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Grandfathered Dates For equipment referenced in N.J.A.C. 7:27-8 Permits and Certificates

by Michael P. Sabol

The first regulation that required air pollution control permits for certain pieces of equipment was entitled: "Law on Permits" (Chapter 106, P.L. 1967, Title 26:2C-9.2). This law became effective on June 15, 1967 as part of the New Jersey Air Pollution Control Act; it was the precursor to "Chapter 9 Permits" (now N.J.A.C. 7:27-8) which became effective on January 15, 1968.

Since January 15, 1968, N.J.A.C. 7:27-8 has been amended Eighteen times. Except for the 1976 amendment, the list of equipment requiring permits has changed with each amendment. It is necessary to know what those changes have been if a determination is to be made regarding the need for permits. Also, that need for permits for specific equipment is applicable only for the equipment which had been installed or modified after the operative date of the revision.

Example: A boiler having a heat input rating of 1,000,000 BTU per hour or greater using solid fuel requires a permit if installed or modified on or after June 15, 1967. A boiler, using liquid or gaseous fuels would require a permit only if installed or modified on or after the first revision date of Subchapter 8 as of March 5, 1973.

N.J.A.C. 7:27-8.2 Applicability

NOTE: Under each paragraph are the relevant dates and changes related to the equipment or control apparatus subject to the permitting and operating certification requirements of the current N.J.A.C. 7:27-8. Equipment installed or modified after these dates requires an air pollution control permit unless exempted in (d), (e) and (f) as noted at the end of this document. Note that current rule language is underlined

N.J.A.C. 7:27-8.2(c) Any equipment or source operation that may emit one or more air contaminants directly or indirectly into the outdoor air and belongs to one of the categories listed below, is a significant source (and therefore requires a preconstruction permit and an operating certificate), unless it is exempted from being a significant source pursuant to N.J.A.C. 7:27-8.2(d), (e) or (f) as discussed at the end of this document.

1. Commercial fuel burning equipment that has a maximum rated heat input of 1,000,000 BTU per hour or greater to the burning chamber, including emergency generators;

January 15, 1968, the effective date of the original rule, specified "Solid fuel" only.

March 5, 1973, the effective date of the first amendment, required permits for

commercial fuel burning equipment burning any fuel.

August 31, 1999, the operative date of the 12th amendment specified that fuel cells were subject to permitting requirements.

November 7, 2005, the operative date of the 16th amendment, included emergency generators as a clarification that paragraph 1 included emergency generators.

2. Any source operation or equipment that has the potential to emit any Group 1 or Group 2 TXS (or a combination thereof) at a rate greater than 0.1 pounds per hour (45.4 grams per hour);

For your convenience, following is the list of compounds that are found in N.J.A.C. 7:27-17 for each group:

Group 1 TXS means:

- Benzene (Benzol)
- Carbon tetrachloride (Tetrachloromethane)
- Chloroform (Trichloromethane)
- Dioxane (1,4-Diethylene dioxide; 1,4-Dioxane)
- Ethylenimine (Aziridine)
- Ethylene dibromide (1,2-Dibromoethane)
- Ethylene dichloride (1,2-Dichloroethane)
- 1,1,2,2-Tetrachloroethane (sym Tetrachloroethane),
Tetrachloroethylene (Perchloroethylene)
- 1,1,2-Trichloroethane (Vinyl trichloride)
- Trichloroethylene (Trichlorethene).

Group 2 TXS means:

- Methylene chloride (Dichloromethane),
- 1,1,1-Trichloroethane (Methyl chloroform)

March 31, 1991 in the 4th amendment stated: Any source operation which has the potential to emit any TXS at a rate greater than the exemption rate specified in N.J.A.C. 7:27-17.

October 31, 1994, the operative date of the 7th amendment finally specified the exemption rate to be 0.1 pounds per hour (45.4 grams per hour).

3. Dry cleaning equipment

June 12, 1998, the operative date of the 11th amendment, dry cleaning equipment was specifically listed as a clarification. Prior to that date, such equipment had been regulated under a broad applicability criterion.

Until that amendment, dry cleaners required a permit because of other applicability criterion, such as the permit requirement for a source where the weight of all material introduced into the process exceeds 50 pounds in any one hour.

