

PLANT OPERATIONS MANUAL

Volume 10
Section 02

10-S-02-1
Revision: 018
Date: 3-2-16

REFERENCE USE

EMERGENCY PREPAREDNESS PROCEDURE

ERF INSPECTION, INVENTORIES, OPERABILITY CHECKS, AND MAINTENANCE

NON-SAFETY RELATED

Prepared: _____

Reviewed: _____

Technical

Approved: _____

Manager, Emergency Planning

List of Effective Pages:

Pages 1-14

Attachments I-VI


List of TCNs Incorporated:

<u>Revision</u>	<u>TCN</u>
0	None
1	None
2	1
3	None
4	None
5	None
6	None
7	None
8	None
009	None
010	None
011	None
012	None
013	None
014	None
015	None
016	None
017	None
018	None

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~~RPFS FORM~~
aeg 3-2-16

REQUIRED REVIEW PERFORMED (Check all that apply)	<input checked="" type="checkbox"/> PAD (EN-LI-100)	<input type="checkbox"/> 50.59 Evaluation (EN-LI-101)
Transmit applicable Review Form as a separate record along with procedure to Document Control.	<input type="checkbox"/> 72.48 Evaluation (EN-LI-112)	<input type="checkbox"/> 50.54 Evaluation (EN-NS-210)
	<input type="checkbox"/> PAD Not Required (EN-LI-100 or 01-S-02-2) aeg 3-2-16	
	<input type="checkbox"/> Process Applicability Excluded	
	<input type="checkbox"/> Editorial Change	
	<input type="checkbox"/> ISI/IST Implementation	
	<input type="checkbox"/> TCN Incorporation or Auto Rev.	
	<input type="checkbox"/> Other Process-Number: _____	
	PAD Reviewer: _____ (for PAD Not Required) Signature/Date	

Cross-Discipline review required?	() Yes	(Note affected Departments Below)
	(X) No	
Preparer Initials>>>		

Department Cross-Discipline Reviews Needed	Signoff (signed, electronic, telcon)

Does this directive contain Tech Spec Triggers? () YES (X) NO

REQUIREMENTS CROSS-REFERENCE LIST

Requirement Implemented	by Directive	Directive Paragraph Number
Name	Paragraph Number	That Implements Requirement
10CFR50	App E, Section IV, E.9.d	6.3.14.a
FSAR	9.5.2.3.S3	*

All use of shall, will, and must in this procedure is covered by duplicate requirements at upper-tier Administrative Level Procedure 01-S-10-5; therefore, no upper-tier cross-reference is needed.

* Covered by directive as a whole or by various paragraphs of the directive.

NOTE

The Equipment Database (EDB) Request statement is applicable only to Volume 06 and 07 maintenance directives.

EDB Change Request generated and the backup documentation available for setpoint and/or calibration data only ☐ Yes ☒ N/A EDBCR # _____

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Current Revision Statement

Revision 018:

- Add FLEX Communications Equipment (Reference LO-GLO-2015-30 CA #29, LO-HQNLO-2015-59 CA #2)
- Add reference to FLEX Support Guide Procedure 05-S-01-FSG-101, Emergency Communication for Beyond Design Basis External Events (BDBEE)
- Add Attachment VII FLEX Radio and Satellite Phone Testing Instructions. (Reference LO-GLO-2015-30 CA #29, LO-HQNLO-2015-59 CA #2)
- Add definition of SMA (Staging/Muster Area)

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1.0 PURPOSE

- 1.1 To provide guidelines for performing inventories, inspections, operability checks, and tests of GGNS Emergency Response Facilities and Equipment.

2.0 RESPONSIBILITIES

- 2.1 The Manager, Emergency Planning or his designee - Is responsible for implementing this procedure.
- 2.2 The Manager, Radiation Protection or his designee - Is responsible for inventories and actions associated with radiological instruments used in the ERFs.

3.0 REFERENCES

- 3.1 Administrative Procedure 01-S-10-5, Control of Emergency Response Equipment and Facilities
- 3.2 Emergency Preparedness Instruction 10-S-04-01, Emergency Operations Facility Equipment.
- 3.3 Administrative Procedure 01-S-10-7, Emergency Operations Facility Management Program
- 3.4 Nuclear Management Manual EN-RP-302, Operation of Radiation Protection Instrumentation
- 3.5 Emergency Plan Implementing Procedure 10-S-01-17, Emergency Personnel Exposure Control.
- 3.6 NRC Inspection Manual, Chapter 609, appendix B (Emergency Preparedness Significance Determination Process)
- 3.7 CR-GGN-2010-2910, PA System Issues.
- 3.8 FLEX Support Guide Procedure 05-S-01-FSG-101, Emergency Communication for Beyond Design Basis External Events (BDBEE)

4.0 ATTACHMENTS

- 4.1 Attachment I - EOF Shield Door Operability Test.
- 4.2 Attachment II - GGNS Emergency Response Facility Inventory and Inspection Checklist
- 4.3 Attachment III - EOF Isolation Test Checklist
- 4.4 Attachment IV - EOF HVAC System Diagram
- 4.5 Attachment V - Communications Link Test Form
- 4.6 Attachment VI - FLEX Radio and Satellite Phone Testing Instructions

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5.0 DEFINITIONS

- 5.1 ARM - Fixed or portable Area Radiation Monitor
- 5.2 BEOF - Backup Emergency Operations Facility at Baxter Wilson Steam Electric Station, Vicksburg, MS.
- 5.3 DLR - Dosimeter of Legal Record
- 5.4 EAD - Electronic Alarming Dosimetry system at GGNS consisting of readers and dosimeters
- 5.5 ENS - Nuclear Regulatory Commission Emergency Notification System
- 5.6 EOF - Emergency Operations Facility
- 5.7 ERDS - Emergency Response Data System
- 5.8 ERF - Emergency Response Facility
- 5.9 ERFIS - Emergency Response Facility Information System. Computer monitor hooked directly to the GGNS BOP computer system.
- 5.10 Facility - Buildings, rooms, kits, lockers, and vehicles that may contain items used in an emergency.
- 5.11 GETS - Government Emergency Telecommunications System.
- 5.12 HPN - Nuclear Regulatory Commission Health Physics Network
- 5.13 HVAC - Heating, Ventilation, and Air Conditioning
- 5.14 IAW - In Accordance With
- 5.15 MCL - Management Counterpart Link
- 5.16 MRI - Minimum Required Items list that states amount and type of equipment to be maintained at each ERF.
- 5.17 NRC - Nuclear Regulatory Commission
- 5.18 OHL - Operational Hotline
- 5.19 OOS - Out of Service
- 5.20 PA - Public Address
- 5.21 PDS - Plant Display System
- 5.22 PMCL - Protective Measures Counterpart Link
- 5.23 RP - Radiation Protection⁴
- 5.24 RSCL - Reactor Safety Counterpart Link
- 5.25 Sentinel - Health Physics computer system at GGNS that retains and processes radiological work information and personnel exposure information.
- 5.26 SMA - Staging/Muster Area. An alternate Emergency response Facility located offsite for use when the GGNS area is inaccessible.

