

OWNER HEALTH, SAFETY AND ENVIRONMENT REQUIREMENTS FOR CONTRACTORS

OPERATIONAL FACILITIES

1. **Purpose.** This document outlines the Owner's Health, Safety and Environmental requirements ("the requirements") associated with the Work that the Contractor is required to follow.
2. **Health Safety Environment (HSE) Site Planning.** During the period between contract award and the start of Work at the Site, the Contractor shall meet with an Owner representative to review these requirements and the required documents.

No Work shall commence at the Site until the Owner has confirmed the planning requirements as described in these requirements have been satisfied by the Contractor.

The Owner may make recommendations for improvements to any of the documents set out in these requirements. The Contractor shall cooperate with the Owner in connection to those recommendations and shall support the Owner's desire to positively influence HSE performance.

Any review, comments or recommendations by the Owner related to any documents set out in these requirements will not relieve the Contractor of full and complete responsibility and liability for HSE compliance associated with the Work.

3. **General Planning.** In addition to observing, abiding and complying with all jurisdictional regulations applicable to the Work identified in the contract, the Contractor shall:
 - a. Ensure all workers including Subcontractors attend Owner's Site-specific orientations if working at any Owner Site;
 - b. Ensure both the Contractor's and Subcontractor's personnel comply with the Site-specific PPE requirements, operating procedures, processes and Work practices governing the environment, health, safety, security, protection of the public and the Work on the Site;
 - c. Participate in the Owner's safety kick-off meeting;
 - d. Conduct a formal documented safety kick-off meeting with Subcontractors and any other appropriate parties as applicable prior to starting Work;
 - e. Utilize a root cause analysis process acceptable to the Owner;
 - f. Verify Contractor personnel and their Subcontractors are fit for Work relative to medical and physical considerations;
 - g. If applicable, have a plan in place to address integration of any non-English speaking workers at the Site;
 - h. Ensure their Subcontractors meet the requirements in this document;
 - i. As required by applicable laws, provide a trained and competent safety representative or designated worker to participate in the joint health and safety committee.
4. **Pre-Mobilization Requirements.** The Contractor shall complete prior to the start of Work and provide to the Owner for review upon request:
 - a. Job Hazard Assessments;
 - b. A Subcontractor assessment procedure (if applicable);
 - c. A waste management plan for the Site (if applicable);
 - d. A spill prevention and contingency plan for the Site (if applicable);
 - e. Safety Data Sheets (SDS) for all chemicals to be used at the Site (if applicable);

- f. A listing (i.e. organization chart) of Contractor's personnel/employee(s) who are responsible to ensure compliance with Contractor's HSE requirements, including their respective telephone and e-mail contact information;
 - g. Copies of qualifications, certifications and competency training for those workers who will be present at the Site.
5. **Hazard Recognition, Assessment and Control.** The Contractor and Subcontractors shall use structured and documented processes to identify, assess and control potential hazards. This process shall include:
- a. **Job Hazard Assessments**
 - i. The Work to be performed
 - ii. Steps associated with performing the Work
 - iii. Hazards associated with each step
 - iv. Means to eliminate or control all hazards
 - b. **Field Level Hazard Assessments**
 - i. The Contractor and Subcontractors shall require workers to complete a field level hazard assessment prior to starting Work each day.
 - ii. The Contractor shall monitor its field Work to ensure hazard control procedures and execution are effectively and all hazards remain under control. The Contractor shall stop Work immediately where hazardous conditions cannot be adequately controlled.
 - c. **Hazardous Materials Identification**
 - i. Contractors are to identify the hazardous materials that will be used at the Site and provide Safety Data Sheets (SDS's) for those material, if requested, in advance of arriving onsite. All hazardous materials not previously identified during premobilization must be declared upon arrival at the Site.
6. **Right to Stop Unsafe Work.** Any Worker, whether in the employ of the Owner, the Contractor, or any Subcontractor, shall have the right to stop all Work for unacceptable health, safety, or environmental risks. Work stoppage is considered a mean miss incident and shall be investigate, documented and reported to the Owner.
7. **Alcohol and Drug Policy.** The contractor shall have and Alcohol and Drug Policy that meets or exceed the requirements set out in the Owner's Alcohol and Drug Policy for Contractors. To the extent that the Contractor's Alcohol and Drug Policy does not meet or exceed the requirements set out in the Owner's Alcohol and Drug Policy shall be met unless the Owner and the Contractor have agreed to modifications to the Contractor's Alcohol and Drug Policy in which case such modifications shall apply.
8. **Fit For Duty.** The Contractor shall verify all Subcontractor personnel are fit for duty relative to medical and physical considerations.
9. **Evaluation and Selection of Subcontractors.** The Contractor is responsible for the health and safety of its Subcontractors and shall;
- a. Evaluate the safety performance of Subcontractors by using a formal, documented process;

