

REVISIONS				
SRB APPROVAL	REV.	DESCRIPTION	DATE	APPROVED
	A	Changed per CR CN-EM-001-01	4-30-81	B. Linn
	B	CHANGES PER CHANGE REQUEST CN-EM-001-02	1-16-85	M. J. Whittle

This procedure is current at the time of submittal. Changes may be made during the effective licensing period. Changes which involve significant safety aspects of the activities authorized by the license will be formally submitted. All changes to procedures are approved by the Chem-Nuclear Safety Review Board before implementation.

CNSI SAFETY REVIEW
BOARD APPROVAL

BY

DATE

8512050047 851021
REG2 LIC30
39-23004-02 PDR

REVISION STATUS

SHEET	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
REV.	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
SHEET	18	19	20	21	22												
REV.	B	B	B	B	B												

PREPARED <i>JSC</i>	DATE 11-29-78	CHEM – NUCLEAR SYSTEMS, INC. CNSI EMERGENCY RESPONSE PROCEDURE			
CHECKED <i>B. Linn</i>	DATE 12/18/78				
ENGINEER					
QUALITY <i>LER</i>	DATE 12/18/78				
APPROVED		CONTRACT NO.	DOCUMENT NO. CN-EM-001	REV. B	SHEET 1

TABLE OF CONTENTS

	<u>PAGE NO.</u>
1.0 SCOPE	4
1.1 Purpose	4
1.2 Applicability	4
2.0 REFERENCES	4
3.0 DEFINITIONS	4
3.1 Accident	4
3.2 Call Duty	5
3.3 Caller	5
3.4 Class A Emergency	5
3.5 Class B Emergency	5
3.6 Class C Emergency	5
3.7 Emergency	5
3.8 Emergency Response	5
3.9 Incident	5
3.10 Events	6
3.11 Occurrence	6
3.12 Package	6
4.0 REQUIREMENTS	6
4.1 Tools, Materials, Equipment	6
4.2 Maintenance	8
5.0 RESPONSIBILITIES	8
5.1 CNSI Management (SRB)	8
5.2 CNSI Employees	8
5.3 SRB Subcommittee	9
5.4 Barnwell Site Security	9
5.5 Emergency Response Kit Coordinator	9
5.6 Emergency Response Team Organization	10
6.0 TRAINING	11
7.0 NOTIFICATION	12
8.0 IMPLEMENTATION	13
9.0 ACCIDENT SCENE	14
9.1 Arrival	14
9.2 Entry	14
9.3 Evaluation	15
9.4 Security	15
9.5 Protective Action	15

TABLE OF CONTENTS (continued)

	<u>PAGE NO.</u>
9.6 Clean-Up	17
9.7 Follow-Up	17
10.0 RECORDS AND REPORTS	18
APPENDIX A - EVENTS, CLASS A, CLASS B, AND CLASS C	19
APPENDIX B - REPORT OF NOTIFICATION	20
APPENDIX C - MANAGEMENT NOTIFICATION PHONE LIST	21
APPENDIX D - EMERGENCY RESPONSE TEAM PHONE LIST	22

1.0 SCOPE

1.1 Purpose

The purpose of this document is to describe the implementation of a notification system for occurrences and a coordinated, pre-planned response by Chem-Nuclear Systems (CNSI) personnel to an emergency involving the use of radioactive materials.

Notification of occurrences will be required to ensure that CNSI Corporate Management is aware of any problems and if necessary, take the appropriate action: the CNSI Radiological Emergency Response Team is activated when required, and the requirements of CN-AD-005 have been followed.

Response to any real or potential emergency will be any action taken to minimize the consequences of the situation. The degree of response will be determined according to the magnitude of the incident. This may range from notification that additional response is unnecessary to the implementation of a large scale evacuation.

1.2 Applicability

Procedures set forth in this document shall apply specifically to all CNSI employees and facilities. Yet, emergency situations may call for individuals other than CNSI employees to request the activation of the Radiological Emergency Response Team. Actual activation is the responsibility of an Emergency Team Leader.

2.0 REFERENCES

- 2.1 CNSI Procedure, CN-AD-005, "Incident Reporting Procedure"
- 2.2 Code of Federal Regulations, Title 49, Parts 100-199
- 2.3 Code Federal Regulations, Title 10, Part 71
- 2.4 Applicable State Regulations and Emergency Radiological Assistance Plans
- 2.5 Utility Emergency Plans (if available)
- 2.6 DOT Emergency Response Handbook, DOT-P-5800.2.

3.0 DEFINITIONS

- 3.1 Accident - an unplanned event that endangers the health and safety of individuals, environment or equipment.

