMERGENCY COORDINATOR IS RESPONSIBLE TO ASSURE THAT ALL NECESSARY ON-SITE PERSONNEL HAVE BEEN NOTIFIED. TABLE I PRESENTS THE NECESSARY NAMES, TITLES, AND PHONE NUMBERS.
6.2 NOTIFICATION OF OFF-SITE ORGANIZATIONS:
NOTIFICATION OF OFF-SITE EMERGENCY ORGANIZATIONS IS THE RESPONSIBILITY OF THE SITE EMERGENCY DIRECTOR OR HIS ALTERNATE. EMERGENCY STAFF MEMBERS WILL FUNCTION AS ALTERNATES. THE REGULATORY AFFAIRS MANAGER, THE REGULATORY ENGINEERING MANAGER, AND THE SECURITY & SERVICES MANAGER WILL ADVISE THE EMERGENCY DIRECTOR. IF NO EMERGENCY STAFF MEMBERS CAN BE CONTACTED, THE SENIOR CONVERSION SUPERVISOR WILL FUNCTION AS THE ACTING EMERGENCY DIRECTOR. THE ACTING EMERGENCY DIRECTOR MAY INITIATE SUCH NOTIFICATION UPON INCIDENT VERIFICATION AND, IF POSSIBLE, CONSULTATION WITH THE SITE EMERGENCY DIRECTOR OR EMERGENCY STAFF MEMBER.

7.0 PROCEDURE:
7.1 WESTINGHOUSE NOTIFICATIONS
1. ON-SITE WESTINGHOUSE PERSONNEL:
THE ON-SITE EMERGENCY PERSONNEL ARE LISTED IN TABLE I. THESE PERSONNEL WILL BE NOTIFIED OF INCIDENTS INVOLVING THEIR FACILITY WHICH COULD CAUSE HARM TO AN EMPLOYEE OR TO THE GENERAL PUBLIC.
2. OFF-SITE NOTIFICATION:
NOTIFICATIONS WILL BE MADE TO THE CORPORATE ENERGY SYSTEMS EMERGENCY COMMITTEE, THE CNFD DIVISION GENERAL MANAGER, AND THE CORPORATE CRISIS CENTER FOR ALL EVENTS CLASSIFIED AS A SITE AREA EMERGENCY. LOCATIONS ARE LISTED IN TABLE III. CORPORATE ENVIRONMENTAL AFFAIRS

WILL BE CONSULTED ON ALL ENVIRONMENTAL RELEASES OR SPILLS.

*

7.2 IMMEDIATE NOTIFICATION:

ALL INCIDENTS OF ALERT CLASSIFICATION OR HIGHER REQUIRE IMMEDIATE NOTIFICATION TO THE STATE OF SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (SC-DHEC), NUCLEAR EMERGENCY PLANNING SECTION WITHIN FIFTEEN (15) MINUTES OF INCIDENT DECLARATION. A SIMILAR NOTIFICATION IS REQUIRED FOR THE U.S. NUCLEAR REGULATORY COMMISSION IMMEDIATELY FOLLOWING THE STATE NOTIFICATION FOR ALL INCIDENTS CLASSIFIED AS AN ALERT CATEGORY OR HIGHER NOT TO EXCEED ONE HOUR OF INCIDENT DECLARATION. NOTIFY RICHLAND COUNTY DEPARTMENT OF EMERGENCY SERVICES IMMEDIATELY FOLLOWING NOTIFICATION OF NRC. INFORMATION SHOULD BE CONVEYED PER "ATTACHMENT A." IF THE INCIDENT EMERGENCY CLASSIFICATION CHANGES, APPROPRIATE REGULATORY AGENCIES WILL BE IMMEDIATELY NOTIFIED OF THE UPGRADE OR DOWNGRADE IN INCIDENT STATUS OR CLOSEOUT. ("ATTACHMENT A" CAN BE FAXED TO THE ACENCIES IF NECESSARY.)

1. OFF-SITE ORGANIZATIONS:

OFF-SITE ORGANIZATIONS PHONE NUMBERS ARE LISTED IN TABLE II. VARIOUS ORGANIZATIONS MAY HAVE TO BE NOTIFIED FOR REASONS SUCH AS:

A) REQUEST ASSISTANCE TO SUPPLEMENT ON-SITE PERSONNEL.

B) REQUEST ASSISTANCE IN DEALING WITH OFF-SITE INCIDENTS.

C) PROVIDE NOTIFICATION AS REQUIRED UNDER STATE OR FEDERAL REGULATIONS.

* D) PROVIDE IMMEDIATE NOTIFICATION TO OUTSIDE AGENCIES REGARDING OIL OR HAZARDOUS MATERIAL SPILLS AS REQUIRED BY THE "HAZARDOUS MATERIAL EMERGENCY RESPONSE AND BEST MANAGEMENT PRACTICES PLAN," ATTACHMENTS "D" AND "E."

*

ALL NOTIFICATIONS OF OFF-SITE ORGANIZATIONS WILL BE PREFACED WITH A CALLBACK REQUEST FOR MESSAGE VERIFICATION.

2. IMMEDIATE NOTIFICATION - NRC:

THE NRC HEADQUARTERS EMERGENCY OPERATIONS CENTER (BETHESDA, MD) AND THE NRC REGION II OFFICE (ATLANTA, GA) WILL BE NOTIFIED BY TELEPHONE IN THE EVENT OF THE FOLLOWING:

A. IMMEDIATELY FOLLOWING THE STATE NOTIFICATION AND WITHIN ONE HOUR OF ALL INCIDENTS CLASSIFIED AS AN ALERT CATEGORY OR HIGHER.

* B. LOST, STOLEN OR MISSING LICENSED MATERIAL EQUAL TO OR GREATER THAN 1,000 TIMES THE QUANTITY SPECIFIED IN APPENDIX C OF 10CFR20 UNDER SUCH CIRCUMSTANCES THAT AN EXPOSURE COULD RESULT TO PERSONS IN UNRESTRICTED AREAS.

C. EXPOSURE OF ANY INDIVIDUAL EQUAL TO OR EXCEEDING A TOTAL EFFECTIVE DOSE EQUIVALENT OF 0.25 SV (25 REMS); A SHALLOW DOSE EQUIVALENT TO THE SKIN OR EXTREMITIES OF 2.5 GY (250 RADS), OR AN EYE DOSE EQUIVALENT OF 0.15 SV (75 REMS).

D. THE RELEASE OF RADIOACTIVE MATERIAL, INSIDE OR OUTSIDE OF A RESTRICTED AREA, SO THAT, HAD AN INDIVIDUAL BEEN PRESENT FOR 24 HOURS, THE INDIVIDUAL COULD HAVE RECEIVED AN INTAKE FIVE TIMES THE ANNUAL LIMIT OF INTAKE (THIS DOES NOT APPLY TO LOCATIONS WHERE PERSONNEL ARE NOT NORMALLY STATIONED DURING ROUTINE OPERATIONS SUCH AS PROCESS ENCLOSURES).

*

E. IMMEDIATELY NOTIFY THE US-NRC AFTER DISCOVERING AN EVENT THAT PREVENTS IMPLEMENTING IMMEDIATE PROTECTIVE ACTIONS NECESSARY TO AVOID EXPOSURE TO RADIATION OR RADIOACTIVE MATERIAL THAT EXCEEDS REGULATORY LIMITS OR RELEASES WHICH EXCEED REGULATORY

TITLE: EMERGENCY NOTIFICATION OF ON-SITE AND OFF-SITE ORGANIZATIONS

LIMITS.

F. ANY INCIDENT WHERE OFF-SITE RELEASES MAY CAUSE EXPOSURE OF THE PUBLIC TO RADIATION OR RADIOACTIVE MATERIALS.

G. ANY INCIDENT REQUIRING OFF-SITE TREATMENT OF EITHER EMPLOYEES OR THE GENERAL PUBLIC.

H. TRANSPORTATION INCIDENTS OFF-SITE AS NOTED IN THE "TRANSPORTATION INCIDENT REPORT" SECTION OF THIS PROCEDURE.

I. SECURITY INTRUSIONS TO THE SITE.

* J. UNCONTROLLED DETERIORATION OF NUCLEAR CRITICALITY SAFETY BARRIERS AS DESCRIBED IN PROCEDURE RA-107 AND SECTION 3.1.2 OF THE SITE EMERGENCY PLAN.

3. TWENTY-FOUR HOUR NOTIFICATION - NRC:
THE NRC HEADQUARTERS EMERGENCY OPERATIONS CENTER (BETHESDA, MD) AND THE NRC REGION II OFFICE (ATLANTA, GA) WILL BE NOTIFIED WITHIN TWENTY-FOUR HOURS OF ANY INCIDENT CAUSING THE FOLLOWING.

A. EXPOSURE OF ANY INDIVIDUAL EQUAL TO OR EXCEEDING A TOTAL EFFECTIVE DOSE EQUIVALENT OF 0.05 SV (5 REMS); A SHALLOW DOSE EQUIVALENT TO THE SKIN OR EXTREMITIES EXCEEDING 0.5 SV (50 REMS), OR AN EYE DOSE EQUIVALENT OF 0.15 SV (15 REMS).

B. THE RELEASE OF RADIOACTIVE MATERIAL, INSIDE OR OUTSIDE OF A RESTRICTED AREA, SO THAT, HAD AN INDIVIDUAL BEEN PRESENT FOR 24 HOURS, THE INDIVIDUAL COULD HAVE RECEIVED AN INTAKE IN EXCESS OF ONE OCCUPATIONAL ANNUAL LIMIT ON INTAKE (THIS DOES NOT APPLY TO LOCATIONS WHERE PERSONNEL ARE NOT NORMALLY STATIONED DURING ROUTINE OPERATIONS SUCH AS PROCESS ENCLOSURE).

C. UNPLANNED CONTAMINATION EVENT THAT,

1. RESTRICTS ACCESS TO CONTAMINATED AREAS FOR MORE THAN 24-HOURS.

2. INVOLVES A QUANTITY OF MATERIAL 5 TIMES THE LOWEST ANNUAL LIMIT ON INTAKE.

*

3. RESTRICTS ACCESS FOR REASONS OTHER THAN DECAY.

D. AN EVENT OCCURS IN WHICH SAFETY EQUIPMENT FAILS TO FUNCTION ACCORDING TO REGULATION OR LICENSE REQUIREMENTS.

E. AN EVENT WHEN UNPLANNED MEDICAL TREATMENT BEYOND FIRST AID IS REQUIRED FOR AN INDIVIDUAL WITH REMOVABLE CONTAMINATION ON HIS BODY.

F. AN UNPLANNED FIRE OR EXPLOSION DAMAGING LICENSED MATERIAL OR ANY DEVICE OR CONTAINER OR EQUIPMENT CONTAINING LICENSED MATERIAL.

G. AN INCIDENT WHICH MAY NOT RESULT IN RADIATION EXPOSURE BUT CREATES SERIOUS PUBLIC RELATIONS PROBLEMS.

* H. CONTROLLED DETERIORATION OF NUCLEAR CRITICALITY SAFETY BARRIERS AS DEFINED IN PROCEDURE RA-107 AND SECTION 3.1.1 OF THE SITE EMERGENCY PLAN.

*

4. THIRTY-DAY NOTIFICATION AND REPORTS - NRC:
A REPORT WILL BE SUBMITTED IN WRITTEN FORM WITHIN 30 DAYS FOR THE FOLLOWING:

A. EACH EXPOSURE OF AN INDIVIDUAL TO RADIATION OR CONCENTRATIONS IN EXCESS OF ANY APPLICABLE LIMIT IN 10CFR 20 OR IN THE NRC FACILITY LICENSE CONDITIONS.

B. ANY APPLICABLE INCIDENT REQUIRING IMMEDIATE OR 24-HOUR NOTIFICATION.

C. LEVELS OF RADIATION OR CONCENTRATION OF RADIOACTIVE MATERIAL

(NOT INVOLVING EXCESSIVE EXPOSURE OF ANY INDIVIDUAL) IN AN UNRESTRICTED AREA IN EXCESS OF 10 TIMES ANY APPLICABLE LIMIT SET FORTH IN 10CFR 20 OR IN THE CONDITIONS SPECIFIED IN THE NRC FACILITY LICENSE.

* D. A TELEPHONE REPORT TO THE NRC EMERGENCY OPERATIONS CENTER WITHIN 30 DAYS AFTER THE OCCURRENCE OF ANY LOST, STOLEN OR MISSING LICENSED MATERIAL IN A QUANTITY GREATER THAN 10 TIMES THE QUANTITY SPECIFIED IN APPENDIX C OF 10CFR20.

5. STATE OF SOUTH CAROLINA:
THE SC DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (SC-DHEC), NUCLEAR EMERGENCY PLANNING SECTION WILL BE PROMPTLY NOTIFIED BY TELEPHONE WITHIN 15 MINUTES OF INCIDENT DECLARATION UNDER THE FOLLOWING INCIDENT CONDITIONS:

*

A. ALL INCIDENTS CLASSIFIED AS AN ALERT CATEGORY OR HIGHER WITHIN 15 MINUTES OF DECLARATION OF THE INCIDENT.

B. INCIDENTS WHERE OFF-SITE MEDICAL TREATMENT IS NECESSARY, WHETHER DUE TO OCCUPATIONAL OR GENERAL PUBLIC EXPOSURE TO RADIATION.

C. ANY DISCHARGE OF MATERIALS TO THE ENVIRONMENT WHICH ARE ABOVE APPLICABLE LIMITS AND MAY LEAD TO PUBLIC RELATIONS PROBLEMS.

D. INCIDENTS WHICH ARE REPORTABLE TO THE NRC, INCLUDING ABNORMAL SECURITY OCCURRENCES.

E. ANY INCIDENT WHERE OFF-SITE EFFECTS MAY CAUSE EXPOSURE OF THE PUBLIC TO RADIATION OR RADIOACTIVE MATERIALS.

6. AMERICAN NUCLEAR INSURERS (MUTUAL ATOMIC ENERGY LIABILITY UNDERWRITERS):
THE ANI-MAELU WILL BE NOTIFIED UNDER THE FOLLOWING CONDITIONS.

A. EMERGENCY CONDITIONS REQUIRING IMMEDIATE NOTIFICATION OF FEDERAL AND STATE AGENCIES.

B. CONDITIONS WHICH RESULT IN A REQUEST FOR THE ASSISTANCE OF OFF-SITE EMERGENCY SUPPORT GROUPS SUCH AS MEDICAL, LOCAL, OR STATE AGENCIES, EITHER TO CARE FOR THE INJURED OR TO PROTECT THE PUBLIC.