July 1, 2006, the operative date of the 18th amendment specifically excluded dry cleaning equipment using liquid carbon dioxide (CO₂) as the cleaning agent from permitting.

4. A surface cleaner which uses a cleaning solution containing 5% or more VOCs, HAPs, or VOC and HAP combined and which is:
- i. An unheated open top surface cleaner with a top opening of greater than six square feet (0.56 square meters) or a capacity greater than 100 gallons;
 - ii. A heated open top surface cleaner;
 - iii. A conveyORIZED surface cleaner; or
 - iv. stationary spray cleaning or surface stripping operation using one half gallon or more of cleaning solution in any one hour;

January 15, 1968: the original rule had a clause that required permits for "equipment used in a manufacturing process involving metal cleaning or surface preparation, including but not limited to degreasing, etching, pickling, or plating which emits air contaminants into the open air from a tank or vessel, the capacity of which is in excess of (100) one hundred gallons".

March 5, 1973, the first amendment replaced "metal cleaning" with "surface cleaning". Surface cleaning remained to be part of the clause that included degreasing, etching, pickling, or plating until the 3rd amendment, operative April 5, 1985,

April 5, 1985, the 3rd amendment, as clarification, added paragraphs No. 3, 4, 5 requiring permits specifically for the following types surface cleaners:

- 3. All unheated open top surface cleaners having a top opening of greater than six square feet (0.56 square meters);
- 4. All heated open top surface cleaners;
- 5. All conveyORIZED surface cleaner

June 12, 1998: the 11th amendment, removed the language from the 3rd amendment with paragraphs 3,4, 5 and replaced them with the language that is presently found in paragraph 4 that is underlined above.

Note: USEPA has promulgated a MACT standard at 40CFR part 63, subpart T for

surface cleaners with a capacity of two gallons or more which use any of the following solvents:

- carbon tetrachloride
- chloroform
- perchloroethylene
- Trichloroethylene
- Methylene Chloride
- 1,1,1-Trichloroethane

Even if a subchapter 8 permit is not required for these surface cleaners, the MACT standard must be complied with.

In addition, N.J.A.C. 7:27-16.6 (j) has certain requirements for cold cleaning tanks of two gallons capacity. These size tanks don't require permits but must be in compliance with that section.

5. Equipment that is used in a graphic arts operation including, but not limited to, newspaper, lithographic, gravure, flexographic, letterpress and screen printing, in which the quantity of ink, fountain solution, or cleaning material used in any one hour is equal to or greater than one half gallon.

January 15, 1968 was the effective date of the original rule and permits for graphics art equipment were required considering printing as a part of surface coating operation if the quantity of material used was in excess of 10 pounds in any one hour.

April 5, 1985, the effective date of the 3rd amendment changed the application rate to one gallon per hour.

March 31, 1991, the operative date of the 4th amendment required permits if the amount of liquid used was equal to or in excess of 0.5 gal/hr.

October 31, 1994, the operative date of the 7th amendment, added a paragraph 20 clarifying that permits were required for newspaper printing equipment subject to the one-half gallon per hour application rate. Newspaper printing was moved to the graphic arts paragraph, paragraph 5, in the 11th amendment, operative June 12, 1998.

6. Any tank or vessel which has a capacity of more than 100 gallons and which is used:
 - i. In etching, pickling, or plating; or

ii. In chromium electroplating or chromium anodizing;

January 15, 1968, the original rule stated that permits were required for equipment used in a manufacturing process involving metal cleaning or surface preparation, including but not limited to degreasing, etching, pickling, or plating which emits air contaminants into the open air from a tank or vessel, the capacity of which is in excess of one hundred gallons.

March 5, 1973: Replaced "metal cleaning" with "surface cleaning".

Up until this point, the regulation had been concerned with emissions into the open air. This was revised by the 3rd amendment, effective **April 5, 1985** to include either direct or indirect emissions.

7. A transfer operation involving gasoline or other VOCs that is regulated under N.J.A.C. 7:27-16.3 or 16.4, or a marine tank vessel loading or ballasting operation that is regulated under N.J.A.C. 7:27-16.5, if the operation is required to have a control device other than bottom fill or submerged fill;

October 31, 1994: the operative date of the 8th amendment, specifically requires permits for any equipment which has control apparatus and is referenced in N.J.A.C. 7:27-16, "Control and Prohibition of Air Pollution by Volatile Organic Compounds". This was a very general citation, rather than citing specific sections in Subchapter 16, as is now the case.

