

**DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF DEEP MINE SAFETY**

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TITLE: Guidelines for Use of Internal Combustion Motors in Underground Mines
Other than Coal

EFFECTIVE DATE: August 11, 1997

AUTHORITY: Section 25-2(f) of the General Safety Law, 43 P.S. §25-2(f);

34 Pa. Code §§33.117(c) (relating to mine railways and motor haulage); 33.121
(relating to ventilation, general requirement), and 33.122 (relating to
ventilating current).

POLICY: This document establishes procedures and criteria for the approval and use of
internal combustion motors in underground mines other than coal mines.

PURPOSE: Section 25-2(f) of the General Safety Law requires that all mines other than
coal mines be operated in a manner that provides reasonable and adequate
protection to workers employed therein. In furtherance of this requirement, the
use of internal combustion motors in an underground mine other than a coal
mine is prohibited unless otherwise approved by the Department. The
following are the standards the Department intends to apply in governing the
approval and appropriate use of an internal combustion motor in an
underground mine other than a coal mine.

APPLICABILITY: This guidance applies to all Bureau personnel who inspect mines other than
coal mines as well as all personnel who approve the use of equipment in these
mines. This guidance also applies to all non-coal mine operators in the
Commonwealth.

DISCLAIMER: The policy and procedures outlined in this guidance document are intended to
supplement existing requirements. Nothing in this policy and procedures shall
affect regulatory requirements.

The policy and procedures herein are not an adjudication or regulation. There
is no intent on the part of the Department to give this policy the weight or
deference that would be accorded an adjudication or regulation. The policy
and procedure merely announces the policy that DEP intends to apply in the
future for the rules governing the use of internal combustion motors in mines
other than coal.

PAGE LENGTH: 3 pages

LOCATION: Volume 9, Tab 13

PROCEDURES:

“General Statement of Policy”

In general, the Department will approve the use of internal combustion motors in an underground mine if the operator has demonstrated that:

Adequate air quality, as defined by §§33.121 and 33.122 will be maintained in all areas of the mine affected by the request.

The equipment powered by internal combustion motors, and the motor itself, will be operated in a safe manner.

“The operator shall be responsible for ensuring that all internal combustion motors (these include company owned, leased, rented, and contractor used equipment) taken in an underground mine, other than a coal mine, will be used in accordance with these guidelines.”

“Requested Information”

The Department requests the operator to submit two (2) copies of the following information either annually on or before April 1 of the calendar year or prior to opening or reopening a mine. The information should be sent to the Pottsville Office of Deep Mine Safety, 5 West Laurel Boulevard, Pottsville, PA 17901. This office will be responsible for the distribution of the information packets.

The requested information is as follows:

An updated ventilation plan that shows the following:

Mine name.

A mine map of the following scales: not greater than 1" = 500' for the overall mine map and not greater than 1" = 200' for typical faces (number of 1:200 maps depends on the number of different ventilating systems employed at the face). The maps should show the following:

Direction and quantity of principal airflows.

Locations of seals used to isolate abandoned workings.

Locations of areas withdrawn from the ventilating system.

Locations of all main, booster, and auxiliary fans not shown in paragraph (d.) of this section.

Locations of air regulators and stoppings and ventilation doors not shown in paragraph (d.) of this section.

Locations of overcasts, undercasts, and other airway crossover devices not shown in paragraph (d.) of this section.

Locations of known oil or gas wells within 1 year of mining advancement.

Locations of known underground mine opening adjacent to the mine.

Locations of permanent underground shops, diesel fuel storage depots, oil fuel storage depots, hoist rooms, compressors, battery charging stations, and explosive storage facilities or magazines. Permanent facilities are those intended to exist for one year or more.

Significant changes in the ventilation system projected for one year.

Mine fan data for all active main and booster fans including manufacturer's name, type, size, fan speed, blade setting, approximate pressure at present operating point, motor brake horsepower rating, operating characteristics chart, and quantity of air being produced.

Diagrams, descriptions, or sketches showing how ventilation is accomplished in each typical type of working place including the approximate quantity of air provided and typical size and type of auxiliary fans used.

The number and type of internal combustion units used underground, including make and model of unit, type of motor, make and model of motor, brake horsepower rating of motor and MSHA approval number if it exists.

The Department requests the operator to maintain a list of rental, short term use (less than 30 days) or contractor units at the mine site used underground. This should include the same information as requested in Part B, Section 1e. This information does not need to be submitted annually. It must be maintained at the mine site for the inspectors review upon request.

“Safety Guidelines”

“The Department requests that gasoline motors are refueled outside the mine. If a gasoline motor is to be refueled underground, the motor must be shut off. Gasoline may be brought into the mine for purposes of refueling motors provided that the gasoline is transported in an approved and labeled safety can of no more than 5 gallon capacity.”

“A fire extinguisher or automatic suppression system should be installed on any mobile internal combustion motored equipment. A fire extinguisher should be located within 100 feet of a stationary piece of equipment that is powered by an internal combustion motor.”

“All safety components should be maintained as prescribed and developed by the manufacturer.”

4. Mine atmosphere will be maintained with an adequate supply of pure air. Pure air shall mean air containing not less than 19.5% oxygen; not more than 0.5% carbon dioxide; and no harmful quantities of other noxious or poisonous gases (e.g. ceiling limit of 5 ppm nitrogen dioxide, ceiling limit of 200 ppm carbon monoxide or 50 ppm time weighted average).

Gas test by mine officials while persons are in the working section shall be done with approved gas detection instruments. Should concentrations of dangerous gasses be detected, the operator shall take the necessary precautions to ensure that the harmful noxious or poisonous gasses are removed from the work area.”

At this time, there is no standard or limit on diesel particulate matter (DPM). If a standard is developed for exposure to DPM, that shall be incorporated into this policy.

5. The Department expects that gasoline powered motors will be shut off when the vehicle is not in motion. Non-mobile gasoline powered motors should be left to run as minimally as possible.

Gasoline should not be stored underground. Storage for the purposes of this policy means a quantity in excess of the amount that will be used in twenty-four hours. Storage includes the gasoline fuel tanks of mobile and stationary equipment.

Exception to storage rules: When the mine is idle (i.e. during weekends and holidays), the 24 hour requirement will be waved until activity/production is resumed.

“Application Review”

1. After receipt of an application, the Department will review the application to determine whether the information submitted to the Department is adequate enough to enable the Department to make a determination to approve or deny the application. This review will be completed within fifteen days of the receipt of the application.
2. If the application does not contain adequate information, the Department will provide a written statement of the specific information that will enable the Department to make a determination to approve or deny the application.
3. Upon review of an adequate application, a determination will be made whether to grant tentative approval pending a site visit.
4. The Department will notify the applicant, in writing, whether the application has been tentatively approved and the time and date of site visit.
5. The Department will notify the operator, in writing, of approval or denial of the application upon completion of the site visit.

E. “Enforcement Options”

There are a number of enforcement options available to enable the Department to address the improper use of an internal combustion motor in an underground mine other than a coal mine. The options range from a warning letter to an order ceasing operations at the mine. What is appropriate depends on the nature of the violation.