

**Title 7 DNREC
1100 Air Quality Management Section**

1121 EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS

02/01/1981

1.0 Applicability

The provisions of this regulation apply to the owner or operator of any stationary source for which a standard is prescribed under this regulation.

02/01/1981

2.0 Prohibited Activities

2.1 After the effective date of any standard prescribed under this regulation, no owner or operator shall construct or modify any stationary source subject to such standard without first obtaining written approval of the Secretary in accordance with 5.0 of this regulation. Sources, the construction or modification of which commenced after the publication date of the standards proposed to be applicable to such source, are subject to this prohibition.

2.2 After the effective date of any standard prescribed under this regulation, no owner or operator shall operate any new source in violation of such standard.

2.3 Ninety days after the effective date of any standard prescribed under this regulation, no owner or operator shall operate any existing stationary source in violation of such standard.

2.4 No owner or operator subject to the provisions of this regulation shall fail to report, revise reports, or report source test results as required under this regulation.

2.5 No owner or operator subject to the provisions of this regulation shall build, erect, install, or use any article, machine, equipment, process, or method the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous dilutants to achieve compliance with a visible emissions standard, and the piecemeal carrying out an operation to avoid coverage by a standard that applies only to operations larger than a specified size.

02/01/1981

3.0 Determination of Construction or Modification

Upon written application by an owner or operator, the Secretary will make a determination of whether actions taken or intended to be taken by such owner or

operator constitute construction or modification or the commencement thereof within the meaning of this regulation. The Secretary will within 30 days of receipt of sufficient information to evaluate an application, notify the owner or operator of his determination.

02/01/1981

4.0 Application for Approval of Construction or Modifications

4.1 See 7 **DE Admin Code** 1102, Permits.

4.2 Each application under 4.1 of this regulation shall include:

4.2.1 The name and address of the applicant.

4.2.2 The location or proposed location of the source.

4.2.3 Technical information describing the proposed nature, size, design, operating design capacity, and method of operation of the source, including a description of any equipment to be used for control of emissions. Such technical information shall include calculations of emissions estimates in sufficient detail to permit assessment of the validity of such calculations.

02/01/1981

5.0 Approval by Secretary

5.1 If the Secretary determines that a stationary source for which an application pursuant to 4.0 of this regulation was submitted will, if properly operated, not cause emissions in violation of a standard, he will approve the construction or modification of such source.

5.2 A final determination to deny any application for approval will be in writing and will set forth the specific grounds on which such denial is based.

5.3 Neither the submission of an application for approval nor the Secretary's granting of approval to construct or modify shall:

5.3.1 Relieve an owner or operator of legal responsibility for compliance with any applicable provision of this regulation or of any other applicable Federal, State, or local requirement, or

5.3.2 Prevent the Secretary from implementing or enforcing this regulation or taking any other action.

02/01/1981

6.0 Notification of Startup

Any owner or operator of a source which has an initial startup after the effective date of a standard prescribed under this regulation shall furnish the Secretary written notification as follows:

6.1 A notification of the anticipated date of initial startup of the source not more than 60 days nor less than 30 days prior to such date.

6.2 A notification of the actual date of initial startup of the source within 15 days after such date.

02/01/1981

7.0 Source Reporting

7.1 The owner or operator of any existing source, or any new source to which a standard prescribed under this regulation is applicable which had an initial startup which preceded the effective date of a standard prescribed under this regulation shall, within 90 days after the effective date, provide the following information in writing to the Secretary:

7.1.1 Name and address of the owner or operator.

7.1.2 The location of the source.

7.1.3 The type of hazardous pollutants emitted by the stationary source.

7.1.4 A brief description of the nature, size, design, and method of operation of the stationary source including the operating design capacity of such source. Identify each point of emission for each hazardous pollutant.

7.1.5 The average weight per month of the hazardous materials being processed by the source, over the last 12 months preceding the date of the report.

7.1.6 A description of the existing control equipment for each emission point.

7.1.7 Primary control device or devices for each hazardous pollutant.

7.1.8 Secondary control device or devices for each hazardous pollutant.

7.1.9 Estimated control efficiency (percent) for each control device.

7.1.10 A statement by the owner or operator of the source as to whether he can comply with the standards prescribed in this part within 90 days of the effective date.