June 12, 1998, the operative date of the 11th amendment had the general reference to N.J.A.C. 7:27-16 changed to specify 16.3 gasoline transfer operations, 16.4 VOC transfer operations, other than gasoline, and 16.5 marine tank vessel loading and ballasting operations.

8. Stationary storage tanks which have a capacity in excess of 10,000 gallons and which are used for the storage of liquids, except water or distillates of air;

January 15, 1968: the original rule required a permit for specific materials which were stored in tanks with a capacity in excess of 10,000 gallons; namely acids, solvents, diluents or thinners, inks, colorants, lacquers, enamels, varnishes and liquid resins.

March 5, 1973: which was the effective date of the 1st amendment, required a permit for all tanks in excess of 10,000 gallons that stored all liquids except water and distillates of air.

April 5, 1985: The 3rd amendment excluded tanks which are held at pressures greater than one atmosphere (14.7 psia).

9. Stationary storage tanks which have a capacity of 2,000 gallons or greater and which are used for the storage of a VOC or mixture of VOCs having a vapor pressure or sum of partial pressures of 0.02 pounds per square inch absolute (1.0 millimeters of mercury) or greater at standard conditions;

January 15, 1968 (original) : required permits for liquid storage tanks, reservoirs, and containers, used for the storage of acids, solvents, diluents or thinners, inks, colorants, lacquers, enamels, varnishes, liquid resins and having a capacity in excess of 10, 000 gallons.

April 5, 1985: the 3rd amendment required permits for Stationary storage tanks which have a capacity of 2,000 gallons or greater and which are used for the storage of a VOC.

June 12, 1998: the 11th amendment, added, of a VOC or mixture of VOCs having a vapor pressure or sum of partial pressures of 0.02 pounds per square inch absolute (1.0 millimeters of mercury) or greater at standard conditions;

10. Tanks, reservoirs, containers and bins which have a capacity in excess of 2,000 cubic feet and which are used for the storage of solid particles

March 5, 1973, the effective date of the first amendment, added permit requirements for solid materials storage.

11. Stationary material handling equipment using pneumatic, bucket or belt conveying systems from which emissions occur;

January 15, 1968, the original rule required permits for Pneumatic, material handling or conveying systems.

March 5, 1973, the first amendment added bucket and belt conveying systems.

Note: This does not apply to mobile conveying systems.

12. Equipment that is used in a surface coating operation including, but not limited to, spray or dip painting, roller coating, and electrostatic depositing, in which the quantity of coating or cleaning material used in any one hour is equal to or greater than one half gallon of liquid;

January 15, 1968, the original rule, required a permit for that equipment which "included, but not limited to spray and dip coating, roller coating, electrostatic depositing or spray cleaning which emits air contaminants into the open air and in which the quantity of material used in any source operation is in excess of ten pounds in any one hour."

April 5, 1985 (third amendment) through **March 31, 1991** (4th amendment): Beginning with the 3rd amendment, effective **April 5, 1985** and through the 4th amendment on **March 31, 1991**, a permit was required for equipment emitting air contaminants directly or indirectly into the air, with a usage of at least 1 gallon per hour of coating or cleaning material.

March 31, 1991, the operative date of 4th amendment, and up to the present time, a permit is required for equipment with a usage of at least one half gallon per hour of coating or cleaning material.

13. Except where a registration has been filed pursuant to N.J.A.C. 7:27-20.3, any equipment that is used for the burning of noncommercial fuel, crude oil or process by-products in any form, including but not limited to, off-specification used oil, processed used oil fuel, or on specification used oil as defined in N.J.A.C. 7:27-20.1;

March 5, 1973: Present language was incorporated in the 1st amendment. Prior to that, the regulation referred to the burning or incineration of the same types of fuels.

January 8, 2000: the operative date for the 13th amendment, allowed the burning of certain used oils in units registered with the Department whose heat input is 500,000 BTU per hour or less.

14. An incinerator

January 15, 1968, the wording in the original rule required permits for any incinerator, except incinerators constructed, installed or used in one-or two-family dwellings or in multi-occupied dwellings containing six or less family units, one of which is owner occupied

March 12, 2002, the 15th amendment, removed the exemption for private dwellings.

