

		BASIN ELECTRIC POWER COOPERATIVE LARAMIE RIVER STATION PROCEDURE			
		Origination Date: 10/28/2014	PRMP <input type="checkbox"/>	Procedure No.: SF-EPB-005	Revision No.: 05
Affected Area(s): <p style="text-align: center;">PLANT WIDE</p>			Originated By: Safety and Training Department		
			Revised By: R. McCoy		Date: 04/13/2022
Subject: <p style="text-align: center;">PERSONAL PROTECTIVE EQUIPMENT</p>					

1.0 PURPOSE/SCOPE

1.1 Purpose

- 1.1.1 This program is developed to outline Laramie River Station's (LRS) Personal Protective Equipment (PPE) Program requirements for selecting, using and maintaining PPE.
- 1.1.2 To establish personal protective equipment requirements for the plant site in order to protect employees, contractors, vendors and visitors by reducing the probability of injuries from hazards that are not controllable at the source.
- 1.1.3 This program sets minimum standards and will be supplemented by other procedures, as required by local conditions or special situations.

1.2 Scope

- 1.2.1 A risk assessment was completed for all work areas in 2014 by a third party auditor. In addition, a Process Hazard Analyses was completed in 2019 when NH₃ was added as a part of our Selective Catalytic Reduction (SCR) project. Information gathered from various hazard assessments and pre-job briefings, applicable regulations and the experience of supervisors and workers will facilitate proper hazard identification and control, and if required, help in the selection of appropriate PPE for the task.
- 1.2.2 When planning work, hazards shall be eliminated from the work environment as a first order of priority where possible. If elimination is not possible, hazards shall be minimized by ensuring that all jobs are well planned, that workers are properly trained, and that all safe work practices are followed. Once the above steps have been taken, PPE then provides an additional degree of protection from injury.
- 1.2.3 PPE is used for protecting workers from injury, basic and specialized PPE will be utilized when engineering and administrative controls are ineffective or insufficient.

2.0 DEFINITIONS

- 2.1 Administrative Controls: Controls that alter the way the work is done, including timing of work, policies and other rules, and work practices such as standards and operating procedures (including training, housekeeping, equipment maintenance and personal hygiene practices).
- 2.2 Arc Flash Suit: A complete arc rated clothing and equipment system that covers the entire body, except for the hands and feet; used to protect employees exposed to electric arc flash, and hydrocarbon flash fires, and molten metals.



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- 2.3 Arc Rating: The minimum performance value achieved by flame resistant fabrics during arc testing, also known as Arc Thermal Performance Value (ATPV)
- 2.4 Basic PPE: Includes the protective equipment that is required to be worn at all times by all employees, contractors, sub-contractors, and visitors whenever they work in, or travel through, PPE required areas. This includes such items as FR clothing, hard hats, safety footwear, hearing protection and safety glasses with side shields.
- 2.5 Contaminant: Any material which by reason of its action upon, within, or to a person, is likely to cause physical harm.
- 2.6 Engineering Controls: Where the work environment and the job itself should be designed to eliminate hazards or reduce exposure to hazards. Engineering Controls are based on the following:
- 2.6.1 If feasible, design the facility, equipment or process to remove the hazard or substitute something that is not hazardous.
 - 2.6.2 If removal is not feasible, enclose the hazard to prevent exposure in normal operations.
 - 2.6.3 Where complete enclosure is not feasible, establish barriers or local ventilation to reduce exposure to the hazard in normal conditions.
- 2.7 Flame Resistant Clothing (FR or FRC): Apparel that is either inherently flame resistant or is treated with a specific treatment so that the material does not continue to burn after exposure to and removal of a source of ignition.
- 2.8 Hazard Assessment and/or Pre-job: An evaluation of a work place or work situation to determine if hazards are present or likely to be present during the course of work.
- 2.9 Hazard Elimination: The process of removing the hazards from the work place. It is the most effective and preferred way to control a risk because the hazard is no longer present.
- 2.10 NFPA 2112: The standard on Flame-Resistant Clothing for protection of Industrial Personnel against Short-Duration Thermal Exposures from Fire, specifies the minimum design, performance, certification, and testing requirements for flame-resistant fabric and garments for use in areas at risk from flash fires.
- 2.11 Personal Protective Equipment (PPE): Specialized clothing or equipment worn by an employee for protection against a hazard.
- 2.12 Specialized PPE: Includes protective equipment that must be worn for specific jobs or for protection from specific hazards such as respiratory equipment, fall arrest equipment, arc flash gear, gloves and special clothing as required by the company or government regulations.



