

Site Specific Safety Plan - Construction
Spotsylvania Solar Energy Center – 500 MWac
Spotsylvania County, VA

November 19, 2018



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1 Introduction

The purpose of this Site Specific Safety Plan is to provide guidelines and requirements that all personnel and laborers shall follow to insure the project is completed on schedule, under budget and with zero injuries/accidents. This Site Specific Safety Plan (SSSP) has been prepared, exclusively, to accommodate all phases of the construction activities associated with the development/redevelopment:

Jobsite TBD Spotsylvania, VA

Address:

1.1 Relevant Safety and Environmental Documents for Review

The following documents are available for review:

1. Name of Document:	Injury & Illness Prevention Plan (IIPP)
Location:	Electronic and Onsite
2. Name of Document:	Crisis Management Plan
Location:	Onsite
3. Name of Document:	Heat Illness Prevention Plan
Location:	Onsite

2 PURPOSE OF THIS DOCUMENT

2.1 The SSSP serves three “Key” functions:

The SSSP identifies key personnel and project organization.

The SSSP is the primary health and safety resource tailored specifically for the project and sets forth the minimum work practice standards for all work on the project including, but-not-limited-to requirements for: incident reporting, accident investigation and medical management, public safety, employee safety, transportation, waste management, excavation, equipment management, site security, emergency response and site evacuation, environmental conditions, construction safety, agency relations, sanitation, decontamination, hazard awareness and training and so forth.

The SSSP sets for the minimum environmental health and safety standards contractors will use to incorporate into their own individual HSP’s or JHA’s.

3 PROJECT MANAGEMENT AND STAFF ORGANIZATION

3.1 Table 1 - General Contractor Key Personnel

Mortenson Project Manager (PM)	
Name TBD	Mobile: _____
:	Office: _____
Mortenson Assistant Project Admin (PA)	
Name TBD	Mobile: _____
:	Office: _____
Mortenson Project Superintendent (PS)	
Name TBD	Mobile: _____
:	Office: _____
Division/Regional Safety Manager	
Name TBD	Mobile: _____
:	Office: _____
See Safety Hot Sheet for numbers.	Fax: _____

3.2 Table 2 - Owner/Developer Key Personnel

Owner/Developer	
Name:	Adam Bowers Phone: (415) 378-0964
Company:	sPower Mobile: _____
Address:	5000 East Spring Street, Suite 130. Long Beach, CA 90815

3.2 Table 3 - Emergency Contacts – Agencies

Regional Water Resources Board	Phone: (703) 583-3800
Address Northern Regional Office Virginia Department of	
: Environmental Quality	

13901 Crown Court. Woodbridge, VA 22193	
OSHA:	Phone: (703) 392-0900
Address Manassas State Plan Office	
:	
9400 Innovation Drive, Suite 120. Manassas, Virginia 20110	
State Office of Emergency Services	General (804) 888-9100
	:
Warning Center:	Phone (800) 438-2474
	:
Hazardous Material Spills:	Phone: (757) 664-6604
National Response Center:	Phone: (800) 438-2474
Fish & Game, Environmental Division	Phone: (540) 899-4169
Address Virginia Department of Game and Inland Fisheries Region 4 -	
:	
Fredericksburg	
1320 Belman Rd, Fredericksburg, VA 22401	
Police/Fire Department	Phone: 9-1-1
Local Hospital/Urgent Care Clinic	Phone: (540) 498-4000
Address Spotsylvania Regional Medical Center	
:	
4600 Spotsylvania Parkway. Fredericksburg, VA 22408	

3.3 Personal Roles and Organizational Responsibilities

3.3.1 Management Team

The Management team for this Project includes: Mortenson Project Manager (PM), Mortenson Superintendent, and Owner’s Representative.

All inquiries and decisions regarding this Project should be addressed to PM or Superintendent who will act as liaison to the Management Team.

Management Team Members, by name, for this Project include:

PM: TBD
SUPERINTENDENT TBD

3.3.2 Developer Personnel

Developer Representative: Daniel Menahem

The representative is the liaison between the developer and the PM and SUPERINTENDENT. However, any questions regarding the Project should be directed through the PM or SUPERINTENDENT.

3.3.3 General Contractor Personnel

All parties on the Project Site shall have "Stop Work Authority"

Mortenson Project Manager (PM)

PM is charged with the overall responsibility for the successful completion of field operations. PM's responsibilities include, but are-not-limited-to:

- Prepare and organize project activities on-site.
- Review and approve the site-specific HSP.
- Provide operational needs, supplies, etc.
- Coordinate cost controls.

