

Rules and Regulations

Administrative Regulations
Policy 104.0
Turnout Gear



Purpose:

Turnout gear is a vital piece of personal protection for every member of the Fire Department. The City of Bryan Fire Department will provide its members with protective clothing and equipment to safeguard them from injury when involved in fire department operations. The protective clothing and equipment will be appropriate for the various activities and services the City of Bryan Fire Department will provide. It is vital that this equipment be well maintained at all times to ensure that it will function properly when needed.

The purpose of this Policy is to provide information regarding the appropriate care, inspection, cleaning, and maintenance of bunker gear, as outlined in NFPA 1851. The purpose of the Gear Inspection Program will provide the department with a system to regularly inspect the gear assigned to its members. The program is intended to prevent the use of unsafe gear and to deal with maintenance issues while they are still manageable.

Guideline:

Upon issuing a member a new set of gear, the member will be provided with all manufacturers' instructions on care, use, and maintenance for that element. Also, all warnings from the manufacturer will be provided to the member receiving the gear. A copy of all manufacturers' information provided to the member will be kept on file for reference purposes. At anytime manufacturer care and cleaning instructions differ from NFPA 1851, manufacturer guidelines will be followed. (NFPA 1851 2.4)

It is mandatory that each member maintain and care for his/her personal protective equipment. Well maintained equipment will provide members with the level of protection needed when actively working in a hazardous environment. Each member is responsible for maintaining his/her personal protective equipment at all times. Any personal protective equipment that is damaged or in need of repair shall be brought to the attention of the Fire Chief.

Turnout gear is comprised of boots, coat, pants, suspenders, hood, gloves, helmet, and SCBA Facepiece.

Records

Accurate records of the gear will be maintained during its life. The following is criteria will be recorded.

1. Person to whom element is issued.
2. Date and condition when issued.
3. Manufacturer and model name or design.

Rules and Regulations

Administrative Regulations
Policy 104.0
Turnout Gear



4. Manufacturer's identification number, lot number, or serial number.
5. Month and year of manufacture.
6. Date(s) of and findings of advanced inspection(s) by fire department.
7. Date(s) of advanced cleaning or decontamination by fire department.
8. Reason for advanced cleaning or decontamination and who performed cleaning or decontamination.
9. Date(s) of repair(s), who performed repair(s), and brief description of any repair(s).
10. Date of retirement.
11. Date and method of disposal. (NFPA 1851 2.3.2)

Protecting the public from contamination

The public's exposure to potentially contaminated gear will be limited to emergency situations only. Contaminated gear will never be taken into a private residence for something other than an emergency situation. Caution must be used to prevent children from coming into contact with contaminated gear. Children are less likely to wash their hands after touching or handling dirty or soiled items. During public education programs, if gear is to be handled by the public, it will be clean and free of potential contaminants. (NFPA 1851 2.5)

Routine Inspection

The inspections will determine if the gear is soiled and the level of cleaning it needs. The inspections determine whether the gear needs cleaned, decontaminated, or repaired. Any items contaminated by hazardous materials or biological agents must be decontaminated prior to inspection. (NFPA 1851 4.1)

Every firefighter will conduct a routine inspection of their gear after they have used it. A "use" is any time the gear is exposed or thought to be exposed to damage and/or contamination. By having the firefighter inspect their gear following a use, any damage, soiling, or contamination can be found and addressed immediately. The following guideline will be provided to firefighters with the information on what needs to be inspected. Firefighters will report any defects to the Fire Chief. An advanced inspection will need to be performed if the gear is found to be damaged or contaminated. (NFPA 1851 4.2.1)

The routine inspection, per NFPA 1851 4.2.2, will at least check for the following:

Coats and Pants

1. Soiling
2. Contamination from hazardous materials or biological agents

Rules and Regulations

Administrative Regulations
Policy 104.0
Turnout Gear



3. Physical Damage
 - a. Rips, tears, and cuts
 - b. Damaged or missing hardware and closure systems
 - c. Thermal damage such as charring, burn holes, and melting
4. Damaged or missing reflective trim