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2.13 Supervisory Authority: The Plant Manager is "Supervisory Authority" of this program. This person may designate this authority if necessary.

3.0 RESPONSIBILITY / APPLICABILITY

3.1 Applicability

3.1.1 This program shall apply to all LRS employees, contractors, vendors, and visitors on the plant site. A plant site risk assessment is available for further PPE use and information.

3.2 Responsibility:

3.2.1 **Safety and Training Personnel** are responsible for:

- Implementing and maintaining the Personal Protective Equipment Program at Laramie River Station.
- Conducting evaluations to determine the program's effectiveness.
- Ensuring employees are trained regarding the selection, use, and care of personal protective equipment.

3.2.2 **Supervisory Authority (Plant Manager)** is responsible for:

- The safe administration of this program.
- Enforcing the program and disciplinary action regarding violations of this program.

3.2.3 **Supervisors** are responsible for:

- Initiating discussions regarding personal protective equipment requirements and/or concerns at the start of each new project or task.
- Evaluating the needs of their employees to ensure that proper equipment is kept in stock.
- Ensuring that employees are wearing appropriate PPE.
- Monitoring and enforcing this program.
- Training on personal protective equipment utilized by their work group.
- Enforcing the program and disciplinary action regarding violations of the program.



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3.2.4 **Employees** are responsible for:

- Using personal protective equipment in accordance with the instructions and training provided.
- Checking their PPE prior to each assignment to be sure that it is the proper type for the exposure and/or the work to be performed.
- Proper selection, use, care and storage of PPE.

3.2.5 **Contractors** are responsible for:

- Ensuring that their employees are wearing appropriate PPE for all tasks and as per contract.
- Monitoring and enforcing Personal Protective Equipment Program requirements for their employees.

4.0 **PROCEDURE / GUIDELINES**

4.1 Guidelines and General Requirements:

- 4.1.1 Personal Protective Equipment (PPE) is designed and required to provide an effective barrier between a person and a potentially dangerous object, substance, process, etc. Use of mandatory PPE is a job requirement, and non-use or improper use may be subject to disciplinary action.
- 4.1.2 Personal protective equipment requirements are for all operations and plant locations. Where specific activities or hazards are not defined, this program will be used as a guide in determining the personal protective equipment required.
- 4.1.3 The criteria for selection of PPE:
 - Provides protection against the hazard;
 - Comfort and fit;
 - Minimum restriction of required body movements.
- 4.1.4 The following basic PPE will be worn by all employees, temporary employees, contractors, and sub-contractors (visitors and tour groups are covered in the visitors at LRS procedure) when working or visiting in PPE required areas:
 - Hard Hats - ANSI Z89.1;
 - Safety Boots - ASTM F2413;



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- Safety Glasses - ANSI Z87;
- Hearing Protection - OSHA 1910.95;
- FR Clothing - ASTM 1506, NFPA 70E; and/or OSHA 1910.269 (Employees and Class A Contractors).

4.1.5 Employees must keep their PPE clean, properly maintained and stored correctly.

4.1.6 Defective or damaged PPE shall not be used.

4.1.7 It is not necessary to wear PPE in lunch rooms, office areas, control rooms, or washrooms, unless a task is being performed that involves hazards requiring PPE.

4.1.8 Each department will supplement this program by determining the specific equipment required for the department's activities and locations. Protective equipment requirements will be specific in department procedures, Pre-jobs and Confined Space Entry Procedures.

4.2 Eye and Face Protection

4.2.1 At a minimum, safety glasses meeting the ANSI Z87.1 standard (with side shields) are required outside office and control room areas and in any area with the potential for eye injury.

4.2.2 Non-prescription eye and face protection is available from the warehouse, in the free issue rooms and at the safety/training building.

4.2.3 Each employee shall use appropriate eye or face protection when exposed to eye or face hazards from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, potentially infected material, or potentially harmful light radiation.

4.2.4 Employees wearing contact lenses in plant operating areas, shops, warehouses, chemical laboratory and any other work area with the potential for eye injuries are required to wear safety glasses or other appropriate eye and face protective devices (i.e. goggles, face shields, etc.).

