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PROJECT NO. 53385

**PROJECT TO SUBMIT
EMERGENCY OPERATIONS
PLANS AND RELATED
DOCUMENTS**

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**BEFORE THE
PUBLIC UTILITY COMMISSION
OF TEXAS**

PATTERN ENERGY GROUP LP
JOINT FILING OF ITS EMERGENCY OPERATION PLAN

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EXECUTIVE SUMMARY

Pattern Energy Group LP (“Pattern Energy”) is a leading U.S.- based independent renewable energy company guided by a long-term commitment to protect the environment, strength communities, and safety with over 4,000MW capacity portfolio of utility-scale renewable energy facilities in the United States, Canada, and Japan.

Pattern Energy Commitments:

Community – We are committed to respectfully becoming part of the communities that host our team and facilities. We believe that acting as a good neighbor through engagement, participation, and contribution will benefit both communities and our work.

Environment – We are committed to protecting the environment as its active steward. We aim to exceed industry standards by mitigating environmental impact, and advance best practices for the production and transport of renewable energy to consumers

Safety – We are committed to protecting the safety of the public, our employees, and everyone who works with us. We believe that not task is too important or urgent that it cannot be done safely. Health and safety are considered in every stage of our decision making.

In ERCOT, Pattern Energy’s fleet is comprised of four wind-powered generators: Pattern Gulf Wind LLC, 283MW located on the Gulf Coast in Kenedy County (PGC registration number 20258, Logan’s Gap Wind LLC, 200MW located in Comanche County (PGC registration number 20351), Pattern Panhandle Wind LLC, 218MW (PGC registration number 20317), and Pattern Panhandle Wind 2 LLC, 182MW facilities located in the Texas Panhandle in Carson County (PGC registration number 20320), and the latest addition, G.S.E One LLC (Phoenix Solar), an 83MW solar project located in Fannin County Texas (PGC registration number 20496).

Pattern Energy’s wind and solar facilities operate in coordination with the Electric Reliability Council of Texas (“ERCOT”), in charge of setting the Nodal Protocols and Operating Procedures related to Emergency Operations. Pattern Energy Operations Control Center participates in drills with ERCOT related to emergency preparedness such as hurricanes and other extreme conditions where public safety and safety our personnel take precedence over all other consideration when determining the actions to be taken. In the event of severe weather conditions, Pattern Energy ensures that: (1) communication between its Qualified Scheduling Entity (QSE), Operation Control Center, Contractors, Site Personnel, ERCOT, state and local agencies are well coordinated and effectively managed to restore any affected windfarm (unit) following a major storm or extreme weather event, (2) once restored, safely maintain the integrity of the ERCOT grid.

The following information is provided to address specific sections of 16 TAC §25.53 that apply to a Power Generation Company (PGC).

EOP APPROVAL AND IMPLEMENTATION PROCESS

Pattern Energy maintains documentation of its Emergency Operation Plan in various documents, including but not limited to the following: Safety and Management System (SMS 504), Emergency Preparedness and Response Procedure, Appendix A – Emergency Action Plan, Appendix B – Emergency Operation Plan, Appendix C – Pandemic Plan, Appendix D – Hurricane Response and Recovery Plan, Appendix E – Weatherization Plan, Appendix F – Weatherization Preparations Summer Designation and Checklist, Appendix G – Weatherization Preparations Winter Designation and Checklist, Appendix H – Post Weather Incident Lessons Learned. The plan is designed to address both common operational functions that are relevant across emergency types and provide guidance for operation during an event and address the requirements for a systematic restoration of electric service and return to normal working conditions in coordination with ERCOT, TDSP and TDUs’ and other agencies human and physical resources available. SMS 504 is applicable to: Pattern Panhandle Wind, Pattern Panhandle Wind 2, Logan’s Gap Wind, G.S.E. One and Pattern Gulf Wind LLC pursuant to Section (c)(E)(i) and (ii). Appendix D – Hurricane Response and Recovery Plan is exclusively customized to Pattern Gulf Wind LLC. The windfarm is located in the South Zone of ERCOT and within a hurricane evacuation zone as defined by the Texas Division of Emergency Management (TDEM). The plan is established to provide a guide for precautions and actions to be taken in the event of a storm/hurricane with focus in safe-site restoration, limited impact on environmental contamination, onsite personnel-re-entry, availability of supplies, and resources, parts needed to safely facility restoration.

Pattern Energy EOP Approval and Implementation Process, Administrative Management Standards or AMS – 104, Policy or Procedure Creation, Revision, and Implementation Process establishes a process to develop and maintain Pattern Energy’s Policies and Procedures including the creation, revision and retirement of Pattern Energy’s Policies and Procedures. (SMS 504) review, approval and implementation process must go through Peer and Subject Matter Experts (SME) Team review and then approval by the Assistant Vice President, Field Operations. Below is the list of personnel responsible for maintaining and implementing Pattern Energy’s Emergency Operation Plan:

<u>Title</u>	<u>Name</u>	SMS 504 Date of Last Revision
Pattern Gulf Wind – Facility Manager (AM)	Tommie Trowbridge	October 16, 2018
Pattern Gulf Wind – Assistant Facility Manager (AFM)	Tad Wright	October 16, 2018
Logan’s Gap Wind – Facility Manager	Juan Maldonado	October 16, 2018
Pattern Panhandle Wind, Pattern Panhandle Wind 2 – Facility Manager (FM))	Jake Hull	October 16, 2018
G.S.E. One LLC (Phoenix Solar) – Senior Director, Field Operations	Brent Mitchell	October 16, 2018
Pattern Energy – AVP, Field Operations	Ryan Pierce	October 16, 2018
Pattern Energy Lead Technician, Field Operations	Johnny Myers	October 16, 2018
Pattern Energy - Reliability Engineer	Dushyant Tank	October 16, 2018

Pattern Energy – Director of Engineering Operations	Ben Rice	October 16, 2018
Pattern Energy – Director of Policy Design and Compliance	Kara Beckmann	October 16, 2018
Pattern Energy – NERC Analyst	Michael Jacobs	October 16, 2018
Pattern Energy – Operations Control Center -	Lance Haacke	October 16, 2018
Pattern Energy – Operations Health and Safety Manager	Robert Milligan	October 16, 2018

REVISION AND CHANGE LOG INFORMATION			
DATE	REV	NATURE OF CHANGE	AUTHOR
1/1/2015	0	Creation of Appendix A	G. Smith
7/17/2017	1	Updated OCC Notifications	R. Milligan
10/16/2018	2	Review, revise, update KHA Online SDS	R. Milligan

The current version of the EOP do not suspend any previous version, instead it is updated upon review and approval while adding additional appendices and sections such as a COVID-19: Field Operations Action Plan, Visitor Questionnaire and Operational Control Center Operations Plan, Appendix C, Pandemic Plan last updated on July 17, 2020 and approved on August 7, 2020.

Please refer to AMS – 104 Sec. 5 PROCEDURE, Page 5 – 8, and AMS – 104, Appendix B

COMMUNICATION PLAN

Pattern Energy’s Communication Protocols or RMS – PRO-COM, establishes the standards and uniform communication and reporting practices for all Pattern Energy Operations personnel and operating facilities at a centralized location to ensure consistency and accessibility of data to Pattern Operations personnel in real-time and /or in the event of an emergency and according to NERC Standard COM-001-3, Communications, NERC Standard COM-002-4 – Operating Personnel Communication Protocols, and RMS-PRO-EOP-004 – Event Reporting.

Pattern Energy’s communications and real-time operations are managed by Pattern Operations Control Center (OCC) located at 1201 Louisiana St., Suite 3200 Houston, TX 77002 that is staffed 24 hours a day, 7 days a week. In the event of severe weather conditions and/or ERCOT Level 2 or 3 Energy Emergency Alert (“EEA”), OCC ensures that communication between its QSE, site personnel, TDUs, contractors and others are well coordinated, effectively managed and responsive to ERCOT directions while considering the different variables affecting the weather, safe working conditions will be determined by Pattern Energy’s leadership in coordination with the Manager of Environmental Health and Safety, Facility Managers, local and state emergency agencies.

Media inquiries are managed by Pattern Energy Communications and External affairs Team. They provide accurate and timely communication and updates by utilizing a number of channels, including but not limited to email, phone, and social media. Time is often of the essence once an inquiry is received:

1. Refer all media inquiries to Pattern Energy internal media team for evaluation

2. Pattern Energy media team liaise with source/reporter to gather all questions
3. Pattern Energy coordinates internally to gather information needed for the inquiry
4. Pattern Energy provide responses to source/reporter. If necessary, an interview is arranged with relevant spokesperson

Please refer to RMS-Comms Protocols Sec. 5, Page 5, 10 and 11 and SMS – 504 Appendix B, Page 2-4.

PLAN TO MAINTAIN PRE-IDENTIFIED SUPPLIES FOR EMERGENCY RESPONSE

Routine weather preparations are conducted prior to summer and winter ERCOT designations. Preparations include but not limited to an overall assessment and identification of the plant critical components, operations, and onsite personnel preparedness prior to the hot weather season. Some of the plant assessment and evaluation includes:

- Daily operational and safety orientations
- Check and update the contact information of the plant authorized personnel,
- Check for fluid levels, critical devices related to turbine functionality, control systems, cooling and heating systems, batteries, breakers, SCADA and control room, log, and address any known concerns for corrective actions, and
- Update and fulfill critical spare inventory parts, supply checklist

Critical spare parts (turbines, fluids, other parts) are maintained onsite to restore downed equipment as soon as practicable.

Please refer to: SMS – 517 Assessment Checklist, Generator Preparation Supply Checklist and Generation Weatherization Checklists.

PLAN TO ADDRESS STAFFING DURING EMERGENCY RESPONSE

During all emergency situations at a site, Pattern Energy OCC's real-time operations located in Houston, Texas, monitors and provides the coordination and control of the fleet 24 hours a day, seven (7) days a week. In addition, each individual site is equipped with redundant data links, local telephone service and mobile devices (text, voice, and email), connectivity onsite is ensured by the use of hand-held radios. All site personnel are equipped with laptops and mobile phones that can be taken to an offsite location as needed in the event of extreme weather-related emergency. All these devices are all setup to allow continuous monitoring and operations from a remote location.

Please refer to SMS – 504, Appendix B, Sec. 1.1 Operations Control Center and Emergency Communication Set-up, Page 2.

IDENTIFICATION OF WEATHER-RELATED HAZARDS PLAN

Weather is monitored at all times and routine weather preparations are conducted prior each season in ERCOT (summer/winter designations). Pattern Energy also uses a weather information provider and National Weather Service, Weather.com, state and local broadcast information and news networks to monitor current and future weather conditions 24 hours a day, seven (7) days a week and as available to field personnel. Any Pattern Energy site experiencing an emergency will coordinate restoration efforts with the applicable parties of the interconnection system (transmission operator, balancing authority and/or reliability coordinator) and will make reasonable efforts to restore operations as soon as practical. Careful coordination is required between Pattern Energy's QSE, ERCOT, Transmission Operator and any other applicable entities.

Winter Designations Considerations – winter weather exposure is mostly related to ice buildup on the turbine blades. Ice accumulation on the blades result on the turbines to slow down and eventually remained idle or bringing themselves offline. Depending on the severity of the icing conditions on the blades, it may be necessary to manually shut down as it is not recommended to operate with an unbalance rotor. Ice accumulation on the anemometer and wind vane sometimes causes the wind turbine to come offline due to wrong or none wind direction data.

Most of Pattern Energy's fleet consist of Siemens Gamesa Renewable Energy (SGRE) wind-turbines that operate at a variable wind speed (m/s) and under turbulent and weather conditions:

Site	Min. Operating Temp. (°C)	Max Wind Speed (m/s)	Parameter
PH1	-15	25	P StormShutdownWindSpd10Min
PH2	-22	25	WL6, max wind for operation
LGW	-22	25	WL6, max wind for operation
PGW	-20	25	WL6, max wind for operation
GSE1	NA	NA	Solar facility

However, based on OEM recommendations and although the turbines respond and behave as designated, the turbines will automatically shut down when ambient temperatures -22 degrees Celsius (-7 degrees Fahrenheit) is reached. The turbines can be manually restarted once the ambient temperature rises about their minimum operational level.

Summer Designation Considerations – depending on the OEM recommendations, the wind turbine operation will automatically shut down an ambient temperature of 43-45 degrees Celsius (110-115 degrees Fahrenheit) is reached. The turbines can manually be restarted once the ambient temperature falls below the maximum operational level.

Other considerations – lightning storms also can contribute to the facility to come offline as result of lightning strike at Substation resulting of an outage which is typically restore after the storm rescinds. Pattern Energy have backup generators onsite to maintain our SCADA and O&M building which is checked monthly.

Personnel also refers to the table below for safety operations of the plan.

Air Temperature - Sunny Sky		No Noticeable Wind		5 mph Wind		10 mph Wind		15 mph Wind		20 mph Wind	
°C (approx.)	°F (approx.)	Max. work Period	No. of Breaks**	Max. Work Period	No. of Breaks	Max. Work Period	No. of Breaks	Max. Work Period	No. of Breaks	Max. Work Period	No. of Breaks
-26° to -28°	-15° to -19°	(Norm breaks) 1		(Norm breaks) 1		75 min.	2	55 min.	3	40 min.	4
-29° to -31°	-20° to -24°	(Norm breaks) 1		75 min.	2	55 min.	3	40 min.	4	30 min.	5
-32° to -34°	-25° to -29°	75 min.	2	55 min.	3	40 min.	4	30 min.	5	Non-emergency work should cease	
-35° to -37°	-30° to -34°	55 min.	3	40 min.	4	30 min.	5	Non-emergency work should cease			
-38° to -39°	-35° to -39°	40 min.	4	30 min.	5	Non-emergency work should cease					
-40° to -42°	-40° to -44°	30 min.	5	Non-emergency work should cease							
-43° & below	-45° & below	Non-emergency work should cease									

Heat Index Chart																
Temperature (°F) vs. Relative Humidity																
	10%	15%	20%	25%	30%	35%	40%	45%	50%	55%	60%	65%	70%	75%	80%	
115	111	115	120	127	135	143	151									
110	105	108	112	117	123	130	137	143	151							
105	100	102	105	109	113	118	123	129	135	142	149					
100	95	97	99	101	104	107	110	115	120	126	132	136	144			
95	90	91	93	94	96	98	101	104	107	110	114	119	124	130	136	
90	85	86	87	88	90	91	93	95	96	98	100	102	106	109	113	
85	80	81	82	83	84	85	86	87	88	89	90	91	93	95	97	
80	75	76	77	77	78	79	79	80	81	81	82	83	85	86	86	
75	70	71	72	72	73	73	74	74	75	75	76	76	77	77	78	
Heat Index/Heat Disorders																
Heat Index		Possible heat disorders for people in higher risk groups														
130 or higher		Heatstroke/sunstroke highly likely with continued exposure. Work only with site supervision approval.														
105-130		Sunstroke, heat cramps or heat exhaustion likely, and heat stroke possible with prolonged exposure and/or physical activity. Recommend limiting work to 15 minutes per hour with a 45 minute break in a cool area.														
90-105		Sunstroke, heat cramps and heat exhaustion possible with prolonged exposure and/or physical activity. Recommend limiting work to 30 minutes per hour with a 30 minute break in a cool area.														
80-90		Fatigue possible with prolonged exposure and/or physical activity. Recommend limiting work to 45 minutes per hour with a 15 minute break in a cool place.														
Source: National Weather Service																

Please refer to SMS – 521, Sec. 5. Procedure, Page 4 – 13.

WEATHER EMERGENCY ANNEX

Weather is monitored at all times. Pattern Energy has five (5) meteorologists on staff and uses state of the art weather applications to monitor and track the weather 24 hours a day, seven (7) days a week. Pattern SMS – 521 Inclement Weather Plan establish the guidelines for working in and around inclement weather including strong winds, lightning, winter storms, icing, hail, heavy rain, tornadoes, cold fronts, and hot weather to help identify and mitigate any associated hazards.

