



SB18-001: Personal Protective Equipment Safety Bulletin



MASSACHUSETTS BAY
TRANSPORTATION AUTHORITY

MBTA Safety

Directed and Approved By:

Ronald W. Nickle, Chief Safety Officer



**MASSACHUSETTS BAY TRANSPORTATION
AUTHORITY**



SUBJECT: PERSONAL PROTECTIVE EQUIPMENT (PPE)

SAFETY BULLETIN: SB18-001

AFFECTED PERSONNEL: ALL MBTA EMPLOYEES

EFFECTIVE: April 9, 2018

ISSUED: MARCH 26, 2018

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I. PURPOSE

The MBTA is committed to improving workplace safety by issuing PPE Safety Bulletin SB18-001 to provide guidance and instruction for establishing the minimum requirements for Personal Protective Equipment (PPE). Usage of PPE in all MBTA work areas shall conform to federal OSHA safety standards, the General Duty Clause of the OSH Act of 1970, industry safety standards and best practices, as applicable. This Safety Bulletin sets forth the expectations, requirements, accountabilities and safety performance elements of MBTA's interim PPE policy for the proper selection, use, and care of PPE to help protect employees, contractors, vendors, interns, visitors, guests, invitees and MBTA Law Enforcement.

II. OVERVIEW

The MBTA is dedicated to providing a healthy and safe environment in all work areas where job tasks are performed. Supplying the appropriate PPE is vital to ensuring the safety of all persons by providing safeguards against occupational illness, injury, disability or death while performing duties or functions within all work areas. "Work Areas" comprise any project or effort that is performed by MBTA employees, contractors, sub-contractors, vendors, interns, or other entities and visitors, including joint or adjacent property projects with other state agencies (i.e. Mass DOT Highway), wherein a person is exposed to on-site hazards in or near their job task location.

Sites Considered Work Areas include, but are not limited to:

- Construction
- Demolition
- Inspection
- Maintenance
- Testing
- Operations support
- Operations in proximity to/on infrastructure, rolling stock, equipment, machinery and/or other systems including carhouses, and garages
- Any other location where hazards exist that require the use of PPE

Most injuries occur from hazards that exist within a work area, such as: falling objects, trip/slips, flying debris, sharp edges, chemicals, noise, sparks or other risks from potentially perilous conditions. It is essential that management protect their employees from work area hazards that can cause injury, disability or death.

Engineering design, site controls and/or administrative measures may provide the most effective means of eliminating or reducing work area risks and hazards above PPE. For instance, machine guarding: a separation barrier, or hazard awareness can protect employees from injury. It is important that efforts are constantly made to help eliminate or reduce hazards by using the most effective means possible.



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When engineering, site controls and/or administrative measures are not feasible, or do not provide sufficient protection, employees must be provided with and instructed on proper use of appropriate PPE to help ensure the health and safety of all personnel.

These are some components that should be considered as part of an effective PPE program.

PPE Program Checklist:

- What PPE is necessary
- Hazard recognition and knowledge of time to use PPE
- How to properly inspect PPE
- How to put on/take off and adjust fit of PPE
- Each PPE's limitations
- Proper storage and maintenance of each piece of PPE
- System to detect for employee PPE competency
- Instruction and enforcement of PPE use

By moving forward with this initiative, the MBTA will be able to provide a safer work environment for its employees, contractors, and all other cooperative entities.

III. PERTINENT REFERENCES

- OSHA 1910.132-140 Subpart I Personal Protection Equipment
- OSHA 1926.95-107 Subpart E Personal Protection Equipment
- 29 U.S.C. 654, 5(a)1 - General Duty Clause of the OSH Act of 1970
- NFPA 70E Electrical Safety (2018)
- Applicable ANSI Safety Standard

IV. DEFINITIONS

29 CFR: The 29th part of the Federal Regulation that concerns labor, being fair for all workers in the U.S.

ANSI: American National Standards Institute: Creates and regulates units of measure in order to evaluate the strengths and limitations of work equipment, including PPE.

CFR: Code of Federal Regulations: Coding system representing general and permanent administrative law created in the Federal Register by government agencies and executive departments in the United States.

Hazard: Any condition or set of circumstances that presents a potential for harm; these can be health, environmental, or safety hazards.

Incidental Operational Duties: Any temporary duty or activity that is incidental to the operation of a transportation vehicle or system, and/or in response to an emergency or other incident that requires an immediate short-term action that is not part of the work area job tasks.



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ISEA: International Safety Equipment Association: Association for personal protective equipment and technologies – equipment and systems that enable people to work in hazardous environments.

JHA: Job Hazard Analysis: A technique that focuses on job tasks as a way to identify hazards; inspection of work areas prior to work beginning in order to properly prepare workers with correct PPE and educate them about site-specific hazards.

Job Task: Any responsibility assigned by an employer/supervisor or assumed in a current position within the MBTA.

OSHA: Occupation Safety and Health Administration: Founded in 1970 to “keep American workers safe.”

PPE: Personal Protective Equipment: Any apparel or apparatus used to protect a worker or workers from hazards that cannot be engineered out of the job task. Clothing, helmets, goggles, or other garments or equipment designed to protect the wearer's body from injury or infection. The hazards addressed by Personal Protective Equipment include physical, electrical, heat, chemicals, biohazards, and airborne particulate matter.

Proximity: The distance to a hazard or risk within a range that could cause injury, illness, or death.

ROW: Right of Way: The property over which trains and authorized rail equipment operate, and ten feet from the centerline of track in any direction, including sidings and yards.

Risk: The probability or chance that a hazard or hazards will cause harm.

Work Area: Physical location within the perimeter of any given job task, in its current condition, whether its condition is temporary, semi-permanent, or permanent.

V. IMPLEMENTATION PERIOD

Safety Bulletin SB18-001 is effective immediately and applies to all MBTA employees, contractors, vendors, interns, visitors, guests, invitees and MBTA Law Enforcement personnel who perform any duties or functions within a work area, or who enter, travel through or are exposed to hazards.

The implementation period is nine (9) months from the date of issuance of this Safety Bulletin. Within this initial nine (9) month period, all non-existing, required PPE will be procured using initial job hazard analyses. There will be an eighteen (18) month period to upgrade pre-existing PPE that is currently in use that does not meet the new standards of this Safety Bulletin. This will enable a progressing inventory and allow for a transition period for the MBTA to meet current ANSI/ISEA PPE safety standards.

VI. APPLICABILITY

All persons performing any job task within a regular or temporary work area, or who enter, travel through and/or are in proximity to such work area, who are therefore exposed to hazards, are required to utilize employer-provided PPE to meet the minimum requirements of this Safety Bulletin, in conjunction with the individual's respective department's specific rules, policies, procedures, and orders.



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This Safety Bulletin, and any subsequent revisions, applies to all MBTA employees, regardless of their position within the authority or location of the work being performed. It also applies to all individuals and entities present or performing duties for or on MBTA property or equipment, unless these parties have identified hazards that warrant a higher level of protection.

