

CR 93-92



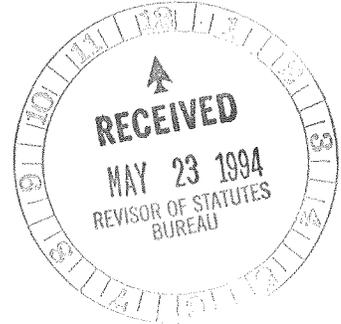
George E. Meyer
Secretary

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

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STATE OF WISCONSIN)
)
DEPARTMENT OF NATURAL RESOURCES)

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TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, George E. Meyer, Secretary of the Department of Natural Resources and custodian of the official records of said Department, do hereby certify that the annexed copy of Natural Resources Board Order No. AM-1-93 was duly approved and adopted by this Department on March 24, 1994. I further certify that said copy has been compared by me with the original on file in this Department and that the same is a true copy thereof, and of the whole of such original.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the official seal of the Department at the Natural Resources Building in the City of Madison, this 12th day of May, 1994.

George E Meyer
George E. Meyer, Secretary

(SEAL)

7-1-94



ORDER OF THE STATE OF WISCONSIN
NATURAL RESOURCES BOARD
CREATING RULES

.....
IN THE MATTER of creating ss. NR 419.02(1s),
(1t), (1u), (3m), (6m) and 419.08 of the
Wisconsin Administrative Code pertaining to
the regulation of organic compound emissions
associated with iron and steel foundries.
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AM-1-93

Authorizing statutes: ss. 144.31(1)(a) and (f), 144.38, 227.11(2)(a), Stats.

Statutes interpreted: s. 144.38, Stats.

These rules are created to require the use of Reasonably Available Control Technology to limit organic compound emissions when cores and molds are produced for use at an iron or steel foundry.

SECTION 1. NR 419.02(1s), (1t), (1u), (3m) and (6m) are created to read:

NR 419.02 (1s) "Core" means in foundry operations a separable part of a mold which is usually made of sand and is used to create openings and various cavities in the castings.

(1t) "Core binder" means any substance used to bind sand together to form a core.

(1u) "Core or mold coating" means a substance used to alter the surface of a core or mold through coating or cleaning after the core or mold has been manufactured.

(3m) "Mold" means the matrix in which metal is cast and receives its form.

(6m) "Urethane cold box binder" means a core binder which uses components such as phenol formaldehyde resins and isocyanates to form a bond

after catalysis by an organic gas such as triethyl amine or dimethyl ethyl amine.

SECTION 2. NR 419.08 is created to read:

NR 419.08 CORE AND MOLD MANUFACTURING FOR IRON OR STEEL FOUNDRIES. (1)

APPLICABILITY. (a) This section applies to the manufacture of cores or molds for use at iron or steel foundries at any facility which is located in the county of Kenosha, Kewaunee, Manitowoc, Milwaukee, Ozaukee, Racine, Sheboygan, Washington or Waukesha.

(b) The emission limits of sub. (2) do not apply to:

1. Iron or steel foundries or core manufacturing facilities which are located in the county of Kenosha, Milwaukee, Ozaukee, Racine, Washington or Waukesha which have maximum theoretical emissions of VOC from core and mold manufacturing of less than 25 tons per year.

2. Iron or steel foundries or core manufacturing facilities which are located in the county of Kewaunee, Manitowoc or Sheboygan which have maximum theoretical emissions of VOC from core and mold manufacturing of less than 100 tons per year.

(c) Any owner or operator of an iron or steel foundry or core manufacturing facility having annual emissions less than the applicability thresholds in par. (b) shall comply with the reporting requirements of sub. (7) for that facility.

(2) EMISSION AND OPERATIONAL LIMITATIONS. No owner or operator of a core or mold manufacturing system which produces cores or molds for use at iron or steel foundries may cause, allow or permit the operation of the system unless:

(a) The as applied VOC content of each core or mold coating, when measured using the methods contained in s. NR 439.06(3)(b), does not exceed any of the following limits:

1. 30%, by weight, including water, for core or mold coatings which have an as purchased density of 15.0 pounds per gallon or greater,

2. 70%, by weight, including water, for core or mold coatings which have an as purchased density of less than 15.0 pounds per gallon.

(b) All core and mold coating storage vessels and containers remain covered whenever product is not being moved into or out of the vessel or container, and

(c) Emissions of any VOC resulting from the catalysis step in the formation of a urethane cold box binder are controlled with an overall efficiency of at least 90%.

(3) COMPLIANCE AND CERTIFICATION DEADLINES. (a) Final compliance with the requirements of sub. (2) shall be achieved by May 31, 1995.

(b) The owner or operator shall submit certification to the department, no later than July 1, 1995, that the facility is in compliance with the requirements of sub. (2), as demonstrated by the applicable testing methods of s. NR 439.06(3).

(4) EMISSION TESTING. The owner or operator of a facility which employs a urethane cold box binder shall demonstrate compliance with the emission rate in sub. (2)(c) using one of the test methods in s. NR 439.06(3)(a) prior to the final compliance date in sub. (3)(a), and at least every 2 years thereafter within 60 days of the anniversary of the initial compliance test.

(5) EMISSION CONTROL SYSTEM MONITORING. The owner or operator of any facility which uses a wet scrubber to control VOC emissions from the catalysis

of urethane cold box binders shall continuously measure and record the pH of the scrubber liquid in addition to meeting the monitoring requirements of s. NR 439.055(1)(e).

(6) RECORDKEEPING. Owners or operators of a facility subject to this section shall maintain the following records in accordance with s. NR 439.04(1) to (3):

(a) The quantity, in pounds, of each type of core binder used on an annual basis.

(b) Records of operation variables which are required to be measured under sub. (5) and s. NR 439.055(1)(e).

(c) The total quantity, in pounds, of organic gas used to catalyze the formation of urethane cold box binders on an annual basis.

(d) The as purchased density and percent VOC, by weight, of each core or mold coating used at the facility.

(e) The total quantity, in pounds or gallons, of each core or mold coating used on a monthly basis.

(f) The total quantity of solvent, in pounds, added to each core or mold coating on a monthly basis.

(7) REPORTING. The owner or operator of a facility which is subject to this section shall report all of the following to the department by April 1, 1995:

(a) The name and location of the facility.

(b) The maximum and actual core production rate at the facility for each binder type used in calendar year 1994.

(c) The density, percent VOC by weight and actual and maximum usage rate for each core or mold coating used at the facility in calendar year 1994.

The foregoing rule was approved and adopted by the State of Wisconsin
Natural Resources Board on March 24, 1994.

The rule shall take effect the first day of the month following
publication in the Wisconsin administrative register as provided in s. NR
227.22(2)(intro.), Stats.

Dated at Madison, Wisconsin 5/12/94.

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

By George E Meyer
George E. Meyer, Secretary

(SEAL)