APPENDIX 18-C
PRELIMINARY HEALTH AND SAFETY PLAN

PREPARED FOR:

FLINT MINE SOLAR

DATE: NOVEMBER 2022

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I. INTRODUCTION

Flint Mine Solar, LLC (the "Certificate Holder") is proposing to construct a photovoltaic (PV) solar energy facility (the "Facility") in the Towns of Athens and Coxsackie, Greene County, New York. Crawford & Associates Engineering & Land Surveying, P.C. (C&A) was retained to develop the Preliminary Health and Safety Plan (the "HASP" or "Plan") for the Facility.

This HASP has been prepared to provide a safe and healthy work environment for all employees, subcontractors, and visitors at the Facility Site. This HASP prescribes the procedures that must be followed during specific activities to establish safe working conditions at the site. Operational changes that could affect the health and safety of personnel, the community, or the environment will not be made without the prior approval of the Safety Manager (SM) or the Operations Site Manager (OSM). Safety procedures and protective equipment are chosen according to potential hazards. Specific hazard control methods have been evaluated and selected to minimize the potential for accident or injury.

The provisions of this HASP are mandatory for all personnel and subcontractors assigned to the Facility. All visitors to the site must abide by the requirements of this Plan. All Participants will attend a pre-job briefing where the contents of this HASP will be discussed. Project staff assigned to this Facility must sign an Agreement and Acknowledgement Sheet to confirm that they understand and agree to abide by the provisions of this Plan.

All work will comply with applicable Occupational Safety and Health Act (OSHA) standards and other federal, state, and local procedures that require the development and implementation of a HASP. Generation of this document certifies that the workplace has been evaluated for hazards.

Solar construction safety, like general construction safety, requires more than knowledge of safety rules; it requires the ability to evaluate unique situations to actively create safe work practices. This HASP presents many common conditions found in typical solar work.

These examples should be used as initial steps toward developing safe work habits for employees and to assist employers in developing appropriate safety policies.

II. FACILITY HEALTH AND SAFETY ORGANIZATION

The Certificate Holder will oversee and coordinate all phases of the Facility. The specific duties of the technical advisors include:

- Providing technical input into the design and implementation of the site HASP
- Advising on the potential for worker exposure to project hazards along with appropriate methods and/or site controls to eliminate site hazards

A. Key Personnel

The following people share responsibility for health and safety at the site: Operations Site Manager, Site Supervisor, and Safety Manager. Refer to Section II.B of this Plan for a description of their roles and responsibilities. Contact information will be included in this Plan prior to the commencement of Facility construction.

B. Responsibilities of Key Personnel

i. Operations Site Manager (OSM)

The Operations Site Manager has authority to direct response operations and assumes total control over site activities. During construction, the General Construction Manager (GCM) may serve as the OSM, and during operations the Operations and Maintenance (O&M) Manager shall serve as the OSM. The OSM is also responsible for the following:

- Preparing and organizing background review of site work, the work plan, and the field team;
- Providing permission for site access and coordinating activities with appropriate officials;
- Ensuring that the work plan is properly carried out and on schedule;
- Together with the Site Supervisor (SS) and Safety Manager (SM), seeing that health and safety requirements are met;

- Working with the SS & SM to develop and implement corrective action plans to correct deficiencies discovered during site inspections;
- Ensuring that accident/Incident report procedures are followed (see Appendix A); and
- In conjunction with the SS, following up on incident reports.

ii. Site Supervisor (SS)

The Site Supervisor reports to the OSM and has authority to direct response operations and to assume control over on-site activities in the OSM's absence. Additionally, the SS is responsible for the following:

- Conducting site orientation for new employees;
- Conducting weekly safety meetings;
- Executing the work plan and schedule;
- Managing maintenance operations;
- Enforcing safety procedures;
- Coordinating with the OSM and SM in enforcing worker protection requirements;
- Working with the OSM and SM to develop and implement corrective action plans to correct deficiencies discovered during site inspections;
- Notifying, when necessary, local public emergency officials; and
- In conjunction with the SM, following-up on incident reports.

iii. Safety Manager (SM)

The Safety Manager is responsible for the following:

- Advising the SS on all aspects of health and safety on site;
- Investigating any reported unsafe acts or conditions;
- Updating the HASP to reflect changes in site conditions or the scope of work as needed;
- Monitoring any lost time incidents for this Project (if any) and determining how to improve work operation to prevent lost time incidents;

- Inspecting the site for compliance with this HASP;
- Working with the SS & OSM to develop and implement corrective action plans to correct deficiencies discovered during site inspections;
- Contacting an external/contracted certified Safety Professional for technical advice regarding safety issues as needed;
- Providing a means for employees to communicate safety issues to management in a discreet manner (e.g., suggestion box, etc.);
- Determining emergency evacuation routes, establishing and posting local emergency telephone numbers, and arranging emergency transportation as needed;
- Verifying that all site personnel and visitors have received the proper training and/or medical clearance prior to entering the site;
- Establishing any necessary controlled work areas (as designated in this HASP or other safety documentation);
- Presenting periodic/weekly safety meetings and maintaining attendance logs and records;
- Verifying that all site operations are in compliance with the requirements of this HASP;
- Issuing a “Stop Work Order” under the conditions set forth in this HASP; and
- Temporarily suspending individuals from field activities for infractions against the HASP.

iv. Work Team

The Work Team is to report to the SS and is responsible for the following:

- Safely completing on-site tasks required to fulfill the work plan;
- Attending and participating in weekly safety meetings;
- Notifying the SS and SM of suspected unsafe conditions; and
- Reporting all incidents to the SS and SM.

III. HEALTH AND SAFETY TRAINING PROGRAMS

This Section describes the health and safety training programs that site personnel must comply with.

A. Medical Surveillance

This program is intended to track the physical condition of the company's employees in compliance with applicable OSHA standards.

In general, training requirements and programs will comply with the OSHA General Industry (29 CFR 1910) standards and the Best Management Practices of the trade organization. As such, training requirements will consist of one or more of the following, depending upon the individual's work responsibilities:

- Craft/trade personnel assigned to the site shall be recognized as competent in their field of occupation through education, experience or a combination of both.
- Field personnel shall have a minimum of six months' experience or be accompanied by a person with six months' experience.
- Field personnel assigned to site will have first aid/CPR training.
- All visitors to the site are required to review this HASP and sign an Agreement and Acknowledgement form.

Note: Other training may be required depending on the task to be performed (e.g., confined space, excavation/trenching, fall protection, and hazard communication).

B. Initial Orientation

All project participants engaged in site operations will attend an initial site orientation where this HASP and the Emergency and Fire Response Plan (E&FRP) will be reviewed. Personnel will acknowledge having been given the orientation by signing an Agreement and Acknowledgement form.