7. RICHLAND MEMORIAL HOSPITAL:
THE RADIATION EMERGENCY RESPONSE STAFF WILL BE ALERTED IMMEDIATELY IN THE EVENT OF SERIOUS INJURY OR EXPOSURE OF ANYONE AS A RESULT OF RADIATION OR RADIOACTIVE MATERIALS.

8. RICHLAND COUNTY SHERIFF'S OFFICE:
THE RICHLAND COUNTY SHERIFF WILL BE NOTIFIED IMMEDIATELY IF ASSISTANCE IS NECESSARY IN CONTROLLING ACCESS TO OR EGRESS FROM AN AREA INVOLVED IN AN INCIDENT. THIS MAY INCLUDE ASSISTANCE IN EVACUATING THE POPULATION AREAS.

8.0 ATTACHMENTS:

8.1 TABLE I, "EMERGENCY NOTIFICATION TELEPHONE NUMBERS ON-SITE EMERGENCY PERSONNEL."

8.2 TABLE II, "EMERGENCY NOTIFICATION TELEPHONE NUMBERS OFF-SITE ORGANIZATIONS."

8.3 TABLE III, "EMERGENCY CORPORATE NOTIFICATION TELEPHONE NUMBERS -W- ENERGY SYSTEMS EMERGENCY COMMITTEE."

8.4 TABLE IV, "DHEC EMERGENCY RADIOLOGICAL ASSISTANCE."

8.5 TABLE V, "TRANSPORTATION EMERGENCIES CHEMTREC EMERGENCY CONTACT TELEPHONE NUMBER."

8.6 TABLE VI, "REGULATORY AFFAIRS RESPONSIBILITIES."

8.7 TABLE VII, "EMERGENCY COORDINATORS."

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8.8 TABLE VIII, "SOUTH CAROLINA DEPARTMENT OF HEALTH & ENVIRONMENTAL CONTROL."
8.9 ATTACHMENT A, "FORMAL NOTIFICATION TO USNRC & SCDHEC."
8.10 ATTACHMENT B, "EMERGENCY INFORMATION CHECKLIST."
8.11 ATTACHMENT C, "TRANSPORTATION INCIDENT REPORT."

Table I

EMERGENCY NOTIFICATION TELEPHONE NUMBERS
ON-SITE EMERGENCY PERSONNEL

TITLE	NAME	776-2610	BEEPER	HOME PHONE	CELLULAR PHONE
Site Emergency Director	J. A. Fici	3300		749-1758	730-2750
Alternate Emergency Director	R. Koga (Trainee)	3301		736-2853	730-6194
Alternate Emergency Director	S. Deller	3205		782-9260	730-2718
Alternate Emergency Director	W. Goodwin	3282	253-1292	776-8284	730-2719
Alternate Emergency Director	E. Keelen	3218		781-6643	730-2717
Alternate Emergency Director	S. McDonald	3451	253-9358	736-5458	960-3093
Alternate Emergency Director	D. Precht	3485		782-5867	
Alternate Emergency Director	D. Trevett	3344		781-3150	331-7599
Emergency Coordinator (Conv.)	On Duty	Cont Rm 3501, B. Lewis 3380, R. Jacobs 3639, C. Miles 3502, B. Peterson 3383			
Alternate Emerg. Coord. (MAP)		Cont Rm 3461, B. Ergle 3274, M. Lindler 3348, S. Shackelford 3658			
Backup Emerg. Coord. (URRS)		E. Shuler 3879, L. Turner 3542, N. Stevenson 3437			
Alternate Emerg. Coord. (IFBA)		M. Spinnato 3778, M. Goddard 3585, H. Doctor 3652			
Mgr, Human Resources	S. Deller	3205		782-9260	730-2718
Mgr, Product Assurance	J. Bush	3295		356-4837	
Controller	M. Whaley	3307		783-9200	
Mgr, Mat. Planning & Control	D. Precht	3485		782-5867	
Mgr, Security & Services	P. Stroud	3210		788-3936	730-2607
Mgr, Regulatory Affairs	W. Goodwin	3282	253-1292	776-8284	730-2719
Mgr, Plant Systems Eng.	D. Batson	3361		359-0128	
Mgr, Conversion Services	G. LaBruyere	3465		345-5155	
Mgr, Maint. Eng. & Technical Support/Search Coordinator	G. Lowder	3[illegible]24	690-1802	874-3033	920-0168
Mgr, Regulatory Engineering (Safety/Fire Emerg)	E. Reitler	3247		783-0078	
Mgr, Regulatory Operations	J. Heath	3415	253-1288	782-7745	730-6195
Mgr, Nuc. Mat. Mgmt. & PR	C. Sanders	3426	690-6660	786-1078	
Mgr, Traffic & Storeroom Ser.	J. Purcell	3519		787-4544	
Emergency Plan Coordinator	E. Reitler	3247		783-0078	
Alternate	R. Fischer	3671		798-5671	
Safety Engineer	J. Hooper	3211	253-2487	951-3568	360-9603
Plant Physician	Dr. S. Serbin	3220		788-7884 783-4433 788-7958	
Plant Nurse	On Duty	3219	256-9935		
Plant Security Guard	On Duty	3298,3285 ,3299			
Plant Security Guard, Gate 5		3704			
Direct Line, Plant Sec. Guard	On Duty	783-2694			
Direct Line, EOC (NRC)	EmerOper.Ctr	776-9186			
Direct Line, EOC (SC-DHEC)	EmerOper.Ctr	776-9319			
Emergency Cellular Phone (Security Office Adjacent to Main Guard Station)					730-0607

Table II

EMERGENCY NOTIFICATION TELEPHONE NUMBERS

OFF-SITE ORGANIZATIONS

ORGANIZATION	NAME	TELEPHONE NUMBER (803)
SC Dept. of Health & Environmental Control Nuclear Emerg. Planning Section	SC-DHEC	734-4846 (normal work hrs) 253-6488(Weekends)
Richland County Department of Emergency Services	Emergency Services	911 254-3061
Nuclear Regulatory Commission	Headquarters Emergency Operations Center (Bethesda)	(301) 951-0550 (301) 951-1212 (301) 951-6000 (301) 951-6100 (301) 427-4056 (301) 427-4259 (301) 492-8893
	Region II Office Atlanta	(404) 331-4503
S.C. Emergency Preparedness Division/Office of Adjacent General	Director	734-8020
Fire	City of Columbia Fire Department	911
Ambulance	Richland County Emergency Medical Service	911 254-3061
Sheriff	Richland County Sheriff	911
Highway Patrol	Radio Room	737-1030
SCLED		896-7000
Hospital	Richland Memorial	434-6350 434-7000
	Radiation Safety Officer	434-3400
Westinghouse, Columbia Plant Physician	Dr. S. Serbin	788-7884
American Nuclear Insurers	Health Physics Supervisor	(203) 561-3433 Ext. 312 or 313
	Fire Protection Impairments D. W. Eaves	704-543-7025 FAX 704-541-1251
Department of Energy	Emergency Assistance	8-803-725-3333
National Weather Service		822-8135
Department of Transportation	Transportation Emergency	(800) 424-8802
The State Newspaper (Press Releases)	P. Blanchat (News Editor)	771-8621 or 771-8415

Table III

EMERGENCY CORPORATE NOTIFICATION TELEPHONE NUMBERS

W ENERGY SYSTEMS EMERGENCY COMMITTEE

DEPARTMENT	TELEPHONE NUMBER
Emergency Coordinator	
Alternate Emergency Coordinator (Logistics)	
Public Relations	(ALL CONTACTS WILL BE MADE BY W ENERGY CENTER GUARDS)
Manpower Resources	
Financial Resources	
Medical and Regulatory Operations	
Legal	
Security	
Monroeville Energy Center Guardhouse Telephone Numbers:	(WIN) 8-284-4019 (WIN) 8-284-4020 or (412) 374-4019 (412) 374-4020
Nuclear Manufacturing Divisions, General Manager, M. D'Amore	(412) 374-2512 (412) 374-2412 (412) 372-1158
Corporate Environmental Affairs	(412) 642-3444
Corporate Crisis Center	(412) 642-3444
Press Releases: Mimi Limbach Robert Henderson	Outside (412) 642-3341 or (WIN) 8-272-3341 8-272-3117

Table IV

EMERGENCY RADIOLOGICAL ASSISTANCE

FOR SOUTH CAROLINA

FOR STATE ASSISTANCE IN INCIDENTS INVOLVING RADIOACTIVE MATERIAL IN SOUTH CAROLINA, SUCH AS TRANSPORTATION INCIDENTS, LOST OR STOLEN RADIOACTIVE MATERIALS, SPILLS, CONTAMINATION, ETC.:

NORMAL WORK HOURS

FROM (8:30 A.M. - 5:00 P.M.) CALL THE

NUCLEAR EMERGENCY PLANNING SECTION

(803) 734-4846

AFTER HOURS - WEEKENDS - HOLIDAYS

(803) 253-6488

Table V

TRANSPORTATION EMERGENCIES

CHEMTREC EMERGENCY CONTACT TELEPHONE NUMBER
(800) 424-9300

IN THE EVENT THAT WESTINGHOUSE IS CONTACTED BY AN ON-SCENE RESPONDER OR A REGULATORY AGENCY REGARDING A TRANSPORTATION ACCIDENT INVOLVING ONE OF WESTINGHOUSE SHIPMENTS, REFER THE INDIVIDUAL TO THE CHEMTREC EMERGENCY CONTACT TELEPHONE NUMBER LISTED ABOVE. THEN, IMMEDIATELY NOTIFY ONE OF THE WESTINGHOUSE TECHNICAL CONTACTS LISTED BELOW, IN THE ORDER LISTED, AND THE EMERGENCY COORDINATOR ON DUTY.

WESTINGHOUSE TECHNICAL CONTACTS			
NAME	EXT.	TELEPHONE NO.	BEEPER
J. PURCELL (Traffic)	3519	787-4544	
F. MOORER (Traffic)	3454	776-8647	698-3075
C. SANDERS (Regulatory Affairs)	3426	786-1078	690-6660
W. GOODWIN (Regulatory Affairs)	3282	776-8284	253-1292
E. REITLER (Regulatory Affairs)	3247	783-0078	
R. ERVIN (Regulatory Affairs)	3668	776-8596	
R. MONTGOMERY (Regulatory Affairs)	3550	356-5013	690-3339
N. KENT (Regulatory Affairs)	3552	738-1464	748-5926
J. HEATH (Regulatory Affairs	3415	782-7745	253-1288

Table VI

REGULATORY AFFAIRS RESPONSIBILITIES

PROGRAM RESPONSIBILITY	NAME	EXT	BEEPER	HOME
NUCLEAR MATERIALS MANAGEMENT & PRODUCT RECORDS				
Manager	Charlie Sanders	3426	690-6660	786-1078
Measurement Control & Accountability	Dan Colwell	3665	253-7272	790-0633
Criticality	Rich Montgomery Norman Kent Dave Williams	3550 3552 3337	690-3339 748-5926 253-2130	356-5013 738-1464 783-9252
Transportation	Bob Ervin	3668		776-8596
Criticality Safety Tech	Tommy Shannon	3672	733-0121	776-5308
REGULATORY ENGINEERING				
Manager Emergency Planning Coordinator ALARA	Ed Reitler	3247		783-0078
Safety	Jeff Hooper	3211	253-2487	951-3568
Environmental/Effluents	Roger Fischer	3671		798-5671
REGULATORY OPERATIONS				
Manager	Jim Heath	3415	253-1288	782-7745
External Radiation/Contamination Control	Spencer Gantt	3557		798-1057
Internal Exposures	Rod Likes	3553		783-7405
Regulatory Operations Technicians	Dane Graham Mike Adams Nellie Blackette Glenn Blackstone Steve Carver Hezekiah Green Bo Johnson Diane Marshall Jim Rankar Rusty Wilson Craig Yoder Susan Lewis	3600 3629 3412 3229 3530 3601 3397 3410 3397 3548 3397 3397	253-9035 253-9272 698-7313 256-1938 	776-3890 776-3149 776-0120 957-3076 564-5289 783-3579 783-7432 799-4067 749-3652 695-2185 782-1505 755-3514

Table VII

EMERGENCY COORDINATORS

NAME	AREA	EXTENSION	BEEPER	HOME
H. Doctor	IFBA	3652	253-7242	754-5238
B. Ergle	MAP	3274	690-3443	438-4322
M. Goddard	IFBA	3585	698-5565	776-5139
R. Jacobs	ADU Conversion	3639	771-1356	776-4462
B. Lewis	ADU Conversion	3380	698-2387	345-2355
M. Lindler	MAP	3348	253-1290	353-0511
C. Miles	ADU Conversion	3502	690-3547-local 690-3430-interstate	642-2636
R. Peterson	ADU Conversion	3383	690-3546	776-7964
S. Shackelford	MAP	3658	253-1265	783-0411
M. Spinnato	IFBA	3778	253-7312	788-1951
E. Shuler	URRS	3879	253-2722-local 690-6533-interstate	534-0251
N. Stevenson	URRS	3437	698-4988	735-0182
L. Turner	URRS	3542	253-2701	776-6289

Table VIII

SOUTH CAROLINA DEPARTMENT OF HEALTH & ENVIRONMENTAL CONTROL

NUCLEAR ENERGY PLANNING/ BUREAU OF RADIOLGOICAL HEALTH	HOME	PAGER
Ron Kinney	794-7350	698-2251
Heyward Shealy	945-7694	698-2721
Max Batavia	749-0423	690-8286
Sandra Threatt	345-1844	698-2874
Buck Corley	772-3332	690-9450
John Jesse	955-9220	698-7915
Sharon Cribb	356-4809	690-6215
Joy Morris	697-6640	690-8528
Mark Windham	736-3883	698-2967
Maureen Bingham	894-4079	690-8920

HAZMAT ER	HOME	PAGER
CHRIS STATON	731-9640	698-2246
STEVE BURDICK	798-8296	698-2247
DAVID WILKIE	356-0151	698-3284
PETE SAUSSY	252-1858	698-5532
MICHAEL JURAS	252-3386	698-4592
BARRY THOMPSON	699-5302	698-2254
JULIE LOTT	799-1687	698-2960
24 HR LINE	253-6488	926-2500
HWY WARNING	POINT	737-1030
EPD	734-8020	253-9529

Attachment A

FORMAL NOTIFICATION TO USNRC & SCDHEC

INITIAL NOTIFICATIONS (REQUEST CALL BACK)

1.0 This is _____(Your Name)_____ representing Westinghouse Electric Corporation, Commercial Nuclear Fuel Division, in Columbia, South Carolina. A state of emergency was declared at ____(Time/Date)____.