MBTA employees who are performing job tasks in work areas under the control of an outside entity (contractor, consultant, vendor, etc.) are required to meet the minimum requirements of that entity. If there are differences in job task requirements and hazards, then a job hazard analysis should be conducted to determine the appropriate technique of separation and/or applicable PPE.

This Safety Bulletin also applies to all transportation, maintenance, and other employees who perform duties within a transit Right of Way (i.e. flagging, spotting, switching, incident response), including the requirement to wear an approved high-visibility vest, proper footwear, safety glasses and hard hats or other PPE protection as determined applicable for the area or task.

All other employees, such as management, administration, support, and transportation who are not performing incidental operational duties, along with visitors, guests, and/or invitees to a work area are required to adhere to the PPE requirements of this Safety Bulletin.

MBTA employees operating buses and trains, and/or other transportation officials reasonably outside hazardous work areas who need to perform incidental operational duties are not required to adhere to the full requirements of PPE within a work area (e.g. hard hats, safety glasses, etc.). They must use a high-visibility garment (e.g. tear-away vest) upon exiting the vehicle, and adhere to their respective department's uniform and PPE requirements (i.e. ROW Rule Book).

A PPE exemption applies to MBTA Law Enforcement during the initial immediate reaction, while performing specific duties to respond to a viable security threat or concern. MBTA Law Enforcement is required to wear the appropriate PPE as defined within The Transit Police Department's policies or procedures. They are, in addition, required to wear high-visibility apparel when investigating a rail, bus, emergency evacuation, or other incident in the right of way, accident scene, or other incident location, or when performing duties to provide traffic control support to a work area.

An additional PPE exemption may apply in special circumstances where senior leadership determines that other means have been employed to effectively mitigate all hazards against which PPE would normally protect.

VII. JOB HAZARD ANALYSIS

Prior to the start of work, a job hazard analysis should be conducted to determine the potential hazards specific to the work area. The JHA should be taken into consideration while deciding the most reasonable approach to PPE selection that is consistent with the parameters of this Safety Bulletin and/or best practices. PPE is one technique of reducing harm from potential hazards.



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An example of this would be a supervisory person doing a walkthrough of a work area, making note of live, damaged wires hanging in a tunnel approximate to where a worker needs to install a new sign on the tunnel wall. If the wires cannot be repaired before the job task begins, this supervisory person would require the workers near the wire electrical hazard to wear electrical grade PPE (e.g. Grade G hats, electrical-grade rubber gloves, no steel-toed boots, etc.) to reduce electrical risk.

Additional information and directions will be provided in a separate Instructional Guidance document.

VIII. PPE CARE AND PROPER USE

A. Instruction

Before doing work requiring the use of PPE and potential hazard exposure, employees and supervisory personnel should become familiar with:

- When PPE is necessary
- What type is necessary based on job function
- How it is to be worn
- The limitations of the PPE
- Proper care, maintenance, useful life, and disposal of PPE
- How to address a situation of exposure and contamination

Before beginning job tasks that require PPE, PPE instruction must take place, along with providing information to workers on the hazard from which they are protecting themselves. If an employee does not have the required skill and understanding, then the employee is unqualified until competency is illustrated.

Training and instruction can be as simple as showing a worker how to tighten a hard hat for proper wear. Consideration should be taken on depth of training associated with each piece of PPE.

If there are questions or concerns, refer to supplier or manufacturer's recommendations, or contact MBTA Safety at (617) 222-5135 / SafetyNotification@MBTA.com

B. Proper Fit

Proper fit of each PPE item is imperative to each item's integrity. Improper fit illustrates negligence in instruction, procurement and safety standards. Incorrect closure, class/grading, or sizing can increase hazards by compromising vision, visibility, dexterity, mobility and/or snagging at nip points and protrusions. Also, when protective gear is uncomfortable, it is hard to concentrate on the job and it may tempt workers to remove it. Continuous wearing of PPE is more likely if it fits the worker comfortably.

Fit-testing should be provided for respiratory equipment to ensure a proper seal around the head, face and/or mouth.

C. Defective Equipment



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Defective or damaged personal protective equipment shall not be used, due to loss of strength and/or integrity, therefore increasing its limitations. Damaged, defective, or worn-out PPE shall be disposed of immediately upon discovery. If a piece of PPE is questionable, do not use it, mark it clearly and have a knowledgeable person, such as supervisory or MBTA Safety personnel, inspect it.

D. Storage and Cleaning

For proper storage and cleaning, refer to manufacturer's recommendations. Most equipment can be cleaned using dish soap. Be attentive to rinse PPE well if it required skin-irritating cleansers. There should be a designated, closed-off area or cabinet for all PPE that is MBTA and/or employee owned. PPE should be in clean, working condition when put into storage and not stored in direct sunlight.

IX. WORK AREA PPE REQUIREMENTS

This Safety Bulletin requires that all persons who perform any duty or function within a work area or who are in proximity to work area hazards use, as a minimum, the PPE protection described below.

The following explores different pieces of PPE for workers, taking into consideration:

- Potential work area hazards; including fellow workers and physical environment,
- Specific job task requirements,
- Part of the body at reasonable risk,
- Uses for each classification/grade of equipment most appropriate for each job task and work area.

When procuring PPE, two main components are vital for choosing the correct equipment:

- Previously completed job hazard analyses, in which a prioritized list according to likelihood of a hazard can be referred to for each, along with
- Each manufacturer's speculation ad recommendation sheets.

A separate Instructional Guidance document will be provided to aid in clarifying different uses of PPE.

A hazard list from a JHA, alongside the MBTA's requirements, will map out each worker's PPE necessities. MBTA has adopted ANSI/ISEA as the basis for this Safety Bulletin as the most appropriate safety standard to address hazards and risks to personnel, although policies will not be limited to just these agencies. ANSI (and/or other MBTA Safety approved agencies) standards should be used in choosing each piece of equipment. If an ANSI, ISEA or other approved organization label is not provided by the manufacturer in the description, the equipment should not be purchased or used. Manufacturer recommendations and safety approvals should be easy to find in manual, catalogs and online for all employees to make purchasing, upkeep, cleaning, storage, and use easy.

All markings and tags on each piece of equipment signifying the associated ANSI (or other approved agencies) standard grading shall remain visible throughout the lifetime of the equipment in a permanent way, otherwise the equipment will be deemed unsafe and should be disposed.



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A PPE outline, by category, follows:

A. High-Visibility (HI VIZ)

High-visibility reflective safety apparel, defined as personal protective safety clothing that is intended to provide all-weather visual prominence during daylight, twilight and nighttime conditions, against the risk of impact from trains, buses, vehicles, machinery, construction equipment, hi-rail, or other “struck-by” hazards.

ANSI/ISEA 107-2015 is the safety standard for high-visibility apparel and provides design guidelines, types, classifications and specifies the photometric requirements, minimum amounts of component materials, colors, and placement to create apparel for the purpose of enhancing the visibility of workers.

