



PERSONAL PROTECTIVE EQUIPMENT

SOP #19000-004

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SCOPE AND PURPOSE

The purpose of this standard is to support the elimination and/or mitigation of potential exposure to occupational related illnesses or injuries by outlining basic personal protective equipment (PPE) requirements.

The scope of this program includes roles and responsibilities surrounding PPE, hazard assessment, general controls and specific requirements for outlined PPE where applicable to all basic work environments.

Note specialized activities are supported by activity specific standards/procedures/training. This standard excludes specialized activities i.e. electrical PPE, working at heights, respiratory protection requirements, glove selection/use, mould, etc.

ROLES AND RESPONSIBILITIES

Environmental Health and Safety -

- Identify areas/work conditions where PPE should/must be worn
- Maintain this standard to ensure an up-to-date database of general areas/operations requiring PPE is available for worker reference
- Provide recommendations to site leadership related to PPE
- Ensure appropriate PPE is selected and available to employees
- Support discipline managers steps to minimize the risk of potential exposure to occupational related illnesses or injuries - including, but not limited to, supporting the identification and implementation of PPE requirements for specific work tasks and, where feasible, support monitoring activities
- Engage JHSC input regarding upcoming changes to PPE requirements, as well as support data gathering and evaluation activities in response to JHSC recommendations related to PPE

Joint Health and Safety Committee -

- Provide input related PPE where appropriate (worker concerns, suggestions for improvement etc.)
- Participate in, and provide feedback related to testing/trialing of PPE and suggested control measures
- Report, as soon as practicable, any worker concerns related to PPE to their supervisor and escalate as necessary.
- Communicate information provided at the JHSC to their co-workers and gather feedback for JHSC consideration
- Support worker compliance with the PPE Standard

Discipline Managers (Operations, Maintenance, Technical, etc.) -

- Identify hazard areas and employees who may be exposed
- Ensure that all employees are aware of hazards associated with relevant work activities and are utilizing appropriate control measure – including PPE controls measures
- Take appropriate steps to minimize the risk of hazards, and use of PPE, including, but not limited to, identification and implementation of control measures where feasible (elimination (where practicable), engineering controls, and administrative control measures) related to work activities.
- Support compliance with PPE requirements related to the work activities
- Ensure that all new employees who may be exposed to hazardous noise levels undergo audiometric testing within the first two weeks of employment
- Ensure PPE changes are communicated with employees
- Support follow-up and response to any worker concerns related to PPE or other workplace hazards

Shift Supervisors -

- Enforce compliance related to proper selection, use and care of PPE
- Ensure compliance with administrative controls (procedures, work scheduling, rotation) implemented to reduce worker use of PPE
- Ensure workers have proper training
- Ensure PPE considerations are outlined on Safe Work Permits
- Contact EHS for requests around PPE concerns when appropriate

Employees -

- Comply with administrative and personal protective controls (PPE)
- Proper care and use for relevant PPE where required
- Report PPE and/or work related hazards to Supervisor and support resolution

HAZARD ASSESSMENTS

Evaluation of workplace areas and/or work tasks are to be carried out as needed to identify potential hazards an employee can encounter while performing work. A hazard assessment can be conducted in the following ways:

- **Observation/Inspection-** Formal or informal observation or inspection of work area and/or activity to determine the existence of unsafe or potentially unsafe conditions. Examples include physical demands profile development, Joint Health and Safety Inspections, Observation Based Safety (OBS) evaluation activities, hygiene monitoring etc.
- **Document Review-** Review of information from relevant documents including, but not limited to, legislation, standards, guidance documents, accident/injury records, job safety analysis, procedures and workflow documents.

Periodic formal reviews of assessments will be conducted to ensure prescribed PPE remains adequate for relevant work areas and activities. Field level risk assessments (documented or informal) should be conducted prior to job start, as well as throughout the duration of work to ensure prescribed PPE continually offers adequate reduction of risk.

CONTROL MEASURES

The selection of the most appropriate control option(s) will be governed by the specific task and work area with the understanding that PPE is considered the last line of defense and should be considered when engineering and/or administrative controls do not provide adequate reduction of risk or are not feasible.

GENERAL CONTROLS

- All SCEP supplied PPE must be approved for use by the site EHS Department.
- Contractors are responsible to supply their own PPE, unless otherwise specified. Contractor supplied PPE must meet or exceed requirements set out in this standard or other relevant standards (i.e. respiratory protection standard).
- Loose articles (clothing, jewelry, watches) must not be worn under the following circumstances:
 - When working around rotating tools or equipment
 - When they interfere with the effectiveness of PPE
 - May act as a conductor when working with/around unguarded energized electrical circuits
- Hair longer than shoulder length must be tied back when working around rotating equipment or when it interferes with effectiveness of PPE (wearing ear muffs, donning a respirator).
- PPE must be inspected regularly by the user to ensure adequate level of protection. PPE that is modified, cracked, worn-out or otherwise damaged is not considered to be fit for use and should be removed from service and replaced immediately.