2.0 The incident involved a "_____(DESCRIPTION OF EVENT)_____ _____ _____ _____."

3.0 The incident was classified as a _____(ALERT, SITE AREA or "Notification") Emergency requiring immediate notification to regulatory agencies. The following personnel were involved in the incident:

_____ _____
_____ _____
_____ _____
_____ _____

4.0 An evacuation was initiated to (a) normal evacuation assembly points, (b) beyond normal assembly points, (c) to the site boundary (d) off-site.

5.0 The following injuries were incurred: _____ _____ _____.

6.0 (a) No fatalities were incurred, (b) the following personnel were fatally injured during the incident:_____ _____.

7.0 The following personnel were sent to _____ _____ _____ hospital for treatment as a result of the incident. Contaminated casualty and/or procedures (were/were not) utilized.

8.0 The following property damage was incurred on-site: _____ _____, and off-site: _____ _____ _____.

9.0 Access restriction was/was not imposed to limit traffic in the area.

10.0 The current facility status is: _____ _____.

11.0 The following estimated quantities of radioisotopes (and/or hazardous materials) were released (or unknown): _____ _____ _____ _____ _____ _____ _____.

12.0 From stack measurement the source term in Ci/second (or g/second) is estimated to be (or known): _____ _____ _____.

Attachment A

13.0 Using the ground level diffusion equation the downwind concentration at the site boundary is estimated to be (or unknown) Ci/m^3 (or $\mu g/m^3$): _____
_____
_____
_____.

14.0 The wind speed is estimated to be (or unknown) _____. The wind is out of the _____.

15.0 The stability class is estimated to be (or unknown) _____
_____.

16.0 From downwind measurement the source term is estimated to be (or unknown) _____Ci/m^3 or ($\mu g/m^3$).

17.0 The following protective actions are recommended: _____
_____
_____
(or none are recommended).

18.0 To verify this message immediately, call back Westinghouse at (803) 776-2610 and request to talk with the Emergency Director.

FOLLOWUP NOTIFICATIONS:

Followup notifications of off-site agencies may be required to provide updates of the following:

1. Upgrade or downgrade in classification _____
_____.

2. Evacuation status: _____._____
_____.

3. Status of injured or exposed personnel: _____
_____.

4. Facility status update: _____
_____.

5. Update on quantities of radioisotopes released and radioisotopes inventory if appropriate: _____
_____
_____.

6. Status of radioisotopes released off-site if applicable: _____
_____
_____
_____.

7. Protective action recommendations if applicable: _____
_____.

Attachment B

EMERGENCY INFORMATION CHECKLIST

I. RECORD OF CONTACTS MADE (include initial contacts and followup notifications):

DATE	TIME	NAME	TELEPHONE NUMBER	AFFILIATION	INITIALS

II. INFORMATION SUPPLIED

1.0 Description of Occurrence: _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Date: _____ Time: _____ Location: _____

Attachment B

2.0 Persons Involved (Off-Site/On-Site): _____

_____

_____

_____

Off-Site On-Site

2.1 Evacuation _____

If so, to what places? _____

2.2 Fatalities _____

2.3 Injuries _____

2.4 Contamination _____

2.5 Radiation Exposures _____

2.6 Hospitalization _____

3.0 Property Damage _____

3.1 On-Site _____ Off-Site _____

3.2 Access Restrictions _____

4.0 Radiation Released _____

_____

_____

_____

_____

4.1 On-Site _____ Off-Site _____

4.2 Concentrations _____

4.3 Total Activity _____

Attachment B

4.4 Projected Doses to Individuals (Off-Site/On-Site)_____

_____

_____

_____

5.0 Action Initiated to Confine the Material and Decontaminate the Area and Results _____

_____

_____

_____

6.0 Further Action Necessary to Keep Injury to Persons and Contamination of Property to a Minimum _____

_____

_____

_____

_____

_____

7.0 General Comments _____

_____

_____

_____

_____

_____

_____

_____

Attachment C

TRANSPORTATION INCIDENT REPORT

On duty guard or person receiving report:
(Verify that the transportation incident is a Westinghouse shipment.)
Name:

Date call received: ___/___/___
Time of call: _____ a.m./pm.

Person reporting incident to Westinghouse:
Name: Title:

Time incident occurred: a.m./p.m.

Nearest telephone:

Description of incident: *(include as much information as possible; kind, amount, and form of material involved; present physical condition of material; name of carrier, shipper, and recipient)*

Another vehicle involved:
☐ Yes ☐ No

Details:

Location of incident (including type of surroundings; *(Highway #, Interstate Milespost, miles to nearest large city, etc.)*:

Location of nearest airport:

What emergency personnel are currently on the scene?

Has the highway been closed by enforcement personnel?
☐ Yes ☐ No

Container damage: ☐ Yes ☐ No Extent: _____
Fire or explosion involved: ☐ Yes ☐ No
Potential loss of SNM: ☐ Yes ☐ No
Are all shipping containers on the trailer: ☐ Yes ☐ No
(If not what are their locations relative to the trailer): _____

Injuries (if any):

Persons involved in accident:

Notification of:

Names

☐ Emergency Director, _____
☐ or Alternate, and _____
☐ Manager of Regulatory Affairs _____

Classification as an "Alert" and Notification of US-NRC and SC-DHEC:
☐ Yes ☐ No

Other information furnished:

Followup declassification with regulatory agencies and termination of the event:

COLUMBIA SITE EMERGENCY PROCEDURE

PROCEDURE NO: CSEP-0015
REVISION: 2

ISSUE DATE: 03/25/94

TITLE: EMERGENCY BRIGADE ORGANIZATION

1.0 PURPOSE:

THE WESTINGHOUSE EMERGENCY BRIGADE WAS ORGANIZED TO SAFEGUARD THE EMPLOYEES AND THE PROPERTY OF THE WESTINGHOUSE ELECTRIC CORPORATION CNFD-COLUMBIA PLANT FROM THE THREAT OF FIRE, CHEMICAL EMERGENCIES AND PROVIDE FIRST-AID RESPONSE TO MEDICAL EMERGENCIES.

THE EMERGENCY BRIGADE IS INTENDED TO FUNCTION AS AN INTERIOR STRUCTURAL FIRE BRIGADE AS IDENTIFIED BY CFR 29, PART 1910, SUBPART L OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION.

2.0 POLICY AND SCOPE:

* THE EMERGENCY BRIGADE IS TO ACT AS A VOLUNTARY UNIT FOR PROMPT AND INTELLIGENT ACTION FOR ALL APPLICABLE EMERGENCIES, INCLUDING RESPONSE TO MAJOR EMERGENCY HAZARDOUS WASTE OR OIL SPILLS, ETC.

*

MONDAY - FRIDAY NORMAL SHIFT OPERATIONS SHALL HAVE AT LEAST 6 EMERGENCY BRIGADE MEMBERS ON-SITE TO RESPOND TO AN ON-SITE INCIDENT, EXCLUDING THE NURSE AND THE GUARD FORCE. EMERGENCY BRIGADE STAFFING FOR WEEKEND AND SHUTDOWN CONDITIONS ARE DESCRIBED BELOW.

* THE EMERGENCY BRIGADE IS HEADED BY THE SITE EMERGENCY DIRECTOR AND THE SPECIFIC DUTIES AND FUNCTIONS CAN BE FOUND IN THE WESTINGHOUSE SITE EMERGENCY PLAN, SECTION 4, ORGANIZATION CONTROL OF EMERGENCIES AND RESPONSIBILITIES. BASICALLY THE SITE EMERGENCY COORDINATOR IS IN CHARGE OF THE BRIGADE. DURING AN INCIDENT, THE EMERGENCY COORDINATOR IS IN CHARGE OF THE INCIDENT. IF THE INCIDENT INVOLVES A FIRE, WHEN THE COLUMBIA FIRE DEPARTMENT ARRIVES, THE OFFICER IN CHARGE OF THE FIRE DEPARTMENT FORCES ON SCENE AND THE EMERGENCY COORDINATOR WILL ESTABLISH A JOINT INCIDENT COMMAND.

THE PRIMARY FUNCTION OF THE EMERGENCY BRIGADE IS TO PERFORM EMERGENCY RESPONSE OPERATIONS THAT DO NOT EXCEED THE CAPABILITIES OF THE MEMBERS PRESENT. ADDITIONAL FUNCTIONS INCLUDE THE PROVISIONS OF FIRST AID ASSISTANCE AND SALVAGE OPERATIONS AS NECESSARY DURING ANY TYPE OF INCIDENT INCLUDING A FIRE, AND THE CHECKING OF FIRE FIGHTING EQUIPMENT THROUGHOUT THE FACILITY.

*

3.0 REFERENCES:

3.1 REPLACES CSEP-0015, REV. 0.

4.0 TERMS/DEFINITIONS:

4.1 WEEKEND AND SHUTDOWN (IDLED CONDITIONS IN CHEMICAL AREA):
ALL UF6 GAS FLOWS ARE SHUT OFF BY CLOSING THE UF6 CYLINDER VALVES; STEAM FLOWS ARE DISCONTINUED TO ALL UF6 VAPORIZERS; NO MAJOR CHEMICAL PROCESSING; PROCESS CHEMICALS SUCH AS NITRIC ACID, HYDROFLUORIC ACID AND AMMONIA ISOLATED BY CLOSURE OF BLOCK VALVES.

4.2 COLD SHUTDOWN (EXTENDED SHUTDOWN):
ALL UF6 GAS FLOWS ARE SHUT OFF BY CLOSING THE UF6 CYLINDER VALVES; ALL PROCESS EQUIPMENT AT AMBIENT TEMPERATURES (CALCINERS, FURNACES, INCINERATOR); NO CHEMICAL PROCESSING.

4.3 STAFFING FOR WEEKEND AND SHUTDOWN CONDITIONS:
THE FOLLOWING STAFFING CRITERIA SHALL APPLY TO WEEKENDS AND SHUTDOWNS:

1. THE MECHANICAL MANUFACTURING AREAS AND ROOF SHALL BE MONITORED BY THE SECURITY GUARD FORCE.

2. CHEMICAL AREA:
   A. THE CHEMICAL AREAS SHALL BE SHUTDOWN IN ACCORDANCE WITH PROCEDURES AND THE SHUTDOWN VERIFIED BY SUPERVISION OR THEIR DESIGNEES.
   B. A TEAM OF QUALIFIED CHEMICAL OPERATIONS PERSONNEL SHALL PERFORM A FIRE WATCH AND MONITOR CHEMICAL OPERATIONS IN EACH DEPARTMENT IN ACCORDANCE WITH A WRITTEN CHECKLIST.
   C. THE CHEMICAL OPERATIONS TEAM SHALL CONSIST OF SELECTED OPERATIONS PERSONNEL FROM REPRESENTATIVE CHEMICAL AREAS AND SHALL CONSIST OF AT LEAST ONE MEMBER OF THE EMERGENCY BRIGADE. THE EMERGENCY BRIGADE MEMBER IS RESPONSIBLE FOR REPORTING UNUSUAL EVENTS TO THE EMERGENCY COORDINATOR FOR INSTRUCTIONS. (THE EMERGENCY BRIGADE MEMBER WILL WEAR A BEEPER TO FACILITATE COMMUNICATIONS WITH THE CHEMICAL OPERATIONS TEAM).
   D. THE ON-CALL EMERGENCY COORDINATOR SHALL CALL IN AT LEAST ONCE PER SHIFT TO VERIFY ADEQUATE COMMUNICATIONS.

3. AT THE WEEKLY PRODUCTION MEETINGS, AREA MANAGERS SHALL PRESENT STANDING AGENDA ITEMS TO REVIEW PROPOSED ACTIVITIES FOR THE UPCOMING WEEKEND AND OTHER SHUTDOWNS. BASED UPON THE PROPOSED WEEKEND OR SHUTDOWN ACTIVITIES TO BE PERFORMED, ADDITIONAL COVERAGE WILL BE PROVIDED AS NECESSARY. THIS EVALUATION WILL INCLUDE MINIMUM EMERGENCY COORDINATOR AND EMERGENCY BRIGADE COVERAGE.

4.4 COLD SHUTDOWN (EXTENDED SHUTDOWN):

* 1. AT LEAST TWO EMPLOYEES SHALL PERFORM A FIRE WATCH AND MONITOR THE PLANT IN ACCORDANCE WITH A WRITTEN CHECKLIST.

*

2. CONCERNS OF THE MONITORS WILL BE ADDRESSED TO AN ON-CALL EMERGENCY COORDINATOR.

5.0 REGULATORY REQUIREMENTS: THIS ENTIRE PROCEDURE IS OF REGULATORY SIGNIFICANCE.

6.0 RESPONSIBILITIES: SEE 7.0.

7.0 PROCEDURE:

7.1 DUTIES AND RESPONSIBILITIES:

1. THE REGULATORY ENGINEER/SAFETY:

* THE REGULATORY ENGINEER/SAFETY SHALL BE RESPONSIBLE FOR ORGANIZING, ASSIGNING RESPONSIBILITY, TRAINING AND EQUIPPING EACH BRIGADE SO THAT IT CAN FUNCTION AS AN EFFICIENT UNIT FOR FIRE CONTROL, RESCUE WORK, FIRST AID TREATMENT, OR OTHER DUTIES FOR WHICH A BRIGADE MAY BE CALLED DURING AN EMERGENCY (HE ACTS ONLY IN AN ADVISORY CAPACITY DURING AN EMERGENCY). HE ALSO MAINTAINS RECORDS OF BRIGADE TRAINING.

*

2. EMERGENCY COORDINATOR:
THE EMERGENCY COORDINATOR SHALL BE RESPONSIBLE FOR COORDINATING ALL EMERGENCY EFFORTS; SUCH AS EVACUATION OF PERSONNEL FROM THE AFFECTED AREA, WHEN REQUIRED, AND FOR SECURING PRODUCTION EQUIPMENT, INCLUDING SHUTTING DOWN THE EQUIPMENT OR FOR ALTERING OPERATIONS TO CONFINE THE AREA IN WHICH THE EMERGENCY EXISTS. HE SHALL BE RESPONSIBLE FOR COORDINATING THE EFFORTS OF THE BRIGADE CHIEFS AND THE BRIGADE MEMBERS DURING AN EMERGENCY AND TRAINING SESSIONS.