Mortenson Engineer (PE)

The Project Engineer is charged with the responsibility to work with the developers, PM and the Superintendent to assure the quality and accuracy of the engineering plans. The Project Engineer responsibilities include but are-not-limited-to:

- Oversees the engineering and design.
- Manages construction drawings and works with owner to assure accuracy and completeness.
- Coordinates with PM and Superintendent to interpret engineering drawings.
- Provide and coordinate contractual obligations.
- Provide materials and supplies.

Mortenson Superintendent (SBS)

Superintendent coordinates Contractor and Subcontractor activities on the site. The Superintendent's responsibilities include but are-not-limited-to:

- Prepare and organize project activities onsite.
- Supervise Contractors and Subcontractors for compliance with job scope and quality.
- Supervise field operations and implement safety procedures.
- Develop the SSSP if no Site Specific Safety Manager has been assigned to the site.
- Enforce implementation of SSSP and established health and safety practices.

Site Specific Safety Manager (SSSM)

The SSSM is responsible for assuring daily compliance with the SSSP. Specifically, duties of the SSSM include but are-not-limited-to:

- Establishes site safety controls.**
- Develops the SSSP.**
- Liaison with Contractors on the Project.**
- Point person for health and safety questions.**
- Performs daily inspection of the Project.**
- Monitors Contractor compliance.**
- Oversees security for the Project.**

Field Personnel (FP)

All FP are responsible for assuring work activities are performed and completed in a safe manner without injury or near miss. Specifically, duties of the FP include but are-not-limited-to:

- Attend daily task overview and morning stretch and flex.**
- Participate in JHA meetings.**
- Re-evaluate and asses work conditions**
- Continuous observation of the Project and co-workers.**
- Monitors other field personnel compliance.**
- Assists in security for the Project.**
- Report all near-misses**

3.4 General Requirements

3.4.1 General Site Conditions and Requirements Applicable to All General and Subcontractor Personnel

As required by the state the work is being done in, each Subcontractor shall develop their Injury, Illness and Prevention Program (IIPP) and shall provide written documentation to Superintendent verifying existence of program. Each Subcontractor shall provide a copy of their Hazard Communication Program to the Superintendent at the onset of activities at the Project. Each Subcontractor is required to provide one employee per crew/shift that holds current standard first aid training. Standard first aid training covers first aid and CPR.

Any hazardous material products brought onto the project will be cleared with the SBS or SSSM. Material Safety Data Sheets (MSDS) will accompany each product and must be turned in to the Superintendent or Site Specific Safety Manage as soon as the material enters the Project. Each Subcontractor will be responsible for submitting a list of MSDS on the job. Mortenson shall post a composite MSDS list on the central job board.

3.4.2 Site Orientation Training

Prior to the commencement of work on site all management and field personnel must attend and complete Mortenson's Site Orientation Training. Upon completion of the Site Orientation Training verification sticker, to be placed on the hardhat, will be issued to all management and field personnel. The Site Orientation Training will elaborate on the safety requirements of the site and modified as necessary.

3.4.3 Site Security/Visitors

All visitors to the Project shall enter and exit through the security gate(s) located at the Mortenson trailer. A Visitors Sign-in Log will be available inside the Mortenson job trailer to sign in and out. All visitors must be accompanied by personnel that have completed the Site Orientation and are familiar with the site conditions. A visitor may request a Safety Orientation Verification Sticker if they regularly visit the project site.

3.4.4 Accident Reporting

All accident(s) and/or near misses will be reported to the Superintendent or the Site Specific Safety Manager as soon as possible after it occurs. A follow-up completed written accident investigation report will be submitted to the Superintendent or SSSM within 24 hours of the accident.

Accident investigation(s) will be handled by each Subcontractor using its own internal reporting system. A copy of this report will be submitted to the Superintendent or Site Specific Safety Manager, as described above.

Accident investigations involving hazardous materials or wastes will be handled jointly by each Subcontractor and the Superintendent or SSSM. This is to assure that the cause of the accident is completely determined and proper precautions implemented for other activities in the area or performing similar work, and the information is relayed to other Subcontractors.

All near-misses shall serve as a conversation point to be discussed in the daily task overview and morning stretch and flex, the following morning.

3.4.5 Safety Audits/Inspections

Each Contractor is expected to conduct reasonable and customary self-audits of their operations and promote safe work practices.