1. Grading/Class

a. Type “R”, FR Class 2: Personnel exposed to any work areas, including carhouse or garage yards, that pose a risk or potential threat of impact are required to wear high-visibility apparel that meets the minimum safety performance criteria of Type “R”, FR Class 2 high-visibility reflective apparel (ANSI/ISEA 107-2015) and is approved by MBTA Safety. The following excerpts provide clarifications:

- i. Persons performing flagging or spotting duties are required to wear Type “R”:
Class 3-R high-visibility reflective apparel for bus, rail, construction, or other flagging and/or spotting operations or duties.
- ii. Type “R”: Class 2-R or 3-R (ROW/Roadway): high-visibility reflective safety apparel is for persons performing non-flagging duties who are exposed to “struck-by” hazards from trains, buses or roadway traffic on streets and highways, or with construction equipment/vehicles as specified under Federal Highway Administration (FHWA) federal mandate MUTCD 2009. Such apparel shall meet Class 2R or 3R of ANSI/ISEA 107-2015 classifications and approved by the MBTA Safety.
- iii. An allowance is available for smaller sized workers. Smallest size garment may have less background material, as follows:
 - Class 2R = 540 instead of 775 square inches
 - Class 3R = 1,000 instead of 1,240 square inches

b. Type “O” Class 1-O (Off-road): This is for individuals performing duties that do not expose them to trains, buses, construction equipment, or other moving vehicles, such as job tasks on passenger platforms, facilities or other non-vehicle operating work environments.

c. Type “P” Class 2-P (Fire, Police, EMS): This is designed for fire, law enforcement, and EMS personnel who have other potential hazards that require them to access equipment on their person. Such apparel shall meet Class 2 or 3 of ANSI/ISEA 107-2010 or 107-2015



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classifications and be approved by the MBTA Safety and the MBTA Transit Police. Apparel must have the same characteristics as Type “O” and Type “R” Class 2 and Class 3 apparel, only to be modified to address specialized equipment and tool placement needs (i.e. handguns, handcuffs, etc.).

2. Break-away PPE Vests:

For persons performing duties in proximity to rail vehicles, buses or moving equipment, high visibility vests require a break-away design and function to prevent persons from being dragged by rail vehicles, buses or moving equipment. This restriction is not applicable to PPE jackets, shirts, or other apparel that is not of the vest configuration.

3. Carhouse, Garage or Repair Facilities:

Persons performing inspection, maintenance and/or repair duties on vehicles, equipment or other systems within a carhouse, garage or other repair facility are not required to wear high-visibility apparel while working within the facility.

Visitors, guests, invitees or other personnel not performing inspection, maintenance or repair duties on vehicles, equipment or other systems are required to wear appropriate high-visibility apparel while in the carhouse, garage and/or other repair facility, as defined within this Safety Bulletin.

4. Proper Care, Fit and Wear:

High-visibility apparel requires proper care, fit and wear to maximize visibility. Jackets, vests or other apparel must be closed to provide 360-degree visibility in all directions, and must be properly fitted and clean. If fit or wear is improper, risk of nip points and catches increase, and work efficiency, comfort, and visibility decreases. Damaged, darkened or unreflective apparel needs to be replaced. See manufacturer recommendations on cleaning. Do not use unapproved cleaning solvents, for risk of dulling reflective surface or damaging bright color. Store out of direct sunlight. MBTA employees are responsible for routine cleaning and/or servicing of PPE.

5. Inspection:

Shine a light to test reflectivity, and test with coworkers at determined distances from one another periodically before beginning job tasks. See manufacturer recommendation for specific inspection tactics for each kind of Hi-Viz equipment.

B. Head Protection

1. Grading/Class



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- a. Type II Class G:** MBTA requires that Type II Class G (General rated to 2,200 volts) hard hats should be worn by all employees, contractors, vendors, interns, invitees and visitors in all work areas, except as noted below.
- i. The requirement applies to all employees, contractors, vendors, interns, invitees and visitors. Persons performing inspection, maintenance and/or repair duties on vehicles, equipment or other systems within a carhouse, garage or other repair facility are not required to wear hard hats while working within the facility, but are required to wear the appropriate hard hat or an approved bump cap while performing duties in the system (i.e. MBTA ROW).
 - ii. Hard hats shall comply with ANSI/ISEA Z89 1-2014 safety standard and shall be approved by MBTA Safety. Bump caps may only be worn by vehicle or equipment maintenance personnel.
 - iii. Hard hats are not required in administrative areas.
- b. Type II Class E (Electrical):** These hard hats are required for electrical work above 2,200 volts and up to 20,000 volts. For work above 20,000 volts the MBTA Electrical Safety Program will define the appropriate protection, or the department may contact MBTA Safety for approval and additional protective classification.
- c. Type II Class C (Conductive):** Hard hats are designed to ensure adequate struck-by hazard protection in work situations where additional venting for heat management is required. Class C is not safe to use in proximity to electrical sources.
- d. Bump Caps:** Bump caps are only permitted to be worn by Vehicle Maintenance personnel, and must be maintained in the same fashion of all other ANSI/ISEA graded equipment.

2. Limitations and Care

Hard hats must be properly cared for, maintained and replaced as necessary due to age, deterioration, impact or damage. Hard hat headbands and chin and nape straps should be adjusted to keep the hat comfortably on the head. Liners or sweatbands can be added for warmth or cooling if fit is not compromised. The shell or other parts of the hat should be replaced when they become damaged. Manufacturer markings must be legible, and grading limitations adhered to. If not approved for backward use, wearing it so is prohibited. If temperatures are above or below manufacturer conditioning points, integrity is reduced.

Keep equipment well-fitted to avoid job task interference and discomfort. Proper fit by choosing user's correct size and replacing worn-out parts to maintain proper fit is required.



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Keep equipment clean to be able to do valid inspection. Clean hats by dipping in hot water with detergent, scrub the shell and rinse in clear hot water. Cleaning solvents may damage the shell. Do not store hat in direct sunlight while not in use. MBTA employees are responsible for routine cleaning and/or servicing of PPE.

3. Inspection

Prior to each use, visually inspect the PPE, and feel for fractures by pressing and feeling for weakness. If there are new significant scrapes or discoloration, further inspection is required. No stickers or paint (other than manufacturers) is allowed on the hats for this reason; it may cover dangerous flaws.

C. Eye/Face Protection

Work areas generate many risks to a person's eyes and face, which require adequate protection from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, potentially injurious light radiation or other hazards. MBTA requires personnel to wear eye protection in all work areas, and face protection when a job hazard analysis determines face protection is required (e.g. grinding). Minimum requirements for eye protection for the ROW are safety spectacles that include side shields and ANSI standardization markings.

Eye and face protection shall be suitable to address safety risks from impact, heat, chemical, splash, dust or optical radiation (welding, ultraviolet, infrared, visible light) to eyes, including side protection from flying objects, in accordance with ANSI Standard Z87.1-2015 and as approved by MBTA Safety.

Affected employees who wear prescription lenses shall incorporate prescription lenses into the design of the eye protection or shall be provided eye protection that can be worn over the prescription lenses without disturbing the proper position of the prescription lenses or the protective lenses.

Consideration shall be made to provide additional design to reduce fogging in cold or warm temperature transitions and high-humidity environments.