3. BRIGADE CHIEF:
THE BRIGADE CHIEF SHALL BE RESPONSIBLE FOR DIRECTING THE ACTIVITIES

OF THE BRIGADE MEMBERS IN FIRE CONTROL, RESCUE OPERATIONS, AND FIRST AID TO THE INJURED DURING EMERGENCY OPERATIONS. HE SHALL ASSUME THE RESPONSIBILITIES OF THE BRIGADE COORDINATOR IN THE EVENT OF HIS ABSENCE AND OTHER ACTIVITIES AS DIRECTED BY THE EMERGENCY COORDINATOR.

4. HOSEMAN (2):
THE HOSEMAN SHALL REMOVE HOSES FROM HOSE HOUSES, OR HOSE RACKS, MAKE NECESSARY HOSE CONNECTION AND OPERATE NOZZLES.

5. SUPPORT HYDRANT MAN (1):
THE HYDRANT MAN SHALL BE RESPONSIBLE FOR COUPLING THE HOSE AT THE HYDRANT AND TURNING THE WATER ON AND OFF. HE SHALL REMAIN AT THE HYDRANT DURING AN EMERGENCY UNLESS SPECIFIED OTHERWISE BY THE BRIGADE CHIEF.

* 6. SUPPORT VEHICLE DRIVER (1):
THE VEHICLE DRIVER SHALL BE IN CHARGE OF THE EMERGENCY VEHICLE. IN THE EVENT THIS VEHICLE IS NOT REQUIRED, THE VEHICLE DRIVER SHALL PERFORM OTHER DUTIES AS SPECIFIED BY THE BRIGADE CHIEF.

*

7. SUPPORT UTILITY MAN (1):
THE UTILITY MAN SHALL ATTEND TO ALL ELECTRICAL CIRCUITS THAT MAY BE AFFECTED AND HANDLE ALL MATTERS OF AN ELECTRICAL NATURE, INCLUDING THE ASSURANCE THAT THE SITE FIRE PUMP IS FUNCTIONING, THEN HE SHALL ASSIST THE OTHER BRIGADE MEMBERS.

8. BACKUP BRIGADE:
ITEMS 1.3 THROUGH 1.7 IDENTIFY MINIMUM MANPOWER REQUIREMENTS TO COMBAT A FIRE. ADDITIONAL MEMBERS OF THE BRIGADE SHALL BE TRAINED AS A SECOND HOSE TEAM TO BE USED IF NEEDED. IN ADDITION, THEY SHALL SECURE AND PROVIDE LADDERS AND PROTECT AS MUCH EQUIPMENT AND MATERIAL FROM WATER DAMAGE AS POSSIBLE.

* 9. NURSES:
NURSES SHALL ASSIST THE EMERGENCY COORDINATOR AND BRIGADE CHIEFS AND BE PREPARED TO ADMINISTER FIRST AID TO ALL EMPLOYEES. DURING EMERGENCIES REQUIRING EVACUATION, NURSE SHOULD EVACUATE TO THE SOUTH ASSEMBLY POINT IF POSSIBLE.

*

10. GUARD:
ONE MEMBER OF THE GUARD FORCE AND AT LEAST ONE EMERGENCY BRIGADE MEMBER SHALL ANSWER ALL EMERGENCY ALARMS UNLESS ONLY ONE GUARD IS ON DUTY. THE FIRST INDIVIDUAL WHO REACHES THE EMERGENCY VEHICLE SHALL DRIVE THE EMERGENCY VEHICLE TO THE APPROPRIATE LOCATION. HE IS TO BRING THE EMERGENCY TRUCK, RADIO AND MASTER KEYS AS DIRECTED. IN ADDITION, HE SHALL PROVIDE CROWD CONTROL, COMMUNICATIONS WITH THE GUARDHOUSE, AND LOCATE THE FIRE FOR THE CITY FIRE DEPARTMENT AS DIRECTED BY THE EMERGENCY COORDINATOR. IF THERE IS ONLY ONE GUARD ON-SITE AND AN EMERGENCY OCCURS, THE GUARDS WILL ANNOUNCE OVER THE VOICE COMMUNICATION SYSTEM THAT AN EMERGENCY BRIGADE MEMBER MUST COME AND DRIVE THE EMERGENCY TRUCK TO THE APPROPRIATE LOCATION.

7.2 REQUIREMENTS FOR MEMBERSHIP:

1. ANY WESTINGHOUSE EMPLOYEE WHO WORKS AT THE WESTINGHOUSE CNFD-COLUMBIA SITE IS WELCOME TO JOIN THE EMERGENCY BRIGADE, ALTHOUGH CERTAIN SPECIFIC MEMBERS ARE APPOINTED, BASED UPON THEIR PARTICULAR JOB AND LOCATION WITHIN THE FACILITY. THE SPECIFIC NUMBER OF EMERGENCY BRIGADE MEMBERS VARIES AS INDIVIDUALS CHANGE JOBS AND MOVE IN AND OUT OF THE ORGANIZATION. THE APPROXIMATE NUMBER OF BRIGADE MEMBERS AT ANY TIME IS 75.

* 2. ASSIGNMENT OF PERSONNEL TO THE EMERGENCY BRIGADE SHALL BE THE

RESPONSIBILITY OF THE MANAGER OF THE RESPECTIVE DEPARTMENTS WITH THE APPROVAL OF THE MANAGER OF REGULATORY ENGINEERING. PROSPECTIVE MEMBERS WHO ARE REQUIRED TO RESPOND TO INTERIOR STRUCTURAL FIRE FIGHTING MUST PASS A PHYSICAL EXAMINATION, TREADMILL STRESS TEST AND MEDICAL APPROVAL BY THE PLANT PHYSICIAN.

*

3. SUCCESSFUL COMPLETION OF THE TRAINING COURSE AT THE SOUTH CAROLINA FIRE ACADEMY OR ITS EQUIVALENT IS REQUIRED BEFORE ACTUAL FIRE FIGHTING PARTICIPATION IS ALLOWED. THIS COURSE WILL INCLUDE STRUCTURAL FIREFIGHTING; SEARCH AND RESCUE; USE OF PROTECTIVE CLOTHING; SELF CONTAINED BREATHING APPARATUS TRAINING; AND GROUND FIRE TACTICS.
4. MEMBERS ARE IDENTIFIED AS FIRE FIGHTING MEMBERS AND SUPPORT MEMBERS. FIRE FIGHTING MEMBERS ARE EXPECTED TO PERFORM FIRE FIGHTING DUTIES, UTILIZING ALL TYPES OF HAND HELD PORTABLE FIRE EXTINGUISHERS, WHEELED FIRE EXTINGUISHERS, 1.5" (3.81 CM) HOSE LINES, AND 2.5" (6.35 CM) HOSE LINES. FIRE BRIGADE MEMBERS ARE ALSO EXPECTED TO BE ABLE TO HANDLE A VARIETY OF SPECIAL FIREFIGHTING APPARATUS INCLUDING FOAM SUPPRESSION UNITS, PROPER PROTECTIVE CLOTHING USE AND THE USE OF SELF-CONTAINED BREATHING APPARATUS.
5. MEMBERS ARE ALSO EXPECTED TO RESPOND TO CHEMICAL EMERGENCIES SUCH AS SPILLS AND GAS AND VAPOR RELEASES. HAZ-MAT RESPONSE INCLUDES THE ABILITY TO CONTROL SPILLS AND LEAKS BY DIKES, PLUGS, AND OTHER APPROPRIATE SPILL CONTROL TECHNIQUES. HAZ-MAT RESPONDERS ARE EXPECTED TO BE ABLE TO WEAR THE APPROPRIATE LEVEL OF PERSONAL PROTECTIVE CLOTHING AND THE PROPER RESPIRATORY PROTECTION EQUIPMENT. DECONTAMINATION OF PROTECTIVE CLOTHING AND EQUIPMENT AS WELL AS CONTAMINATION CONTROL ARE ALSO DEMANDED.
6. SUPPORT MEMBERS ARE NOT EXPECTED TO FIGHT FIRES BUT ARE EXPECTED TO PERFORM SPECIALIZED DUTIES THAT ARE INTENDED TO SUPPORT THE FIREFIGHTING AND HAZ-MAT RESPONSE EFFORTS. THESE SUPPORT FUNCTIONS INCLUDE:
   A. ENSURE THAT THE BUILDING IS EVACUATED AS REQUIRED.
   B. ENSURE THAT SPRINKLER VALVES ARE OPEN.
   C. ENSURE THAT THE FIRE DEPARTMENT IS DIRECTED TO THE SCENE OF THE EMERGENCY.
   D. ENSURE THAT THE FIRE PUMP IS OPERATING PROPERLY.
   E. ENSURE THAT THE OTHER LOGICAL NEEDS OF THE FIREFIGHTING MEMBERS ARE MET (E.G., REFILLING SCBA BOTTLED, SHUTTING POWER OFF TO SPECIFIC AREAS/EQUIPMENT, ETC.).

7.3 BRIGADE TRAINING:

1. REGULATORY ENGINEERING SECTION:
   THE REGULATORY SAFETY ENGINEER WILL COORDINATE EMERGENCY BRIGADE TRAINING AND MAINTAIN THE APPROPRIATE TRAINING RECORDS.
   A. REGULARLY SCHEDULED TRAINING SESSIONS WILL BE CONDUCTED ON SITE. ONE TRAINING SESSION WILL BE CONDUCTED BY THE SOUTH CAROLINA FIRE ACADEMY ANNUALLY.

* 2. BRIGADE MEMBERS:
   BRIGADE MEMBERS SHOULD ATTEND ALL SCHEDULED TRAINING SESSIONS EACH CALENDAR YEAR AND SHALL ATTEND THE TRAINING CONDUCTED BY THE SOUTH CAROLINA FIRE ACADEMY, TO REMAIN ON THE ACTIVE ROSTER.

3. THE PRIMARY SOURCE OF TRAINING FOR FIRE FIGHTING MEMBERS IS CONDUCTED WITHIN THE FACILITY BY THE EMERGENCY BRIGADE TRAINING OFFICER. THIS TRAINING IS CONDUCTED ON A REGULAR BASIS, WITH TRAINING BEING DONE IN ACCORDANCE WITH THE ISFSI PERFORMANCE STANDARDS FOR ADVANCED INTERIOR/EXTERIOR II, HAZARDOUS MATERIALS

TITLE: EMERGENCY BRIGADE ORGANIZATION

RESPONSE 29 CFR SUBPART H 1910.120 HAZARDOUS WASTE OPERATIONS AND EMERGENCY RESPONSE, ADVANCED FIRST AID/CPR WITH 29 CFR SUBPART K AND 29 CFR SUBPART Z 1910.1030 BLOODBORNE PATHOGENS, SUPPORT TRAINING ON RELATED SUBJECTS AND ISSUES ARE COVERED ON AN AS NEEDED BASIS.

*

7.4 SAFETY:

WHILE THIS EMERGENCY BRIGADE EXISTS TO HELP SAFEGUARD THE PEOPLE AND PROPERTY OF THE WESTINGHOUSE ELECTRIC CORPORATION CNFD SITE, THE FIRST AND FOREMOST CONSIDERATION MUST BE FOR THE SAFETY OF THE MEMBERS OF THE EMERGENCY BRIGADE. THE BRIGADE HAS LIMITED RESOURCES AND TRAINING THUS HAS LIMITED ABILITIES. THESE LIMITS MUST BE RECOGNIZED BY ALL MEMBERS TO ENSURE THAT MEMBERS ARE NOT EXTENDED BEYOND THEIR CAPABILITIES OR THE LIMITATIONS IMPOSED BY THE EQUIPMENT WITH WHICH THEY MUST OPERATE.

*7.5 TRAINING VERIFICATION:

1. REGULATORY ENGINEERING SHALL MAINTAIN A DATABASE FOR EMERGENCY BRIGADE MEMBERS TO TRACK QUALIFICATION CRITERIA. THE FOLLOWING CRITERIA SHALL BE INCLUDED IN THE DATABASE:
   - A. MEDICAL APPROVAL (PHYSICAL EXAMINATION, PULMONARY FUNCTION, ETC.)
   - B. BLOODBORNE PATHOGEN TRAINING
   - C. FIRST AID/CPR TRAINING
   - D. FIRE ACADEMY TRAINING
   - E. OTHER QUARTERLY TRAINING
2. REGULATORY ENGINEERING SHALL MAINTAIN THE DATABASE WITH INFORMATION FROM 7.5.1, INCLUDING THE RESPONSE STATUS FOR EACH MEMBER.
3. REGULATORY ENGINEERING SHALL DISTRIBUTE THE DATABASE QUARTERLY TO THE FOLLOWING:
   - A. EMERGENCY COORDINATORS
   - B. EMERGENCY BRIGADE CHIEFS
   - C. EMERGENCY VEHICLE
   - D. EMERGENCY OPERATIONS CENTER
4. ONLY QUALIFIED EMERGENCY BRIGADE MEMBERS SHALL BE UTILIZED IN EMERGENCY RESPONSE ROLES.

7.6 EMERGENCY BRIGADE DUTY LIMITS AND DATA BASE REQUIREMENTS

7.6.1 LEVEL 0 DUTY LIMITS (RECRUIT):

NEW RECRUITS SHALL NOT BE PERMITTED TO PARTICIPATE IN ANY EMERGENCY BRIGADE RESPONSE UNTIL THE FOLLOWING REQUIREMENTS HAVE BEEN MET:

1. MANAGEMENT APPROVAL: THE INDIVIDUAL'S SUPERVISOR SHALL GIVE PERMISSION TO THE EMPLOYEE TO PARTICIPATE IN THE EMERGENCY BRIGADE TRAINING ACTIVITIES AND BECOME QUALIFIED TO RESPOND TO EMERGENCIES.
2. REGULATORY ENGINEERING REVIEW AND APPROVAL: REGULATORY ENGINEERING SHALL AUDIT THE EMERGENCY BRIGADE MANPOWER REQUIREMENTS TO ASSURE THEREIS A NEED FOR ADDITIONAL MEMBER(S).
   - A) IF THERE IS NOT A CURRENT NEED FOR ADITIONAL MANPOWER, THE REQUEST FOR ADITIONAL MANPOWER WILL BE DENIED. THE NAME OF THE INDIVIDUAL WILL BE PLACED ON A WAITING LIST FOR FUTURE CONSIDERATION.
   - B) IF THERE IS A NEED FOR ADDITIONAL MANPOWER, THE INDIVIDUAL WILL THEN GO THROUGH AN INITIAL SCREENING BEFORE BEING ADDED TO THE EMERGENCY BRIGADE. THE SCREENING SHALL CONSIST OF THE FOLLOWING:
     1) REGULATORY ENGINEERING SHALL CONTACT MEDICAL TO DETERMINE IF THERE IS A KNOWN MEDICAL REASON THAT THE INDIVIDUAL CANNOT PHYSICALLY PERFORM THE DUTIES OF THE EMERGENCY BRIGADE.
     2) THE INDIVIDUAL SHALL BE INTERVIEWED TO DETERMINE ANY

TITLE: EMERGENCY BRIGADE ORGANIZATION

PREVIOUS FIREFIGHTING EXPERIENCE OR SIMILAR PREVIOUS EXPERIENCE WHICH WOULD PROVE BENEFICIAL TO THE EMERGENCY BRIGADE.

