

**Ohio Environmental Protection Agency**

**Office of Safety**

**Safety Standard Operating Procedure Number: SP 13-3**

**Date: September 14, 2015**

**STATUS: FINAL**

**Title: Fire Retardant Clothing (FRC)**

**Purpose:**

The purpose of this Safety Standard Operating Procedure (SSOP) is to outline the requirements for the wear of fire-retardant clothing (FRC) during field activities at locations that pose a flash fire or arc flash hazard.

**References:**

1. OSHA, 29 CFR 1910.132, Personal Protective Equipment
2. OSHA Memorandum, March 19, 2010, Enforcement policy for Flame-retardant Clothing in Oil and Gas Drilling, Well servicing, and Production-Related Facilities.  
[http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=INTERPRETATION&p\\_id=27296](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATION&p_id=27296)

**Scope:** This SSOP applies to all employees who perform work activities at facilities/locations that require the wear of fire retardant clothing. This requirement primarily pertains to oil and gas and electric power generation facilities/sites, however, other locations may also have this requirement based on the potential for a flash fire or arc flash. Each facility or site must be evaluated by the employee conducting field activities to determine the need for FRC.

**Definitions:**

1. **Flash Fire** – A fire that spreads rapidly through a diffuse fuel, such as dust, gas, or vapors from an ignitable liquid, without the production of damaging pressure.
2. **Fire-Retardant Clothing (Flame-Resistant Clothing)** – Specialized personal protective equipment made of fabrics that are designed to resist ignition and spread of heat and

flames away from the wearer, self-extinguishing almost immediately once the ignition source is eliminated.

### **FR Clothing Requirements:**

1. All FRC work wear (pants, shirts, coveralls, winter weather gear, gloves, hats) must be NFPA 2112 compliant. ALL FRC rain gear must be ASTM F2733 compliant. This should be indicated on the clothing label or in the specifications provided by the manufacturer when purchased.
2. All FRC clothing and ensembles must meet the HRC rating of 2 as a minimum.

### **Proper Wear and Care of FRC:**

1. All FRC must be inspected by the wearer prior to entering an FRC required area. If the clothing is found to be damaged it must be replaced before entering any FRC required area.
2. FRC clothing shall be worn as the outermost layer of clothing. **Non-FRC must never be worn over FRC.** This includes jackets and rain gear.
3. FRC clothing purchased for individuals will be form fitting. FRC shared clothing (coveralls and outerwear) will be provided in various sizes and employees should select the best suited size for their use
4. Items of clothing worn under FRC (underwear, pants, etc.) should be made of non-melting materials, such as cotton, wool, or silk. Polyester, nylon, spandex, or polypropylene clothing must never be worn under FRC. The wear of synthetic materials reduces the effectiveness of FRC in preventing burns in the event of exposure to a flash fire.
5. If FRC coveralls are being worn, clothing worn beneath the FRC coveralls must be made of a non-melting material.
6. FRC can be home-laundered following the manufacturer's guidelines.

### **Procedures:**

1. Supervisors are responsible for ensuring that necessary FRC is available to employees when assigning work at facilities/sites that require the wear of this equipment during certain activities.

2. Employees who perform any field activities at locations that require the wear of fire retardant clothing (FRC) must comply with all facility/site requirements for the wear of FRC.
3. Employees who arrive on a site where a “flash” fire or an arc flash hazard may be present should check with facility/site management to determine what locations, and during what on-site activities require the wear of FRC.
4. Once it is determined that a facility/site has FRC requirements, the employee must evaluate the work that needs to be accomplished to determine if entry into the FRC required areas is actually necessary. All efforts must be made to accomplish the activities outside of the FRC required area.
5. If training on FRC is available on site, employees must attend the training.
6. If FRC is not available for all employees who must visit a facility and the facility/site provides FRC for visitors, arrangements should be made to obtain FRC to wear while on site during designated operations which require the wear of FRC. All FRC provided by a facility/site should be inspected prior to wear. Any defects should be reported to the facility/site management. FRC should also be inspected for cleanliness and any problems brought to the attention of facility/site management. This would only apply to employees who are not assigned work at facilities requiring FRC.
7. Employees who are assigned duties at facilities where FRC is required must be individually issued the appropriate FRC garments (i.e. shirt/pants, or coveralls). FRC outerwear must be available to all staff in various sizes as noted in item 10 below.
8. Employees who utilize FRC must read all manufacturer’s labels and instructions prior to use. The manufacturer’s website should also be reviewed for information on the proper use and wear of FRC.
9. Programs must ensure that adequate FRC is available for employees who visit facilities/sites that require FRC and that training on the proper wear and care of FRC is provided to affected employees.
10. Programs may maintain a supply of FRC (coveralls, outer jackets) in various sizes which can be shared by employees who require FRC during inclement weather. This would eliminate the need to rely on facilities to provide FRC for our employees. Arrangements must be made to have any shared FRC outerwear laundered on a periodic basis as needed.

11. A set of FRC pants, and a long-sleeved shirt, or FRC coveralls, based on the personal preference of the employee, should be purchased for each employee who is assigned work at FRC required facilities/sites.. These items must be issued on an individual basis and worn only when necessary at FRC required locations. All FRC clothing is considered personal protective equipment.
12. The type of FRC purchased must meet the facility/site requirements. It also should be selected based on seasonal weather conditions (i.e. lightweight shirt and pants, coveralls, winter gloves, hats, etc.).
13. All Emergency Responders and employees assigned to the Office of Special Investigations (OSI) must be issued FRC as part of their mandatory personal protective equipment.
14. Programs must periodically review their field activities to ensure that FRC is available for all employees who are required to visit facilities/sites where FRC is required.

**Safety Management System (SMS) Requirements:**

1. The SMS Assessment Worksheet for employees who require the wear of FRC must indicate this requirement where indicated on the worksheet.
2. An entry will entered on each employee's SMS safety Report indicating the date they were provided training on the proper wear and use of FRC. Supervisors of affected employees are required to provide this information to the Safety Manager.