IV. HAZARD ASSESSMENT

The following physical hazards are anticipated to be present on the site. Additional hazards may be noted during site construction activities that develop for the individual tasks.

A. Operational Chemicals

Potentially hazardous chemicals may be brought on-site for use in activities supporting the planned construction or operational work. These chemicals can consist of fuels for operating equipment/vehicles, glues for welding pipes, paints, etc. Contractors shall have Safety Data Sheets (SDSs) available for any chemical that is brought on-site. The use of operational chemicals is regulated by OSHA under the Hazard Communication Standard (29 CFR 1910.1200). For more detailed and specific information on a chemical, always refer to the SDS or equivalent information for the compound.

B. Hazard Communication Procedures

The purpose of hazard communication (Employee Right-to-Know) is to ensure that the hazards of all chemicals located at this site are communicated according to 29 CFR 1910.1200 to all personnel and subcontractors, as appropriate. Personnel must follow the hazard communication procedures listed in Sections IV and VII when handling potentially hazardous chemicals.

C. Container Labeling

All containers are to be kept labeled according to their contents. These container labels will include those from the manufacturers, if possible. All incoming and outgoing products shall be checked for identity, hazard warning, and name and address of responsible party. If operational chemicals are transferred from the original container to a smaller temporary container, the smaller container shall not hold more than what is required for one shift.

D. Employee Information and Training

Chemical hazards will be communicated to employees through weekly safety meetings and at the initial site orientation program. At a minimum, subcontractors and on-site employees will be instructed on the following:

- Chemicals and their hazards in the work area.
- How to prevent exposure to these hazardous chemicals.
- What the company has done to prevent workers' exposure to these chemicals.
- Procedures to follow if they are exposed to these chemicals.
- How to read and interpret labels and SDS for hazardous substances found on-site.
- Emergency spill procedures (including clean-up).
- Proper storage and labeling.

V. HAZARD IDENTIFICATION AND CONTROL

A copy of this HASP is to be maintained on-site. The Facility Site also borders a freight rail line to the east, which transports hazardous materials. A copy of the Pipeline and Hazardous Materials Safety Administration’s current Emergency Response Guidebook (ERG) shall also be kept on site.

A. General Hazards and Controls

Observe the following general procedures and practices:

- All on-site activities will be conducted during daylight hours. If work after dusk becomes necessary, adequate lighting must be provided.
- Hazardous work, such as handling hazardous materials and heavy loads, and equipment operation, etc., should not be conducted during severe storms.
- All temporary electrical power must have a ground fault circuit interrupter (GFCI) as part of its circuit if the circuit is not part of permanent wiring. All equipment must be suitable and approved for the class of hazard present.

B. Incident Reporting

Observe the following incident reporting procedures and practices:

- All on-site occupational deaths, injuries/illnesses, vehicle accidents, and near miss accidents/incidents must be reported promptly to the SM.
- Within eight (8) hours after the death of any employee as a result of a work-related incident, the SM must report the fatality by phone or by electronic submission using the reporting application located on OSHA's public Web site at www.osha.gov.
- Within twenty-four (24) hours after an in-patient hospitalization of one or more employees or an employee's amputation or an employee's loss of an eye, as a result of a work-related incident, the SM must report the in-patient hospitalization, amputation, or loss of an eye to OSHA by phone or application on the OSHA website.
- OSHA Form 300 must be filled out by the SM within 2 days of the recordable injury/illness. Record information about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. This form must be kept on-site for 5 years following the year to which it pertains.
- OSHA Form 301 must be filled out no later than 7 calendar days after a recordable work-related injury or illness has occurred. This form must be kept on-site for 5 years following the year to which it pertains.

Note: Incident and OSHA forms are provided in Appendix A for reference/use, as needed.

C. Weekly Safety Meetings

Weekly safety meetings reinforce the importance of accident prevention and make personnel aware of accident prevention techniques. The following procedures and practices will be completed:

- Weekly safety meetings will be held for facility personnel and site contractors.
- The weekly meeting form will be used to document meeting attendance.

D. Safety Inspections

Observe the following safety inspection procedures and practices:

- The SS and/or SM will inspect the Facility Site, as appropriate based on the nature of the work underway and will periodically interview one or two site workers regarding areas of safety concern or ideas for safety improvement.
- Any personnel who identify safety and occupational health deficiencies are expected to bring them to the attention of the SS and/or SM and suggest corrective measures.
- Formal safety review inspections will be conducted as needed and be recorded/filed for reference by the SM. These inspections will be shared with the OSM and SS.
- Any deficiencies in the effectiveness of this HASP will be immediately brought to the attention of the SM, SS and/or OSM, and be promptly corrected.

E. Manual Lifting and Material Handling

Many materials associated with on-site activities are moved by hand. The human body is subject to severe damage in the forms of back injury, muscle strains, and hernia if caution is not observed in the handling process. Whenever possible, use mechanical assistance to lift or move materials. If moving materials without mechanical assistance either use at least two people to lift or roll/lift with your arms as close to the body as possible.

Observe the following lifting and material handling procedures and practices:

- Use gloves when handling metal, wire rope, sharp debris, wood, piping, or other similar materials).
- The size, shape, and weight of the object to be lifted must first be considered. No individual employee is permitted to lift any object that weights over 50 pounds. Multiple employees or mechanical lifting devices are required for objects over the 50pound limit.

- Plan a lift before doing it (bend at the knees and lift with the legs; keep the natural curves of the back; do not use back muscles).
- Check the route to be followed for clearance.
- Use the buddy system when lifting heavy or awkward objects.
- Do not twist body while lifting.
- Know the capacity of any handling device (crane, forklift, chain fall, come-along) that you intend to use.
- Use tag lines to control loads.
- Ensure that your body, material, tools, and equipment are safe from such unexpected movement as falling, slipping, rolling, tripping, bowing, or any other uncontrolled motion.
- Trucks (i.e., flat beds) hauling equipment or materials must not be moved once rigging has been released.
- Chock all material and equipment (such as pipe, drums, tanks, reels, trailers, and wagons), as necessary, to prevent rolling.
- Tie down/secure all lightweight, large-surface-area material that has the potential to be moved by the wind.
- When working at heights, secure tools, equipment, and wrenches against falling.
- Do not store materials or tools on lighting fixtures, beam flanges, or similar elevated locations.

F. Slips, Trips, Falls, and Protruding Objects

A variety of conditions may exist that may result in injury from slips, trips, falls, and protruding objects. Slips and trips may occur as a result of wet, slippery, or uneven walking surfaces. To prevent injuries from slips and trips, always keep work areas clean; keep walkways free of objects and debris; and report/clean up any liquid spills upon discovery.

Protruding objects are any object that extends into the path of travel or working area that may cause injury when contacted by personnel. Always be aware of protruding

objects and, when feasible, remove or label the protruding object with an appropriate warning.

