



Nebraska Public Power District

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U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555-0001

Subject: Emergency Plan Implementing Procedures
Cooper Nuclear Station, NRC Docket 50-298, DPR-46

The purpose of this letter is to transmit the following Emergency Plan Implementing Procedures (EIPs) pursuant to the requirements of 10 CFR 50, Appendix E, Section V, "Implementing Procedures":

EPIP 5.7.10	Revision 25	"Personnel Assembly and Accountability"
EPIP 5.7COMMUN	Revision 1	"Communications"

Should you have any questions concerning this matter, please contact me 402-825-2774.

Sincerely,

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<u>CNS OPERATIONS MANUAL</u> EPIP PROCEDURE 5.7.10 PERSONNEL ASSEMBLY AND ACCOUNTABILITY	USE: REFERENCE Ⓢ EFFECTIVE: 10/17/03 APPROVAL: SORC/IQA OWNER: J. G. KELSAY DEPARTMENT: EP
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1. PURPOSE

- [] 1.1 This procedure describes required actions and provides specific instructions to CNS personnel to implement personnel assembly and accountability.
- [] 1.2 This procedure provides a means to ascertain the names of missing individuals within the Protected Area within 30 minutes of the declaration of an ALERT or higher emergency classification and account for all on-site individuals continuously thereafter.

2. PRECAUTIONS AND LIMITATIONS

- [] 2.1 Specific routes to be traveled or areas to be avoided should be included in the emergency announcement, if appropriate.
- [] 2.2 The names of missing individuals within the Protected Area shall be ascertained within 30 minutes of the declaration of the emergency and accounted for continuously thereafter.
- [] 2.3 If the emergency is security-related, armed Security personnel may not be available to perform functions described in this procedure. Other personnel should be assigned to perform these functions.©

3. REQUIREMENTS

- [] 3.1 The Emergency Director declares an ALERT, or higher classification, as defined in Procedure 5.7.1, or otherwise determines personnel assembly and accountability is required.

4. PERSONNEL ASSEMBLY

- 4.1 The Emergency Director ensures the emergency alarm is activated and the appropriate announcement provided. If personnel assembly and accountability is desired at a Notification of Unusual Event, a similar message format with appropriate information will be used.
- 4.2 Personnel escorting visitors or tours shall take them immediately to the exit turnstile and direct them to report to Training Building Classrooms "J", "H", or "I" for assembly. Escorts will then report to their own Designated Assembly Area.
- NOTE** - Operations personnel who are in remote areas of the station and are in the immediate process of maintaining or restoring the plant to a safe condition shall not be expected to physically assemble in the Control Room. Operations personnel in these situations shall communicate their status and location to the Control Room. Such personnel shall be defined as "missing" on the initial Security Computer Report and shall be accounted for by the Security Coordinator through communications with the Control Room.
- 4.3 ERO personnel upon hearing the emergency alarm and associated announcement shall immediately report to their respective Emergency Response Facilities unless otherwise instructed by the announcement.
- 4.3.1 On-Shift Operations Crew personnel shall report to the Control Room.
- 4.3.2 Operations personnel acting as Relief Crew shall report to the Control Room.
- 4.3.3 Radiological Protection Technicians, Chemistry Technicians, Mechanics, Electricians, and Instrument & Control Technicians shall report to the OSC.
- 4.3.4 Other ERO Team personnel (ERO Teams 1, 2, 3, and 4) shall report to their assigned facility (Control Room, TSC, OSC, or EOF).
- NOTE** - Disregard the following step if the emergency is security related and reference the Security Plan and Procedures.
- 4.3.5 On-duty Security personnel, except those manning CAS, SAS, ACCESS CONTROL, CONTROL ROOM, and compensatory posts, report to the Security Building Lunch Room behind CAS.

- [] 4.4 Non-ERO personnel outside the Protected Area shall remain at or proceed to an area where they can monitor the station gaitronics system for additional information and/or instructions. A designated assembly area outside the Protected Area is any work area or community area such as a Lunchroom or Conference Room where personnel can monitor the station gaitronics system for additional information and/or instructions.
- [] 4.5 Non-ERO personnel within the Protected Area shall exit the Protected Area and assemble in Classroom "J", "H", or "I" in the Training Building. Monitor the area station gaitronics system for additional information and/or instructions.
- [] 4.6 Other - Personnel may be assigned to other temporary assembly areas within the Protected Area, as construction, maintenance, and refueling outages, etc., dictate.
 - [] 4.6.1 A list of any such temporary assembly areas shall be posted in the TSC at the Security Coordinator's desk.
- [] 4.7 Personnel reporting to a Designated Assembly Area within the Protected Area shall card a security badge reader with their security badge which has been designated for accountability purposes as listed below:
 - [] NOTE - Operations personnel who are located in the Control Room shall not be expected to physically card the Control Room door badge reader. Operations personnel in the Control Room shall be accounted for by the Security Coordinator.
 - [] 4.7.1 Control Room - Control Room door badge reader.
 - [] 4.7.2 TSC/OSC - The badge reader outside the TSC door labeled "TSC/OSC Emergency Accountability Reader".
 - [] 4.7.3 CAS/SAS/Access Control - The CAS, SAS, and Access Control door badge readers.
 - [] 4.7.4 Security Building Lunch Room - The CAS or Access Control door badge reader.
- [] NOTE - In the absence of the Designated Assembly Area Supervisor (DAAS) listed in Section 7, anyone reporting to their Designated Assembly Area may fulfill DAAS duties.
- [] 4.8 The DAAS in the EOF shall obtain copies of the Accountability Sign-In Sheet, Attachment 1, and circulate it for all assembled personnel to sign.

- [] 4.9 All personnel assembling in the EOF shall sign in on Attachment 1, providing their security badge number, name, and time of assembly.