- b. Prior to any Subcontractor starting Work, provide completed Subcontractor HSE related prequalification documentation to the Owner for review if requested.
10. **Incident Management.** The Contractor shall have a formal incident management program and shall:
- a. Report all environment, health and safety incidents and near misses in accordance with regulatory requirements and Owner requirements;
 - b. Fully investigate all incidents, including near miss incidents to identify root causes and corrective measures to prevent reoccurrence;
 - c. At the Owner's request, present incident investigation findings to the Owner's Site management. The Owner may require or make recommendations for improvements to these investigations. The Contractor shall cooperate with the Owner in regard to the recommendations to ensure investigations identify root causes and have corrective actions that will help prevent reoccurrence;
 - d. At the commencement of the investigation, the Owner is to be notified and the Contractor and/or Subcontractor, as applicable, will provide notice of any meetings, interviews or any other key elements of the incident investigation;
 - e. At its sole discretion, the Owner reserves the right to participate directly in any aspect of the incident investigation, including review and finalization of the incident report.
 - f. Provide qualified senior management, line management and safety representative to oversee and participate in incident investigations;
 - g. Provide injured parties with adequate medical care and shall perform the appropriate level of case management.
11. **Incident Reporting Timelines.** The Contractor shall provide the Owner with the following:
- a. Immediate verbal notification for all incidents and near misses, unless impracticable in which case as soon as practicable;
 - b. A preliminary written notification and preliminary incident report within twenty-four (24) hours of an incident; and
 - c. A detailed final incident report or investigation status update in writing within forty-eight (48) hours of the incident stating when the report will be completed.
12. **Incident Investigations.** The Contractor shall investigate the following incident type:
- a. **First Aid:** Injury requiring medical attention administered immediately after the injury occurs and at the Work Site (short-term treatment).
 - b. **Recordable Injury/Illness:** Incident requiring medical treatment beyond First Aid (hospital treatment).
 - c. **Restricted Work:** Any Work-related injury or illness that prevents a worker from performing the routine functions of their regularly scheduled job on any subsequent regularly scheduled Work day.
 - d. **Lost Time Injury:** Any Work-related injury or illness that renders the injured person temporarily unable to perform any regularly job or restricted Work activity on any normally scheduled Work day after the day on which the injury occurred.
 - e. **High-Potential Near miss:** An event in which under slightly different circumstances could have resulted in a fatality, significant injury, significant damage, or significant production loss.

13. **Inspections:** The Contractor shall conduct regular inspections to ensure compliance with environment, health and safety requirements: The Contractor shall capture findings recommendations for improvement, and lessons learned and shall track such topics to resolution. Inspection reports shall be made available to the Owner for review upon request.
14. **Owner Evaluation of the Contractor.** The Owner may evaluate of audit the Contractor to monitor compliance with HSE laws or with these requirements. The frequency of evaluation s will be determined by the Owner on an ongoing basis dependent upon the scope of Work and the Contractor’s HSE performance.

The Owner shall inform the Contractor when HSE deficiencies are identifies and maty make a report to the Contractor with the audit findings, recommendations for improvements, and an implementation schedule. The Contractor shall cooperate with the Owner in a connection to those recommendations and shall support the Owner’s desire to positively influence HSE management.

15. **Immediately Dangerous to Life and Health Situations.** If any situations that present immediate danger to life, health or the environment are found during any incident or near miss investigation, inspection, compliance assessment, audit, regulatory inspection or by any other means, immediate corrective actions shall be taken, and all affected Work shall be stopped until appropriate corrective actions are implemented. These situations shall be treated as a near miss under the Contactor’s incident management program.
16. **Findings and Corrective Actions.** The Contractor is responsible to document promptly take corrective actions and close in writing all incident or near miss investigation, inspection, compliance assessment, audit and regulatory inspection findings of non-compliance or matters for improvement (the “Findings”). The Contractor shall store any reports related to any Findings at the Site and provide any reports and any documents related to corrective actions and closure of them to the Owner at any time upon request. The Contractor shall report on progress of any open corrective actions, including implantation schedule until completed.