Please refer to SMS – 523 Inclement Weather, Page 2 – 13.

WATER SHORTAGE ANNEX

Not applicable. Pattern Energy’s fleet is comprised of four wind and one solar-powered generators. For water supply, bottled/drinking water inventory is maintained onsite.

RESTORATION OF SERVICE ANNEX

Pattern Energy’s restoration efforts are part of its SMS – 504 Emergency Preparedness and Response Procedure, Appendix B, and its Hurricane Preparedness Plan or HPP. Routine weather preparations are conducted prior to each ERCOT season designations: summer and winter and restoration efforts are conducted according to an overall assessment of the current condition of the plant/system (critical components affected) and coordination with ERCOT where safety of personnel shall take precedence over all other considerations when determining the actions to be taken. Communication and detailed coordination are at the forefront during a system restoration between the site personnel, contractors, QSE, ERCOT and updating current COP while providing update of units (wind-turbines) affected and being controlled to comeback for any derate / outage. All sites are equipped with redundant data links, local telephone service, mobile and satellite devices. In addition, connectivity onsite is ensured by the use of hand-held radios. All site personnel are equipped with laptops, and mobile phones that can be taken to an offsite location as needed. These devices are all set up to allow for continuous monitoring and operations from a remote location. The Operations Control Center or OCC located in Houston, Texas is the main and single point of contact between each individual site and ERCOT. Restoration efforts are conducted as the site level via the OCC to involved parties in the event of any natural disasters including Hurricanes, Tornadoes, Flooding and other.

Please refer to SMS – 504 Se. 1.7.3, Page 4 and Appendix D and Hurricane Preparedness Plan (HPP).

PANDEMIC AND EPIDEMIC ANNEX

Pattern Energy’s SMS 504, Appendix C, Pandemic Plan has been designated to provide guidance for responding to a Pandemic Declaration by Pattern, local health services, local emergency management, the Federal Emergency Management Agency (FEMA), the World Health Organization (WHO), Public Health Agency of Canada (PHAC) and/or the Center Control and Prevention (CDC). All sites are monitored respectively pursuant to their state or province’s health department advisories. Appendix C addresses communications, exposure, infection detection and mitigation, hygiene, medical supplies and equipment, access to facility, ongoing training. The plan addresses local and grand scale declarations.

Please refer to SMS – 504, Appendix C: Field Operations, Visitor Questionnaire and OCC Plan.

HURRICANE ANNEX

Pattern Energy's SMS – 504, Appendix D and its Hurricane Preparedness Plan (HPP) is designated specifically for Pattern Gulf Wind. The site is located in Armstrong, TX, and Kenedy Co. in the South Zone of ERCOT and within the Hurricane Evacuation Zone as defined by the Texas Division of Emergency Management (TDEM). The plans provide guidance to the Facility Manager, Assistant Facility Manager, and other personnel to prepare Gulf Wind in the event of weather like hurricanes or tropical storms and includes procedures for re-entry. Each year, Gulf Wind personnel review and conducts testing and exercises to evaluate the effectiveness of the program and address any gaps, weakness identified during the process before the hurricane season. Detailed communication and coordination are at the forefront with ERCOT, Kenedy, Kleberg Counties and other local emergency first responders.

Please refer to SMS - 504, Appendix D and Hurricane Preparedness Plan (HPP).

CYBER SECURITY ANNEX

Pattern Energy's Medium Impact BES Cyber System and Associated Cyber Asset Recovery Plan or RMS – 448 establishes the requirements and steps for Cyber Asset (CA) recovery operations and backup and restore operations with respect to BCS and their associated Cas (Electronic Control and Monitoring (EACMS) and Physical Access Control Systems (PACS). The plan also addresses applicable regulatory requirements of the North America Reliability Corporation (NERC) Critical Infrastructure Protection (CIP) Reliability Standard (CIP-009-6).

Please refer to RMS – 448 Medium Impact BES Cyber System and Associated Cyber Asset Recover Plan, Sec. 4 and 5., Page 3 – 9.

PHYSICAL SECURITY INCIDENT ANNEX

Pattern Energy's Medium Impact Physical Security Plan or RMS 428 establishes how physical access to Medium Impact Bulk Electric System Cyber Systems (BCS) and associated Cyber Assets (CA) are protected to minimize security incidents that could impact the safety of personnel and reduce any BES reliability risk. The plan addresses applicable regulatory requirements found in the North America Electric Reliability Corporation (NERC) Critical Infrastructure Protection (CIP) and its main objective is to indicate how the physical security controls for Medium Impact BCS and Associated CA(s) in used at Pattern's operating assets are configured and well-documented.

Please refer to RMS – 428 Medium Impact Physical Security Plan, Sec. 4, Page 5 – 20.

RECORD OF DISTRIBUTION

<u>Title</u>	<u>Name</u>	<u>Date of Training</u>
Pattern Gulf Wind – Facility Manager (AM)	Tommie Trowbridge	November 29, 2021
Pattern Gulf Wind – Assistant Facility Manager (AFM)	Tad Wright	November 29, 2021
Logan’s Gap Wind – Facility Manager	Juan Maldonado	November 29, 2021
Pattern Panhandle Wind, Pattern Panhandle Wind 2 – Facility Manager (FM))	Jake Hull	November 29, 2021
G.S.E. One LLC (Phoenix Solar) – Senior Director, Field Operations	Brent Mitchell	November 29, 2021
Pattern Energy – AVP, Field Operations	Ryan Pierce	November 29, 2021
Pattern Energy Lead Technician, Field Operations	Johnny Myers	November 29, 2021
Pattern Energy - Reliability Engineer	Dushyant Tank	November 29, 2021
Pattern Energy – Director of Engineering Operations	Ben Rice	November 29, 2021
Pattern Energy – Director of Policy Design and Compliance	Kara Beckmann	November 29, 2021
Pattern Energy – NERC Analyst	Michael Jacobs	November 29, 2021
Pattern Energy – Operations Control Center -	Lance Haacke	November 29, 2021
Pattern Energy – Operations Health and Safety Manager	Robert Milligan	November 29, 2021
Pattern Energy – Compliance Coordinator	Lori Cral	November 29, 2021

LIST OF PRIMARY EMERGENCY CONTACT

<u>Primary Contact Information</u>	<u>Facility</u>
Pattern Energy Control Center 1201 Louisiana St., Ste 3200 Houston, Texas 77002 Telephone (855) 477-0396 (713) 308-4242 Facsimile (713) 571-8004 E-mail: patternocc@patternenergy.com	Pattern Gulf Wind LLC Pattern Panhandle Wind LLC Pattern Panhandle Wind 2 LLC Logan's Gap Wind LLC G.S.E. One LLC (Phoenix Solar)
Tommie Trowbridge, FM (361) 216-5312 Tommie.trowbridge@patternenergy.com Tad Wright, AFM (361) 728-1673 tad.wright@patternenergy.com	Pattern Gulf Wind LLC
Juan Maldonado, FM (713) 962-0961 juan.maldonado@patternenergy.com	Logan's Gap Wind LLC
Jake Hull, FM (713) 503-7940 jake.hull@patternenergy.com	Pattern Panhandle Wind LLC Pattern Panhandle Wind 2 LLC
Brent Mitchell, Sr. Director Field Ops. (325) 262-6727 brent.mitchell@patternenergy.com	G.S.E. One LLC (Phoenix Solar)
Lance Haacke, Sr. Manager Ops (713) 308-4242 lance.haacke@patternenergy.com	Pattern Energy
Harold Phipps, Sr. Real Time Ops. (281) 224-0472 harold.phipps@patternenergy.com	Pattern Energy
Ben Rice, Director Ops. (832) 671-1805 ben.rice@patternenergy.com	Pattern Energy
Kara Beckmann, Director Energy Policy Design & Compliance (202) 907-9542 kara.beckmann@patternenergy.com	Pattern Energy
Andrew Walker, SVP, Power Operations (281) 844-6524 andre.walker@patternenergy.com	Pattern Energy
Ryan Pierce, AVP, Field Operations (503) 208-1335 ryan.pierce@patternenergy.com	Pattern Energy

I. SECTION §25.53(c)(4)(C)
AFFIDAVIT

STATE OF TEXAS

COUNTY OF HARRIS

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My name is Andre Walker. I am the Senior Vice President, Power Operations, and authorized signatory for Pattern Energy Group LP ("Pattern Energy"). I am competent to testify to all the facts stated in this Affidavit, and I have the authority to make this Affidavit on behalf of Pattern Energy.

I swear or affirm that in my capacity as Senior Vice President, Power Operations of Pattern Energy, I have personal knowledge of the facts stated in the Emergency Operations Plan ("EOP") submitted to ERCOT and filed in Project No. 53385.

I further swear and affirm that I have personal knowledge that pursuant to 16 Tex. Admin. Code § 25.53, I affirm: (i) all relevant operating personnel are familiar with and have received training on the applicable contents and execution of the EOP, and such personnel are instructed to follow the applicable portions of the EOP except to the extent deviations are appropriate as a result of specific circumstances during the course of an emergency; (ii) the EOP has been reviewed and approved by the appropriate executives; (iii) drills have been conducted to the extent required by subsection (f) of 16 Tex. Admin. Code § 25.53; (iv) the EOP or an appropriate summary has been distributed to local jurisdictions as needed; (v) that Pattern Energy maintains a business continuity plan that addresses returning to normal operations after disruption caused by an incident; and (vi) Pattern Energy's emergency management personnel who are designated to interact with local, state, and federal emergency management officials during emergency events have received the latest IS-100, IS-200, IS-700, and IS-800 National Incident Management Systems training.

Pattern Energy intends to conduct a drill consistent with subsection (f) of 16 Tex. Admin. Code § 25.53 by October 1, 2022 and will provide notice to the Commission at least 30 days before that drill is conducted. Once the drill is conducted, Pattern Energy will notify the Commission.

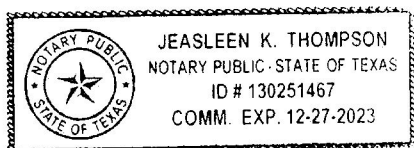
I further swear or affirm the information, statements and/or representations contained in the EOP are true, complete, and correct to the best of my knowledge and belief.

Signature of Affiant

Andre Walker

Typed or Printed Name

SUBSCRIBED AND SWORN to before me on this 18th of April 2022.



Notary Public in and for the State of Texas

REPORTING REQUIREMENTS

Pattern Energy is committed to providing information upon request by the Commission and its Staff consistent with section §25.53(g) and welcomes the opportunity to submit this Executive Summary of its EOP for review by the Commission and its Staff.

Respectfully Submitted,

Pattern Energy Group LP



EMERGENCY OPERATING PLAN

PHOENIX SOLAR POWER PLANT

PUCT RULE 25.52: ELECTRIC SERVICES EMERGENCY OPERATIONS PLANS

Document Control / History Information

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Prepared By:

Name	Dept.	Signature
Preston Wetzel	EHS -UPP	

Document Revision History

Rev #	Revision/Review Date	Revision/Review Made By	Description of Changes / Comments
00	04/06/2022	EHS Dept.	Initial Release

1.0 INTRODUCTION

1.1 The Phoenix Solar Power Plant is an 82.5 MW, 138 KV interconnect photovoltaic power plant.

- 1.1.1 The plant is located at: 1560 County Road 3120, Bonham, TX.
- 1.1.2 The approximate Latitude & Longitude of the site location is: 33°29'40.0"N 96°08'44.4"W
- 1.1.3 Phoenix Solar is being supplied by 138KV on high side from Oncore substation.
- 1.1.4 This power plant is wholly owned by Pattern Energy and is currently operated by under and operations and maintenance (O&M) agreement with NovaSource Power Services (NSPS) which manages the facility daily from both on-site and remotely at the NovaSource Operations Center at the NSPS Office in Chandler, AZ.

1.2 Purpose & Scope

- 1.2.1 This document has been developed for Phoenix Solar Power Plant to endure compliance with Chapter 25 of the Public Utility Commission of Texas, Substantive Rules Applicable to Electric Service Providers, Subchapter C, and Quality of Service 25.53 Electric Service Emergency Operations Plans.
- 1.2.2 Phoenix Solar Power Plant is defined below as a Power Generation Station
 - NSPS Is a power generation company that:
 - Generates electricity that is intended to be sold at wholesale;
 - Does not own a transmission or distribution facility in this state, other than an essential interconnecting facility, a facility not dedicated to public use, or a facility otherwise excluded from the definition of "electric utility" under this section; and
 - Does not have a certificated service area, although its affiliated electric utility or transmission and distribution utility may have a certificated service area.
- 1.2.3 Since Pattern Energy is defined as a Power Generation Company this plan has been developed and filed per the requirements stated in §25.53(c).

1.3 Communication Plan

- 1.3.1 During any emergency at Phoenix Solar, notifications and all actions shall be taken in accordance with the NSPS Emergency Action Plan. (EAP)
- 1.3.2 NSPS Employees will defer any inquiries or complaints made by the public, media, government, etc. directly to a designated representative from Pattern Energy (Owner).

2.0 ROLES & RESPONSIBILITIES

2.1 Site Manager / Supervisor

- 2.1.1 Approving this plan.
 - 2.1.2 In the event of an emergency evacuation, the Site Manager (or designee) is also responsible for directing Employees, as follows.
 - Relaying the final accountability results to senior Emergency Services staff.
 - Having sole responsibility to allow workers to return to the Site or to dismiss them from the Site.
 - Organizing a meeting of all key Employees after each evacuation to investigate, discuss, and review the occurrence.
 - 2.1.3 Assessing Site conditions and directing emergency response activities in accordance with the NovaSource Emergency Action Plan (EAP) which is a separate document within the NSPS EHS Manual.
 - 2.1.4 Making sure that information regarding Site evacuations, emergency assembly areas, communication, and other emergency procedures are accurate and up to date.
 - 2.1.5 Ensure emergency response drills are conducted as required.
 - 2.1.6 Making sure Site contact information is accurate and up to date.
 - 2.1.7 Preparing detailed written reports of each incident, which include recommendations for preventing future incidents and suggestions for improved handling of similar emergencies.
 - 2.1.8 Ensuring all Employees have been trained in this plan annually.
 - 2.1.9 Ensure contractors or visitors at the facility are familiar with these plans through on-site orientation
- 2.2 Employees/Technicians
- 2.2.1 All Employees at the plant will be trained regarding fire routes, exits, storm shelters, and the location and use of emergency equipment.
 - 2.2.2 Monitoring their work areas for potential fire risks and obstructed fire exits, alarm stations, fire extinguishers.
 - 2.2.3 Verifying that emergency evacuation routes and emergency assembly areas are accessible.
 - 2.2.4 Managing emergency equipment or supplies, including first aid kits, fire-fighting equipment, and PPE.
 - 2.2.5 Complying with this plan and with the NSPS EAP.
 - 2.2.6 Advising Site Management of problems or discrepancies with this EAP at the Site.
 - 2.2.7 Participate in emergency response activities as necessary.
- 2.3 EHS Department
- 2.3.1 Maintains document control of this plan.
 - 2.3.2 Review this plan annually and update as necessary in accordance with any updates made to the 25.53 by the PUCT.

3.0 EMERGENCY OPERATING PLAN (ANNEXES)

NOTE: *This section is intended to meet the requirements outlined in the PUCT Rule 25.3 (e) (1)*

3.1 Pre-identified supplies & staffing for emergency response

3.1.1 Required supplies and equipment for any emergency response scenario are detailed within the NSPS Emergency Action Plan.