HEAD PROTECTION

Classification -

- Based on CSA-Z94.1-15 *Industrial protective headwear - Performance, selection, care, and use* protective headwear worn on site at a minimum be a Type 1, Class E classification

Selection, Care and Use -

- Hard Hats must be worn in all areas of the plant as outlined in Appendix A
- Hard Hats must be worn forward facing.
- For tasks or work environments that require hard hats to be worn backwards, the hard hat must have the reverse orientation performance mark on it (see Figure 1), and have nape strap at back of head (see Figure 2).
- When other personal protective equipment (e.g., respirators, eye and face protectors, and hearing protectors) is required to be worn, care shall be taken to select personal protective equipment that -
 - a) Is compatible with the headwear product being used;
 - b) Does not compromise the level of protection provided by the headwear; and
 - c) Does not displace the headwear in any way.
- If hard hat shell or suspension parts require cleaning, mild soap and warm water may be used and air dry.
- Hard Hats should be stored away from direct sunlight.

Inspection & Replacement -

- Immediate replacement should occur if:
 - Colour and appearance of the shell is dull, matte, or chalky, patterned, cracked, dented
 - Inner suspension shows signs of wear (straps are frayed, cut, torn, stretched)
 - Hard hat has been struck by an object or dropped
- Under normal use it is recommended that hard hats are to be replaced every 5 years.

Accessories -

- Any stickers or laminates applied to protective headwear shall be compatible and known not to compromise the surface material.
- A liners or welder's cap that does not contain metal parts can be worn under a hard hat only if it is worn smoothly on the top of the head, not impacting the suspension.

Figure 1- Reverse orientation performance mark

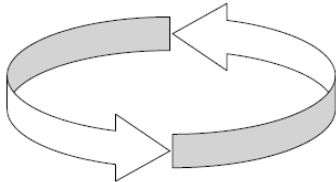
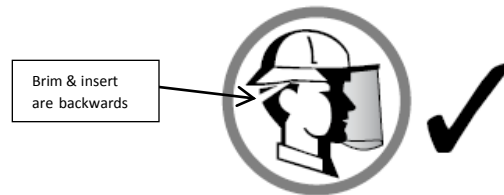


Figure 2- Correct application of reverse Hard Hat



EYE AND FACE PROTECTION

Classification -

- Eye and face protection on site must meet the CSA-Z94.3-15 *Eye and Face Protectors* Standard

Selection, Care and Use -

- Eye protection must be worn in all areas of the plant as outlined in Appendix A, or when conducting work that has the potential to introduce hazards to the eye – regardless of location .
- Non-prescription safety eyewear
 - Contact lenses may be worn with non-prescription eyewear
 - Tinted eye-wear should not be worn at night
- Prescription Safety Eyewear (including spectacle inserts)
 - Provided to SCEP employees (contact HR/Payroll Administrator)
 - All prescription eyewear must comply with the above CSA standard this includes:
 - Side shields that are permanently attached
 - Prescription eyewear fitted by vendor
- Job/Hazard specific Eye/face protection recommendations
 - *High Dust Environments* – close fitting eyewear or goggles (when full face respirator is not used. Note custom prescription spectacle inserts are provided for use when full face respirator is required)
 - *Potential for chemical/acid splashing*- chemical goggles and a faceshield (activity dependant)
 - *Corrosive Liquids*- faceshield (addition of goggles is activity specific)
 - *Welding/Sparks*- welding shield/helmet/hood (note respiratory requirements outlined separately)

Inspection & Replacement –

- Replacement should occur if eyewear impairs vision (lenses are scratched, frame is bent etc.).
- Clean eyewear with lens cleaning solution as required
- Non-prescription and prescription eye wear should be replaced as necessary.

HEARING PROTECTION

Classification -

- Hearing protection on site must meet the CSA-Z94.2-02 *Hearing Protection Devices- Selection, Care and Use* Standard.