- 3.2 Call Duty - is the assigned duty of an Emergency Response Team Leader requiring him to be available 24 hours a day for the assignment period, allowing Barnwell Site Security to make emergency notification. Coordination locations and arranging a beeper system is recommended.
- 3.3 Caller - the individual who contacts Barnwell Security with the initial notification of an occurrence. The caller will likely be the individual at or near the scene of the occurrence or a CNSI Supervisor.
- 3.4 Class A Emergency - The lowest ranked emergency for which response is required. A release of radioactivity is not apparent. See Appendix A for Class A situation and requirements.
- 3.5 Class B Emergency - The middle ranked emergency in which a response is required. Minor radioactivity release is apparent. See Appendix A for Class B situations and requirements.
- 3.6 Class C Emergency - The highest ranked emergency in which a response is required. Major radiation release is apparent. See Appendix A for Class C situations and requirements.
- 3.7 Emergency - an emergency or potential emergency is defined as any of the following occurrences:
- 3.7.1 The loss or theft of radioactive material
 - 3.7.2 An unauthorized overexposure of persons from sources of ionizing radiation or potential release of radioactive material
 - 3.7.3 Transportation with a release or potential release of radioactive material
 - 3.7.4 A potential radiological risk of sufficient magnitude to involve the following:
 - 3.7.4.1 Evacuation or control of the movement of people to minimize exposure to radiation
 - 3.7.4.2 Medical evaluation of individuals
 - 3.7.4.3 Release of radioactivity which causes a potential risk to the public.
- 3.8 Emergency Response Kits - The emergency response kits contain equipment and materials necessary for the emergency response team to respond to the majority of emergencies involving radioactive material. These kits have been assembled as described in Section 4.1 of this document and are located in strategic locations as indicated in Section 4.3 of this document.

- 3.9 Incident - Any occurrence which, after further review, study, or data input, is determined by Management of the Regulatory Affairs Department to have endangered the safety or health of 3.11.1 thru 3.11.5, or is classified as having exceeded State, Federal, or Company radiological or chemical guidelines.
- 3.10 Events - occurrences that do not require a response. See Appendix A for event requirements.
- 3.11 Occurrence - A potential incident. Any condition or circumstance which could affect or has affected the degree of protection (i.e. release of radioactive material) provided to any of the following:
- 3.11.1 Company personnel or co-workers from other firms
 - 3.11.2 Visitors to any site of CNSI operation
 - 3.11.3 The general public
 - 3.11.4 CNSI facilities and equipment
 - 3.11.5 The environment in the vicinity of CNSI operations and an accident scene.
- 3.12 Package - the radioactive material and its container. Containers include but are not restricted to casks, 55-gallon drums, shielding containers, or LSA boxes.

4.0 REQUIREMENTS

4.1 Tools, Materials, Equipment

The following items shall be assembled and kept ready at all times at the Barnwell, South Carolina, facility in a location designated by the Health Physics Office. Items noted with an asterisk shall be kept ready at CNSI facilities specified in Section 4.3 of this procedure. Hereafter these tools, materials, and equipment will be referred to as the ER (emergency response) kits.

- *4.1.1 One dosimeter charger
- *4.1.2 One dose rate survey instrument - Model PIC-6 or equivalent
- 4.1.3 One GM Survey Instrument - Model E-520 or equivalent
- *4.1.4 One GM Survey Instrument - Model E-120 or equivalent with pancake probe

- *4.1.5 One personnel decontamination kit (mild liquid soap, Q-Tip swabs, paper towels)
- *4.1.6 Four 55-gallon plastic bags
- 4.1.7 One portable air sampler (12-volt model)
- 4.1.8 One box each air sampler filter papers and iodine cartridges
- 4.1.9 Two full-face respirators with iodine canisters
- *4.1.10 Twelve pairs of rubber surgical gloves or anti-c gloves
- *4.1.11 Two 0-5R self-reading dosimeters
- *4.1.12 Two clipboards and note pads
- 4.1.13 Two 1-liter plastic sample bottles
- *4.1.14 Six 0-200 mR self-reading dosimeters
- *4.1.15 Six each "High Radiation Area" and "Radiation Area" signs
- *4.1.16 Ten plastic bags (minimum 2' x 2')
- 4.1.17 Twenty-five 1-gallon size soil sample bags
- *4.1.18 Twelve pairs each plastic-dipped gloves and rubber shoe covers
- *4.1.19 Six each coveralls, cloth hoods, and rolls of masking tape
- *4.1.20 600 to 1000 feet of radiation warning rope
- *4.1.21 One box of 2-inch diameter smear pads
- 4.1.22 Four pairs of safety glasses
- *4.1.23 First Aid Kit
- 4.1.24 One kit of hand tools to include: bolt cutters, axe, two shovels, crowbar, sledge hammer, large screwdriver, 3/8-inch nut set, and adjustable 12"-18" crescent wrench
- 4.1.25 Two lanterns or flashlights and spare batteries
- 4.1.26 Two copies of this procedure -- CN-EM-001
- *4.1.27 Six each pens, pencils, chalk, and felt-tip markers
- 4.1.28 DOT Emergency Response Handbook -- DOT-P-5800.3

4.1.29 Code of Federal Regulations, Title 49, Parts 100-199

*4.1.30 One alpha counter instrument - Model Pac-4G-3 or equivalent.