The Owner may make recommendations for improvement to any corrective actions. The Contractor shall cooperate with the Owner in connection to those recommendations and shall support the Owner’s desire to positively influence HSE performance and management. In the event the Contractor fails to implement any corrective actions within a reasonable period-of-time taking into consideration the Contractor’s implementation schedule, the Owner may take actions it deems appropriate. Should these actions increase the Owner’s costs in any way, including costs associated with the Work, The Owner may charge the Contractor for these costs.

17. **Measurement and Reporting of Performance.** The Contractor shall submit monthly HSE reporting to the Owner within 5 business dates of the end of a month.

The Contractor may report Contractor and Subcontractor data as a single report, but it must clearly describe Contractor and Subcontractor information.

The Contractor shall be responsible for tracking and reporting the following metrics as a minimum:

- a. Total Recordable Injury Frequency for the project;

- b. DART (days Away, Restricted of Transfer) UNITED STATES ONLY;
- c. Hours worked for the Contractor and each Subcontractor;
- d. Leading Indicators;
 - i. Number of inspections performed with corrective actions;
 - ii. Number of field level hazard assessments completed;
 - iii. Number of safety meetings/tool box talks performed;
 - iv. Number of near miss/hazard IDs reported with corrective actions, and
 - v. Percentage of corrective actions completed.
- e. Lagging Indicators:
 - i. First aid injuries, recordable injuries, restricted Work injuries, lost time injuries;
 - ii. Motor vehicle incidents;
 - iii. Security incidents/property damage;
 - iv. Mobile equipment damage;
 - v. Environmental incidents (spills or release, violation of regulatory requirements).

18. **Emergency Preparedness.** If the Site has an existing emergency plan, the Contractor shall familiarize the workers under their control of the contents of the plan.

19. **Security.** The Contractor shall ensure that access or movement at or adjacent to the Work Site is controlled on a twenty-four (24) hour basis to ensure that workers are not exposed to hazards present at the Site. This may involve the use of fencing, barricading, barrier tape, lightning, signage, hoarding, and locked covers over openings, watchmen, “authorized entry only” provision, or other means as appropriate. The Contractor shall ensure that authorized Owner’s personnel have access to the Site.

Contractor workers are restricted to their immediate Work areas, lunch rooms and washrooms while on the Owner’s Site. Adverse weather conditions may require an increased awareness of public security and safety. The Contractor shall adhere to any security control system established at existing facilities to protect the Site.

20. **HSE Meetings.** The Contractor will conduct or participate in a weekly HSE Meeting. The Owner will be provided with notice of time and location of this meeting and will have the right to attend and fully participate in these meetings.

21. **Documentation and Records Management.** The Contractor shall retain HSE related documents as applicable to the scope of Work. The Owner shall be provided access upon request to review all project generated documents produced by the Contractor.

22. **HSE Management Personnel.** If applicable, the Contractor’s HSE management personnel shall be approved by the Owner in advance of appointment at the Site. The Contractor shall be approved by the Owner in advance of appointments at the Site. The Contractor shall submit to the Owner, a statement of qualification (i.e. resume) for identified health and safety personnel and environmental monitor(s).

In consultation with the Owner, the Contractor shall determine the peak workforce. The peak workforce number will be used to determine the experience required by the Contractor’s Site

HSE representative as outlined below: Management Personnel Qualifications. This determination will be made so that the most qualified safety representative is on Site from the start of Work. The Contractor's Site HSE representative shall remain onsite from the start of the Work and until completion of the Work.

For each of the identified safety personnel and environmental monitor, name, telephone and email contact information shall be supplied to the Owner.

The Contractor shall notify the Owner at a minimum seventy-two (72) hours in advance (in writing) regarding any changes in Site safety and environmental monitoring coverage. The Environmental monitor personnel shall be provided in accordance to the requirements specified in the contract.