- Phoenix Solar Power Plant is a minimally staffed solar plant with One Full-time Employee.
- The site is supplied with a 25-person first aid kit and an automatic defibrillator.
 - Site Employee(s) maintain current First Aid & CPR certifications.
- Potable bottled water is available at the site with a method to refrigerate. In the event of a severe emergency the site technician would be directed to leave the site and the facility would be remotely operated from the NovaSource Control Room (NSCR) in Chandler Arizona.

3.1.2 Evacuation and staffing plans for specific emergency response scenarios are detailed within the NSPS Emergency Action Plan.

- Should condition occur that are not safe or unhealthy the site technician would be directed to leave the site which would be remotely operated from the 24/7 NovaSource Control Room (NSCR).

3.2 Weather related hazards and emergencies

3.2.1 The NSPS Emergency Action Plan details specific requirements and actions to take for severe weather events which includes but is not limited to: Tornadoes, hurricanes, flooding, cold weather, etc.

3.3 Weather emergency Annex

3.3.1 The ***NSPS Extreme Climate Conditions Program*** (EHS Section 5.0) covers required guidance and actions for responding to a cold or hot weather emergency.

3.3.2 In the event of an emergency, the EAP will be available to the Employees on site.

- The steps outlining an emergency response in the EAP will be followed step by step.

3.3.3 Lessons learned from any past weather emergencies are documented in the NSPS incident management system and shared accordingly.

3.4 Load shed annex

3.4.1 This is not applicable to Phoenix Solar

- Solar energy is the primary fuel source for the plant and is available on an as-available basis only.

- 3.4.2 In the event of a minor equipment failure (such as an inverter) NSPS Employees at the plant in coordination with NSCR will isolate and bypass the equipment when possible.
- 3.4.3 In the event of a major equipment failure (such as a main transformer) at the substation interconnect, NSCR will completely isolate the plant from the grid.
- 3.4.4 In the event an emergency shutdown is needed, the NSCR will remotely shutdown all inverters and open the substation breakers.

3.5 Pandemic & Epidemic Annex

- 3.5.1 Guidance on necessary actions to take during a Pandemic or Epidemic are covered in the NSPS Pandemic Preparedness & Response plan (EHS Section 15)
- 3.5.2 In the event of a pandemic and the Employee(s) at the plant became ill, they would be directed to leave the plant and the plant would then be remotely operated & monitored by NSCR.

3.6 Wildfire Annex

- 3.6.1 Necessary actions and steps to take in the event of a wildfire near Phoenix Solar are covered in the NSPS Emergency Action Plan (EHS Section 4.0)

3.7 Hurricane Annex

- 3.7.1 Phoenix Solar is not in an identified hurricane evacuation zone, as defined by the Texas Division of Emergency Management.

3.8 Cyber Security & Physical Security Annex

- 3.8.1 Guidance and actions to take in the event of a Cyber security or physical security event are covered in the NSPS Emergency Action Plan (EHS Section 4.0)

3.9 Emergency Contact Information

- 3.9.1 An emergency contact list for Phoenix Solar is required as part of the Emergency Action Plan for every operating plant.
- 3.9.2 The Phoenix Solar Power Plant can provide a copy of the Emergency Action Plan upon request.

3.10 Drills

- 3.10.1 Emergency Drill Requirements are covered in the NSPS Emergency Action Plan (EHS Section 4.0)
- 3.10.2 Phoenix Solar is required to conduct a drill at least annual to test the different emergency response procedure scenarios covered in the Emergency Action Plan.
- 3.10.3 All Drills and lessons learned get documented in the NSPS event reporting and incident management system.



EHS SECTION 4.0
EMERGENCY ACTION PLAN (EAP)

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1.0 PURPOSE, SCOPE, & DEFINITIONS

1.1 Purpose

- 1.1.1 This Emergency Action Plan (EAP) has been prepared for all NovaSource Power Services (NSPS) facilities and sites.
- 1.1.2 This plan outlines the course of action to be taken in the event of emergencies.

1.2 References

- 1.2.1 OSHA 29 CFR 1910.38, Emergency action plans.
- 1.2.2 NERC EOP-004
- 1.2.3 California locations - California Code of Regulations, Title 8, Sections 3220, 3203, 6184, NFPA 1 Uniform Fire Code, Section 10.9.

1.3 Scope

- 1.3.1 This procedure is applicable to all NovaSource Power Services (NSPS) sites and facilities.
- 1.3.2 If an owner/customer has additional requirements for a site that are not already covered in this document, then a modified version may be published on a case-by-case basis.
 - Reach out to the EHS Dept. for guidance.

1.4 Acronyms & Definitions

Acronyms & Definitions

Designee	NSPS team member/Employee who is appointed by the Business Unit Leader/Supervisor to be the primary decision maker for a task or a given emergency response scenario.
EAP	Emergency Action Plan
Hurricane	A tropical cyclone in which the maximum sustained surface wind (using the U.S. 1-minute average) is 64 knots (74 mph or 119 km/hr) or more. The term hurricane is used for Northern Hemisphere tropical cyclones east of the International Dateline to the Greenwich Meridian.
Hurricane Watch	An announcement that sustained winds of 64 knots (74 mph) or higher are possible within, the specified area in association with a tropical, subtropical, or post-tropical cyclone. Because hurricane preparedness activities become difficult once winds reach tropical storm force, the hurricane watch is issued 48 hours in advance of the anticipated onset of tropical storm force winds.
Hurricane Warning	An announcement that sustained winds of 64 knots (74 mph) or higher are expected somewhere within the specified area in association with a tropical, subtropical, or post-tropical cyclone. Because hurricane preparedness activities become difficult once winds reach tropical storm force, the warning is issued 36 hours in advance of the anticipated onset of tropical-storm-force winds. The warning can remain in effect when dangerously high water or a combination of dangerously high water and waves continue, even though winds may be less than hurricane force.
Incipient Fire	A fire which is in the initial or beginning stage and which can be controlled or

	extinguished by portable fire extinguishers, class II standpipe or small hose systems without the need for protective clothing or breathing apparatus. Typically, this is a fire which is no larger than the size of a small trash container
Muster Point	A designated area where all employees will assemble during a site emergency.
NSPS	NovaSource Power Services
Business Unit Leader (BUL)	The primary maintenance Manager or Supervisor that has responsibility for a NSPS facility or Site
Tornado Watch	<u>Be Prepared!</u> Tornadoes are possible in and near the watch area. Review and discuss your emergency plans and check supplies and your safe room. Be ready to act quickly if a warning is issued or you suspect a tornado is approaching. Acting early helps to save lives! Watches are issued by the Storm Prediction Center for counties where tornadoes may occur. The watch area is typically large, covering numerous counties or even states.
Tornado Warning	<u>Take Action!</u> A tornado has been sighted or indicated by weather radar. There is imminent danger to life and property. Move to an interior room on the lowest floor of a sturdy building. Avoid windows. If in a mobile home, a vehicle, or outdoors, move to the closest substantial shelter and protect yourself from flying debris. Warnings are issued by your local forecast office. Warnings typically encompass a much smaller area (around the size of a city or small county) that may be impacted by a tornado identified by a forecaster on radar or by a trained spotter/law enforcement who is watching the storm.
Business Unit (BU) Work Group	A BU Work group is defined as a team of technicians/Employees that directly report to one Business Unit Leader/Lead.

2.0 ROLES & RESPONSIBILITIES

NOTE: Key NovaSource Power Services Employees (and Designees) have the responsibility of ensuring the safe response and evacuation of site personnel in an emergency. Those key job titles, with appropriate responsibilities, are listed in the site/facility specific Emergency Contact List – Attachment A (attachment)

A “**Designee**” is defined as the primary decision maker for a task or a given emergency response scenario.

2.1 Business Unit Leaders / Managers (BUL)

- 2.1.1 The Business Unit Leader (BUL) or Designee has the following responsibilities:
- 2.1.2 Acting as the sole liaison to senior emergency services personnel.
- 2.1.3 Ensure that site Employees have been trained in and comply with this plan.
- 2.1.4 Verifying that emergency evacuation routes and emergency assembly areas are accessible.
- 2.1.5 In the event of an emergency evacuation, the Business Unit Leader (or Designee) is also responsible for directing Employees, as follows:
- 2.1.6 Relaying the final accountability results to senior Emergency Services staff.
- 2.1.7 Having sole responsibility to allow workers to return to the Site or to dismiss them from the Site.
- 2.1.8 Organizing a meeting of all key Employees after each evacuation to investigate, discuss, and review the occurrence.

- 2.1.9 Assessing Site conditions and directing emergency response activities in accordance with the Emergency Action Plan (EAP).
- 2.1.10 Making sure that information regarding Site evacuations, emergency assembly areas, communication, and other emergency procedures are accurate and up to date.
- 2.1.11 Conducting routine EAP drills and an evaluating compliance with the EAP.
- 2.1.12 Ensuring site contact information and Site maps are accurate and up to date (Appendices A-C).
- 2.1.13 Preparing detailed written reports of each incident (via SharePoint), which include recommendations for preventing future incidents and suggestions for improved handling of similar emergencies.

2.2 Environmental, Health, & Safety Department

- 2.2.1 Review and update this plan periodically.
- 2.2.2 Assist with monitoring training on this plan.
- 2.2.3 Provide assistance to the field for serious accident response and incident investigations as necessary.
- 2.2.4 Provide feedback and recommended corrective actions to Sites after drills or emergency events take place.

2.3 Site Team Members

- 2.3.1 Be familiar with and follow this plan.
- 2.3.2 Assist in updating site specific Appendices (attachments) to this plan.
- 2.3.3 Managing emergency equipment or supplies, including first aid kits, fire-fighting equipment, and PPE.
- 2.3.4 Monitor work areas for potential fire risks and obstructed fire exits, alarm stations, fire extinguishers.
- 2.3.5 Immediately report any emergencies to the Business Unit Leader or Designee.

3.0 SITE SPECIFIC REQUIREMENTS

NOTE: If an owner/customer has additional requirements for a site that are not already covered in this document then a modified version may be published on a case-by-case basis. Reach out to the EHS Dept. for guidance.

3.1 Site Access for Emergency personnel

- 3.1.1 Site/substation access for emergency personnel (fire dept., police dept., ambulance, etc.) shall be made readily available in the event of an emergency
- 3.1.2 If site access gates are normally kept locked, a Knox Corporation key box or padlock for emergency access (Fire dept. access) shall be managed next to the locked access gate(s).
 - The method used to grant emergency access into the site with locked gates should be communicated to the local fire dept.

- Keys to the padlocks, lockbox combinations, etc. shall be shared with the local fire dept.

3.1.3 Site/substation access for emergency personnel (fire dept., police dept., ambulance, etc.) shall be made readily available in the event of an emergency.

3.2 Emergency Contact List

3.2.1 Ensure an **Emergency Contact List** is created and maintained for each NSPS Site/facility (See **Attachment A** for template/example)

- One Emergency Contact List may be used to cover multiple sites within close proximity to each other
- The contact list can be modified as needed (including formatting) to include additional or different contact numbers applicable to the Site.

3.2.2 Ensure current copies of the Emergency Contact List (Attachment A) for each Site are:

- Placed in the Office/O&M building (if applicable) and all company service vehicles/technician binders.
- Included as part of the site-specific safety orientation.
- Uploaded to the appropriate folder on SharePoint. Consult with EHS Department for assistance.

3.2.3 In addition to the Emergency Contact List mentioned above, each site (or BU Work Group) should maintain a current list of all Team Members assigned to the site(s) with their contact information; this list should be accessible to all employees in the event of an emergency.

- A template was created on a second tab of the Emergency Contact List (Attachment A) that can be used to maintain a list of all Team Members assigned to the site.

3.3 Site Maps & Drawings

3.3.1 Ensure site map(s) are created for each NSPS operating site which identifies the layout of the site, site access roads, emergency muster point location(s), & directions to the nearest trauma center (hospital/medical clinic)

- Refer to **Attachment B** for Example

3.3.2 Sites that have an office/O&M building should also create a drawing of the building (*included as Attachment B*) that identifies the following elements as applicable:

- Location of ERE equipment: Eyewash, fire extinguishers, AED's, first aid kits, spill kits, etc.
- Emergency exits
- Muster points
- Tornado shelters

- Hazardous waste, universal waste, and flammable material storage locations
- Power source location (electrical panel) for the building
- Compass rose, site name, & address
- SDS location

3.3.3 Ensure copies of site maps & drawings are:

- Placed in the O&M building (if applicable) and made readily accessible to all NSPS Employees at the site
- Included as part of the site-specific safety orientation.
- Uploaded to the appropriate folder on SharePoint. (*Consult with the EHS Department for assistance*).

3.4 Emergency Response Equipment (ERE) Inspections

3.4.1 All emergency response equipment shall be inspected monthly.

- Monthly ERE inspections shall be documented using the ***Building ERE & Housekeeping Inspection form (via SharePoint) OR using the monthly tech. rounds checklist*** (provided it is covered on the tech rounds)
- ERE Employed with vehicles should be inspected as part of the ***monthly Vehicle Inspection Form (via SharePoint)***.
- Discrepancies identified shall be noted on the form used and corrected as soon as possible.
- Emergency response equipment with identified discrepancies shall not be used and shall be taken out of service until the discrepancies are corrected.

3.4.2 Fire Extinguishers

- Fire Extinguishers shall be in O&M (office) buildings, substation control houses, and DOT Commercial vehicles in accordance with OSHA requirements.
 - To ensure this, a portable fire extinguisher, rated not less than 3A:40B:C – 5 lbs., shall be provided for each 1,500 square feet of the protected building area with travel distance from any point to the nearest extinguisher not to exceed 50 feet.
- A minimum of one 10lb. fire extinguisher or an alternative fire extinguisher device (that is approved by the EHS Department) is required to be in each NSPS issued vehicle/service truck.
- During the monthly-required visual inspections for fire extinguishers:
 - Verify the fire extinguisher(s) are in the correct location,
 - Verify the pressure gauge reading is in the operable range,
 - Verify there is unobstructed access to the extinguisher, and

- Verify the extinguisher is equipped with an inspection tag that has monthly and annual inspection dates on it (refer to the Fire Prevention plan paragraph in the EHS Safety Manual for more details).

3.4.3 Eyewash/Shower stations (if applicable and properly maintained):

- Consult with the EHS dept. if your site has a plumbed in eye wash station for guidance on whether the station should be tagged out of service.
- Verify unobstructed access and visibility to the emergency eyewash and shower stations.
- Verify proper operation of the emergency eyewash and shower stations.
- Verify the emergency eyewash station is clean and caps are installed.
- Verify all eyewash bottle(s) have unbroken seals and are not beyond their expiration date.

3.4.4 First Aid Kits – A Basic First Aid kit is required to be kept in each NSPS issued vehicle/service truck and in all manned office buildings.

- Verify that each Basic First Aid Kit has the appropriate number of items in it.
- A Class A kit per ANSI Z-308.1-15 is recommended to ensure kits contain the appropriate number of items.
- This includes Eye Wash Bottle(s)
- Verify that any medications in first aid kits are not beyond their expiration date.
- Verify unobstructed access and visibility to mounted first aid kits.

3.4.5 AED's - Shall be kept in manned office buildings & in each field worker's NSPS owned/leased vehicle.

- Vehicles that are NOT used for regular field work (such as Regional / Commuter vehicles) are not required to have AED's.
- Verify unobstructed access and visibility to mounted AED's.
- Verify AED batteries are in good condition and not beyond their expiration date.
- Verify AED pads are not beyond their expiration date.
- Verify the AED's have no visible damage.

3.4.6 Emergency Lighting (Office Buildings & Substation control buildings)

- Verify emergency lighting works when the test button is pushed. This is an operational test of the batteries.

3.4.7 Spill Kits (as applicable):

- Verify absorbent material and empty drums are available.

3.4.8 Emergency Exits (Office Buildings):

- Verify emergency exits are clearly marked at the exit and on the site map.
- Verify lighted exit signs are illuminated.
- Verify unobstructed access to each emergency exit; on both sides of the door exist.