4.2 Maintenance

4.2.1 SRB Subcommittee

The Safety Review Board will establish a subcommittee to implement the duties as described in Section 5.3 of this document.

4.2.2 ER Kit Coordinator

The maintenance of each ER kit will be coordinated by the the CNSI Transportation Department. The Transportation Department will designate an individual as the Emergency Response Coordinator for the maintenance of all the equipment. This coordinator shall designate individuals at each CNSI facility, as identified in Section 4.3 of this document, to perform the duties defined in Section 5.5.

4.3 The following CNSI Facilities will have emergency response capabilities:

Barnwell, South Carolina
Columbia, South Carolina
Avon, Connecticut
Channahon, Illinois.

5.0 RESPONSIBILITIES

5.1 CNSI Management (SRB)

CNSI Management through the Safety Review Board (SRB), shall establish a radiological emergency response plan and team to ensure the public health and safety in the event of an occurrence involving radioactive material. The Safety Review Board shall ensure these responsibilities have been carried out by establishing an emergency response subcommittee of the SRB. The SRB shall approve implementation of the procedures and formation of the team.

The Safety Review Board shall also ensure the CNSI notification system is established with all affected persons, i.e customers, vendors, carriers, government and civil agencies.

5.2 CNSI Employees

All CNSI employees shall make reports of occurrences according to Reference 2.1.

5.3 SRB Subcommittee

The Safety Review Board Subcommittee, hereafter referred to as the Emergency Response Subcommittee, will have the following responsibilities:

- 5.3.1 Prepare, review, and update the CNSI Emergency Response Plan for SRB approval.
- 5.3.2 Establish the Emergency Response Team and ensure replacement of team members that can no longer fulfill the duties.
- 5.3.3 Ensure team members are properly trained.
- 5.3.4 Coordinate at least one planned and one unplanned emergency response exercise each year.

5.4 Barnwell Site Security

Barnwell Site Security shall be prepared to:

- 5.4.1 Record the caller notification of an occurrence, incident, accident, and/or emergency on the "Report of Notification" form found in Appendix B;
- 5.4.2 Relay the recorded information to one of the Emergency Response Team Leaders listed in Appendix D;
- 5.4.3 Make notification to management according to Section 7.1 of this document using the telephone numbers listed in Appendix C of this document; and
- 5.4.4 In emergency situations stay by the telephone and make or answer telephone calls as directed by the Emergency Response Team Leader.

5.5 Emergency Response Kit Coordinator

The ER Kit Coordinator will ensure that an individual has been designated at each CNSI ER kit facility and that those individuals perform the following duties:

- 5.5.1 Inventory tools, materials, and equipment semi-annually to ensure nothing is missing
- 5.5.2 Keep a list of radiation detection instruments and calibration dates. Ensure instruments are sent to overall coordinator when calibration is due or arrange for local calibration
- 5.5.3 Ensure all equipment is usable (i.e. flashlights, respirators, pens)

- 5.5.4 Ensure each ER team member at the respective facility knows where the equipment is being stored, has all of the necessary keys, and security clearance to access the equipment; and can make arrangements for emergency travel and accommodations.

5.6 Emergency Response Team Organization

- 5.6.1 A team of trained CNSI facility personnel shall be prepared to perform one or more of the functions listed below. The Emergency Response Team Leader (ETL) for each CNSI facility shall be selected by the Safety Review Board. The ETL is responsible for filling all other team assignments as necessary. This team will be available for rapid mobilization should an emergency situation arrive. A list of qualified emergency team individuals to be assigned to the response team is found in Appendix D.