Each Contractor will be required to submit a copy of the job site safety inspection or job hazard analysis upon request. The inspection forms shall be turned into the Superintendent.

Mortenson has additional safety personnel onsite, actively monitoring work activities to insure all safety procedures are being followed. Anyone in violation of the safety procedures will be notified of the violation and given a warning. A second violation results in the violator being notified of the violation, and then sent home for the day. A third violation will result in work termination.

3.4.6 Tailgate/Toolbox Training

Each Subcontractor is expected to attend Mortenson Weekly Site Safety Meeting or conduct their own Weekly Site Safety Meetings for their own employees. A copy of the meeting records, which enumerates the content of the meeting along with the attendance roster, shall be turned into the Superintendent.

In addition to Weekly Site Safety Meeting, a daily task overview is provided to all employees during the morning stretch and flex, and prior to commencing work for the day.

3.4.7 Noise

Noise exposures above 85dBA may be expected when working near or operating machinery and equipment (e.g., graders, backhoes and generators).

If noise levels cannot be controlled under this limit, the Superintendent shall be notified and the work may be temporarily suspended until suitable controls can be implemented.

Personnel will be required to wear approved hearing protection to maintain exposures below 85dBA.

3.4.8 Sanitation Stations and Drinking Water

Superintendent will be responsible for providing sanitation stations. Each individual Subcontractor is responsible for providing potable drinking water to its own workers as required by Cal/OSHA's Heat Stress Standard.

3.4.9 First Aid Station

Each Subcontractor is required to provide a minimum of one first aid/CPR trained supervisor and first aid kit/supplies that meet Cal/OSHA Standards.

A central first aid station will be designated at the Mortenson trailer to facilitate off-site emergency response and off-site medical emergency facilities will be posted on the bulletin board in the Mortenson trailer. Subcontractors are required to advise their own employee(s) of the name and telephone number of the designated facility and the location of this information on the project site.

3.4.10 Fire Protection Plan

Each Subcontractor is required to have at least one 20-lb. ABC fire extinguisher properly tagged with a current inspection. A current inspection indicates servicing and/or inspection within the past twelve months.

Fire extinguishers shall be inspected at the start of the project and not less than once per month thereafter.

The following table enumerates the minimum fire protection necessary per item and activity. These minimum standards are required for every Subcontractor working on the project.

Table 4

Cranes, forklifts, aerial devices, loaders, backhoes, etc.	10: BC	1 per piece of equipment
Work generating sparks or open flames	10: ABC	1 per operation
Temporary heating devices	4A: 40BC	1 per piece of equipment
Fueling areas	Dry chemical or carbon dioxide 20 ABC	2 per station
Floors	10: ABC	2 per floor <3,000 ft² or every 100 ft. of travel

Stored oxygen and acetylene shall be stored separately, at least a minimum of 20 feet or separated by a wall not less than 5 feet in height. Storage of cylinders means the caps are on tight.

If this project includes some burning and/or welding all burning and welding operations should provide a fire watch person and/or burning blankets and a fire extinguisher to protect adjacent areas. The superintendent shall be informed of any burning or welding prior to work commencing.

3.4.11 Excavation and Trenching

A competent person will be responsible for supervising excavations, drilling, and trenching. Type A, B, C soils will be checked by the competent person, daily, to determine the minimum type and level of protection necessary. Soil inspections shall be checked and documented daily by the competent person for the duration of the soil excavation. Any open trenches shall be properly protected.

Objects shall not be stored within 2 feet of the edge of all excavations.

3.4.12 Fall Protection

All employees shall wear a full body harness and double shock-absorbing lanyard system anytime a worker is required to disconnect and reconnect to travel around an obstacle. At no time will a worker be totally “unhooked”.

Fall protection shall be provided on all fixed elevated surfaces above 6 feet for all trades. The 6 -foot fall protection rule does not pertain to ladders and scaffolding as long as they are used within OSHA standards.

Subcontractors that work from temporary elevated surface heights of 6 feet or more will be required to provide a written fall protection plan. Said plan shall be submitted and approved prior to Subcontractor starting any work.

3.4.13 Traffic Control

Orange/yellow-orange, or equivalent safety vests will be provided for all employees, flagmen and traffic monitors working around heavy moving or rotating equipment. The site specific orientation will further elaborate on traffic control.

There is a Zero-tolerance policy for violating the designated traffic control route and impacting any ongoing activities on adjacent properties. Any impacts to adjacent properties will result in the violator being terminated.