When invitees or guests visit a work area, including carhouses, garages, and other repair facilities, it is compulsory that they are properly fitted with protective eye or face wear to address perils, hazards and risks. In the event that welding operations are taking place, invitees and guests shall be provided warning of the dangers of looking at welding activities. It is preferable that such persons be restricted from such work areas, or that a safety barrier is put in place to restrict viewing such activities.

The variety of eye and face protection include the following.

1. Grading

- a. **Safety Spectacles:** Protective eyeglasses with safety frames of metal or plastic with impact-resistant lenses. Such glasses shall have side shields designed or added as a function of the spectacles.



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- b. Goggles:** Designed to completely cover and protect the eye area from impact, dust and splashes. Goggles may be used to cover corrective prescription lenses provided that they are designed not to lose integrity when worn over glasses.
- c. Welding Shields:** Should be constructed of vulcanized fiber or fiberglass and be fitted with a filtered lens to protect eyes from infrared and intense radiant light. The shields protect the face and eyes from impact, metal splatter, sparks and other hazards associated with welding, brazing, soldering, and operations.
- d. Laser Safety Goggles:** Goggles designed to protect against intense concentration of light produced by lasers. Such goggles need to be appropriate for the type of equipment or operating conditions that generate laser energy, which should be determined by manufacturer's description or a knowledgeable person in that field.
- e. Face Shields:** Face shields are used to protect the face and eyes from hazards due to impact, splash, and dust. Many operating hazards such as grinding require increased levels of protection. Using a shield protects the face and offers greater protection of the eyes.
- f. Hoods:** Head coverings designed to cover entire head, face, and neck to shoulders can reduce or eliminate exposure to volatile liquids, dusts, mists, and flying debris, depending on the classification.

2. Limitations and Care

Eye and/or face protection should be inspected before each use to ensure there is no damage such as scratches, cracks, discoloration, punctures, or otherwise which would render it ineffective. Equipment shall be immediately taken out of use and replaced when damaged. Keep equipment clean in order to do valid inspection. Keep equipment well secured to the face and head to be able to avoid job task interference. Eye and face protection shall provide reasonable comfort and fit to address all working conditions or work angles, and shall not unduly interfere with the movements of the wearer or with other required PPE. Proper fit by choosing user's correct size and replacing worn-out parts to maintain proper fit is required. If temperatures are above or below manufacturer's conditioning points, integrity is reduced.

Eye and face protection for welding operations shall comply with applicable filter lens shade rating, for protection against radiant energy as specified by OSHA safety standard 29 CFR 1926.102 (c)(1), and 1926.102(c)(2) laser protection and other applicable regulations and safety standards.

Most eye and face protection can be cleaned using oil-free dish soaps or similar detergents.



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Be aware of any present chemicals, temperature or liquids that may do damage to the equipment during job tasks. Special cleaning and/or coverings of equipment may be necessary to avoid damage during work.

MBTA employees are responsible for routine cleaning and/or servicing of PPE.

3. Inspection

Prior to each use, visually inspect the PPE, feel for fractures, and look for tears in protective outside layers. ANSI/ISEA grading must be visible for validity. Scratches on the lenses or loss of manufacturer standardization markings is reason for disposal. No stickers or paint (other than manufacturers) may be on the equipment as they may cover dangerous flaws.

D. Foot and Leg Protection

Several hazards exist that can cause injury to feet and legs from impact, crushing, chemicals, electricity, static electricity, hot surfaces, poison or penetration risks. There are also risks associated with tripping, slipping or twisting actions due to uneven, wet or icy surfaces, which can be categorized as “same level falls” or “falls from above”.

Transportation and Vehicle Maintenance personnel performing job tasks within a work area shall adhere to the footwear requirements described within their respective department’s uniform requirements.

Engineering & Maintenance and Construction personnel performing job tasks within a MBTA work area shall wear safety footwear that meets compression and impact performance standards of ANSI Z41-1999, and is nonconductive. Metal-toed footwear is prohibited within MBTA’s light and heavy rail and electrified bus systems.

Visitors, invitees and administrative personnel that visit a work area shall wear footwear and leg protection that is appropriate for the areas attended and approved by the responsible person or entity. Visitors, invitees and guests may attend safe areas within the work area that pose a lesser risk of injury, but are restricted from specific areas that may pose a greater foot or leg injury risk. Footwear that is not appropriate and is prohibited include: sandals, dress shoes, high heels, mid-heels, flip flops, open-toed shoes, flat or low profiled soles with no grip, or other shoes and boots that pose additional risk of injury.

Persons working within a work area shall wear foot and leg protection suitable to address the hazards of the job task being performed. PPE in this category includes the following.

1. Grading/Types

- a. Leggings:** These should be worn to protect legs and feet from heat hazards from molten metal or welding material. Leggings shall be equipped with quick release safety snap.



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- b. Metatarsal Guards:** These are used to protect the instep area from impact or compression and strap to the outside of the safety shoes. Such protection shall not be metal when working in or around electrical systems.
- c. Toe Guards:** External toe guards are designed to fit over regular shoes to protect toes from impact and compression. Such protection shall not be metal when working in or around electrical systems.
- d. Composite and Steel Toe Footwear:** Boots as opposed to low shoes are recommended, and most often required to provide extra ankle protection. These types of footwear have built-in toe guards and a durable exterior which prevent crushing and foot injuries. For most MBTA situations, composite toe boots are required due to electrical hazards. If footwear PPE can be worn outside work hours and tasks, employees will most often be responsible for purchasing.

2. Limitations and Care

Foot and leg wear should be inspected prior to use to determine condition. Foot and leg wear shall be replaced when they are heavily worn, cracked, separated, damaged or have holes in them. If temperatures are above or below manufacturer's conditioning points, integrity is reduced. Manufacturer-approved, nonconductive and fire-resistant liners can be added for warmth or cooling if fit is not compromised. Keep equipment clean to be able to inspect. Keep equipment well secured to the body to avoid job task interference. Proper fit by choosing user's correct size and replacing worn-out parts to maintain proper fit is required.

Be aware of any present chemicals, temperature or liquids that may do damage to the equipment during job tasks. Special cleaning and/or coverings of equipment may be necessary to avoid damage.

MBTA employees are responsible for routine cleaning and/or servicing of PPE.

3. Inspection

Prior to each use, visually inspect the PPE and feel for fractures and look for tears in abrasion layers. If there are significant scrapes or discoloration, further inspection is required. If soles or abrasion-resistant outer layer are worn down, remove from use. No paint or patchwork (other than manufacturer's) is allowed for this reason; it may cover dangerous flaws.

E. Hands and Arm Protection

If job tasks pose a risk to hands or arms, the employee shall be provided and required to wear the appropriate and properly fitted protection to address the hazards or risks posed. Potential injury risks include, but are not limited to, cuts, abrasions, skin absorption illness/injury, punctures, chemical/thermal burns, frostbite, electrocution, bruises, fractures and amputations. Hand and arm protection includes gloves, finger guards, and



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arm coverings. There are many designs and configurations, so it is important to understand and follow the manufacturer's recommendations to match the gloves to the hazards or risks encountered. The following is a guide to aid in determining the most appropriate protection.