5.6.2 Emergency Response Team Leader (ETL)

- 5.6.2.1 Assess and classify the severity of emergency and initiate this plan. Determine status of the emergency and send advanced personnel to accident site as deemed appropriate. Verify the emergency by calling return telephone number.
- 5.6.2.2 Assign qualified personnel to the Emergency Response Team and instruct them to proceed to the emergency site and perform such actions as deemed necessary.
- 5.6.2.3 Coordinate emergency operations by maintaining communications with local civil authorities, authorities in the involved States, CNSI Corporate management, and the Emergency Response Team.
- 5.6.2.4 Assume supervision and control of the emergency and the Emergency Response Team either at the CNSI facility, the accident site, or alternate site as he deems appropriate.
- 5.6.2.5 Arrange transportation service for Emergency Response Team personnel as required (i.e., air transportation, pickup at airport by State Police, etc.).
- 5.6.2.6 Support Emergency Response Team at accident site by providing for additional assistance, equipment and/or relief of personnel as required.

5.6.3 Emergency Response Team Field Coordinator (ETC)

- 5.6.3.1 Act as communications controller at the accident scene until relieved of duty by the ETL. Maintain communications with local accident site authorities, ETL, and caller.
- 5.6.3.2 Notify personnel assigned to the Emergency Response Team to report to a predetermined location for transportation to site of the emergency if so indicated by ETL.

5.6.4 Emergency Response Team Health Physicist (ETHP)

- 5.6.4.1 Report to site of occurrence or remain on standby as directed by the ETC.
- 5.6.4.2 Evaluate radiological status of the accident and surrounding area.
- 5.6.4.3 Provide ETC with a judgement of the significance or magnitude of any radiological hazard present.
- 5.6.4.4 Coordinate surveys and activities with representatives of DOE radiological assistance teams and make recommendations in conjunction with DOE as to the appropriate form of protective action required.
- 5.6.4.5 Assist in establishing radiological control over the affected area if required.
- 5.6.4.6 Advise the ETC of conditions existing, actions taken, and present status so that ETL may be kept informed.

5.6.5 Emergency Response Team Operator Personnel (ETO)

- 5.6.5.1 Take actions as directed by the ETC and other appropriate actions as required to stabilize the situation and protect individuals from injury and contamination.
- 5.6.5.2 Assist driver-technician as directed, if driver technician is present.

6.0 TRAINING

The training program shall be recommended by the Emergency Response Subcommittee and approved by the Safety Review Board.

- 6.1 Emergency Team Leaders - Each Emergency Team Leader must be approved by the Safety Review Board. Approval will be based on previous experience and/or training.

- 6.1.2 ETL's must regularly update themselves on proper procedure, state-of-the-art, available support and effective regulations.
- 6.2 Each Emergency Team Member must undergo an approved training course and test to document each member's qualification.
- 6.3 Each Emergency Response Team member must participate in at least one scheduled exercise or one unscheduled exercise each year to remain qualified. The Emergency Response Subcommittee will arrange and execute the exercises.

7.0 NOTIFICATION

- 7.1 The Caller will notify Barnwell Site Security (BSS) (803 259-1786) in accordance with CN-AD-005 (CNSI employee) or as witness or responder to an accident. During this notification the caller will be asked to provide as much information as possible. CNSI employees should be prepared to supply all the information requested on the Report of Notification (Appendix B) including a determination of whether the occurrence is an emergency as defined. Notification by a non-CNSI employee will always be defined as an emergency.

7.2 Barnwell Site Security (BSS)

- 7.2.1 BSS shall record the callers notification on the Report of Notification (Appendix B).
- 7.2.2 If the occurrence is an emergency, BSS will call an Emergency Team Leader (ETL). Any uncertainty of definition must be resolved by an ETL. If an ETL can not be reached, BSS shall contact an ETC or EHP.
- 7.2.3 BSS will notify Regulatory Affairs in accordance with CN-AD-005.
- 7.2.4 BSS will notify CNSI Management in accordance with the direction and list in Appendix C.
- 7.2.5 BSS will make any other notifications requested by the ETL.

7.3 Regulatory Affairs

After notification by BSS, if Regulatory Affairs determines that an occurrence not defined as an emergency should be so defined, Regulatory Affairs will direct BSS to notify the ETL.

7.4 Emergency Response Team

After notification by BSS, the ETL shall notify the appropriate number and type of Emergency Response Team Members.

7.5 Non-CNSI Support

Other emergency support, except State and Federal Agencies, may be notified by the ETL when deemed necessary. Non-CNSI support teams that may be of help are the local or State law enforcement, fire departments, rescue squads, and ambulance services.

7.6 State and Federal Agencies

State and/or Federal Agencies shall be notified by Regulatory Affairs when deemed necessary to support emergency response. Required reports and notifications are addressed in CN-AD-005.

The ETL may notify State or Federal emergency teams only when Regulatory Affairs Management cannot be reached.

8.0 IMPLEMENTATION

8.1 Barnwell Site Security Actions

BSS shall determine if the caller is trained in prevention of radiation exposure and the spread of contamination prior to relaying the following instructions.