3) THE "RECRUIT" SHALL BE INTERVIEWED TO DETERMINE IF THERE IS ANY KNOWN CLAUSTROPHOBIC TENDENCIES.

C) IF ALL THREE ELEMENTS LISTED ABOVE DO NOT SHOW A REASON THAT THE INDIVIDUAL CANNOT PARTICIPATE, THEN THEY WILL BE ADDED TO THE EMERGENCY BRIGADE AS A "RECRUIT".
THE FOLLOWING ITEMS WILL BE REVIEWED WITH THE RECRUIT:
1) EMERGENCY BRIGADE TRAINING REQUIREMENTS
2) TRAINING ATTENDANCE REQUIREMENTS
(A) ON-SITE
(B) OFF-SITE
3) DRILL PARTICIPATION REQUIREMENTS
4) RECOGNITION DINNER AND OTHER BENFITS
5) COMPLETE PHYSICAL EXAM ANNUALLY
6) TREADMILL STRESS TEST EVERY 4 YEARS

D) IN ORDER FOR A "RECRUIT" TO BE UPGRADED TO AN "INCIPIENT LEVEL" (LEVEL 1) MEMBER THE FOLLOWING REQUIREMENTS MUST BE MET:
1) WESTINGHOUSE SHALL ASSURE THAT EMPLOYEES WHO ARE EXPECTED TO PERFORM AS MEMBERS OF THE CNFD EMERGENCY BRIGADE SHALL BE PHYSICALLY FIT. A PHYSICIANS CERTIFICATE OF THE EMPLOYEES' FITNESS TO PARTICPATE IN SUCH ACTIVITIES IS REQUIRED. ANNUAL PHYSICALS ARE REQUIRED, TO INCLUDE PULMONARY FUNCTION TESTING, BLOOD AND URINE TESTING, VISION TESTING, AUDIOMETRIC TESTING, A CHEST X-RAY (IF INDICATED), AND CARDIAC EVALUATION (IF INDICATED).
[29 CFR 1910.156 AND NFPA 600 A-4-4 REQUIREMENTS.] EXCEPTION: PHYSICAL REQUIREMENTS CAN BE WAIVED FOR AN INDIVIDUAL IF THEY ARE NOT GOING TO BE PERFORMING ANY DUTIES INVOLVING INTERIOR STRUCTURAL FIREFIGHTING, EXTERIOR OFFENSIVE FIREFIGHTING, OR RESCUE ACTIVITIES.
2) WESTINGHOUSE SHALL ASSURE THAT EMPLOYEES WHO ARE EXPECTED TO PERFORM AS MEMBERS OF THE CNFD EMERGENCY BRIGADE ARE GIVEN A TREADMILL STRESS TEST WITHIN 90 DAYS AFTER JOINING THE EMERGENCY BRIGADE. THE TREADMILL STRESS TEST SHALL BE REPEATED FOR EACH ACTIVE EMERGENCY BRIGADE MEMBER EVERY 4 YEARS (PLUS OR MINUS 90 DAYS).
3) AMERICAN RED CROSS STANDARD FIRST AID (REQUIRED EVERY 3 YEARS) [29 CFR 1910.151]
4) CPR TRAINING (REQUIRED EVERY YEAR)
* 5) BLOODBORNE PATHOGEN TRAINING INCLUDING THE OPPORTUNITY FOR THE HEPATITUS B VACINATION (TRAINING REQUIRED ANNUALLY) [29 CFR 1910.1030]

*

NOTE: TO ACHIEVE LEVEL 1 CERTIFICATION THE RECRUIT MUST COMPLETE THE ABOVE REQUIRED TRAINING PLUS THE FOLLOWING NON-STRUCTURAL FIRE FIGHTING COURSE:

BASIC FIREFIGHTING
FIRE EXTINGUISHER TYPES AND USE (29 CFR 1901.157)
CLASSES OF FIRE A B C D
SPECIAL HAZARDS (29 CFR 1910.1200)
FLAMMABLE LIQUIDS
FLAMMABLE GAS

TITLE: EMERGENCY BRIGADE ORGANIZATION

TOXIC/HAZARDOUS CHEMICALS/MATERIALS
RADIOACTIVE MATERIALS (29 CFR 1910.96)
WATER REACTIVE SUBSTANCES
PRE-FIRE PLANS (29 CFR 1910.38)
SITE EMERGENCY PLAN & IMPLEMENTING PROCE[illegible]
SAFETY MANUAL FIRE POLICIES/PROCEDURES

LEVEL 1 DUTY LIMITS:
THE FOLLOWING LIMITS ARE TO BE CONSIDERED REQUIREMENTS. NO EMERGENCY BRIGADE MEMBER SHALL PERFORM A DUTY OR FUNCTION FOR WHICH HE HAS NOT BEEN TRAINED.
INCIPENT INTERIOR FIRES:
INTERIOR FIRES SHALL BE CONSIDERED INCIPIENT STAGE WHEN EMERGENCY BRIGADE MEMBERS:

(A) ARE ABLE TO FIGHT THE FIRE IN NORMAL WORK CLOTHING, AND:
(B) ARE NOT REQUIRED TO CRAWL OR TAKE OTHER EVASIVE ACTION TO AVOID SMOKE AND HEAT, AND
(C) ARE NOT REQUIRED TO WEAR INTERIOR STRUCTURAL FIE FIGHTING CLOTHING OR SCBA, AND
(D) ARE ABLE TO FIGHT THE FIRE EFFECTIVELY WITH PORTABLE EXTINGUISHERS OR HANDLINES FLOWING UP TO 125 GPM.

EXTERIOR DEFENSIVE FIRE-FIGHTING:
EXTERIOR FIRES SHALL BE CONSIDERED APPROPRIATE FOR DEFENSIVE ACTION OUTSIDE OF THE FIRE CONTROL ZONE BY EMERGENCY BRIGADE MEMBERS WHO HAVE BEEN ASSIGNED INCIPIENT FIRE FIGHTING DUTIES WHEN:

(A) THE EB ORGANIZATIONAL STATEMENT LISTS IT AS A DUTY OF THE EMERGENCY BRIGADE, AND IT IS COVERED BY STANDARD OPERATING PROCEDURES, AND
(B) THE EMERGENCY BRIGADE HAS RECEIVED TRAINING FOR THAT ACTIVITY, AND
(C) SCBA AND INTERIOR STRUCTURAL FIREFIGHTING CLOTHING ARE NOT REQUIRED, AND
(D) PERSONAL EVASIVE ACTION IS NOT REQUIRED, AND
(E) THEY ARE ABLE TO PERFORM DEFENSIVE ACTION EFFECTIVELY, USING HANDLINES FLOWING UP TO 300 GPM MASTER STREAMS, OR SIMILAR DEVICES,
(F) THEY ARE ABLE TO RESPOND TO HAZARDOUS MATERIAL INCIDENTS REQUIRING THE USE OF LEVEL C OR LEVEL D PROTECTIVE CLOTHING.

7.6.2 EMERGENCY BRIGADE LEVEL 2 LIMITS:

1. IN ADDITION TO BEING ABLE TO PERFORM ALL THE ELEMENTS OF A LEVEL 1 EB MEMBER, THE LEVEL 2 EB MEMBER SHALL BE ABLE TO DO THE FOLLOWING:
   (A) THE EB ORGANIZATIONAL STATEMENT LISTS IT AS A DUTY OF THE EMERGENCY BRIGADE, AND IT IS COVERED BY STANDARD OPERATING PROCEDURES, AND
   (B) THE EB HAS RECEIVED TRAINING FOR THAT ACTIVITY, AND
   (C) SCBA AND INTERIOR STRUCTURAL FIREFIGHTING CLOTHING HAS BEEN PROVIDED, AND
   (D) EB MEMBERS ARE ABLE TO PERFORM OFFENSIVE ACTIONS EFFECTIVELY USING HANDLINES FLOWING UP TO 300 GPM MASTER STREAMS, OR SIMILAR DEVICES.
   (E) THEY ARE ABLE TO RESPOND TO HAZARDOUS MATERIAL INCIDENTS REQUIRING THE USE OF LEVEL B,C OR D PROTECTIVE CLOTHING.

7.6.3 EMERGENCY BRIGADE LEVEL 3 LIMITS:

1. IN ADDITION TO BEING ABLE TO PERFORM ALL THE ELEMENTS OF A LEVEL 1 AND LEVEL 2 EB MEMBER, THE LEVEL 3 EB MEMBERS SHALL BE ABLE TO DO THE FOLLOWING:
   (A) THE EB ORGANIZATION STATEMENT LISTS IT AS A DUTY OF THE EMERGENCY BRIGADE, AND IT IS COVERED BY STANDARD OPERATING PROCEDURES, AND

(B) THE EB HAS RECEIVED TRAINING FOR THAT ACTIVITY, AND
(C) SCBA AND INTERIOR STRUCTURAL FIRE FIGHTING CLOTHING ARE PROVIDED, AND
(D) THEY ARE ABLE TO PERFORM OFFENSIVE ACTION EFFECTIVELY, USING HANDLINES FLOWING UP TO 300 GPM MASTER STREAMS, OR SIMILAR DEVICES,
(E) THEY ARE ABLE TO RESPOND TO HAZARDOUS MATERIAL INCIDENTS REQUIRING THE USE OF LEVEL A,B,C OR D PROTECTIVE CLOTHING.

*

8.0 ATTACHMENTS: NONE.

COLUMBIA SITE EMERGENCY PROCEDURE

PROCEDURE NO: CSEP-0017-A
REVISION: 2

ISSUE DATE: 03/25/94

TITLE: ESTABLISHING DOWNWIND CONCENTRATION
UTILIZING GROUND LEVEL RELEASE DIFFUSION FACTOR AND STACK DATA

1.0 PURPOSE:

TO PROVIDE A RAPID METHOD FOR ESTIMATING DOWNWIND CONCENTRATIONS FOLLOWING THE ACCIDENTAL RELEASE OF RADIOACTIVE MATERIAL.

2.0 POLICY AND SCOPE:

UNDER CERTAIN CONDITIONS THE METEOROLOGICAL PARAMETERS MAY BE UNAVAILABLE. IT MAY BECOME NECESSARY TO MAKE A RAPID ASSESSMENT OF THE SITUATION USING CONSERVATIVE CALCULATIONS. THE GROUND LEVEL DIFFUSION EQUATION AND STACK DATA WILL BE EMPLOYED FOR THIS PURPOSE. THE GRAPHS ARE BASED ON THE DIFFUSION MODEL CONDITIONS LISTED IN APPENDIX B OF THE SITE EMERGENCY PLAN. THIS PROCEDURE WILL COVER SUCH SITUATIONS.

3.0 REFERENCES:
3.1 REPLACES CSEP-0017-A, REV. 1.
3.2 CSEP-0017-A, FIGURES 1 AND 2.

4.0 TERMS/DEFINITIONS: NONE.

5.0 REGULATORY REQUIREMENTS: THIS ENTIRE PROCEDURE IS OF REGULATORY SIGNIFICANCE.

6.0 RESPONSIBILITIES: SEE 7.0.

7.0 PROCEDURE:

1. COUNT STACK SAMPLE IMMEDIATELY FOLLOWING THE ACCIDENT PER REGULATORY OPERATIONS OPERATING PROCEDURE RO-06-002. DISCOUNT CONTRIBUTION FROM SHORT LIVED ALPHA EMITTERS. CALCULATE SOURCE TERM BY MULTIPLYING CONCENTRATION TIMES VOLUME DISCHARGE FACTOR IN CSEP-0017-D-5.

SAMPLE CALCULATIONS:

$$\text{Source Term } \frac{(Ci)}{\text{Second}} = \text{Stack Conc. } \frac{(\mu Ci)}{ml} \times \text{Vol.Disch Factor } \frac{(ml)}{hr} \times \frac{1\ hr}{3600\ sec} \times \frac{1Ci}{10^6\ \mu Ci}$$

IF THE STACK SAMPLE RESULT IS REPORTED AS COUNTS PER MINUTE (CPM), CONVERT TO UCI/ML USING THE FOLLOWING FORMULA:

$$CONCENTRATION\ (\mu\frac{Ci}{ml}) = \frac{Avg.\ Corrected\ cpm}{7.2x10^{11}(SampleCollectionTime(hrs))(Flowrate(cfm))}$$

WHERE SAMPLE TIME IS THE TIME IN HOURS SINCE THE SAMPLE WAS CHANGED. SAMPLES ARE CHANGED DAILY AT NOON. AND THE FLOW RATE CAN BE OBTAINED FROM CSEP-0017-D-5.

2. DETERMINE THE DISTANCE IN METERS FROM THE BUILDING STRUCTURE TO THE DOWNWIND SAMPLING POINT WHERE THE CONCENTRATION IS DESIRED. REFER TO FIGURES 1 AND 2 USING THE APPROPRIATE TIME SPAN OF INTEREST. USE

TITLE: ESTABLISHING DOWNWIND CONCENTRATION
UTILIZING GROUND LEVEL RELEASE DIFFUSION FACTOR AND STACK DATA

0-8 HOURS FOR SHORT TERM RELEASES AND 8-24 HOURS FOR THE IMPACT OVER A PERIOD OF 24 HOURS.