5. INITIAL ACCOUNTABILITY OF PERSONNEL

- [] 5.1 The on-duty Security Shift Supervisor shall ensure Access Control is manned and access to the Protected Area is controlled per Step 5.3.1.
- [] **NOTE** - The on-duty Security Shift Supervisor shall assume the duties of the Security Coordinator during times other than normal working hours until relieved by another qualified Security Coordinator.
- [] 5.2 Upon the activation of the Emergency Alarm and the instructions announced for personnel to perform assembly and accountability, the Security Shift Supervisor shall instruct CAS to immediately initiate an "Accountability" command in the Security Computer System.
- [] 5.3 Access Control personnel shall inform the Security Coordinator when the flow of people through the exit turnstile has stopped. The Security Coordinator in the TSC shall print an Accountability Report to the TSC Security System printer. If the Security System printer in the TSC is inoperable, the report shall be printed in CAS or SAS. The Security Coordinator shall then direct Access Control and the Security Shift Supervisor to secure access to the Protected Area and start the printout.
 - [] 5.3.1 Permission to enter shall be obtained from the Security Coordinator. A list of personnel entering or exiting the Protected Area will be kept by Access Control. This list should be maintained on Attachment 1 if available.
 - [] 5.3.2 The on-duty Security Shift Supervisor shall direct the CAS/SAS Operator to survey the Owner Controlled Area (OCA) with the closed circuit television camera, for personnel (farmers, boaters, line crews, etc.).
 - [] 5.3.2.1 Any activity shall be reported to the Security Coordinator.
 - [] 5.3.2.2 Individuals in the OCA or entering the OCA will be requested to depart the area, if conditions dictate.

- [] 5.3.3 Upon its completion, the Security Coordinator shall obtain the Accountability Report from the TSC Security computer system printer.
- [] 5.3.3.1 If the Accountability Report is printed on the SAS or CAS printer, upon its completion, the Security Shift Supervisor shall ensure it is immediately delivered to the Security Coordinator in the TSC.
- [] 5.3.4 Those persons whose names appear on the Accountability Report are missing.
- [] 5.3.5 Initial accountability is complete when the Security Coordinator has the Accountability Report in his possession and is aware of the names on it.
- [] **NOTE** - The on-duty Shift Supervisor (Emergency Director) performs the duties of the TSC Director until the TSC is activated.
- [] 5.3.6 The Security Coordinator shall notify the TSC Director when initial on-site accountability is complete.
- [] 5.3.7 The Security Coordinator shall attempt to locate missing personnel using the security computer system and any other available means including paging them over the Gaitronics System, calling other Designated Assembly Areas, or calling their normal work location. If these individuals are not located, the Security Coordinator shall report the names of these individuals to the TSC Director as unaccounted-for.
- [] 5.3.8 The TSC Director shall report the results of personnel accountability to the Emergency Director.
- [] 5.3.9 The TSC Director shall initiate a rescue and re-entry operation per Procedure 5.7.15 to locate and/or assist unaccounted-for personnel.
- [] 5.3.10 If ERO Management determines that additional or specific ERO personnel are needed to mitigate the event, the Security Coordinator or Logistics Coordinator shall contact the individuals directly at their normal work location or their Designated Assembly Area. Chosen individuals shall be instructed to report to a particular Emergency Response Facility and specific instructions shall be provided to the additional responders at the time of contact.

6. CONTINUOUS ACCOUNTABILITY

- CAUTION** - Conditions resulting in declared emergencies may also create high radiation and/or contamination. Personnel safety/risk shall always be weighed against the task to be accomplished.
- NOTE 1** - During the initial accountability phase, movement between facilities and into the plant should be restricted to that required for immediate emergency response.
- NOTE 2** - Continuous accountability will be coordinated by a Security Coordinator after arrival on-site during backshift, weekends, or holidays.
- 6.1 Maintain a written record of your movement into and out of Emergency Response Facilities by signing in and out on Attachment 1, Accountability Log.
- 6.1.1 The Control Room, TSC, and EOF will have Security personnel present to perform continuous accountability duties, unless pre-empted by security contingencies.
- 6.2 All teams entering the plant shall be tracked in the OSC by the OSC Supervisor.
- 6.3 A primary and alternate method of notification/communication with an emergency response facility should be established prior to entry into areas of the plant affected by emergency conditions.
- 6.4 Information concerning any unusual or dangerous condition encountered should immediately be relayed to an emergency response facility. High radiation levels and locations should also be relayed.
- 6.5 All on-shift Station Operators, Licensed Operators, and Shift Technical Engineers needed for response to plant conditions remain under the control of the Shift Supervisor.
- 6.6 Extra Operations personnel not needed in the Control Room for immediate emergency response may be relocated to the OSC after initial accountability for assignment to Repair/Rescue/Monitoring Teams. This decision to relocate Operations personnel is made by the Shift Supervisor and shall be communicated to the Emergency Director, TSC Director, and OSC Supervisor.
- 6.7 Personnel shall be granted access to the Protected Area only on the authorization of the Security Coordinator.

7. DESIGNATED ASSEMBLY AREA SUPERVISORS

- NOTE** - In the absence of the Designated Assembly Area Supervisors listed below, anyone reporting to their Designated Assembly Area may fulfill DAAS duties.
- 7.1 The people listed below are assigned as the Designated Assembly Area Supervisor and alternate for each respective assembly area.
- 7.2 CONTROL ROOM
 - 7.2.1 Security personnel (the written record of movement required in Step 6.3 shall be performed by Security personnel unless pre-empted by security contingencies).
 - 7.2.2 Shift Supervisor.
 - 7.2.3 Station Operator.
- 7.3 TSC
 - 7.3.1 Security Coordinator.
 - 7.3.2 TSC Director.
- 7.4 OSC
 - 7.4.1 OSC Supervisor.
 - 7.4.2 OSC Leads.
- 7.5 SECURITY BUILDING LUNCH ROOM
 - 7.5.1 Security Shift Supervisor.
 - 7.5.2 CAS Specialist.
- 7.6 EOF
 - 7.6.1 Logistics Coordinator.
 - 7.6.2 Security personnel.
 - 7.6.3 Emergency Preparedness Coordinator.