8.1.1 Instructions to Untrained Caller

8.1.1.1 Restrict area to 100 feet from truck, containers, or radioactive source until a radiation survey has been taken.

8.1.1.2 Take care of the injured as necessary by using first aid and/or calling an ambulance service. In almost all emergency cases risking the spread of contamination and individual exposure is acceptable when serious or life-threatening injury is involved.

8.1.1.3 Ensure the emergency can be verified by the ETL and a communication system is available for further instructions and status reports.

8.1.1.4 Perform emergency actions as trained.

8.2 Emergency Team Leader Action

The ETL shall take the following actions after notification of an emergency:

8.2.1 Verify the emergency, collect additional information, and relay further instructions by telephoning the caller at the scene of the occurrence.

- 8.2.2 Instruct BSS of the classification of emergency and additional notification to make.
- 8.2.3 Activate the Emergency Response Team as deemed necessary.
- 8.2.4 Establish an Emergency Response Team assembly point.
- 8.2.5 Make arrangements to gather the emergency equipment.
- 8.2.6 Instruct and dispatch selected emergency team members and equipment to the accident site or other point of rendezvous.
- 8.2.7 Notify local authorities that an emergency plan is in effect and that assistance is enroute. Make arrangements for pickup of CNSI personnel if required.
- 8.2.8 Coordinate emergency activities and keep CNSI Corporate Management advised of the situation.
- 8.2.9 Advise the responsible party and request aid if necessary.

9.0 ACCIDENT SCENE

Emergency actions are performed at the direction of the ETL or designee. The ETL's experience and training will preclude any of the following recommendations:

9.1 Arrival

Upon arrival at the accident scene, the emergency team shall establish contact, with local authorities and other emergency teams or individuals.

- 9.1.1 Evaluate the situation.
- 9.1.2 Determine if other hazards are involved, if special precautions are in force for entry to area.
- 9.1.3 Plan appropriate course of action before entering accident area based on the conditions.

9.2 Entry

General procedure for entry of area:

- 9.2.1 Personnel shall be equipped with personnel monitoring devices (dosimeters).

9.2.2 Enter accident area with radiation survey instruments in operation (any indication of radiation levels above normal background would suggest possible damage to shipment and release of contents).

9.2.3 Exercise judgment in the need to wear protective clothing and respiratory protection. Visually inspect shipment from a distance to determine if cargo leakage is apparent.

9.3 Evaluation

9.3.1 Conduct radiation survey at perimeter of area and work in toward the vehicle. Normal maximum radiation levels at the vehicle are 10 mR/hr at 2 meters from the edge of the vehicle and/or 200 mR/hr at contact with the closed trailer, cask, or other large container.

9.3.2 If possible obtain documentation concerning radio-nuclides, activities, and quantity of packages to help determine potential hazards.

9.4 Security

9.4.1 Identify and post areas in accordance with the following:

ROPE OFF AND POST "RADIATION AREA" SIGNS IN ALL AREAS WHERE RADIATION LEVEL EXCEEDS 2 mR/HR OR WHERE THERE IS EVIDENCE OF SMEARABLE CONTAMINATION. POST "HIGH RADIATION AREA" SIGNS IN ALL AREAS WHICH EXCEED 100 mR/HR.

9.4.2 Obtain help from local authorities to enforce security of contaminated and radiation areas.

9.5 Protective Action

9.5.1 The degree of protective action depends on the severity and classification of emergency.

9.5.2 Visually inspect vehicle from a reasonable distance for any apparent outward signs of damage and use the following guide for protective action:

<u>CONDITION</u>	<u>CONSIDERATIONS</u>	<u>PROTECTIVE ACTION</u>
A. Any Accident	1. Harm to people or the environment	1. Follow CN-EM-001 "CNSI Emergency Response Procedure" and CN-AD-005 "Incident Reporting Procedure for Notifications, Actions, and Reporting"

<u>CONDITION</u>	<u>CONSIDERATIONS</u>	<u>PROTECTIVE ACTION</u>
B. No apparent damage or minor damage	<ol style="list-style-type: none"> 1. Adhere to regulations pertaining to maximum permissible limits of radiation and contaminations. 2. Consult any documentation for rad levels, activities, radionuclides, other pertinent information. 	<ol style="list-style-type: none"> 1. Conduct a complete radiation survey of of the accident scene. 2. Inspect all surfaces for contamination, excessive radiation levels, and package damage.
C. Loss or leakage of radioactivity	<ol style="list-style-type: none"> 1. Area should be considered contaminated. Leakage should be contained and/or collected. 	<ol style="list-style-type: none"> 1. Protective clothing must be worn in area. 2. Post area; control access. 3. Monitor all persons who may be potentially contaminated. 4. Begin Air Sampling if equipment is available.
D. Damage to the package	<ol style="list-style-type: none"> 1. Possible high radiation levels 	<ol style="list-style-type: none"> 1. Evacuate areas with radiation levels of 100 mR/hr or higher. 2. Do not attempt to enter high radiation areas without monitoring equipment. 3. Request additional assistance from ETL. 4. Begin air sampling if equipment is available.
E. Fire	<ol style="list-style-type: none"> 1. Determine what hazards are involved before entering area. 	<ol style="list-style-type: none"> 1. Monitor radiation levels (high radiation may indicate damage to shielding).