Slippery, uneven footing and tripping hazards will likely be present at the site. Be vigilant, avoid puddles, and wear footwear with slip resistant soles.

Be sure to walk around (not over or on top of) debris or trash piles. When carrying equipment, identify a path that is clear of any obstructions. It might be necessary to remove obstacles to create a smooth, unobstructed access point to the work areas on site.

During the winter months, snow shovels and salt crystals should be kept on site to keep work areas free of accumulated snow and ice. Furthermore, use sand or other aggregate material to help keep work surfaces from being slippery, especially where salt/calcium chloride cannot be used. In addition, make sure work boots have soles that provide good traction. When walking on ice is necessary, crampons or Yaktrax® should be used.

Maintaining a work environment that is free from accumulated debris is the key to preventing slip, trip and fall hazards at construction sites. Observe the following procedures and practices to prevent slips/trips/fall:

- Ensure orderly placement of materials, tools and equipment out of walkways;
- Promptly remove and secure storage of items that are not needed to perform the immediate task at hand.
- Inspect each work area for slip/trip/fall hazards prior to each work task.
- Communicate slip/trip/fall hazards identified to all personnel. Hazards identified shall be corrected or labeled with warning signs to be avoided.
- Ensure all personnel are always aware of their surroundings and maintain constant communication with each other.
- Place trash receptacles at appropriate locations for the disposal of miscellaneous rubbish, as appropriate.

G. Utilities

Various forms of underground/overhead utility lines or pipes may be encountered during site activities. Contact Dig Safely New York and follow all instructions prior to commencement of excavation activities. Prior to the start of any ground intrusive operation/activity, utility clearance is mandated (including authorization from all concerned public utility department offices, as appropriate). If insufficient data is available to accurately determine the location of the utility lines, the Certificate Holder and/or subcontractors will hand clear or use soft dig techniques to a depth of at least 5 feet below ground surface in the proposed areas of subsurface investigation. Should intrusive operations cause equipment to come into contact with utility lines, the SS and/or SM will be notified immediately, and work is to be suspended until the applicable utility agency is contacted and the appropriate actions for the particular situations can be taken.

Ensure personnel, sub-contractors, truck drivers, etc. and the signal person are aware of overhead power lines when working around or near them. Overhead power and utility lines may be present on, or adjacent to, the site and represent a potential hazard during the pre-construction, construction, operation and reclamation activities. Maintain a minimum of 10 feet between overhead power lines and lifts or truck/ equipment mast. Any deviation must be approved by the SM.

i. Underground/Utility Line Contact

Observe the following underground/utility line contact procedures and practices:

- Contact Dig Safely New York to have utility lines marked prior to excavation/trenching or drilling.
- Color Code:
  - yellow; gas,
  - oil or petroleum,
  - red; electric,
  - orange; television, telephone, communication,
  - blue; potable water,

  - green; sanitary sewer, storm sewer,
  - white; proposed area of excavation.
- Hire a private utility locating service for mark outs on private property. Site drawings or customer interviews provide assistance but should not be the sole information source.
- Hand dig, probe or use geophysical methods 5 feet down and 5 feet to each side of the utility marker to avoid breaking subsurface structures.

ii. Overhead Utility Line Contact

Solar electric systems present the unique condition of having two electrical power sources. Electrical power comes from both the utility and from the solar electrical system. Some disconnects are energized from both sides of the blade.

Observe the following overhead utility line contact procedures and practices:

- Maintain appropriate distance from overhead utilities:
  - Maintain at least 10 feet from overhead power lines, up to 50 kV. Refer to the site map for overhead collection system locations, if present.
  - If voltage is unknown, remain at least 20 feet from overhead power lines.
- Conduct a daily site inspection to determine where activities will take place and the location of overhead utilities and overhead obstructions. Once identified, place warning tape on poles and/or guy wires and attempt to plan the work so that no contact will be made with the overhead utilities or obstructions. Share the information with the all site personnel.
- As a precaution, a spotter is always to be used during the maintenance phase when near overhead utilities or overhead obstructions. If contact is deemed unavoidable, consult with the SM to evaluate the area to determine if the overhead utility or obstruction can be removed prior to engaging in the activity.
- If equipment accidentally comes into contact with an energized overhead line, the equipment operator should stay inside the equipment until the line can be safely de-energized. If the equipment operator must evacuate the

equipment (for example, due to fire), he must jump from the equipment and not make contact with the equipment and the ground at the same time.

iii. Sites Containing Fiber Optic Cables

Because of the sensitivity of fiber optic cables and the cost of damaging them, the following process, will be adopted as mandatory, and, as a minimum effort.

- If it is determined that a work site which requires subsurface work contains a fiber optic cable within 50 feet of the outside working boundary, a job specific work plan will need to be developed to ensure that the work can be accomplished while ensuring that the fiber optic cables will not be affected.
- No subsurface work will occur at a site as referred to above, without the owner of the fiber optic cable being present.
- The fiber optic cable will not be considered located unless a representative of the owner of the fiber optic cable has visited the site, confirmed the location of the cable, and signed the work plan, which shall contain a site plan indicating the locations(s) of the subsurface work and location of the fiber optic cable.
- Deviation from any of the above bullet point must be approved by the OSM.

H. Hand and Power Tools

Observe the following procedures and practices when working with hand and power tools:

- Keep hand tools in good working condition as worn tools can be dangerous (e.g., the “teeth” in a pipe wrench can slip if worn smooth; an adjustable wrench will slip if the jaws are sprung; hammer heads can fly off loose handles).
- Tools subject to impact (e.g., chisels, star drills, and caulking irons) tend to “mushroom”. Keep them dressed to avoid flying spalls. Use tool holders.
- Do not force tools beyond their capacity. No “homemade” handles or extensions (cheaters) are permitted!

- Flying objects can result from operating almost any power tool, so always warn people in the vicinity and use proper eye protection.
- Each power and/or hand tool should be examined before use for damaged parts, loose fittings, and frayed or cut electric cords. Tag and return defective tools for repairs. Inspect also for adequate lighting, proper lubrication, and abandoned tools or material that could “vibrate into trouble.”
- Lockout/Tagout (LO/TO) procedures must be followed prior to making tool adjustments.
- Proper guards or shields must be installed on all power tools before use. Do not use improper tools or tools without guards in place.
- Replace all guards before start-up. Remove cranks, key, or wrenches used in service work.