3.5 Emergency Drills

- 3.5.1 Emergency drills shall be conducted at least annually to test the different emergency response procedure scenarios outlined in Section 4.
- To meet the annual requirement, a minimum of one drill per NSPS Work Group Team shall be completed each calendar year.
 - Sites identified to have a high fire risk shall also complete a Fire Drill Annually
 - Some NSPS Sites may have additional Drill and Fire Drill requirements based on location and/or client contract obligations

NOTE: *An NSPS Work Group is defined as team members that directly report to one Business Unit Leader/Manager (BUL)*

- 3.5.2 Prior to conducting any full-scale drills, Team Members should be assigned to observe the drill, take notes and provide feedback at a debrief which will be recorded and evaluated.
- 3.5.3 Debriefs shall also be conducted with involved personnel following each actual emergency to identify the strengths, deficiencies, and opportunities for improvement.
- All emergency drills including lessons learned should be documented using the appropriate form on SharePoint.
- 3.5.4 Lessons learned should be communicated to all stakeholders at Site safety meetings and via email.
- 3.5.5 Document Drills on EHS SharePoint site.

4.0 EMERGENCY ACTION PROCEDURE STEPS

NOTE: *All procedures should only be undertaken if safe to do so, and there is no risk of harm to any other personnel. Should further risks to other personnel exist, it is imperative that external professional assistance is used to ensure all Team Members and visitors are safe and no further incidents occur.*

In an emergency scenario, the "Designee" that contacts 911 will vary based on who is or is not available onsite. Under ideal conditions, the Business Unit Leader or another Team Members onsite would play this role.

For any given emergency scenario, the "Designee" that calls 911 may be any one of the following: The injured Employee, the NSPS REMOTE OPERATIONS CONTROL CENTER, another Team Member onsite, a subcontractor employee, or the Business Unit Leader.

4.1 In the Event of any emergency, the following steps shall be taken:

Step	Action
------	--------

- 1 Anyone observing an emergency condition should immediately contact the Business Unit Leader (BUL) or Designee by any method possible including, in person, by radio, or by phone

NOTE: *In a lone worker situation, the NSPS REMOTE OPERATIONS CONTROL CENTER may act as the Designee to assist the lone worker with contacting emergency services and/or making appropriate notifications.*

- 2 The BUL or Designee, will initiate this procedure and notify all on-site personnel via radio, phone, or other means
 - Announce, "Initiate emergency Action procedure." AND designate the muster point location (i.e. emergency assembly area).

Note: *Depending on the type of emergency, the Business Unit Leader or Designee may have to issue a Site evacuation (5.0, below) and set a meeting point off site.*

- 3 Upon initiating the emergency action procedure, personnel shall immediately assemble in the designated muster point location(s)

- 4 If Emergency response resources are needed, the BUL or Designee, will call 911 to request appropriate emergency services, and provide all pertinent information concerning the emergency including:

- Type of emergency
- Address and geographical location
- Location of the emergency (e.g. block/equipment, trailer, parking lot, etc.)
- Number of injured or trapped Employees

Note: *911 shall ALWAYS be contacted for all life-threatening injuries and significant environmental events (e.g. uncontrolled fires, floods, earthquakes, etc.).*

- 5 When appropriate, the BUL or Designee shall notify the NSPS OPERATIONS CENTER and request that they continue with other notifications to allow the Business Unit Leader or Designee time to manage the emergency event.

Note: *This step may not be applicable if NSPS OPERATIONS CENTER was already notified as the Designee per step 1 above.*

- 6 The BUL or Designee, shall assign personnel to the following duties:
 - Send person(s) to meet Emergency Responders
 - Assign Person(s) to account for all personnel at the Site
 - If required, assign personnel to locate any missing persons
 - Call in additional Employees, if available and necessary
 - Assign personnel additional duties as necessary

- 7 The BUL or Designee should meet with Emergency Response Personnel to coordinate appropriate steps and assist as necessary.

- 8 If a site evacuation is necessary, initiate the **Site Evacuation** (refer to section 5.0 below)

5.0 SITE EVACUATION

5.1 Initiating Evacuation:

- 5.1.1 Perform the applicable steps of the Emergency Action Procedure, refer to section 4, above.
- 5.1.2 Business Unit Leader or designee will use the radios, cell phones or other means to contact and inform all personnel at the site to evacuate.
 - During this announcement, the Business Unit Leader or Designee shall designate whether personnel should meet at the primary, secondary or an alternate muster point (off site)
- 5.1.3 Upon notification, all personnel at the site shall immediately:
 - Stop work.
 - Initiate emergency shut off procedures or If time permits, place equipment in a safe static condition.
 - Evacuate from the nearest, safest exit point and report to the assembly area that was designated during the evacuation announcement in a) above. Refer to the site drawing and map (*Attachment B*).
 - If for some reason personnel are unable to meet at the assembly area that was designated during the evacuation announcement in a) above, they should find another assembly area where they will be safe from the emergency and notify the Business Unit Leader or designee of their location.
- 5.1.4 Personnel shall report their status to the Business Unit Leader or designee when they have arrived at the designated assembly area.
- 5.1.5 Business Unit Leader or designee shall notify the NSPS Remote Operations Control Center that the site is being evacuated and the reason for the evacuation. Refer to the Information & Notification Form (*Attachment E*).
- 5.1.6 The NSPS Remote Operations Control Center shall make the following notifications sharing the information they received from the Business Unit Leader.
 - NSPS Remote Operations Control Center shall attempt to notify the Regional BU Manager of the site being evacuated and the reason for the evacuation. The Regional Business Unit Manager shall make appropriate notifications.
 - If the Regional BU Manager is unable to be contacted, the Remote Operations Control Center shall attempt to notify the Managing Director for the Site is being evacuated and the reason for the evacuation.

- If the Managing Director, Field Services is unable to be contacted, the NSPS REMOTE OPERATIONS CONTROL CENTER shall attempt to notify the EHS Dept. Director that the Site is being evacuated and the reason for the evacuation.

- 5.1.7 NSPS Operations Center shall follow “Outage Notification Procedures” as applicable.
- 5.1.8 Business Unit Leader or designee should initiate other emergency action procedures herein as applicable.
- 5.1.9 Once the situation is stabilized and all personnel are accounted for, the Business Unit Leader may send non-essential personnel home if warranted.
- 5.1.10 Business Unit Leader/Designee shall provide updates of the situation to their Regional Manager or management personnel in their chain-of-command.

5.2 Securing from evacuation:

- 5.2.1 The Business Unit Leader or designee shall notify the Remote Operations Control Center prior to securing from evacuation.
- 5.2.2 Business Unit Leader shall meet with appropriate site personnel to discuss the site re-entry method(s).
- 5.2.3 Personnel entering should conduct a hazard assessment to determine potential hazards associated with re-entering the site.
 - This assessment shall include what actions will be taken to mitigate any potential hazards.
 - This information shall be shared with all personnel who will be performing the initial re-entry of the site.
- 5.2.4 Re-enter the site and perform an inspection of affected areas to identify any existing hazards and assess the status of the site.
 - Correct the hazards on the spot if able.
 - If unable to correct the hazards, mark/guard them using barrier tape, or other means and communicate these hazards to other personnel entering the site. Limit access to all non-essential personnel.
- 5.2.5 Once the site has been made safe for other essential personnel to enter, the Business Unit Leader may allow access to the site.
- 5.2.6 The Business Unit Leader or designee and the Regional Manager shall assess potential impact to business operations and take appropriate actions.
- 5.2.7 Prior to securing from the evacuation, the Business Unit Leader shall discuss the status of the site with their Regional Manager.
- 5.2.8 Business Unit Leader or designee should keep notes of occurrences so that lessons learned can be understood/shared.
- 5.2.9 Log the event into the appropriate event form on the EHS SharePoint site.

6.0 NOTIFICATION PROCESS

- 6.1 All Site emergencies shall be adequately reported to NSPS management, Site Owner(s), regulatory agencies (if applicable) and other appropriate in a timely manner and per contractual obligations. (refer to Incident Investigation & reporting procedure for more details)
- 6.1.1 Client (Owner) Notification – Client or Owner representatives shall be provided the details of all Site emergencies as soon as possible or as prescribed in the O&M contract/agreement.
- 6.1.2 Community/Authority Notification – The process for notification of stakeholders relates directly to the nature of the hazard.
- In the event that there is an unacceptable risk to the community from the emergency or incident, the impacted community stakeholders will be notified.
 - OSHA shall also be notified (by the EHS Dept.) in the event of serious injury or death within 8 hours.
- 6.2 In the event of an emergency, employees and contractors shall notify the Business Unit Leader or designee as soon as possible.
- 6.3 Business Unit Leader or designee will need to make notifications in the event of an emergency.
- 6.3.1 Each emergency action procedure identifies the notification requirements for the plant based upon the severity of the emergency.
- 6.4 During minor events, the Business Unit Leader will notify the Regional Manager.

NOTE: A Major event includes but is not limited to the following:

- Any event where 911 was called or emergency services responded to the plant for an emergency.
- Any event where catastrophic equipment damage was sustained.
- Any event or condition which poses a safety hazard to the public.
- Any event where there is a 3rd party action such as work stoppage, picketers or protest.
- Any event where the media may become involved.

- 6.5 During major events, the Business Unit Leader or designee will notify the NSPS Remote Operations Control Center
- 6.5.1 The NSPS Remote Operations Control Center will continue with the notifications to allow the Business Unit Leader time to manage the situation.
- 6.5.2 The Business Unit Leader or Designee should inform the NovaSource Control room (NSCR) when the event is over, the situation is stabilized or the drill has ended.

6.6 When Regional Managers are notified of an event, they will make appropriate notifications as follows:

6.6.1 During minor events:

- The Regional Manager will notify the EHS Department and the Managing Director. A determination should be made regarding further notifications.

6.6.2 During major events:

- The Regional Manager will make notifications to the Managing Director, Central Services and to other departments such as: Legal, Compliance Office, HR, Corporate Communications, EHS Dept. & Business Management as applicable.
- If the Managing Director is not available, the Regional Manager shall continue with notifications according to the chain of command.

6.6.3 The notifications of major events should be made by the Managing Director if the Regional Business Unit Leader is unavailable.

- If the Managing Director is unavailable, notifications will be made by the next chain of command
- The EHS Dept. may assist with notifications as necessary.

6.7 Emergency Notification

6.7.1 There is a requirement to ensure that consistent information is presented to all stakeholders appropriate to the nature of all emergencies at the Site.

6.7.2 **Client (Owner) Notification** – Client or Owner representatives shall be provided the details of all Site emergencies immediately (*as soon as safe to do so and as prescribed in the O&M contract/agreement.*)

6.7.3 **Community/Authority Notification** – The process for notification of stakeholders relates directly to the nature of the hazard.

- In the event that there is an unacceptable risk to the community from the emergency or incident, the impacted community stakeholders will be notified.
- OSHA shall also be notified in the event of serious injury or death within 8 hours.

6.8 Emergency investigation and closeout

6.8.1 All emergency events shall be reported, investigated, and managed as prescribed in in the NSPS Incident & Investigation Procedure (EHS Section 13.0).

6.8.2 On close out of an emergency, the investigation team should assess if further controls or resources are required to prevent or mitigate the impact of a future recurrence.

7.0 INJURY RESPONSE

7.1 Minor Injury – No First Aid Required

Step	Action
1	Individuals who have been hurt, even if no first aid is required, or are having aches and pains need to report this to their Business Unit Leader or Designee immediately.
2	Business Unit Leader or Designee – Discuss injury with the Employee to determine if first aid is needed and if so, ensure the Employee receives appropriate care. Receiving an electric shock is a major injury.
3	Business Unit Leader or Designee – Notify the EHS Department and Document the injury on the EHS SharePoint site & begin the investigation to determine how the Team Member was injured
4	If the injury was caused by anything that could cause future injury, the hazard should be mitigated as soon as possible.

7.2 Minor Injury – First Aid Required

NOTE: *THESE ARE INJURIES WHERE FIRST AID IS RENDERED BY TRAINED EMPLOYEES AT THE SITE.*

Step	Action
1	Prior to entering the area to render first aid, ensure it is safe to do so
2	If you choose to provide first aid, only provide first aid to the extent of your training
3	Immediately report the injury to the Business Unit Leader or Designee.
4	Business Unit Leader or Designee – discuss the injury & first aid that was rendered to determine if the Team Member's needs to be seen by a medical professional. If it is determined that the Team Member should seek medical attention, follow 5.3 below. Receiving an electric shock is a major injury.
5	Business Unit Leader or Designee - Document the injury on the EHS SharePoint site & begin the investigation to determine how the Team Member was injured (consult with the EHS Department as necessary)
6	If the injury was caused by anything that could cause future injury, the hazard should be mitigated as soon as possible.

7.3 Injury requiring attention from a medical provider

NOTE: THESE ARE INJURIES WHERE THE TEAM MEMBER NEEDS TO SEEK MEDICAL ATTENTION BUT DOES NOT NEED EMERGENCY SERVICES.

Step	Action
1	If needed, perform the applicable steps of the Emergency Action Procedure (4.0) above.
2	If you choose to provide first aid, only provide first aid to the extent of your training
3	Immediately report the injury to the Business Unit Leader or Designee.
4	If individual experiences an electrical shock, it is mandatory that they be evaluated by a qualified medical provider, normally at a hospital emergency room
5	Have someone escort the Team Member to the medical provider. (Avoid using a personal vehicle if possible).
6	Business Unit Leader or Designee - Document the injury on the EHS SharePoint site & begin the investigation to determine how the Team Member was injured (consult with the EHS Department as necessary)
7	Once the Team Member returns from the medical provider, obtain a copy of any paperwork indicating prescriptions/restrictions that the Team Member may have received. E-mail copies of all paperwork to the EHS Dept.
6	If the injury was caused by anything that could cause future injury, the hazard should be mitigated as soon as possible.

7.4 Major Injury requiring emergency services

Step	Action
1	Notify Business Unit Leader or Designee Note: <i>In a lone worker scenario, NSPS REMOTE OPERATIONS CONTROL CENTER may act as the Designee and assist with initiating the emergency action procedure.</i>
2	The BUL or Designee will Initiate the Emergency Action Procedure (4.0 above) and call 911
3	Prior to entering the area to render temporary first aid, ensure it is safe to do so.
4	If you choose to provide first aid, only provide first aid to the extent of your training.
5	Assist & escort Emergency Services as needed with any resources.

- 6 When appropriate, BUL or Designee should notify the NSPS REMOTE OPERATIONS CONTROL CENTER and provide any known details regarding the injury including whether emergency services has been called.
- 7 NSPS REMOTE OPERATIONS CONTROL CENTER shall make any additional notifications as necessary so the BUL or Designee can continue managing the event on site.
- 6 If the injury was caused by anything that could cause future injury, the hazard should be mitigated as soon as possible.
- 7 If possible, have an Team Member follow emergency services to the hospital for status updates.
- 8 Consult with EHS Department for any further steps, which will be dependent on the severity of the injury.
- 9 When appropriate, Business Unit Leader or Designee will Document the injury on the EHS SharePoint site & begin the investigation to determine how the Team Member was injured (consult with the EHS Department as necessary)
- 10 Preserve the injury scene as best as possible. If the injury was caused by anything that could cause future injury, the hazard should be mitigated as soon as possible.

8.0 HAZARDOUS MATERIALS RESPONSE

NOTE: A hazardous material is a substance that presents a physical or health hazard. A health hazard refers to a substance for which there is significant evidence that health effects may occur for exposed Employees.

A Safety Data Sheet is required for all hazardous substances in use at the Site. Employees are required to review the SDS for the chemicals they will be exposed to.

NSPS employees are trained not to interact with hazardous materials when an event involving a chemical exposure has occurred. 3rd party professional services are required to be brought in to interact with and handle any hazardous materials.

