



Monticello Nuclear Generating Plant  
2807 W County Road 75  
Monticello, MN 55362

October 29, 2012

L-MT-12-095  
10 CFR 50.54(f)

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

Monticello Nuclear Generating Plant  
Docket No. 50-263  
Renewed Facility Operating License No. DPR-22

Emergency Preparedness (EP) Communications Assessment Requested by NRC Letter, Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident, dated March 12, 2012

- References:
1. NRC letter, "Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident," dated March 12, 2012, ADAMS Accession No. ML12056A046.
  2. NSPM letter, T.J. O'Connor to NRC Document Control Desk, "60-Day Response to NRC Letter, Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident, dated March 12, 2012," dated May 11, 2012, ADAMS Accession No. ML12135A396.
  3. NSPM letter, T.J. O'Connor to NRC Document Control Desk, "Emergency Preparedness Information Requested by NRC Letter, Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident, dated March 12, 2012," dated June 11, 2012, ADAMS Accession No. ML12164A435.

This letter provides the EP Communications Assessment for the Monticello Nuclear Generating Plant (MNGP), as requested by the Nuclear Regulatory Commission

(NRC) in Recommendation 9.3 of Reference 1. Northern States Power Company, a Minnesota Corporation (NSPM), doing business as Xcel Energy, committed to provide this assessment and a schedule for implementation of the results of the communications assessment by October 31, 2012 (Reference 2). This letter and its enclosure provide the requested information and are submitted in accordance with 10 CFR 50.54(f).

The MNGP EP Communications Assessment identified essential communications capabilities to be maintained following a beyond design basis natural disaster impacting the plant and causing an extended loss of offsite power, considering the assumptions of NEI 10-05, "Assessment of On-Shift Emergency Response Organization Staffing and Capabilities." As an aspect of its overall and ongoing Fukushima response initiatives, NSPM will determine the means to ensure required communications functions will be maintained. Options to enhance the communications capabilities and to meet the functional communications requirements post-event are being identified.

Currently, the primary option being considered and evaluated is the use of stand-alone and plant infrastructure-integrated satellite phones. It is assumed that satellite phone communication will be an integral aspect of maintaining critical communications functions with the Offsite Response Organizations for the 10-mile Emergency Planning Zone (EPZ) and the NRC under the assumptions of NEI 10-05. Backup power supplies for the satellite phones are described in NSPM letter dated June 11, 2012 (Reference 3). Internal communications within the plant (i.e., Emergency Response Facility to Emergency Response Facility) are planned to be assured through the implementation of actions (both communications and power supply) that will maintain a reliable internal phone network. Key offsite response organizations in the impacted area have been or will be provided satellite phone capability.

The following is a summary of actions under development to enhance EP communications:

	Function Roll-up Table - NEI 12-01 Communications Capabilities	Action
1	4.1.1 Communications from the Control Room, TSC and EOF with Offsite Response Facilities	Communications will be maintained post event through the use of satellite phone technologies until normal systems are restored.
2	4.1.2 NRC Communications with the Control Room	Communications with the NRC via the ENS line will be supported by a satellite communications phone (in addition to the phone used for EPZ OROs) within the Control Room.

	Function Roll-up Table - NEI 12-01 Communications Capabilities	Action
3	4.1.2 NRC Communications with the Technical Support Center	Communications with the NRC via the ENS line will be supported by a satellite communications phone (in addition to the phone used for EPZ OROs) within the Technical Support Center.
4	4.1.2 NRC Communications via the HPN Network	Communications between the site and the NRC will be supported by satellite communications capabilities in both the TSC and near site EOF.
5	4.1.3 Emergency Response Facility Communications (Site ERFs)	Communications between site ERFs will be maintained post event through the enhanced reliability of the site PBX system.
6	4.1.3 ERF Communications with Offsite Response Organizations	The Key Site functions with offsite officials (Management links, Radiological support, etc) will be maintained through the use of satellite phone capabilities in the site ERFs.
7	4.1.4 Field Team Communications	Environmental Field Monitoring Teams will be provided with satellite phone capabilities to backup the normal radio links. Team direction from the EOF will similarly be supported by satellite capabilities.

EP communications enhancements will be coordinated with the development of the FLEX strategies four months prior to the beginning of MNGP R27 refueling outage or December 31, 2016, whichever comes first.

Until the enhancements to EP communications at MNGP can be completed, interim corrective actions are being taken as described in Reference 3.

If there are any questions or if additional information is needed, please contact Ms. Jennie Eckholt, Licensing Engineer, at 612-330-5788.