1. Grading/Types

- a. **Fabric Gloves:** Protect against dirt, slivers, chafing and abrasions. They are not appropriate for rough, sharp or heavy materials. Aids in minor temperature control from cold.
- b. **Coated Gloves:** Fabric with napping on one side to improve grip, strength and versatility in dealing with light abrasions, chemical and other conditions, depending on manufacturer design, instruction and intended use.
- c. **Leather Gloves:** Protects against sparks, moderate heat, blows, chips and rough objects.
- d. **Electrical Safety Gloves and Arm Protection:** Worn to protect against electrical shock and arc hazards. The electrical risk associated with the work being performed by qualified workers, determines the protection necessary to address the hazards. Protector gloves must be worn over insulating gloves, except Class 0 gloves, under limited-use conditions with small equipment or parts that require unusually high finger dexterity. Qualified electrical repair employees shall wear, fit, inspect and test the appropriate hand and arm protection consistent with the electrical risks encountered and as required by MBTA's electrical safety program, plans, policies, rules and practices.
- e. **Aluminized Gloves:** Reflective design provides increased visibility and insulating protection against heat or cold. These also may be inserts for other gloves.
- f. **Aramid Fiber Gloves:** Protects against heat and cold and are cut and abrasion resistant.
- g. **Synthetic Gloves:** Protects against heat and cold, cuts and abrasions and some chemicals. Not for alkalis or solvents.
- h. **Chemical and Liquid-Resistant Gloves:** Designed to provide protection from chemicals and come in a variety of safety performance parameters to address various risks. It is important to follow manufacturer's recommendations for use and for the hazards being addressed. "Rubber" gloves fall into four main subcategories below.
 - i. **Neoprene Gloves:** Synthetic rubber offer good pliability, finger dexterity, high density and tear resistance. Used typically for hydraulic fluids, gasoline, alcohols, organic acids and alkalis. Superior to natural rubber in chemical and wear resistance.



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- ii. **Natural (latex) Rubber Gloves:** Good general use with outstanding tensile strength, elasticity, and temperature resistance. Good for protecting against abrasions and most water solution acids, alkalis, salts and ketones.
Be advised: May cause allergic reaction, some latex allergies develop and evolve, as sensitivity and reactions increase over time. Hypoallergenic gloves, glove liners and powderless gloves may offer an alternative to those who are allergic to latex. This is referred to as “sensitization”.
- iii. **Butyl Gloves:** Synthetic rubber to protect against peroxides, corrosive acids (nitric, sulfuric, hydrochloric, and red-fuming nitric acids), corrosive basis, alcohols, aldehydes, ketones, esters, and nitro-compounds. They tend to resist oxidation, corrosion, abrasion and remain pliable at low temperatures. They do not perform well with aliphatic, aromatic hydrocarbons and halogenated solvents.
- iv. **Nitrile Gloves:** Composed of copolymer and designed to handle chlorinated solvents, trichloroethylene and perchloroethylene. They stand up to prolonged exposure to caustic substances, and provide protection from oils, greases, acids, caustics, and alcohol. Not recommended for strong oxidizing agents, aromatic solvents, ketones, and acetates.

2. Limitations and Care

Gloves should be inspected before each use to ensure they are not damaged, torn, stiff, cracked, discolored, punctured or ineffective in any way. Some chemicals require gloves be replaced after each use due to the potential health and safety toxicity, chemical or other risks associated with the chemicals being used. Refer to manufacturer’s instruction for each type of glove. Hand and arm protection shall be taken out of use and replaced when damaged. If temperatures are above or below manufacturer’s conditioning points, integrity is reduced. Liners can be added for warmth or cooling if fit is not compromised, if manufacturer approves, and if material is nonconductive and fire resistant. Keep equipment clean to be able to do valid inspection. Hand and arm protection should be well-fitted to avoid job task interference and/or snagging on moving parts.

Be aware of any present chemicals, temperature or liquids that may do damage to the equipment during job tasks. Special cleaning and/or coverings, particularly arm-covers, may be necessary to avoid damage.

MBTA employees are responsible for routine cleaning and/or servicing of PPE.

3. Inspection



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Prior to each use, visually inspect the PPE, and feel for fractures and look for tears in abrasion/rubber layers. If there are new significant scrapes or discoloration, further inspection is required. No stickers, paint, patching, etc. (other than manufacturer's) are allowed for this reason as it may cover dangerous flaws.

F. Body/Torso Protection

Body protection should be worn to address various risks that pose a threat of injury to the body from such perils as chemicals, bio-hazards, arc flashes, molten/hot liquids, impacts from tools, machinery or materials. These can consist of coveralls, vests, aprons, or full body suits, and are manufacturer-rated to protect against the hazards they are designed to mitigate against. Body protection shall be provided, properly fitted and worn when the responsible person or entity determines a hazard that requires body protection. Body protection should be worn to specifically address the risk it was intended to protect. Check with the manufacturer to ensure that the material selected will provide the intended protection, and follow instructions and specifications.

The following guide provides an overview and instruction on the items to consider when determining the appropriate protective covering:

1. Grading/Types

- a. **Leather:** Designed to protect against heat, flames or molten materials.
- b. **Duck:** Protects against cuts and bruises from handling heavy, sharp or rough materials.
- c. **Rubber, Rubberized Fabrics, Neoprene and Plastics:** Provides protection against chemicals and physical hazards. Check with the manufacturer to ensure that the material selected will provide the intended protection.
- d. **Paper-Like Fiber:** Protects against dust, splash and other nominal risks.
- e. **Treated Wool or Cotton:** Protects against dust, abrasions, and other irritants. Adapts well to temperature changes, is comfortable and can be fire-resistant.
- f. **Electrical Safety Apparel:** Persons performing electrical work as qualified employees are required to wear Fire Resistant (FR) clothing appropriate for the arc flash risk, or Arc Thermal Protection Value (ATPV) associated with the work being performed, and in accordance with NFPA 70 E. Protective FR clothing includes: long-sleeved shirts, underwear, pants, coveralls, jackets, rainwear, balaclavas, and parkas. Apparel may be FR natural, synthetic or natural/synthetic blends. Flame resistance must remain durable to launderings, wear, environment, dirt, etc. for the service life of the garment. Qualified persons performing duties that expose their person to arc flash risks are not to wear non-FR apparel, jewelry or other metals which would expose them to risk of greater injury or death.



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g. Fall-Protection and Harnesses: Refer to ANSI Z359 (2016), there are many types of fall protection that require special training on use and inspection. Specific fraying guidelines can be referred to depending on the material that makes up the belt or harness qualifying the equipment as safe for use. A harness is connected to an anchorage by a means of connection (e.g. D-ring, lanyards, etc.) that must be thoroughly inspected. Body harnesses are used for restraint, fall prevention, and fall protection.

2. Limitations and Care

Protective body apparel should be inspected before each use to ensure it is not damaged, torn, stiff, cracked, discolored, punctured or rendered ineffective in any way.