3. FROM FIGURES 1 AND 2, DETERMINE THE ATMOSPHERIC DIFFUSION FACTOR X/Q, SEC/M^3.

4. ESTIMATE THE DOWNWIND CONCENTRATION USING THE ATMOSPHERIC DIFFUSION FACTOR FROM THE ABOVE STEP AND THE FOLLOWING CALCULATION:

DOWNWIND CONCENTRATION AT DISTANCE "X" FROM THE STRUCTURE (CI/M^3)	=	SOURCE TERM, (CI/SEC)	X	DIFFUSION FACTOR (X/Q) FROM FIGURES 1 OR 2 FOR DISTANCE "X" (SECOND/M^3)

8.0 ATTACHMENTS: NONE.

GROUND LEVEL RELEASE - ATMOSPHERIC

DIFFUSION FACTORS FOR VARIOUS TIMES FOLLOWING ACCIDENT

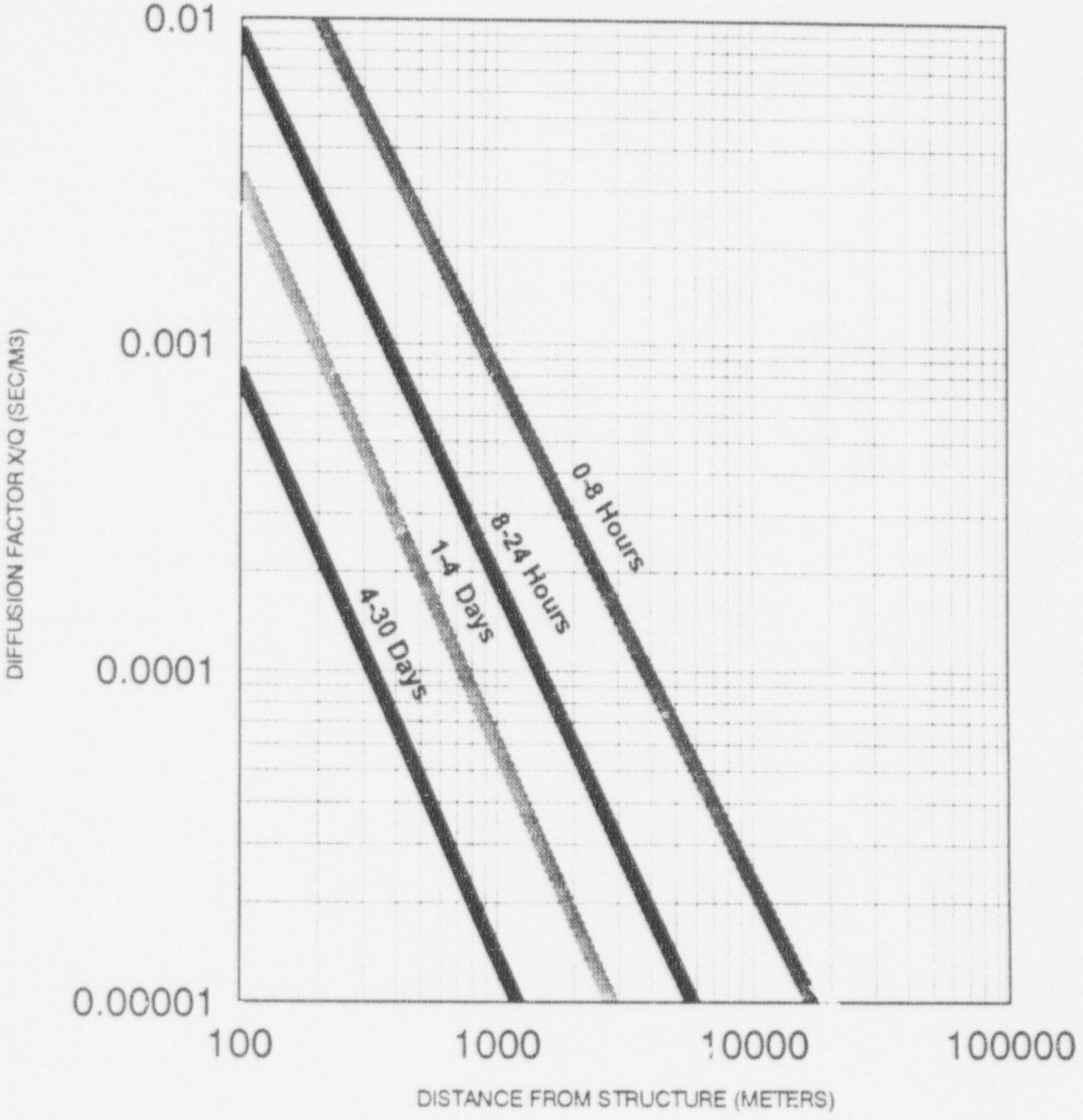

FIGURE 1

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GROUND LEVEL RELEASE - ATMOSPHERIC

DIFFUSION FACTORS FOR VARIOUS TIMES FOLLOWING ACCIDENT

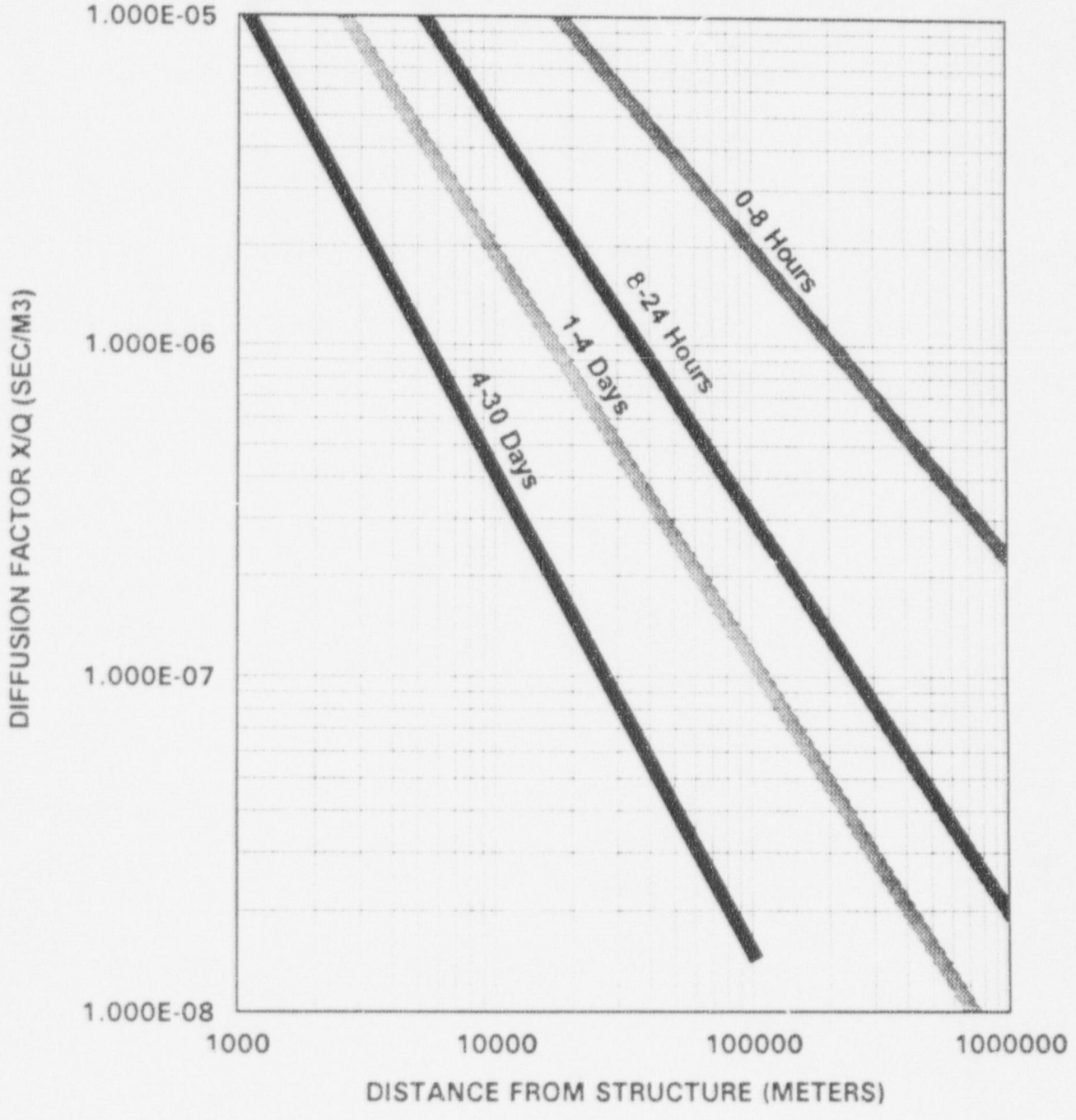

FIGURE 2

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COLUMBIA SITE EMERGENCY PROCEDURE

PROCEDURE NO: CSEP-0019 ISSUE DATE: 03/25/94
REVISION: 3 PAGE: 1 OF 4

TITLE: EMERGENCY ACTION PROCEDURE GUIDE

1.0 PURPOSE:

THIS PROCEDURE DOCUMENTS THE GENERAL ACTIONS TO BE TAKEN IN THE EVENT OF AN EMERGENCY.

2.0 POLICY AND SCOPE:

IN THE EVENT OF OCCURRENCE OF ONE OF THE EMERGENCY SITUATIONS, THE FOLLOWING GENERAL PROCEDURE WILL ASSIST IN IMPLEMENTATION OF THE EMERGENCY PLAN IMPLEMENTING PROCEDURES.

3.0 REFERENCES:
3.1 REPLACES CSEP-0019, REV. 2.
3.2 CSEP-0019-1, "GENERAL EMERGENCY EVENT ACTION SEQUENCE."
3.3 CSEP-0019-2, "INCIDENT SCENARIO CLASSIFICATION CHART."
3.4 CSEP-0019-3, "UF6 RELEASE CHECKLIST."
3.5 CSEP-0019-4, "CRITICALITY CHECKLIST."
3.6 CSEP-0019-5, "FIRE CHECKLIST."
*
3.7 CSEP-0019-6, "EMERGENCY CLASSIFICATION LOGIC FLOW ACCIDENTAL CRITICALITY, UF6 RELEASES AND FIRE EVENTS."
3.8 CSEP-0019-7, "EMERGENCY CLASSIFICATION LOGIC FLOW POWDER/LIQUID SPILLS, VENTILATION PROBLEM, EXPLOSION."
3.9 CSEP-0019-8, "EMERGENCY CLASSIFICATION LOGIC FLOW HAZARDOUS WEATHER, CIVIL DISORDER, CONTAMINATED CASUALTY."
3.10 CSEP-0012-A, "EMERGENCY MEDICAL CONTAMINATION DETECTION AND TREATMENT."
3.11 CSEP-0012-B "CONTAMINATED CASUALTY TRANSFER."
3.12 CSEP-0013, "EMERGENCY NOTIFICATION OF ON-SITE AND OFF-SITE ORGANIZATIONS."
3.13 CSEP-0016-A, "ACTIVATION OF EMERGENCY BRIGADE."
3.14 CSEP-0016-B, "ACTIVATION OF HEALTH PHYSICS RESPONSE TEAM."
3.15 10CFR70.50.
*
4.0 TERMS/DEFINITIONS: NONE.

5.0 REGULATORY REQUIREMENTS: THIS ENTIRE PROCEDURE IS OF REGULATORY SIGNIFICANCE.

6.0 RESPONSIBILITIES: SEE 7.0.

7.0 PROCEDURE:

1. AN EMERGENCY CAN BE DEFINED AS ANY EVENT OR CONDITION WHICH DEVIATES FROM NORMAL OPERATION AND HAS THE POTENTIAL TO HARM THE HEALTH AND SAFETY OF SITE PERSONNEL OR THE GENERAL PUBLIC.
2. FOLLOWING OCCURRENCE OF THE EVENT THE PERSON NOTING THE SITUATION WILL IMMEDIATELY NOTIFY THE EMERGENCY COORDINATOR.
3. THE EMERGENCY COORDINATOR WILL IMMEDIATELY INITIATE NOTIFICATION OF THE EMERGENCY DIRECTOR AND ALL EMERGENCY STAFF MEMBERS AS IS NECESSARY PER PROCEDURE CSEP-0013. REGULATORY ENGINEERING WILL BE IMMEDIATELY NOTIFIED. MEDICAL WILL BE NOTIFIED AS REQUIRED TO RESPOND PER CSEP-0012-A AND CSEP-0012-B. EMERGENCY BRIGADE MEMBERS WILL BE ACTIVATED BY PROCEDURE CSEP-0016-A.
4. EVACUATION WILL BE INITIATED AS REQUIRED BY INDIVIDUAL OPERATING PROCEDURES.
* 5. IF THE INCIDENT IS DECLARED AS AN EMERGENCY, THE INCIDENT WILL BE IMMEDIATELY CLASSIFIED ACCORDING TO THE LEVEL OF INCIDENT IN ACCORDANCE WITH SECTION 3 AND CSEP-0019-6, CSEP-0019-7 AND CSEP-

TITLE: EMERGENCY ACTION PROCEDURE GUIDE

0019-8:

1. LOCAL - MINOR INCIDENT
2. ALERT
3. SITE AREA EMERGENCY

ALL INCIDENTS ABOVE THE LOCAL CLASSIFICATION WILL REQUIRE NOTIFICATION OF SC-DHEC NUCLEAR EMERGENCY PLANNING SECTION WITHIN 15 MINUTES FOLLOWING DECLARATION OF THE INCIDENT AND THE USNRC IMMEDIATELY FOLLOWING THE STATE NOTIFICATION AND WITHIN ONE HOUR. NOTIFY RICHLAND COUNTY DEPARTMENT OF EMERGENCY SERVICES IMMEDIATLEY FOLLOWING NOTIFICATION OF NRC. "LOCAL" DETERIORATION OF NUCLEAR CRITICALITY SAFETY BARRIERS MUST BE REPORTED WITHIN 24 HOURS. OTHER IMMEDIATE NOTIFICATIONS WILL BE MADE ACCORDING TO CSEP-0013 PROCEDURE NOTIFICATION SECTION 7.0, "IMMEDIATE NOTIFICATIONS."

* 6. ALL SITE AREA EMERGENCY INCIDENTS WILL REQUIRE THAT THE EMERGENCY DIRECTOR AND THE EMERGENCY STAFF CONVENE AND ORGANIZE AN EMERGENCY OPERATIONS CENTER. FOR INCIDENTS AT THE ALERT LEVEL OR BELOW, THE GROUP WILL CONVENE AT THE DISCRETION OF THE EMERGENCY DIRECTOR.

7. ALL FORMAL NOTIFICATIONS AS A RESULTS OF CLASSIFICATION MUST BE IMMEDIATELY MADE AS REQUIRED. THE INCIDENT WILL BE UPGRADED OR DOWNGRADED AS REQUIRED. FORMAL NOTIFICATIONS WILL BE MADE TO OUTSIDE REGULATORY AGENCIES. ALL OTHER OFF-SITE GROUPS WILL BE CALLED TO RESPOND AS IS NECESSARY USING TELEPHONE NUMBERS IN CSEP-0013. SEE CSEP-0019-1, AND CSEP-0019-2 FOR ASSISTANCE IN THE EVENT SEQUENCE AND CLASSIFICATION. SEE CSEP-0019-3, CSEP-0019-4, AND CSEP-0019-5 FOR CHECKLISTS OF ACTIONS FOR A UF6 RELEASE, CRITICALITY AND FIRE RESPECTIVELY.

