

SECTION XIV

RULES

AND

REGULATIONS

## GENERAL RULES

### Rule 1. Definitions

In addition to the terms which are defined by Article 4477-5, V.T.C.S., the following terms shall have the meanings given herein:

- 1.01 Act. The Texas Clean Air Act, codified as Article 4477-5.
- 1.02 Ambient Air. That portion of the atmosphere, external to buildings, to which the general public has access.
- 1.03 Article. When followed by a number, "article" refers to provisions of the law as codified in Vernon's Revised Civil Statutes of Texas, 1925, as amended.
- 1.04 Background. Background concentration is defined as that level of air contaminants that cannot be reduced by controlling emissions from man-made sources. It is determined by measuring levels in non-urban areas.
- 1.05 Combustion Unit. Any boiler plant, furnace, incinerator, flare, engine, or other device or system used to oxidize solid, liquid, or gaseous fuels, but excluding motors and engines used in propelling land, water, and air vehicles.
- 1.06 Commercial Incinerators. An incinerator used to dispose of waste material from retail and wholesale trade establishments.
- 1.07 Domestic Wastes. The garbage and rubbish normally resulting from the functions of life within a residence.
- 1.08 Downwind Level. The concentration of air contaminants from a source or sources on a property as measured at or beyond the property boundary.
- 1.09 Exhaust Emission. Air contaminants emitted to the atmosphere from an opening downstream from the exhaust ports of a motor vehicle engine.
- 1.10 Federal Motor Vehicle Regulation. The Motor Vehicle Air Pollution Standards, Title 45, Subtitle A, Part 85, Code of Federal Regulations.
- 1.11 Flue. Any duct, stack, chimney, or conduit used to conduct air contaminants into the open air.

- 1.12 Forage. Any vegetation which may be consumed by animals.
- 1.13 Garbage. Solid waste consisting of putrescible animal and vegetable waste materials resulting from the handling, preparation, cooking, and consumption of food, including waste materials from markets, storage facilities, handling and sale of produce and other food products.
- 1.14 Hydrocarbons. Compounds which contain carbon and hydrogen.
- 1.15 Incinerator. An enclosed combustion apparatus and appurtenances thereto which is used in the process of burning wastes for the primary purpose of reducing its volume and weight by removing the combustibles of the waste, and which is equipped with a flue for conducting products of combustion to the atmosphere. An open trench type (with closed ends) combustion unit may be considered an incinerator when approved by the Executive Secretary.
- 1.16 Inorganic Fluoride Compounds. All inorganic chemicals having an atom or atoms of fluorine in their chemical structure.
- 1.17 Major Upset. An unscheduled occurrence or excursion of a process or operation that results in an emission of air contaminants that contravenes the Texas Air Control Board Regulations and/or the intent of the Texas Clean Air Act and is beyond immediate control, or a release that is initiated to protect life in the immediate or adjacent areas.
- 1.18 Motor Vehicle. A self-propelled vehicle designed for transporting persons or property on a street or highway.
- 1.19 Net Ground-Level Concentration. The upwind level subtracted from the downwind level.
- 1.20 New Source. Any stationary source, the construction or modification of which is commenced after the date of adoption of these Regulations.
- 1.21 Non-Methane Hydrocarbons. The total hydrocarbon content of the sample minus the methane content of the sample.
- 1.22 Opacity. The degree to which an emission of air contaminants obstructs the transmission of light expressed as the percentage to which the light is obstructed as measured by an optical instrument or trained observer.