Selection, Care and Use -

- Hearing Protection must be worn in all areas of the plant as outlined in Appendix A
- Hearing protection devices shall be used when engineering or administrative controls are not practicable or fail to reduce noise exposure to acceptable levels outlined in 19000-009 Hearing Conservation Program and will be selected per detailed instructions outlined in LMS Training – Hearing Protection – St. Clair Ethanol plant
- Class A Ear plugs (foam, pre-molded) with a minimum NRR of 25 and cap mounted ear muffs with a minimum NRR of 23 are approved for site use.
- Hearing protection devices must never be modified.
- Double hearing protection (ear plugs & muffs) must be worn where signage indicates, based on work specific hazards assessments, or relevant administrative controls. Best practice recommendations identify use of double hearing protection for noise levels >95dBA

BODY PROTECTION

- Fire resistant clothing in the form of coveralls or long sleeve shirt and pants must be worn as intended (sleeves rolled down and buttons done up) and worn in areas as outlined in Appendix A.
- Electricians –Consult qualified electrician and refer to “Safe electrical disconnect training checklist” for electrical disconnect of <600V.
- SCEP supplied fire resistant clothing is not permitted to be worn outside of the plant. All SCEP supplied fire resistant clothing should be placed in appropriate bins for cleaning. If clothing is contaminated it must be appropriately marked/tagged to help minimize further worker exposure.
- Refer to Appendix B for SCEP FR Exclusion Areas.

HAND/WRIST PROTECTION

Selection, Care and Use -

The type of glove selected must be appropriate for the hazard. Hazard assessment for adequate hand/wrist protection should include referencing the safety data sheet (if working with a hazardous substance), considering the potential for burns, cuts, scrapes, freezing, absorption and punctures. A glove must be resistant to permeation, penetration and degradation. The wrong glove may provide little or no protection. *For further guidance refer to SCEP Glove Selection Guideline Document*

- If unsure of proper glove selection contact your supervisor or EHS

Inspection & Replacement

- Gloves should be inspected upon each use to check for signs of wear, tear, and degradation. If gloves show signs.

FOOT PROTECTION

Classification -

Foot protection on site must meet the CSA-Z195.1-16 *Guideline for Selection, Care and Use of protective foot wear Standard*.

Selection, Care and Use -

- Footwear must be worn in all areas of the plant as outlined in Appendix A
- Footwear must be Grade 1- protects against toe impact and sole puncture with the green triangle patch as the identifier (Figure 3).
- Footwear must be worn correctly- properly laced, and secured at the top. Boot cut height must be a minimum of 6 inches, and have a defined heel.

Inspection & Replacement -

- Protective footwear should be inspected before and after each use looking for cracked soles, breaks or cracking of boot body, damage to stitching, tread is significantly worn.
- Replacement is required if any of the above items are found upon inspection. Contact HR/Payroll administrator for reimbursement details.

Figure 3- Grade 1 CSA Patch



WORKING AROUND CAUSTICS AND ACIDS

- See *Acid/Caustic Prescribed PPE Table* below for required PPE and/or site specific procedures as appropriate
- Prior to donning caustic/acid gear it is important to inspect gear for holes, tears, or worn areas. If any issues are found with please tag and remove from service immediately.
- Prior to doffing caustic/acid gear a secondary inspection should be performed for tears, hole/cuts etc.
- If contact with any acid/caustic material was made, gear needs to properly removed
- Immediately following use, all acid and caustic PPE are to be placed in the designated bins to be cleaned and inspected via third party

Acid/Caustic Prescribed PPE Table

	Goggles OR Face Shield	Goggles & Face shield	Acid/Caustic Resistant Gauntlet Gloves	Acid/Caustic Resistant Jacket	Acid/Caustic Resistant Pants	Acid/Caustic Resistant Boots
<p>Decreased Risk of Exposure No physical contact will be made with acid/caustic materials or equipment (e.g. routine samples and test)</p>	✓	-	✓	<i>Optional</i>	<i>Optional</i>	<i>Optional</i>
<p>Elevated Risk of Exposure Physical contact is expected or anticipated with acid/caustic materials or equipment (e.g. responding to mechanical failure/leak or unusual work/samples)</p>	-	✓	✓	✓	✓	✓

REVIEW/REVISION

A review of this document will occur following a regulatory change or at a minimum of every 5 years utilizing the “EH&S SOP Review and Sign-Off Sheet” \\file128\stclair\Operations\Employee Resource Centre\Procedures\SOP's & OGS's. The Document Control Administrator will notify the Environment Health and Safety Team Lead - who will steward the review and will engage the Operation Coordinator to support the review from an operations and maintenance perspective.

Other events which trigger review (MOC, Incident Findings) include processes which will initiate review.