Garments should be inspected prior to use to determine condition and shall be replaced when they are heavily worn, cracked, separated, damaged or have holes in them. If temperatures are above or below manufacturer's conditioning points, integrity is reduced. Keep equipment clean to do valid inspection. Keep PPE well secured to the body to avoid job task interference and/or getting caught on moving parts. Proper fit by choosing correct size and replacing worn-out parts to maintain proper fit is required.

Be aware of any present chemicals, temperature or liquids during work that may do damage to the equipment during job tasks. Special cleaning and/or coverings of equipment may be necessary to avoid damage.

MBTA employees are responsible for routine cleaning and/or servicing of PPE.

3. Inspection

Prior to each use, visually inspect the PPE, and feel for fractures, look for tears in protective outside layers. If there are new significant scrapes or discoloration, further inspection is required. No stickers or paint (other than manufacturer's) are allowed for this reason as it may cover dangerous flaws.

G. Hearing Protection

Employees exposed to excessive levels of noise shall be provided appropriate hearing protection. The factors that need to be considered include the loudness or decibel (dB) levels and duration of exposure. Normally, the louder the noise the, shorter the exposure time is before hearing protection is required. For instance, a noise level of 90 dB for an 8-hour exposure, and a noise level of 115 dB for a 15-minute exposure both require hearing protection. Workers may voluntarily wear hearing protection if the dB levels do not require protection.

1. Grading/Types

a. Single-Use Earplugs: These are self-forming and perform as well as molded earplugs if inserted properly. They can be composed of waxed cotton, foam, silicone, rubber or fiberglass wool. It is important that employees are properly instructed on earplug use, and follow manufacturer's instructions.



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- b. Pre-Formed or Molded Earplugs:** Individually fitted by a professional, and can be reusable or disposable. Reusable plugs should be cleaned after every use.
- c. Earmuffs:** These completely cover the ear and must set a perfect seal to be effective. Hair, glasses, beards, and facial movements may limit the protective value of the equipment.

2. Limitations and Care

Hearing protection should be inspected before each use to ensure it is not damaged, torn, stiff (if flexibility is required), cracked, discolored, punctured or ineffective in any way. Hearing protection shall be replaced when equipment is heavily worn, unclean, or damaged.

Single-use earplugs should be discarded after each use. Pre-formed or molded earplugs and earmuffs should be cleaned after each use, and inspected before each use to ensure they are not damaged or ineffective. If temperature, proper fit, and/or noise levels are above or below manufacturer's conditioning points, protection is reduced. Liners can be added for warmth or cooling to earmuffs if fit is not compromised, manufacturers approve, and if material is nonconductive and fire resistant. Keep equipment clean to be able to do valid inspection. Proper fit by choosing correct size and replacing worn-out parts to maintain proper fit is required.

Be aware of any present chemicals, temperature or liquids that may do damage to the equipment during job tasks; special cleaning and/or coverings of equipment may be necessary to avoid damage.

MBTA employees are responsible for routine cleaning and/or servicing of PPE.

3. Inspection

Prior to each use, visually inspect the PPE, and feel for fractures. Look for tears, cracks, and discoloration. If these are present, further inspection is required. No stickers or paint (other than manufacturer's) are allowed for this reason as they may cover dangerous flaws.

H. Respiratory Protection

Using respiratory protection is important in protecting employees against illness and injury from airborne hazards. Improper use of respirators by untrained or improperly equipped personnel can also cause serious illness, injury or death. Instruction should include use, inspection, application, limitations, cleaning, storage and care of the various types of equipment. Fit-testing for all respirators for each employee is required before use to ensure proper seal. Fit-testing is not required for loose-fitting designed masks like the average disposable dust-mask.

1. Grading/Types

- a. Filtering Facepiece Respirators:** Protects employees from dust, bio-hazards, fumes, mists, or other particulates depending on their design and application. Filtered respirators are for use in areas that do not come under the control of MBTA's Respiratory Protection Program, when air-



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purifying respirators (APRs) or atmosphere-supplying respirators are required. (See: MBTA Safety Policy/Procedure 5.01: Respiratory Protection)

- i. **Disposable Dust/Particulate Respirators:** “Dust Masks” (Assigned Protection Factor = 3 - 5) Most single use disposable particle masks (double strapped types) are designed to protect lungs from nuisance particles as well as certain pneumoconiosis, fibrosis-producing dusts and mists. Dust Masks are rated in as series, and have the following characteristics:

1. **N95** = 95% filter efficiency, not resistant to oil.
2. **R99** = 99% filter efficiency, resistant to oil.
3. **P100** = 99.97% filter efficiency, strongly resistant to oil.
4. **Advantages:** Respirators are lightweight, disposable, relatively comfortable, and inexpensive.
5. **Limitations:** Disposable dust respirators offer minimal protection due to poor sealing characteristics. They cannot be used by personnel with facial hair which comes between the respirator and the skin. These types of respirators are frequently misused. Therefore, you should check with the responsible person or entity, or can contact MBTA Safety.
6. **Applications:** Low concentrations of nuisance dusts, mists, pollen, and animal dust as well as some pneumoconiosis and fibrosis-producing dusts and mist such as brake dust.

- b. **Air Purifying Half Mask Respirators:** (Assigned Protection Factor = 10) Air purifying, half mask respirators have a rubber face seal which fits over the nose and under the chin. It is fitted with cartridges, which purify the air as the wearer breathes. Different types of cartridges are available for different types of air contaminants, and should be used to address respiratory risks as assessed. The most common cartridges are:

- i. **HEPA Cartridge:** For low level concentrations of certain toxic dusts including asbestos, radionuclides and silica.
- ii. **Organic Vapor Cartridge:** Approved for concentrations not to exceed 1,000 ppm for many organic solvents, petroleum distillates, and alcohols.
- iii. **Acid Gas/Mist Cartridge:** For atmospheres containing low levels of mineral acid gas or mist.



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- iv. **Pesticide:** For low levels of pesticide vapors or mists.
- v. **Combination Cartridge:** For environments with more than one contaminant present (e.g. organic vapors, acid gasses, and particulates.
- vi. **Mercury Cartridge:** For protection against low levels of metallic mercury vapors.
- vii. **Advantages:** Relatively lightweight and offer good protection from many air contaminants.
- viii. **Limitations:** Air purifying respirators cannot be used for all types of air contaminants and are limited by the type and capacity of the filters/cartridges used. Protection factors offered by these masks are not as good as that provided by a full facepiece air purifying respirator nor do they provide eye protection. Proper fit is essential and many factors may affect the face to facepiece seal. They cannot be used in oxygen-deficient atmospheres, or in atmospheres which have high concentrations of contaminants. Breathing may become difficult because of the additional effort required to draw air through the purifying media.
- ix. **Applications:** Air purifying respirators can be used for protection from a wide variety of respiratory hazards. Cartridges and filters are designed to provide protection against a specific type of hazard.

c. **Air Purifying Full Facepiece Respirators:** (Assigned Protection Factor = 50) Air-purifying full facepiece respirators work on the same principal as the half-mask respirators described above. The facepiece extends around the entire face, covering the eyes, nose, chin and mouth. The advantages of full-facepiece respirators are that they provide a better seal and therefore, more protection than half-mask air-purifying respirators. They also protect the eyes and face from irritating vapors, mists, and splashed chemicals.

