

SUBPART C - National Emission Standard for Beryllium (Delegation Effective
11/8/76)

RULE 361.30. APPLICABILITY

"**New Sources**" for this subpart are those sources commencing construction or modification after December 7, 1971. The provisions of this subpart are applicable to the following stationary sources:

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

(b) Machine shops which process beryllium, beryllium oxides, or any alloy when such alloy contains more than 5 percent beryllium by weight.

RULE 361.31. DEFINITIONS

Terms used in this subpart are defined in Subpart A of this Regulation, or in this rule as follows:

(a) "**Beryllium**" means the element beryllium. Where weights or concentrations are specified, such weights or concentrations apply to beryllium only, excluding the weight or concentration of any associated elements.

(b) "**Extraction Plant**" means a facility chemically processing beryllium ore to beryllium metal, alloy, or oxide, or performing any of the intermediate steps in these processes.

(c) "**Beryllium Ore**" means any naturally occurring material mined or gathered for its beryllium content.

(d) "**Machine Shop**" means a facility performing cutting, grinding, turning, honing, milling, deburring, lapping, electrochemical machining, etching, or other similar operations.

(e) "**Ceramic Plant**" means a manufacturing plant producing ceramic items.

(f) "**Foundry**" means a facility engaged in the melting or casting of beryllium metal or alloy.

(g) "**Beryllium-Containing Waste**" means material contaminated with beryllium and/or beryllium compounds used or generated during any process or operation performed by a source subject to this subpart.

(h) "**Incinerator**" means any furnace used in the process of burning waste for the primary purpose of reducing the volume of the waste by removing combustible matter.

(i) **"Propellant"** means a fuel and oxidizer physical or chemically combined which undergoes combustion to provide rocket propulsion.

(j) **"Beryllium Alloy"** means any metal to which beryllium has been added in order to increase its beryllium content and which contains more than 0.1 percent beryllium by weight.

(k) **"Propellant Plant"** means any facility engaged in the mixing, casting, or machining of propellant.

RULE 361.32. EMISSION STANDARD

(a) Emissions to the atmosphere from stationary sources subject to the provisions of this subpart shall not exceed 10 grams of beryllium over a 24-hour period, except as provided in Section (b) of this rule.

(b) Rather than meet the requirement of Section (a) of this rule, an owner or operator may request approval from the Control Officer to meet an ambient concentration limit on beryllium in the vicinity of the stationary source of $0.01 \mu\text{g}/\text{m}^3$, averaged over a 30-day period.

(1) Approval of such requests may be granted by the Control Officer provided that:

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

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

(iii) The owner or operator submits a report to the Control Officer within 45 days after the effective date of this standard which report includes the following information:

(A) description of sampling method including the method and frequency of calibration;

(B) method of sample analysis;

(C) averaging technique for determining 30-day average concentrations;

(D) number, identity, and location (address, coordinates, or distance and heading from plant) and sampling sites;

(E) ground elevations and height above ground of sampling inlets;

(F) 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;

(G) information necessary for estimating dispersion including stack height, inside diameter, exit gas temperature, exit velocity or flow rate, and beryllium concentration;

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

(I) air sampling data indicating beryllium concentrations in the vicinity of the stationary source for the 3-year period specified in Subsection (b)(1) of this rule. 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.

(2) Within 60 days after receiving such report, the Control Officer will notify the owner or operator in writing whether approval is granted or denied. Prior to denying approval to comply with the provisions of Section (b) of this rule, the Control Officer will consult with representatives of the stationary source for which the demonstration report was submitted.

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

RULE 361.33. STACK SAMPLING

(a) Unless a waiver of emission testing is obtained under Rule 361.13, each owner or operator required to comply with Rule 361.32(a) shall test emissions from his source.

(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

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

(b) The Control Officer shall be notified at least 30 days prior to an emission test so that he may at his option observe the test.

(c) 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 the combination of factors which is likely to occur during the subject period and which result in the maximum emissions. No changes 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 Control Officer.

(d) 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 Control Officer by a registered letter dispatched before the close of the next business day following such determination.

(e) 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 Control Officer, for a minimum of 2 years.

RULE 361.34. AIR SAMPLING

(a) Stationary sources subject to Rule 361.32(b) shall locate air sampling sites in accordance with a plan approved by the Control Officer. Such sites shall be located in such a manner as is calculated to detect maximum concentrations of beryllium in the ambient air.

(b) 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.

(c) 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 Control Officer, for a minimum of 2 years.

(d) Concentrations measured at all sampling sites shall be reported to the Control Officer every 30 days by a registered letter.

(e) The Control Officer may at any time require changes in, or expansion of, the sampling network.