Manpower <i>Including Subcontractors</i>	Role	Minimum Qualification Criteria	
		CANADA	UNITED STATES
1-19	Safety Representative <i>This worker may also function as a supervisor, foreman, or crew leader on the Project.</i>	Current CPR/standard first aid training. Demonstrate experience and skills necessary to thoroughly understand the health and safety hazards and controls of the specific Work.	30-hour OSHA Construction Safety Course Current CPR/standard first aid training. Demonstrate experience and skills necessary to thoroughly understand the health and safety hazards and controls of the specific Work.
20-99	Health and Safety Coordinator <i>Dedicated full-time. This person shall not have any other non-H&S assigned duties.</i>	3 years construction experience as a full-time Health and Safety Coordinator. Current CPR/standard first aid training. National Construction Safety Officer (NCSO) or equivalent level of training of experience, and skills necessary to thoroughly understands the health and safety hazards and controls.	3 years construction experience as a full-time Health and Safety Coordinator. Current CPR/standard first aid training. Construction Health and Safety Technician (CHST) or equivalent level of training, experience and skills necessary to thoroughly understand the health and safety hazards and controls.
100+	Health and Safety Manager <i>Dedicated full-time. This personal shall</i>	5 years related construction experience as a full-time Health and Safety Manger.	5 years related construction experience as a full-time Health and Safety Manger.

	<i>not have any non-H&S assigned duties.</i>	Current CPR/first aid certification. Canadian Registered Safety Professional (CRSP) or equivalent level of training, years of experience, and skills necessary to thoroughly understand the health and safety controls.	Current CPR/first aid certification. Certified Safety Professional (CSP) or equivalent level of training, years of experience, and skills necessary to thoroughly understand the health and safety controls.
Each 100 thereafter	One additional Health and Safety Coordinator will be required. <i>The Owner may accept Junior H&S Coordinators when experienced H&S personnel are on Site with a ratio of 1 Junior: 3 Health and Safety Coordinators.</i>		

23. **Canadian Site-Specific Contractor Requirements.** The Contractor is responsible to ensure compliance to the mandatory requirements at the Site they are working at. The Site-specific requirements are listed below.

- a. **Minimum Required Personal Protective Equipment (PPE).** The Contractor shall supply minimum PPE and include the following:
 - i. Gloves: appropriate for the Work being performed
 - ii. Hard Hats: CSA Z 94.1-15 approved, Type 1, Class E (non-side impact).
 - iii. Foot Protection: CSA Z195-14 approved Grade 1, Green Triangle, Omega rated safety boots that have a minimum of 150mm (6") high ankle support.
 - iv. Safety Glasses: CSA Z94.3 approved high impact prescription or non-prescription safety glasses complete with rigid side shields. No more than a 30% tint to the lenses when indoors.
 - Safety glasses are to be worn according to Work conditions and Work being performed. Sealed eye wear will be required when identified in a hazard assessment.
 - Suitable protective safety goggles, chemical goggles, and face shields are required for workers when handling chemicals, cutting, welding, grinding or using other harmful substance injurious to the face.
- b. **Clothing Minimum.** Shorts are not permitted. Minimum requirements are 100% cotton clothing and long pants.

All clothing, including coveralls, must be in good condition and free from holes and tears.

- c. **Noise/Hearing Protection.** Specific areas where hearing protection is mandatory will be posted.

Hearing protection shall be worn where workers are exposed to a time weighted average noise level of 85dBA or higher over an 8-hour Work shift.

Additional hearing protection may be required. Specialized PPE is the Contractor's responsibility.

- d. **Clean Shaven Requirement.** Contractors are required to be clean shaven within 24 hours when required to wear a respirator.

Clean Shaven (within 24 hours) is defined as:

- i. Mustaches can be worn if neatly trimmed and extend no longer than 1 inch from the corners of your mouth.
- ii. Soul patch can be worn if neatly trimmed, no larger than 1 inch by 1 inch.
- iii. Sideburns may be worn if neatly trimmed and do not pass the base of the ear and do not interfere with any respiratory protection facial seals.
- iv. All Contractors that are required to wear a respirator (half or full faced) must have a valid fit test certificate (fit test completed within the last 12 months).
- v. If a Contractor is being fit tested by the Owner, the fit tester has an obligation to deny a fit test in the event of facial hair growth.