7.7 TRAINING CENTER CLASSROOMS H, I, AND J

7.7.1 Training Department personnel.

7.8 OTHER

7.8.1 On-Site Assembly Areas, as needed, because of construction, outage, etc., shall be designated by the Emergency Preparedness Manager.

8. MISCELLANEOUS

8.1 Personnel who are off-site at the time of the emergency and are notified to report to the site shall report to their normal Designated Assembly Area unless given other specific instructions.

1. DISCUSSION

- 1.1 In the event of an emergency at CNS, it is necessary that all personnel are notified of the situation, their whereabouts identified for safety and security purposes if within the Protected Area, and they respond in a coordinated effort to the emergency.
- 1.2 CNS visitors shall receive instructions from their escort explaining what they are to do and where they are to go in the event of the sounding of the Emergency Alarm. It is the responsibility of each Supervisor to know the general location of his subordinates at any time.
- 1.3 An emergency signal, activated manually from the Control Room, is provided to alert all personnel in the vicinity of the plant an emergency exists. The emergency alarm consists of a distinct steady-tone sounded through the station intercom system. The alarm shall be sounded and appropriate announcements made to station personnel per Procedure 5.7.2.
 - 1.3.1.1 Strobe lights are installed in some high-noise areas to augment the audible alarms. These strobes are automatically activated when an emergency signal is generated onto the Gaitronics system. Personnel have been trained to respond to a flashing strobe by moving to an area where the announcement (which follows the sounding of the emergency alarms) can be clearly heard.
- 1.4 All ERO personnel reporting to a Designated Assembly Area within the Protected Area (PA), with the exception of Operations personnel in the immediate process of maintaining or restoring the plant to a safe condition, shall use their security badge to card a Security System badge reader for accountability purposes at that area. A report generated by the Security Computer shall identify all personnel who are missing.

2. REFERENCES

2.1 CODES AND STANDARDS

- 2.1.1 NPPD Emergency Plan for CNS.
- 2.1.2 NUREG 0654/FEMA-REP-1, Revision 1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants.

2.2 PROCEDURES

2.2.1 Emergency Plan Implementing Procedure 5.7.1, Emergency Classification.

2.2.2 Emergency Plan Implementing Procedure 5.7.2, Shift Supervisor EPIP.

2.2.3 Emergency Plan Implementing Procedure 5.7.15, OSC Team Dispatch.

2.3 NRC COMMITMENTS

2.3.1 © NLS2002030, Response to Order for Interim Safeguards and Security Compensatory Measures. Commitment number NLS2002030-18. Commitment affects Step 2.3.

**CNS OPERATIONS MANUAL
EPIP PROCEDURE 5.7COMMUN**

COMMUNICATIONS

USE: INFORMATION 
EFFECTIVE: 10/17/03
APPROVAL: SORC/IQA
OWNER: J. G. KELSAY
DEPARTMENT: EP

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1. PURPOSE

This procedure provides descriptions of the communications systems installed at CNS and basic instructions for their operation.

2. PRECAUTIONS AND LIMITATIONS

- [] 2.1 Use of cell phones is prohibited within 12" of unprotected sensitive instrumentation. Protection meaning shielded input wiring and/or shielding in the equipment covering.©

3. REQUIREMENTS

- 3.1 MCC-L is energized.
- 3.2 Lighting Panel LOPS-B is energized.
- 3.3 NBPP is energized.
- 3.4 EOF Panels CEOFA and CEOFB are energized.
- 3.5 Procedure 2.2.4A, Communications System Component Checklist, complete to support system operation.

4. CNS NORTHERN TELECOM SL1-MS PBX

- 4.1 A Northern Telecom SL1-MS PBX provides telephone service to the Control Room, TSC, OSC, EOF, and other site areas. This is the primary on-site communications system. Telephone numbers used during an emergency are contained in the Emergency Telephone Directory.
- 4.2 If the PBX should lose AC power, it will automatically switch to backup battery power. These batteries will power the PBX for ~ 6 hours. All extensions will continue to operate in their normal fashion.
- 4.3 In the event of a total loss of power to, or major failure of the PBX, the system is designed to connect several hard-wired extensions, designated as bypass telephones, directly to Central Office (C.O.) lines. When bypass telephones are connected to the Central Office, they function as C.O. lines (not like PBX telephones).
 - 4.3.1 Microwave will not be available.
 - 4.3.2 4 digit extensions (of the PBX) will not work.
 - 4.3.3 To make calls to Brownville and the local area (INCLUDING the other bypass telephones), you must dial the 7 digit number.

- [] 4.3.4 To make other (Long Distance) calls, dial 1 + 10 digit number.

<u>C.O. Line Number</u>	<u>Bypass Phone Location</u>	<u>Normal Extension</u>
825-3811	Access Control	N/A-Normally inactive
825-3821	SAS	5276
825-3831	CAS	5374
825-3841	Switchboard	N/A-Normally inactive
825-3851	Admin 1st Floor	N/A-Normally inactive
825-3861	Control Room	5614
825-3871	Plant Manager's Office	N/A-Normally inactive

- [] 4.4 In the event even the bypass telephones are inoperative, other means of communication shall be attempted. It may become necessary to relay messages via radio, NAWAS, or microwave.
- [] 4.5 By dialing the digits 9 + 1 on selected PBX stations (or 1 + 6 and an assigned PIN code on other extensions), the user is connected into the commercial telephone network.
- [] 4.6 The telephone numbers of Emergency Response Facilities and personnel are contained in the Emergency Telephone Directory.

5. MICROWAVE TELEPHONE NETWORK

- [] 5.1 The NPPD Private Switching Network (Microwave) is accessed by dialing the digit 6 on any CNS PBX extension. When the dial tone is heard, the desired telephone number may be dialed.

