

WP 12-IS1832

Revision 4

Emergency Eyewash and Shower Equipment

Technical Procedure

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APPROVED FOR USE

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INTRODUCTION ^{1,2}

Emergency eyewash and shower equipment are placed in locations where the potential exists for harmful exposure of the eye and/or skin to harmful chemical and/or physical agents. When such equipment is necessary, it is located and maintained in a state of readiness should an emergency arise. This procedure provides minimum inspection requirements for emergency eyewash and shower equipment used at the Waste Isolation Pilot Plant (WIPP).

Performance of this procedure generates the following records, which are maintained as part of the Resource Conservation and Recovery Act (RCRA) operating record:

- Eyewash/Shower Inspection Record Serviceable Unit (see Attachment 2 - Example Eyewash/Shower Inspection Record Serviceable Unit)
- Eyewash/Shower Inspection Record Self-Contained Sealed Units (see Attachment 3 - Example Eyewash/Shower Inspection Record Self-Contained Sealed Units)

Actual inspection record cards are available from Industrial Safety and Hygiene (IS&H).

REFERENCES

BASELINE DOCUMENTS

- Resource Conservation and Recovery Act of 1976 (*42 United States Code* [U.S.C.] §6901 et seq.)
- *29 Code of Federal Regulations* (CFR) §1910.1450, "Occupational Exposure to Hazardous Chemicals in Laboratories"
- ANSI Z358.1-1998, *Emergency Eyewash and Shower Equipment*
- WP 12-IS.01-4, Industrial Safety Program - Emergency and Personal Protective Equipment

REFERENCED DOCUMENTS

- WP 04-IM1000, Issues Management Processing of WIPP Forms

EQUIPMENT

- Potable water container
- Potable water
- Clean towels, paper towels, or rags

- Mild cleaning agent (such as Joy[®] dishwashing detergent, Simple Green[®], or Sprayaway[®] glass cleaner)
- Bacteriostatic eyewash additive with effectiveness of at least 6 months (180 days) such as Encon[®] Safety Products Hydrosep[®] potable water additive
- Eyewash/shower inspection record card (e.g., Attachment(s) 2 and/or 3)
- Electric pump (optional)
- Siphon hose (optional)

DEFINITIONS

Portable Emergency Eye Wash Station - Emergency eyewash station which is NOT permanently plumbed to a water source. (e.g., self-contained tank)

NOTE

Completion of emergency eyewash station inspections are the responsibility of the custodian of the equipment as assigned by the area manager. Inspections shall be documented on Attachment 2 or 3.

NOTE

Inspections and water/bacteriostatic eyewash additive change-out will be conducted on emergency eyewash and shower stations to ensure physical accessibility, operability, and sanitation.

NOTE

There are no specific disposal requirements for water with bacteriostatic additive solution.

NOTE

At such times that it becomes necessary to temporarily remove an eyewash station from service, such as for facility maintenance, the eyewash inspection record card should be annotated "out of service," dated and signed.

Additionally, the eyewash unit should be tagged with a note prominently displayed stating: "out of service."

NOTE

Emergency eyewash/shower program issues such as habitually delinquent weekly inspections, can be addressed through the issues management program, guidance for which can be found in WP 04-IM1000, Issues Management Processing of WIPP Forms.

PERFORMANCE**1.0 WEEKLY EMERGENCY EYEWASH AND SHOWER INSPECTION ²**

NOTE

Weekly inspections are conducted using Attachment 1, Weekly Inspection Criteria.

- 1.1 Perform the actions listed in Attachment 1.
- 1.2 If there are no discrepancies, indicate on unit's inspection record, Attachment 2 or 3, that a weekly inspection has been performed by:
 - 1) Providing date and time of inspection
 - 2) Writing "Weekly"
 - 3) Signing
- 1.3 If a discrepancy is found, notify IS&H personnel.

2.0 SEMIANNUAL EYEWASH WATER AND BACTERIOSTATIC SOLUTION CHANGE-OUT FOR SERVICEABLE UNITS

NOTE

At IS&H's discretion, an outside contractor or IS&H personnel will conduct an inspection and a water/bacteriostatic change-out on all self-contained eyewash stations located on the surface.

This task is performed semiannually typically during the months of March and September which allows for temperate weather conditions.

Thermally insulating jackets will be placed on portable emergency eyewash stations which are exposed to outside temperatures during the September (Fall) inspection/solution change-out process, and removed during the March (Spring) servicing process.

In all cases the water and bacteriostatic solution shall be replaced at intervals not to exceed 180 days from date of last water/bacteriostatic change-out, as practical for serviceable units.