RELEVANT DOCUMENTS

SCEP Employee Orientation
SCEP- Contractor Orientation
Respiratory Protection Standard
Hearing Conservation Program
Temperature Control Standard
Working at Heights Standard
Confined Space Entry Standard
Silica Control Program
Level C Acid Suit Donning/Doffing Procedure
Contact Lens Standard
Mould and Mycotoxin Training
SCEP Glove Selection Guideline

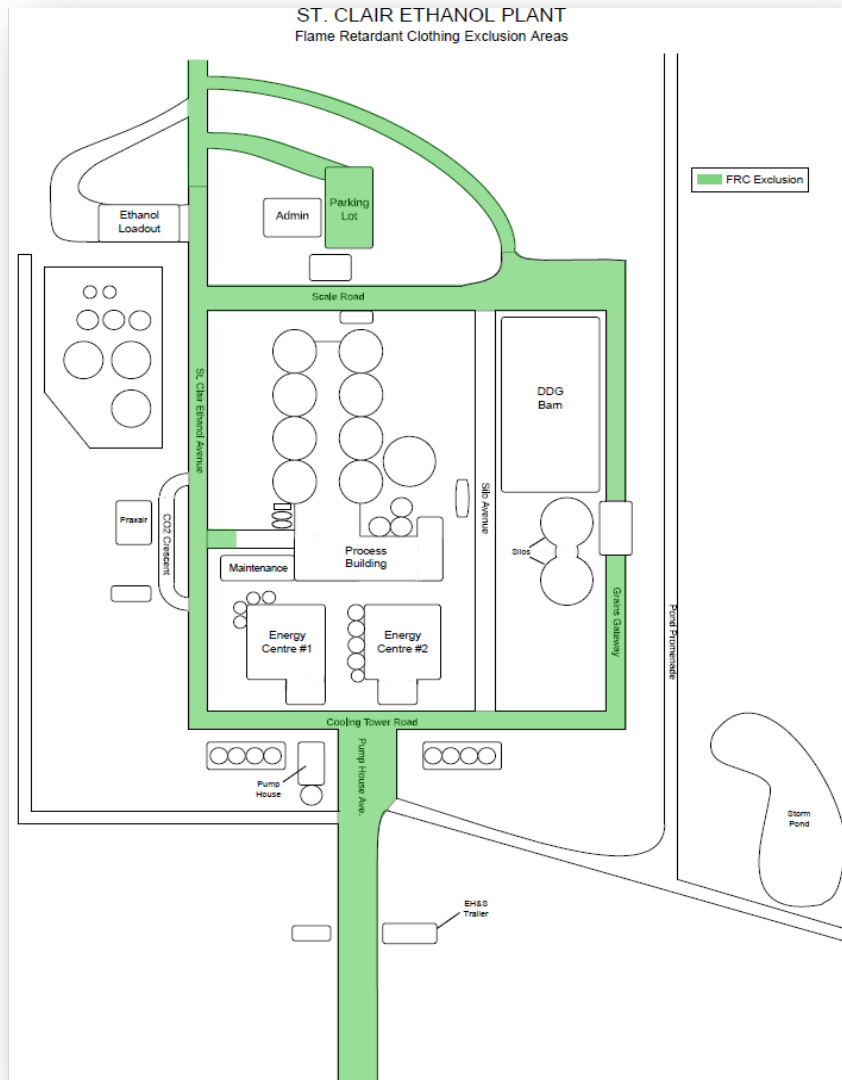
REFERENCE DOCUMENTATION

Z195.1-16 Guideline for Selection, Care and Use of Protective Footwear
Z94.3-15 Eye and Face Protectors
Z94.2-02 Hearing Protection Devices- Selection, Care and Use
Z94.1-15 Industrial protective headwear - Performance, selection, care, and use
SCEP- Contractor Orientation

Appendix A- SCEP Minimum PPE Requirements by Area

Area	Minimum PPE Required Yes (✓) No (-)					
	Hard Hat	Safety Glasses	Safety Footwear	FR	Long Sleeves & Pants	Hearing Protection
Administration Building	<i>PPE required, as appropriate when facility maintenance, construction, industrial or commercial work is taking place</i>					
Control Rooms						
Lunch Rooms						
Ethanol Load out	✓	✓	✓	✓	-	-
Tank Farm	✓	✓	✓	✓	-	-
Grains Trailer	-	-	✓	-	✓	-
Grain Receiving	✓	✓	✓	-	✓	✓
DDG Warehouse	✓	✓	✓	✓	-	-
Silos	✓	✓	✓	✓	-	✓
Process Building/EC1/EC2	✓	✓	✓	✓	-	✓
Cooling Towers	✓	✓	✓	✓	-	✓
Laboratory	-	✓	✓	✓	-	-
Maintenance Shop <i>*Excluding PPE Free zone/Walkway</i>	<i>Overhead work only</i>	✓	✓	✓	-	<i>High Impact Noise only</i>
Storm Pond	✓	✓	✓	✓	-	-
Roadways	✓	✓	✓	-	-	-

Appendix B – SCEP FR Exclusion Areas



END OF STANDARD

REVISIONS			
No.	Date (mm/dd/yyyy)	Author	Description
0	08/00/2008		Created
1	06/29/2017	J. Eldridge	Scheduled Review