CONDITIONCONSIDERATIONSPROTECTIVE ACTION

- | | |
|---|--|
| 2. Approach from upwind side of vehicle | 2. Determine if radioactivity is involved in fire |
| 3. Use self-contained breathing apparatus for entering smoke area | 3. Establish control area at 100 yd. radius in event fire results in shielding damage. |
| 4. Protective clothing may be required. | 4. Begin Air sampling if equipment is available. |
-

9.6 Clean-Up

- 9.6.1 Clean-up of the accident scene is the job of the Emergency Response Team only if the size, time, and expense of clean-up is of small enough proportion to be permitted.
- 9.6.2 A special Clean-up Team will be organized for major clean-ups of accident scenes. Major clean-ups will be arranged and approved by CNSI Management and reviewed by the Safety Review Board. Members of the Emergency Response Team may be assigned to the clean-up team once the emergency has been controlled.

9.7 Follow-Up

- 9.7.1 The ETL shall report the radiological status of the shipment to CNSI Corporate management and advise of protective action placed in effect or required.
- 9.7.2 The ETL shall report CNSI Corporate Office any physical damage to the package and CNSI equipment and specify handling instructions if required.
- 9.7.3 If radiation and/or contamination is involved:
- 9.7.3.1 Contact and monitor all persons who may have been exposed or contaminated (record names and addresses).
- 9.7.3.2 Keep record of all actions, survey results, exposures, names of personnel involved, and contacts for formal report preparation.

- 9.7.4 A CNSI Emergency Response Team member shall remain in attendance until the shipment is either removed from its emergency status, restored to normal condition, and/or as instructed by ETL.

10.0 RECORDS AND REPORTS

- 10.1 An incident report shall be submitted by the ETL according to the "Incident Report Procedures" CN-AD-005.
- 10.2 Regulatory Affairs shall make any formal report or notifications as required by regulations.
- 10.3 The Emergency Team Leader will provide information to State and local officials only as needed. Information to the press and public shall be made by CNSI Corporate Officials or their designee(s), only.

APPENDIX A
CLASSIFICATION OF EMERGENCIES
(4 PAGES)

EVENTS

Definition

Events are those notifications of incidents that do not need a response. It has been determined by qualified authority (State, Local, Federal agencies or another radiological emergency response team) that there is no release of radioactivity.

Minimum Personnel At Location

None. Individuals may respond, as determined by the Emergency Team Leader, to handle non-radioactive problems.

Minimum Equipment

None.

CLASS A

Definition

Class A emergencies are those incidents in which there is no apparent release of radiation, little if any non-radioactive clean-up, and no significant damage to the package.

Minimum Personnel At Location - Two

1. Emergency Response Team Leader or designee and
2. Emergency Response Team Health Physics.

Minimum Equipment

One radiation detection device, appropriate to the type of radiation.
Example: E520 BX gieger counter or PAC4G 8 scintillator.

CLASS B

Definition

Class B emergencies are those incident in which at least one of the following situations (or similar situations) are present:

1. There appears to be a minor release of radioactivity in the form of contamination or higher than expected radiation dose levels. For definition purposes minor release originate from limited quantity and DAW-LSA shipments.
2. There appears to be significant damage to non-licensed packages.
3. It appears that the radioactive clean-up can be accomplished with simple, hand-performed methods (rags, shovels, bags, anti-C).
4. Significant non-radioactive hazards are present (fire, gasoline spill, chemical hazard, serious transportation accident).

Minimum Personnel At Location - Four

1. Emergency Response Team Leader or designee.
2. Team Field Coordinator.
3. Team Field Coordinator.
4. Emergency Response Team Health Physics.

Minimum Equipment

Emergency Response Kit.

CLASS C

Definition

Class C emergencies are those incidents in which at least one of the following situations (or similar situations) are present:

1. There appears to be a major release of radioactivity in the form of contamination or higher than expected radiation dose levels. For definition purpose major releases originate from non-DAW-LSA, Type A and Type B shipments.
2. There appears to be significant damage to licensed package (i.e., casks).
3. It appears that the clean-up can only be accomplished with major equipment (heavy construction equipment, respirator, etc.).
4. It appears that one or more individuals have been exposed or have ingested radioactivity at levels higher than accepted by Corporate policy.