Step	Action
1	Evacuate the area, securing access to the area when possible.
2	Immediately inform the BUL or Designee of the situation. Provide as much information as possible.
3	If safe, remain in the immediate area and prevent others from being exposed to the chemicals until appropriate emergency response can arrive.

- 4 If it is determined that emergency services are needed, the BUL (or Designee) will initiate the emergency action procedure (4.0 Above) and make the call and help assist the arrival of emergency vehicles.

9.0 SPILL TO THE ENVIRONMENT

NOTE: Any spill of hazardous or potentially hazardous product must be properly controlled and a follow up report prepared. General clean up shall be coordinated with Business Unit Leader or Designee, Fire Department, and if necessary, the cleanup vendor. Contain minor spills by the use of spill containment kits provided at the various locations at the Site.

9.1 Small Controllable/localized Spill

NOTE: Controllable, localized spills typically involve small quantities of material that can be controlled by a NSPS employee and/or with the aid of other personnel in the immediate work area using readily available, on-site spill response equipment. Releases of all commonly used products (e.g., cleaning supplies, fuel, oil, or other hazardous chemical) can be handled with existing equipment.

Step	Action
1	Notify the Business Unit Leader or Designee immediately. <i>Determine if the spill is over the state reportable quantity (refer to site SPCC plan or consult with EHS Dept.)</i>
2	Give your name, exact location, the number of contaminated person(s), and brief description of emergency and nature or type of contamination.
3	Determine the source chemical released.
4	Eliminate any unusual hazards and stop the source of the spill, if necessary.
5	Wear PPE and clean up the release in accordance with the instructions from Safety Data Sheets (SDS).
6	Replenish used spill response equipment after use. (Client/owner may be responsible for purchasing)
7	Complete spill investigation and submit a report on the EHS SharePoint site <i>If it's a state reportable quantify, the notification to the state or government agencies should be made by the customer, EHS Dept. or Business Unit Leader</i>

9.2 Significant Spills

NOTE: A significant spill is a spill that will require the assistance of an off-site, private spill cleanup contractor to either control and/or clean-up the spill, or in situations where the spill poses a significant hazard or potential hazard to human health or the environment.

During operations, in each situation where the assistance of an off-site, private spill cleanup contractor is required, the Business Unit Leader or Designee shall immediately notify the NSPS Remote Operations Control Center.

Step	Action
1	Notify the BUL or Designee immediately and initiate the Emergency Action Procedure (4.0 above) if necessary. Determine if the spill is over the state reportable quantity (refer to Site SPCC plan or consult with the EHS Dept.)
2	Give your name, exact location, the number of contaminated person(s), and brief description of emergency and nature or type of injury or contamination
3	Immediately have all staff exit the affected area while preventing anyone from walking through the spill.
4	Gather as much information as possible and determine if anyone has been hurt or contaminated. Review the SDS for specific cleanup response and PPE that will be required.
5	If safe to do so, stop the source of the spill while exiting the area
6	DO NOT TRY TO CLEAN UP THE RELEASE. Qualified 3 rd party personnel will be contacted.
8	Evacuate the area if necessary.
9	A 3 rd party spill response company will need to be contacted for the following scenarios: <ul style="list-style-type: none">• If the spill is over the critical threshold as defined by the state of operations contact• If the spill may reach surface waters• If the spill has the potential to discharge off of the property: Consult with EHS Department for assistance
10	Complete spill investigation and submit a report on the EHS SharePoint site <i>If it's a state reportable quantify, the notification to the state or government agencies should be made by the customer, EHS Dept. or Business Unit Leader</i>

10.0 FIRE RESPONSE

NOTE: In the event a Brush/Wildfire is within **10 miles** of an operating site, immediately evacuate the site and coordinate as necessary with local authorities to identify the direction the fire is spreading and whether the site is in the direction of the fire.

NOTE: *In the event of an **Inverter fire**, refer to the inverter emergency shutdown procedure (as applicable), to safely and immediately remove power supply from the inverter.*

Step	Action
1	If applicable, disconnect power to the affected equipment when it is safe to do so.
2	<p>If fire is in the incipient stage, and you are trained and choose to do so, use fire extinguisher(s) to put the fire out.</p> <p>NOTE: <i>When fighting an incipient stage fire, ensure you maintain an unobstructed exit route. If the fire is extinguished, omit steps 3-7 below and notify the Business Unit Leader or Designee of the event.</i></p>
3	<p>If the fire is beyond the incipient stage, immediately evacuate the area, position yourself a safe distance from the fire and limit access to the area.</p> <p>NOTE: <i>OSHA defines "incipient stage fire" as a fire which is in the initial or beginning stage and which can control or extinguished by portable fire extinguishers, class II standpipe or small hose systems without the need for protective clothing or breathing apparatus.</i></p> <p>Electrical Equipment fires: <i>During an equipment fire (inverter, transformer, etc.), ensure the equipment is de-energized when safe to do so and then set a perimeter at a safe distance around the equipment to help ensure the fire does not spread.</i></p>
4	Notify Business Unit Leader or Designee
5	<p>The BUL or Designee will Initiate the Emergency Action Procedure (4.0 above) and call 911. Emergency services will fight the fire.</p> <p>Note: <i>If the "911" service does not work, contact the applicable Fire dispatch center/station (refer to Attachment A)</i></p> <p>Electrical Equipment Fires: <i>Do NOT allow the fire department to apply water to electrical equipment until the affected equipment has been safely de-energized.</i></p> <ul style="list-style-type: none"><i>If the equipment cannot be de-energized, then the role of the fire department is to prevent the spread of the fire.</i>
6	Business Unit Leader or Designee to initiate A Site Evacuation as necessary (Section 5.0 above)
7	When appropriate, BUL or Designee should notify the NSPS Remote Operations Control Center and provide any known details regarding the fire including whether emergency services has been called.
8	NSPS OPERATIONS CENTER shall make any additional notifications as necessary so the BUL or Designee can continue managing the fire event.

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| 9 | Do not allow access to the affected area until it is safe. Mark the restricted area with barrier tape or by other means as necessary. |
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| 10 | The BUL or Designee should consult with the EHS Department for conducting the investigation and reporting the fire event on the EHS SharePoint site. |
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11.0 SEVERE WEATHER RESPONSE

NOTE: Monitor media resources for warnings associated with severe weather conditions. Severe Weather can be any of or a combination of the following: Dust storm, windstorm, heavy rain/flash flood, lightning storm, winter storm, Tornado, hurricane, etc.

In the event of a severe weather event get as much information as possible from information sources. Potential sources of information include: Internet access to weather websites, local forecasting and warnings via AM/FM radio, Weather apps on smart phones, & Personal observation of existing conditions.

11.1 Lightning Storm

NOTE: Various free weather apps (such as My Lightning Tracker & Alerts) can be used to set up lightning notifications and alerts for any radius.

- 11.1.1 When lightning is within a **30-mile radius of the work location** (by either notification or observation) and approaching, the following actions are required:
- Continue to closely monitor lightning activity as it approaches
 - Prepare to shut down all activities and begin securing equipment as necessary.
 - Identify shelter and prepare to move to it.
- 11.1.2 When lightning is within a **15-mile radius*** (by either notification or observation) and approaching, the following actions are required:
- Cease all outdoor aerial (working at heights) & crane work activity
 - Begin securing equipment if applicable.
 - Continue to closely monitor lightning activity as it approaches
- 11.1.3 When lightning is within a **10-mile radius*** (by either notification or observation) and approaching, the following actions are required:
- Cease all outdoor work activity
 - Evacuate to a designated shelter (such as a service vehicle or office building) and report your location to the BUL or Designee.
- 11.1.4 Outdoor work activity shall not resume until lightning activity has been verified to be moving away from the work location and is confirmed to be **more than 10 miles away from the work location.**

NOTE: **Lightning radius(s) may be adjusted based on the Site historical isocyanic activity and behavior. Any decrease in radius will require approval by the EHS department and the applicable Regional Director(s).*

11.2 Tornadoes

NOTE: *Tornadoes involve highly localized, extremely destructive winds. Tornado warnings and watches may be forecast within a short period of a tornado actually occurring. Additionally, tornadoes may touch down with little warning, and therefore preparation time may be minimal. If your area has a warning system such as a siren, ensure all personnel at the Site understand what the signals mean.*

- 11.2.1 If a **tornado warning** has been issued or a tornado/funnel cloud has been spotted.
 - Seek shelter Immediately
 - notify the BUL or Designee of an approaching Tornado.
- 11.2.2 If a **tornado watch** is issued: Conditions should be closely monitored, and work schedules adjusted accordingly
- 11.2.3 BUL or Designee should initiate the Emergency Action Procedure (4.0 above) and notify all Employees onsite that a tornado is approaching and for people to take shelter.
- 11.2.4 Seek shelter in a designated tornado shelter on site if applicable
- 11.2.5 If you are out on site and unable to assemble at the tornado shelter, perform the following:
 - If time permits, communicate your location to the Business Unit Leader or designee.
 - Avoid areas near vehicles or where there are trees and structures.
 - Exit from your vehicle.
 - Lay flat in a low-lying area in the ground such as a ditch, culvert or other depression.
 - Cover your head with your hands.
- 11.2.6 If you are in a building and unable to assemble at the tornado shelter, perform the following:
 - If time permits, communicate your location to the Business Unit Leader or designee.
 - Move to an interior room within the building, on the first floor, away from any windows or items that can fall.
 - Crouch down and cover yourself from falling debris. Avoid areas where there are heavy objects on the floor directly above you.
 - For added protection, it is a good idea to get under a heavy table or workbench.
 - Cover your head with your hands.
- 11.2.7 Never attempt to outrun a tornado in your vehicle

11.3 Earthquakes

11.3.1 The Business Unit Leader or designee shall initiate the applicable steps of the Emergency Action Procedure, 4.0 above if necessary.

11.3.2 If in a building:

- Attempt to take cover under a heavy desk or table. It can provide an air space for you if the building collapses. If the table moves, attempt to move with it.
- If cover is not available, go to an inner corner or doorway, away from windows or glass panels.
- Stay away from glass, hanging objects or bookshelves or large furniture that may fall.
- Grab something to shield your head and face from falling debris and broken glass.
- If the lights go out, use a flashlight. Don't use items with open flames as it is likely that an earthquake can result in gas leaks.
- Remain in the safe location until the earthquake subsides.

11.3.3 If outdoors:

- Stop all work, exit arrays and hot areas, and proceed to nearest muster point
- Move away from structures and overhead power lines.
 - The greatest danger from falling objects is immediately outside of a structure.
- Move to an open area.
- Drop to your knees into a fetal position, close your eyes, and cross your arms over the back of your neck for protection.
- Remain in this position until shaking stops.

11.3.4 If in a vehicle:

- Immediately pull over and stop the vehicle. Park away from structures, overhead power lines and under/overpasses.
- After stopping your vehicle, set the parking brake and turn on your radio to obtain emergency broadcast information.
- Remain in your vehicle until the earthquake subsides, this will provide you with shelter.
- While driving away after the earthquake, watch for hazards such as breaks in the pavement, downed power lines and other obstructions in the roadway.

11.3.5 Securing from an earthquake:

- Once the site has been made safe for other essential personnel to enter, the Business Unit Leader may allow access to the site.

- Business Unit Leader or designee should keep notes of occurrences so that lessons learned can be understood and communicated.
- Business Unit Leader or designee shall inform the NSPS OPERATIONS CENTER when secured from earthquake.
- Log this event on the EHS SharePoint site

11.4 Storm, Wind

- 11.4.1 If driving, assess conditions and try to pull off the road in a sheltered location.
- Avoid trees, power lines and other objects that may be displaced by the wind.
- 11.4.2 If on site, seek shelter in a designated shelter location (Office building, PCS Shelter, tornado shelter, vehicle etc.)

11.5 Storm, Dust

- 11.5.1 If driving, pull off the side of the road and park clear of traffic.
- Stay with your vehicle.
- 11.5.2 If on the site and able, seek shelter in a designated shelter location (tornado shelter, office building, PCS shelter, etc.)
- 11.5.3 If on the site and unable to avoid the storm, shelter in your vehicle.

11.6 Storm, Heavy Rain or Flash Flood

- 11.6.1 If traveling, assess conditions and adjust traveling speed accordingly.
- 11.6.2 If traveling and water is rising, seek high ground and shelter in your vehicle.
- DO NOT try to cross portions of roadways covered by water. Wait until water flows subside to assure that the roadway is intact and that no current can sweep away your vehicle.
- 11.6.3 If on site, seek shelter in a designated shelter location (Office building, PCS Shelter, tornado shelter, vehicle on high ground etc.)
- 11.6.4 Business Unit Leader or Designee to initiate a **Site Evacuation** as necessary (see 5.0 above)
- 11.6.5 If off site, seek high ground if sheltering in a vehicle.
- Stay clear of electrical devices, poles, breakers, and overhead lines.
 - DO NOT try to drive through low-lying areas that are covered with water.
 - DO NOT return to the site until conditions allow safe access.

11.7 Snow & Winter Weather

- 11.7.1 Actions to take when traveling during the winter season:
- Listen to the forecasts before departing and postpone travel if inclement weather is occurring or expected.
 - Avoid traveling alone.
 - Inform others of your timetable and planned routes.

- Keep your gas tank near full.
- Adjust your speed to the conditions and increase following distances. Bridges and overpasses can be more slippery than other parts of the road.
- Carry a cell phone with you to call for assistance if needed.
- Carry traction devices in your vehicle.
- Carry a winter survival kit in your vehicle at all times.
- Carry winter gear such as boots, clothes, hat, gloves, jacket and a blanket in your vehicle

11.7.2 If in your vehicle:

- Stay inside your vehicle and call for help.
- Make yourself visible to rescuers by turning on lights at night when running the engine. Also tie a red or other bright colored cloth to the antenna or door.
- Run the motor for ten minutes every hour but open the windows slightly to allow for proper ventilation.
 - Make sure the exhaust pipe is free of snow to prevent the buildup of carbon monoxide.
- Exercise from time to time to keep the blood circulating and to keep warm.

11.7.3 If outside:

- Attempt to find shelter to stay dry.
- Cover all exposed parts of the body.
- If no shelter is nearby, prepare a wind break or snow cave for protection.
- If possible, build a fire for heat if stranded.
- Do not eat snow as it will lower your body temperature.

11.8 Hurricane Response (***applicable to all sites within a hurricane zone***)

11.8.1 Pre-hurricane season

- Review this plan and discuss specific actions that would be necessary in the event that a hurricane impacts the site.
- Designate key personnel duties in case of a hurricane

11.8.2 **Hurricane Watch** has been issued (*48-72 hours before landfall*):

- When appropriate, the Business Unit Leader or designee shall initiate a **Site Evacuation**, see 5.0 above.
 - At no time should anyone be allowed to stay at the site during a hurricane.
 - Ensure evacuation routes are safe for travel prior to evacuating.

- All sites in the projected/surrounding area should be shut down and equipment moved/protected.
- Provide documentation on job's progress and delays due to the hurricane preparation
- Email and phone communications should begin at this stage to update all personnel on weather conditions and office hours/closures

11.8.3 Hurricane Watch (36-48 hours before landfall):

- Business Unit Leader/Designee to provide communications with local office assistance should continue by regular email updates to key personnel.
- Utilize the contact list for the site and a hierarchy of communication tools in the following order: Phone, Email, & Text
- Project protection activities shall continue and the "pre storm checklist" shall be finalized & completed ASAP (if not already complete).
- Personnel shall be allowed ample time to protect their own property.
- Early evacuation of employees, in evacuation areas, is encouraged due to extreme traffic congestion
- Caution employees to study evacuation routes where they live prior to evacuating

11.8.4 Hurricane Warning is issued (36 hours or less before landfall):

- Business Unit Leader or Designee shall continue to email situation updates to personnel and shall post the communication on information systems.
- If not already completed, ensure all remaining site employees/members of the critical operations crew are released to attend to personal matters
- NSPS Operations center, line management, & the EHS Department shall be notified upon departure of the last employee(s) from their respective sites

11.9 After a severe weather event

- 11.9.1 Designated Associates should determine the status of facilities and appropriate timing of returning to work
- 11.9.2 Review the security and safety of the jobsite(s) and make corrections as required.
- 11.9.3 Evaluate and document any damages.
- 11.9.4 List all equipment and materials that have been damaged.
- 11.9.5 Photograph or videotape damage to completed work or fabricated items.
- 11.9.6 Consult with line management & the EHS Department to determine what information and documentation is necessary for any insurance claims and to determine how you should proceed with clean up and re-work.
- 11.9.7 Record all costs encountered in cleanup of the jobsite, re-work of completed work, and repair/replacement of equipment and materials.