#### Summary of Commitments

Submittal of the enclosed information completes a commitment in Enclosure 1 of Reference 2. This letter makes the following new commitment:

NSPM will implement recommendations from the Emergency Preparedness Communications Assessment in coordination with development of FLEX mitigating strategies four months prior to the beginning of the MNGP R27 refueling outage or December 31, 2016, whichever comes first.

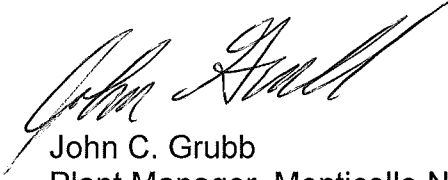
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I declare under penalty of perjury that the foregoing is true and correct.

Executed on October 29, 2012

A handwritten signature in black ink, appearing to read "John C. Grubb". The signature is written in a cursive style with a large, sweeping initial "J".

John C. Grubb

Plant Manager, Monticello Nuclear Generating Plant  
Northern States Power Company - Minnesota

Enclosure

cc: Administrator, Region III, USNRC  
Director of Nuclear Reactor Regulation (NRR), USNRC  
NRR Project Manager, MNGP, USNRC  
Senior Resident Inspector, MNGP, USNRC

ENCLOSURE

Communications Assessment  
Monticello Nuclear Generating Plant

19 Pages Follow

# **Communications Assessment Monticello Nuclear Generating Plant**

**Revision 0: September 28, 2012**  
**Revision 1: October 17, 2012**  
**Revision 2: October 23, 2012**

# Communications Assessment for Monticello Nuclear Generating Plant

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## Communications Assessment for Monticello Nuclear Generating Plant

### Purpose

In response to the NRC Near-Term task force recommendations a Request for Information pursuant to Title 10 of the Code of Federal Regulations was issued. Included in that request was information pertaining to communications capabilities following a beyond design basis event. Northern States Power Company – Minnesota (NSPM) responded to this request for information in a letter dated May 11, 2012 with a plan to respond to the various components of the request. This assessment provides the response to the following commitments. By October 31, 2012:

- Provide an assessment of the current communications systems and equipment used during an emergency event to identify any enhancements that may be needed to ensure communications are maintained during a large scale natural event meeting the conditions described for Recommendation 9.3.
- Provide an implementation schedule of the time needed to implement the results of the communications assessment.

This report documents the communications assessment required to be performed as a result of the March 2012 USNRC Request for Information pertaining to insights from the Fukushima Dai-ichi nuclear event. Attachments 1 and 2 provide the details on the current communications capabilities. Attachment 3 and the body of this assessment discuss enhancements and proposed schedules.

### References

1. NRC Letter, "Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident dated March 12, 2012, ADAMs Accession No. ML12056A046
2. Monticello Nuclear Generating Plant (MNGP) letter dated May 11, 2012 (L-MT-12-044), 60-Day Response to NRC Letter, Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident, dated March 12, 2012
3. Nuclear Energy Institute, Guideline for Assessing Beyond Design Basis Accident Response Staffing and Communications Capabilities (NEI 12-01)
4. MNGP letter dated June 11, 2012 (L-MT-12-057), Emergency Preparedness Information Requested by NRC Letter, Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident, dated March 12, 2012

### Background

Pursuant to the USNRC Request for Information (Reference 1) Northern States Power Company – Minnesota (NSPM) committed in Reference 2 to perform an assessment of communications capabilities using the methodology outlined in NEI 12-01 (Reference 3).



## Communications Assessment for Monticello Nuclear Generating Plant

The assessment involved reviewing pertinent documents, such as the Emergency Plan, associated Emergency Plan Implementing Procedures, the Updated Final Safety Analysis Report, and responses to INPO IER L1-11-4 (Near-Term Actions to Address the Effects of an Extended Loss of All Power in Response to the Fukushima Dai-ichi Event).

The NRC information request indicates that the communications assessment must assume a total loss of all AC power with severe impact on the infrastructure within a 25 mile radius of the site. The current communications systems were designed and installed to assure reliability of communications, both on-site and off-site, during normal and emergency conditions. The potential on-site issues are related to the required assumption that all AC power is lost. Off-site impact assumptions outlined in NEI 12-01 assumed failure of key infrastructure (e.g. phone lines, radio towers) out to a radius of 25 miles. The assumed off-site issues stem from the assumption that public infrastructure, including public telephone networks, microwave towers, and cellular phone towers/networks are unavailable. Observations and recommendations for technology solutions to various challenges were discussed as the project progressed.

### Assessment of Existing Communication Equipment

#### Public Address System

The public address (PA) system and the evacuation siren are supplied from off-site power which is backed up by on-site essential batteries and emergency diesel generators.

#### Telephone System

The on-site telephone system for the plant and the technical support center are supplied from non-essential station batteries which are backed up by the non-essential diesel generator. The equipment is not located in safety related buildings.