- 1.23 Outdoor Burning. Any fire or smoke-producing process which is not conducted in a combustion unit.
- 1.24 Particulate Matter. Any material, except uncombined water, that exists as a solid or liquid in the atmosphere or in a gas stream at standard conditions.
- 1.25 Process or Processes. Any action, operation, or treatment embracing chemical, commercial, industrial, or manufacturing factors such as combustion units, kilns, stills, dryers, roasters, and equipment used in connection therewith, and all other methods or forms of manufacturing or processing that may emit smoke, particulate matter, gaseous matter, or visible emissions.
- 1.26 Process Weight Per Hour. "Process Weight" is the total weight of all materials introduced or recirculated into any specific process which process may cause any discharge into the atmosphere. Solid fuels charged into the process will be considered as part of the process weight, but liquid and gaseous fuels and combustion air will not. The "Process Weight Per Hour" will be derived by dividing the total process weight by the number of hours in one complete operation from the beginning of any given process to the completion thereof, excluding any time during which the equipment used to conduct the process is idle. For continuous operation, the "Process Weight Per Hour" will be derived by dividing the process weight for a 24-hour period by twenty-four.
- 1.27 Property. All land under common control or ownership on which any source or combination of sources is located, coupled with all improvements on such land, and all fixed or movable objects on such land, or any vessel on the waters of this State which may constitute a source.
- 1.28 Rubbish. Nonputrescible solid waste, consisting of both combustible and noncombustible waste materials; combustible rubbish includes paper, rags, cartons, wood, excelsior, furniture, rubber, plastics, yard trimmings, leaves, and similar materials; noncombustible rubbish includes glass, crockery, tin cans, aluminum cans, metal furniture, and like materials which will not burn at ordinary incinerator temperatures (1600°F to 1800°F).
- 1.29 Smoke. Small gas-borne particles resulting from incomplete combustion consisting predominantly of carbon and other combustible material and present in sufficient quantity to be visible.

*By Processes? Section 305*

- 1.30 Sour Gas. Any natural gas containing more than one and one-half ( $1\frac{1}{2}$ ) grains of hydrogen sulfide per one hundred (100) cubic feet, or more than thirty (30) grains of total sulfur per one hundred (100) cubic feet.
- 1.31 Sour Crude. A crude oil which will emit a sour gas when in equilibrium at atmospheric pressure.
- 1.32 Source. A point of origin of air contaminants, whether privately or publicly owned or operated. Upon request of a source owner the Executive Secretary shall determine whether multiple processes emitting air contaminants from a single point of emission will be treated as a single source or as multiple sources.
- 1.33 Standard Conditions. A condition at a temperature of 70°F and a pressure of 14.7 pounds per square inch absolute. Pollutant concentrations from an incinerator will be corrected to a condition of 50% excess air if the incinerator is operating at greater than 50% excess air.
- 1.34 Standard Metropolitan Statistical Area. An area consisting of a county or one or more contiguous counties which is officially so designated by the U. S. Bureau of the Budget.
- 1.35 Submerged Fill Pipe. Any fill pipe the discharge opening of which is entirely submerged when the liquid level is six inches above the bottom of the tank or is always submerged during filling operations; or when applied to a tank which is loaded from the side, shall mean any fill pipe the discharge opening of which is entirely submerged when the liquid level is two times the fill pipe diameter in inches above the bottom of the tank.
- 1.36 Sulfur Compounds. All inorganic or organic chemicals having an atom or atoms of sulfur in their chemical structure.
- 1.37 Sweet Crude Oil and Gas. Those crude petroleum hydrocarbons that are not "sour" as defined.
- 1.38 System or Device. Any article, chemical, machine, equipment, or other contrivance, the use of which may eliminate, reduce, or control the emissions of air contaminants to the atmosphere.
- 1.39 Upwind Level. The representative concentration of air contaminants flowing onto or across a property as measured at any point.

- 1.40 Visible Emissions. Particulate or gaseous matter which can be detected by the human eye. The radiant energy from an open flame shall not be considered a visible emission under this definition.
- 1.41 Volatile Organic Compounds. Any compound containing carbon and hydrogen or containing carbon and hydrogen in combination with any other element which has a vapor pressure of 1.5 pounds per square inch absolute or greater under actual condition of storage or use.
- 1.42 Volatile Organic Compound - Effluent Water Separation. Any tank, box, sump, or other container in which any volatile organic compound thereof, floating on or entrained or contained in water entering such tank, box, sump, or other container, is physically separated and removed from such water prior to outfall, drainage, or recovery of such water.

Rule 2. Other Definitions.

Unless specifically defined in the Act or in the Rules of the Board, the terms used by the Board have the meanings commonly ascribed to them in the field of air pollution control.

Rule 3. Multiple Air Contaminant Sources or Properties.