6. LOCAL TELEPHONES (CENTRAL OFFICE [C.O.] LINES - ALLTEL COMMUNICATIONS)

- [] 6.1 These are telephones connected directly to the ALLTEL Communications Brownville Central Office. These lines do not connect to, or process through, the CNS PBX. C.O. telephones are located in the Control Room, TSC, and EOF. These phones are plainly labeled with an 825 and the 4 digit individual extension number.
- [] 6.2 To make calls to Brownville and the local area, dial the 7 digit number.
- [] 6.3 To make other (Long Distance) calls, dial 1 + 10 digit number.
 - [] 6.3.1 One C.O. line is located in the Control Room.

- 6.3.2 One C.O. line is located in the TSC.
- 6.3.3 Two C.O. lines are located in the EOF Dose Assessment Area.

7. SITE CELL PHONE OPERATION

- 7.1 To turn phone ON, press and hold NO/ON/OFF key until phone beeps. Display will change several times and eventually indicate READY. When READY and System Indicator (at lower left portion of this display) are ON, phone is ready to place and receive calls.
- 7.2 To place a call:
 - 7.2.1 Verify phone is ON.
 - 7.2.2 Verify that System Indicator at bottom left of display is displayed. If no indicator is displayed, cell phone is out of range.
 - 7.2.3 Enter telephone number. If an incorrect entry is made, press CLR to erase entered number (a single digit will be erased for every time CLR key is pressed).
 - 7.2.4 Press YES after number on display is correct. The call will be placed and display will change to In Use.
- 7.3 To end a call, press NO/ON/OFF key.
- 7.4 To answer a call, press YES key.
- 7.5 To change speaker volume during a call, press Menu/Down Arrow, press 2 key, then press RCL/Up Arrow or MENU/Down Arrow to adjust volume. Press NO/ON/OFF key twice to return to normal display (if NO/ON/OFF key is not pressed, phone will revert back to original volume and normal display).
- 7.6 To redial last number called, press RCL/Up arrow twice. Last number called will be displayed. Press YES to redial displayed number.

8. GAITRONICS INTERCOM SYSTEM

- 8.1 The Gaitronics system is a public address (P.A.) or Intercom system, installed in most areas of the plant. Some areas of the plant have five-channel stations and others have only single channel stations. Operation is the same.

8.2 PAGING and USE

- 8.2.1 Depress and hold the paging button while making an announcement (Page).
 - 8.2.1.1 Paging buttons are located on either the wall-mounted station, on the handset, or on the deskset, depending on the style of unit.
 - 8.2.1.2 When paging a person, it is *recommended* that you page them to LINE 1. This is because not all stations are five channel.
 - 8.2.1.3 Paging may be done while conversations are in progress without disruption.
- 8.2.2 Release the paging button to carry on a party line conversation.
- 8.2.3 Use common courtesy and do not attempt to talk while someone else is talking. If both parties have five channel stations, coordinate use of a free channel.

9. EMERGENCY SIGNALS (Alarms)

- 9.1 Emergency signals are generated onto the Gaitronics Intercom system only from the Control Room (BOP Operator's desk).
 - 9.1.1 If the Simulator is cross-tied into the plant Gaitronics system (for a drill), the emergency signals from the Simulator may also be generated onto the system.
 - 9.1.2 Emergency signals are selected simply by pressing the appropriate button on the tone generator.
 - 9.1.2.1 Fire alarm (— — — — —) - A distinct pulse tone.
 - 9.1.2.2 Emergency alarm (————) - A distinct steady tone.
 - 9.1.2.3 All clear (~~~) - An up and down tone.
 - 9.1.3 Strobe lights are installed in some high-noise areas to augment the audible alarms. These strobes are automatically activated when an emergency signal is generated onto the Gaitronics system. Personnel have been trained to respond to a flashing strobe by moving to an area where the announcement (which follows the sounding of the emergency alarms) can be clearly heard.

10. SOUND POWER SYSTEM

- 10.1 The Sound-Power system is a communications system which requires no external power. Transmission of audio is performed solely by virtue of both sender and receiver being connected to the same circuit (via installed stations and patch panels) using specialized headset/handset microphone combinations.
- 10.2 Patch panels are located in the Main Control Room and in the Radwaste Control Room.
- 10.3 Single system (A or B) use:
 - 10.3.1 Select the sound power jacks to be used and plug in headsets or handsets.
 - 10.3.2 Position the selector switch for each jack to the same channel, 1 through 6. Those headsets or handsets are on a single party line type hookup.
 - 10.3.3 Other headsets or handsets may be plugged into System A or B and set to any of the other not in use channels. Up to six separate party line conversations can be in progress at one time.
- 10.4 Interconnecting Systems A and B:
 - 10.4.1 Place the right-hand selector switch in each System A and B panels to the same number, 1 through 6, and all the jacks in each system on that selected number are on a party line.
 - 10.4.2 Repeat the above using the left-hand selector switch. Systems A and B can have two interconnections at one time.
- 10.5 Control Room sound power monitor:
 - 10.5.1 Select the in-plant sound power to be utilized to Channel 1.
 - 10.5.2 With both handsets in their cradles, the monitor will receive all communications from all in-plant sound powers on Channel 1.
 - 10.5.3 When either handset is lifted, the speaker is disabled and the handset operates as all other sound power handsets.

11. CNS SITE UHF RADIOS

[] 11.1 CNS has two UHF repeaters designated Base 1 and Base 2.

[] NOTE 1 - Base 1 is the primary frequency used by CNS Security.

[] NOTE 2 - Base 2 is the primary frequency used by CNS Fire Brigade.

[] 11.1.1 Base 1 is physically located in the ERP shack.

[] 11.1.2 Base 2 is physically located in the MET tower shack.

[] 11.1.3 Each base is equipped with battery backup power.

[] 11.2 These base stations operate on different frequencies; however, all remote control points, and portable and mobile units are equipped to use either system.

[] NOTE - If one of the base station repeaters should fail, personnel will be instructed to switch to the functional system.

[] 11.3 Operation from remote control points (consoles):

[] 11.3.1 Remote control points (consoles) are located in the Control Room, CAS, SAS, Security, EOF, AEOF, OSC, and TSC.