The telephone system supplies normal off-site communications capability. Off-site communications with the telephone system are dependent on the functionality of the equipment powered off-site and within the 25 mile radius of the plant.

#### Radio System

The site 800 MHz radio equipment is located at the neighboring Sherco Power Plant (a coal plant owned and operated by Xcel Energy Inc., Northern States Power - Minnesota) and is supplied by normal off-site power and backed up by a dedicated liquid propane generator. MNGP also has local repeaters for the radio system which are supplied by the security batteries and security diesel generator.

#### Sound Powered Phones

Sound powered phone jacks are located in the reactor building and the control room and provide alternates to the radios.

## Communications Assessment for Monticello Nuclear Generating Plant

### Assessment of Existing Communications Equipment to Meet the Guidance in NEI 12-01.

Attachment 3 provides details of the specific functions supported by the communications enhancements.

#### Off-site Communications

Communications with the off-site response organizations (OROs) depend on the on-site telephone system and the PBX system. Some of these telephones are direct lines and do not pass through the PBX; however, they do pass through the local phone company central office. Per the assessment assumptions, all such lines are assumed to be non-functional. Similarly, based on the assumptions of NEI 12-01, cell phones are assumed to be non-functional due to the impact on cell towers in the impacted 25-mile area. Ten-mile EPZ Off-site Response Organizations are required to receive timely (within 15-minute) notifications of Classifications and/or Protective Action Recommendations.

For MNGP, the EOF for the assumed event is expected to be the approved back-up EOF located in downtown Minneapolis, outside the 25-mile impact zone. Dose Assessment and communication of key radiological data and any required Protective Action Recommendations will be performed from the fully functional back-up EOF.

Field Teams are dispatched from the site and use the 800 MHz radio system to communicate with the EOF with cell phone back-up. The radios in the vehicles are powered by the vehicle's electrical system. With the postulated loss of AC power to the on-site repeater, these radios will be limited to line of sight effectiveness. Satellite phones will be provided as a tertiary means of communication.

#### Planned actions:

The MNGP Communications Assessment identified essential communications capabilities to be maintained following a beyond design basis natural disaster impacting the plant and causing an extended loss of off-site power, considering the assumptions of NEI 10-05. As an aspect of its overall and ongoing Fukushima response initiatives, NSPM will determine the means to ensure required communications functions will be maintained. Options to enhance the communications capabilities and to meet the functional communications requirements post-event are being identified.

Following a station blackout and loss of all power in the surrounding 25 miles, the plant telephone system will only be available for approximately 90 minutes, based on battery capacity. Procedural guidance will be developed to supply critical plant telephone system components from portable diesel generators. Existing satellite capabilities may be enhanced. An improvement being evaluated to the plant telephone system could allow the site telephone system to call off-site during a station blackout by integrating a satellite phone into the telephone system.

## Communications Assessment for Monticello Nuclear Generating Plant

Currently, the primary option being considered and evaluated is the use of stand-alone and plant infrastructure-integrated satellite phones. It is assumed that satellite phone communication will be an integral aspect of maintaining critical communications functions with the Off-site Response Organizations for the 10-mile Emergency Planning Zone (EPZ) and the U.S. Nuclear Regulatory Commission under the assumptions of NEI 10-05. Backup power supplies for the satellite phones are described in NSPM letter dated June 11, 2012 (Reference 4). Internal communications within the plant (i.e., Emergency Response Facility to Emergency Response Facility) is planned to be assured through the implementation of actions (both communications and power supply) that will maintain a reliable internal phone network. Key off-site response organizations in the impacted area have been or will be provided satellite phone capability.

A summary of actions under development include:

	Function Roll-up Table – NEI 12-01 Communications Capabilities	Action
1	4.1.1 Communications from the Control Room, TSC and EOF with Off-site Response Facilities	Communications will be maintained post event through the use of satellite phone technologies until normal systems are restored.
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3	4.1.2 NRC Communications with the Technical Support Center	Communications with the NRC via the ENS line will be supported by a satellite communications phone (in addition to the phone used for EPZ OROs) within the Technical Support Center.
4	4.1.2 NRC Communications via the HPN Network	Communications between the site and the NRC will be supported by satellite communications capabilities in both the TSC and near site EOF.
5	4.1.3 Emergency Response Facility Communications (Site ERFs)	Communications between site ERFs will be maintained post event through the enhanced reliability of the site PBX system.
6	4.1.3 ERF Communications with Off-site Response Organizations	The Key Site functions with off-site officials (Management links, Radiological support, etc) will be maintained through the use of satellite phones capabilities in the site ERFs.
7	4.1.4 Field Team Communications	Environmental Field Monitoring Teams will be provided with satellite phone capabilities to backup the normal radio links. Team direction from the EOF will similarly be supported by satellite capabilities.