For self-contained sealed units, the solution shall be replaced at intervals not to exceed the solution's expiration date as printed on the solution's container, as practical.

In the underground eyewash semiannual inspection and water/bacteriostatic change-out will be conducted by IS&H personnel at intervals not to exceed 180 days from date of last water/bacteriostatic change-out, as practical.

- 2.1 Procure needed materials listed in equipment section.
- 2.2 **IF** work which may lead to the need for use of an emergency eyewash station is being performed in the area,
THEN notify workers of temporary outage of the eyewash station prior to taking eyewash station out of service.
- 2.3 Inspect eyewash unit for signs of damage or leakage.
- 2.4 Drain unit, clean and flush.
- 2.5 Partially fill portable eyewash unit (approximately 5 gallons) with clean potable water.
- 2.6 Add quantity of bacteriostatic concentrate as specified on its directions, (typically 8 ounce additive to 5-20 gallons of potable water).
- 2.7 Refill eyewash unit to fill line with potable water.

- 2.8 Activate unit for approximately 5-15 seconds (depending upon design) to ensure that fresh solution flushes out spray head supply lines and spray heads.
 - 2.9 If necessary, add additional potable water to fill the unit.
 - 2.10 Perform weekly inspection criteria.
 - 2.11 If unit is working properly, **GO TO** Step 2.13.
 - 2.12 If unit is not working properly, contact IS&H for guidance.
 - 2.13 Replace unit's inspection record card (e.g., Attachment 2) with new card.
 - 2.14 Forward previous inspection record card(s) to IS&H.
 - 2.15 IS&H retain eyewash/shower inspection record cards as RCRA records for records disposition schedule period. Records will then be processed and transferred to the records facility.
 - 2.16 Indicate on unit's inspection record, Attachment 2, that a "Semiannual Inspection and Solution change-out" inspection has been performed by:
 - 1) Providing date and time of inspection
 - 2) Writing "Semiannual Inspection and Solution change-out"
 - 3) Signing
 - 2.17 Return maintenance supplies and equipment to proper storage area.
- 3.0 SEMIANNUAL SERVICING OF SELF-CONTAINED SEALED UNITS
- 3.1 **DO NOT ACTIVATE.**
 - 3.2 Inspect per operations and maintenance manual instructions available from IS&H.
 - 3.3 Clean unit to extent possible.
 - 3.4 Verify the solution's expiration date has not been exceeded.
 - 3.5 Replace inspection record card e.g., Attachment 3.
 - 3.6 Forward previous inspection record card(s) to IS&H.

- 3.7 IS&H retain eyewash/shower inspection record cards as RCRA records for records disposition schedule period. Records will then be processed and transferred to the records facility.
- 3.8 Indicate on unit's inspection record, Attachment 3, that a semiannual inspection has been performed by:
- 1) Providing date and time of inspection
 - 2) Writing "Semiannual Inspection"
 - 3) Signing

4.0 SEMIANNUAL INSPECTION ²

NOTE

The semiannual inspection is conducted by using the weekly inspection criteria and performed by IS&H personnel. If the semiannual inspection was performed by IS&H personnel as part of the semiannual eyewash water/bacteriostatic solution change-out, there is no need to repeat this process.

- 4.1 Perform inspection per Attachment 1 criteria.
- 4.2 Indicate on unit's inspection record, Attachment 2 or 3, that a semiannual inspection has been performed by:
- 1) Providing date and time of inspection
 - 2) Writing "Semiannual Inspection Industrial Safety and Hygiene"
 - 3) Signing

Attachment 1 - Weekly Inspection Criteria

WEEKLY INSPECTION CRITERIA

Ensure unit is:

- Not damaged or leaking
- Not blocked from physical accessibility
- Clean
- Filled and free of debris (portable units)

For Self-contained sealed units, DO NOT ACTIVATE, perform visual inspection only, and verify the solution has not exceeded its expiration date.

For serviceable portable emergency eyewash station units, momentarily activate unit and observe:

- Unit remains activated with hands off (eyewash and shower)
- Eyewash water flow would be capable of flushing both eyes
- Shower water would spray over entire body

Deactivate unit.

Add potable water, if necessary.

Clean up spilled water, if necessary.

If there are no discrepancies, indicate on unit's inspection record, Attachment 2 or 3, that a weekly inspection has been performed by:

- 1) Providing date and time of inspection
- 2) Writing "Weekly"
- 3) Signing

Notify Industrial Safety and Hygiene of any problems with this unit or inspection record.