3.4.14 Confined Space Entry Requirements

Confined space work requiring an entry permit shall be performed only under the supervision of a competent person. Only trained and authorized employees shall be allowed to enter the confined space.

3.4.15 Housekeeping

Daily housekeeping is a part of this job safety plan with special emphasis placed on stairways. All stairways will be artificially lit and be clean of debris. Daily housekeeping is intended to promote a clean and well maintained project through the construction process. The project shall be kept clean of all debris and trash.

3.4.16 Scaffolds

All Subcontractors using scaffolding on this site will be required to attend the pre-scaffolding meeting. The meeting will lay out, in detail Morenson rules of

erecting, dismantling and the use of scaffolding. Subcontractors not attending this meeting will not be allowed the use of scaffolding on this site.

3.4.17 Electrical

All temporary power sources will be provided with Ground Fault Circuit Interrupters (GFCI), and all cords, plugs and receptacles shall be checked for damage daily. Testing of the ground and labeling of the cords will be performed as needed or at least monthly. Remove any damaged equipment from use and tag out of service until repaired.

Tools and equipment shall be routinely inspected and tested before use.

3.4.18 Cranes

Crane erection and maintenance and care shall comply with the manufacture's specifications and limitations. Rated local capacities and recommended operating speeds shall be visible to the operator. Crane certifications must be in the cab at all times and all crane operators must have current certification.

Cranes shall be level and located on firm footing or cribbing when necessary and accessible areas within the swing radius of the rear-rotating superstructure of the crane shall be barricaded or cordoned off to avoid being struck by the crane.

Cranes shall be annually inspected and a record of this inspection shall be provided upon request.

3.4.19 Lifts

If scissor lifts are required on this project the following standards shall apply:

A scissor lift shall not travel in an elevated position with men in the basket. Chains and gates shall be utilized whenever the scissor lift is in an elevated position.

All operating and maintenance instructions and recommendations must be followed.

The manufacturers operating manual shall with the equipment at all times.

3.4.20 Aerial Lifts, Snorkel Lifts, Boom Supported Work Platforms

If aerial lifts, snorkel lifts, or boom supported elevating work platforms are required on this project the following standards shall apply:

All personnel in the lifts shall be tied-off to an appropriate location on the lift. Lifts shall not travel in an elevated position with men in the basket.

All operating and maintenance instructions and recommendations must be followed.

The manufacturers operating manual shall with the equipment at all times.

3.4.21 Forklifts

No modifications or additions that affect the capacity or safe operations of the equipment shall be made without the manufacture's written approval. In no case shall the original safety factor of the equipment be reduced and only trained and certified personnel shall be permitted to operate forklifts.

If a load is lifted by two or more trucks working in unison, the proportion of the total load carried by any one truck shall not exceed its capacity.

3.4.22 Tools

All tools should be kept in good operating condition and replaced if damaged. Impact tools, such as drift pins, wedges and chisels shall be kept free of mushroomed heads. The wooden handles of tools shall be kept free of splinters or cracks and shall be kept tight in the tool.

3.4.23 Lock Out/Tag Out

Before any modifications, maintenance, or repairs are done on equipment, tools, or power panels, the energy source shall be disconnected or turned off (turn valve, pull fuse, switch breaker) and locked out or blocked out with a padlock, chain or both to ensure energy source is locked off.

Place a tag at the disconnect point, identifying who you are, who you work for, and why you locked it off. Never move or remove another person's tag.

Be sure to release residual energy (i.e. lead line grounding circuits).

Test equipment or energy source to ensure it will not run. Turn on equipment or test circuits to ensure it is disconnected.

Restore energy safely when you are finished with your repairs. Remove lock and tag.

3.4.24 Protective Equipment (PPE)

The minimum PPE required includes hard hats, sturdy work boots, shirtsleeves (no tank tops), long pants, ear protection (if applicable), snake guards and safety glasses are to be worn at all times. Goggles, and/or face shields shall be worn as necessary for eye protection.

Respiratory protection shall be worn, as necessary, to prevent breathing harmful concentrations of paint, welding fumes, concrete and sheetrock dust, solvent vapors, etc.

The JHA's will address the necessary and proper task specific PPE required for various work activities.

3.4.25 Hot Work

A hot work permit will be required for any work activity performed in an enclosed environment, including but not limited to inside a building or a confined space, that generates sparks, open flames or creates in any way a potential fire hazard.

4 CONTINGENCY AND EMERGENCY RESPONSE PROCEDURES

4.1 Site Evacuation Plan / Assembly Area

Site evacuation procedures are required as part of an emergency response plan. Every job site should at the outset, determine a safe corridor for escape and assembly.

