



HEALTH AND SAFETY PROCEDURE 112 – Flame Resistant Clothing

1.0 PURPOSE

The Westlake, Plaquemine Operation's Facility (Westlake) is committed to provide a safe and healthy workplace at all times. As part of this commitment, flame resistance/flame retardant clothing (FRC) shall be required for all persons (including vendors and contractors) when in areas of operations or maintenance where flash fires may result from equipment failure, mis-operation, or process upset.

2.0 SCOPE

This procedure applies to all Westlake employees, contract employees and visitors within the facility.

3.0 DEFINITIONS

- 3.1 Flame Resistant (FR): The characteristic of a fabric to resist ignition and to self-extinguish if ignited.
- 3.2 Flame Retardant: A chemical substance used to impart flame resistance - not part of the basic fibers chemistry. Flame retardant treatments can diminish overtime or with use.
- 3.3 Chemical Delivery –a delivery of chemicals , which may include transfer by means of a hose or other equipment from a bulk chemical trailer to the process, process to the truck, truck to truck transfer (transload), or truck to another storage area or laydown yard by the delivery driver or other company.

4.0 GENERAL

- 4.1 Materials of Construction
 - 4.1.1 Flame-resistant/flame retardant clothing shall be constructed to meet NFPA 2112 requirements.
- 4.2 Flame-Resistant Clothing Distribution
 - 4.2.1 Upon initial hire of Westlake Employees, the Human Resources Department will provide specific instructions for obtaining flame-resistant clothing. Employees will be issued



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allowance to cover an initial full set of flame-resistant clothing.

4.2.2 Flame-resistant coveralls may be kept at the Security Main gate, administration building, engineering, and control rooms to be loaned to visitors.

4.3 Additional/Replacement Flame-Resistant Clothing

4.3.1 Early replacements due to wear and tear, chemical spillage, or changes in user sizes will be managed through the employee's supervision. The manager of a department can approve FRC purchases via on-line webpage administration (See section 4.4.)

4.3.2 Personnel required to wear flame-resistant clothing will receive an allowance for new garments each calendar year or as need dictates based on wear, use, changes in size, etc.

4.3.2.1 A garment is defined as:

4.3.2.1.1 Shirt and pants combination

4.3.2.1.2 Coveralls

4.3.2.1.3 Coat and Liner

4.4 Ordering Process using Webpage

4.4.1 Once connected to the link below for the Grainger customized Axiall specific website there is several help features to use in the link:

4.4.1.1 <https://www.safety solutions.com/teamwear>

4.4.1.2 The username: axiall and password: safety. The employee will select their name from a drop down menu. Their initial password will be their employee number which starts with an "E" followed by 5 numbers and can be found on their paystub. The site will then prompt a password change.

4.4.1.3 Employees will enter their name as they want it



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embroidered on the checkout page. Deviation from first name will be at the manager's discretion (i.e. nicknames).

4.5 Flames-Resistant Clothing Care

4.5.1 Employees will launder their own flame-resistant clothing in accordance with manufacturer's instructions. (See Appendix A)

4.6 Chemical deliveries

4.6.1 FRC requirements:

4.6.1.1 All drivers delivering, picking-up, or transferring chemicals at the site shall wear FRC.

4.6.1.2 This requirement applies to any Chemical Delivery or transfer in any process area, on any site roadway, or any truck un/loading rack.

4.6.1.3 FRC shirt and pants or FRC coveralls satisfy this requirement.

4.6.1.4 A disposable FRC suit alone is not acceptable.

5.0 FLAME-RESISTANT/FLAME-RETARDANT CLOTHING REQUIREMENTS

5.1 Required Areas/Tasks

5.1.1 Flame-resistant/flame retardant clothing is required to be worn by personnel in all process areas of the plant as well as inside all lab areas such as the Main Lab, PVC Lab, & VCM Lab with the following exceptions:

5.1.1.1 Roadways (NOTE: Roadways or aisle ways inside or through process areas are considered flame-resistant garment areas.)

5.1.1.2 Warehouses

5.1.1.3 Office Areas



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5.1.1.4 Inside Control Rooms

5.1.1.5 Lay down Yards

5.1.1.6 Tool Room

5.1.1.7 Parking Lots

NOTE: Lab Coats are not to be worn onsite as primary FRC.