7.2 Changes in the information provided under 7.1 of this regulation shall be provided to the Secretary within 30 days after such change, except that if changes will result from modification of the source, as defined in 7 **DE Admin Code** 1101, the provisions of 4.0 and 5.0 of this regulation are applicable.

7.3 The Secretary may prescribe a format for reporting under 7.0 of this regulation.

02/01/1981

8.0 Emission Test and Monitoring

8.1 Emission tests and monitoring shall be conducted as set forth in 9.0 of this regulation and reported as set forth in this Section.

8.2 The owner or operator of a new source subject to this regulation, and at the request of the Secretary, the owner or operator of an existing source subject to this regulation, shall provide or cause to be provided, emission testing facilities as follows:

8.2.1 Sampling ports adequate for test methods applicable to such source.

8.2.2 Safe sampling platform or platforms.

8.2.3 Safe access to sampling platform or platforms.

8.2.4 Utilities for sampling and testing equipment.

8.3 Emission tests may be waived upon written application to the Secretary if, in his judgment, the source is meeting the standard.

02/18/1987

9.0 Source Test and Analytical Methods

9.1 Except as provided in 9.2 of this regulation, source tests required under 9.0 of this regulation are synonymous with those set forth in 40 CFR Part 61, July 1, 1982, and are hereby adopted by reference with the word substitution "Department" for "EPA".

9.2 The initial performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standards. For the purpose of determining

compliance whenever the test consists of the three runs, the arithmetic mean of results of the three runs shall apply.

NOTES:

1) Whenever the word "Administrator" is found in a federal document, it shall be replaced by the "Secretary", and whenever the words "Act" and "Subpart A" are found in a federal document, they shall be replaced by the words "7 DE Admin Code 1101 - DEFINITIONS AND ADMINISTRATIVE PRINCIPLES."

2) Any subsections, from Title 40 of the Code of Federal Regulations, which are referenced in the text of 10.0 through 15.0 of this regulation are also adopted as part of this regulation.

6/16/1995

10.0 Emission Standards for Asbestos

10.1 The provisions of 40 CFR, Part 61, Subpart M (1992) are hereby incorporated into this Regulation by reference. Whenever the word "Administrator" is used in 40 CFR, Part 61, Subpart M (1992) it shall be replaced by the word "Secretary". The provisions of this regulation, with the exception of 10.9 of this regulation, are applicable to all NESHAP projects.

DEFINITIONS

“Critical seals” means a minimum of two separate layers of six-mil plastic sheeting over all openings, sealed appropriately.

“Decontamination unit” means a room attached to the work area that is intended to be used for the removal of contaminated items and tools, with a "clean room" adjacent to it wherein workers may obtain protective clothing and respirators prior to entering the work area.

“Enclosure” means an enclosure for an asbestos abatement work area that consists of barriers on all sides of the work area. These barriers will be a minimum of six-mils thick, and completely separate the work area from the surrounding area. The enclosure will be of sufficient size as to provide a safe working environment, with ease of both entry and exit. The enclosure will be equipped with a portable negative air machine, as described in this Regulation.

“NESHAP” means the **“National Emission Standards for Hazardous Air Pollutants”**.

“Plastic sheeting” means a sheet of material six-mils thick that is impermeable when sealed.

“Viewing port” means a section of clear, transparent, shatterproof material, greater than or equal to 1/8 inch in thickness and 18 inch square.

10.2 Portable negative air-handling equipment equipped with a High Efficiency Particulate Air ("HEPA") filter that will supply a minimum of four air changes per hour and maintain a minimum of 0.02 inch of water (static pressure) between the work area and the area outside of the work area must be utilized. A manometer or similar monitoring device shall be used to monitor the pressure differential between the work area and the area outside of the work area. Wet removal will be used in conjunction with negative air. Roofing and siding materials located on the exterior of a structure are excluded from this requirement. Alternative asbestos control methods must receive prior approval by the Secretary, pursuant to 10.10 of this regulation, before being implemented.

10.3 Demolition: prior to the initiation of asbestos removal subject to this regulation, the following are required:

10.3.1 Before beginning any demolition project, cover all windows, doors, and other openings with critical seals.

10.3.2 If a structure or building is to be partially demolished, construct a barrier of plastic sheeting sealed with tape to prevent asbestos from entering any portion of the structure or building not to be demolished, and seal ducts, including air conditioning and heat ducts, before wetting and removal.