Minimum Personnel At Location - Seven

1. Emergency Response Team Leader or designee.
2. Team Field Coordinator.
3. Team Field Coordinator.
4. Emergency Response Team Health Physics.
5. Emergency Response Team Health Physics.
6. Emergency Response Team Health Physics.
7. Emergency Response Team Operator Personnel.

Minimum Equipment

Emergency Response Kit

APPENDIX B
REPORT OF NOTIFICATION
(3 PAGES)

DOCUMENT

CM-EM-001

REV.

B

SHEET

20

REPORT OF NOTIFICATION

Page 1 of 3

1. DATE _____ TIME _____
2. NAME OF CALLER _____
3. COMPANY OF CALLER _____ POSITION _____
4. VERIFICATION AND COMMUNICATION PHONE NUMBER _____ CONTACT _____

5. LOCATION OF OCCURRENCE _____

6. DIRECTIONS TO SCENE OF OCCURRENCE (IF NECESSARY) _____

7. ARE THERE ANY INJURIES? YES _____ NO _____
HOW MANY? _____ TRANSPORT TO HOSPITAL? YES _____ NO _____
NAME OF HOSPITAL _____
8. ARE THERE ANY OTHER EMERGENCY TEAMS PRESENT? YES _____ NO _____
HIGHWAY PATROL _____ COUNTY OR MUNICIPAL LAW ENFORCEMENT _____
FIRE DEPARTMENT _____ RESCUE SQUAD _____ AMBULANCE _____
WRECKER SERVICE _____ RADIOLOGICAL RESPONSE _____
STATE OR FEDERAL AGENCIES _____ OTHER _____ SPECIFY _____
9. TYPE OF OCCURRENCE
SAFETY RELATED: MEDICAL _____ OCCUPATIONAL HEALTH _____
HAZARDOUS CHEMICALS _____ VIOLATION OF SAFETY
RELATED PROCEDURE _____ OTHER _____ SPECIFY _____
RADIOLOGICAL RELATED: VEHICULAR ACCIDENT _____ PACKAGE DAMAGE _____
FIXED FACILITY RELEASE _____
NUCLEAR POWER PLANT ACCIDENT _____
SAFETY RELATED

REPORT OF NOTIFICATION

Page 2 of 3

10. MEDICAL: WHAT CAUSED THE INJURY? _____

11. OCCUPATIONAL HEALTH: DESCRIPTION OF PROBLEM? _____

12. HAZARDOUS CHEMICAL TYPE AND COMPOSITION OF CHEMICAL? _____

13. VIOLATION OF SAFETY RELATED PROCEDURE? (PROVIDE NUMBER) _____

14. OTHER DESCRIPTION _____

15. TYPE AND QUANTITY OF RADIOACTIVITY INVOLVED
RADIONUCLIDE(S) _____ ACTIVITY _____ MCI _____ CI _____
16. PACKAGE TYPE? NUMBER OF PACKAGES? _____
CASK _____ METAL BOXES _____ WOODEN BOXES _____ CARDBOARD BOX _____
SHIELDED CONTAINER _____ GLASS CONTAINER _____ DRUMS _____
BULK _____ OTHER _____ SPECIFY: _____
17. HAS THE ACCIDENT BEEN VISUALLY INSPECTED? YES _____ NO _____
NO PACKAGE DAMAGE _____ POTENTIAL PACKAGE DAMAGE _____ PACKAGE DAMAGE _____
18. HAS THE ACCIDENT BEEN RADIOLOGICALLY INSPECTED? YES _____ NO _____
NO CONTAMINATION _____ POTENTIAL CONTAMINATION _____ CONTAMINATED _____
NORMAL RADIATION DOSES _____ ABNORMAL RADIATION DOSES _____
RADIATION LEVELS: _____ mR/hr _____ R/hr _____
CONTAMINATION LEVELS: _____ dpm/100 cm² _____
AIRBORNE LEVELS: _____
19. WHO IS THE OWNER/SHIPPER/GENERATOR? _____

REPORT OF NOTIFICATION

Page 3 of 3

20. OTHER RELATED RESPONSIBLE PARTIES (CARRIER, OPERATOR, CONTRACTORS, ETC)?

21. IS THERE A FIRE ASSOCIATED WITH THE ACCIDENT? YES _____ NO _____

IN CONTACT WITH RADIOACTIVE MATERIAL? YES _____ NO _____

22. WEATHER CONDITIONS? RAIN _____ CLEAR _____ OTHER _____

23. OTHER ITEMS TO HELP DEFINE OCCURRENCE: _____

24. MESSAGES OR QUESTIONS: _____

APPENDIX C
MANAGEMENT NOTIFICATION NUMBERS
(1 PAGE)