### Schedule

The actions addressed above will be coordinated with the development of the FLEX strategies four months prior to the beginning of MNGP R27 refueling outage or December 31, 2016, whichever comes first.

Communications Assessment for Monticello Nuclear Generating Plant

<b>ATTACHMENT 1: Communications Equipment - Location and Current Configuration</b>					
<b>System/Equipment</b>	<b>Primary System Component Location</b>	<b>Equipment protected from the below hazards</b>			<b>Comments</b>
		<b>Protected from Seismic as defined in this document</b>	<b>Protected from Flooding as defined in this document</b>	<b>Protected from Wind as defined in this document</b>	
Plant Public Address System (PA)	Distributed, the handsets, amplifiers and speakers are located in various areas of the plant	Yes  The essential part of the system resides in seismic structures	Yes  The essential part of the system is housed in flood protected buildings	Yes  The essential part of the system is inside of reinforced solid concrete structures	The plant evacuation siren is located on top of the reactor building and is therefore protected from flooding but has not been analyzed for seismic or wind.
Plant Private Branch Exchange (PBX) Telephone System	Plant Communications Room in the Plant Administration Building	No  The communications room has not been seismically analyzed	Yes  The Plant Administration Building is within the flood protection zone	No  The communications room is located in an interior room of the building but has not been analyzed for wind	None
Local Commercial Telephone System	Distributed	No	No	No	The connection to the local commercial telephone is in an unprotected building and the rest of the commercial network is outside of the plant's control
TSC – OSC Emergency Work Status	<ul style="list-style-type: none"> <li>Plant Communications Room in the Plant Administration Building</li> <li>Communications Room in the Plant Engineering Building</li> </ul>	<ul style="list-style-type: none"> <li>PAB Communications Room has not been seismically analyzed</li> <li>PEB Communications Room has not been seismically analyzed</li> </ul>	<ul style="list-style-type: none"> <li>The Plant Administration Building is within the flood protection zone</li> <li>The Plant Engineering Building is outside the flood protection zone</li> </ul>	<ul style="list-style-type: none"> <li>The PAB Communications Room has not been analyzed for wind</li> <li>The Plant Engineering Building has not been analyzed for wind</li> </ul>	None

Communications Assessment for Monticello Nuclear Generating Plant

<b>ATTACHMENT 1: Communications Equipment - Location and Current Configuration</b>					
<b>System/Equipment</b>	<b>Primary System Component Location</b>	<b>Equipment protected from the below hazards</b>			<b>Comments</b>
		<b>Protected from Seismic as defined in this document</b>	<b>Protected from Flooding as defined in this document</b>	<b>Protected from Wind as defined in this document</b>	
CR – TSC OGL (Ops Group Leader)	<ul style="list-style-type: none"> <li>Plant Communications Room in the Plant Administration Building</li> <li>Communications Room in the Plant Engineering Building</li> </ul>	<p>No</p> <ul style="list-style-type: none"> <li>PAB Communications Room has not been seismically analyzed</li> <li>PEB Communications Room has not been seismically analyzed</li> </ul>	<p>No</p> <ul style="list-style-type: none"> <li>The Plant Administration Building is within the flood protection zone</li> <li>The Plant Engineering Building is outside the flood protection zone</li> </ul>	<p>No</p> <ul style="list-style-type: none"> <li>The PAB Communications Room has not been analyzed for wind</li> <li>The Plant Engineering Building has not been analyzed for wind</li> </ul>	None
TSC EGL (Engineering Group Leader) – EOF TSS (Technical Support Supervisor)	<ul style="list-style-type: none"> <li>Plant Communications Room in the Plant Administration Building</li> <li>Communications Room in the Plant Engineering Building</li> <li>Communications Room in the Monticello Training Center</li> </ul>	<p>No</p> <ul style="list-style-type: none"> <li>PAB Communications Room has not been seismically analyzed</li> <li>PEB Communications Room has not been seismically analyzed</li> <li>MTC Communications Room has not been seismically analyzed</li> </ul>	<p>No</p> <ul style="list-style-type: none"> <li>The Plant Administration Building is within the flood protection zone</li> <li>The Plant Engineering Building is outside the flood protection zone</li> <li>The Training Center is outside the flood protection zone</li> </ul>	<p>No</p> <ul style="list-style-type: none"> <li>The PAB Communications Room has not been analyzed for wind</li> <li>The PEB has not been analyzed for wind</li> <li>The MTC has not been analyzed for wind</li> </ul>	None