[] 11.3.2 Turn power switch to "ON".

[] 11.3.3 Select desired base. F1 for Base 1 or F2 for Base 2.

[] 11.3.4 Press the "Transmit" button on the microphone and speak into the microphone. Release to receive.

[] 11.3.5 Adjust volume, as required.

[] 11.4 OPERATION OF PORTABLE AND MOBILE UNITS

[] 11.4.1 All portable and mobile units are capable of communication either through the base repeaters or direct.

[] 11.4.1.1 Communication through the base repeaters takes advantage of the high output power and antenna height of the base repeaters.

[] 11.4.1.2 Communication direct (on the output frequencies of the base repeaters) allows continued, short-range communication, even if the base repeater(s) is (are) lost.

- 11.4.2 Turn the portable or mobile unit "ON".
- 11.4.3 Select the desired mode of communication:
 - 11.4.3.1 Channel 1 to transmit through Base 1 repeater.
 - 11.4.3.2 Channel 2 to transmit direct (on the output frequency of Base 1). Remote Control Points (Consoles) will NOT receive this transmission.
 - 11.4.3.3 Channel 3 to transmit through Base 2 repeater.
 - 11.4.3.4 Channel 4 to transmit direct (on the output frequency of Base 2). Remote Control Points (Consoles) will NOT receive this transmission.
 - 11.4.3.5 Channel 5 is the NPPD State-Wide Hazardous Materials Frequency.
- 11.4.4 Press the "Transmit" or "Push-To-Talk" (PTT) button on the unit and speak into the microphone. Release to receive.

12. CROSS-BAND RADIO COMMUNICATIONS WITH NEMAHA COUNTY SHERIFF'S OFFICE

- 12.1 A cross-band, two-way radio communications system exists between CNS and the Nemaha County Sheriff's Office. Cross-band means the Sheriff's Office has monitor receivers on CNS frequencies (Base 1 and Base 2) and CNS has a monitor receiver on the Sheriff's frequency.
- 12.2 The Nemaha County Sheriff's Office is also equipped with the emergency medical frequencies. If this type of communication is necessary, establish voice contact with the Nemaha County Sheriff's Office as described below, then request the Sheriff's Office to relay messages between you and the emergency vehicle.
- 12.3 The monitor speakers at the Nemaha County Sheriff's Office are normally muted until they receive a coded signal from CNS.
- 12.4 The CNS monitor receiver is normally turned off.
 - 12.4.1 Turn on the CNS monitor for the Sheriff's frequency and adjust the volume.
 - 12.4.2 Select which base station you wish to utilize. F1 for Base 1, F2 for Base 2.

- 12.4.3 Send the codes to unmute the Sheriff's monitor speakers by:
 - 12.4.3.1 Depress Code Buttons 1 and 2, in that order, on the paging encoder. The code selected will appear on the LED readout on the encoder.
 - 12.4.3.2 Depress and release the P button on the encoder. The coded signal will be transmitted.
 - 12.4.3.3 When the red light on the remote control console goes out, the Sheriff's monitor (on CNS frequency) should be unmuted.
- 12.4.4 Call the Nemaha County Dispatcher using normal radio protocol.
- 12.4.5 Radio communications between the Nemaha County Sheriff's Office and CNS via cross-band) has been established and will remain available until either party turns off or mutes their monitor.

13. RADIO PAGING SYSTEM OPERATION

- NOTE 1** - CNS leases digital pagers and radio paging services from a telecommunications company. Pagers are issued to various Management and Emergency Response personnel at CNS and other NPPD locations. Pagers can be activated from any touch-tone phone, on-site or off-site. Any call-back number may be displayed on the pager.
- NOTE 2** - The CNS EP Department issues and maintains the list of pager carriers. Information and detailed instructions for use of pagers is provided to the pager carrier upon issue and copies are available in the EP Office area.
- 13.1 Replace the battery in the pager with a "AA" battery anytime it displays "LOW CELL". Batteries can be obtained at the CNS switchboard. The time displayed on the pager will have to be reset upon each change out of a pager battery.
- 13.2 To send an individual page:
 - 13.2.1 Call the telephone number associated with the individual pager.
 - 13.2.1.1 A list of telephone numbers for individual pagers can be found in the TSC or EOF.
 - 13.2.2 A computer voice will ask you to enter your numeric message after the tone. If necessary, leave a 3 digit scenario code along with the call-back number.

- 13.2.3 A table of 3 digit event codes can be found in EPIP 5.7.2.
- 13.3 To send a group page:
 - 13.3.1 An All-Call group page is usually activated by the CNS Automated Notification System (ANS). However, there is a "backup" method which allows the pagers to be activated by any touch-tone telephone. This backup method is password-protected.
 - 13.3.2 Call the telephone number associated with the specific group of pagers.
 - 13.3.2.1 A list of telephone numbers for specific groups of pagers can be found in the "Pager" section of the Emergency Telephone Directory.
 - 13.3.3 A computer voice will ask you to enter your numeric message after the tone. If necessary, leave a 3 digit informational code along with the call-back number (in the place of the area code).
 - 13.3.3.1 A table of 3 digit scenario (informational) codes can be found in Procedure 5.7.2. Reference also the laminated, wallet sized, Pager Information Card for current informational codes used.
- 13.4 Responding to a page:
 - 13.4.1 A pager will activate either audibly or by vibration, but only if it's turned on. It will also display the message "1 PAGE".
 - 13.4.2 Acknowledge the page and display the information.
 - 13.4.2.1 Normally, if an emergency has been declared, the display will be a 3 digit scenario (informational) code followed by a 7 digit telephone number.
 - a. Reference the laminated, wallet sized, Pager Information Card for current scenarion (informational) codes used.
 - b. FOR EXAMPLE: if 222-825-5560 were displayed, 222 would be the informational code.

[] 13.4.2.2 The pager may also display a Group 1, Group 2, Group 3, or Group 4. A group display indicates that the pager has been activated simultaneously with other pagers assigned to that particular group. The group display is informational only and has no bearing on response.