4.2.5 Wearers of contact lenses are required to have a pair of prescription safety glasses on plant site. This will allow employees to perform their job functions, should they damage or lose a lens while working, or find that the use of contacts is not suitable on any particular day or for certain job tasks.

4.2.6 The use of contact lenses may present additional hazards to the individual in dusty and/or chemical environments. Their use in these environments is not permitted unless chemical goggles are worn in conjunction with the contact lens.



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- 4.2.7 Replacement of lost or damaged contacts is the responsibility of the employee wearing them. Basin Electric Power Cooperative will not reimburse employees for damaged or lost contacts.
- 4.2.8 Constant tint (higher than a 1) and Polarized / tinted safety glasses are not allowed to be worn inside building, at night, or in low light areas. Tinted lenses (tint 1, light gray, or those with an inside/outside classification) and transition (photo chromic) lenses are allowed inside.
- 4.2.9 Employees needing prescription safety glasses will be provided up to one pair every two years with the following exceptions:
- A change in the employee's prescription.
 - Damage or loss due to a documented incident reported to the employee's supervisor.
 - Reference Co-Op Safety Program SAF240 Cooperative Safety Eyewear Program on Inside Basin.
- 4.2.10 Goggles and/or face shields shall be worn when employees are engaged in, or are close to, work involving the following:
- In the presence of flying particles or objects, and hazardous materials that may splash, spray, drip or become an airborne mist.
 - Whenever the product Safety Data Sheet recommends its use.
 - Whenever overhead cutting, sanding, scraping, painting or similar operations are being performed that could cause particles to fall and get into an employee's eyes.
 - Face shields are required when grinding, chain sawing, or performing a job prone to creating flying chips and particles or spray of hazardous material. Face shields are required when hose-washing a hazardous material or operating a hydro-blasting lance.
 - When any other danger of injury to eyes of face exists, or at the direction of a supervisor.
- 4.2.11 Face shields and welding helmets shall only be used over primary eye protection such as safety glasses or goggles.
- 4.2.12 Each employee shall use equipment with filter lenses that have a shade number appropriate for the work being performed for protection from hazardous light radiation.



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Reference Attachment 1 for a listing of appropriate shade numbers for various operations.

- 4.2.13 Welding hoods with properly shaded lenses and safety glasses are required when operating welding equipment, assisting with, or observing welding operations.
- 4.2.14 Eye and Face PPE should be inspected regularly and replaced as needed.
- 4.2.15 Lenses should be cleaned with water, eye protection wipes, or cleaning solution.
- 4.2.16 Visitors will be provided with proper eye protection for their use as needed.
- 4.2.17 Reference the Co-Op Safety Program SAF240 Cooperative Safety Eyewear Program on Inside Basin for more information and purchasing instructions.

4.3 Head Protection

- 4.3.1 Hard hats (meeting ASNI- Z89.1 standard) shall be worn in areas where there is a potential for injury to the head from bumping into fixed objects, equipment, piping, or from falling objects.
- 4.3.2 Hard hats will be worn on plant site except for limited exceptions in:
 - Office areas;
 - Enclosed lunchrooms;
 - Vehicles with rigid, enclosed cabs;
 - Parking lots;
 - Main warehouse within interior marked areas;
 - In maintenance shops when overhead work does not exist;
 - Inside yard maintenance building when overhead work does not exist;
 - Instrument shop;
 - Electric Shop;
 - Lab
- 4.3.3 Hard hats are required whenever an overhead hazard exists, including overhead storage racks.