Hoods

1. Soiling
2. Contamination from hazardous materials or biological agents
3. Physical Damage
 - a. Rips, tears, and cuts
 - b. Thermal damage such as charring, burn holes, and melting
4. Loss of face opening adjustment

Helmets

1. Soiling
2. Contamination from hazardous materials or biological agents
3. Physical Damage to the shell
 - a. Cracks, crazing, dents, and abrasions
 - b. Thermal damage such as bubbling, soft spots, warping, or discoloration
4. Physical damage to the earflaps
 - a. Rips, tears, or cuts
 - b. Thermal damage such as charring, burn holes, and melting
5. Damaged or missing components of the suspension and retention system.
6. Damaged components of the face shield or goggle system
 - a. Discoloration, crazing, and scratches which limit visibility
7. Missing components of the face shield or goggle system
8. Damaged or missing reflective trim

Gloves

1. Soiling
2. Contamination from hazardous materials or biological agents
3. Physical Damage
 - a. Rips, tears, and cuts
 - b. Thermal damage such as charring, burn holes, and melting
 - c. Inverted liner
4. Shrinkage
5. Loss of flexibility and elasticity

Rules and Regulations

Administrative Regulations
Policy 104.0
Turnout Gear



Footwear

1. Soiling
2. Contamination from hazardous materials or biological agents
3. Physical Damage
 - a. Punctures, tears, and cuts
 - b. Thermal damage such as charring, burn holes, and melting
 - c. Exposed or deformed steel toe, steel midsole, and shank
4. Loss of water resistance

The Cleaning and Decontamination Process

The fire department will follow all manufacturer instructions on gear cleaning and decontamination. The following rules per, NFPA 1851 5.5, apply for all gear cleaning:

1. Chlorine bleach or other chlorinated solvents will never be used on firefighting gear.
2. All cleaning agents will have a pH between 6.0 and 10.5
3. Heavy scrubbing and high pressure spraying(power washer) will never be used on firefighting gear
4. Gear and other elements will only be washed with like items. For example, shells will be washed with shells, liners washed with liners; gloves will be washed with gloves, hoods washed with hoods, boots washed with boots, etc.
5. It is recommended to remove the liner from the shell when washing since the moisture barrier limits the water flow to the outer shell of the fabric. Also separating the shell and liner reduce drying time.

Routine Cleaning

All gear must be cleaned when it is soiled. Routine cleaning is considered light cleaning that does not involve taking the gear out of service to accomplish. After each use, the firefighter will clean any soiled item. The firefighter is responsible for the routine cleaning of their assigned gear. Routine cleaning will be done on an as needed basis. The best way to prevent the contamination of station and apparatus is to clean the soiled items at the scene of the incident. (NFPA 1851 5.2)

The cleaning of the gear should begin at the incident scene so as not to contaminate or soil the apparatus and/or station. The following steps to cleaning should be followed:

1. Brush off any dry debris
2. Gently rinse off debris with water hose
3. Use a soft bristle brush to gently scrub the soiled areas. Gently rinse off scrubbed area.
4. Inspect for any additional soiling and repeat cleaning as necessary

Rules and Regulations

Administrative Regulations
Policy 104.0
Turnout Gear



5. Hang to dry. *Do Not Fold Pants Down Over Boots Until Dry.*

Do Not Run Any Gear Through The Wringer.

Advanced Cleaning

Advanced cleaning will be performed at least every six months on gear that has been issued, used, and soiled. Advanced cleaning will be managed and performed only by a firefighter(s) who has received training on the cleaning of structural firefighting gear. All advanced cleaning done to gear must be documented. (NFPA 1851 5.3)

Structural Firefighting Protective Clothing:

All structural firefighting protective clothing shall be clean, dried, and maintained as needed and at least every 6 months if it has not been used. All clothing except for helmets and boots may be washed in the washing machine following the turnout gear decontamination instructions listed below. All clothing except for gloves may be dried in the clothes dryer. Gloves shall not be rung out and must be allowed to air dry.