Examples of emergencies requiring a site evacuation include:

Explosion from underground pocket of flammable/combustible gases.

Equipment fire or explosion.

Inclement weather.

Toxic gas/vapor release from subsurface pocket of gases or containers.

Cave-in from excavated trenching.

Evacuation routes are established upwind and cross from the direction of wind flow as determined by either a windsock or other visual means of determining air movement. In the event of an evacuation signal, every worker is required to cease operations, note the wind pattern and move in a cross and upwind direction to the designated assembly point. The designated assembly points may vary and will be determined by the Safety Manager based on work activity, incident location and the final project layout.

4.2 Response to a Release of Hazardous Materials/Wastes, Liquids, Unusual Smell or Odor

If there is a release, i.e. oil, diesel, or other petroleum product, hazardous waste, or the perception of an unusual foul or irritating smell or odor, immediately evacuate the area by moving across and up-wind from the source to the designated assembly point. Remain there until cleared to return. Notify Mortenson Management Team prior to resuming operations.

If the identity of the released product/waste or odor is known and does not pose an immediate threat to the safety and/or health of the workers or the environment, notify the SSSM and implement steps to contain and control the release.

4.3 Fire

Alert and immediately evacuate personnel away from the immediate area. Notify Mortenson Management Team regarding any size fire that occurs on the Project. If necessary, the Management Team will notify the Fire Department by calling 9-1-1.

For small fires (a fire that can be controlled with one 20 lb., fire extinguisher), contain and extinguish the fire as quickly as possible.

For large fires, immediately evacuate the affected area and report to the designated assembly point.

4.4 Explosions

Following an explosion, immediately survey the affected area for injured workers. If safe to enter, remove the injured to a safe distance. Injured workers will be transported to the nearest emergency medical facility.

Immediately evacuate the affected area and report to the designated assembly point. If a fire develops, follow emergency procedures for fire control and evacuation, as described above.

4.5 Accidents

All accidents/incidents shall be reported to the SSSM/Superintendent immediately for investigation and follow-up. An incident written incident report shall be submitted to the SSSM/Superintendent within 24 hours.

For accidents involving personal injury, immediately apply appropriate first aid and transport the injured party to the designated medical facility. Never allow the injured employee transport him/herself. SSSM will summons emergency medical response for injuries requiring emergency assistance.

4.6 Vehicle Accidents

Stop the vehicle as soon and as safely as possible. Assess the damage to the vehicle and collateral damage to equipment and any other objects. If injuries are sustained, follow the accident procedures above. Report all vehicle accidents to your supervisor immediately.

An Incident Report online must be filled out for all accidents/incidents.

4.7 Equipment Failure or Power Outage

Turn off equipment or power. Assess damage and notify your supervisor. Wait for further instructions.

4.8 Natural Disaster/Earthquake

Complete the following:

Shut down all operations/equipment in a safe effective manner.

Check all personnel for injury and follow appropriate procedures

Inspect all fuel/oil/waste water tankage and/or containment structures for signs of leakage or damage.

Inspect all operational units for proper operations made, and manually check to insure all automatic and alarmed features are working properly.

Inspect all piping, valves, and fixed pumping units for damage.

Re-inspect electrical circuits and power supplies for damage.

Report to assembly point and wait further instructions.

4.9 Exposure Assessment

Subcontractors will become familiar with the potential hazards on the job, as described in the SSSP, train, manage and provide appropriate measures to protect their employees.

Each Subcontractor shall provide appropriate tools, i.e., PPE, equipment, environmental exposure monitors, to assess and assure that its own employees are working in a safe area and manner.

4.10 Liaison, Notification Requirement for Incidents, Accidents and Injuries

Should any of the events listed above occur, SSSM/Superintendent shall be contacted immediately. The SSSM will assist Subcontractors in resolving the issue and coordinate the preparation of a written report to the PM within 24 hours.

Mortenson will determine the appropriate reporting and notification procedures involving notification to local authorities.

s4.11 Medical Management Plan

4.11.1 Medical Support Facilities

Emergency medical facilities shall be identified and posted for emergency response. The following medical support personnel have been contacted and informed of this project. The contacts and corresponding telephone numbers of local clinics and hospitals are given below:

Local Hospital/Urgent Care Clinic:	Phone: (540) 498-4000
Address Spotsylvania Regional Medical Center	
:	
	4600 Spotsylvania Parkway. Fredericksburg, VA 22408