## **Arsenic**

1. **Purpose**

The purpose of this program is to provide guidelines and safe work practices to minimize or eliminate employee exposure to inorganic arsenic during work activities.

1. **Written Plan**

* A written compliance program shall be implemented when the PEL of 10 ug/m(3) is exceeded to reduce exposures to or below the permissible exposure limit by means of engineering and work practice controls.
* The written program must be reviewed and updated annually or more often to reflect status of the program.
* The written program will be made available for examination and copying upon request of affected employees and their authorized representatives.

1. **Exposure Monitoring**

* Determinations of airborne exposure levels shall be made from air samples that are representative of each employee’s exposure to inorganic arsenic over an eight (8) hour period without regard to respirator use.
* Full shift personal samples shall be collected to include at least one sample for each shift and for each job classification in each work area.

1. **Medical Surveillance**

An accurate record of all monitoring for each employee subject to medical surveillance must be established and maintained.

The record shall include:

* The name, social security number, and description of duties of the employee.
* A copy of the physician's written opinions.
* Results of any exposure monitoring done for that employee and the representative exposure levels supplied to the physician.
* Any employee medical complaints related to exposure to inorganic arsenic.

1. **Personal Protective Equipment (PPE)**

* Protective clothing and equipment will be provided to all personnel working in a regulated area or where the possibility of skin or eye irritation from inorganic arsenic at no cost to the employee.
* All protective clothing and equipment shall be provided, used, and maintained in good and sanitary condition.
* Protective clothing and equipment will include:
  + Coveralls
  + Gloves
  + Shoes or coverlets
  + Face shields or vented goggles
  + Respiratory protection
* Respirators will be provided at no cost to the employee and shall be used if engineering and work practices cannot reduce the exposure level below the PEL, for non-routine activities and/or in emergency situations.
* Respiratory equipment will be issued, used, and maintained in accordance to the Respiratory Protection program.

1. **Hygiene Practices**

* Change rooms, washing facilities and showers shall be made available for employees working in regulated areas or subject to the possibility of skin or eye irritation from inorganic arsenic.
* Change rooms will be equipped with storage facilities for street clothes and separate storage facilities for protective clothing and equipment.
* Always wash hands and face after changing out of arsenic contaminated PPE and clothing following the completion of tasks involving the potential for arsenic exposures.
* Always remove PPE and wash hands and face before eating, drinking, smoking or chewing tobacco, or applying cosmetics.
* Storage or consumption of food, beverages, and cosmetics; smoking or chewing tobacco; and chewing gum in regulated areas is prohibited.

1. **Housekeeping and Maintenance**

* A written housekeeping and maintenance plan listing frequencies for carrying out housekeeping operations, and for cleaning and maintaining dust collection equipment shall be implemented and made readily available at each location with the potential for inorganic arsenic exposure.
* All surfaces shall be maintained as free of inorganic arsenic accumulations as possible.
* Surfaces shall not be cleaned with compressed air.
* Shoveling and brushing may be used only if vacuuming or other methods have been tried and found effective.
* If vacuuming methods are selected, the vacuums shall be used and emptied in a manner to minimize the reentry of inorganic arsenic into the workplace.
* Periodic cleaning of dust collection and ventilation equipment and checks of their effectiveness shall be carried out to maintain the effectiveness of the system and a notation shall be kept of the last check of effectiveness and cleaning or maintenance.

1. **Training**

Each employee with the potential exposure to inorganic arsenic above the action level, without regard to respirator use, and to whom there is the possibility of skin or eye irritation from inorganic arsenic will receive training at or before initial assignment and annually thereafter. Training materials shall be readily available to all affected employees.

The training program shall include the following:

* The information contained in 29 CFR 1910.1018 Appendix A (Inorganic arsenic substance information sheet).
* The quantity, location, manner of use, storage, sources of exposure, and the specific nature of operations which could result in exposure to inorganic arsenic as well as any necessary protective steps.
* The purpose, proper use, and limitation of respirators.
* The purpose and a description of the medical surveillance program.
* The engineering controls and work practices associated with the employee's job assignment.
* A review of the 29 CFR 1910.1018 standard.