- 11.9.8 Document all delays, and loss of energy output caused by the severe weather event.
- 11.9.9 For chemical or electrical damage, immediately contact your EHS Department for guidance.

12.0 WORKPLACE VIOLENCE / ACTIVE SHOOTER

NOTE: Refer to the NSPS Employee Handbook for more details and guidance on workplace violence.

*For any of the three actions taken below, **911 should be called as soon as it is safe to do so.***

Action Guidelines by Priority:

12.1 Evacuate – RUN: If there is an accessible escape path, attempt to evacuate the premises. Be sure to:

- 12.1.1 Have an escape route and plan in mind
- 12.1.2 Evacuate regardless of whether others agree to follow
- 12.1.3 Leave your belongings behind
- 12.1.4 Help others evacuate, if possible
- 12.1.5 Prevent individuals from entering an area where the hostile intruder may be
- 12.1.6 Keep your hands visible
- 12.1.7 Follow the instructions of any police officers
- 12.1.8 Do not attempt to move wounded people

12.2 Shelter in place - HIDE: If evacuation is not possible, find a place to hide where the active shooter/hostile intruder is less likely to find you. Your hiding place should:

- 12.2.1 Be out of the active shooter's view
- 12.2.2 Provide protection if shots are fired in your direction (i.e., an office with a closed & locked door).
- 12.2.3 Not trap yourself in or restrict your options for movement
- 12.2.4 Prevent a hostile intruder from entering your hiding place by locking the door and blockading it with heavy furniture
- 12.2.5 If the hostile intruder is nearby:
 - Lock the door
 - Silence your cell phone
 - Turn off any source of noise (i.e., radio, tv, etc.)
 - Hide behind large items (cabinets, furniture, desks, etc.)
 - Remain quiet

12.3 Protect yourself - FIGHT: As a last resort, and only when your life is in imminent danger, attempt to disrupt and/or incapacitate the hostile intruder by:

- 12.3.1 Acting as aggressively as possible against him/her
- 12.3.2 Throwing items and improvising weapons

12.3.3 Yelling

12.3.4 Committing to your actions

12.4 When police arrive:

12.4.1 Put down any items in your hands

12.4.2 Keep hands visible

12.4.3 Follow all instructions

12.4.4 Avoid making quick movements towards officers

12.4.5 Do not stop to ask officers for help or direction when evacuation, just proceed in the direction from which officers are entering the premises

13.0 SECURITY THREAT

13.1 If theft or vandalism is noticed on site, perform the following:

13.1.1 Notify Business Unit Leader or Supervisor

13.1.2 Business Unit Leader or Designee to notify the customer ASAP.

13.1.3 Business Unit Leader or Designee to contact the local authorities to file a police report

13.1.4 Secure the scene and take pictures as applicable

13.1.5 Document in SiteDocs as a Security incident

13.2 In the event that unauthorized (suspicious) individuals are found onsite, perform the following:

13.2.1 If the individuals are not immediately recognized (subcontractor, owner rep, land owner, etc.) Do not attempt to approach the individuals

13.2.2 Notify Business Unit Leader or Supervisor

13.2.3 Business Unit Leader or Designee to notify the customer ASAP.

13.2.4 Document on the EHS SharePoint site as a security incident

14.0 BOMB THREAT

NOTE: Bomb threats must be taken seriously. Do not assume that bomb threats are received only by management personnel. Anyone can receive a bomb threat and everyone must be prepared. Other types of threats include biological, radioactive, incendiary and chemical. These should be handled the same as a bomb threat.

14.1 In the event of a bomb threat received by telephone:

14.1.1 Remain calm - obtain and document as much information as possible from the caller.

14.1.2 Do not hang up the phone until the caller hangs up.

14.1.3 Notify the Business Unit Leader or designee that a bomb threat was called in.

14.1.4 Business Unit Leader or designee should consider initiating the **Emergency Action Procedure** (section 4.0) and/or **Site Evacuation** (Section 5.0) above if appropriate.

- 14.1.5 Call 911 to report the information collected from the caller and follow any instructions given by the emergency personnel.
- 14.1.6 Business Unit Leader or designee - notify the NSPS Operations Center.
 - Include Site name and any known details regarding the bomb threat.
- 14.1.7 NSPS Operations Center shall perform the following notifications sharing the information provided by the Business Unit Leader or designee above:
 - NSPS Remote Operations Control Center shall attempt to notify the Regional Manager of the site being evacuated and the reason for the evacuation. The Regional Manager shall make appropriate notifications.
 - If the Regional BU Manager is unable to be contacted, the Remote Operations Control Center shall attempt to notify the Managing Director that the site is being evacuated and the reason for the evacuation.
 - If the Managing Director, Field Services is unable to be contacted, the NSPS REMOTE OPERATIONS CONTROL CENTER shall attempt to notify the EHS Dept. Director that the site is being evacuated and the reason for the evacuation.
 - NSPS Operations center shall follow “Outage Notification Procedures” and “Event Reporting Procedures” according to NERC standard EOP 004-2 as applicable.
 - The NSPS Remote Operations Control Center shall immediately notify the compliance office and NSPS EHS Director of the sabotage or physical threat event.

NOTE: Any media inquiries shall be deferred to the designated NSPS Public Information Official (PIO).

14.2 If suspicious object is found:

- 14.2.1 Move away from the object and do not touch it.
- 14.2.2 Do not transmit by radio or cell phone while near the object.
- 14.2.3 Notify the Business Unit Leader or designee of the following:
 - 14.2.4 Your name and the location of the object
 - 14.2.5 A description of the object
 - 14.2.6 Other information regarding the object that is known.
- 14.2.7 Business Unit Leader or designee - Initiate the **Emergency Response Procedure**, see 4.0 above.
- 14.2.8 Business Unit Leader or designee - initiate **Site Evacuation**, see 5.0 above, if appropriate.
- 14.2.9 Business Unit Leader or designee and the NSPS Operations Center shall follow Sabotage Reporting Procedures as applicable (Section 12.0 below).
- 14.2.10 Business Unit Leader or designee in conjunction with Emergency Response Personnel shall coordinate appropriate steps to be taken.
- 14.2.11 When time permits, the Business Unit Leader or designee shall provide the Regional Manager with updates of the situation.

14.2.12 Business Unit Leader or designee should keep notes of occurrences so that lessons learned can be understood and shared.

14.2.13 Document this event on the EHS SharePoint site.

14.3 Secure from Bomb Threat

14.3.1 When Emergency Services has indicated to the Business Unit Leader or designee that the threat no longer exists, the Business Unit Leader shall notify the Regional Manager and the Operations Center that the Site is securing from the bomb threat.

14.3.2 Business Unit Leader or designee may then allow normal access to the site.

15.0 SABOTAGE

NOTE: *Notify owner representative as soon as reasonably possible for any sabotage threat or event.*

Sabotage and all physical threats must be taken seriously. Do not assume that sabotage threats are received only by management personnel. Anyone can receive a threat, and everyone must be prepared. Sabotage and physical threats may include biological, radioactive, explosive, incendiary, chemical, and other coordinated weapons attacks intentionally used to disrupt operations, injure personnel or cause equipment failure. If sabotage is suspected, take appropriate operations actions to protect employees and equipment, but preserve evidence and leave sabotage affected areas undisturbed to the greatest extent possible for law enforcement investigations.

15.1 In the event that a sabotage event has occurred or other physical threat is occurring, perform the following steps:

15.1.1 If the saboteur is still at the site DO NOT MAKE PHYSICAL CONTACT.

15.1.2 Immediately notify the Business Unit Leader or designee and give a description of the individual, their location, and maintain visual contact if this can be done safely.

15.1.3 Business Unit Leader or designee shall initiate the **Emergency Action Procedure**, see 4.0 above.

- The Business Unit Leader or designee shall call 911 and relay all pertinent information to local law enforcement.

15.1.4 Business Unit Leader or designee shall initiate **Site Evacuation**, see 5.0 above if appropriate.

15.1.5 Business Unit Leader or designee - Notify the NSPS Remote Operations Control Center (when time permits)

- Include site name and any known details regarding the sabotage damage or physical threat event and that emergency response personnel have been called.

15.1.6 The NSPS REMOTE OPERATIONS CCONTROL CENTER shall immediately notify the compliance office and NSPS EHS Director of the sabotage or physical threat event.

15.1.7 Business Unit Leader or designee and the NSPS Remote Operations Control Center, and Compliance Office shall follow Event Reporting Procedures pursuant to *NERC EOP 004-2* as applicable.

- If the Sabotage damage or destruction or physical threat could affect grid operations, further notifications to the applicable Transmission Operator, Balancing Authority and appropriate FBI Division are required.
- Additionally, formal written report (EOP-004-2 Attachment 2) forms are required to be sent to the Balancing Authority, Regional Reliability Organization and NERC within 24 hours by the NSPS Remote Operations Control Center and the NERC Compliance Office.
- A copy of these reports shall be distributed to business unit senior management, the Department of General Counsel and the EHS Director.

15.1.8 Business Unit Leader or designee in conjunction with Emergency Response Personnel shall coordinate appropriate steps to be taken.

15.1.9 When time permits, the Business Unit Leader or designee shall provide the Regional Manager with updates of the situation.

15.1.10 Business Unit Leader or designee should keep notes of occurrences so that lessons learned can be understood and communicated.

15.1.11 Document the event and lessons learned on the EHS SharePoint site.

15.2 In the event that a sabotage threat is received by telephone:

15.2.1 Remain calm - obtain and document as much information as possible from the caller.

15.2.2 Do not hang up the phone until the caller hangs up.

15.2.3 Notify the Business Unit Leader or designee with any information the caller provided.

15.2.4 Continue following the steps outlined in section 11.1 above (bomb threat by phone)

15.3 If a suspicious object is found, follow applicable steps of the bomb threat procedure above.

15.4 Secure from sabotage:

15.4.1 When Emergency Services has indicated to the Business Unit Leader or designee that the threat no longer exists, the Business Unit Leader shall notify the Regional Manager and the NSPS Operations Center that the site is securing from the sabotage event.

15.4.2 Business Unit Leader or designee may then allow normal access to the site.

NOTE: Any media inquiries shall be deferred to the designated NSPS Public Information Official (PIO).

16.0 CYBER SECURITY EVENTS

NOTE: *Notify owner representative as soon as reasonably possible for any cyber security threat or event.*

16.1 In the event suspicious cyber activity is identified, the Business Unit Leader or designee shall perform the following:

- 16.1.1 Immediately notify the Regional Manager and provide information regarding the impact to the site.
- 16.1.2 Immediately notify the NSPS Remote Operations Control Center of the situation and request assistance as necessary.
- 16.1.3 The NSPS Remote Operations Control Center notifies IT of the situation and request assistance as necessary.
- 16.1.4 Business Unit Leader or designee shall work with IT support to isolate the affected system/s as necessary.
- 16.1.5 IT and applicable personnel will utilize the IT incident response plan to resolve the possible incident.
- 16.1.6 IT Cyber Incident response team will determine if the event is reportable per the IT Incident Response Plan.
- 16.1.7 Business Unit Leader or designee will work with IT to preserve any evidence related to the possible incident.
- 16.1.8 IT will continue communications with the Business Unit Leader or designee until the issue is resolved.
- 16.1.9 Upon resolution, the NSPS Remote Operations Control Center and the Regional Manager will be notified.

17.0 RECORDKEEPING REQUIREMENTS

17.1 This plan shall be reviewed, at least, annually and any time an emergency scenario or drill identifies deficiencies in the Plan.

- 17.1.1 The EHS Department shall make updates to this plan accordingly.

17.2 Findings and corrective actions shall be forwarded to Management for review/corrective action.

18.0 TRAINING

18.1 All NSPS Employees shall receive training on this procedure initially and annually thereafter.

18.2 Contractors/Visitors shall receive training on the applicable portions of this plan during the Site-specific safety orientation.

- 18.2.1 The training shall provide these personnel with appropriate information such that they will know what to do in the event of an emergency.
- 18.2.2 The following emergency procedures and topics shall be covered in the Site safety orientation:

- Locations of muster points (i.e. emergency assembly areas);
- Pre-determined routes used to reach emergency assembly areas;
- Procedures to follow in the event of specific emergency situations;
- Locations of fire extinguishers and first aid kits;
- Site emergency contact information; and
- Details of equipment to be utilized during emergencies – Alarm stations, air horns, two-way radios and firefighting equipment.

19.0 CONSEQUENCES OF DEVIATION

19.1 Consequences will result from non-compliance with procedural standards, the severity of which will be determined by the applicable departmental supervisors.

20.0 APPENDICES/ATTACHMENTS

20.1 Attachment A – Emergency Contact List

20.2 Attachment B – Site Maps (Examples)



EHS SECTION 5.0
EXTREME CLIMATE CONDITIONS

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1.0 PURPOSE, SCOPE, & DEFINITIONS

1.1 Purpose

- 1.1.1 This program is designed to train employees to understand and recognize the hazards associated with outdoor work and the onset of heat and/or cold related illnesses, and to establish the safe work procedures.

1.2 References

- 1.2.1 OSHA 29 CFR 1910 General Industry

1.3 Scope

- 1.3.1 This procedure is applicable to all NovaSource Power Services (NSPS) sites and facilities.

1.4 Acronyms & Definitions

Acronyms & Definitions	
Acclimatization	Temporary adaptation of the body to work in the heat that occurs gradually when a person is exposed to it.
Cold Illness	A group of illnesses and injuries that include everything from localized tissue injuries, to generalized illnesses, caused by the reduction of the bodies core temperature including: frostbite, chilblains, and hypothermia.
Heat Illness	A serious medical condition resulting from the body's inability to cope with a particular heat load. A group of serious medical conditions resulting from the body's inability to cope with a particular heat load includes; heat cramps, heat exhaustion, heat syncope and heat stroke.
Heat Stroke / Hyperthermia	Heat stroke is the most serious heat-related illness. It occurs when the body becomes unable to control its temperature: the body's temperature rises rapidly, the sweating mechanism fails, and the body is unable to cool down. When heat stroke occurs, the body temperature can rise to 106°F or higher within 10 to 15 minutes. Heat stroke can cause death or permanent disability if emergency treatment is not given.
Heat Exhaustion	Heat exhaustion is the body's response to an excessive loss of the water and salt, usually through excessive sweating. Workers most prone to heat exhaustion are those that are elderly, have high blood pressure, and those working in a hot environment.
Heat Cramps	Heat cramps usually affect workers who sweat a lot during strenuous activity. This sweating depletes the body's salt and moisture levels. Low salt levels in muscles causes painful cramps. Heat cramps may also be a symptom of heat exhaustion.
Heat Rash	Heat rash is a skin irritation caused by excessive sweating during hot, humid weather.
Frost Bite	A type of injury caused by freezing. It leads to a loss of feeling and color in the areas it affects, usually extremities such as the nose, ears, cheeks, chin, fingers, and toes.