5.2 Donning Requirements

5.2.1 Flame-resistant/flame-retardant clothing must be worn as the outermost layer of clothing unless other hazards or conditions (i.e. potential chemical exposure) require special protective clothing.

5.2.2 Disposable flame-resistant/flame-retardant coveralls shall be worn (available in stores) when performing tasks that may deposit foreign materials on flame-resistant/flame-retardant clothing, (i.e. painting). Disposable flame-resistant coveralls shall meet the requirements of NFPA 701 or offer equivalent protection.

5.2.3 Disposable flame-resistant/flame-retardant suits cannot be worn in lieu of standard fire-resistant/flame-retardant clothing.

5.2.4 Disposable flame-resistant/flame-retardant suits are not designed to be worn over standard street clothes, rather over primary FRC clothing.

5.2.5 Rainwear must meet flame resistant/flame-retardant requirements.

5.2.6 Sleeves shall be worn in the full-down and buttoned position. Shirts must be tucked in at all times.

<u>Caution</u> DO NOT take any contaminated clothes home.
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Revision History

Rev	Changes	Approved	Date
5	Westlake Branding. Review Cycle. Added revision history. Change Lab coat requirements <i>MOC: PLQ0.EHSSPSM.031517.3176</i>	H. Garner	3/15/2017



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*Appendix A – 10 Questions about Laundering
NOMEX® and Cool Touch® NOMEX® Blend
Garments at Home Wash*



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**Appendix A -10 Questions about
Laundering NOMEX® and Cool
Touch® NOMEX® Blend Garments
at Home Wash**

1. Can I wash these garments at home?

Yes. As long as washing recommendations are followed and the garments are not soiled with contaminants you would not want to mix with your family wash, they may be combined in loads.

2. Are there any special instructions?

Pre-treat oily, greasy stains with products like "Shout®" or "Spray 'N Wash®". Separate light colors from dark colors as staining can occur. Do not overload the washer. Garments need room to move in the wash for proper cleaning and good wrinkle recovery.

3. What wash cycle and water temperature should I use?

Wash in soft water with less than 4.0 grains of hardness. Hard water contains mineral salts that can form insoluble deposits on the surface of fabrics that can negate the flame resistant characteristics or serve as fuel if garments are exposed to an ignition source. Use the Permanent Press cycle in water temperature up to 140°F. Use any typical home laundry detergent. Do not use "tallow soap" as it can leave a film on the fabric.

4. Can I use chlorine bleach?

No. Chlorine bleach will weaken the fabric and accelerates color loss. Oxygen bleaches may be used if necessary. Oxygen bleach is found in some home laundry detergents such as *Tide with Bleach®*.

5. What about other laundry aids?

Starch, fabric softeners, and other laundry additives can coat the fiber and mask the flame resistant performance. They may also serve as fuel in case of combustion. Their use is not recommended.

NOMEX® has a static dissipative fiber in the blend to reduce nuisance static.

6. What about drying?

Tumble dry on Permanent Press cycle with proper cool down. Do not overdry. This fabric is synthetic and should dry quickly. Remove promptly and hang or fold. Do not line dry in direct sunlight.

7. Can I iron or press these garments?

These are not durable press garments and may wrinkle in laundering. Press with a warm iron on the Permanent Press setting. If creases in pants are desired, pressing will be required.

8. Can these garments be dry cleaned?

Yes. Either petroleum solvent or perchloroethylene can be used. In cases of heavy, oily soil, this may be the preferred approach.

9. How do I repair these garments?

Minor repairs that do not affect the integrity of the garment may be made by either sewing on NOMEX® fabric patches or by darning small holes with NOMEX® thread.

10. Can the FR properties be removed?

No. NOMEX® is inherently flame resistant. This property cannot be degraded or diminished by laundering. However, it is critical to remove greases, oily soils, and other flammable contaminants as they can burn independently and overwhelm the FR properties of the fabric. If home laundering does not provide adequate cleaning, professional care may be required.

The information in this bulletin is based on the results of testing in our laboratory and information from the fabric vendor. It is provided for your guidance and knowledge. As of the publication date, this bulletin contains up to date information on care and cleaning. Please visit our website at www.bulwark.com for the latest information.