- i. **Limitations:** Full face respirators are heavier than half-masks and often less comfortable for the wearer. Full face air purifying respirators cannot be used for all types of air contaminants and are limited by the type and capacity of the filters and cartridges used. Eyeglass wearers must assure that temple bars do not interrupt the face to facepiece seal. They cannot be used in oxygen-deficient atmospheres or in atmospheres which have high concentrations of contaminants. Breathing may become difficult because of the additional effort required to draw air through the purifying media.
- ii. **Applications:** Full face respirators are used where a greater degree of respiratory protection is needed or where eye and face protection is desirable.



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d. Powered Air Purifying Respirators (PAPR): (Assigned Protection Factor = 25 – 100) This class of respirators feature a battery powered portable fan which draws in air through a particulate or chemical filter and blows it into the facepiece. The fan and filter unit may be an integral part of the facepiece or mounted on the wearer's back or belt. Full and half-mask facepieces are available as well as a variety of helmets and hoods.

- i. **Advantages:** Major advantages are derived from the positive pressure provided by the fan forcing air into the facepiece, hood or helmet. This eliminates difficulty in breathing provided by negative pressure respirators and reduces the importance of a good facial fit.
- ii. **Limitations:** Units are relatively expensive to purchase and maintain. Use is restricted to battery life. The fan and battery pack must be carried by the wearer at all times. They cannot be used in atmospheres deficient in oxygen or other atmospheres that present immediate danger of life or health (IDLH). Heavy exertion (breathing) may create negative pressure inside the facepiece reducing the respirator's effectiveness.

e. Airline Respirators (Pressure Demand or Continuous Flow): (Assigned Protection Factor = up to 10,000) These respirators provide clean, fresh air to the wearer from a stationary source such as a compressor or compressed air cylinders. They may be equipped with a half or full-facepiece, helmet or hood. Breathing air must be high quality and meet regulatory specifications. The use of this type of respirator shall be approved on a case-by-case basis by a knowledgeable person.

- i. **Advantages:** Airline respirators may be used for long periods of time and provide a high degree of protection from a variety of air contaminants. They provide minimal breathing resistance and discomfort, are light weight, low bulk, moderate initial cost and low operating costs. These respirators can be used in oxygen deficient and other IDLH atmospheres when used in conjunction with a 5-minute self-contained air supply (escape respirator).
- ii. **Limitations:** Loss of the source of air eliminates all protection to the user. Air must be delivered to the mask or hood through a hose which can be awkward to maneuver and may easily tangle or crimp.
- iii. **Applications:** These respirators can be used for protection from most air contaminants.

f. Self-Contained Breathing Apparatus (SCBA): (Assigned Protection Factor = up to 10,000) SCBA's provide the user with clean air from a high-pressure cylinder carried on the wearer's



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back. Respirators are also used to protect workers against oxygen-deficient atmospheres. An oxygen-deficient atmosphere is defined as having an oxygen content of less than 19.5 percent. SCBA's are equipped with a full facepiece and are operated in the pressure demand mode. SCBA's provide the maximum degree of protection available from airborne contaminants.

- i. **Advantages:** Users carry their air supply with them allowing comparatively free movement over an unlimited area.
- ii. **Limitations:** SCBA units are expensive to purchase and maintain, require the wearer to carry 20 to 30 pounds of equipment on their backs, and provide no more than 40 minutes of continuous use. Personnel with facial hair cannot use SCBA equipment.
- iii. **Care and Use:** SCBA units should be properly fitted to ensure proper contact and a seal and should be discarded after use or when they become damaged, ineffective, or clogged. SCBA units should be inspected prior to each use, properly cleaned, and stored after each use according to manufacturer's recommendation in a predetermined storage cabinet dedicated to this purpose alone. Filters should be replaced when damaged, worn out, ineffective or clogged. See manufacturer for specific instructions and cartridge grading. No respirator requiring a cartridge, tank, fit-test, or power should be used without formal training.

X. ROLES AND RESPONSIBILITIES

A. Management Responsibilities

The responsibility for safety in the work place is a collaborative effort shared by management and employees. However, Management is directly obligated to ensure that work place hazards are identified and that the appropriate PPE is supplied to employees for the job tasks being performed. In addition, Management shall:

- a. Enforce compliance with Safety Bulletin SB18-001.
- b. Distribute the Safety Bulletin to all employees in a timely manner.
- c. Provide instruction on use and limitations of PPE.
- d. Supply employees with appropriate PPE as required.
- e. Ensure PPE is properly worn, maintained and replaced due to damage or wear or obsolescence.
- f. Perform scheduled and unscheduled monitoring and PPE compliance checks, inspections and validations.



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- g.** Ensure pre-work job hazard analyses are performed to identify health, environmental, and/or safety hazards that may impose injury or death to employees and administer appropriate controls, including required PPE to be used to protect employees.
- h.** Promptly respond to reported Good Faith Safety Challenges and effectively address safety concerns, safety hazards or unsafe conditions that have not been adequately resolved prior to the commencement of job tasks, or for violations of MBTA's safety regulations, rules, safety standards, safety bulletins, policies, procedures, instructions and hazard assessment.

Regarding interpreting MBTA Safety Bulletin protocol, or for situations that require attention from MBTA Safety, call (617) 222-5135 or email SafetyNotification@MBTA.com.

B. Contractor, Vendor, Subcontractor and Other Entities' Responsibilities

The responsibility for safety in the work place rests with the contractor, vendor, subcontractor or other entities to ensure compliance with the requirements of this Safety Bulletin for all persons entering the work area, and to ensure that work place hazards are identified and the appropriate PPE is being properly used and worn. In addition, work area responsible entities shall:

- a.** Enforce compliance with PPE Safety Bulletin SB18-001.
- b.** Distribute the Safety Bulletin to all employees.
- c.** Supply employees with appropriate PPE as required.
- d.** Ensure PPE is properly worn, maintained and replaced due to damage or wear or obsolescence.
- e.** Perform scheduled and unscheduled monitoring and PPE compliance checks, inspections and validations.
- f.** Ensure pre-work job hazard analyses are performed to identify health, environmental, and/or safety hazards that may impose risk of injury or death to employees and administer appropriate controls, including required PPE to be used to protect employees.
- g.** Promptly respond to reported Good Faith Safety Challenges and effectively address safety concerns, safety hazards or unsafe conditions that have not been adequately resolved prior to the commencement of work, or for violations of MBTA's safety regulations, rules, safety standards, safety bulletins, policies, procedures, instructions and hazard assessments.