- e. **Flame Resistant Clothing.** FRC2 clothing requirements depend on the task, and the Owner’s Site contact shall set the requirements. More stringent FR clothing requirements may be implemented depending on where the Contractor will be working and what tasks are being performed. 100% cotton clothing is required under FR coveralls or electrical safety clothing.

Genesee Specific: The Following FR requirements are Genesee Site specific only. No substitutions will be permitted without permission from the Genesee Plant Manager. Submissions for substitution must be made to the Senior manager. When requesting a substitution, provide full specifications of the garment with the request. One approved substitution is the use of 9oz. Indura instead of the 7oz Indura Ultrasoft.

FABRIC	WEIGHT	CAN/CGSB - 155.20-2000 CDN Flash Fire PPE Standard	ASTM F 1930 Manikin Flash Fire Test % of 2 nd & 3 rd degree burns 50% += Failure (Includes Head)	NFPA 2112- 2007 USA Flash Fire PPE Standard (Mandatory Certification)	ASTM F 1959 Test (Electric Arc Thermal Performance Value (ASTM F 1506)	NFPA 70E/CSA Z462 Electric Workplace PPE Standard Hazard Risk Category
INDURA Ultra Soft 301 shit, smock, or coverall	7 oz./yd2 237 g/m2	Yes UL Certified	15%	Yes UL Certified	8.7 cal./cm2 ATPV	HRC 2 (Includes HRC 1)

24. **UNITED STATES Site Specific Contractor Requirements.** The Contractor is responsible to ensure compliance to the mandatory requirements at the Site they are working on. The Site-specific requirements are listed below:

- a. Minimum Required Personal Protective Equipment (PPE). The Contractor shall supply minimum PPE and include the following:

- i. Gloves: appropriate for the Work being performed
 - Hard Hats: ANSI/ISEA Z89.1, Type 1, Class E
 - ii. Foot Protection: ANSI Z41-1999, ASTM F2412-05, or ASTM F2413-05 with puncture-resistant sole.
 - iii. Safety Glasses: ANSI z87.1 approved prescription or non-prescription safety glasses complete with side rigid shields. No more than 30% tint to the lenses when indoors.
 - iv. Safety glasses are to be worn according to Work conditions and Work being performed.
 - v. Sealed eye wear is required to be worn during the following tasks and or activities:
 - Buffing
 - Grinding
 - Cutting
 - Gouging
 - Using power tools
 - Scaffold assembly and dismantling
 - Any activity where there is any significant disturbance to surrounding equipment, material or Work area.
 - Working in areas where there is airborne dust or particulate or where these materials can become airborne (i.e. wind whipped areas).
 - vi. Suitable protective safety goggles, chemical goggles, and face shields are required for workers when handling chemical, cutting, welding, grinding or using other harmful substance injurious to the face.
- b. **Southport and Roxboro High-Visibility Clothing.** A High-Visibility Vest, ANSI/ISEA 1072010 Class 2, is required when working or passing through the fuel handling area.
- c. **Clothing Minimum.** Shorts are not permitted on Site. All clothing, including coveralls, must be in a good condition and free from holes and tears.
- d. **Noise/hearing Protection.** Specific areas where hearing protection is mandatory will be posted throughout the Site.

Hearing protection shall be worn in areas where workers are exposed to a time weighted average noise level of 85 dBA or higher over an 8-hour Work shift.

Additional hearing protection may be required. Specialized PPE is the Contractor's responsibility.

- f. **Clean Shaven Requirement.** Contractors are required to be clean shaven within 24 hours when required to wear a respirator.

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- i. Mustaches can be worn if neatly trimmed and extend no longer than 1 inch from the corners of your mouth.
- ii. Soul patch can be worn if neatly trimmed, no larger than 1 inch by 1 inch.
- iii. Sideburns may be worn if neatly trimmed and do not pass the base of the ear and do not interfere with any respiratory protection facial seals.

- iv. All Contractors that are required to wear a respirator (half or full faced) must have a valid fit test certificate (fit test completed within the last 12 months).
 - v. If a Contractor is being fit tested by the Owner, the fit tester has an obligation to deny a fit test in the event of facial hair growth.
- g. **Flame Resistant Clothing.** FRC2 clothing requirements depend on the task, and the Owner's Site contact shall set the requirements. More stringent FR clothing requirements may be implemented depending on where the Contractor will be working and what tasks are being performed. 100% cotton clothing is required under FR coveralls or electrical safety clothing.