	Frostbite can permanently damage the body, and severe cases can lead to amputation (removing the affected body part). Redness or pain in any skin area is usually the first sign of frostbite. Other signs include: a white or grayish-yellow skin area, skin that feels unusually firm or waxy, & numbness.
Hypothermia	A significant and potentially dangerous drop in body temperature. Signs/Symptoms include shivering, exhaustion, confusion, fumbling hands, memory loss, slurred speech, and drowsiness.
Potable Water	Water that 's safe to drink
Shade	A blockage of Direct Sunlight
NSPS	NovaSource Power Services
Personal Risk Factors	Factors such as an individual's age, degree of acclimatization, health, water consumption, alcohol consumption, caffeine consumption, and use of prescription medications that affect the body's water retention or other physiological responses to heat.

2.0 ROLES & RESPONSIBILITIES

2.1 Business Unit Leaders / Managers (BUL)

- 2.1.1 Responsible for ensuring that health and safety practices related to heat illness prevention are communicated and understood.
- 2.1.2 Responsible for ensuring that each task or job involving the potential for heat illness is analyzed for potential hazards, controls needed and compliance with the Cal/OSHA 8 CCR 3395 regulation.
- 2.1.3 Responsible for providing Following NSPS Emergency Response Plan for contacting emergency medical services, and if necessary, for transporting employees to a point where they can be reached by an emergency medical service provider.

2.2 Environmental, Health, & Safety Department

- 2.2.1 Review and update this procedure periodically.
- 2.2.2 Assist with monitoring training on this procedure.

2.3 Site Team Members

- 2.3.1 Be familiar with and follow this procedure.
- 2.3.2 Responsible for asking questions of their Business Unit Leader when concerned about an unknown or hazardous situation and not proceeding until those unknown hazardous conditions can be addressed.
- 2.3.3 Responsible for reporting all unsafe conditions, practices or equipment concerning potential heat/cold illness either to management.
- 2.3.4 Responsible for participating in pertinent heat stress / cold stress prevention training programs.
- 2.3.5 Responsible for notifying their Business Unit Leader or at the work site if they require access to shade or a cool-down rest period in the shade to protect them from overheating.

3.0 HEAT ILLNESS SYMPTOMS & TREATMENT

3.1 Overview

- 3.1.1 Heat illness has caused numerous deaths among workers.
- 3.1.2 Workers who work in the open heat and have little opportunity to rest in a cool, shaded area are at highest risk of heat illness.
- 3.1.3 Acclimatization can be difficult for certain workers due to irregular work schedules, heat waves and not having enough cool water readily available. Acclimatization peaks in most people within four to fourteen days of regular work for at least two hours per day in the heat.
- 3.1.4 The four stages of heat illness, from least severe to most severe are *heat rash*, *heat cramps*, *heat exhaustion* and *heat stroke*.

3.2 Heat Illness Symptoms and Treatment

- 3.2.1 In general, symptoms of heat illness include:
 - Loss of concentration, increased irritability and rise in heart rate and body temperature.
 - Little or no desire to drink, fatigue and headache which results from loss of fluids
 - Fainting and possible death if person is not removed from the source of the heat stress.

3.3 Heat Rash (1st stage of heat illness)

- 3.3.1 Also known as Prickly Heat, can be extensive and can be complicated by infection.
- 3.3.2 Symptoms of heat rash include:
 - Clusters of red bumps on skin. Often appears on neck, upper chest and folds of skin.
 - Levels of discomfort can disrupt the ability to sleep.
 - Can impede worker's performance and even result in temporary disability.
- 3.3.3 Treatment of heat rash include:
 - Place the victim in a cool, shaded place allowing the skin to dry.

3.4 Heat Cramps (2nd stage of heat illness)

- 3.4.1 Painful muscle spasms caused by the body's loss of salt.
- 3.4.2 Symptoms of heat cramps include:
 - Muscle spasms usually in abdomen, arms or legs.
- 3.4.3 Treatment of heat cramps include:
 - Place the victim in a cool, shaded place.
 - Have the victim drink a cool electrolyte beverage such as Gatorade.

- Allow the victim to rest for a few hours before they are allowed to return to work.
- Seek medical attention in the case of severe cramping, vomiting or loss of consciousness.

3.5 Heat Exhaustion (3rd stage of heat illness)

3.5.1 Results from loss of fluid through sweating and from not drinking enough replacement fluids.

3.5.2 Symptoms of heat exhaustion include:

- Heavy sweating, cool moist / clammy skin
- Thirst
- Nausea, vomiting or irritability
- Headache, dizziness or light headedness
- Extreme weakness or fatigue
- Body temperatures are normal to slightly elevated.
- Rapid heartbeat.

3.5.3 Treatment of heat exhaustion include:

- Allow the victim to rest in a cool shaded place
- Have the victim drink a cool electrolyte beverage such as Gatorade.
- Cool victim with a cold compress or ice packs.
- Take victim to medical clinic or emergency room for medical evaluation or treatment if symptoms worsen or do not improve within 60 minutes.

3.6 Heat Stroke (4th Stage of heat illness) – **MOST SEVERE**

3.6.1 The most serious health problem for individuals in a hot environment, which is caused by the body's failure to regulate its core temperature.

- Sweating stops and the body can no longer release excess heat

3.6.2 *Victims of heat stroke usually die unless treated promptly*

3.6.3 Symptoms of heat stroke include:

- Mental confusion, delirium, loss of consciousness, convulsions or coma.
- Body temperature of 106F (41C) or higher.
- Hot, dry skin that may be red, mottled or bluish.

3.6.4 Treatment of heat stroke include:

- Immediately call for medical assistance.
- Prompt first aid and medical treatment can prevent permanent injury to the brain and other vital organs.
- While awaiting medical help, the victim should be moved to the coolest, shaded spot available.
- Fan vigorously and gradually soak the victim's skin and clothing with cool water.

4.0 HEAT ILLNESS PREVENTION

NOTE: For special projects, a work/rest schedule specific for the project may be implemented that's based off of various factors (temperature, location, humidity, sun/shade, etc.). Consult with the EHS dept. for guidance.

4.1 If it is determined that conditions are unsafe (too hot) for the work activity, initiate a stop work authority and notify your supervisor.

4.2 Work Practices

4.2.1 Heat illness prevention program implementation is the responsibility of the workers' Business Unit Leader at the work site.

4.2.2 At the work site, workers will be encouraged to:

- Drink plenty of water with a recommendation of up to 4 cups per hour under high-heat conditions.
- Take precautions to prevent heat stress.
- Immediately reporting signs and symptoms of heat illness in themselves or co-workers to Business Unit Leader.

4.2.3 Business Unit Leaders need to identify and evaluate conditions of high heat using the following methods:

- Work site inspections.
- Temperature monitoring including how to monitor weather reports and how to respond to heat advisories.
- Employee and environmental monitoring and observation/alertness for signs or symptoms of heat illness in employees.
- Temperature notices being posted.
- Personal and environmental notifications.
- Accident investigation.

4.2.4 Business Unit Leader will ensure the necessary steps and actions are taken to help prevent heat illness incidents.

4.2.5 During times where workers are working under conditions of high-heat and work, Business Unit Leaders need to periodically check potable water supplies throughout the day to see if workers are drinking adequate amounts of water (i.e., the recommended two (2) quarts of water per employee at the start of the shift).

4.2.6 Business Unit Leaders should check water containers regularly and encourage employees to report to their Business Unit Leader low levels of water or dirty water.

- When drinking water levels in a container drop to less than 50%, the water should be replenished immediately; or water levels should be replenished frequently enough to ensure adequate drinking water is available at all times.

- Place water containers as close as possible to workers so they can easily access them.
- Noise making devices such as air horns, may be used by Business Unit Leaders to remind employees to take their cool-down rest breaks if an employee complains or a high-heat condition exists at the work site.
- If they determine workers may not be drinking adequate amounts of water, the Business Unit Leader needs to meet with the workers and reiterate the heat illness prevention program and the need to hydrate.

4.2.7 Business Unit Leaders need to talk with workers about reporting incidents of heat illness and encourage them to report.

4.2.8 When an incident is reported, the Business Unit Leader will conduct an accident investigation per the Incident Investigation & Reporting Procedure.

4.3 Potable Water

4.3.1 Employees shall have access to potable drinking water meeting the requirements of 8 CCR Sections 1524, 3363, and 3457, as applicable.

4.3.2 Where it is not plumbed or otherwise continuously supplied, it shall be provided in sufficient quantity at the beginning of the work shift to provide one quart per employee per hour for drinking for the entire shift.

4.3.3 Employers may begin the shift with smaller quantities of water if they have effective procedures for replenishment during the shift as needed to allow employees to drink one quart or more per hour.

- The frequent drinking of water will be encouraged throughout the work shift.

4.4 Shade & Access to shade

4.4.1 Canopies, umbrellas and other temporary structures or devices may be used to provide shade.

4.4.2 One indicator that blockage is sufficient is when objects do not cast a shadow in the area of blocked sunlight.

- Shade is inadequate when heat in the area of shade defeats the purpose of shade, which is to allow the body to cool.
- For example, a car sitting in the sun does not provide acceptable shade to a person inside it, unless the car is running with air conditioning.
- Shade may be provided by any natural or artificial means they do not expose employees to unsafe or unhealthy conditions.

4.4.3 Shade required to be present when the temperature **exceeds 80° Fahrenheit (26.7°C)**.

- When the outdoor temperature in the work area **exceeds 80 ° Fahrenheit (26.7°C)**, it is required that one or more area with shade always be established and maintained while employees are present that are either open to the air or provided with ventilation or cooling.

- The amount of shade present must be at least enough to accommodate 25% of the employees on the shift at any time, so that they can sit in a normal posture fully in the shade without having to be in physical contact with each other.
- The shaded area must be located as close as practicable to the areas where employees are working.

4.4.4 Shade required to be available when the temperature does not exceed **80 ° Fahrenheit (26.7°C)**.

- When the outdoor temperature in the work area does not exceed 80 ° Fahrenheit (26.7 ° C), provide timely access to shade upon an employee's request.
- An interior of a vehicle may be used to provide shade as long as it is air-conditioned, and the system is running.

4.4.5 Employees must be allowed and encouraged to take a cool-down rest in the shade for a period on not less than five minutes at a time when the employee(s) feel the need to do so to protect them from overheating.

- The access to shade must be permitted at all times.

4.4.6 An exception to these shade provisions is made if it can be demonstrated that it is infeasible or unsafe to have a shade structure, or otherwise to have shade present on a continuous basis, alternative procedures may be utilized for providing access to shade if the alternative procedures provide equivalent protection.

- If you are unsure about a specific situation, contact Nova Source Management for assistance and guidance.

4.5 High Heat Procedures (**temperatures equal or exceed 95° F [35 °C]**)

4.5.1 During high-heat situations (**temperatures equal or exceed 95° F [35 °C]**), procedures must be in place to ensure effective communication by voice, observation or electronic means is maintained so that employees at the work site can contact a Business Unit Leader when needed.

- An electronic device, such as a cell phone or text messaging device, may be used for this purpose only if reception in the area is reliable.
- ensure a method of observing employees is in place for alertness/signs or symptoms of heat illness which includes
 - reminding employees throughout the work shift to drink plenty of water, and
 - ensuring new employees meet the provisions of close supervision during their acclimatization period.

- 4.5.2 During high-heat conditions, provide close supervision of new employees by a Business Unit Leader or designee for the first 14 days of the new employee's employment by the employer, unless the employee indicates at the time of hire that he or she has been doing similar outdoor work for at least 10 of the past 30 days for 4 or more hours per day.
- Work/rest schedules based on ambient temperature, heat index, wet bulb temperature, direct sunlight, etc. can be developed for special projects at an NSPS operating plant or site.
 - Workers acclimating to temperatures differently depending on location
 - Example: a work/rest schedule for a project in Canada is expected to be more conservative than a schedule for a project in Southern Arizona.
- 4.5.3 Management shall ensure that the employees takes a **minimum ten-minute net preventative cool-down rest period every two hours**.
- The preventative cool-down rest period required by this paragraph may be provided concurrently with any other meal or rest period required by Industrial Welfare Commission Order No. 14 (8 CCR 11140) if the timing of the preventative cool-down rest period coincides with a required meal or rest period thus resulting in no additional preventative cool-down rest period required in an eight-hour workday
- 4.5.4 If the workday will extend beyond eight hours, then an additional preventative cool-down rest period will be required at the conclusion of the eighth hour of work; and if the workday extends beyond ten hours, then another preventative cool-down rest period will be required at the conclusion of the tenth hour and so on.
- For purposes of this section, preventative cool-down rest period has the same meaning as "recovery period" in Labor Code Section 226.7(a).
- 4.5.5 Each morning the Business Unit Leader should provide a short tailgate meeting (in the employees' language) to remind workers about the importance of cool-down rest breaks and the location of shade.

5.0 COLD ILLNESS SYMPTOMS & TREATMENT

5.1 Hypothermia

- 5.1.1 Occurs as your body temperature falls below **95 degrees F (35 C)**
- 5.1.2 Signs/symptoms include shivering, exhaustion, confusion, fumbling hands, memory loss, slurred speech, and drowsiness.
- 5.1.3 The following actions should be taken at the onset of any signs/symptoms of hypothermia:
- Move to a warm room or shelter
 - Take a temperature reading (if available)

- If their body temperature is below 95 degrees F., seek medical attention immediately!
- Remove any wet clothing
- Warm the center of their body, chest, head, and groin.
- Warm drinks can help increase body temperature.
- After body temperature has increased, keep them dry and wrap their body, including their head and neck, in a warm blanket.
- Seek medical attention if conditions/body temperature does not improve.

5.2 Frostbite

5.2.1 Leads to a loss of feeling and color in the areas it affects, usually extremities such as the nose, ears, cheeks, chin, fingers, and toes.

- Frostbite can permanently damage the body, and severe cases can lead to amputation (removing the affected body part).

5.2.2 Redness or pain in any skin area is usually the first sign of frostbite. Other signs include: a white or grayish-yellow skin area, skin that feels unusually firm or waxy, & numbness.

5.2.3 The following actions should be taken at the first sign of frostbite:

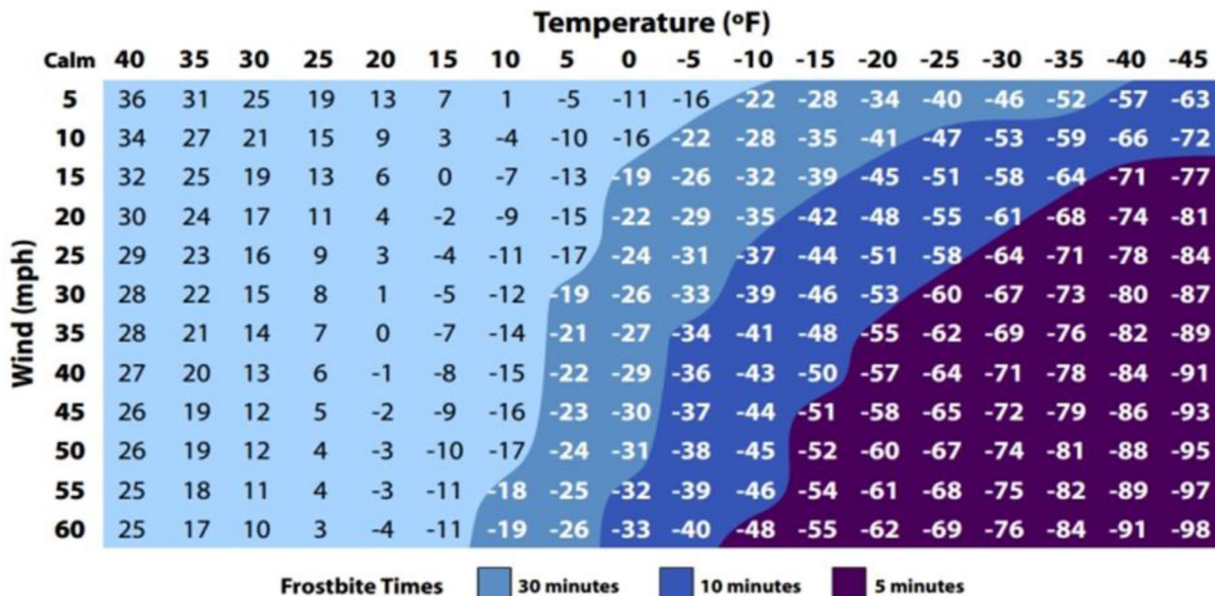
- Seek medical attention as soon as possible
- Move to a warm room
- Do not walk on feet if they are showing signs of frostbite.
- Do not rub the frostbitten area with snow or massage it at all.
- Put the areas affected by frostbite in warm, not hot, water.
- If warm water is not available, warm the affected area using body heat.
- Do not use a heating pad, heat lamp, or other heat source as the affected areas can easily burn.