10.4 Renovation: prior to the initiation of asbestos removal subject to this regulation, the following are required:

10.4.1 Before beginning any renovation project, remove all movable objects from the work area and cover all non-movable objects with plastic sheeting taped securely in place. Cover floors, other large areas such as walls, and all windows in the work area with plastic sheeting sealed with tape. Shut down all forced-air ventilation in the work area and seal exhaust and intake ducts with critical seals.

10.4.2 Construct double barriers of plastic sheeting at all entrances and exits to work area. Construct a decontamination unit connected to the work area to be used for removal of contaminated items and tools. Provide a clean room where workers obtain protective clothing and respirators before entering the work area.

10.4.3 The containment area shall have clear viewing ports of adequate size installed on all accessible walls to permit optimum viewing of the work area. Windows shall be maintained in a clean and unobscured manner at all times.

10.4.4 The integrity of the containment seals and portable negative air machine or machines shall be maintained throughout the project.

10.5 Cleaning and Monitoring:

10.5.1 Buildings or structures which are to be completely demolished shall have no residue of asbestos material visible in the work area after all asbestos materials are removed in accordance with NESHAP.

10.5.2 For NESHAP asbestos projects other than demolition:

10.5.2.1 Precleaning is required prior to installing the plastic sheeting in areas where dust, debris or asbestos is visibly present. The decontamination unit and critical seals shall be in place with the negative air machine or machines installed and operating before precleaning commences.

10.5.2.2 After removal of asbestos materials and cleaning of the work area, a visual inspection shall be accomplished to ensure that all asbestos-containing or contaminated material has been removed. The work area shall be dry and ready for clearance air monitoring at the time of this inspection. The final visual inspection and clearance air monitoring shall be conducted by a Certified Field Technician employed by a Certified Professional Service Firm.

10.5.2.3 Aggressive air sampling procedures shall be used within the work area during clearance air monitoring. After the visual inspection, forced-air equipment (such as a one-horsepower leaf blower) shall be used to direct exhaust air against all walls, ceilings, floors, ledges and other surfaces in the work area. This should take at least five minutes per 1,000 square feet of floor area. Place a 20-inch fan in the center of the room. (Use one fan per 10,000 cubic feet of room space). Place the fan on slow speed and point it toward the ceiling. Sampling will be accomplished immediately after this procedure. The aggressive air sampling procedure shall not be required for an asbestos project conducted outside of an enclosed structure when such project has been approved in accordance with 10.10 of this regulation. The sampling shall ensure that the airborne concentration of asbestos fibers equal to or longer than five microns is less than 0.01 fiber per cubic centimeter (f/cc). This sampling may be analyzed using Phased Contrast Optical Microscopy ("PCM") or Transmission Electron Microscopy ("TEM"). When using PCM, samples shall be analyzed in accordance with the "NIOSH" 7400 Method specified by the National Institute for Occupational Safety and Health "NIOSH". The Department may require analysis by TEM. Samples analyzed using PCM will consider all fibers counted to be

asbestos. Crawlspace with soil floors are to be tested non-aggressively to avoid overloading sample collection cassettes.

10.5.2.4 If the airborne concentration of asbestos fibers is not less than 0.01 f/cc, then clean-up procedures shall be repeated until compliance is achieved. Recleaning shall include the use of HEPA vacuums or wet-wiping of all surfaces with the portable negative air-handling equipment operating. After recleaning is complete, the sequence of visual inspection and aggressive air sampling shall be repeated.

10.6 Signs and Labels:

Warning signs: Display DANGER signs whenever airborne asbestos fibers may be present, in accordance with applicable OSHA Regulations and the National Emission Standards for Hazardous Air Pollutants ("NESHAP").

10.7 Work Practices:

10.7.1 Wet asbestos materials to be stripped or removed with a water solution containing a surfactant that will adequately wet the material.

10.7.2 Dispose of all asbestos-containing waste, sealing tape, plastic sheeting, mopheads, sponges, filters, and disposable clothing in clearly labeled, sealed containers. The containers shall be labeled in accordance with 10.6 of this regulation.

10.8 Storage and Transportation:

10.8.1 The storage of clearly-labeled asbestos waste containers awaiting transport to an authorized disposal facility shall be in a secured location to prevent access by unauthorized personnel. The asbestos material shall be kept wet until disposed-of at an approved landfill.