[] NOTE - All telephone calls to CNS from any telephone exchange other than Brownville will require dialing Area Code: "402"

[] 13.4.3 Call the telephone number displayed on the pager after the 3 digit code. Normally, if an emergency has been declared, the call-back number will be to the CNS Automated Notification System (ANS).

[] 13.4.4 If no telephone number appears, contact the CNS Control Room by dialing (402) 825-5271.

14. DISTRICT STATE-WIDE RADIO SYSTEM

[] 14.1 CNS has a base station which operates on the District's state-wide radio system frequencies, capable of communicating with other base stations, mobiles, or portable units on the state-wide system.

[] 14.2 This station is controlled from remote control consoles located at the EOF, AEOF, OSC, and Control Room.

[] NOTE - F2 is primary frequency used in the CNS area.

[] 14.3 Operation is identical to that of the UHF radio consoles.

15. NATIONAL WARNING SYSTEM (NAWAS) OPERATION

[] NOTE - Under no circumstances is NAWAS telephone to be turned down below an audible level.

[] 15.1 Refer to NAWAS SOP in yellow binder located near NAWAS telephone in Control Room.

16. FEDERAL TELECOMMUNICATIONS SYSTEM (FTS 2001)

[] 16.1 The FTS 2001 System is a standard commercial telephone service and requires no complicated operating instructions. However, is independent of all other telephone service and is installed and operated by the NRC. It provides a separate government communications network for all essential communication functions. This avoids the problem of heavy traffic loads that in emergencies may exceed local telephone company switching capabilities. Some of the FTS 2001 emergency communications functions are:

[] 16.1.1 EMERGENCY NOTIFICATION SYSTEM (ENS)

[] 16.1.1.1 The primary number connects CNS to the NRC Operations Center. Designated numbers are listed on the ENS telephones located in the Control Room, TSC, and EOF.

[] 16.1.2 HEALTH PHYSICS NETWORK (HPN)

[] 16.1.2.1 The primary number, connects CNS to the NRC Operations Center. Designated numbers are listed on the HPN telephones located in the TSC and EOF.

[] 16.1.3 EMERGENCY RESPONSE DATA SYSTEM (ERDS)

[] 16.1.3.1 This is a designated line and auto-dial modem over which the raw reactor parametric data is transmitted from CNS to the NRC.

[] 16.1.3.2 ERDS is activated in the Control Room using the PMIS START/STOP Menu.

[] 16.1.4 Other FTS-2001 circuits which may be established between the NRC Site Team representatives and the NRC Base Team:

[] 16.1.4.1 Reactor Safety Counterpart Link.

[] 16.1.4.2 Protective Measures Counterpart Link.

[] 16.1.4.3 Management Counterpart Link.

[] 16.1.4.4 NRC Local Area Network Access.

17. CNS STATE NOTIFICATION TELEPHONE

- [] 17.1 If a declared emergency takes place at CNS, emergency notifications are made to the State of Nebraska, State of Missouri, Atchison County, Missouri, and Nemaha County, Nebraska, using the CNS State Notification Telephone.
- [] 17.2 CNS State Notification Telephones are located in the Control Room, TSC, and EOF.
- [] 17.3 The CNS State Notification Telephones are programmed to provide automatic conference-calling. When the handset to this telephone is picked up and the "Group Call" button is pushed, dedicated telephones will be dialed and ring at Nebraska State Patrol, Missouri State Patrol, Atchison County Sheriff's Department, and Nemaha County Sheriff's Department. The utilization of law enforcement agencies as initial points of contact provides for 24 hour coverage.
 - [] 17.3.1 The dedicated lines listed also have extension lines which ring at the following facilities respectively: Nebraska State Civil Defense EOC, Missouri State Emergency Management EOC, Atchison County EOC, and Nemaha County EOC.
 - [] 17.3.2 Once the EOCs become operational, notifications may be made to the EOCs with concurrence between the respective EOC and law enforcement agency.

18. CNS AUTOMATED NOTIFICATION SYSTEM (CNS ANS)

- [] 18.1 The CNS Automated Notification System (CNS ANS), located in the EOF, is a PC loaded with software provided by Dialogics Communications Inc. The system has access to multiple inbound and outbound telephone lines. The system is interactive with the user, similar to the "Voice Mail" system used at CNS. There is a system printer attached and it also has FAX and Modem capabilities. A variety of reports can be generated at the system control console. Reports can be printed to any location having a FAX machine.
 - [] 18.1.1 The system has been programmed by the Emergency Preparedness Staff with several pre-defined scenarios which cover the spectrum of Emergency Classifications and the associated ERO response desired. Following declaration of Alert or higher the CNS ANS will activate all ERO pagers issued from CNS.

- [] 18.1.2 Simultaneously, the system will start to place outbound telephone calls to non-pager carriers, while accepting inbound calls from pager carriers calling back in response to the global page. The CNS ANS will provide the responder with information concerning the emergency event and expected response. The system will also request specific information from the responder and ask yes or no questions. For the system to be able to interact with responders, the responder must have a touch-tone telephone. Some telephones are "pulse-tone switchable". They have a pulse/tone switch allowing their operating mode to be selected, depending upon the type of telephone service provided by the local telephone company. The switch in this type of phone must be in the tone position when interfacing with the CNS ANS.
- [] 18.1.3 The system has been programmed to prompt the System Operator to record a "Current Scenario Message". A "Current Scenario Message" should contain information such as the applicable EAL, information the responder needs to know regarding his safety prior to arriving at CNS, or specific information relevant to the emergency. In most cases, it is at the discretion of the Emergency Director to determine if such a message is necessary.
- [] 18.1.4 The system may be programmed to print reports at the Emergency Response Facilities. These reports identify the personnel responding to the plant to fill identified positions, and their approximate times of arrival. These reports will be used by ERO Facility Management to ensure staffing requirements are met.
- [] 18.2 Responding to the CNS ANS by telephone:
- [] 18.2.1 When the CNS ANS calls out to personnel at home, the call flow is virtually identical to when personnel call in to it. The CNS ANS will not ask to speak to a specific individual. It will identify itself, prompt for the entry of a security badge number, and wait several seconds for the information to be entered. If no information is entered, it will prompt again and wait. If after three attempts no information is entered, the system will hang up and call other personnel.