6.0 COLD ILLNESS PREVENTION

6.1 Safe work practices

6.1.1 Closely monitor conditions and if they become too cold, cease work and return to a warm area.

6.1.2 **When Wind Chill reaches Frostbite within 10 minutes all outdoor work will cease until the temperature and wind-chill factor warms out of this dangerous threshold. (See wind chill chart below)**



$$\text{Wind Chill (°F)} = 35.74 + 0.6215T - 35.75(V^{0.16}) + 0.4275T(V^{0.16})$$

Where, T= Air Temperature (°F) V= Wind Speed (mph)

- 6.1.3 Adequate cold weather supplies shall be maintained inside service vehicles to protect from cold-related injuries in the event a worker(s) is unable to seek adequate shelter.
- Extreme snow and ice storms may prevent workers from driving to a safe location, so it is important adequate supplies are maintained to protect the worker(s) until driving conditions improve or assistance is provided.
- 6.1.4 Additionally, it is easy to become dehydrated in cold weather.
- Provide plenty of warm sweetened liquids to workers. If possible, schedule heavy work during the warmer part of the day.
 - Whenever possible, assign workers to tasks in pairs (buddy system), so that they can monitor each other for signs of cold stress.
 - Workers are allowed to pause their work, if they are extremely uncomfortable.
- 6.1.5 During cold weather, workers should take frequent breaks in warm areas.
- Additionally, new workers and those returning after time away from work, should be acclimatize by gradually increasing their workload, and allowing more frequent breaks in warm areas, as they build up a tolerance for working in the cold environment.
 - Safety measures, such as these, should be incorporated into the Emergency Response Plan (ERP).

6.2 Dressing Properly

- 6.2.1 Dressing properly is extremely important to preventing cold stress. The type of fabric worn also makes a difference.

- Cotton loses its insulation value when it becomes wet.
- Wool, silk and most synthetics, on the other hand, retain their insulation even when wet.

6.2.2 Wear at least three layers of loose-fitting clothing. Layering provides better insulation.

- An inner layer of wool, silk, or synthetic to keep moisture away from the body
- A middle layer of wool or synthetic to provide insulation even when wet.
- An outer wind and rain protection layer that allows some ventilation to prevent overheating.

6.2.3 Do not wear tight fitting clothing

6.2.4 Wear a hat or hood to help keep your whole body warmer. Hats reduce the amount of body heat that escapes from your head.

6.2.5 Use a knit mask to cover the face and mouth (if needed)

6.2.6 Use insulated gloves to protect the hands (water resistant if necessary)

6.2.7 Wear insulated and waterproof boots (or other footwear)

7.0 TRAINING

7.1 Heat Illness

- 7.1.1 It is Nova Source's policy that no employee or Business Unit Leader may be exposed to environmental risk factors that could be reasonably anticipated to result in heat-related illness before having completed the required training.
- 7.1.2 Subcontractors must demonstrate they have completed a heat stress safety training at least as effective as Nova Source's before being exposed to environmental risk factors that could be reasonably anticipated to result in a heat-related illness.
- 7.1.3 Employee and Business Unit Leader training are required to ensure heat illness hazards are properly addressed during all outdoor work tasks and jobs.
- 7.1.4 The content of employee and Business Unit Leader training must be the requirements specified in Cal/OSHA 8 CCR 3395, Heat Illness Prevention in Outdoor Places of Employment.
- 7.1.5 Employees shall be trained annually prior to May 1st each year.

7.2 Cold Stress

- 7.2.1 Employees will be trained annually on how to prevent and recognize cold stress illnesses and injuries and how to apply first aid treatment.
- 7.2.2 Workers will be trained on the appropriate engineering controls, personal protective equipment and work practices to reduce the risk of cold stress.

8.0 SUBCONTRACTORS

- 8.1 Subcontractors must demonstrate they have completed a heat stress safety training at least as effective Nova Source's before being exposed to environmental risk factors that could be reasonably anticipated to result in a heat-related illness.
- 8.2 Subcontractors are required to adhere to this plan.

9.0 CONSEQUENCES OF DEVIATION

- 9.1 Consequences will result from non-compliance with procedural standards, the severity of which will be determined by the applicable departmental Business Unit Leaders.



EHS SECTION 15.0

PANDEMIC PREPAREDNESS & RESPONSE PLAN

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1.0 PURPOSE, SCOPE, & DEFINITIONS

1.1 Purpose

- 1.1.1 The purpose of this plan is to provide guidance in the prevention of the transmission of infectious diseases, and thereby to minimize the effect of a pandemic on NSPS Operations.
- Control and prevention in the workplace is intended to reduce employee exposure to pathogens by avoiding the locations and situations where exposure could occur.
 - While our prevention techniques may not influence a large/global pandemic, they could help minimize the impact to our employees and their families.
- 1.1.2 This plan also provides basic response guidance in the event that a pandemic affects one or multiple NSPS operating sites or locations.

1.2 References

- 1.2.1 This plan has been designed to comply with § 5(a)(1), the General Duty Clause of the Occupational Safety and Health Act, which requires employers to provide their employees with a workplace free from recognized hazards likely to cause serious physical harm and OSHA's pandemic guidelines; and, those standards or guidelines as may be enacted by the DEPARTMENT OF HOMELAND SECURITY and NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL (NERC), and the regional authorities such as ERCOT pursuant to §25.53(c)(2)(D) for national infrastructure protection of the bulk electrical system for prevention of impacts from a pandemic.

1.3 Scope

- 1.3.1 This program is applicable to all NSPS Employees.
- 1.3.2 The guidance in this plan is related to direct and indirect contact with other individuals in the work environment which may include generation sites, office common areas, and public places such as airports

1.4 Acronyms & Definitions

Acronyms & Definitions	
Infectious Disease	A disease that is caused by microorganisms such as bacteria, fungi, viruses, protozoa, and parasites that can successfully spread, invade, establish, and grow within a host's tissues.
Contagious Disease	An infectious disease that is easily transmitted from one person to another.
Influenza	An acute illness caused by the influenza virus. Influenza is an infectious disease that can spread rapidly from person to person through airborne droplets of saliva or other body fluids as well as from contaminated surfaces or objects. There is

	more than one strain of influenza and some strains cause more severe illnesses than others.
Epidemic	Serious disease outbreak in a single community, population, or region.
Pandemic	The spread of a disease throughout a large geographical area such as an entire country, continent or the globe. Three Flu Pandemics occurred within the last century.
Pathogen	Any disease-producing agent, especially a virus, bacterium, or other microorganism.
Microorganisms	Living agents such as bacteria, fungi, viruses, protozoa, and parasites that can cause infectious diseases.
Disinfect	To remove or destroy microorganisms

2.0 ROLES & RESPONSIBILITIES

2.1 Regional Business Unit Manager / Executive Leadership Team

- 2.1.1 Provide site management with adequate resources and support to carry out their responsibilities.
- 2.1.2 Require site/supervisor management adherence to this program.

2.2 Site Managers / Supervisors / Business Unit Leaders (BUL)

- 2.2.1 Ensure all required supplies and materials for effective implementation of this plan are provided, properly utilized, and maintained.
- 2.2.2 Monitor local news regarding Infectious Disease and Pandemic conditions in their area, and request assistance and guidance as needed from the EHS Department or others as applicable.
- 2.2.3 Be aware of and respond to possible infectious disease incidents to prevent or minimize transmission to employees.
- 2.2.4 Aid ill employees as applicable.
- 2.2.5 Ensure each employee has been trained in this program
- 2.2.6 Ensure compliance with this program

2.3 Employees/Technicians

- 2.3.1 Participate in hazard assessments and practice disease prevention precautions both on and off the job.
- 2.3.2 Follow this plan
- 2.3.3 Notify their supervisor when feeling ill or sick.

2.4 EHS Department

- 2.4.1 Review this plan every 5 years or as necessary in response to regulatory action.

- 2.4.2 Monitor external health agency or NSPS Compliance Office recommendations for changes which may require procedural updates.
- 2.4.3 The EHS Department may also coordinate with the HR on company strategy and health response as conditions change and implement interim procedures and technical bulletins as necessary to respond to the pandemic.
- 2.4.4 Provide assistance as requested by management in the event of a pandemic.

3.0 HAZARD ASSESSMENT

- 3.1 Constant vigilance in assessing hazards associated with Infectious Disease in the workplace is essential.
 - 3.1.1 Employees need to be aware of sources of possible infection in work areas, and potential for exposure to ill persons.
- 3.2 For information regarding Infectious Diseases, go to <http://www.cdc.gov/>.
- 3.3 Avoid hazardous situations and circumstances which may expose you to disease or infection.
 - 3.3.1 Employees should determine if they have had any potential exposures or symptoms of an Infectious Disease, and then take appropriate actions which may include seeking medical treatment and staying home.

4.0 GENERAL PREVENTATIVE MEASURES

- 4.1 Specific guidance related to the COVID pandemic can be found in the **COVID Preparedness & Response Plan (EHS Section 29.0)**
- 4.2 Pathogens that cause disease may be transmitted from one person to another in various ways such as, through coughing, sneezing or direct contact.
 - 4.2.1 Pathogens may also be transmitted via ingesting contaminated food or liquids; infection by ingestion frequently occurs because of unsanitary food preparation.
 - 4.2.2 Disease causing microorganisms may also be spread through contact with insects and other animals.
- 4.3 Transmission of infectious disease
 - 4.3.1 **Airborne transmission** – through ventilation systems, coughing or sneezing.
 - These methods of transmission can carry airborne pathogens in mists or droplets that collect on various surfaces and can be inhaled directly from the air.
 - 4.3.2 **Contaminated kitchen utensils or food** - the pathogens on, dirty hands, and contaminated food or objects may be a source of ingestion hazards.

- 4.3.3 **Contaminated surfaces** such as door handles, lift buttons, stair banisters, toilet handles, office surfaces including tabletops, computer keyboards, and telephones may be contaminated with pathogens.
- 4.3.4 **Skin-to-skin contact** – small number of pathogens can be transferred through touch, or by sharing personal items, clothing or objects, or even shaking hands.
- 4.3.5 **Contaminated objects** - putting common objects such as pens, pencils, cups, glasses, and hands into your mouth.
- 4.3.6 **Direct contact with body fluids** - pathogens in body fluids can be transmitted to another person's body via abrasions, cuts, or through the membranes of the eyes and mouth. Insects can also transfer pathogens.

4.4 Transmission prevention Methods

- 4.4.1 Be aware of where you've recently placed your hands before you pick up anything you intend to put in your mouth.
- 4.4.2 Adequate supply of hand sanitizer and/or hand washing stations shall be available at NSPS Sites and facilities.
 - The spread of many pathogens can be minimized or prevented with regular hand washing.
 - Thoroughly wash your hands with warm water and soap for at least 15 seconds and dry your hands with disposable paper towels.
- 4.4.3 Use hand sanitizer often.
- 4.4.4 Consider maintaining your immunizations current using your company health insurance benefits, as recommended by your personal health-care practitioner.
- 4.4.5 Consider receiving a flu immunization annually.
 - According to the CDC, this is the best way to protect you from influenza.
- 4.4.6 Cover your face when coughing or sneezing.
 - Use tissues rather than cloth handkerchiefs.
- 4.4.7 Limit your exposure as much as possible to anyone that exhibits symptoms of the flu or a cold.
 - These symptoms may include sneezing, coughing or indicating that they are not feeling well.
- 4.4.8 Employees should ensure that common work areas such as desks, conference tables and telephones are cleaned and sanitized often during the flu season to prevent the transfer of germs.
- 4.4.9 If you are already sick with the flu or other contagious disease, please avoid exposing others.
 - Contact your supervisor and stay at home and receive medical treatment as appropriate.

4.4.10 During a pandemic or outbreak of disease that may affect operations, the company may implement additional precautions or execute the business continuity plan to safeguard staff and maintain operations.

- Steps could include cancelling business travel, face to face meetings, altering staffing and maintenance schedules and job duties.

5.0 PREPARDENSS & RESPONSE PLAN

Note: A Pandemic response is activated when there is an escalating loss of staff due to illness and the NSPS Site/location is experiencing an inability to adequately handle operations & maintenance expectations. The Site Manager (BUL) should notify the Regional Manager as soon as possible of potential impact from any illness outbreak or pandemic in the area.

5.1 In the event several illnesses or pandemic impacts a NSPS Site or location, the Site Manager (BUL) or Designee shall perform the following:

5.1.1 Immediately notify the Regional Manager, EHS Dept. & Human Resources.

- Provide information regarding the impact to the site.

5.1.2 Notify the NovaSource Control Room (NSCR) of the situation and request assistance as necessary.

5.1.3 Keep track as employees are calling in sick.

5.2 Site Manager (BUL) or designee shall establish controls to ensure that sanitary conditions are maintained:

5.2.1 Provide hand sanitizer and encourage use frequently by employees.

5.2.2 Inform employees that before handling food or after handling equipment or tools employees shall wash hands in warm soapy water if available or utilize hand sanitizer.

5.2.3 Assign cleaning tasks as necessary at the site/location.

5.3 Employees who are away from work with an illness shall keep the Site Manager or Designee updated on their status.

5.3.1 Personnel shall not return to work if they are contagious.

5.4 The Site Manager (BUL) or designee shall determine the need for outside support to continue safe operations at the site and provide this information to the Regional Manager.

5.4.1 In the event local technicians are unable to man an operating site locally, NSCR will:

- Initiate the CIP exceptional circumstances process
- Setup VPN access to the NSCR OIT's for individual operators from their homes
- Setup VPN access to other personnel that may be able to perform the function of an operator to cover for any shortage of operator availability

- 5.5 The Site Manager or designee and the Regional Manager shall assess potential impact to business operations and take appropriate actions.
- 5.6 If all site personnel are sent home due to the pandemic, a mechanism for employees to call in and receive information shall be provided.
 - 5.6.1 This can be accomplished either through a recorded message at the site, daily phone calls, or some other designated means of communication.
- 5.7 In the event the Site Manager (BUL) is affected by the Pandemic and is unable to perform their duties, the Regional Manager shall designate an alternate point of contact.

6.0 TRAINING REQUIREMENTS

- 6.1 All NSPS personnel shall be trained in this plan every in accordance with the EHS Training Matrix.

7.0 SUBCONTRACTORS

- 7.1 Contractors/Subcontractors performing work at an NSPS facility shall be required to:
 - 7.1.1 Train their staff on pandemic prevention plans.
 - 7.1.2 Provide sanitary work conditions and sanitization materials for their work areas.
 - 7.1.3 Instruct their employees not to come to work and expose others if they have a contagious disease.

8.0 RECORDKEEPING REQUIREMENTS

- 8.1 Training records are maintained in the NSPS LMS Training Platform.

9.0 CONSEQUENCES OF DEVIATION

- 9.1 Consequences will result from non-compliance with procedural standards, the severity of which will be determined by the applicable departmental supervisors.

10.0 APPENDICES/ATTACHMENTS

- 10.1 N/A