

6. An application for a permit for any fuel burning unit which must be altered or for any fuel burning unit in which fuel is to be burned having a sulfur content in excess of the applicable limits specified in Table 1 of this section. The permit may be a preconstruction permit and certificate under N.J.A.C. 7:27-8, an operating permit under N.J.A.C. 7:27-22, or a facility-wide permit as defined at N.J.A.C. 7:1K-1.5; and

7. A demonstration by air quality simulation modelling acceptable to the Department, including aerodynamic downwash modelling, unless waived in accordance with the provisions of N.J.A.C. 7:27-9.4, that increases in air contaminants resulting from use of the alternative emission control plan will not cause any ambient air quality standard to be exceeded, or cause any allowable prevention of significant deterioration ambient air increment as established by the United States Environmental Protection Agency to be exceeded; and in areas where an ambient air quality standard is already exceeded, will not cause an increase in ambient air concentrations greater than the threshold increases set forth in Table 1 of N.J.A.C. 7:27-18.3; and

8. Sufficient information to evaluate aerodynamic downwash effects including a site plan, heights of all structures within 1,000 feet (305 meters) of the stacks in the mathematical combination, and the topography of the area within 1,000 feet (305 meters) of the stacks in the mathematical combination; and

9. A guarantee that fuel analyses will be submitted at intervals specified by the Department.

(e) The provisions of (a), (b), (c), and (d) above shall not apply whenever a person responsible for the sulfur dioxide emissions from a facility into the outdoor air resulting from the combustion of facility by-products alone, or from the combustion of facility by-products combined with fuels conforming with this section, can demonstrate to the Department that the facility's emissions are predictable and will in no case exceed 310 ppm by volume adjusted to 12 percent carbon dioxide by volume. In such cases, the Department may establish conditions as it deems appropriate including, but not limited to, requiring sampling and analysis of emissions of sulfur dioxide, periodic fuel analysis and the periodic submission of data.

(f) If the identified grade of fuel oil does not agree with the classification by viscosity set forth in Table 1 and Table 2, then the allowable percent sulfur by weight shall be determined by the viscosity classification.

Amended by R.1982 d.456, effective December 6, 1982 (operative February 4, 1983).
See: 13 N.J.R. 870(a), 14 N.J.R. 1452(a).

"No. 2" fuel oil added under Table 2; new (d) added, old (d) and (e) redesignated as (e) and (f); old (f) deleted.
Administrative correction to (c) and (e).
See: 23 N.J.R. 1166(b).
Amended by R.1998 d.231, effective May 4, 1998 (operative June 12, 1998).
See: 29 N.J.R. 3521(a), 30 N.J.R. 1563(b).
Rewrote (d)6.

Case Notes

Violations of Solid Waste Management Act warranted imposition of civil penalties totaling \$204,400. Department of Environmental Protection v. Standard Tank Cleaning, 95 N.J.A.R.2d (EPE) 31.

7:27-9.3 Exemptions

(a) The provisions of this subchapter shall not apply to fuel used by ocean-going vessels or in motor vehicles.

(b) The Department will set such standards for the sulfur contents of fuel as may be necessary to prevent violation of air quality standards where it is determined that an aerodynamic downwash problem exists as the result of emissions from a source or sources of air pollution.

As amended, R.1982 d.456, effective December 6, 1982 (operative February 4, 1983).
See: 13 N.J.R. 870(a), 14 N.J.R. 1452(a).
Old (b) deleted, (c) redesignated as (b).

7:27-9.4 Waiver of air quality modelling

(a) The Department may waive the air quality simulation modelling requirements of N.J.A.C. 7:27-9.2(d) if the applicant demonstrates that:

1. The effective heights, as determined in accordance with the provisions of (b) below, of the stacks to be included in the mathematical combination are equal, or that the emissions from the fuel having the greatest sulfur content will be discharged to the atmosphere from the stack having the greatest effective height;

2. The total maximum SO₂ emission rate for all source gases to be included in the mathematical combination is no greater than 800 pounds per hour (363 Kg/hr);

3. No stack in the mathematical combination is separated from any other stack by a distance measured from the stack center lines, greater than three times the least effective stack height of any stack included in the mathematical combination; and

4. No stack in the mathematical combination is separated from any other stack by a distance greater than the allowable separation as determined from Figure 1 of this section.