The following process for advanced cleaning will be used:

1. Brush off any dry debris
2. Clean gear using a fire department machine cleaner
3. Inspect for soiling and contamination. If any is found repeat process.

Machine washing instructions

1. Do not overload machine
2. Pre-treat all heavily soiled or spotted areas when necessary. Use the detergent manufacturer's instructions for pre-treating. Scrub gently using a soft bristled brush, if necessary. Scrubbing on all moisture barrier assemblies will be extremely gentle so as not to damage it. After pre-treating, rinse the garment and drain the water
3. Ensure all closure systems are fastened
4. Turn garment inside out and place in a mesh laundry bag.
5. Start the machine cycle. Water will be no warmer than 105°F.
6. Add detergent.
7. One complete cycle will include two rinse cycles.
8. Dry the gear.
9. After gear is dry, it must be inspected and re-cleaned as necessary.
10. The machine will be run empty on a rinse only cycle using hot water at a temperature of 120°F to 125°F to prevent cross contamination to non-fire gear.

Rules and Regulations

Administrative Regulations
Policy 104.0
Turnout Gear



The Drying Process

The fire department will follow all manufacturer instructions when drying fire gear. All gear must be dry prior to normal storage. The following rules apply to all firefighting gear drying applications.

Air Drying

1. Ensure all gear is not in direct sunlight.
2. Ensure gear is in well ventilated area.

Machine Drying

1. Do not overload machine.
2. Fasten all closure systems.
3. Turn garments inside out and place in a mesh garment bag.
4. Always use a no heat setting so as not to damage the garment

Additional Cleaning Procedures

Helmets:

Helmet shells are to be cleaned with mild solvents such as ethyl alcohol, mild detergents such as Simple Green and water, mild abrasives such as Soft Scrub without bleach, industrial cleaners such as tar Remover, acetone or paint remover. To clean shields or goggles use mild cleaning agents such as ethyl alcohol or a mild detergents such as Simple Green and water and a soft sponge or cloth. NEVER use abrasives, solvents, paint removers, acetone, paint or lacquer thinner, or any chlorinated organic solvents. Liners and other cloth material may be washed with turnout gear.

Boots:

Boots are to be cleaned with a soft bristle brush, mild detergents such as Simple Green and water. Boots are to be air dried. If inside of boots are wet, moisture can be taken out by stuffing newspaper into them and changed every few hours. If boots are leather, they shall be cleaned and maintained in accordance with manufacturer's recommendations.

SCBA Facepieces:

SCBA facepieces are to be cleaned with Simple Green and water. Do not use any type of abrasive materials, or alcohols as these cleaners will deteriorate the materials of the facepiece. Facepieces cannot be submerged in cleaning solutions as this will ruin the

Rules and Regulations

Administrative Regulations
Policy 104.0
Turnout Gear



communications systems. If the facepiece requires full disassembly, this will be done by a certified technician.

Advanced Inspection

An advanced inspection will be done every twelve months or whenever the routine inspection finds a potential problem. The advanced inspection will be done by fire department members who have received appropriate training on inspection of structural firefighting gear. An inspection form/report will document all findings of advanced inspection. At any time an advanced inspection is done, the inspector needs to take universal precautions as needed. The gear will be graded so as to rank the findings of the advanced inspection.

The following grade levels will be used:

1. New or as-new condition.
This grade level means recently purchased items that are still in a new-like condition.
2. Good condition.
This grade level means the item is in good serviceable condition. The gear might have some signs of wear and/or minor defects, however the safety and performance of the gear is not affected. There is no immediate need for repair or replacement.
3. Maintenance needed.
This means the item is in immediate need of repair. The fire department will determine whether the item will be repaired or retired. Maintenance suggestions will be documented on the report.
4. Immediate replacement.
This grade level is given when the gear is unsafe. When this grade is given the gear must be taken out of service immediately.