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- 4.3.4 Hard hats will be worn by employees working near exposed electrical conductors that could contact the head.
- 4.3.5 Hard hats, cold weather gear, chinstraps and other attachments are available at the warehouse, in free issue areas, and / or the Safety and Training building.
- 4.3.6 Specialized head protection such as welding helmets, face shield attachments and sandblasting hoods will be furnished as needed and can be obtained from the warehouse.
- 4.3.7 When working around, or when exposed to, rotating tools or moving equipment parts, employees shall protect long hair by tying and tucking it up under their hard hats to prevent it from becoming entangled.
- 4.3.8 Visitors will be provided with, and required to wear, hard hats in all designated areas.
- 4.3.9 NEVER alter or modify the hard hat suspension system.
- 4.3.10 Do not use paints, solvents, chemicals, liquid adhesives, gasoline, or like substances on hard hats. If such substances are applied, the impact resistance and other safety properties of the hard hat may be destroyed. These dangerous conditions may not be apparent or readily detectable by the user.
- 4.3.11 Do not apply any coatings or any metallic objects to the hard hat as this material can interfere with the high voltage, non-conductive properties.
- 4.3.12 Do not fill the top of the hard hat with gloves or other articles as this will interfere with the shock absorbing properties of the suspension system.
- 4.3.13 Do not drill holes, punch holes, break off lugs, or mutilate the hard hat in any way as this will weaken the hard hat and it will no longer protect the wearer.
- 4.3.14 Inspect the hard hat regularly and replace worn or damaged parts.
- 4.3.15 Impaired and/or damaged hard hats should be replaced as soon as possible.
- 4.3.16 Always replace a hard hat if it sustains an impact, even if damage is not noticeable.
- 4.3.17 As a general guideline most manufacturers recommend replacing hard hats every 5 years regardless of outside appearance. The brim of the hard hat is imprinted with the manufacturer date, the five year count begins from first day of use.
- 4.3.18 Do not store hard hats where they can be exposed to sunlight. Overexposure to ultra-violet light and extreme heat may cause the shell to deteriorate.
- 4.3.19 Clean the hard hat only with mild soap and warm water.



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4.3.20 Hard hats may be removed when a person must work in very tight quarters. The hard hat must be put back on immediately upon withdrawing from such work areas. Some examples of permissible hard hat removal areas are:

- Working on a vehicle suspension within a wheel well;
- Working within an electrical cabinet that is not energized;
- Internal work on IK soot blower;
- Designated welding operations.

4.3.21 Personnel who store their personal protective equipment in lockers in the coal yard or the water treatment plant may travel by enclosed vehicle from the parking lot, by the most direct route without hard hats, safety glasses or safety footwear (no open toed shoes, no shorts, and no tank tops or sleeveless shirts) prior to beginning, and following the completion of their work shift.

4.4 Safety Footwear

- 4.4.1 Employees shall wear protective footwear meeting the ANSI Z41.1 or ASTM F2412 and ASTM F2413 standards.
- 4.4.2 Safety footwear must provide ankle support.
- 4.4.3 All leather uppers are recommended.
- 4.4.4 NO tennis shoes or low-cut shoes are allowed as safety footwear.
- 4.4.5 Safety footwear will be worn on the plant site except for limited exception in the administrative areas, control rooms, and parking lots (unless work is being performed).
- 4.4.6 Open toed shoes are only allowed in the administration building.
- 4.4.7 In areas where steel toed shoes are not required as specified above, the employee shall wear footwear that is appropriate to the duties being performed and the conditions that are encountered.
- 4.4.8 Employees will wear rubber boots, overshoes, or equivalent footwear whenever exposed to hazardous chemicals or liquids. A variety of rubber safety boots and overshoes are available from the warehouse and in the free issue areas.
- 4.4.9 Please reference the Co-Op Safety Program SAF250 Safety Footwear Program on Inside Basin for all footwear design and purchasing requirements.

4.5 Hearing Protection



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- 4.5.1 Hearing Protection is covered by the Hearing Conservation Program SAF-SP-016.
- 4.5.2 Hearing protection is required in all posted areas and in buildings/areas having high noise levels.
- 4.5.3 Headphones and/or ear buds used for listening to music are not hearing protection and shall not be used as such.
- 4.5.4 Employees performing work or using tools that produce high noise levels, (e.g. grinding, impact wrenches, hammering, air arcing, sandblasting, etc.) are required to wear hearing protection regardless of where work is being performed.
- 4.5.5 Hearing protection equipment must be approved by the Safety and Training Supervisor and will be supplied in the warehouse, free issue areas and the safety and training building. Only approved hearing protection shall be used on the plant site.
- 4.5.6 Earmuffs and reusable plugs should be cleaned regularly with soap and warm water. Disposable earplugs shall be discarded when dirty or contaminated.