- 3.1 In an area where an additive effect occurs from the accumulation of air contaminants from two or more sources on a single property or from two or more properties, such that the level of air contaminants exceeds the ambient air quality standards established by the Texas Air Control Board, and each source or each property is emitting no more than the allowed limit for an air contaminant for a single source or from a single property, further reduction of emissions from each source or property shall be made as determined by the Board.
- 3.2 Two or more property holders in a county having a population of less than 50,000 as determined by the most recent federal census may petition the Board to have their properties designated a single property for purposes of controlling emissions therefrom, if the properties are contiguous except for intervening roads, railroads, rights-of-way, canals and watercourses, which are considered a part of the area for purposes of this provision. The petition shall describe generally

the manner in which control of emissions from the combined properties will be administered and shall name the party or parties accepting responsibility thereof. The petition shall be accompanied by an executed copy of a written agreement between the property holders who consent to having their properties so designated and shall also be accompanied by a detailed map of the vicinity showing geographical features such as roads, watercourses, and well-known landmarks; the boundaries of the petitioner's properties; the area to be included in the single property designation; and present land uses in the areas surrounding the area to be included. The Board may place such conditions on the approval of the petition as it may deem appropriate.

Rule 4. Circumvention.

No person shall use any plan, activity, device or contrivance which the Executive Secretary determines will, without resulting in an actual reduction of air contaminants, conceal or appear to minimize the effects of an emission which would otherwise constitute a violation of the Act or Regulations. Air introduced for dilution purposes only is considered a circumvention of the Regulations.

Rule 5 Nuisance.

No person shall discharge from any source whatsoever one or more air contaminants or combinations thereof, in such concentration and of such duration as are or may tend to be injurious to or to adversely affect human health or welfare, animal life, vegetation or property, or as to interfere with the normal use and enjoyment of animal life, vegetation or property.

Rule 6. Traffic Hazard.

No person shall discharge from any source whatsoever such quantities of air contaminants, uncombined water, or other materials which cause or have a tendency to cause a traffic hazard or an interference with normal road use.

Rule 7. Notification Requirements for Major Upset.

The Executive Secretary and the appropriate local air pollution control agency shall be notified as soon as possible of any major upset condition which causes or may cause an excessive emission that contravenes the intent of the Texas Clean Air Act and/or the Regulations of the Board. A list of persons to contact may be obtained from the Executive Secretary upon request.

Rule 8. Notification Requirements for Maintenance.

The Executive Secretary and the appropriate local air pollution control agency shall be notified in writing at least ten (10) days prior to any planned maintenance, start-up, or shut-down which will or may cause an excessive emission that contravenes the intent of the Texas Clean Air Act and/or the Regulations of the Board. If ten (10) days notice cannot be given due to an unplanned occurrence, notice shall be given as soon as practical prior to the shut-down.

Rule 9. Monitoring.

Any person affected by any Rule or Regulation of the Texas Air Control Board shall conduct sampling of the appropriate emissions. The sampling must reflect the pattern of emissions with reasonable accuracy. During periods of officially designated air pollution episode conditions, those persons affected by Rule 803 shall monitor their emissions. The Executive Secretary may prescribe methods and frequency of monitoring under this rule and may exempt persons from the application of this rule. The results of all monitoring shall be recorded and retained for at least five years and shall be made available to the Board or any members, employees, or agents of the Board and local air pollution control agencies upon request.

Rule 10. Sampling Ports.

Any person, at the request of the Board shall provide in connection with each flue a power source near the point of testing in addition to such sampling and testing facilities and sampling ports, including safe and easy access thereto, exclusive of instruments and sensing devices, as may be necessary for the Board to determine the nature and quality of emissions which are or may be discharged as a result of source operations. Evidence and data based on these samples and calculations may be used to substantiate violations of the Act, Rules and Regulations. Agents of the Board shall be permitted to sample the stacks during operating hours.

Rule 11. Filing of Emissions Data.

Upon request by the Board or the Executive Secretary, any person affected by any Rule or Regulation of the Texas Air

Control Board shall file emissions data with the Board on forms supplied by the Board.