(b) Procedure for using Figure 1.

1. Determine the effective stack heights in accordance with the provisions of (c) below.
2. Locate the least effective stack height on the left side of Figure 1 of this section.
3. Find the intersection of the least effective stack height and maximum total SO₂ emission rate. Interpolation is permitted.
4. Draw a vertical line from this point to the bottom of the chart to find the maximum allowable separation of the stacks.

(c) The effective stack height of a given stack for the purposes of this subchapter is the lesser of the following values:

1. 650 feet; or
2. The sum of the physical stack height and the plume rise. Plume rise is calculated from the formula:

$$h = \frac{9.5 \left(V d^2 (T - 68) \right)^{0.75}}{u (T + 460)}$$

where:

h is the plume rise in feet;

u is 12 if the physical stack height is less than 65 feet; u is 5 for physical stack heights of 65 feet or greater;

V is the actual exit velocity of the stack gas in feet per second;

d is the inside diameter of the stack exit in feet; and

T is the temperature of the stack gas at the stack exit, in degrees Fahrenheit.

R.1982 d.456, effective December 6, 1982 (operative February 4, 1983).
See: 13 N.J.R. 870(a), 14 N.J.R. 1452(a).
Administrative correction to (a)3 and to (c)2.
See: 23 N.J.R. 1166(b).

7:27-9.5 Incentive for conversion to coal or other solid fuel

(a) The Department may authorize a person to store, offer for sale, sell, deliver, exchange in trade or use fuel oils having a sulfur content in excess of the maximum allowable amounts set forth in Table 1 of N.J.A.C. 7:27-9.2 provided that:

1. The fuel burning unit in which the high-sulfur oil is used, or a unit of comparable capacity at the same facility, will burn coal or other solid fuel in accordance with a schedule approved by the Department; and

2. The high-sulfur oil will be burned for no longer than a period of two years if an existing fuel burning unit is converted from burning oil or gas, or three years if the conversion is accomplished by the installation of a new fuel burning unit; and

3. The applicant demonstrates by air quality simulation modelling or other methods acceptable to the Department that increases in the emissions of air contaminants resulting from the use of the high-sulfur oil will not cause any ambient air quality standard to be exceeded and in areas where an ambient air quality standard is already exceeded, will not cause an increase in ambient air concentrations greater than the threshold increases set forth in Table 1 of N.J.A.C. 7:27-18.3; and

4. The sulfur dioxide emissions from the burning of coal or other solid fuel will not exceed 0.3 pounds of sulfur dioxide per million BTU gross heat input; and

5. The applicant obtains a permit for the conversion to coal or other solid fuel. The permit may be a preconstruction permit and certificate under N.J.A.C. 7:27-8, an operating permit under N.J.A.C. 7:27-22, or a facility-wide permit as defined at N.J.A.C. 7:1K-1.5; and

6. The applicant agrees that if the conversion does not take place pursuant to (a)1 above, he will pay to the Department a sum of money no less than the difference between the cost of the high-sulfur oil used pursuant to the provisions of this section and the cost of the same grade oil which would otherwise be required under the provisions of N.J.A.C. 7:27-9.2. Such payment shall be in addition to, and not in lieu of, any penalty which may be required pursuant to the New Jersey Air Pollution Control Act, N.J.S.A. 26:2C-1 et seq.; and

7. The applicant will furnish to the Department a written monthly report stating the quantity of high-sulfur oil used, the cost of such oil, and the cost of an equivalent quantity of the same grade oil which conforms to the provisions of N.J.A.C. 7:27-9.2; and

8. The applicant attests to his commitment to honor and comply with all of the provisions of this section and any other provisions the Department deems appropriate, by entering into a Consent Order, which shall so state, with the Department; and

9. Such Consent Order shall be subject to modification or revocation by the Department if the Department determines that the emissions from the burning of high-sulfur oil contribute to a contravention of any applicable ambient air quality standard, or significantly degrade ambient air quality, or that the applicant has failed to honor or comply with its provisions in part or in whole.