Communications Assessment for Monticello Nuclear Generating Plant

**ATTACHMENT 1: Communications Equipment - Location and Current Configuration**

System/Equipment	Primary System Component Location	Equipment protected from the below hazards			Comments
		Protected from Seismic as defined in this document	Protected from Flooding as defined in this document	Protected from Wind as defined in this document	
TSC ED - EOF ED – SM - JIC	<ul style="list-style-type: none"> <li>Plant Communications Room in the Plant Administration Building</li> <li>Communications Room in the Plant Engineering Building</li> <li>Communications Room in the Monticello Training Center</li> </ul>	<p>No</p> <ul style="list-style-type: none"> <li>PAB Communications Room has not been seismically analyzed</li> <li>PEB Communications Room has not been seismically analyzed</li> <li>MTC Communications Room has not been seismically analyzed</li> </ul>	<p>No</p> <ul style="list-style-type: none"> <li>The Plant Administration Building is within the flood protection zone</li> <li>The Plant Engineering Building is outside the flood protection zone</li> <li>The Training Center is outside the flood protection zone</li> </ul>	<p>No</p> <ul style="list-style-type: none"> <li>The PAB Communications Room has not been analyzed for wind</li> <li>The PEB has not been analyzed for wind</li> <li>The MTC has not been analyzed for wind</li> </ul>	None
Voice Over Internet Protocol (N/A if Not Applicable)	NA	NA	NA	NA	None
On-site Portable Telephones (Spectralink) (Not currently in EP Plan) N/A if not applicable	NA				

Communications Assessment for Monticello Nuclear Generating Plant

<b>ATTACHMENT 1: Communications Equipment - Location and Current Configuration</b>					
<b>System/Equipment</b>	<b>Primary System Component Location</b>	<b>Equipment protected from the below hazards</b>			<b>Comments</b>
		<b>Protected from Seismic as defined in this document</b>	<b>Protected from Flooding as defined in this document</b>	<b>Protected from Wind as defined in this document</b>	
NRC Communications (ENS & HPN) Phone Line/Circuit	<ul style="list-style-type: none"> <li>Phones are in the Technical Support Center in the Plant Engineering Building</li> <li>The phone lines are routed through the Plant Communications Room in the Plant Administration Building</li> <li>The lines are routed through the Microwave House where they connect to the commercial telephone system</li> </ul>	No	No	No	Much of the communication circuits are not housed in protected structures and the commercial portion of the system is unprotected and outside of the site's control
Off-site Cellular Telephones	Distributed	No	No	No	The off-site cellular system is unprotected and is outside of the site's control
Satellite Telephones	Distributed	No	No	No	None
450/800/900 MHz Radio System	Sherburne County Generating Station Security Building (Trunking) and Monticello Security Building (Repeaters)	Neither of these buildings have been seismically analyzed	The buildings are outside the flood protection zone	Neither of these buildings have been analyzed for wind	The trunking controls for the system are housed in the security building at the neighboring coal generating plant and the repeaters at the site are housed in the security building

Communications Assessment for Monticello Nuclear Generating Plant

**ATTACHMENT 1: Communications Equipment - Location and Current Configuration**

System/Equipment	Primary System Component Location	Equipment protected from the below hazards			Comments
		Protected from Seismic as defined in this document	Protected from Flooding as defined in this document	Protected from Wind as defined in this document	
Sound Powered Telephone System	Distributed within the Reactor Building, Turbine Building, and Control Room/Cable Spreading Room	Yes This system resides in seismic structures	Yes This system is located in structures within the flood protection zone	Yes This system resides in re-enforced solid concrete structures	None
Field Monitoring Team Communications	800 MHz Radio System and Off-site Cellular Telephones	No	No	No	See the 800 MHz Radio System and Off-site Cellular Telephones Above
Diesel Fuel Oil Storage used for fueling portable equipment used for communications	Emergency Diesel Day Tank Rooms in the Emergency Diesel Generator Building	Yes This system resides in a seismic structure	Yes This system is located in structures within the flood protection zone	Yes This system resides in a re-enforced solid concrete structure	None
Technical Support Center (TSC)	Plant Engineering Building	No The Plant Engineering Building has not been seismically analyzed	No The Plant Engineering Building is outside the flood protection zone	No The Plant Engineering Building has not been analyzed for wind	The TSC is in an interior location of the Plant Engineering Building but has not been analyzed for any of these criteria
Emergency Operations Facility (EOF) If within 25 miles of the station	Monticello Training Center	No The Training Center has not been seismically analyzed	No The Training Center is outside the flood protection zone	No The Training Center has not been analyzed for wind	The EOF is in an interior location of the Training Center but has not been analyzed for any of these criteria