Regarding interpreting MBTA Safety Bulletin protocol, or for situations that require attention from MBTA Safety, call (617) 222-5135 or email SafetyNotification@MBTA.com

C. Employee Responsibilities



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Employees are required to adhere to PPE requirements of a work area, management and to the responsible person in charge of work place safety. In addition, the employee shall:

- a. Comply with all lawful MBTA work place safety regulations, rules, safety standards, safety bulletins, policies, procedures, practices, and instructions.
- b. Remain up to date on Safety Bulletins throughout the policy-making process, for best, safe information and practices.
- c. Properly wear, care for and use PPE as instructed and required by MBTA safety regulations, rules, safety standards, safety bulletins, policies, procedures, instructions and hazard assessment.
- d. Be aware of and report any hazards, unsafe conditions or safety concerns to management promptly.
- e. Issue a Good Faith Safety Challenge for any safety concerns, safety hazard or unsafe condition that has not been adequately addressed prior to work commencing or in the event the work or proposed work appears to be in violation of MBTA safety regulations, rules, safety standards, safety bulletins, policies, procedures, instructions and hazard assessment.

For situations that require attention that are not addressed in a timely manner by your supervisor, contact MBTA Safety by calling (617) 222-5135 or email SafetyNotification@MBTA.com.

D. Responsible Person or Entity Responsibilities

Management, employees, contractors, vendors and/or other entities who control or perform activities within a work area are directly responsible to ensure PPE and other work place safety compliance to all employees under their direction/instruction.

Management shall designate a responsible person for all work areas. The responsible person is charged with enforcing the minimum requirements of the PPE Safety Bulletin, and/or any other additional safety controls or PPE requirements, within the work area.

Anyone entering the work area is required to adhere to the direction, management and oversight of the responsible person in charge of work area safety rules, controls and PPE requirements.

Anyone entering or in a work area who is not compliant with the requirements of this Safety Bulletin, safety controls or PPE requirements will be ejected from the work area until they comply.

All entities who work for or alongside the MBTA must:

- a. Enforce compliance with PPE Safety Bulletin SB18-001.
- b. Perform scheduled and unscheduled monitoring and PPE compliance checks, inspections and validations.



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- c. Ensure pre-work job hazard analyses are performed to identify health, environmental, and/or safety hazards that may impose injury or death to employees and administer appropriate controls, including required PPE to be used to protect employees. Examples of work place hazards from various risks, include but are not limited to the following:
- i. Falling or dropping objects
 - ii. Impact with overhead or protruding infrastructure, systems or equipment
 - iii. Electrical sources
 - iv. Motion or collision with equipment, vehicles, tools or other forms (“struck-by hazards”)
 - v. Compression, collapse or rollover
 - vi. Chemical liquids, solids, fumes or dust
 - vii. High temperature sources
 - viii. Heat/cold
 - ix. Harmful dust
 - x. Radiation
 - xi. Biologic, blood or other infectious materials
 - xii. Improper instruction
 - xiii. Defective or improper PPE
- d. Restrict or eject anyone who is not compliant with the requirements within this Safety Bulletin. In cases of flagrant, persistent or willful violations of any part of this Safety Bulletin, the responsible person or entity will report the Safety Violation to OCC, to the employee’s manager and to MBTA Safety.
- e. Promptly respond to reported Good Faith Safety Challenges and effectively address safety concerns, safety hazards or unsafe conditions that have not been adequately resolved prior to the commencement of work, or for violations of MBTA’s Safety regulations, rules, safety standards, safety bulletins, policies, procedures, instructions and hazard assessment.

For situations that require attention from MBTA Safety, call (617) 222-5135 or email SafetyNotification@MBTA.com.

E. MBTA Safety Responsibilities

- a. Review and approve PPE equipment for use.
- b. Provide technical assistance, guidance, and coaching; answer questions or safety concerns or resolve safety issues, safety complaints, or safety challenges.



**MASSACHUSETTS BAY TRANSPORTATION
AUTHORITY**



SUBJECT: PERSONAL PROTECTIVE EQUIPMENT (PPE)

SAFETY BULLETIN: SB18-001

AFFECTED PERSONNEL: ALL MBTA EMPLOYEES

EFFECTIVE: April 9, 2018

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- c. Conduct random announced and unannounced safety observations, inspections and audits of work areas to check for conformance and compliance with the requirements of this Safety Bulletin.
- d. Document and report safety observations, inspections, reviews and audits.
- e. Comply with superseded and relevant safety PPE standards in a timely manner.

XI. SAFETY BULLETIN EFFICACY AND ENFORCEMENT

This Safety Bulletin will remain in effect until it is superseded or cancelled through a revised Safety Bulletin or replaced with a MBTA Safety policy, program or plan.

Anyone entering or in any work area who is noncompliant with the safety rules, safety controls or PPE requirements will be ejected from the work area until the appropriate PPE is being utilized properly.

Contractors, vendors, interns, and other entities and/or their employees who violate such provisions will also be ejected from the property until the matter is resolved.

Flagrant, persistent or willful violations of any part of this Safety Bulletin will be considered a safety violation, with progressive discipline issued from the "Safety Track of Discipline" up to, and including the recommendation for discharge.

Flagrant, persistent or willful violations of any part of this Safety Bulletin will be considered violation of MBTA Policy and are subject to temporary or permanent expulsion from MBTA projects.

Adherence to the Safety Bulletin will help improve and ensure the safety of employees, contractors, vendors, interns, visitors, invitees, and emergency response personnel.

If you have any questions regarding the Safety Bulletin, please contact:

- The Safety Hotline at (617) 222-5135
- Email MBTA Safety at SafetyNotification@MBTA.com

For medical emergencies, please call 9-1-1



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XII. MBTA "GOOD FAITH SAFETY CHALLENGE" FORM

This section is to be filled out by the employee or employees initiating the "Good Faith Safety Challenge": Prior to submitting this form the Supervisors/Superintendent must be notified in order to have the ability to resolve the challenge.

Date: _____ Time: _____ am/pm

Name: _____ Badge#: _____

Job/Crew Assignment: _____ Classification/Job Title: _____

Work/Facility Location: _____

Date of Occurrence: _____ Area of Issue: _____

Station Marker/ROW/Facility Location: _____ Direction: _____ Track No: _____

Statement: Requires the use of any MBTA Rulebooks, Special Orders, SOP's or document(s): What specific rule/policy/Special Order/SOP is not being complied with? (List all that apply):

Furnish the reason for the "Good Faith Safety Challenge":

Please provide, if possible, other employees with information concerning this circumstance.

Name/Badge#: _____ Name/Badge#: _____

Name/Badge#: _____ Name/Badge#: _____

Signature of employee making "GFSC": _____

=====
Determination of Supervisor:

Supervisor's Signature and Badge#: _____ Date: _____

=====
Determination from the GFSC Dispute Panel:

GFSC Panel/Member's signatures:

Name and Badge#: _____ Date: _____

Name and Badge#: _____ Date: _____

This form MUST be turned in to his/her Supervisor's Office or Superintendent before the end of the employee(s) shifts and/or before leaving MBTA property. NOTE: All supporting documents must be attached to this sheet (supporting documents may include pictures of the challenge area/persons/incident).



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Approved: Ronald Nickle

Title: Chief Safety Officer

Date: 3/20/18

Signature: