



ENVIRONMENTAL HEALTH & SAFETY

Title **Contractor EHS Handbook – RAC**
Series 400 General Safety
Specification Number EHS-GS-442.2

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1.0 PURPOSE

- All contractors are expected to comply with applicable federal, state and local Occupational Safety and environmental laws and regulations. This Handbook outlines additional Cree requirements and regulatory points of emphasis, reflecting specific hazards or concerns at this site.

2.0 SCOPE

- This Handbook applies to all contractors, sub-contractors, service/technical representatives, vendors, and suppliers performing work or providing services at Cree Racine facilities. Unless otherwise specified, the contractor responsibilities indicated in this document refer to all of the above.

3.0 DEFINITIONS

- **Authorized Employee** – A person who locks out or tags out machines or equipment in order to perform servicing or maintenance on that machine or equipment.
- **Confined Space** – A space that is:
 - i. Large enough and so configured that an employee can bodily enter and perform assigned work; and
 - ii. Has limited or restricted means for entry or exit; and
 - iii. Is not designed for continuous employee occupancy.
- **Consultant/Contractor** – Person or organization who performs work at a Cree Facility who is not a visitor, Cree employee or temporary worker.
- **Level 1 Contractor** – performs work on production or support equipment, or has the potential to come into contact with significant hazards.
 - i. Level 1 contractors are required to be rated in accordance with this procedure. See section titled Contractor Rating Criteria.
- **Level 2 Contractor** – contractor who is not exposed to significant hazards. This typically includes office temporary workers, delivery personnel, sales representatives, vending machine suppliers, etc.
 - i. Level 2 contractors are not required to be rated in accordance with this procedure.
 - ii. Level 2 contractors need to check with security to see if there is any additional paperwork to complete.
- **Outside Only (Level 1 or 2)** – A contractor who needs access to controlled Cree property but does not need access into buildings. These contractors may be Level 1 or Level 2. This designation includes lawn maintenance, road service contractors, building construction contractors, etc.
- **Hazardous Waste** – Waste that poses substantial or potential threats to public health or the environment. In the United States, the treatment, storage, and disposal of hazardous waste are regulated under the Resources Conservation and Recovery Act (RCRA). Hazardous wastes are divided into two major categories: characteristic wastes and listed wastes. Please refer to EHS-ENV-241.
- **Hot Work** – Work involving electric or gas welding, cutting, brazing, or similar flame or spark-producing operations.
- **Lockout/Tagout** – The placement of either a lockout or tagout device on an energy isolating device, in accordance with an established procedure, that ensures that the energy isolating device and equipment being controlled cannot be operated until the lockout or tagout device is removed.
- **Non Destructive Testing** – The process of inspecting, testing, or evaluating materials, components, or assemblies for discontinuities, or differences in characteristics without destroying the serviceability of the part or system.



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- **Sponsor** – The Cree employee assigned by management to be the contractor’s or service vendor’s contact while on the job.
 - i. Contractors and consultants working for a Cree Sponsor may manage or oversee contractors and projects.

4.0 COMPLIANCE

- Violating the requirements in this Handbook may result in termination of the contract and removal from the site.

5.0 TRAINING

- **Equipment and Tool Training**
 - i. Contractors must be trained on each piece of equipment and tool they operate or use per the regulations applicable to the equipment or tool, or in compliance with good work practices.
- **Training Documentation**
 - i. Training must be documented, and the applicable education and experience records maintained by the contract company.
 - ii. When regulations require the employer verify that the employee understood the training, that verification must be documented.
 - iii. A written test or documented observation of the job performed will meet this requirement.
- **Training**
 - i. Contractors must successfully complete the Cree Contractor Orientation Training and Test.
 - ii. Subcontractors do need to complete the Orientation Training and Test. The prime contractor must certify that the sub-contractor understands the safety requirements by submitting the Sub-Contractor Orientation Training Sign-in Sheet.

6.0 CONTRACTOR RESPONSIBILITIES AND REQUIREMENTS

- **Barricades**
 - i. Barricades must be effective for the climate conditions in which they are used, and substantial enough to prevent the passage of persons or vehicles.
 - ii. Notify the sponsor 48 hours before closing off any road.
 - iii. Post appropriate road closure signs if barricades are left overnight.
 - iv. Post warning signs for activities such as overhead work, hole covers, crane swing, hazardous area perimeters, etc.
 - v. Install barricades in a manner that does not block or attach to items that must be accessed for safety, such as fire hydrants or extinguishers, valves, electrical panels, etc.
- **Competent Person**
 - i. Designate a competent person when required by the applicable regulations (scaffolds, excavations, etc.).
- **Confined Spaces and Permit-Required Confined Space Entries**
 - i. Confined spaces may not be identified with a label or sign. Your sponsor plays a key role in ensuring that if your work exposes you to confined space hazards, you are fully aware of the specifics in this section.



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- The sponsor will inform you of the hazards present in the space, and any precautions or procedures implemented for the protection of employees in or near the permit spaces where you will be working.
- ii. Contractor management
- Contractors involved in confined space work must make available to Cree a copy of their confined space program. Likewise, Cree will provide all contractors a copy of its confined space program.
 - Coordinate confined space entries with the sponsor, including when both Cree personnel and contractor personnel will be working in or near permit spaces;
 - Prior to beginning work, obtain information regarding specific hazards from the sponsor and inform them following your pre-entry inspection, how you will classify the entry;
 - Provide equipment that is in good working order and operating per the manufacturer's recommendations (e.g., calibrated, bump tested, inspected, etc.) and provide the associated documentation upon request;
 - Inform the sponsor of any hazards confronted or created in permit spaces during the entry operation by completing the Contractor Debrief Form provided by your sponsor.
 - Ensure that your entry supervisor knows to verify that local rescue services are available for permit required confined spaces. Cree does not maintain an authorized confined space rescue team and it is your responsibility to ensure compliance with 1910.146(k), *Permit Required Confined Spaces*.
 - Since entries will be made using your written program and permit, all permit-required confined space programs must be approved by Environmental Health & Safety (EHS) prior to making entry. This review and approval presumably occurs as part of your company's approval process. If not, the review and approval can take additional time, preventing access to your work.
 - At the conclusion of the entry operations, any hazards confronted or created in the permit spaces during entry operations must be recorded and discussed between you and your sponsor and the contractor. This can be accomplished at the time that the completed or cancelled confined space permit is turned in to your Sponsor for his or her completion of the Contractor Debrief Form
 - Upon completion, provide the sponsor with a copy of the completed/cancelled confined space permit.
- iii. Sponsors assist your Entry Supervisor in verifying that local rescue services are available by providing the local phone numbers for making such notifications.
- iv. Sponsor will notify the Cree Emergency Operations Control Room of an impending contractor entry just prior to your Entry Supervisor authorizing their permit.
- v. When employees of more than one employer are working simultaneously as authorized entrants in a permit space, one primary person will be designated as the responsible entry supervisor for coordinating safe entry operations.
- **Cranes**
 - i. Crane operators must be certified and have their certification on their person.
 - ii. Cranes must be inspected annually and the inspection certification must be with the crane.
 - iii. Lift plans must be submitted prior to the job.



- iv. All hoists and slings must be inspected for defects or tearing before each lift. Any hoist or sling found to be damaged will be taken out of service and replaced.
- v. Crane operators must follow Cree parking lot rules, especially pertaining to signage and speed limits.
- **Electrical Safety**
 - i. Any contractor performing electrical work must be authorized to do so.
 - ii. Prior to switching off a circuit breaker or otherwise removing power from a circuit, or restoring power to a de-energized circuit, obtain authorization and a clear indication of which circuit is involved from the sponsor.
 - iii. Obtain sponsor authorization prior to working on or near main distribution panels.
 - iv. Do not store equipment within 36 inches of an electrical panel.
- **Emergencies**
 - i. Ensure that all contractor employees are familiar with Cree emergency procedures.
 - ii. Before starting a job, determine the correct evacuation area with the sponsor, and ensure that if the job site changes, the evacuation area is updated for the new job site.
 - iii. Have a process in place to perform a headcount, and notify either the sponsor or Security if any contractor employees cannot be accounted for.
 - iv. Contractors must provide their own supplies, trained personnel and procedures for first aid/CPR as deemed necessary by their company or regulation (e.g. Electrical Safety Standard).
 - v. In the event of a fire alarm or gas detection alarm (horn or strobe), evacuate the work space or building immediately.
 - vi. Upon evacuation, escorted contractors must stay with their escort.
 - vii. Follow the instructions of Cree officials during emergencies.
- **Equipment and Tools**
 - i. Provide all equipment and tools required to perform the job safely, unless otherwise indicated by the sponsor. Cree retains the right to prohibit or restrict the use of tools and equipment determined to be unsafe.
 - ii. Do not use fuel powered equipment (generators, welding machines, etc.) inside buildings, or within 25 feet of the building exterior, or near building air intakes.
 - iii. Ground fault circuit interrupters (GFCI) are required on all extension cords.
 - iv. All tools and equipment must be either double insulated or have a grounding prong.
 - v. Space heaters must be powered by electricity.
 - vi. Inspections of tools and equipment:
 - OSHA-required tool and equipment inspections (forklifts, fall protection equipment, etc.) must be performed by a knowledgeable person and documented.
 - Tool and equipment users must perform pre-use visual inspections on tools and equipment (hand tools, electrical cords, ladders, etc.). These inspections do not need to be documented.
 - Tools and equipment that do not pass inspection must be taken out of service until corrected.
- **Fall Protection**
 - i. All personnel must be protected either by a standard guardrail or a personal fall protection system if exposed to a fall hazard of greater than:



- Six feet on construction sites; or
- Four feet in all other areas.
- ii. Fall protection should be inspected for damage or tearing before each use. Any damaged fall protection will be taken out of service and replaced.
- iii. Contractors are required to provide their own fall protection equipment.
- iv. Fall protection is required by all personnel in lifting devices.
- v. If a contract involves steel erection, submit a fall protection plan as required by OSHA.
- **Hazard Communication**
 - i. All chemicals must be approved by the sponsor before they are brought on site.
 - ii. Safety Data Sheets (SDS) must be readily available for each material used at the jobsite, and provided upon request.
- **Hazardous Material**
 - i. On-site storage of hazardous materials requires sponsor approval.
- **Hazardous Waste**
 - i. Hazardous waste may not be transported off site.
 - ii. All hazardous waste generated must be packaged and labeled per regulatory requirements.
 - iii. Coordinate with Cree Environmental Health & Safety (EHS) on the proper storage, labeling and disposal of hazardous wastes.
 - iv. Provide proper containers for the collection of hazardous wastes.
- **Hearing Protection and Noise Control**
 - i. Hearing protection is required in the areas designated by the sponsor.
 - ii. Contractor will be required to provide their own hearing protection.
- **Hot Work**
 - i. Obtain a Cree Hot Work Permit from the sponsor, and return the completed permit to the sponsor.
 - ii. Do not deactivate any fire protection system.
 - iii. Immediately notify the sponsor upon completion of the hot work.
 - iv. Keep the Hot Work permit in the area until the final inspection is completed.
 - v. A Fire Watch (who cannot be the actual employee(s) performing the hot work) must be assigned and must:
 - have no other duties;
 - have completed fire extinguisher training, to include hands-on training; and
 - maintain a fire watch for four hours after the hot work is completed.
 - a) The Fire Watch must remain in the area for the duration of the hot work and for one hour after completion of the hot work.
 - b) Following the first hour, the additional three hour fire watch period must be conducted in the manner specified by the sponsor.
 - vi. Provide sufficient fire extinguishers that are fully charged, properly inspected, and tagged, with pins intact. The extinguisher type must be appropriate for the potential fire type. Minimum requirements are 4-A, 20-B, and/or C rated.
- **Housekeeping**
 - i. Keep entry and exit routes to work areas, and emergency exit routes, clear at all times.
 - ii. Keep all work areas orderly, clean and free of hazards.



- **Incident Reporting and Notifications**
 - i. Inform the sponsor immediately upon learning of any incident on site that has caused or has the potential to cause fatalities, injuries, property damage, spills or releases to the environment, or regulatory non-compliance.
 - ii. Contractor personnel must notify their immediate supervisor of environmental, health, or safety issues or concerns they observe at Cree.
 - iii. The contractor is responsible for:
 - investigating accidents, incidents and unsafe conditions involving their employees;
 - immediately reporting the circumstances to the sponsor; and
 - providing Cree with a copy of the completed investigation report upon request.
 - iv. Forward all outside inquiries and requests for information to the sponsor. Requests related to environmental, health and safety must be forwarded to Environmental Health & Safety (EHS).
 - v. Immediately report any OSHA compliance notifications or inspections on Cree property to the sponsor.
- **Inspections and Audits**
 - i. Contractors are required to cooperate during audits, and correct deficiencies observed in their areas of responsibility during audits within the time specified.
- **Ladders (Portable)**
 - i. All ladders brought onto the job site shall be in good condition, free of structural defects, and rated no less than ANSI A14, Type 1.
 - ii. The ladder type must be appropriate for the task.
 - iii. Contractors will follow all ladder safety rules.
- **Lasers**
 - i. Contractors operating lasers must comply with the Cree Laser Safety Program and provide, upon request, a current list of all employees who are authorized to operate laser devices on site.
- **Lock Out – Tag Out (LOTO)**
 - i. Contractors controlling hazardous energy sources must have a written LOTO program.
 - ii. Contractors must use their own locks and tags.
 - iii. The name of the person applying a LOTO tag and the name of the company must be printed legibly on the tag.
- **Material and Equipment Shipment and Storage**
 - i. The contractor must arrange to have their delivered materials unloaded.
 - ii. Coordinate shipments with sponsor to avoid interfering with site operations.
 - iii. Place their delivered material in the lay-down area designated by the sponsor.
 - iv. Do not ship or receive hazardous material without the approval of Environmental Health & Safety (EHS).
 - v. Contractors involved in the transportation of hazardous material are responsible for ensuring regulatory compliance, and for promoting safe, expeditious, and cost-effective transportation.
- **Motor Vehicles (Including Forklifts, Scissors Lifts, Golf carts, and Man Lifts)**
 - i. The speed limit in Cree parking lots and facility grounds is 5 mph.
 - ii. Contractors may not use Cree motor vehicles, including fork lifts, golf carts, scissors lifts, or manlifts.



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- iii. Drivers must have proof of applicable operator certification (e.g. forklift/manlift driver's license) on their person.
- iv. Inspection forms must be kept on each vehicle until the next inspection is performed.
- v. Contractors operating vehicles on Cree property must:
 - Operate the vehicle per manufacturer's instructions;
 - All body parts contained within the vehicle while the vehicle is in motion;
 - Ensure personnel and cargo do not exceed the weight limit of the vehicle;
 - Not talk on a phone, or use ear buds, head phones or other listening devices;
 - Obey all traffic signs; and
 - Properly secure cargo.
- vi. Spotters are required when:
 - Moving oversized loads;
 - Moving in tight spaces;
 - A fork lift driver cannot see over the load and must drive forward; or
 - Large/long equipment is attached to a fork lift (e.g. boom, etc.).
- vii. Equipment attached to a fork lift must be chained or clipped to the fork lift.
- viii. Fall protection must be worn if required by regulations and while on scissors lifts.
- ix. Contractors' golf carts on site must be:
 - Equipped with horn and back up alarm; and
 - Parked or stored in a safe location.

- **Nondestructive Testing (NDT) Inspectors**

- i. Contractors performing NDT must be certified per the requirements of the American Society for Nondestructive Testing, and provide NDT certification documents with the prequalification package.
- ii. A Level III inspector must be responsible for supervising the work of Level I and II personnel.

- **Personal Protective Equipment (PPE)**

- i. PPE must be provided by the contractor.
- ii. PPE should be inspected for any damage or defects before each use. Any damaged PPE will be taken out of service and replaced.
- iii. When the use of specific PPE requires other safety program elements (e.g. respirator fit tests), the contractor must provide:
 - Properly trained and certified personnel; and
 - Training, inspection and certification records upon request.

- **Petroleum Containing Equipment**

- i. Equipment brought on site that contains oil or fuel (e.g. generators, chillers, lawn mowers) must be provided with adequate secondary containment, such as a portable spill berm, a berm of oil absorbent, or a boom system.
- ii. All containment systems must be inspected daily, properly maintained, and robust enough to contain the material during a typical weather event.
- iii. It is the responsibility of the contractor to dispose of any used secondary containment method for spill cleanup properly.

- **Road Maintenance**

- i. Each contractor must maintain roads which are affected by the contractor's work.