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5.27 SPDS - Safety Parameter Display System. Computer monitor that displays specific plant safety-related information.

6.0 DETAILS

6.1 ERF INVENTORY

- 6.1.1 Obtain keys (if applicable) for facility.
- 6.1.2 Proceed to facility with keys, inventory forms, and any other equipment that may be required.
- 6.1.3 On arrival at the facility, request permission to enter (BEOF, Security Island, Control Room).
- 6.1.4 Using the Emergency Facility Inventory Form, check each item on the form against the quantity present in the facility; then record the quantity found in the facility for that item under the "On Hand" heading on the form.
 - a. Response check all Emergency Instruments and record on an RP Inventories at Emergency Facilities Form or similar.
- 6.1.5 For each item listed under "Item" heading, the "On Hand" quantity should be equal to or greater than "Minimum Required" quantity. If not, replenish the deficient quantity as appropriate.
- 6.1.6 Sign and date form when inventory of the facility is complete (see 01-S-10-5 for details regarding completion).
- 6.1.7 For Non-RP'S, obtain a GGNS Emergency Facility Inventory and Inspection Checklist (Attachment II of this procedure or electronic equivalent may be used).
- 6.1.8 Record location inventoried under "Location" heading and place a checkmark if that location is included in this report.
- 6.1.9 Record any discrepancies found during the inventory under "Discrepancies" heading.
- 6.1.10 Initial and date when the discrepancy was corrected and/or state what action is being taken to resolve the discrepancy and when it will be corrected.

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- 6.1.11 Sign and date form. Attach form to inventory form(s) for locations included in the report and submit them in a memo to file from the Manager, Emergency Planning or by completion of Work Order package IAW 01-S-10-5.
- 6.1.12 RP personnel to use an RP Inventories at Emergency Facilities Form or similar to document radiological inventories and will submit documentation to records via RP Quarterly Package or Similar.

6.2 INSPECTIONS

- 6.2.1 Obtain keys for the facility.
- 6.2.2 Proceed to the facility with keys, and any other equipment that may be required.
- 6.2.3 On arrival at the facility, request permission to enter (BEOF, Security Island, Control Room).
- 6.2.4 Visually inspect facility for cleanliness, neatness, and orderliness. Floors should be clean. All trash cans should be empty.
- 6.2.5 Check all wall clocks, fax machines, and computers for correct time. They should all be + or - two minutes of each other.
- 6.2.6 Check all fire exit signs. They should all be lit.
- 6.2.7 Visually inspect all equipment for obvious breakage or disrepair. No equipment should be broken or in disrepair.
- 6.2.8 Inspect all equipment containing batteries for battery leakage. None should be leaking.
- 6.2.9 Check all equipment bearing expiration dates and calibration dates. None should be expired or out of calibration.
- 6.2.10 Visually check that all telephones are on the hook.
- 6.2.11 Visually inspect all equipment alarm lights. None should be in Alarm.
- 6.2.12 Visually inspect all equipment for operating status. Equipment that is normally supposed to remain "On" should be "On" (Ref 01-S-10-5, Attachment I). Equipment that is normally supposed to be "Off" should be "Off".
- 6.2.13 Response check of all emergency instruments to be performed by RP personnel.

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6.3 OPERABILITY CHECKS

6.3.1 Telephones

- a. Lift handset and listen for a dial tone. If a dial tone is heard, phone is considered operable.
- b. To Conduct a Quarterly Test of the GETS Card:
 - 1) Locate the GETs Card
 - a) Cards are typically located in the Communicators position binder in the Control Room, EOF, TSC, BEOF and BTSC.
 - b) Pick up phone handset and Listen for dial tone
 - c) Dial 1-710-627-4387 (1-710-NCS-GETS) (if it is not an outside line you must dial '9' first.
 - d) Listen for the tone
 - e) Enter your 12 digit pin (on the card)
 - f) Listen for the prompt
 - g) Enter 703-818-3924
 - h) Listen to entire message
 - i) Hang up
 - j) Return the card and GETS information to the ERO position binder.
 - 2) If you are unable to connect or to hear the message contact the technical support number provided in the information located with the card.
- c. The dedicated NRC response phone located in the TSC is tested quarterly. This phone is used by the NRC resident when responding to the TSC during an emergency.

6.3.2 Fax Machines

- a. Write a message on a blank piece of paper and send to another fax machine. If a clear, legible copy is produced by the other fax machine, the fax machine that placed the call is considered operable.

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6.3.3 Photocopy machine

- a. Write a message on a blank piece of paper and operate the copier. Several clear, legible copies of the message indicate copier is operable.
- b. Repeat this process for all sizes of paper that the copier should run.

6.3.4 Portable Radios

- a. Turn on radio and ensure that the channel selector is on Channel 3 or 7.
- b. Key the radio and ask for a radio check. A clear, message understood response for another radio operator indicates tested radio is operable.

6.3.5 Vehicle Radios

- a. Turn on radio and ensure that channel selector is on Channel 3 or 7.
- b. Key the microphone on the radio and ask for a radio check. A clear, message understood response from another radio operator indicates tested radio is operable.

6.3.6 Base Unit radios

- a. Perform Steps 6.3.5a-b.

6.3.7 Sound-Powered Phones

- a. Arrange for someone to be on another sound-powered headset on a specific channel.
- b. Place headset on your head, and plug headset jack into the sound-power connection on the same channel. Clear, understandable voice conversation indicates sound-powered phone is operable.
- c. Repeat for all sound-power channels.

6.3.8 ERF Headsets

- a. Arrange for someone to be on another ERF headset.
- b. Place headset on your head. Clear understandable voice conversation indicates ERF headset is operable.
- c. Repeat for all ERF headsets.

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6.3.9 PA Systems

a. Plant Pager Test

- 1) In Protected Area, lift receiver, press PUSH TO PAGE button, and page another person.
- 2) A response to the page and clear, understandable voice communication indicates PA system is operable.
- 3) Repeat for all PA system channels.

b. Site Wide PA System Test

- 1) Set test date. Coordinate with plant activities to minimize impact on site.
 - 2) Develop EP Hotline announcing the test and distribute to site.
 - 3) Put PA Test response form on EP home Page
 - 4) Publish information about the test in Inside Entergy and other appropriate means.
 - 5) Conduct test at previously published date/time.
 - 6) Make announcement as follows (or similar):
 - a) Attention all personnel, attention all personnel.
This is a test of the Site Public Address System.
 - 7) Collect responses and Add any issues to the WO for Gaitronics.
 - 8) Enter issues and responses from electrical to the PA System Trending Spreadsheet.
 - 9) Review PA System Trending Spreadsheet periodically to identify any emerging trends. Issue corrective actions as necessary.
 - 10) If there are more than 50 speakers out of service for more than 7 days initiate compensatory measures in accordance with reference 3.6.
- c. To test the EOF PA System, pick up a telephone and dial "799" and speak into a telephone. Clear, understandable voice transmission indicates that the EOF PA is operable.

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6.3.10 Televisions

- a. Turn on television.
- b. The channel that appears on the television should be the channel that is indicated on the label that is on the television. Correct channel, good picture, and sound quality indicates television is operable.

6.3.11 Word Processor Computer

- a. Turn on computer, monitor, and printer.
- b. Follow the prompts as given to produce a News Bulletin. An acceptable News Bulletin with correct date, time, and format indicates word processor is operable.

6.3.12 SPDS/PDS

- a. Adjust picture brightness to a readable screen.
- b. The screen should display Logon screen of PDS and Plant parameters if an SPDS Terminal. A clear, understandable display indicates SPDS is operable.
- c. Turn down the brightness when check is complete.

6.3.13 Dose Calculation Computers

- a. Perform dose calculations using appropriate dose calculation procedure.
- b. A clear, legible printout with the correct dates and times indicates that Dose calc computer is operable.

6.3.14 ENS, HPN, PMCL, RSCL, MCL

- a. Communications between Grand Gulf Control room, TSC and EOF and the NRC shall be tested monthly. The test between the Control Room and the NRC is usually performed during the daily ENS phone test performed by operations.
- b. Ensure all phones (ENS, HPN, PMCL, RSCL, LAN, MCL) are plugged into their respective jacks.
- c. Lift the headset for the HPN phone and dial "700" plus the CIRCUIT NUMBER for each line (MCL, ENS, HPN, RSCL and PMCL).
- d. A ring on the line dialed indicates that the circuit is operational.

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6.3.15 Flashlights

NOTE

Each facility containing flashlights should have at least one flashlight operable at all times.

- a. Move Power switch to "ON" position.
- b. Light produced by the flashlight sufficient to read a procedure indicates that the flashlight is operable.

6.3.16 RWP Access Control Stations

- a. Setup and operate EAD units IAW 10-S-01-17.
- b. Satisfactory performance is indicated by successful log in and out of RCA using EAD and addition of names to RWP Access list using computer access system.

6.3.17 ERDS

NOTE

Testing of the ERDS is conducted on a rigid schedule and is coordinated with the NRC Operations Center, White Flint, MD. Contact the NRC Operations Center test monitor person prior to initiating the test.

The test for GGNS is normally conducted on Tuesday of the Second week of the calendar quarter, with the first full Monday through Friday of the quarter being the first full week of the quarter.

If the test day falls on a federal holiday, contact the NRC to arrange make-up test (normally held on Mondays and Fridays).

If, for any reason, ERDS is unavailable for testing on the designated test day, notify the NRC to arrange a make-up test (normally held on Mondays or Fridays).

- a. ERDS shall be activated as soon as possible but not later than one hour after declaring an emergency class of Alert, Site Area Emergency, or General Emergency.

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6.3.17 (continued)

- b. Log on to the Entergy Network on any designated ERDS computer (SM, EOF Manager, IT Specialist or TSC Managers computer).
- c. Click on the ERDS Icon.
 - 1) If there is no ERDS Icon the program does not exist on the local computer. Install ERDS as follows.
 - a) Click Start in the lower left hand corner of your desktop.
 - b) Select 'Programs'
 - c) Select 'Nuclear Corporate Apps (ESM)'
 - d) Select 'ERDS Activation'
 - e) Select 'Site Activation Display'
 - f) Drag the ERDS icon on to your desktop
- d. The "**Warning**" display screen will appear. Click on Continue
- e. The pass Code entry screen will appear. Enter the appropriate pass code and press the "Submit" button. Pass codes are maintained in sealed envelopes in the position books for the Shift Manager, EOF Manager, IT Specialist and TSC Manager.

NOTE

The pass code is not case sensitive

6.3.18 Deactivation of ERDS.**NOTE**

DO NOT terminate the ERDS data transfer until requested To do so by the NRC.

- a. Click on the "Disconnect" button on the Site Activation View from any other computer that is logged into that site's system with a valid pass code.
- b. Click on the "Disconnect" button on the EN Activation View from any other computer that has that site selected on the ERDS activation screen.

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6.3.18 (continued)

- c. Document test on Attachment V of this procedure.

6.3.19 Operational Hotline

- a. Operability check of the Control Room OHL is performed during weekly Operations Surveillance.
- b. The OHL in the EOF should be tested monthly as follows:
 - (1) Obtain page 2 of EPP 06-01, Emergency Notification Form.
 - (2) Lift the receiver
 - (3) As agencies answer say "this is Grand Gulf, this is a test. Please standby"
 - (4) After allowing enough time for the agencies to answer perform a roll call.
 - (5) After the roll call tell all agencies "This completes the test from Grand Gulf. all agencies may hang up."
 - (6) Contact any agencies that did not respond to the roll call to determine why they did not answer.
 - (7) Refer to section 7.0 of this procedure for any discrepancies.
 - (8) Document the OHL test in accordance with section 8.0 of this procedure.

6.3.20 Performing the operability check on the shield door.

- a. Open and close the shield door in accordance with Reference 3.2 of this procedure.
- b. Complete attachment I, EOF Shield Door Operability Test.

6.3.21 Other Equipment

- a. Operability check may be performed IAW owners manual or vendor manual, if available.

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6.3.22 Satellite Phone Operability Checks

a. Desktop satellite phones

- (1) Follow the dialing instructions posted on the phone and make a phone call.
- (2) Refer to section 7.0 of this procedure for any discrepancies.
- (3) Document the test in accordance with section 8.0 of this procedure.

b. Portable Satellite Phones

- (1) Take the phone outside the building. You must have a clear, unobstructed view of the sky.
- (2) Follow the dialing instructions posted on the phone and make a phone call.
- (3) Refer to section 7.0 of this procedure for any discrepancies.
- (4) Document the test in accordance with section 8.0 of this procedure.
- (5) Return the phone to it's proper storage location and connect to the battery charger as necessary.

c. FLEX Satellite Phones

- (1) FLEX satellite phones are tested in accordance with Attachment VI of this procedure.

NOTE

Note: FLEX equipment for Beyond Design Basis External Event (BDBEE) is NOT GGNS E-Plan credited equipment. This equipment is included in this EP procedure as a logical place to perform checks on equipment which is staged in emergency response facilities.

6.4 Emergency Instrument Change outs

- 6.4.1 A current inventory of emergency instruments is maintained and updated by the RP department in accordance with references 3.1 and 3.4

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6.5 Emergency Equipment Change out

- 6.5.1 The GGNS Emergency Response Facility Inventories list specific items that are considered emergency equipment, other than RP Instruments, that have expiration dates or calibration due dates. Check the inventory periodically to determine if any of those items will be exceeding those dates in the near future; then make arrangements to replace those items as necessary.

NOTE

Emergency equipment in a facility should be changed out in a manner that does not decrease the minimum required amount and type of in-date or in calibration equipment in that facility.

6.6 Emergency Operations Facility Isolation Testing

- 6.6.1 Perform a walk down of the EOF HVAC system in the ESC Penthouse for familiarization purposes. Attachment IV in this procedure is a diagram of the HVAC system in Emergency Mode.
- 6.6.2 Follow the steps in Attachment III of this procedure to complete and document the test.
- 6.6.3 The test acceptance criteria is that the actual time to depressurize the EOF exceeds the time given in the graph provided in Attachment III. The graph is based on a leakage rate of 650 cfm at $\frac{1}{8}$ " positive pressure (reference EC 55150).

6.7 EOF Access List Update

- 6.7.1 Deleted

6.8 DLR Change outs

- 6.8.1 For DLRs in Emergency Response Facilities (see 01-S-10-5); contact Radiation Protection and request an appropriate number of DLRs for placement in facilities.
- a. For posted DLRs, number and place in the appropriate locations per 10-S-01-17.
 - b. For personnel DLRs, place in container in facility.
 - c. Return the old DLRs to Radiation Protection for processing.

6.9 Procedure/Form/Checklist Updates

- 6.9.1 When new revisions/TCNs/changes are issued, place them in the appropriate locations.
- 6.9.2 Check the revisions/TCNs/changes for updates to form and checklists. Place new material in the location and remove out-of-date material from location.

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7.0 DISCREPANCIES

- 7.1 All discrepancies found during an inventory, inspection, operability check, test, or otherwise noted, that would affect facility operability, must be reported to the Manager, Emergency Planning.
- 7.2 All discrepancies found during an inventory or inspection, with the exception of RP instruments, must be documented on Attachment II of this procedure.-
- 7.3 All discrepancies in RP equipment are documented using appropriate RP Forms.
- 7.4 All discrepancies in the operation of EOF Equipment, with the exception of RP equipment, must be reported in accordance with reference 3.3.
- 7.5 All discrepancies must be corrected as soon as possible. If a delay exists in correcting the discrepancy, sufficient reason or documentation must be provided explaining the delay and a time frame for correcting the discrepancy.

8.0 DOCUMENTATION

- 8.1 Documentation for activities covered by this procedure is performed IAW 01-S-10-5, Control of Emergency Response Equipment and Facilities.

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EOF Shield Door Operability Test

Component No. SX45X201

Criteria

Door fully closes and seal inflates upon key switch signal? Yes ☐ No ☐Seal does not leak while inflated? (No loud air noises or palpable air flow through seal) Yes ☐ No ☐Seal deflates and door retracts to stored position upon key switch signal? Yes ☐ No ☐Comments:

Performed by _____

Date _____

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GGNS EMERGENCY RESPONSE FACILITY INVENTORY AND INSPECTION CHECKLIST

List model, Serial Number and Cal Due Date of all Emergency Instruments present in the facility.	<p align="center">GGNS EMERGENCY RESPONSE FACILITY</p> <p align="center">Inventory Sheet</p>	Please Check the appropriate block:
	<p align="center">Facility _____.</p> <p align="center">Date _____</p>	<p>Quarterly <input type="checkbox"/></p> <p>After Use <input type="checkbox"/></p> <p>Other <input type="checkbox"/> _____</p>

[illegible]

COMPLETED BY: _____ / _____
Signature Date

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EOF ISOLATION TEST CHECKLIST**NOTE**

A stopwatch and a calibrated absolute pressure gauge is required for the Five Year Test

Temperature readings are taken in case data is questionable and Design Engineering is needed to evaluate the data. Air temperature would be an input into the bypass leakage.

a) Every Five Years:

- a. Record pressure and temperature outside the ESC Building.

Outside Pressure (P1) _____ Outside Temperature (T1) _____

- b. Close all openings into the EOF.

_____ SX45X101 Primary EOF Entrance.
 _____ SX45X102 Door to ESC cafeteria hallway.
 _____ SX45X103 Door to outside, North end of ESC.
 _____ SX45X201 Shield Door by library.
 _____ SX45X202 Door to Energy Central.
 _____ SX45X301 Door between penthouse and foyer.
 _____ SX45X302 Door between penthouse and roof.

- c. Record pressure and temperature inside the EOF.

Inside Pressure (P2) _____ Inside Temperature (T2) _____

- d. Pressurize the EOF.

- 1) Go to the EOF Penthouse and switch breakers LL2BS-34 and
- 2) LL2BS35, (upper center of MCC cabinet,) to the OFF position.
- 3) Using the ladder in the EOF Penthouse foyer go to the roof and place garbage bags over both EOF exhaust vents. Secure these with tape. Tape and bags are located near the EOF Facility Coordinator Desk.
- 4) Locate Trane touch screen control and touch the screen to illuminate the screen and menu. If touch screen control is inoperable refer to reference 3.2.
- 5) Place EOF HVAC in Isolation Mode per 10-S-4-1, EOF Isolation Section.
- 6) Verify isolation by visually inspecting dampers in EOF Penthouse as follows:

Damper	1	SX47G003A	CLOSED	_____	_____
Damper	2	SX47G003B	OPEN	_____	_____
Damper	3	SX47G003C	CLOSED	_____	_____

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Damper 4 SX47G003D OPEN
Damper 5 SX47G003E OPEN

— —
— —

- e. Record pressure, temperature and time in the EOF.

Inside Pressure after pressurization (P3)	Inside Temperature after pressurization (T3)	Time (Pressurized) (Time 1)
_____	_____	_____

- f. Subtract the outside pressure from the max inside pressure to yield a differential pressure. The differential pressure is used to establish the minimum acceptable pressure decay time for the EOF using the differential pressure/Time graph below.

$$\frac{\text{P3}}{\text{P3}} - \frac{\text{P1}}{\text{P1}} = \frac{\Delta \text{P}}{\Delta \text{P}}$$

- g. Close the outside AHU9 HVAC inlet.

- h. Immediately prior to AHU9 inlet damper full closure, simultaneously secure AHU9 and start stopwatch. Observe pressure decay from max pressure (P3) to the outside pressure (P1). Stop stopwatch.

- i. Once pressure reaches initial outside pressure (P1), record pressure, temperature and time.

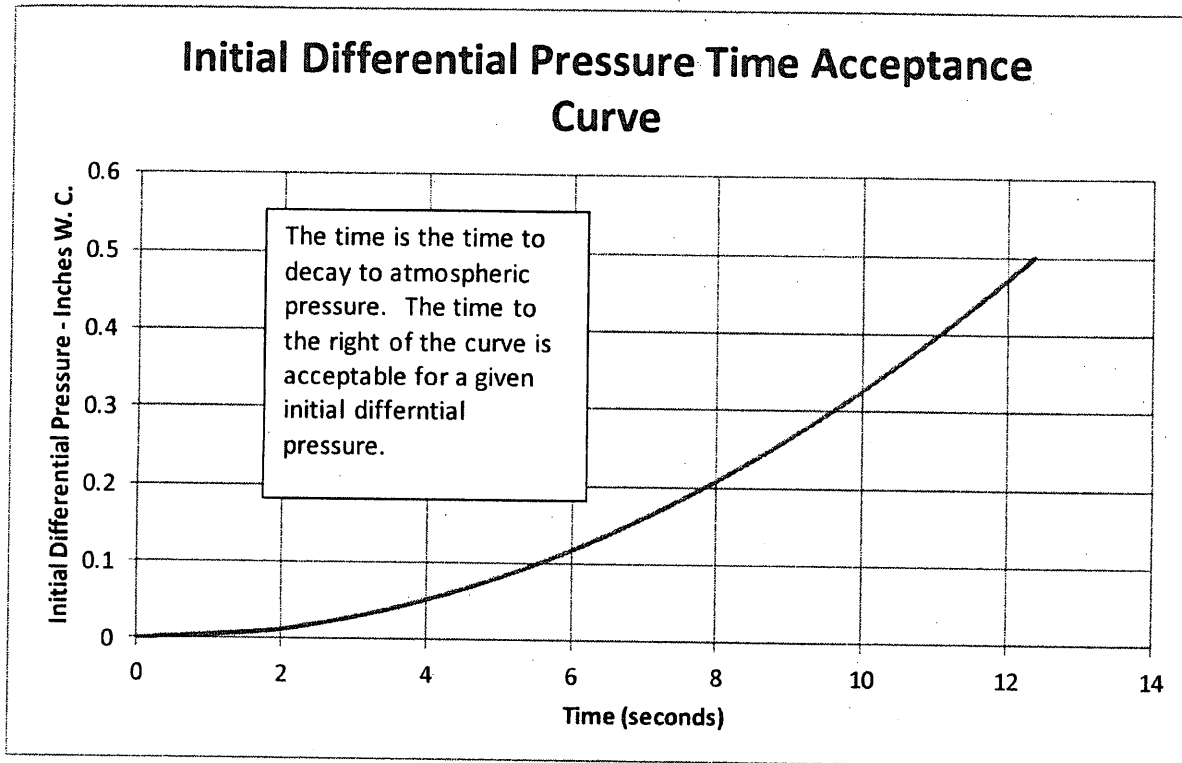
Inside Pressure after depressurization (P4)	Inside Temperature after depressurization (T4)	Time Depressurized) (Time 2)
_____	_____	_____

- j. Subtract Time 2 from Time 1

$$\frac{\text{Time 1}}{\text{Time 1}} - \frac{\text{Time 2}}{\text{Time 2}} = \frac{\text{Time of Decay}}{\text{Time of Decay}}$$

- k. Compare the time of decay to the graph below and verify that the time is greater than the minimum acceptable for the calculated differential pressure, indicating that the EOF boundary seals are functional.

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b) Every Year:

- a. Perform an examination of the seals on each EOF boundary door to verify that there are no obvious gaps between the door and the seal, or damage to the seals. A continuous rubber seal and clean sealing surface indicates good seal integrity.
- b. Verify that the outside air inlet damper to AHU9 goes closed upon an isolation signal.
- c. Verify that the EOF Filter Train Fan starts, and the filter train inlet and outlet dampers open upon an isolation signal.

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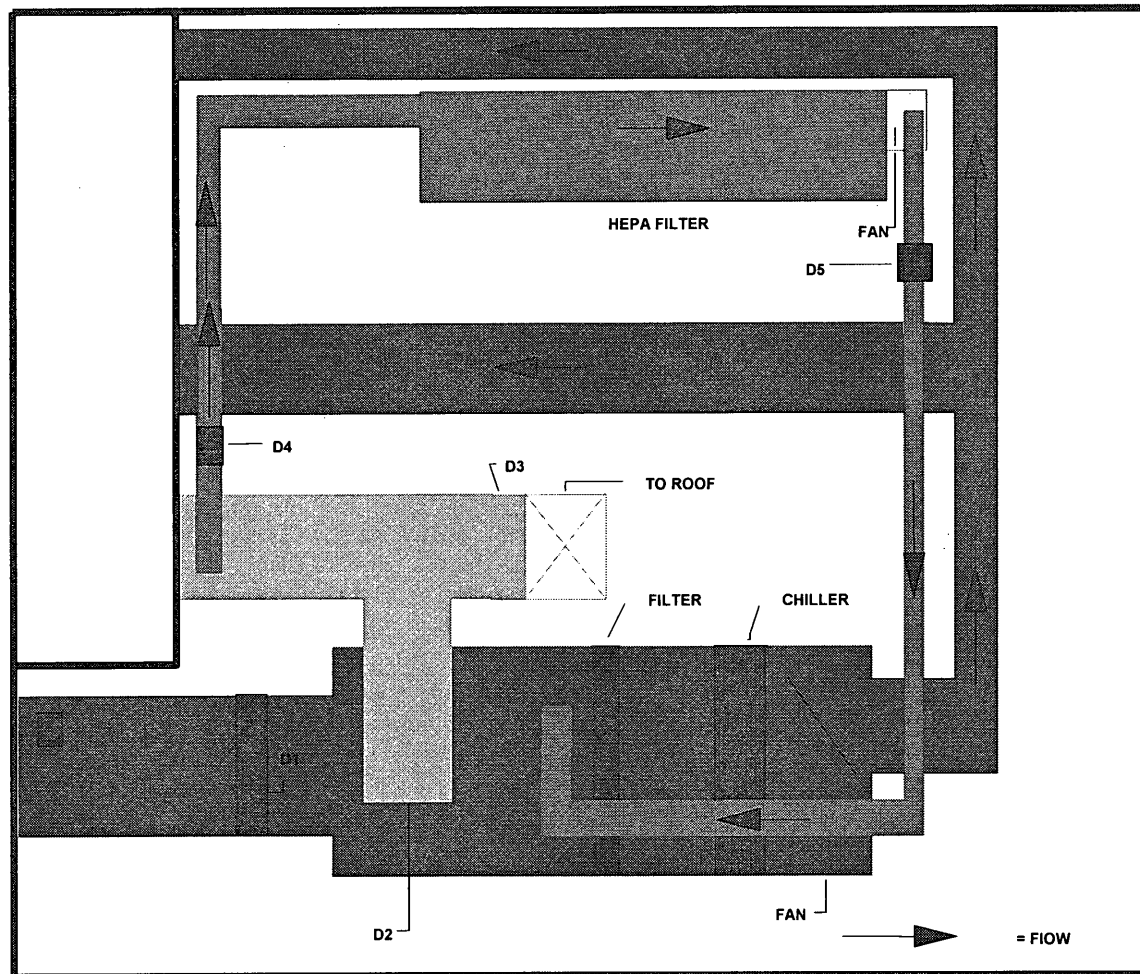
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Attachment IV

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EOF HVAC SYSTEM DIAGRAM

ESC PENTHOUSE



HEPA
Filtration
System

Fresh Air
Supply

Recirc Air
Return

Filters &
Chillers

D1
Fresh air
Isolation
SX47G003A

D2
Recirc
Isolation
SX47G003B

D3
Roof Vent
Isolation

D4
Pre-HEPA Filter
Ventillation
SX47G003D

D5
Post-HEPA Filter
Isolation
SX47G003E

= FLOW

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FLEX Radio and Satellite Phone Testing Instructions**Note:**

FLEX equipment for Beyond Design Basis External Event (BDBEE) is **NOT** GGNS E-Plan credited equipment. This equipment is included in this EP procedure as a logical place to perform checks on equipment which is staged in emergency response facilities.

FLEX Communication Equipment Locations

The following FLEX communication equipment is maintained in the following locations to meet the requirements of NEI 12-01:

- a) Control Room: One installed satellite phone and two deployable satellite phones (maintained in the TSC).
- b) EOF: Four deployable satellite phones and five handheld satellite phones.
- c) OSC: Twenty three handheld radios, one deployable satellite phone and four handheld satellite phones.
- d) TSC: two handheld satellite phones, two deployable satellite phones.
- e) The Back-up TSC, Back-up OSC and the Back-up EOF will each have two handheld satellite phones.

FLEX Radio Operational Test (perform annually)

- a) Verify the FLEX radios are installed in the radio chargers in their designated Emergency Response Facility AND the chargers are charging the radios.
- b) Verify chargers indicate good health for all batteries by Green LED on for each radio/battery.
- c) Perform an operability test of transmit AND receive functions by contacting the Control Room or other user. Report any problems in accordance with reference 3.1.
 - a) Record the test on the ERF inventory.
- d) Rotate batteries in all radios by replacing with spare batteries.
- e) Verify all radios are seated properly in the charger indicated by LEDs on for each radio.

Control Room Installed Satellite Phone Operational Test (perform quarterly)

- a) Call the Iridium Test Platform 1-480-752-5105 (this call is free) to verify the phone is working. Report any problems in accordance with reference 3.1.

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FLEX Satellite Phones Functionality Test (perform quarterly)

- a) It is not necessary to take the phone outside to perform the functionality test.
- b) Turn on the satellite phone and verify it displays 'searching for network'. Phone will not locate network due to being inside. Report any problems in accordance with reference 3.1.
- c) Power off phone.
- a) Document the test on the ERF inventory or by letter to file.

FLEX Satellite Phone Operational Test (perform annually):NOTE

During initial set-up each deployable FLEX designated Satellite Phone will be fully assembled with tripod and communications cabling in accordance with guidance provided in reference 3.8 of this procedure prior to addition to the facility inventory.

Subsequent annual testing will consist of removing the hand held satellite phone from the docking station in the deployable satellite phone kit & testing as a hand held satellite phone. This is done to minimize opportunity for damage to deployable satellite phone communications cabling and connections during testing.

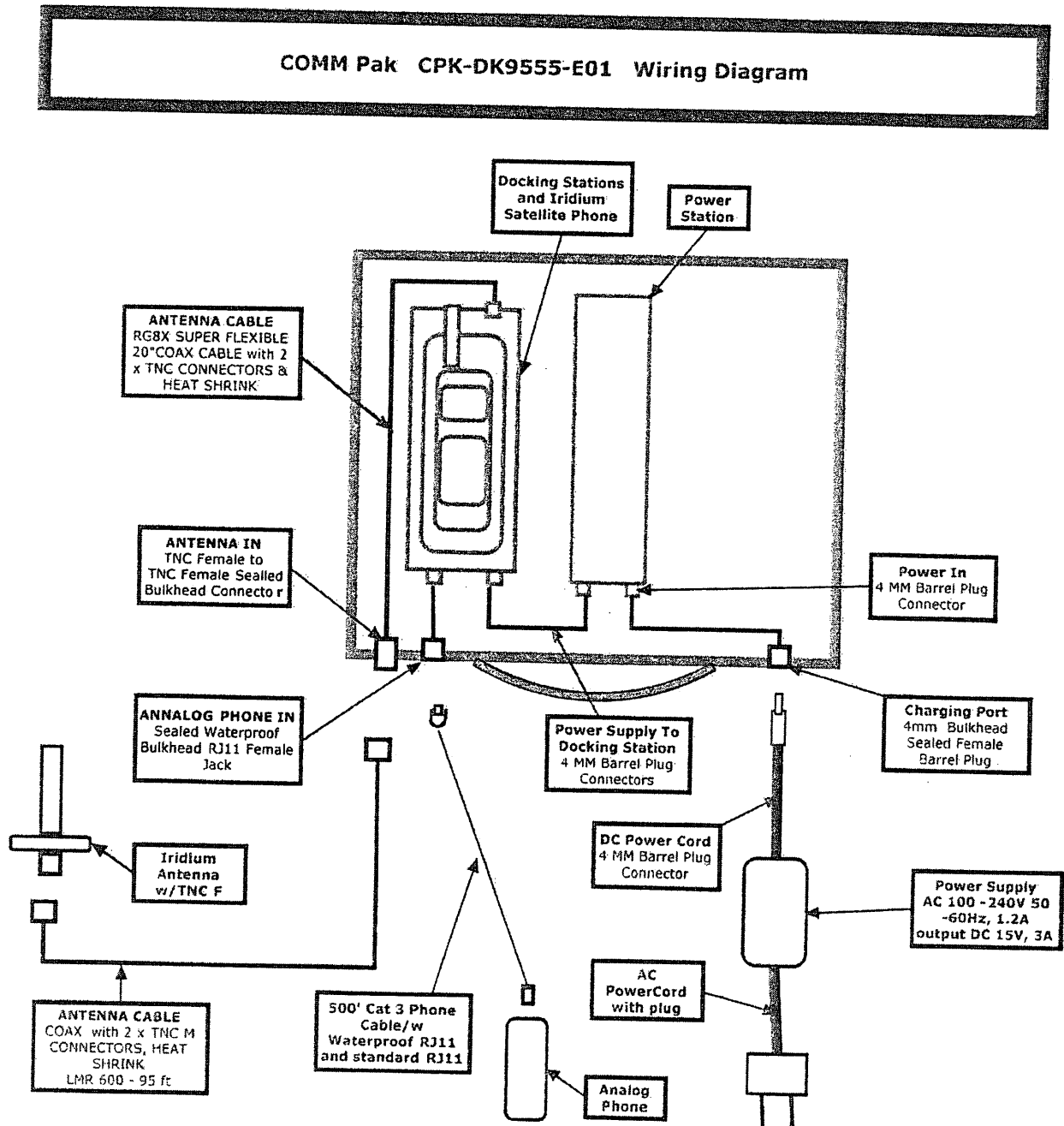
- b) Take phone outside away from trees and buildings.
- c) Turn the phone on.
- d) Extend the antenna completely and rotate so it points directly upwards.
- e) Call the Iridium Test Platform 1-480-752-5105 (this call is free) to verify the phone is working. Report any problems in accordance with reference 3.1.
- f) Document the test on the ERF inventory or by letter to file.

Satellite Phone Chargers and Batteries

- a) Quarterly verify that the battery charger is plugged in and has power.
- b) Quarterly count the spare batteries and ensure the number is sufficient.

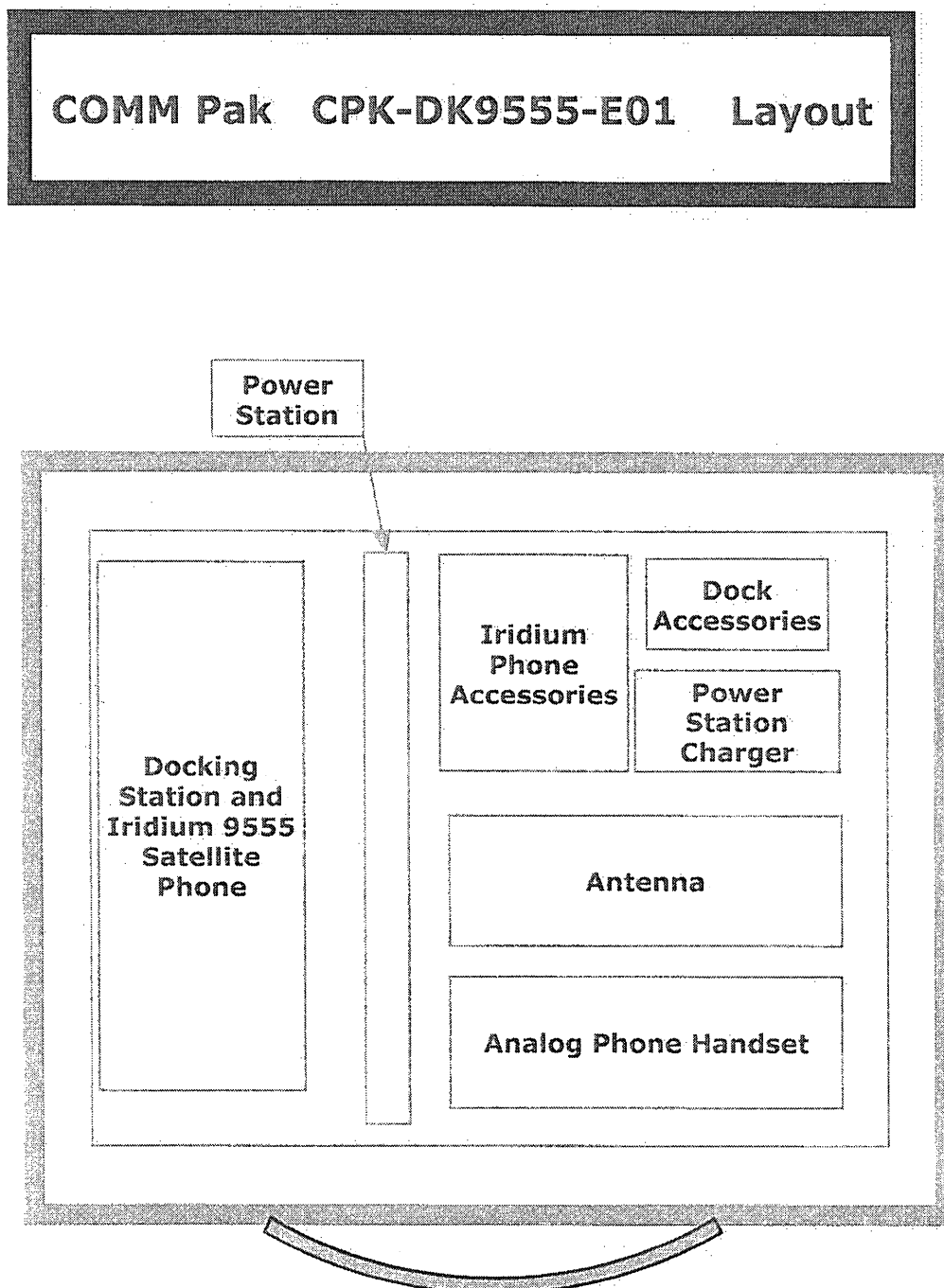
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Figure 1 Deployable Satellite Phone Case External Connections Layout



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Figure 5 Deployable Satellite Phone Case Storage Lay



Procedure/Document Number: 10-S-02-1

Revision: 18

Equipment/Facility/Other: Grand Gulf Nuclear Station

Title: ERF Inspections, Inventories, Operability Checks and Maintenance.

Part I. Description of Activity Being Reviewed (event or action, or series of actions that may result in a change to the emergency plan or affect the implementation of the emergency plan):

1. Add FLEX Communications Equipment (Reference LO-GLO-2015-30 CA #29, LO-HQNLO-2015-59 CA #2)
2. Add reference to FLEX Support Guide Procedure 05-S-01-FSG-101, Emergency Communication for Beyond Design Basis External Events (BDBEE)
3. Add Attachment VII FLEX Radio and Satellite Phone Testing Instructions. (Reference LO-GLO-2015-30 CA #29, LO-HQNLO-2015-59 CA #2)
4. Add definition of SMA (Staging/Muster Area)

Part II. Activity Previously Reviewed?

Is this activity fully bounded by an NRC approved 10 CFR 50.90 submittal or Alert and Notification System Design Report?

If YES, identify bounding source document number/approval reference and ensure the basis for concluding the source document fully bounds the proposed change is documented below:

Justification:

☐ Bounding document attached (optional)

☐ YES
50.54(q)(3)
Evaluation is
NOT required.
Enter
justification
below and
complete Part
VI.

☒ NO
Continue to
next part

Part III. Applicability of Other Regulatory Change Control Processes

Check if any other regulatory change processes control the proposed activity. (Refer to EN-LI-100)

NOTE: For example, when a design change is the proposed activity, consequential actions may include changes to other documents which have a different change control process and are **NOT** to be included in this 50.54(q)(3) Screening.

APPLICABILITY CONCLUSION

- ☒ If there are no controlling change processes, continue the 50.54(q)(3) Screening.
- ☐ One or more controlling change processes are selected, however, some portion of the activity involves the emergency plan or affects the implementation of the emergency plan; continue the 50.54(q)(3) Screening for that portion of the activity. Identify the applicable controlling change processes below.
- ☐ One or more controlling change processes are selected and fully bounds all aspects of the activity. 50.54(q)(3) Evaluation is NOT required. Identify controlling change processes below and complete Part VI.

CONTROLLING CHANGE PROCESSES

Part IV. Editorial Change

Is this activity an editorial or typographical change such as formatting, paragraph numbering, spelling, or punctuation that does not change intent?

Justification: Change #4 is an editorial change as described in EN-AD-101; *Wording for simplification and clarification*. This change adds the definition of SMA, (Staging/Muster Area), an acronym currently used throughout the procedure. No is checked at the right because the remaining changes are non-editorial.

☐ YES
50.54(q)(3)
Evaluation is
NOT required.
Enter
justification and
complete Part
VI.

☒ NO
Continue to next
part

Procedure/Document Number: 10-S-02-1	Revision: 18
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Title: ERF Inspections, Inventories, Operability Checks and Maintenance.	

Part V. Emergency Planning Element/Function Screen (Associated 10 CFR 50.47(b) planning standard function identified in brackets) Does this activity affect any of the following, including program elements from NUREG-0654/FEMA REP-1 Section II?	
1. Responsibility for emergency response is assigned. [1]	<input type="checkbox"/>
2. The response organization has the staff to respond and to augment staff on a continuing basis (24/7 staffing) in accordance with the emergency plan. [1]	<input type="checkbox"/>
3. The process ensures that on shift emergency response responsibilities are staffed and assigned. [2]	<input type="checkbox"/>
4. The process for timely augmentation of onshift staff is established and maintained. [2]	<input type="checkbox"/>
5. Arrangements for requesting and using off site assistance have been made. [3]	<input type="checkbox"/>
6. State and local staff can be accommodated at the EOF in accordance with the emergency plan. [3]	<input type="checkbox"/>
7. A standard scheme of emergency classification and action levels is in use. [4]	<input type="checkbox"/>
8. Procedures for notification of State and local governmental agencies are capable of alerting them of the declared emergency within 15 minutes after declaration of an emergency and providing follow-up notifications. [5]	<input type="checkbox"/>
9. Administrative and physical means have been established for alerting and providing prompt instructions to the public within the plume exposure pathway. [5]	<input type="checkbox"/>
10. The public ANS meets the design requirements of FEMA-REP-10, Guide for Evaluation of Alert and Notification Systems for Nuclear Power Plants, or complies with the licensee's FEMA-approved ANS design report and supporting FEMA approval letter. [5]	<input type="checkbox"/>
11. Systems are established for prompt communication among principal emergency response organizations. [6]	<input type="checkbox"/>
12. Systems are established for prompt communication to emergency response personnel. [6]	<input type="checkbox"/>
13. Emergency preparedness information is made available to the public on a periodic basis within the plume exposure pathway emergency planning zone (EPZ). [7]	<input type="checkbox"/>
14. Coordinated dissemination of public information during emergencies is established. [7]	<input type="checkbox"/>
15. Adequate facilities are maintained to support emergency response. [8]	<input type="checkbox"/>
16. Adequate equipment is maintained to support emergency response. [8]	<input type="checkbox"/>
17. Methods, systems, and equipment for assessment of radioactive releases are in use. [9]	<input type="checkbox"/>
18. A range of public PARs is available for implementation during emergencies. [10]	<input type="checkbox"/>
19. Evacuation time estimates for the population located in the plume exposure pathway EPZ are available to support the formulation of PARs and have been provided to State and local governmental authorities. [10]	<input type="checkbox"/>
20. A range of protective actions is available for plant emergency workers during emergencies, including those for hostile action events. [10]	<input type="checkbox"/>
21. The resources for controlling radiological exposures for emergency workers are established. [11]	<input type="checkbox"/>
22. Arrangements are made for medical services for contaminated, injured individuals. [12]	<input type="checkbox"/>
23. Plans for recovery and reentry are developed. [13]	<input type="checkbox"/>
24. A drill and exercise program (including radiological, medical, health physics and other program areas) is established. [14]	<input type="checkbox"/>

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25. Drills, exercises, and training evolutions that provide performance opportunities to develop, maintain, and demonstrate key skills are assessed via a formal critique process in order to identify weaknesses. [14]	<input type="checkbox"/>
26. Identified weaknesses are corrected. [14]	<input type="checkbox"/>
27. Training is provided to emergency responders. [15]	<input type="checkbox"/>
28. Responsibility for emergency plan development and review is established. [16]	<input type="checkbox"/>
29. Planners responsible for emergency plan development and maintenance are properly trained. [16]	<input type="checkbox"/>

APPLICABILITY CONCLUSION

- ☐ If no Part V criteria are checked, a 50.54(q)(3) Evaluation is NOT required; document the basis for conclusion below and complete Part VI.
- ☐ If any Part V criteria are checked, complete Part VI and perform a 50.54(q)(3) Evaluation.

BASIS FOR CONCLUSION

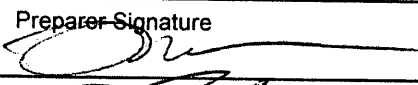
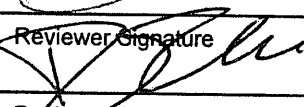

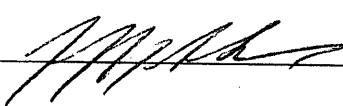
Change #4 is an editorial change and does not require evaluation.

The remaining changes to 10-S-02-1 add FLEX Communications Equipment and testing instructions, as well as a reference to the FLEX Support Guide procedure for Emergency Communications for Beyond Design Basis External Events (BDBEE).

FLEX equipment for BDBEE is not Emergency Plan Equipment and is only included in 10-S-02-1 as a logical place to perform checks on equipment which is staged in emergency response facilities. All information added to 10-S-02-1 is clearly identified as applying only to FLEX equipment and not to Emergency Plan Equipment.

The changes being made to 10-S-02-1 will not affect any GGNS Emergency Plan equipment or facilities and will not affect GGNS' ability to meet the planning standards in 10CFR50.47(b)(8)

Part VI. Signatures:

Preparer Name (Print) Richard Van Den Akker	Preparer Signature 	Date: 2-1-16
(Optional) Reviewer Name (Print) DELLIN	Reviewer Signature 	Date: 2/1/16
Reviewer Name (Print) Tom Sowdon Nuclear EP Project Manager	Reviewer Signature 	Date: 2-1-2016
Approver Name (Print) JEFF SEITER EP manager or designee	Approver Signature 	Date: 2-1-16