4.6 Personal Clothing, Body, and Skin Protection

- 4.6.1 Flame Resistant Clothing is covered in the Flame Resistant clothing Program SAF-SP-008.
- 4.6.2 Employees and Class A contractors are required to wear Fire Resistant (FR) clothing in all areas of the plant with the exception of the administration building, designated lunch rooms, offices and the control room. Refer to SAF-SP-008 for further details.
- 4.6.3 Only approved FR PPE will be issued to personnel.
- 4.6.4 Employees must wear only natural fiber clothing (cotton, wool, or silk) under their FR clothing. Employees must not wear clothing that would increase the extent of an injury if exposed to flames, flash fires, or electric arcs (i.e. synthetic fibers, logos, etc.).
- 4.6.5 Tank tops, cut off T-shirts or sleeveless shirts, shorts or cutoff pants, excessively torn or loose clothing are prohibited. Clothing will be worn in a proper manner, which is appropriate to the duties performed and conditions encountered.
- 4.6.6 Employees shall wear appropriate clothing protection when exposed to hazards such as those from skin absorption of harmful substances (i.e. lime and ash dust), thermal burns, harmful temperature extremes, etc.
- 4.6.7 Tyvek suits may be appropriate in areas to protect FR clothing from contamination, oil, grease, dust, etc. This will be determined through work procedures, when completing a pre-job briefing form, and through supervisor and/or employee knowledge of the task and/or work area.



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- 4.6.8 Qualified employees per 29 CFR 1910.269 will follow LRS SAF-EPB-021 Electrical Arc Safety Program and the NFPA 70E for proper PPE requirements.
- 4.6.9 Leathers, including gloves, aprons, coats, pants or any combination as required by the conditions of the job, shall be worn while welding.
- 4.6.10 Personnel shall wear U.S. Coast Guard approved personal floatation devices (life-jackets) where danger of drowning exists.
- 4.6.11 Employees working with, or exposed to, hazardous chemicals, solvents or corrosive materials will wear appropriate impermeable clothing (e.g. rain suits, acid suits, acid hoods, rubber boots, chemical gloves, coats, jackets, bibs, etc.) to prevent the material from contacting the skin. If skin contact occurs with these products the recommendations in the SDS for exposure will be followed. Continuing work with wet skin from chemical products or materials is prohibited.

4.7 Hand Protection

- 4.7.1 Employees shall wear appropriate hand protection when hands are exposed to hazards such as those from skin absorption of harmful substances, cuts or lacerations, severe abrasions, punctures, chemical burns, thermal burns and / or harmful temperature extremes.
- 4.7.2 There is a large variety of hand protection available at the warehouse, in the free issue areas and the safety training building.
- 4.7.3 Work procedures or pre-jobs can identify the risks and what type of protection is required. General requirements for selecting the right work glove would include:
- Determine the physical conditions under which the glove will be used (temperature, abrasion, chemical resistance, etc.).
 - Consider the gloves features required to perform the task (grip, protection, dexterity, insulation, etc.)
 - Gloves should comply with any SDS requirements for the work performed.
- 4.7.4 Chemical gloves shall be worn when there is a potential for contact with corrosive or irritating substances such as acids, caustics, etc. The selected gloves must be appropriate for exposure. All chemical gloves must be inspected for degradation, damage, potential leaks, and internal contamination from a previous use prior to wearing them.
- 4.7.5 Leather palmed work gloves will be worn to protect the hands from contact with materials that may cause cuts abrasions, thermal burns or bruises to the hands.
- 4.7.6 Specialty gloves are available to welders and other employees who must handle hot equipment and materials.



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- 4.7.7 Qualified employees shall wear electrical rubber gloves and leather protectors when working on or within reaching distance of any unprotected circuit which is, or maybe, energized above 50 volts.
- A visual inspection of the rubber gloves for cracks, holes and cleanliness will be made prior to each use by the employee that will be using the gloves. Rubber gloves that are unusually dirty or have cracks or holes in them shall not be used.
 - When not in use, gloves shall be stored in canvas bags or other containers.
 - Electrical rubber gloves will be tested every six (6) months by a certified testing lab, or will be replaced every six (6) months.
- 4.7.8 Gloves should be inspected prior to each use. Make sure there are no holes, tears, or cuts. Gloves should fit properly.
- 4.7.9 Dispose of gloves that are cracked, cut or torn, excessively dirty, contaminated with oils/grease or other substances.

