# 710 – ARSENIC AWARENESS

**NEWKIRK ELECTRIC ASSOCIATES, INC.**

**Arsenic Awareness**

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710 – ARSENIC AWARENESS

710.1 PURPOSE
A. The purpose of this procedure is to identify the controls and actions necessary to prevent adverse health effects to employees from occupational exposure to arsenic, and to ensure that Newkirk arsenic exposure management practices meet regulatory requirements.

710.2 SCOPE
A. This procedure applies to all Newkirk operations where employees may be exposed to arsenic. When work is performed on a non-owned or operated site, the operator's program shall take precedence, however, this document covers Newkirk employees and contractors and shall be used on owned premises, or when an operator's program doesn't exist or is less stringent.

710.3 BACKGROUND
A. Arsenic exposure in the workplace occurs through inhalation, ingestion, dermal or eye contact. Chronic exposure to arsenic can lead to dermatitis, mild pigmentation keratosis of the skin, vasospasticity, gross pigmentation with hyperkeratinisation of exposed areas, wart formation, decreased nerve conduction velocity, and lung cancer. Acute exposures can cause lung distress and death.

710.4 RESPONSIBILITIES
A. Managers and Supervisors
   (1) In coordination with the Safety, develop and implement written project/task specific arsenic exposure management procedures prior to the start of activities to reduce exposure to or below the permissible limits.
   (2) Ensure personnel are aware of work that has the potential of exposure to arsenic.
   (3) Ensure individuals responsible for monitoring areas of exposure are properly trained.
   (4) Ensure personnel receive documented medical surveillance if required.
   (5) Ensure that all affected employees receive initial and annual arsenic required training.
   (6) Inform Safety of upcoming work involving arsenic-containing materials, allowing Safety to provide any necessary monitoring and training.
   (7) Ensure employees have the appropriate personal protective equipment (PPE) and are properly trained in its use and care, including respiratory protection.
   (8) Ensure employees comply with the arsenic compliance program.

B. Safety Shall:
   (1) Implement a written arsenic compliance program when the PEL of 10 ug/m (3) is exceeded.
   (2) Maintain the arsenic compliance program, notifying management of any regulatory changes and ensuring compliance with federal and state requirements.

C. Employees
   (1) Comply with the arsenic compliance program, consulting with the supervisor or Safety to ensure the proper PPE is used when required.
   (2) Comply with the medical surveillance program.
   (3) Attend required training.
   (4) Wear respiratory protection equipment and other specified PPE as required by the project/task specific control program.
(5) Maintain respiratory protection equipment in good working order, notifying the supervisor or Safety Manager of any problems prior to starting work.

(6) Review material safety data sheets or consult with the supervisor to identify any container with arsenic-containing material.

710.5 PROCEDURE

A. Written Arsenic Compliance Program
   (1) Each worksite shall develop and implement a written arsenic compliance program if arsenic poses any occupational exposure. The minimum criteria to be contained within the written program shall include:
      (a) A description of each operation where arsenic is omitted, machinery use, material processed, controls in place, crew size, employee job responsibilities and maintenance practices.
      (b) A description of the specific means that will be employed to meet compliance.
   (2) The arsenic compliance program must be reviewed and updated annually or more often to reflect status of the program.
   (3) The arsenic compliance program must be provided for examination and copying upon request of affected employees, their representatives or OSHA.

B. Exposure Monitoring
   (1) 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.

C. Housekeeping Plan
   (1) A written housekeeping and maintenance plan shall be kept at each worksite and shall list appropriate frequencies for carrying out housekeeping operations and for cleaning and maintaining dust collection equipment. The plan shall be available for inspection by OSHA.

D. Signage
   (1) Adequate signs shall be in place demarcating the regulated areas. If Newkirk is not the host employer, then Newkirk will verify proper signs are placed at the work location.

The host employer or Newkirk shall post signs demarcating regulated areas bearing the following legend:

   DANGER
   INORGANIC ARSENIC
   CANCER HAZARD
   AUTHORIZED PERSONNEL ONLY
   NO SMOKING OR EATING
   RESPIRATOR REQUIRED
E. Respiratory Protection & PPE
   (1) Respiratory protection shall be provided in accordance with 29 CFR 1910.134 (see Newkirk
       Respiratory Protection Program).
   (2) Respiratory protection will be used during the following circumstances required while working
       with arsenic:
       (a) Periods necessary to install or implement feasible engineering or work-practice controls.
       (b) Work operations, such as maintenance and repair activities, for which Newkirk establishes
           that engineering and work-practice controls are not feasible.
       (c) Work operations for which engineering and work-practice controls are not yet sufficient to
           reduce employee exposures to or below the permissible exposure limit.
       (d) Emergencies.
   (3) Where the possibility of skin or eye irritation from inorganic arsenic exists, and for all workers
       working in regulated areas, Newkirk shall provide at no cost to the employee and shall ensure
       that employees use appropriate and clean protective work clothing and equipment including,
       but not limited to, coveralls, gloves, shoes or coverlets, and face shields or vented goggles.

F. Change Rooms & Showers
   (1) Newkirk shall provide for employees working in regulated areas or subject to the possibility of
       skin or eye irritation from inorganic arsenic, clean change rooms equipped with storage
       facilities for street clothes and separate storage facilities for protective clothing and equipment.
       Newkirk shall assure that employees working in regulated areas or subject to the possibility of
       skin or eye irritation from inorganic arsenic shower at the end of the work shift.

710.6 TRAINING
   A. Training shall be conducted at or before initial assignment and annually thereafter for all
      employees who are potentially exposed to arsenic and Newkirk will assure employee participation.
   B. All training shall be documented.