I. Heavy Equipment Operations

Observe the following heavy equipment operations procedures and practices:

- Wear gloves while attaching support members to protect against pinching injuries.
- While working from elevated levels greater than four feet, ensure that all employees have 100% fall protection, i.e., full body harnesses or guardrails.
- Do not stand under loads that are being raised or lowered with cranes.
- The subcontractor must conduct pre-operational inspections of all equipment. In addition, daily inspections will be conducted on the equipment prior to site activities.
- Always stay out of the swing radius of all heavy equipment. Always use a spotter during movement of equipment. The spotter and others, as appropriate, shall maintain constant communication with the operator.
- All operators must have adequate training and be qualified to operate the heavy equipment unit.
- Conduct site evaluation to determine proper positioning for the unit. Make sure surface is level. Cordon off holes, drop-offs, bumps or weak ground surfaces.

- Equipment used must have functioning back-up alarms.
- Cab glass must not be cracked or otherwise damaged.

i. Crane Safety

If any type of crane is used for this Project, the following guidelines must be adhered to:

- All cranes, cables, and hoists will be operated and maintained according to the manufacturer's specifications for maintenance, operation, and inspection.
- All equipment used for crane operation will be inspected daily, before operations start. A qualified person will inspect cables, sleeves and pulleys, the boom and boom stops on a regular basis.
- No load will be lifted which exceeds the rated capacity of the crane at the operating boom angle.
- Cranes operated on soft ground will employ the use of mats. Extreme caution should be used when operating near the edge of an excavation.
- Slings should be adequate for the load being lifted. A qualified person will ensure that the proper sling is being used and that it is correctly applied before the lift is made.
- Taglines or guide ropes will be used on loads that are liable to swing or must be guided through a restricted space. Care will be taken to guard against injury to workmen, structures, etc., from swinging loads.
- Cranes will be moved only when directed by a signalman.
- Only qualified crane operators will be allowed to operate cranes.
- The operator will never leave the machine while a load is suspended.
- Power will be cut off and all controls locked before the operator leaves the cab. The boom will be lowered to the ground when leaving the machine overnight.
- A qualified signalman alone gives hand signals to the crane operator to ensure safe and efficient operation, however, a STOP signal can be given

by anyone. These signals will be reviewed prior to site operations and periodically reviewed during this Project. Standard hand signals will be used.

- Cranes and their loads must maintain 10 feet from overhead power lines up to 50 kV. For every kilovolt over 50 kV, an additional 0.4 foot is required.
- Cranes will have swing radius protection in place where applicable.
- Components will be inspected in accordance with manufacturer's specifications.
- A lift plan will be submitted for all critical lifts performed.
- Cranes used will have a current annual inspection.
- When using a crane, hands should not be used when the load is being lifted or lowered. Use non-conductive tag line to help direct and position the load.
- Loads will not be swung over the heads of personnel

ii. Rigging

The following general rigging safety procedures shall be followed:

- Rigging activities while standing on structures over 4 feet from ground will not be conducted during periods when the wind is gusting in excess of 20 mph. Wind speed will be obtained from the MET panel.
- Rigging equipment for material handling will be inspected daily. Any equipment determined to be defective will be removed from service.
- Rigging equipment maintenance and use shall be in accordance with manufacturer specifications.
- A positive latching device will be used during hoisting to secure loads.
- Wire rope removed from service due to defects will be marked as unfit for rigging use.
- Safe working loads and classifications of steel wire rope and slings shall be determined by using the manufacturer's rating.
- All loads will be rigged by a Qualified Rigger and Signal Person who is certified per OSHA 29 CFR 1926.1400 standards.

iii. Forklift Operations

Observe the following forklift operation procedures and practices:

- Only qualified personnel may operate a forklift.
- Park the forklift with the forks placed on the ground.
- Do not leave the forklift running if you must get off.
- Personnel operating forklifts must be certified for the forklift they are operating.
- Operators will be responsible to inspect the forklift before use.
- All powered industrial trucks must be maintained in safe condition.
- Manufacturer specifications will be followed, and capacities will be adhered to.
- Alarms and other safety features must be functioning.
- Forklifts will not be used to hoist personnel unless it is allowed by manufacturer.
- Battery charging areas will be well ventilated to prevent buildup of hydrogen gas.

iv. Equipment Maintenance

Maintenance and repair activities should only be performed by qualified trained technicians. It is important to take a time out for safety with your maintenance personnel before commencing any routine maintenance or repair work. In addition, all equipment must have maintenance "manuals" on-site. These manuals are to be reviewed by maintenance personnel as part of the HASP.

At a minimum, consider the following bullet items relating to equipment maintenance.

- A responsible or lead person should be designated if more than one individual is performing the maintenance activity.

- The lead person should be responsible for directing the activities, retaining the LO/TO or ignition keys, and being aware of where people are always, etc.
- The owner's manual should be consulted to properly identify the problem and to ensure that the proper steps are included in the development of the HASP.
- The lead person should involve all support personnel in the development of the HASP.
- Ensure that all hood, cowl or maintenance compartment doors have positive locking mechanisms for the open position.
- Observe all appropriate LO/TO procedures.
- Be aware that some equipment components may have substantial stored energy (springs, capacitors, pumps, etc.) that if not properly de-energized could cause serious injury.
- Take the keys out of the ignition switch before commencing maintenance activities; they should be retained by the lead person.
- Ensure that all persons are properly accounted for prior to closing any maintenance compartments, shifting loads, re-energizing, re-starting or moving the equipment.
- Only use proper tools, cranes and lifting devices; a lift plan may be required.
- Do not allow anyone to work under a suspended load; it should be blocked appropriately.
- Inspect all slings and cables prior to performing the task.
- Fall protection may be required on some equipment.

v. Heavy Equipment Cleaning

Observe the following heavy equipment cleaning procedures and practices:

- Wear modified Level D protection, including a face shield and safety goggles.
- Ensure that other personnel are out of the area prior to cleaning.

- Ensure that safe work practices and precautions are taken to minimize the potential for physical injury from high-pressure water spray.
- The pressure washer wand must be equipped with a safety release handle.
- Remove loose debris from heavy equipment prior shipping off site.

J. General Falls/Ladders

Falls are always unexpected; even falls from a low height or from tripping can potentially be dangerous. A fall or tripping on jobsite debris can result in landing in an awkward position and/or onto potentially hazardous objects; therefore, the following procedures and practices are to be observed:

- Assess work areas for fall hazards (a fall protection system is required if work is conducted at a height of four feet or over).
- Use construction grade fiberglass ladders rated for 300 pounds at a minimum.
- Use ladders with secure safety feet.
- Pitch ladders at a 4:1 ratio (rule of thumb).
- Secure ladders at the top or have another person at the bottom to help stabilize it.
- Ladders used to access an upper landing surface shall extend at least three feet above the upper landing surface.
- Use non-conductive ladders near electrical wires.
- The top two steps of a stepladder should not be used as a step and brackets must be fully extended when using.
- Keep three points of contact on ladders.
- Do not carry any object or load that could cause a loss of balance or a fall. Never climb a raised platform or stand on the mid-rail or top-rail.
- Tools should always be hung or put into a belt whenever possible.
- Ladders are to be inspected for defects/cracks (defective ladders are to be removed from service).
- Workers will be adequately trained on safe use of ladders, stepladders, etc.

- All fall hazards of 4’ or more in height must, if possible, be guarded with a guardrail system that consists of a top rail located at 42” (+/- 3”) and a mid-rail located at 21” or the approximate middle (the top rail must be capable of supporting a 200 lb. load without deflecting more than 2”). Where the potential for falling objects is present toe boards are to be installed.

When work cannot be performed from a protected area or platform and workers are exposed to falls that are greater than four feet then workers must be protected through personal fall arrest or fall restraint.

Workers who are exposed to falls must be properly trained on the requirements of the standard. Subcontractors will be responsible to train their own employees to comply with OSHA’s Fall Protection Standard.

i. Personal fall-protection systems

A full body harness is commonly used for fall arrest in construction safety. A properly donned harness has all buckles securely fastened and leg straps properly snug. If a fall should occur, this setup will assist in protecting your body during the fall. Note that rigging up improperly provides a false sense of security. If your safety harness is not set up properly, it will probably not protect you during a fall. The forces on the harness that occur from even a short distance can cause injury in a well-fitted harness. Wearing an improperly fitted harness during a minor fall could lead to tragic consequences.

ii. Using fall-restraint systems

Fall restraint systems prevent you from falling over or off an elevated surface. These systems stop you short before you get to the edge of an elevated surface. Workers can be protected from unprotected edges by properly using a fall restraint system that prevents them from reaching the edge.

iii. Using fall-arrest systems

Fall-arrest systems protect you after a fall. They are designed to 'arrest' or stop your fall safely, before you impact the ground or a surface below the one you are working on. In order to perform properly, fall-arrest systems must be used properly.

Important points to remember when using fall-arrest systems when applicable:

- Inspect your gear properly to ensure it will protect you when needed.
- A fall-arrest anchor must be capable of supporting 5,000 lbs. for each worker.
- A full body harness with a D-Ring located in the mid back near shoulder level must be used.
- Your full body fall-arrest harness must be correctly worn. A loosely donned harness will not protect you properly if you fall.
- Only locking snap hooks and carabineers can be used for fall-arrest connectors.
- You must ensure that your fall-arrest system is properly adjusted for height – a system with too much line allowing you to hit the ground before it stops your fall is worthless. You must add the line length, your height, plus the elongation of the shock absorber section and take the anchorage point into consideration. If you are constantly moving on a rooftop you may need to use a retractable fall-arrest system or adjust your lanyard appropriately to ensure your system will stop you before you hit the ground.
- Prompt rescues should be planned for after a fall. Fall-arrest harnesses are designed to stop your fall and reduce injuries – they are not designed to hang in for extended periods of time. Hanging in a body harness can lead to suspension trauma leading to serious further injuries. Prompt rescue is essential for fall-arrest protection.
- Follow the manufacturer's guidelines for the equipment you are using and always make sure the full system includes compatible components.

- All anchor points must be able to support at least 5,000 pounds per employee attached to it. It is not permissible to anchor personnel to a guardrail, hoist, or anything that cannot support 5,000 lbs. per employee.
- Anchorage points must be positioned so that the free fall distance is less than six feet. When using retractable lanyards, the anchorage points must be positioned so that the anchorage point is behind the worker or above them to help avoid the pendulum effect.

iv. Inspection

Prior to each use, all personal fall arrest systems must be inspected to assure that they are not defective. This applies to any equipment that is being used for fall restraint (e.g., retractable lanyards). At minimum, equipment must be inspected for:

- Cuts, tears, or abrasions
- Cracks
- Undue stretching
- Mold
- Deterioration
- Distorted hooks or faulty hook springs
- Nonfunctioning parts
- Loose or damaged mountings
- Tongues that don't fit the shoulder of buckles
- Contact with fire, acid, or other corrosives
- Alterations or additions that limit its effectiveness.

K. Fire Extinguishers

To reduce fire and burn hazards, fire extinguishers should be kept at the site and made accessible. Make sure to read the manufacturer’s directions for proper use and recharge needs. Note that fire extinguishers are meant to put out very small fires. If a fire starts to burn out of control, leave the area and call for help immediately.

Fire extinguishers come in different types to fight different fires. The common class extinguishers are:

- Class A – Ordinary combustible material fires (wood, paper, rubber, and many plastics).
- Class B – Flammable liquid, gas or grease fires.
- Class C – Energized-electrical equipment fires (extinguishing material does not transmit electricity back to the user of the extinguisher).

A multipurpose ABC extinguisher is a good choice for most situations. Extinguishers that use CO2 as the primary extinguishing component (used for BC rated fires) are not recommended as they will not work well on class A fires and they extinguish the fire by removing oxygen. When working in small spaces, it could be dangerous to use a Class B or C extinguisher that displaces the oxygen you need to breath. The ABC fire extinguisher at right is a good example of a small unit, weighing less than 4 lbs. Fire extinguishers must be checked monthly to ensure they are charged and ready to work.

L. Fire Control

Observe the following fire control procedures and practices:

- Smoke only in designated areas and fully extinguish the cigarette prior to disposing of it in an approved refuse collection location.
- Keep flammable liquids in closed containers.
- Keep site clean; avoid accumulating combustible debris.
- Follow Hot Work Safety Procedures when welding or performing other activities requiring an open flame.
- Isolate flammable and combustible materials from ignition sources.
- Ensure fire safety integrity of equipment installations according to NEC specifications.

M. Hot Work Procedures

Before any welding, cutting, grinding, or other hot work is permitted, the area shall be inspected by the SS or the SM to ensure that the following requirements have been met:

- Cutting and welding equipment to be used shall be in safe operating condition and in good repair.
- Where practical, all combustible material shall be relocated at least 50 feet horizontally from the work site. Where relocation is impractical, combustibles shall be protected with flame-proofed covers or otherwise shielded.
- Remove flammable liquids from the area.
- Wear proper PPE and utilize hot work permits.
- At a minimum, provide two fully charged and operable type ABC fire extinguishers.
- Fire watchers shall be required whenever hot work is performed. They will watch the area for 30 minutes after work is performed and conduct a follow up check after two hours has passed.

N. Electric Shock

Electrical shock occurs when you complete a path for current to flow through your body. The risk of shock is always present in live electrical circuits. Since electric current will take the path of least resistance to ground, if you contact a live circuit and complete a path to ground or to another circuit, you will get shocked.

Shocks can be minor resulting in a very sharp pain. Shocks can also cause serious injury or death. Getting shocked can also lead to falls from rooftops or ladders, leading to fall-related injuries. Although, in general, the higher the voltage, the higher the risk, it is possible that electric currents of as little as 100mA can induce ventricular fibrillation, disrupting your heart’s normal blood pumping operation, resulting in convulsions and possibly death. In comparison, a typical house electrical service of 120vAC can produce currents thousands of times higher than 100mA.

Observe the following procedures and practices to prevent electric shock:

- Never work alone. Both workers should be trained in CPR.
- Use ground-fault circuit interrupters as required i.e. wet locations.
- Perform LO/TO procedures.
- Use three-pronged plugs and extension cords.
- Contact your local underground utility-locating service.
- Follow code requirements for electrical installations in hazardous locations.
- Always use qualified electricians to install electrical equipment and when conducting troubleshooting activities within 10 feet of exposed live wires.
- Ensure all live panels have covers in place for protection against accidental contact
- Protect unused knock out openings or unused breaker openings with plugs or blanks
- Ensure flexible cord assemblies have proper strain relief

i. Solar Disconnects

Solar electric systems present the unique condition of having two electrical power sources. Electrical power comes from both the utility and from the solar electrical system. Some disconnects are energized from both side of the blade. Arc-flash can be deadly if hands are near exposed, uncovered electrical equipment. Read all equipment warning labels before working on electrical disconnects.

ii. Photovoltaic (PV) Modules

The following cautions should be observed when handling PV modules:

- Caution should always be used when handling PV modules. Even a mild shock delivered at the wrong time can be dangerous.
- Some common myths claim that AC (alternating current) is more dangerous than DC (direct current) or vice versa. Neither myth is true because both AC and DC currents present significant safety hazards. The truth is that electrical current can kill – whether it is DC or AC. They are both dangerous

sources of current and both should be treated with the same safety practices.

- Note that PV inverters may have significant capacitors that could hold a charge after the power source is removed. Always follow manufacturer's directions and check the equipment you are working on for specific operation and safety information.
- The only method of 'turning off' a PV array is removing the 'fuel' source – the sun. If needed, cover the PV array with an opaque cover that blocks sunlight to prevent a PV module from generating electricity.
- Small amounts of sunlight can produce a voltage potential and shock or arc-flash hazard
- Voltages can be present even in very low light conditions. While these voltages may not be enough to operate the inverter, the potential voltages are enough to produce a shock to an unsuspecting installer. Surprise shocks can cause direct injury or a fall.
- PV connectors are not permitted to be disconnected under load and can create an arc flash hazard. Prior to connecting or disconnecting, disrupt the current path by disconnecting the DC Disconnect switch using proper LO/TO procedures.
- Use a current clamp to check for hazardous energy prior to working on a PV array.

iii. Working with Battery Energy Storage Systems (BESS)

Make sure all employees working with BESS are appropriately trained for the hazards they will face.

- Refer to NFPA 70-E and manufacturer guidelines for issues pertaining to proper handling, installation, and disposal of ESS.
- Typical batteries are lithium-ion. Lithium-ion batteries can experience thermal runaway if improperly loaded or exposed to abnormally high temperatures. Always follow manufacturer's instructions on hoisting, installing, and servicing ESS.

- These ESS are provided with internal fire suppression systems. If an alarm sounds, or a fire is suspected, evacuate the container, secure all doors, and immediately call 911. Never investigate the cause of an alarm before calling 911!

O. Physical Injury

Observe the following procedures and practices to avoid physical injuries:

- Hard hats and safety classes are required PPE when working on/at the Facility.
- Maintain visual contact with the equipment operator and wear an orange safety vest when heavy equipment is used on-site or when adjacent to or in public roadways.
- Avoid loose-fitting clothing.
- Prevent slips, trips and falls—keep work area uncluttered.
- Keep your hands away from moving parts.

i. Burns and Eye Injuries

Burns and eye injuries are common hazards. Seek immediate medical attention for any eye injuries. Burns are classified in three different levels of severity:

- First degree: Least serious burn (when it affects a small area only). Red skin, pain, and swelling may occur.
- Second degree: More serious burn. Intense red coloring, with splotchy appearance; severe pain and swelling may occur.
- Third degree: Most serious burn. Skin may appear black or charred white. Often there is so much damage that no pain occurs. Even small third-degree burns are dangerous and can induce shock. You should seek medical attention immediately for all third-degree burns.

The size of burn is important in determining the severity of the accident. When only a small area is burned (except for third-degree burns) it is less serious. First and second-degree burns affecting only 2 to 3 inches in diameter or less can be treated as minor burns. First aid for minor burns:

- Cool the burn as soon as possible by holding the burned area under cold running water for 5 minutes or until the pain subsides. If cold running water is not available, you can use a cool dampened cloth to cover the area or immerse the burn in cold water.
- Burns should be covered with a sterile gauze bandage. Wrap the gauze loosely to avoid putting pressure on burned skin. Bandaging keeps air off the burned skin, reduces pain, and protects blistered skin.

Ice is not recommended for burns as the direct application of ice can further damage the skin due to frostbite.

ii. Heat Stress

Heat stress risk may vary based upon work activities, PPE/clothing selection, geographical locations, and weather conditions. To reduce the potential for developing heat stress, be aware of the signs and symptoms of heat stress and watch fellow employees for signs of heat stress. The guidance below will be used in identifying and treating heat-related illness.

Table 1: Identification and Treatment of Heat-Related Illness

Type of Heat-Related Illness	Description	First Aid
Mild Heat Strain	The mildest form of heat-related illness. Victims exhibit irritability, lethargy, and significant sweating. The victim may complain of headache or nausea. This is the initial stage of overheating, and prompt action at this point may prevent more severe heat-related illness from occurring.	• Provide the victim with a work break during which he/she may relax, remove any excess protective clothing, and drink cool fluids. • If an air-conditioned spot is available, this is an ideal break location. • Once the victim shows improvement, he/she may resume working; however, the work pace should be moderated to prevent recurrence of the symptoms.
Heat Exhaustion	Usually begins with muscular weakness and cramping, dizziness, staggering gait, and nausea. The victim will have pale, clammy moist skin and may perspire profusely. The pulse is weak and fast, and the victim may faint unless they lie down. The bowels may move involuntarily.	• Immediately remove the victim from the work area to a shady or cool area with good air circulation (*avoid drafts or sudden chilling*). • Remove all protective outerwear. • Call a physician. • Treat the victim for shock. (*Make the victim lie down, raise his or her feet 6–12 inches, and keep him/her cool by loosening all clothing*). • If the victim is conscious, it may be helpful to give him/her sips of water. • Transport victim to a medical facility ASAP.

Heat Stroke	The most serious of heat illness, heat stroke represents the collapse of the body's cooling mechanisms. As a result, body temperature may rise to 104 degrees Fahrenheit or higher. As the victim progresses toward heat stroke, symptoms such as headache, dizziness, nausea can be noted, and the skin is observed to be dry, red, and hot. Sudden collapse and loss of consciousness follows quickly, and death is imminent if exposure continues. Heat stroke can occur suddenly.	• Immediately evacuate the victim to a cool/shady area. • Remove all protective outerwear and as much personal clothing as decency permits. • Lay the victim on his/her back w/the feet slightly elevated. • Apply cold wet towels or ice bags to the head, armpits, and thighs. • Sponge off the bare skin with cool water. • The main objective is to cool without chilling the victim. • Give no stimulants or hot drinks. • Since heat stroke is a severe medical condition requiring professional medical attention, emergency medical help should be summoned immediately to provide onsite treatment of the victim and proper transport to a medical facility.

The implementation of preventative measures is the most effective way to limit the effects of heat-related illnesses. During periods of high heat, adequate liquids must be provided to replace lost body fluids. Replacement fluids can be a 0.1 percent saltwater solution, a commercial mix such as Gatorade, or a combination of these with fresh water. The replacement fluid temperature should be kept cool, 50^{o}F to 60^{o}F, and should be placed close to the work area. Employees must be encouraged to drink more than the amount required to satisfy thirst.

Cooling devices such as vortex tubes or cooling vests can be worn beneath impermeable clothing. If cooling devices are worn, only physiological monitoring will be used to determine work activity.

All workers are to rest when any symptoms of heat stress are noticed. Rest breaks are to be taken in a cool, shaded rest area. Employees shall remove chemical protective garments during rest periods and will not be assigned other tasks.

All employees shall be informed of the importance of adequate rest and proper diet, including the harmful effects of excessive alcohol and caffeine consumption.

iii. Responding to Cold-Related Illness

If work on this project is conducted in the winter months, thermal injury due to cold exposure can become a problem for field personnel. Work will cease under unusually hazardous conditions (e.g., wind-chill less than 0°F, or wind-chill less

than 10°F with precipitation). Systemic cold exposure is referred to as hypothermia. Localized cold exposure is generally labeled frostbite. Recognition of the symptoms of cold-related illness will be discussed during the health and safety briefing conducted prior to the onset of site activities.

iv. Hypothermia

Hypothermia is a life-threatening condition in which the core body temperature falls below 95^{o}F. Hypothermia can occur at temperatures above freezing particularly, when the skin or clothing becomes wet. During exposure to cold, maximum shivering occurs when the core temperature falls to 95^{o}F. As hypothermia progresses, depression of the central nervous system becomes increasingly more severe. This accounts for the progressive signs and symptoms ranging from sluggishness and slurred speech to disorientation and eventually unconsciousness. The ability to sustain metabolic rate and reduce skin blood flow is diminished by fatigue. Thus, fatigue increases the risk of severe hypothermia by decreasing metabolic heat. Additionally, because blood flow through the skin is reduced to conserve heat, the skin and underlying tissues become more susceptible to frostbite.

v. Frostbite

Frostbite is both the general and medical term given to areas of cold injury. Unlike hypothermia, frostbite rarely occurs unless environmental temperatures are less than freezing and usually less than 20^{o}F. Frostbite injuries occur most commonly on the distal parts of the body (nose, earlobes, hands, and feet) that are subject to intense vasoconstriction.

The following are precautions that will be taken to prevent illness relating to cold stress:

- Educate worker to recognize the symptoms of frostbite and hypothermia;
- Ensure the availability of an enclosed, heated environment. The nearest heated environment will likely be the interior of the vehicles at the site;
- Ensure the availability of dry changes of clothes;

- Record temperature readings; and
- Ensure the availability of warm beverages, preferably non-caffeinated.

P. Vehicular Traffic/ Traffic Control

During certain work tasks, the establishment of traffic control to adequately protect workers and the public may be required on-site. Site specific requirements will be determined by the site supervisor/SSO on a case-by-case basis. Only approved traffic control devices in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) will be used on public roadways in accordance with the applicable State regulatory guidance.

General traffic control precautions include placing a work vehicle between your worksite and oncoming traffic whenever possible. Not only is the work vehicle a large, visible warning sign, but if an oncoming car fails to yield or deviate, the parked vehicle rather than your body will absorb the first impact of a crash. Turn the vehicle wheels so that if it is struck, it will swing away from the worksite. When using cones or other devices to modify traffic flow, ensure use of the proper taper length and device spacing to provide adequate warning distance to oncoming motor vehicles. In addition, proper PPE is to be worn during traffic operations, to include hardhat and high-visibility vests.

Observe the following procedures and practices regarding vehicular traffic:

- Wear traffic safety vest when vehicle hazard exists.
- Use cones, flags, barricades, and caution tape to define work area.
- Use vehicle to shield work area.
- Engage police detail for high-traffic situations.
- Always use a spotter in tight or congested areas for material deliveries. Certified flaggers will be used for traffic control, and work zones will meet MUTCD requirements

Project personnel and visitors are to strictly observe any speed limits posted within the project boundaries. In the absence of posted speed limits all project personnel and visitors will observe a speed limit of 20 mph. Wildlife is present throughout the site and

driveways are not fenced to exclude wildlife from crossing them. While driving, project personnel and visitors should be alert for wildlife, and extra attention and caution should be paid during low visibility conditions to avoid collisions with wildlife.

Q. Noise

Observe the following procedures and practices regarding noise:

- Wear hearing protection whenever it is necessary to speak above normal conversational speech due to loud noise—this much noise indicates the need for protection.
- Hearing protection will be required when noise levels exceed 85 dBA.

R. Static Electricity/Transfer of Flammable Liquids

Observe the following procedures and practices regarding static electricity when transferring flammable liquids:

- Do not create static discharge in flammable atmosphere.
- Electrically bond and ground pumps, transfer vessels, tanks, drums, bailers, and probes when moving flammable liquids.
- Electrically bond and ground vacuum trucks and the tanks they are emptying.
- Do not splash fill containers with flammable liquids.
- Pour flammable liquids slowly and carefully.
- Fire extinguishers (class B) must be available, charged, inspected, and ready.

S. Biological Hazards

Biological hazards may be present since all work will be performed at rural remote locations; a general discussion of the most common biological hazards found on project sites follows.

i. Venomous Animals/ Insects

Some animals can inject venom (these include various types of spiders and snakes). The only venomous spiders that is considered likely to be encountered is the Black Widow. It likes dark, moist conditions. Other spiders possess venom, but

they are not harmful to humans. As with all open wounds, take care to clean and disinfect spider bites if they appear infected, as staph infections (caused by staphylococcus bacteria) can sometimes result from spider bites.

Snakes have limited distributions and generally avoid humans, so in most areas you are unlikely to encounter them.

If bitten by any of these animals, special care should be taken to treat the wound as it may lead to complications due to the toxin. A bite from a venomous snake in the Northeast United States, which may inject varying degrees of toxic venom, is rarely fatal but should always be considered a medical emergency. Bites from black widow spiders should be treated as medical emergencies. All other bites should be reported, proper first aid implemented, and the wound progression tracked.

Insects for which precautionary measures should be taken include mosquitoes (potential carriers of disease aside from dermatitis), black flies, wasps, bees, ticks, and European fire ant.

Wasps and bees will cause a painful sting to anyone if they are harassed. They are of most concern for individuals with allergic reactions who can go into anaphylactic shock. Also, instances where an individual is exposed to multiple stings can cause a serious health concern for anyone. These insects are most likely to sting when their hive or nest is threatened.

Ticks can be encountered when walking in tall grass or shrubs. They crawl up clothing searching for exposed skin where they will insert mouthparts to drink blood. Most serious concern is possibility of contracting Lyme or other tick-borne disease.

Observe the following procedures and practices regarding insects/spiders:

- Tuck pants into socks.
- Wear long sleeves.

- Use insect repellent.
- Avoid contact by always looking ahead to where walking, standing, sitting, leaning, grabbing, lifting, or reaching into.
- Check for signs of insect/spider bites, such as redness, swelling, and flu-like symptoms daily.
- If a tick bite is found, remove the tick, including the head, using tweezers. Check for signs of a bullseye around the tick bite for up to 1 month after the bite. If a bullseye is observed, it is recommended that the victim immediately see a doctor for Lyme disease prevention medication.

Observe the following procedures and practices regarding poisonous snakes:

- Avoid walking in areas where snakes may nest or hide. When walking, always look ahead for signs of snakes.
- Use extreme caution when moving or lifting objects that could be used by snakes as cover.
- Never reach under or behind objects or into other areas where snakes may hide.
- Poisonous snakebites are medical emergencies—seek immediate medical treatment.
- Wear sturdy leather boots.

Observe the following procedures and practices regarding ticks:

- Do not detach a tick with bare fingers—use fine-tipped tweezers.
- Grip the tick as close to skin as possible and gently pull it straight away from until it releases its hold.
- Do not twist the tick as when pulling; do not squeeze its bloated body. Doing so may inject bacteria into your body.
- Thoroughly wash hands and the bite area with soap and water. Then apply an antiseptic to the bite area.

- Save the tick in a small container with the date, the location of the bite on your body, and the probable location of initial contact with the tick.
- Notify the SS of any tick bites as soon as possible.

ii. Poisonous Plants

Sensitivity to toxins generated by plants varies according to dosage and the ability of the victim to process the toxin; therefore, it is difficult to predict whether a reaction will occur or how severe the reaction will be. Staff should be aware that there are many organisms capable of causing serious irritations and allergic reactions. Some reactions will only erupt if a secondary exposure to sunlight occurs. Depending on the severity of the reaction, the result can result in severe scarring, blindness or even death.

Plants that should be avoided include poison sumac, poison ivy (terrestrial and climbing), poison oak, giant hogweed (or giant cow parsnip), wild parsnip, devil's club and stinging nettle. Many others are extremely poisonous to eat (e.g., poison hemlock, water parsnip).

Many plants are not harmful to touch but may contain poisonous berries or foliage that could cause serious complications (or death) if they are ingested. Do not to eat any berries or plants unless you are sure of their identity. Examples of common poisonous or irritating plant species potentially found on the Facility Site, are depicted in Table 2, below.

Observe the following procedures and practices regarding poisonous plants.

- Avoid entering areas infested with poisonous plants.
- Immediately wash any areas that encounter poisonous plants.
- Use PPE when there is possibility of contact with poisonous plants.

Table 2: Hazardous Plant Identification Guide

Poison Ivy

- Grows in West, Midwest, Texas, East
- Several forms – vine, trailing shrub, or shrub
- Three leaflets (can vary 3-9)
- Leaves green in summer, red in fall
- Yellow or green flowers
- White berries


Poison Oak

- Grows in the East & Pacific Coast
- 6-foot tall shrubs or long vines
- Oak-like leaves, clusters of three
- Yellow berries


Giant Hogweed

- Common in western NY; occasionally found in eastern NY
- 8- to 14-feet tall
- Small, white flowers form a large flat- topped umbel
- Leaves up to 5-feet across, lobed and deeply incised

Stinging Nettle

- Grows 20-40 inches tall
- Has pointed leaves with jagged edges and a slight sheen
- Leaves grow opposite one another in four directions
- Has stinging hairs lining leaves and on stem

iii. Animal Carcass

You may encounter an animal carcass within the Facility. If discovered, the carcass should not be touched without using proper PPE to avoid contact with potentially harmful viruses and/or bacteria (depending upon what caused its death).

VI. PERSONAL PROTECTIVE EQUIPMENT (PPE)

The minimum level of PPE should be selected according to the hazards that may be encountered during site activities. Only PPE that meets the following American National Standards Institute (ANSI) standards are to be worn. At a minimum, all workers will wear the following protection while working on the site:

- Eye protection - ANSI Z87
- Head protection - ANSI Z89
- Foot protection - ANSI Z41
- Traffic vest in high traffic areas and around heavy equipment and driveways.

Electrical PPE must conform with all requirements of the National Fire Protection Agency (NFPA) 70-E.

Hearing protection shall be worn in areas of high noise levels exceeding 85dBA.

Workers must maintain proficiency in the use and care of PPE that is to be worn. Prior to using PPE, all equipment must be inspected to ensure proper working condition.

VII. SITE CONTROL/COMMUNICATIONS

To prevent the public or unauthorized personnel from entering the Facility, each work area will be clearly identified using signs or physical barriers. A log of all personnel at the Facility Site shall be maintained by the SS. An accountability system shall be established by the SS, in coordination with the Facility's Emergency Coordinator, to quickly identify the number of people in each PV array in the event of an emergency.

The following are standard safe work practices that apply to all site personnel; they will be discussed in the safety briefing prior to initiating work on the site:

- All workers and visitors will attend a Facility Site orientation given by the SS and/or SM.
- When entering and exiting the Facility Site, or PV arrays within the Facility Site, all personnel shall update the Facility accountability system.
- A positive means of communication must be maintained between personnel on-site when performing hazardous duties, i.e., radio, cell phone, tapping hub cage.
- All personnel must comply with established safety procedures. Any staff member who does not comply with safety policy will be immediately dismissed from the site.

Communications between all the Certificate Holder's employees and subcontractors at the work site can be verbal and/or non-verbal. Verbal communication can be affected by the on-site background noise and various PPE. Communication equipment must be checked daily to ensure proper operation. All project personnel must be initially briefed on the communication methods prior to starting work; communication methods should be reviewed in the Weekly Safety Meetings.

APPENDIX A: OSHA INCIDENT FORMS