15. Equipment which is used for treating groundwater, industrial waste water, or municipal wastewater with a solids content of less than two percent by weight as it enters the equipment (typical operations performed by this type of equipment include, but are not limited to, air stripping, aeration, digestion, thickening, flocculating, surface impounding, and dewatering), if the equipment does either of the following:

- i. Treats or handles influent which has one or both of the following:
 - (1) A total concentration of VOCs and Group 2 TXS in the influent of 3,500 parts per billion by weight (ppbw) or more; or
 - (2) A total Group 1 TXS concentration in the influent of 100 ppbw or more or;
- ii. Discharges more than 50 pounds per hour of sludge. For the purposes of this paragraph, wastewater with a solids content of two percent by weight or greater is considered sludge

April 5, 1985: The 3rd amendment is the first time permits were required for certain types of wastewater and water treatment equipment. Added were de minimis levels for toxic volatile organic substances of 100 parts per billion by weight and a total volatile organic substance concentration of 3500 parts per billion by weight; and other technical changes. Note that aeration basins and lagoons at publicly owned or domestic treatment works are exempted from permits.

June 12, 1998: Waste treatment equipment was included with the April 5, 1985 amendment in paragraph 15, but was moved to its own section, paragraph 16, with the 11th amendment. The wording was also changed to clarify that wastes included any wastes or sludges with a solids content of 2% or greater in the influent.

16. Equipment that is used for treating waste soils or sludges, including municipal solid wastes, industrial solid wastes, or recycled materials, if the influent to the equipment has a solids content of two percent by weight or greater. Typical operations performed by this type of equipment include, but are not limited to, soil cleaning, composting, pelletizing, grit classifying, drying, and transfer station operations. However an area used as a temporary storage area, such as a concrete pad or a roll-off container shall not be considered to be equipment used for treating waste soils or sludges, provided that the area is not also used for treatment;

April 5, 1985: the effective date of the 3rd amendment, specifically stated "waste or water treatment equipment which emits air contaminants, including, but not limited to, air stripping equipment, aeration basins, and lagoons. This did specify waste treatment equipment, but did not cite any. Prior to that, the 50 lb/hour requirement which excluded air and water, could have been cited as a need for a permit.

June 12, 1998, the operative date of the 11th amendment specifically cited the types of equipment that are currently listed paragraph 16

17. Equipment used for the purpose of venting a closed or operating dump, sanitary landfill, hazardous waste landfill, or other solid waste facility, directly or indirectly into the outdoor atmosphere including, but not limited to, any transfer station, recycling facility, or municipal solid waste composting facility;

April 5, 1985: the effective date of the 3rd amendment, paragraph 17, (formerly paragraph 16), was added to the subchapter. That language was: "Equipment used for the purpose of venting a closed or operating dump or solid waste facility directly or indirectly into the outdoor atmosphere".

March 31, 1991: the operative date of the 4th amendment added that "equipment used for the purpose of venting a closed or operating dump, sanitary landfill, hazardous waste landfill, or other solid waste facility directly or indirectly into the outdoor atmosphere".

October 31, 1994, the operative date of the 7th amendment, clarified that "solid waste facility" included but was not limited to, a transfer station, recycling facility or municipal solid waste composting facility.

18. Equipment that shreds wood, if the engine powering the equipment has a maximum rated gross heat input of 1,000,000 BTU per hour or greater;

October 31, 1994 was the effective date of the 7th amendment. Note that control apparatus had always been required to have a permit since the original rule, effective January 15, 1968. However, in the 7th amendment, that requirement had been removed and modified to allow industry that wanted to install control apparatus on insignificant equipment, that did not need air permits, to do so without going through the effort and costs of securing a permit. Paragraph 18 originally stated that information concerning control apparatus be part of the permit application only for significant source operations. That language is now located at N.J.A.C. 7:27-8.2(g).

June 6, 2000, is the operative date of the 14th amendment. The present language citing wood shredding equipment first appeared in that amendment, replacing the reference to control apparatus.