10.8.2 All vehicles or transportation containers (e.g., dumpsters) will be lined on the sides and floor with one layer of six-mil *plastic sheeting* to be removed and properly disposed-of with the load of asbestos waste.

10.8.3 Transportation and disposal of asbestos waste shall occur within 45 days of removal, in a manner that will not permit the release of asbestos fibers into the ambient air.

10.8.4 Vehicles that transport asbestos waste must be properly licensed in accordance with 7.0 of 7 **DE Admin Code** 1301, Regulations Governing Solid Waste.

10.9 Control of asbestos from any non-*NESHAP* asbestos project. A person engaged in any asbestos project not subject to *NESHAP* shall take precautions to prevent asbestos from becoming airborne, including, but not limited to:

10.9.1 Wetting the asbestos material (except asbestos to be encapsulated);

10.9.2 Taking measures such as sealing the work area and using appropriate work practices to minimize the dispersal of particulate asbestos;

10.9.3 Leaving no visible residue of asbestos after completing the project;

10.9.4 Sealing asbestos waste in an appropriate container;

10.9.5 Disposing of the asbestos at a site or landfill approved by the Department in a manner that prevents asbestos from becoming airborne; and

10.9.6 Receipts and records of proper disposal shall be made available to the Department upon request.

10.10 The Department may, on a case-by-case basis, approve an alternative procedure for control of emissions from an asbestos project provided that the person submits the alternative procedure to the Department in writing, and demonstrates to the satisfaction of the Department that the alternative procedure provides an equivalent or greater control of asbestos emissions into the air.

10.11 Additional documents applicable for asbestos in the State of Delaware:

10.11.1 The State of Delaware Contractor/Supervisor/Worker Certification Program;

10.11.2 7.0 of 7 **DE Admin Code** 1301, Delaware Regulations Governing Solid Waste; and

10.11.3 The U.S. Department of Labor, Occupational Safety and Health Administration ("OSHA"):

- Title 29 CFR, Part 1926.1101; and
- Title 29 CFR, Part 1910.1001.

02/18/1987

11.0 Emission Standard for Beryllium

11.1 The provisions of 11.0 of this regulation are applicable to the following stationary sources:

11.1.1 Extraction plants, ceramic plants, foundries, incinerators, and propellant plants which process beryllium ore, beryllium, beryllium oxide, beryllium alloys, or beryllium-containing waste.

11.1.2 Machine shops which process beryllium, beryllium oxides, or any alloy when such alloy contains more than 5% beryllium by weight.

11.2 Emission Standards

11.2.1 Emissions to the atmosphere from stationary sources subject to the provisions of 11.0 of this regulation shall not exceed 10 grams of beryllium over a 24-hour period except as provided in 11.2.2 of this regulation.

11.2.2 Rather than meet the requirement of 11.2.1 of this regulation an owner or operator may request approval from the Secretary to meet an ambient concentration limit of beryllium in the vicinity of the stationary source of $0.01 \mu\text{g}/\text{m}^3$, averaged over a 30-day period.

11.2.2.1 Approval of such requests may be granted by the Secretary provided that:

11.2.2.1.1 At least three years of data is available which in the judgment of the Secretary demonstrates that the future ambient concentrations of beryllium in the vicinity of the stationary source will not exceed $0.01 \mu\text{g}/\text{m}^3$, averaged over a 30 day period. Such three-year period shall be the three years ending 30 days before the effective date of this standard.

11.2.2.1.2 The owner or operator requests such approval in writing within 30 days after the effective date of this standard.

11.2.2.1.3 The owner or operator submits a report to the Secretary within 45 days after the effective date of this standard which report includes the following information:

11.2.2.1.3.1 Description of sampling method including the method and frequency of calibration.

11.2.2.1.3.2 Method of sample analysis.

11.2.2.1.3.3 Averaging technique for determining 30-day average concentrations.

11.2.2.1.3.4 Number, identity, and location (address, coordinates, or distance and heading from plant) of sampling sites.

11.2.2.1.3.5 Ground elevations and height above ground of sampling inlets.

11.2.2.1.3.6 Plant and sampling area plots showing emission points and sampling sites. Topographic features significantly affecting dispersion including plant building heights and locations shall be included.