4.8 Respiratory Protection

- 4.8.1 Respirators are selected on the basis of the respiratory hazards to which the worker is exposed. A pre-job, SDS, work-site inspection, hazard analysis, or work procedure can be used to help determine the type of respirator needed.
- 4.8.2 P95 Particulate Respirators (dust masks) are solely utilized based upon the individual and are voluntary use only. They will not be used as respiratory protection in required or recommended areas.
- 4.8.3 Employee must pass a medical evaluation prior to using any respirator.
- 4.8.4 Employees must be FIT tested prior to using any respirator.
- 4.8.5 All respiratory protection needs to be inspected prior to each use.
- 4.8.6 Half and full face respirators along with a variety of cartridges are available in the warehouse, free issue areas and the safety / training building.
- 4.8.7 Self-Contained Breathing Apparatus (SCBA) are located in various locations in the plant and in the rescue truck.
- 4.8.8 Designated respirator required areas include, but are not limited to:
- In the coal system when employees are working in or around the following areas:
 - Whenever coal is being transported on the conveyor system.



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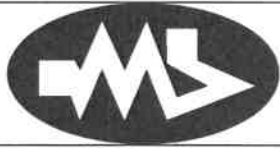
- Where trains are being dumped.
- When dust is being produced.
- During coal system wash down.
- When shoveling coal or coal dust.
- In and around the cooling towers when lab values indicate need. (ATP value of 100 or above or Free Available Chlorine value below 0.2 ppm)
- Around all lime preparation operations.
- When unloading Carbon or servicing the Powder Activated Carbon (PAC) system.
- When welding, if proper ventilation cannot be achieved, and during stainless steel plasma cutting.
 - Always required when welding in the maintenance work areas in the scrubbers.
- In the Scrubber / Precipitator area when fly ash is being handled (i.e. when dumping, vacuuming, sweeping, etc.).
- Fly Ash load out when visible dust is present.
- Confined spaces (if required on confined space permit).
- Lab, when grinding coal samples.
- Work with chemicals when required by SDS.

4.8.9 Respirators shall be cleaned after each use following manufacturer's recommendations.

4.8.10 Respirators shall be stored to protect against dust, sunlight, heat, extreme cold, excessive moisture and damaging chemicals. Plastic, sealable bags are provided with all respirators to help protect them during storage. In addition to the plastic, sealable bag, there are bags available from the warehouse, and free issue areas for respirator storage.

4.8.11 All other aspects pertaining to respirator protection can be found in the Respiratory Protection Program SAF-EPB-006.

4.9 Fall Protection



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- 4.9.1 Specific guidelines for fall protection in general will be found in the CO-OP safety Program SAF210 Fall Protection Program on Inside Basin.
- 4.9.2 Fall protection must be used when on a walking-working surface with an unprotected side or edge that is 4 feet (1.2 m) or more above a lower level.
- 4.9.3 A full body harness with a center D ring is required for a fall arrest system.
- 4.9.4 Safety belts are prohibited from use in fall arrest.
- 4.9.5 All employees who are off the ground and not on a ladder must be protected from falls. Fall protection can be accomplished by: wearing a fall arrest system, being on an approved platform with all safety guardrail, mid-rail, and toe boards in place, wearing a travel restrict system, wearing a work positioning system, ladder cages, or vertical ladder fall protection systems.
- 4.9.6 Fall protection is not required when working from a ladder while maintaining three points of contact when climbing and descending. See the Portable Ladder Procedure SAF-SP-035 for more information on use of portable ladders.
- 4.9.7 Fall protection requirements while operating a scissor lift or aerial lift can be found in LRS - SAF-SP-002A Mobile Elevated Work Platforms Program.
- 4.9.8 Fall protection equipment must be inspected prior to each use by the employee utilizing the equipment and annually be a competent person (other than the primary user).
- 4.9.9 Fall protection equipment can be obtained from the warehouse.
- 4.9.10 All damaged equipment shall be returned to the warehouse or to safety and training for proper disposal.

4.10 Cleaning and Maintenance

- 4.10.1 It is important that all personal protective equipment be kept clean, maintained and stored properly
- 4.10.2 Employees shall inspect, clean and maintain PPE at regular intervals according to manufacturer's recommendations.
- 4.10.3 PPE shall be stored properly according to manufacturer recommendations.