- [] 18.2.2 When calling in to the CNS ANS, please be aware that the CNS ANS has access to a limited number of inbound lines and there are hundreds of pagers issued at CNS. It will take several minutes for the system to process all calls. Be patient and if necessary, make more than one attempt to call back. If you keep getting a busy signal, wait a minute before calling again. For notification to be completely successful, you **MUST** make contact with the system. You may be placed on HOLD and hear music or speech telling you your call will be answered in the order it was received. Your call will ring through when a line is open.
- [] 18.2.3 Follow the instructions provided by the CNS ANS. The CNS ANS will ask for your 4 digit security badge number. Be sure to include any zeros (i.e., 0008, 0027, 0276, 2080, etc.). After you enter your badge number, press the # key.
- [] 18.2.4 All information requested by the system is verified after entry. This is done by a repeat back of the information and then a request to enter a 9 for YES or 6 for NO as to the correctness of the information.
- [] 18.2.5 Do not hang up until you hear the system say "Thank you, Goodbye". Only then will you know that you have provided all the necessary information.

19. ALTERNATE INTERCOM SYSTEM (Bone Phones)

- [] 19.1 The Alternate Intercom System provides an alternate in-plant communications network utilizing the station's backup tone commander telephone PBX System. This system is located in the ERP shack and has battery backup.
- [] 19.2 Terminal equipment (the phones themselves) are light grey in color.

[] 19.3 The location of Alternate Intercom Extensions and their numbers are:

<u>LOCATIONS</u>	<u>ACCESS NUMBER</u>
Control Room	43
Alternate OSC	44
TSC (Operations)	41
TSC (Engineering)	35
OSC	42
Hot Chemistry Lab	47
EOF (Dose Assessment)	48
EOF (Information Authentication Center)	31
EOF (Operations Table)	24
JIC	22

20. GOVERNMENT EMERGENCY TELECOMMUNICATIONS SERVICE (GETS) INSTRUCTIONS

[] **NOTE 1** - GETS should be used during a National Security or emergency event that causes congestion or blockage of the public switched telephone network.

[] **NOTE 2** - The Control Room GETS card is located in the Shift Manager's cubicle.

[] **NOTE 3** - The EOF GETS card is located in the Emergency Preparedness Coordinator's Position Instruction Manual (PIM) binder.

[] 20.1 To place a call utilizing GETS:

[] 20.1.1 Dial 9-1-710-627-4387.

[] 20.1.2 Alternate number (9-1-888-288-4387).

[] 20.1.3 After the short dial tone, enter your PIN located on your GETS card.

[] **NOTE** - Do **NOT** dial a 9-1 before entering your destination number's Area Code and Telephone Number. This will cause failure in connecting to the destination number.

[] 20.1.4 When prompted, dial your destination number (Area Code + Telephone Number).

20.2 GETS Assistance:

- 20.2.1 Dial 9-1-800-818-GETS (4387) to obtain user assistance or report trouble at any time. This line is available 24 hours a day.

21. TROUBLE REPORTING

- 21.1 If ENS telephone is found inoperable, notify Shift Manager (SM) immediately and NRC Operations (Main 301-816-5100/Backup 301-951-0550) within 1 hour, and write a Notification.
- 21.2 If State Notification Telephone is found inoperable, notify SM and write a Notification. SM shall notify on-call Emergency Preparedness Coordinator.
- 21.3 If Gaitronics or sound power problems are found, notify SM and write a Notification.
- 21.4 If any other plant telephone system, FTS 2001 circuit, microwave, NAWAS, or Alternate Intercom problems, notify SM and write a Notification.
- 21.5 If radio system is found inoperable, notify SM and write a Notification.
- 21.6 If restoration is critical (in addition to steps above), contact Telecommunications Department directly during working hours. During non-working hours, notify Doniphan Energy Control Center who shall contact on-call Telecommunications Technician.

22. RECORDS

- 22.1 No quality records are generated by this procedure.

ATTACHMENT 1 EMERGENCY RESPONSE FACILITY COMMUNICATION EQUIPMENT

COMMUNICATIONS SYSTEM	OSC	EOF	TSC	CR	JIC	AEOF	AOSC	COMMENTS
1. Telephone PBX	X	X	X	X	X	X	X	Off-site Dial "9 + 1" primary on-site/off-site communications
2. Station Intercom System "Gaitronics"	X	X	X	X			X	Other extensions available in various areas throughout the station
3. Sound Power System			X	X			X	Other outlets available in various areas throughout the station
4. Alternate Intercom System	X	X	X	X	X		X	Extensions available in other areas of the plant
5. Federal Telecommunications Systems (FTS 2001)		X	X	X				Dial telephone number listed on top of telephone
6. Microwave Telephone Network	X	X	X	X	X	X	X	District-wide
7. Local Telephones (C.O. Lines)		X	X	X	X	X		None
8. NAWAS				X				None
9. CNS State Notification Telephones		X	X	X				Hotline to states and counties
10. Site UHF Radio Consoles	X	X	X	X		X		None
11. Cross-Band Encoding				X				None
12. Radio Paging System	X	X	X	X	X	X	X	Leased service
13. District State-Wide Radio System	X	X		X		X		District-wide
14. CNS On-Site Cell Phone System	X	X	X	X			X	Functional and available at various plant locations
15. CNS Automated Notification System	X	X	X	X	X	X	X	Used for call-in of ERO personnel

1. DISCUSSION

1.1 FUNCTION

1.1.1 The Communications System at CNS provides station personnel with redundant, reliable communications capabilities for both on-site and off-site communications.