11.2.2.1.3.7 Information necessary for estimating dispersion including stack height, inside diameter, exit gas temperature, exit velocity or flow rate, and beryllium concentration.

11.2.2.1.3.8 A description of data and procedures (methods or models) used to design the air sampling network (i.e., number and location of sampling sites).

11.2.2.1.3.9 Air sampling data indicating beryllium concentrations in the vicinity of the stationary source for the three-year period specified in 11.2.2.1.1 of this regulation. This data shall be presented chronologically and include the beryllium concentration and location of each individual sample taken by the network and the corresponding 30-day average beryllium concentrations.

11.2.2.2 Within 60 days after receiving such report, the Secretary will notify the owner or operator in writing whether approval is granted or denied. Prior to denying approval to comply with the provisions of 11.2.2 of this regulation, the Secretary will consult with representatives of the stationary source for which the demonstration report was submitted.

11.2.3 The burning of beryllium or beryllium-containing waste, except propellants, is prohibited except in incinerators, emissions from which must comply with the standard.

11.3 Each owner or operator required to comply with 11.2.1 of this regulation shall test emissions from his source.

11.3.1 Within 90 days of the effective date in the case of an existing source or a new source which has an initial startup date preceding the effective date; or

11.3.2 Within 90 days of startup in the case of a new source which did not have an initial startup date preceding the effective date.

11.3.3 The Secretary shall be notified at least 30 days prior to an emission test so that he may at his option observe the test.

11.3.4 Samples shall be taken over such a period or periods as are necessary to accurately determine the maximum emissions which will occur in any 24-hour period. Where emissions depend upon the relative frequency of operation of different types of processes, operating hours, operating capacities, or other factors, the calculation of maximum 24-hour period emissions will be based on that combination of factors which is likely to occur during the subject period and which result in the maximum emissions. No change in the operation shall be made, which would potentially increase emissions above that determined by the most recent source test, until a new emission level has been estimated by calculation and the results reported to the Secretary.

11.3.5 All samples shall be analyzed and beryllium emissions shall be determined within 30 days after the source test. All determinations shall be reported to the Secretary by a registered letter dispatched before the close of the next business day following such determination.

11.3.6 Records of emission test results and other data needed to determine total emissions shall be retained at the source and made available for inspection by the Secretary, for a minimum of two years.

11.4 Air Sampling

11.4.1 Stationary sources subject to 11.2.2 of this regulation shall locate air sampling sites in accordance with a plan approved by the Secretary. Such sites shall be located in such a manner as is calculated to detect maximum concentrations of beryllium in the ambient air.

11.4.2 All monitoring sites shall be operated continuously except for a reasonable time allowance for instrument maintenance and calibration, for changing filters, or for replacement of equipment needing major repair.

11.4.3 Filters shall be analyzed and concentrations calculated within 30 days after filters are collected. Records of concentrations at all sampling sites and other data needed to determine such concentrations shall be retained at

the source and made available, for inspection by the Secretary for a minimum of two years.

11.4.4 Concentrations measured at all sampling sites shall be reported to the Secretary every 30 days by a registered letter.

11.4.5 The Secretary may at any time require changes in, or expansion of, the sampling network.

12/07/1988

12.0 National Emission Standards for Mercury

The provisions of Subpart E, National Emission Standards for Mercury of Part 61, Title 40 of the Code of Federal Regulations July 1, 1986, and amended in the Federal Register on March 19, 1987, are hereby adopted by reference.

12/07/1988

13.0 National Emission Standards for Vinyl Chloride

The provisions of Subpart F, National Emission Standards for Vinyl Chloride, of Part 61, Title 40 of the Code of Federal Regulations, July 1, 1986, and amended in the Federal Register on September 30, 1986, and hereby adopted by reference.

12/07/1988

14.0 National Emission Standard for Equipment Leaks (Fugitive Emission Sources)

The provisions of Subpart V - National Emission Standard for Equipment Leaks (Fugitive Emission Sources), of Part 61, Title 40 of the Code of Federal Regulations, dated July 1, 1986, are hereby adopted by reference.

11/27/1985

15.0 Emission Standard for Equipment Leaks (Fugitive Emission Sources of Benzene)

The provisions of Subpart J - National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene, of Part 61, Title 40 of the Code of Federal Regulations, dated July 1, 1984, are hereby adopted by reference.