Communications Assessment for Monticello Nuclear Generating Plant

<b>ATTACHMENT 2: Communication Equipment - Power Sources</b>				
<b>System/Equipment</b>	<b>Equipment Power Source(s)</b>			
	<b>Primary Power Supply (List the power source)</b>	<b>Alternate Power Supply (List the power source)</b>	<b>Backup power availability (e.g., batteries, portable generators, etc.) Yes/No</b>	<b>Comments  Will interim actions be taken to enhance the power supplies?</b>
Plant Public Address System (PA)	Most of the local speakers and amplifiers are normally supplied from L-34 (Plant Off-site Power)	The PA system can alternatively be supplied by Y-10. L-34 and Y-10 are backed up by Emergency Diesel Generators.	Y-10 is also backed up by the #13 Essential Battery	No
Primary (Plant Admin Building) Private Branch Exchange (PBX) Telephone System	Y-90 Non-Essential Uninterruptable AC Power Panel is normally supplied from LC-108 (Plant Off-site Power)	Y-90 can also be supplied from #13 Non-Essential Diesel Generator	Y-90 is backed up by #17 Non-essential Batteries	A communications portable diesel has been purchased and will be available as an alternate supply to the PBX
TSC (Plant Engineering Building) Plant Private Branch Exchange (PBX) Telephone System	Y-94 Non-Essential Uninterruptable AC Power Panel (Plant Off-site Power)	12.5 KV Commercial (Non-Plant) Off-site Power Or #13 Non-Essential Diesel Generator	Y-94 is also supplied by #17 Non-essential Batteries	No
EOF (Monticello Training Center) Plant Private Branch Exchange (PBX) Telephone System	Off-site Power (this power source is different from the normal off-site source for the plant and is fed from the local community distribution grid)	13.8 KV Plant Power via sub-yard breaker 1N3	None	No

Communications Assessment for Monticello Nuclear Generating Plant

**ATTACHMENT 2: Communication Equipment - Power Sources**

System/Equipment	Equipment Power Source(s)			Comments  Will interim actions be taken to enhance the power supplies?
	Primary Power Supply (List the power source)	Alternate Power Supply (List the power source)	Backup power availability (e.g., batteries, portable generators, etc.) Yes/No	
Local Commercial Telephone System	Unknown	Unknown	Unknown	The local commercial telephone system is not owned or operated by the site and is therefore outside of the site's control
Voice Over Internet Protocol (N/A if Not Applicable)	N/A	N/A	N/A	
On-site Portable Telephones (Spectralink) (Not currently in EP Plan) N/A if not applicable	N/A	N/A	N/A	
NRC Communications (ENS & HPN) Phone Line/Circuit	Unknown	Unknown	Unknown	The NRC phone lines and circuits rely on commercial equipment which is not owned or operated by the site and is therefore outside of the site's control
Off-site Cellular Telephones	Unknown	Unknown	Unknown	Off-site cellular telephones rely on commercial equipment which is not owned or operated by the site and is therefore outside of the site's control
Satellite Telephones	Local Battery (attached to the unit)	None	Spare batteries are located in each facility which has these devices	No
450/800/900 MHz Radio System	<ul style="list-style-type: none"> <li>Trunking relies on off-site power (local community distribution grid)</li> <li>Local backup repeater relies on plant power</li> </ul>	Local Repeater is backed by security UPS which is supplied by the security diesel generator (backup repeater only provides a single channel if off-site power is lost)	The Trunking system is backed by a dedicated liquid propane generator	No

Communications Assessment for Monticello Nuclear Generating Plant

**ATTACHMENT 2: Communication Equipment - Power Sources**

System/Equipment	Equipment Power Source(s)			Comments  Will interim actions be taken to enhance the power supplies?
	Primary Power Supply (List the power source)	Alternate Power Supply (List the power source)	Backup power availability (e.g., batteries, portable generators, etc.) Yes/No	
Sound Powered Telephone System	N/A (This system does not require any external power)	N/A	N/A	No
Field Monitoring Team Communications	See 800 MHz Radio and Off-site Cellular Telephone System	See 800 MHz Radio and Off-site Cellular Telephone System	See 800 MHz Radio and Off-site Cellular Telephone System	No
Technical support Center (TSC)	Y-94 Non-Essential Uninterruptable AC Power Panel (Plant Off-site Power)	12.5 KV Commercial (Non-Plant) Off-site Power or #13 Non-Essential Diesel Generator	Y-94 is also supplied by #17 Non-essential Batteries	No
Emergency Operations Facility (EOF) If within 25 miles of the station	1N3 or Off-site Power	None	None	No

Communications Assessment for Monticello Nuclear Generating Plant

**ATTACHMENT 3: Communication Equipment - Summary and Improvements**

Emergency Response Facility	Minimum Communications Links	Primary Method Described in site E-Plan	Primary Method Available following Assumed NEI 12-01 2.2	Backup Method(s) Described in site E-Plan	Backup Method(s) Available following Assumed NEI 12-01 2.2	Planned or Potential Improvement Identified?	Refer to Following Section for Additional Information
<b>4.1.1 Notifications to, and communications with, <u>OROs</u> [per 10 CFR 50 Appendix E.IV.D and E.9.a]</b>							
Control Room	<ul style="list-style-type: none"> <li>Shift Emergency Communicator (SEC)</li> </ul>	Direct Phone Line / Fax Line	800 MHz radios	800 MHz radios	Satellite Telephone	Integrate Satellite Phones into Protected Plant PBX System	Note 1
Technical Support Center (TSC)	<ul style="list-style-type: none"> <li>Emergency Communicators</li> </ul>	Direct Phone Line / Fax Line	800 MHz radios	800 MHz radios	Satellite Telephone	Integrate Satellite Phones into Protected Plant PBX System	Note 1
Emergency Operations Facility (EOF)	<ul style="list-style-type: none"> <li>Emergency Communicators</li> </ul>	Direct Phone Line/ Fax Line	800 MHz radios	800 MHz radios	Satellite Telephone	Integrate Satellite Phones into Protected Plant PBX System for Primary EOF Back-up EOF	Note 1
<b>4.1.2 Notifications to, and communications with, the <u>Nuclear Regulatory Commission</u> (NRC) Headquarters Incident Response Center and the appropriate NRC Regional Office Operations Center [per 10 CFR 50 Appendix E.IV.D and E.9.d]</b>							
Control Room	<ul style="list-style-type: none"> <li>Emergency Notification System (ENS)</li> <li>Emergency Response Data System (ERDS)</li> </ul>	Federal Telephone System	Satellite Telephone	Satellite Telephone	Satellite Telephone	Integrate Satellite Phones into Protected Plant PBX System	Note 1

Communications Assessment for Monticello Nuclear Generating Plant

**ATTACHMENT 3: Communication Equipment - Summary and Improvements**

Emergency Response Facility	Minimum Communications Links	Primary Method Described in site E-Plan	Primary Method Available following Assumed NEI 12-01 2.2	Backup Method(s) Described in site E-Plan	Backup Method(s) Available following Assumed NEI 12-01 2.2	Planned or Potential Improvement Identified?	Refer to Following Section for Additional Information
Technical Support Center (TSC)	<ul style="list-style-type: none"> <li>Emergency Notification System (ENS)</li> <li>Health Physics Network (HPN)</li> </ul>	Federal Telephone System	Satellite Telephone	Satellite Telephone	Satellite Telephone	Integrate Satellite Phones into Protected Plant PBX System	Note 1
<p><b>4.1.3 Communications <u>between licensee emergency response facilities</u> [per 10 CFR 50 Appendix E.9.c. Additional links that support performance of critical response functions are also specified.] The minimum communications links to support this function are listed below by facility. For example, if the normally used telephone system cannot be restored to service, these links could rely upon some combination of radio, sound-powered and satellite-based communications systems.</b></p>							
Control Room	1 per unit	Direct Phone Line	No	Portable Cell Plant Page system Plant Radio System Sound Powered CR to TSC	No	Integrate Satellite Phones into Protected Plant PBX System	Note 1 Monticello ERFs will be supported by the enhanced PBX system. ERO responders requiring communication with off-site responders will be provided an integrated capability.

Communications Assessment for Monticello Nuclear Generating Plant

**ATTACHMENT 3: Communication Equipment - Summary and Improvements**

Emergency Response Facility	Minimum Communications Links	Primary Method Described in site E-Plan	Primary Method Available following Assumed NEI 12-01 2.2	Backup Method(s) Described in site E-Plan	Backup Method(s) Available following Assumed NEI 12-01 2.2	Planned or Potential Improvement Identified?	Refer to Following Section for Additional Information
Technical Support Center (TSC)	1 each for: <ul style="list-style-type: none"> <li>• Senior/Lead TSC Manager</li> <li>• Operations Coordination</li> <li>• Maintenance Coordination</li> <li>• Engineering Coordination</li> <li>• Radiological Support</li> </ul>	Direct Phone Line	<ul style="list-style-type: none"> <li>• Limited Satellite Telephone</li> <li>• Plant Page system</li> </ul>	<ul style="list-style-type: none"> <li>• Satellite Telephone</li> <li>• Cell Phone</li> <li>• Plant Page system</li> <li>• 800 MHz Radio System</li> </ul>	<ul style="list-style-type: none"> <li>• Satellite Telephone</li> <li>• Plant Page system</li> </ul>	Integrate multiple Satellite Phones into Protected Plant PBX System	Note 1
Operational Support Center (OSC)	1 each for: <ul style="list-style-type: none"> <li>• Senior/Lead OSC Manager</li> <li>• Radiological Support</li> </ul> Additional response coordination links for multi-unit sites: <ul style="list-style-type: none"> <li>• 1 for each position providing Unit In-Plant Team Coordination.</li> </ul>	Direct Phone Line	No	Plant Page system Plant Radio System	No	Integrate Satellite Phones into Protected Plant PBX System	Note 1 Monticello ERFs will be supported by the enhanced PBX system. ERO responders requiring communication with off-site responders will be provided an integrated capability.