1.2 OPERATING CHARACTERISTICS

1.2.1 The telephone system (PBX) provides voice communication between virtually all buildings, offices, and operation facilities within the station. The telephone system also provides communications between the plant and off-site facilities via the telephone switchboard network. The system allows operating crews to alert plant personnel in emergencies. The telephone company provides the normal and leased line services. NPPD owns all on-site telephone communications (PBX, telephones, bypass telephones, alternate intercom, and cell-phones), with the exception of the FTS 2001 network (7 circuits belonging to NRC), and NAWAS.

1.2.2 In the event of a loss of AC power to the telephone system, backup batteries are provided. In accordance with the Emergency Plan for Cooper Nuclear Station, these batteries can sustain continued operation for ~ 6 hours.

1.2.3 The gaitronics system permits communication between the different parts of the plant and it also incorporates a public address system for plant wide announcements. The plant system receives normal power from NBPP and alternate power from CPP. A selector switch located near NBPP is used to select normal or alternate power. The Simulator system receives its power from the Power Distribution Center (PDC) located in the Training Center. The plant and Simulator system page and party lines are normally isolated from each other but can be connected during emergency drills, etc. There are two types of gaitronics stations throughout the plant. The first type is a single channel unit. The single channel has a paging channel and a single party line. The second type is a five channel unit. The five channel units have a paging channel and five party lines. Channel 1 and the paging channels are common to both types of units. The emergency signals override other uses of the gaitronics. There are three emergency signals: fire alarm (pulse tone), emergency alarm (steady tone), and an all clear alarm (up and down tone).

- 1.2.4 The sound power system provides for direct, self-powered communication paths between various plant locations for the purpose of facilitating equipment maintenance/operation.
- 1.2.5 The site 450 MHz (UHF) radio system uses two repeaters, Base 1 and Base 2. These repeaters operate on different frequencies. All remote control, portable, and mobile units are capable of selecting either repeater.
 - 1.2.5.1 Security normally uses Base 1 exclusively with Operations monitoring in the Control Room. Fire Brigade normally uses Base 2. When Operations needs to communicate using a repeater system, Base 2 will normally be utilized.
 - 1.2.5.2 Paging service is leased from a service provider. Each pager has an individual activation number, but may also be programmed into 'groups'. An "All-Call" group is normally used when notifying the ERO. Instructions on the various types of pagers are provided to the users upon issue.
 - 1.2.5.3 Cross-band communication with local law enforcement can be accomplished on Base 1 or Base 2 by sending encoder tones. The Nemaha County Sheriff's Department has a monitor receiver for each CNS base. The Control Room and Security have monitor receivers on the Sheriff's radio frequency.
 - 1.2.5.4 The CNS ambulance is equipped with a radio on the state emergency medical frequency, and can communicate directly with the Sheriff's Office and/or hospitals monitoring the state emergency medical frequency. The CNS ambulance can also communicate with the site on the 450 MHz (UHF) radios.
- 1.2.6 The District's state-wide radio system allows for communication with other base stations and mobile or portable units on the state-wide system. This radio is controlled from remote control consoles located at the EOF, AEOF, TSC, Control Room, CNS 345 kV Substation Building, and the York Regional Dispatcher.
- 1.2.7 The NAWAS System provides communication with various state, national, and local early warning systems. Periodic tests are conducted on this system.

- 1.2.8 The Emergency Notification System (ENS) telephone is the primary means for the plant to report emergencies and other significant events to the NRC Headquarters. The Plant Manager, STE, SS, or Shift Communicator will establish this link by dialing the number(s) listed on the telephone. When NRC Operations Center is activated in response to a station emergency, ENS may become a dedicated open line to NRC for transmission of operational data. If an incident has little potential for impacting public health and safety, the NRC Duty Officer will only collect relevant information and then terminate the conversation.
- 1.2.9 CNS is required to assign an individual to maintain continuous communication with the NRC via ENS until the NRC decides that the event has been successfully terminated or additional communication is unnecessary. Each station of the ENS will be tested monthly as a preventive maintenance item.
- 1.2.10 The Health Physics Network (HPN) and Emergency Notification System (ENS) provides communications between NRC and CNS during an emergency. The HPN telephone is for use during plant emergencies and other significant events. The NRC will establish this link if necessary and will direct station personnel when to terminate the link. Each station of the HPN will be tested monthly as a preventive maintenance item.
- 1.2.11 The CNS State Notification Telephone System is the primary means for the plant to make emergency notifications to state and local authorities. This system provides direct communication with the Nebraska State Patrol, the Missouri State Patrol, the Atchison County Sheriff's Department, and the Nemaha County Sheriff's Department. The utilization of law enforcement agencies as an initial point of contact provides for 24 hour coverage. The dedicated lines listed also have extension lines which ring at the following facilities respectively: Nebraska State Civil Defense EOC, Missouri State Emergency Management EOC, Atchison County EOC, and Nemaha County EOC. Once the EOCs become operational, notifications may be made using the extension lines at the EOC with concurrence between the respective EOC and law enforcement agency.
- 1.2.12 The Alternate Intercom (bonephone) system provides an alternate telephone system for on-site communications utilizing the station tone commander microwave system. This system has a battery backup.

2. REFERENCES

2.1 UPDATED SAFETY ANALYSIS REPORT

2.1.1 Section X-16, Communications Systems.

2.2 DRAWINGS

2.2.1 B&R Drawing 3002, One Line Diagram.

2.2.2 B&R Drawing 3006, One Line Diagram.

2.2.3 B&R Drawing 3007, One Line Diagram.

2.2.4 B&R Drawing 3010, One Line Diagram.

2.2.5 B&R Drawing 3058, DC One Line Diagram.

2.2.6 B&R Drawings 3242 through 3247, Communication Systems Plan.

2.2.7 B&R Drawing 3126, Sheet 2, ERP Tower Power.

2.3 MISCELLANEOUS

2.3.1 © ERFOM 98-009, Cell Phone, EMI/RFI Interface with Sensitive Electronic Equipment. Affects Step 2.1.