- ii. Clean dirt, mud, concrete, spoil, refuse, debris, etc. from the roadways, access ways and walkways.
- iii. When debris is created, clean up the area by the end of the work day or sooner if requested.
- **Records**
 - i. Provide records and proof of documentation upon request. These records may include hazard assessments, job work instructions, equipment calibrations and inspections, training records, Safety Data Sheets, and other documents as required by regulation.
 - ii. Provide the requested documentation within a reasonable time. Reasonable time will be determined by regulatory requirement. When records are expected to be readily available to an employee under a regulatory requirement, be prepared to provide the documentation within a few minutes, but with other records that may be stored off-site, it is understood that producing the records may take longer.
 - iii. When specified by the sponsor, hours reporting and documentation is required.
- **Safety Meetings**
 - i. Safety Meetings are required for all contractor jobs performed at Cree.
 - ii. These meetings can be in any form and must be held at least weekly.
 - iii. All sub-contractors must be included in these meetings.
 - iv. Attendance, as well as topic, must be documented.
- **Smoke Detectors**
 - i. If impairment of the smoke detection system is required it must be requested by the sponsor prior to the work beginning. Ensure that the sponsor has had the detection equipment disabled prior to beginning such work.
 - ii. For work that will generate smoke or dust, notify the sponsor 48 hours in advance to request a survey of the work area for smoke detection equipment.
 - iii. Notify the sponsor as soon as work is completed so the system can be reactivated.
- **Smoking**
 - i. Smoking is prohibited on Cree Property.
- **Spills and Leaks**
 - i. All spills must be immediately contained and cleaned up in accordance with the Safety Data Sheet and environmental regulations.
 - ii. The contractor is responsible for the costs of clean up and disposal of hazardous materials resulting from a spill caused by the contractor.
 - iii. Notify the sponsor of spills, or leaking pipes or equipment. This includes spills and leaks observed in other areas.
- **Utilities and Sanitation Requirements (Construction Sites)**
 - i. Provide all of the following support services on all construction sites, except for those that the sponsor agrees will be provided by Cree:
 - Area lighting
 - Compressed air
 - Power for small tools (110 VAC)
 - Sanitary requirements (drinking water, toilets and washing facilities)
 - Telephone service
- **Water Pollution Control**



i. Process Water (water used in production processes) and Sanitary Sewer Discharge

- Ensure no liquid or solid wastes are released to any indoor water or sanitary (bathroom) sewer drain without prior approval from Environmental Health and Safety (EHS). All spills of any material, solid or liquid, must immediately be reported to Security and EHS.

ii. Storm Water Pollution

- If conducting outdoor activities, ensure contractor staff understand that no liquid or solid material is allowed into any outside drain, storm drain, or the ground around construction areas, except with specific prior approval from EHS.
- If holding any liquid, or any solid material that might wash into an internal drain, storm drain, the adjacent pavement, or soil, provide enough secondary containment for 110% of the container contents.
- Store any material having a potential to contaminate storm water under cover. This includes material covered with oils or greases, wooden pallets, etc.
- Water contaminated by contact with solid or liquid material may not be discharged to storm drains.
- Obtain prior EHS approval before pressure washing, concrete cutting, or rinsing concrete mixers, and follow EHS guidance on control of the resulting residue. All concrete operations must include a slurry washout station suitably lined with plastic or other containment to prevent slurry runoff from concrete washing.
- Water drained from process equipment or cooling towers is not allowed into storm drains without prior approval from EHS.
- Take appropriate silt fencing and erosion control measures during construction activities.
- For site construction work, contractors are required to obtain the required state permits for land disturbance when disturbing one acre or more of land.

iii. Spill Response

- Upon discovering a spill, first determine whether the spill can be contained using emergency response equipment within the work area (e.g. spill cleanup kits or equipment shut offs). If not, report the spill as soon as feasible to the supervisor on the site, Security, and EHS. The report must include:
 - a) Nature of the spill
 - b) Location of the spill
 - c) Size and extent of the spill
 - d) Material involved
 - e) Personnel injuries (if any)
 - f) Initial response
- Contractor employees having appropriate training and equipment to respond to the spill without endangering themselves or others must do so.



7.0 DOCUMENT REVISION HISTORY

Date	Rev.	DCN #	Change	By:	Approval
09/14/17	-	DMS	Document Origination	BEE-CPM	DMS