Communications Assessment for Monticello Nuclear Generating Plant

**ATTACHMENT 3: Communication Equipment - Summary and Improvements**

Emergency Response Facility	Minimum Communications Links	Primary Method Described in site E-Plan	Primary Method Available following Assumed NEI 12-01 2.2	Backup Method(s) Described in site E-Plan	Backup Method(s) Available following Assumed NEI 12-01 2.2	Planned or Potential Improvement Identified?	Refer to Following Section for Additional Information
Emergency Operations Facility (EOF)	1 each for: • Senior/Lead Manager • Key Protective Measures • Operations or Technical Support (as needed to support performance of dose projections, formulation of PARs and plant status updates to ORO authorities).	Direct Phone Line	No	Portable Cell Plant Page system Plant Radio System	No	Integrate multiple Satellite Phones into Protected Plant PBX System	Note 1 Monticello ERFs will be supported by the enhanced PBX system. ERO responders requiring communication with off-site responders will be provided an integrated capability.
Back-Up Emergency Operations Facility	There are no enhanced functional requirements for the Back-up Facility (Greater than 25 miles from the site)	Normal Means are Available	Yes	Any normally available means	Yes	Install additional Satellite capability in Back-up EOF	N/A
Joint Information Center (JIC)	1 for Senior Manager	The Joint Information Center is located outside the 25 miles zone and is protected by back-up power. Direct Phone Line	N/A	Portable Cell or other direct dial lines	N/A	Integrate Satellite Phones into Protected Plant PBX System (this commitment provides a line from on-site ERFs to support information flow to the JIC	Note 1

Communications Assessment for Monticello Nuclear Generating Plant

<b>ATTACHMENT 3: Communication Equipment - Summary and Improvements</b>							
<b>Emergency Response Facility</b>	<b>Minimum Communications Links</b>	<b>Primary Method Described in site E-Plan</b>	<b>Primary Method Available following Assumed NEI 12-01 2.2</b>	<b>Backup Method(s) Described in site E-Plan</b>	<b>Backup Method(s) Available following Assumed NEI 12-01 2.2</b>	<b>Planned or Potential Improvement Identified?</b>	<b>Refer to Following Section for Additional Information</b>
<b>4.1.4 Communications with field/off-site <u>monitoring teams</u> [per 10 CFR 50 Appendix E.9.c]</b>							
<ul style="list-style-type: none"> <li>• Technical Support Center (TSC)</li> <li>• Emergency Operations Facility (EOF)</li> </ul>	<ul style="list-style-type: none"> <li>• TSC Field Team Communicator</li> <li>• TSC Field Team Communicator</li> </ul>	800 MHz Radio	Cell Phone	No backup for cell phone	No backup for cell phone	Portable satellite phones	
<ul style="list-style-type: none"> <li>• Field Team 1</li> <li>• Field Team 2</li> </ul>	<ul style="list-style-type: none"> <li>• Field Team 1</li> <li>• Field Team 2</li> </ul>	800 MHz Radio	Cell Phone	No backup for cell phone	No backup for cell phone	Portable satellite phones	
<b>4.1.5 Communications with other <u>Federal agencies</u> as described in the site emergency plan (e.g., the US Coast Guard) [per 10 CFR 50 Appendix E.9.b]</b>							
Emergency Operations Facility (EOF)	EOF Off-site Communicator	There are no commitments in the Monticello Emergency Plan for direct contact with other agencies.	There are no commitments in the Monticello Emergency Plan for direct contact with other agencies.	There are no commitments in the Monticello Emergency Plan for direct contact with other agencies.	There are no commitments in the Monticello Emergency Plan for direct contact with other agencies.	Proposed satellite phone system would provide communication as required.	Note 1

NOTE 1: Proposed satellite system provides satellite telephone access while PBX is on backup power. If the PBX has loss of power a direct satellite telephone line is routed to specific areas. The satellite telephone docking station will have backup power to maintain this secondary function. If the direct line between the satellite telephone dock and the specific areas is lost, the satellite telephone can be removed from the docking station and used outside on built-in battery source.