EFFECTIVE DATE
08/22/85

MANAGEMENT NOTIFICATION NUMBERS

TRANSPORTATION-RADIOACTIVE MATERIAL

<u>NAME</u>		<u>OFFICE</u>	<u>HOME</u>
J. L. Mason	(MANDATORY)	803/259-1793	803/781-5008
L. D. Toner	(MANDATORY)	803/259-1781	803/648-4129
J. S. Zawacki		803/259-1781	803/259-7294
M. T. Ryan		803/259-1781	803/648-7440
D. W. Hanshew		803/259-1781	803/259-7267
D. G. Ebenhack	(MANDATORY)	803/256-0450	803/787-6942
or			
L. K. Poppe	(MANDATORY)	803/256-0450	803/781-3964
or			
Regulatory Affairs Pager	(MANDATORY)	803/733-7651	

BARNWELL SITE OPERATIONS

J. S. Zawacki	(MANDATORY)	803/259-1781	803/259-7294
M. T. Ryan	(MANDATORY)	803/259-1781	803/648-7440
G. Hurst		803/259-1781	803/259-2788
E. Boyles		803/259-1781	803/259-1904
F. Flynn		803/259-1781	803/266-3095
D. G. Ebenhack	(MANDATORY)	803/256-0450	803/787-6942
or			
L. K. Poppe	(MANDATORY)	803/256-0450	803/781-3964
or			
Regulatory Affairs Pager	(MANDATORY)	803/733-7651	

NUCLEAR SERVICES

T. J. McCord	(MANDATORY)	803/256-0450	803/781-8003
A. A. Bucholz	(ALTERNATE)	803/256-0450	803/345-2064
J. P. Staehr	(ALTERNATE)	803/256-0450	803/359-2702
R. Soto	(ALTERNATE)	803/256-0450	404/781-1524 or
			803/731-9971
L. Sears		803/256-0450	803/781-5633
J. Jeffrey		803/256-0450	803/796-0388 or
			803/553-3323
(weekends)			
T. C. Weeks		803/256-0450	803/772-3519
D. G. Ebenhack	(MANDATORY)	803/256-0450	803/787-6942
or			
L. K. Poppe	(MANDATORY)	803/256-0450	803/781-3964
or			
Regulatory Affairs Pager	(MANDATORY)	803/733-7651	

BARNWELL SITE SECURITY

F. Flynn	803/259-1781	803/266-3095
----------	--------------	--------------

APPENDIX D
EMERGENCY RESPONSE TEAM NUMBERS
(1 PAGE)

EFFECTIVE DATE
08/22/85

EMERGENCY RESPONSE TEAM MEMBERS

This list is in alphabetical order - not in order of contact

EMERGENCY RESPONSE TEAM LEADERS (ETL'S)

<u>NAME</u>	<u>BUSINESS</u>	<u>HOME</u>
Jerry Mason	803/259-1781	803/781-5008
Mike Ryan	803/259-1781	803/648-7440
Jim Staehr	803/256-0450	803/359-2702
Len Toner	803/259-1781	803/648-4129
John Zawacki	803/259-1781	803/259-7294

TEAM FIELD COORDINATOR (ETC)

Mike Benjamin	803/259-1781	803/266-4438
Mark Kirshe (Northeast)	203/677-0457	203/379-0233
David Hanshew	803/259-7120	803/259-7267
George Hurst	803/259-1781	803/259-2788
Dean Padgett (West)	619/299-8072	619/726-1368
Les Poppe	803/256-0450	803/781-3964
Larry Sears	803/256-0450	803/781-5633
Jimmy Still	803/259-1781	803/259-1675
Ron Swift (Midwest)	815/465-4700	815/725-5580
Mark Whittaker	803/256-0450	803/781-2036

EMERGENCY RESPONSE TEAM HEALTH PHYSICS

Stanley Creech	803/259-1781	803/259-7215
Greg Garlock (Midwest)	815/467-4700	815/439-2371
Bill House	803/256-0450	803/345-1731
Renee Johnson	803/259-1781	803/259-2090
Mark Lewis	803/256-0450	803/794-7726
Dennis Niegowski	803/259-1781	803/259-7763

EMERGENCY RESPONSE TEAM OPERATORS (ETO)

Charles Grubbs	803/259-1781	803/259-5171
Jack Hutto	803/259-1781	803/793-3425
Hugh (Mitch) Rucker	803/259-1781	803/259-1610