19. Equipment in which the combined weight of all raw materials used exceeds 50 pounds in any one hour, provided:

- i. Such equipment shall not include equipment which is the same type as is included within a category described in (c)1, 2, 4, 5, 6, 7, 8, 9, 10, 12, 15 or 18 above; or in (c)20 below; but which is excluded from the category because

it does not meet an applicability threshold set forth in the description of the category. That is, the equipment has a lower capacity, weight of materials processed, vapor pressure, or consumption of BTUs, or otherwise falls outside a parameter that is included in the description of the category;

ii. In determining the weight of the raw materials used, the weight of the following shall be excluded:

(1) Air;

(2) Water;

(3) Containers, provided that the container is not consumed as part of the operation of the equipment; and

(4) Paper, metal, or plastic that is twisted, bent, or folded, in the equipment, provided that the twisting, bending, or folding, does not cause visible emissions or air pollution; and

January 8, 2000, the operative date of the 13th amendment, had language at paragraph 19 that had read: "Equipment in which the combined weight of all raw materials used, excluding air and water, exceeds 50 pounds in any one hour, except for equipment excluded from permit requirements under (c) 3 through 18 above".

The language from the 13th amendment back to the original rule, effective January 15, 1968 has remained in tact. There may have been minor changes in the wording during different amendments, but there was no change in the intent.

June 6, 2000, the operative date of the 14th amendment, is the first time that i, and ii were added to the wording presently found in paragraph 19.

20. Welding equipment, if the weight of the welding rod or welding wire used in he process is greater than 12 pounds in any calendar day.

June 6, 2000, the operative date of the 14th amendment, is the first time that welding equipment was specifically mentioned as requiring permits. The amount of welding rod or welding wire was added to the requirement to indicate that permits were required for production equipment, and not for maintenance work. Prior to that amendment, any welding that involved welding on materials that weighed over 50 pounds would have triggered permitting requirements for that process.

21. Any stationary reciprocating engine with a maximum rated power output of 37 KW or greater, used for generating electricity, not including emergency generators.

Prior to this, any stationary engine that had a heat input of one million BTU per hour or greater required a permit if installed or modified after March 5, 1973.

ADDITIONAL COMMENTS

Note that the present subchapter 8 has exemptions to permitting requirements for some of the equipment cited in paragraphs (c)2 through (c) 18, (c) 20 and (c)21 . See sub-section **N.J.A.C. 7:27-8.2 (d)**. Please review that sub-section to see if you meet any of those exemptions.

Also, the present subchapter 8 also has exemptions to permitting requirements cited in paragraph N.J.A.C. 7:27-8.2(c) 19. See sub-section **N.J.A.C. 7:27-8.2(e)**. Please review that sub-section to see if you meet any of those exemptions.

Finally, review **N.J.A.C. 7:27-8.2(f)** if you have a microturbine fueled by natural gas, or any piece of electric generating equipment, other than a fuel cell system or microturbine, with less than 500 kilowatts generating capacity and is subject to N.J.A.C 7:27-8.2 (c) 1. If certain emission levels are met and can be verified, that equipment may not need a preconstruction permit and operating certificate.

If there is any question related to permitting requirements for any specific process or equipment, contact one of the local enforcement offices shown below for an applicability determination.

REGIONAL OFFICES

County:	Regional Enforcement Office:
Bergen, Essex, Hudson, Hunterdon, Morris, Passaic, Somerset, Sussex, Warren	Northern Regional Office NJ Dept. of Environmental Protection 7 Ridgedale Avenue Cedar Knolls, NJ 07927 Phone #: (973) 656-4444 Fax #: (973) 656-4080
Mercer, Middlesex, Monmouth,	Central Regional Office

Ocean, Union	NJ Dept. of Environmental Protection P.O. Box 407 Rte 130, Horizon Center, Bldg. 300 Trenton, NJ 08625-0407 Phone #: (609) 584-4100 Fax #: (609) 584-4119
Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Salem	Southern Regional Office NJ Dept. of Environmental Protection One Port Center, 2 Riverside Dr. - Suite 201 Camden, New Jersey 08103 Phone #: (856) 614-3601 Fax #: (856) 614-3613
Statewide	Minor Source Compliance Investigations P.O. Box 407 NJ Dept. of Environmental Protection Rte 130, Horizon Center, Bldg. 300 Robbinsville, NJ 08691 Phone #: (609) 584-4240 Fax #: (609) 584-4299

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