* 8. THE FOLLOWING GUIDANCE IS PROVIDED FOR CLASSIFYING EVENTS, MOVING FROM ONE CLASSIFICATION TO ANOTHER AND FOR TERMINATING EVENTS:

8.1 CLASSIFY THE EVENT AFTER ASSESSING THE INCIDENT IN ACCORDANCE WITH SECTION 3, CSEP-0019-1 AND THE LOGIC FLOW DIAGRAMS (CSEP-0019-6, CSEP-0019-7 AND CSEP-0019-8).

8.2 THE FOLLOWING CRITERIA SHALL BE USED WHEN MOVING FROM ONE CLASSIFICATION LEVEL TO ANOTHER:

A. LOCAL → ALERT:

- CONTROL OF THE SOURCE IS LOST (E.G., UF6, FIRE).
- SIGNIFICANT MATERIAL ESCAPES FROM THE BUILDING AND CONTAINMENT AND MAY IMPACT THE SITE BOUNDARY.
- THERE IS A THREAT OF FURTHER ESCALATION.
- A LEAK OR SPILL CANNOT BE CLEANED UP WITHIN 24 HOURS.

B. ALERT → SITE AREA:

- AN ACCIDENTAL CRITICALITY OCCURS.
- THERE IS A RADIOACTIVE MATERIAL THREAT TO THE OFFSITE ENVIRONMENT OR TO A MEMBER OF THE PUBLIC.
- OFFSITE RESPONSE IS REQUIRED TO PROTECT THE ENVIRONMENT OR TO A MEMBER OF THE PUBLIC.
- EVACUATION OF MEMBERS OF THE PUBLIC IS REQUIRED.
- THERE IS AN IMMINENT OR ACTUAL LOSS OF PHYSICAL CONTROL OF THE FACILITY.

C. TERMINATION OF THE EVENT:

- SOURCE OF THE RELEASE IS UNDER CONTROL.
- ALL PERSONNEL ISSUES HAVE BEEN RESOLVED (EVERYONE ACCOUNTED FOR, INJURED PERSONNEL ATTENDED TO, ETC.)
- HEALTH PHYSICS HAS COMPLETED ENVIRONMENTAL

SAMPLING AND ANALYSES AND HAVE ASSESSED THE ENVIRONMENTAL IMPACT.

- INPLANT AREAS HAVE EITHER BEEN SURVEYED AND RELEASED OR ISOLATED, PENDING FURTHER CLEANUP OR DECONTAMINATION.
- ALL EMERGENCY RESPONDERS CONCUR WITH TERMINATING THE EVENT.

9. THE GENERAL INCIDENT RESPONSE FORMAT WILL INCLUDE THE FOLLOWING PROTECTIVE ACTIONS:

9.1 EVACUATION OF IN-PLANT PERSONNEL FROM REQUIRED LOCATIONS TO THE APPROPRIATE ASSEMBLY AREAS, AND ASSURING THAT THE ASSEMBLY AREAS ARE HABITABLE. IF PERSONNEL ARE REQUIRED TO BE RELOCATED, CONSIDER EXPOSURE RATES AND METEOROLOGICAL CONDITIONS SUCH AS WIND DIRECTION.

9.2 ACTIVATION OF THE EMERGENCY BRIGADE, MEDICAL, AND OTHER SUPPORT PERSONNEL. THE EMERGENCY COORDINATOR WILL DIRECT THE RESPONSE AND BRING THE EMERGENCY DIRECTOR TO A STANDBY STATUS. ASSURE THAT THE EMERGENCY BRIGADE IS BRIEFED REGARDING THEIR MISSION, INCIDENT CONDITIONS, HAZARDS AND POSSIBLE EQUIPMENT NEEDS BEFORE DEPLOYING THE BRIGADE.

9.3 NOTIFICATION OF REGULATORY ENGINEERING. REVIEW OF NUCLEAR CRITICALITY SAFETY BARRIERS AS REQUIRED. REVIEW OF 10CFR70.50 REQUIREMENTS.

9.4 APPROPRIATE RESPONSE PLANS, USE OF PERSONNEL PROTECTIVE EQUIPMENT, AND RESPIRATORY PROTECTION WILL BE INITIATED. SPILLS OF HAZARDOUS CHEMICALS OR OIL EXTERNAL TO THE PLANT WILL REQUIRE ACTIVATION OF THE "HAZARDOUS MATERIALS EMERGENCY RESPONSE AND BEST MANAGEMENT PRACTICES PLAN."

9.5 COMMUNICATION NETWORK SET-UP.

9.6 ASSESS AND RESPOND TO SITUATION. TERMINATE CONVERSION OPERATIONS AND/OR COMBUSTIBLE GAS FLOW AS REQUIRED. ASSURE CONTINUED NUCLEAR CRITICALITY SAFETY.

9.7 DECLARE EMERGENCY SITUATION.

9.8 CLASSIFY INCIDENT. MAKE APPROPRIATE REGULATORY NOTIFICATIONS.

9.9 ACCOUNT FOR PERSONNEL, IF NECESSARY. PROVIDE SHELTER.

9.10 PROVIDE MEDICAL ATTENTION.

9.11 ORGANIZE HEALTH PHYSICS RADIATION RESPONSE TEAM PER CSEP-0016-B.

9.12 PROVIDE UPDATE REPORTS TO REGULATORY AGENCIES AND ESCALATE CLASSIFICATION IF NECESSARY. REVIEW SOURCE TERM DATA AND ENVIRONMENTAL DATA. PROVIDE SC-DHEC NUCLEAR EMERGENCY PLANNING SECTION AND USNRC WITH DOSE ESTIMATES OF RELEASE, IF AVAILABLE.

9.13 PERFORM REMEDIAL ACTIONS TO TERMINATE THE INCIDENT. CLOSEOUT INCIDENT WITH A VERBAL SUMMARY TO OFF-SITE AGENCIES.

9.14 DECONTAMINATE AS IS NECESSARY.

9.15 ASSURE PLANT ENVIRONMENT IS SAFE FOR RE-ENTRY. RESTORE THE PLANT TO NORMAL OPERATING STATUS PRIOR TO BEGINNING NORMAL ACTIVITY.

9.16 NOTIFY HUMAN RESOURCES TO PREPARE EXTERNAL PRESS RELEASE AS REQUIRED. THE PRESS RELEASE SHOULD INCLUDE A POINT OF CONTACT AND/OR A TELEPHONE NUMBER FOR OBTAINING ADDITIONAL DETAILS, AND ASSIGNMENT OF A NUMERICAL SEQUENCE IN THE EVENT OF A

PROTRACTED EVENT REQUIRING SEVERAL RELEASES.

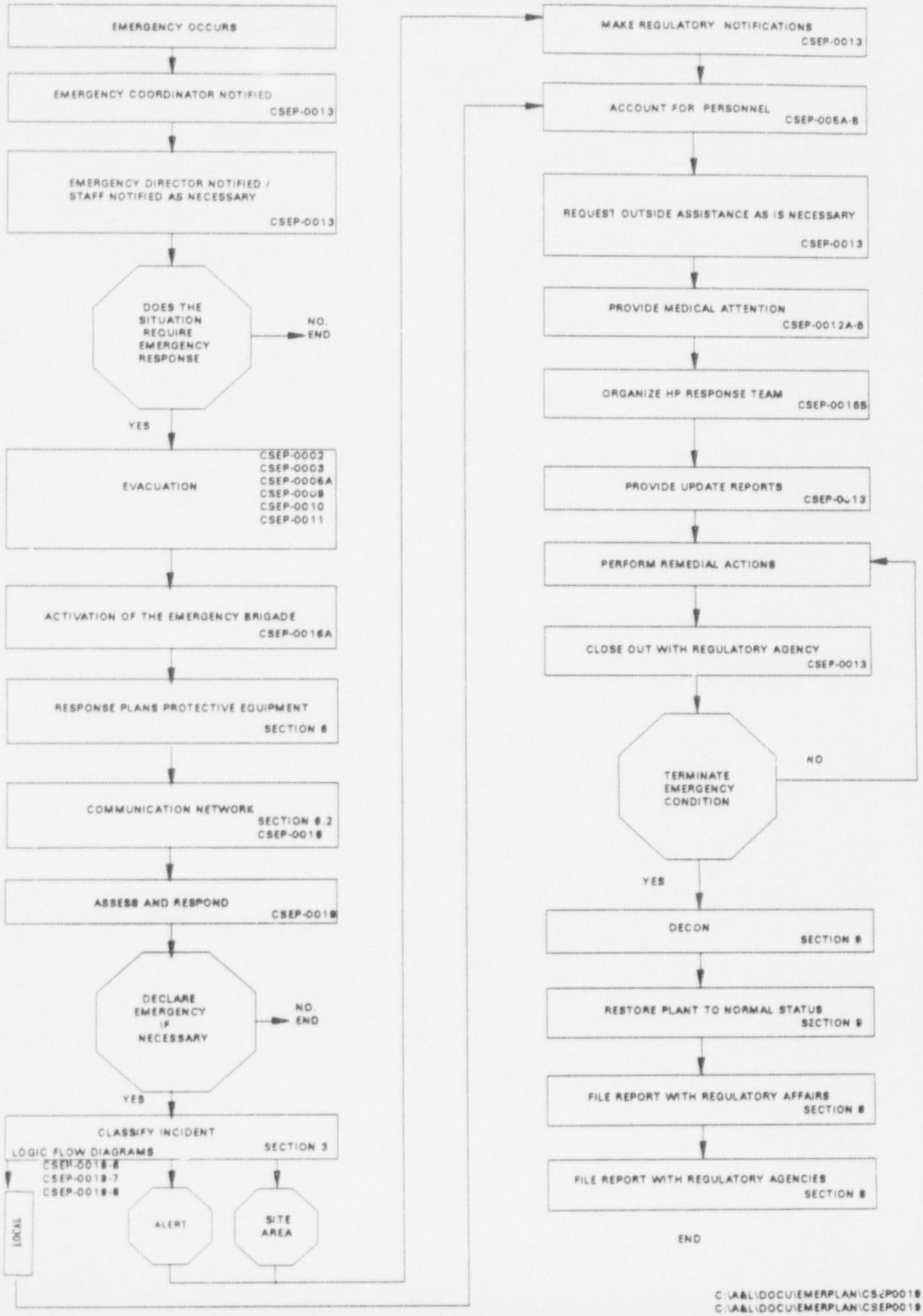
9.17 RESTORE EMERGENCY EQUIPMENT. ASSURE SNM INVENTORY.

9.18 FILE A WRITTEN REPORT WITH REGULATORY AFFAIRS DEPARTMENT.

9.19 SUBMIT WTITTEN REPORTS TO USNRC AND SC-DHEC PER PROCEDURE CSEP-0013.

8.0 ATTACHMENTS: NONE.

GENERAL EMERGENCY EVENT ACTION SEQUENCE



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INCIDENT SCENARIO CLASSIFICATION CHART

LOCAL (Deviations from normal operations but minimal potential for escalation to a serious emergency)	ALERT (Events <u>might</u> affect radioactive or hazardous materials safety systems)	SITE (Events <u>have</u> affected radioactive or hazardous materials safety systems)	TRANSPORTATION EMERGENCY
Minor UF_6 or Toxic Gas Release (source of release isolated within approximately 15 minutes, source confined, no threat of further escalation)	UF_6 or Toxic Gas Release (source of release cannot be isolated within approximately 15 minutes, source not confined, escalation of release probable)	Major UF_6 Release or Major Toxic Gas Release Involving Offsite Threat or Loss of Physical Control of the Facility	Vehicle Carrying Radioactive or Hazardous Materials Involved in Off-Site Accident
Minor Powder/Liquid Spill (which can be cleaned up within approximately 24 hours)	Powder/Liquid Spill (which cannot be cleaned up within approximately 24 hours)	Major Powder/Liquid Spill Involving Offsite Threat or Loss of Physical Control of the Facility	
Ventilation Malfunction (no threat of release to the environment)	Ventilation System Failure (which may have an impact on the environment)	Ventilation Malfunction Concurrent with Loss of Containment and Major SNM Material Release	
Minor Fire (which can be extinguished in approximately 15 minutes)	Fire (which cannot be extinguished in approximately 15 minutes)	Major Fire Involving Offsite Threat or Loss of Physical Control of the Facility	
Hazardous Weather Warning	Natural Phenomena (Earthquake, Flood, Hurricane, Tornado)	Severe Natural Phenomena (Earthquake, Flood, Hurricane Force Winds, Tornado Striking Facility)	
Combustible Gas Pop (where there is no threat to the environment)	Explosion (which may have an effect on the environment)	Major Explosion Involving Offsite Threat or Loss of Physical Control of the Facility	
Loss of Power/City Water	Ongoing Security Intrusions Lasting Greater than approximately 15 Minutes	Imminent or Actual Loss of Physical Control of the Facility	
Rupture of Containment Vessel or Line	Aircraft Crash Impacting Facility		

LOCAL (Deviations from normal operations but minimal potential for escalation to a serious emergency)	ALERT (Events might affect radioactive or hazardous materials safety systems)	SITE (Events have affected radioactive or hazardous materials safety systems)	TRANSPORTATION EMERGENCY
Civil Disorder	Bomb Threat	Any Other Condition that Activation of Off-Site Emergency Response Organizations or Precautionary Notification of the Public Near the Site	
Loss of Communication	Upgrades from Lower Categories		
Contaminated Casualty Transfer			
Controlled Deterioration of Nuclear Criticality Safety Barriers	Uncontrolled Deterioration of Nuclear Criticality Safety Barriers	Criticality	

All incidents above the local classification require notification of SC-DHEC Nuclear Emergency Planning Section within 15 minutes and the USNRC immediately following the State notification and within one hour.

UF_6 RELEASE CHECKLIST

REFERENCE CSEP-0005A&B, 0011, 0012A&B, 0013, 0015, 0016A&B, 0018, 0019

1. UF_6 Bay fire alarm is activated. Time: _____.

2. E.C. checks the UF_6 Bay for a fire, notes acrid white smoke around vaporizer #_____.

3. If the release is small (LOCAL), send two employees in to terminate the release. They must don SCBA equipment before entry.

4. Have Security announce over the Voice Communication System, for everyone to stay clear of the UF_6 Bay; that we have a small UF_6 release. Rope off the area.
   Time: _____.

5. Release stopped. Time: _____. *(Skip to Step 7 if release is not stopped.)*

6. Terminate when MPC is <1 x MPC. Time: _____.

7. E.C. have Security announce over Voice Communication System for all personnel to evacuate the Chemical Area, avoiding the UF_6 Bay.

8. Use 2-way radios.

9. Set up Communication Network.

   Everyone is to use Channel 1 for brief transmissions,
   Emergency Brigade Channel 2, HP Channel 3, for discussions.

10. Classify the incident as an ALERT or SITE AREA emergency and make Regulatory notifications. SC-DHEC (15 mins), Richland County Department of Emergency Services (immediately folloiwng the SC-DHEC notification) and US-NRC (immediately following the SC-DHEC notification and within one hour).

    Time: _____ Time: _____ Time: _____.

11. Notify Regulatory Engineering; activate HP Response Team.
    Time: _____.
    Adjust emergency ventilation.

12. Account for personnel in the Chemical Area as required.

13. Initiate contaminated casualty response as required.

14. Set up decon at area of entry. Employees performing decon must wear minimum of Class B suit and SCBA.

15. Respond for re-entry in pairs, dressed in Class A (blue suit) and SCBA in pressure demand mode. Time: _____.

16. Verify meteorological conditions. (Use Regulatory Engineering for this.)

17. Analyze environmental and stack conditions.

18. Close cylinder valve with remote operator.

19. Decon employees as they exit the UF_6 Bay.

20. Terminate release condition. Time: _____.

21. Assure personnel exposed to UF_6 /HF vapors shower out.

22. Give medical attention to all exposed workers. Treat skin burns immediately.

23. Check with Staff to insure everything is covered.

24. Close out with Regulatory Agencies. Time: _____.

25. Re-enter Plant when airborne is below 1 x MPC.

26. Decontaminate and recover uranium.

27. Clean emergency equipment and return to normal status.

28. Calculate quantity released. Calculate exposure at site boundary. (Regulatory Engineering)

29. Prepare press release.

30. Complete SNM inventory.

31. The E.C. is to submit a written report of the incident to the Manager of Conversion Services immediately.

CRITICALITY CHECKLIST

REFERENCE CSEP-0005A&B, 0012A&B, 0013, 0015, 0016A&B, 0018, 0019

1. Criticality alarm triggered. Time: _____.
2. Evacuate area immediately to Assembly Point.
3. Use 2-way radios.
4. Set up Communication Network.

   Everyone is to use Channel 1 for brief transmissions, Emergency Brigade Channel 2, HP Channel 3, for discussions.
5. Assure Assembly Point exposure rate safe. (Regulatory Operations)
6. Clear Main Guard Station and Emergency Operations Center.
7. Accountability of all personnel. Westinghouse, vendors, etc.
8. Restrict traffic flow.
9. Activate complete Emergency Staff. Time: _____.
10. Notify Regulatory Engineering and Regulatory Affairs. Time: _____

    Activate HP Response Team.
11. Evaluate potential for false alarm.
12. Review panel of gamma alarms at Main Guard Station.
13. Verify incident and classify as a SITE AREA emergency. Notify SC-DHEC (within 15 minutes), Richland County Department of Emergency Services (immediatley following the SC-DHEC notification), and US-NRC (immediately following the SC-DHEC notification and within one hour).

    Time: _____ Time: _____.
14. Determine approximate location, if possible.
15. Evaluate potential internal and external exposure hazards.
16. Determine extent of personnel radiation exposure.
17. Request outside assistance if required:

    Time requested: _____ Arrival time: _____
18. Monitor personnel for radiation exposure.

19. Seek medical attention for exposed personnel.

20. Send exposed individuals to Richland Memorial Hospital.

21. Verify Meteorological conditions (not needed most cases).

22. Develop a plan of action to re-enter the facility following determination that it is unlikely for a subsequent criticality to occur. (Regulatory Engineering task). Do rescue here if anyone was missing.

23. Remove contaminated material following developing plan of action approved by Regulatory Affairs and the Emergency Director.

24. Collect TLD badges for rush processing by vendor. (Regulatory Engineering)

25. Evaluate site boundary air samples. (Regulatory Operations)

26. Calculate off-site exposure. (Regulatory Engineering)

27. Terminate emergency condition when dose rates and airborne exposure below regulatory limits.

28. Check with Emergency Staff to insure everything is covered.

29. Give all clear signal and terminate blue lights. Time: _____

30. Close out with Regulatory Agencies. Time: _____

31. Restore the Plant to normal status.

32. Prepare Press Release.

33. E.C. is to submit a written report of the incident to the Manager of Conversion Services immediately.

FIRE CHECKLIST

REFERENCE CSEP-0003, 0005A&B, 0012A&B, 0013, 0015, 0016A&B, 0018, 0019

(Steps do not apply if no SNM material is involved.)

1. Fire alarm activated. Time: _____.

2. Security announces over Voice Communication System, location of the fire. ADU Conversion and IDR Control Rooms have information panels that also show the location of the fire.

3. Evacuate immediately if the fire is in the Chemical Area. Others only evacuate area of fire.

4. Emergency Brigade assembles.

5. E.C. does initial assessment of the fire. Time: _____.

6. Use 2-way radios.

7. Communication network established.

   Everyone is to use Channel 1 for brief transmissions, Emergency Brigade Channel 2, HP Channel 3, for discussions.

8. E.C. notifies Emergency Director that the fire involves a major fire with SNM and is classified an ALERT, SC-DHEC and US-NRC notified. SC-DHEC (within 15 minutes), Richland County Department of Emergency Services (immediately following the SC-DHEC notification) and US-NRC (immediately following SC-DHEC notification and within one hour.)

   SC-DHEC Time: _____ NRC Time: _____.

9. Notify Regulatory Engineering; activate HP Response Team. Time: _____.

10. Supervisors account for personnel in the Chemical Area immediately or fire affected area.

11. Terminate the source of flammable gases to avoid explosion; terminate electrical power in area or fire.

12. Call Columbia Fire Department for assistance as needed. Time: _____.

13. Give medical treatment to any injured personnel.

14. Initiate contaminated casualty response as required.

15. Emergency Brigade responds in full protective clothing and SCBA donned. Regulatory Operations verifies proper respiratory protection worn.

16. E.C. requests authorization of water use from Emergency Director and Regulatory Engineering for fires in the Plant or if SNM material is involved.

*17. Verify meteorological conditions. (Use Regulatory Engineering)

*18. Analyze environmental and stack conditions. (Regulatory Operations)

19. Fire extinguished. Time: _____

20. Assure personnel exposed to contamination shower out.

21. Check with Emergency Staff to insure everything has been covered.

22. Restore emergency equipment to standby status.

23. Close out incident with Regulatory Agencies. Time: _____.

*24. Regulatory Operations will authorize general re-entry when airborne is less than 1 x MPC. Time: _____.

*25. Calculate quantity released. Calculate exposure at site boundary. (Regulatory Engineering)

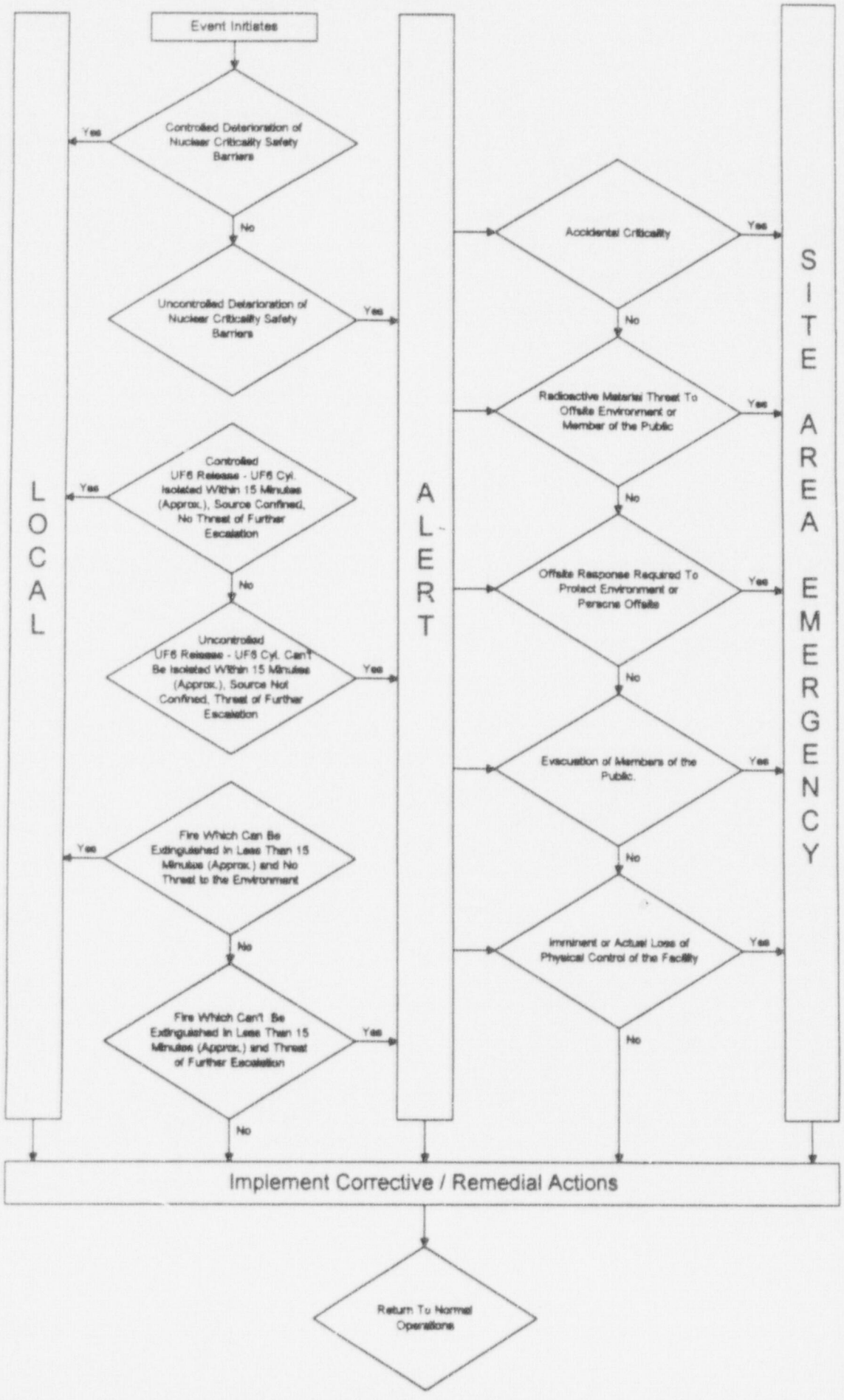
26. Clean up residual. Decon area as required.

27. Salvage equipment as necessary.

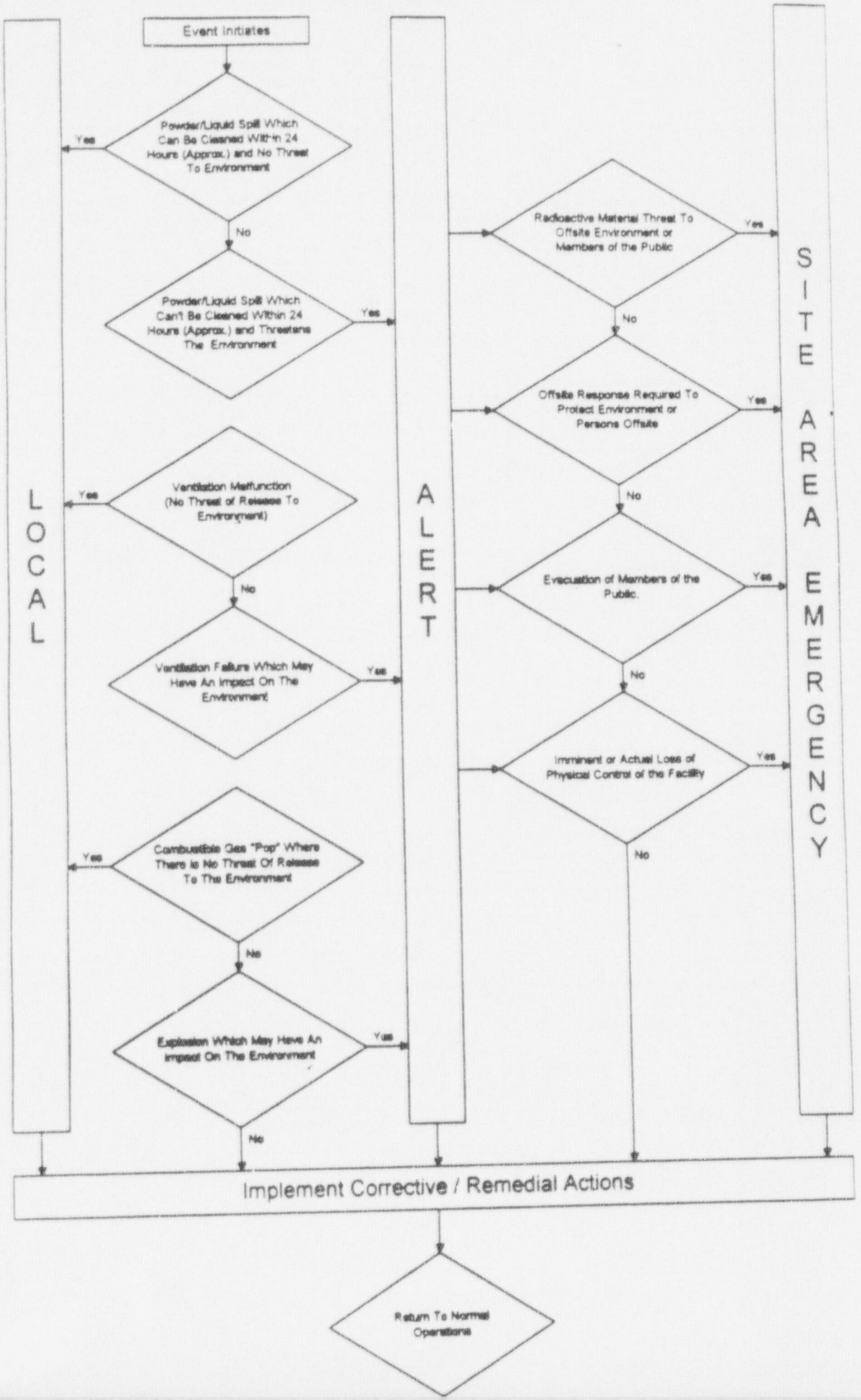
28. Prepare press release.

29. E.C. is to submit a written report of the incident to the Manager of Conversion Services immediately.

Emergency Classification Logic Flow
Accidental Criticality, UF6 Releases and Fire Events



Emergency Classification Logic Flow
Powder/Liquid Spills, Ventilation Problem, Explosion



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Emergency Classification Logic Flow
Hazardous Weather, Civil Disorder, Contaminated Casualty