5.0 TRAINING

- 5.1 Training will be provided to each employee who is required to use PPE. Employees shall be trained to know at least the following:



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- 5.1.1 When PPE is necessary;
- 5.1.2 What PPE is necessary;
- 5.1.3 How to properly don, doff, adjust and wear PPE;
- 5.1.4 The limitations of PPE; and
- 5.1.5 The proper care, maintenance, useful life, storage and disposal of PPE.

5.2 Each affected employee shall demonstrate an understanding of the training given, and the ability to use PPE properly, before being allowed to perform work requiring the use of PPE.

5.3 When the employer has reason to believe that any affected employee who has already been trained does not have the understanding and skill required, the employee shall be retrained. Circumstances where retraining is required include, but are not limited to:

5.3.1 Changes in the workplace that render previous training obsolete or incomplete; or

5.3.2 Changes in the types of PPE to be used; or

5.3.3 Inadequacies in an affected employee's knowledge or use of assigned PPE indicate that the employee has not retained the requisite understanding or skill.

6.0 ATTACHMENTS:

6.1 Attachment 1: Filter Lenses for Protection Against Radiant Energy

6.2 [LRS Risk Assessment](#)

7.0 REFERENCES:

7.1 29 CFR OSHA 1920 Subpart I - Personal Protective Equipment

7.2 29 CFR OSHA 1910.269 - Electrical Power Generation, Transmission and Distribution

7.3 NFPA 70E - Standard for Electrical Safety in the Workplace

7.4 BEPC SAF210 - Fall Protection Program

7.5 BEPC SAF250 - Safety Footwear Program

7.6 BEPC SAF240 Cooperative Safety Eyewear Program



**BASIN ELECTRIC POWER COOPERATIVE
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- 7.7 LRS SAF-EPB-006 - LRS Respiratory Protection Program
- 7.8 LRS SAF-SP-016 - LRS Hearing Conservation Program
- 7.9 LRS SAF-EPB-021 - LRS Electric Arc Safety Program
- 7.10 LRS SAF-SP-002A - LRS Mobile Elevated Working Platform Program
- 7.11 LRS SAF-SP-008 LRS Flame Resistant (FR) Clothing Program
- 7.12 LRS Hazard Assessment and Process Hazard Analysis
- 7.13 LRS SAF-SP-035 - Portable Ladder Procedure

Approved By: Reena McCoy Reena McCoy (Apr 18, 2022 10:03 MDT) Date: _____

Approved By: Levi Mickelsen Levi Mickelsen (Apr 18, 2022 11:37 MDT) Date: _____



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Attachment 1

Filter Lenses For Protection Against Radiant Energy

<u>Welding Operations</u>	<u>Electrode Size</u> 1/32 inch	<u>Arc Current</u>	<u>Minimum (*)</u> <u>Protective Shade</u>
Shielded Metal Arc Welding	Less than 3	Less Than 60	7
	3 - 5	60 - 160	8
	5 - 8	160 - 250	10
	More Than 8	250 - 550	11
Gas Metal Arc Welding and Flux Cored Arc Welding		Less than 60	7
		60 - 160	10
		160 - 250	10
		250 - 500	10
Gas Tungsten Arc Welding		Less Than 50	8
		50 - 150	8
		150 - 500	10
Arc Carbon	(Light)	Less Than 500	10
Arc Cutting	(Heavy)	500 - 1000	11
Plasma Arc Welding		Less Than 20	6
		20 - 100	8
		100 - 400	10
		400 - 800	11
Plasma Arc Cutting	(Light) **	Less Than 300	8
	(Medium) **	300 - 400	9
	(Heavy) **	400 - 800	10
Torch Brazing			3
Torch Soldering			2
Carbon Arc Welding			14

Filter Lenses For Protection Against Radiant Energy

<u>Operations</u>	<u>Plate Thickness</u> Inches	<u>Plate Thickness</u> mm	<u>Minimum (*)</u> <u>Protective Shade</u>
Gas Welding:			
Light	Under 1/8	Under 3.2	4
Medium	1/8 to 1/2	3.2 to 12.7	5
Heavy	Over 1/2	Over 12.7	6
Oxygen Cutting:			
Light	Under 1	Under 25	3
Medium	1 to 6	25 to 150	4
Heavy	Over 6	Over 150	5