12. Exemptions from Rules and Regulations.

- 12.1 Emissions occurring during major upsets may not be required to meet the allowable emission levels set by the Rules and Regulations upon proper notification as set forth in Rule 7 of these General Rules, if a determination is made by the Executive Secretary after consultation with appropriate local agencies and with appropriate officials of the subject source that the upset conditions were unavoidable and that a shut-down or other corrective actions were taken as soon as practicable.
- 12.2 Emissions occurring during start-up or shut-down of processes or during periods of maintenance may not be required to meet the allowable emission levels set by the Rules and Regulations if so determined by the Executive Secretary upon proper notification as set forth in Rule 8 of these General Rules. The Executive Secretary may specify the amount, time, and duration of emissions that will be allowed during start-up and shut-down and during periods of maintenance.
- 12.3 Smoke generators and other devices used for training inspectors in the evaluation of visible emissions at a training school approved by the Board are not required to meet the allowable emission levels set by the Rules and Regulations, but must be located and operated such that a nuisance is not created at any time.
- 12.4 Equipment, machines, devices, flues, contrivances built or installed to be used at a domestic residence for domestic use are not required to meet the allowable emission levels set by the Rules and Regulations unless specifically required by a particular Regulation.
- 12.5 Sources emitting air contaminants which cannot be controlled or reduced due to a lack of technological knowledge may be exempt from the applicable Rules and Regulations when so determined and ordered by the Texas Air Control Board. The Board may specify limitation and conditions as to the operation of such exempt sources.
- 12.6 No nuisance conditions shall be permitted to occur under these exemptions.

Rule 13. Board Seal.

The seal of the Board shall bear the words "Texas Air Control Board," the star, and the oak and olive branches common to other official State seals.

Rule 14. Use and Effect of Rules.

These rules may be used by the Board as guides in the exercise of discretion, where discretion is vested. They shall not be construed as a limitation or restriction on the exercise of discretion, where it exists, nor shall they be construed to deprive the Board of the exercise of any power, duties and jurisdiction conferred by law, or to limit or restrict the amount and character of data or information which may be required for the proper administration of the law.

Rule 15. Sampling Procedures and Terminology.

Where not otherwise specified in the Rules, Regulations, determinations and orders of the Board, the procedures used for sampling air and measuring air contaminants, and the methods of expressing the findings shall be those commonly accepted and used in the field of air pollution control.

Rule 16. Invoking Jurisdiction of the Board.

Any person may petition the Board through the Executive Secretary for such consideration and action related to air pollution control as he may desire. The Board will review and act on the petition in such manner as the Board may prescribe.

Rule 17. Petition for Variance.

Any person seeking a variance, amendment of a variance, or extension of a variance issued to that person shall file a petition on a form prepared by the Board. The form shall be furnished by the Board without charge upon request. In order to obtain a variance past the date by which compliance is to be achieved, a person must have demonstrated continuous and substantial progress toward compliance before the date of petition.

Rule 18. Effect of Acceptance of Variance or Permit.

Acceptance of a variance or a permit constitutes an acknowledgement and agreement that the holder thereof will comply with its terms and with the Rules, Regulations, and orders of the Board adopted pursuant to the Act.

Rule 19. Initiation of Review.

The Board may initiate proceedings to revoke or amend a variance or a permit on its own motion, on recommendation of the Executive Secretary, or upon request of an interested person who presents reasonable justifiable grounds therefor.

Rule 20. Transfers.

A variance or a permit is granted in personam, and does not attach to the realty to which it relates. A variance cannot be transferred without prior notification to the Board. If a transfer of ownership of a source covered by a variance is contemplated by the holder of the variance, and the source and characteristics of the emissions will remain unchanged, upon notification, the Executive Secretary shall issue an endorsement to the variance reflecting the name of the new owner. Continuation of emissions by the new owner without prior notification to the Board makes the variance subject to forfeiture.

Rule 21. Remedies Cumulative.

The administrative and judicial procedures available to the Board to prevent, correct or remedy air pollution conditions or violations are cumulative. Within the limits of the authority set forth in the Act and these Rules, the Board or the Executive Secretary may act under any one or more of these procedures, as applicable to the facts of a particular air pollution condition or claimed violation.

Rule 22. Severability.

If any provision of any of the Regulations of the Board or the application of that provision to any person, situation or circumstance is for any reason adjudged invalid, the adjudication does not affect any other provision of the Regulations or the application of the adjudicated provision to any other person, situation, or circumstance. The Board declares that it would have adopted the valid portions and applications of the Regulations without the invalid part and to this end the provisions of the Regulations are declared to be severable.

- Rule 23. It is the intention of the Texas Air Control Board to utilize and enforce the Ambient Air Quality Standards and emission limitations promulgated pursuant to the Federal Clean Air Act, 42 U.S.C., 1857 et seq., as amended.
- Rule 24. The National Primary and Secondary Ambient Air Quality Standards as published in the Federal Register, 36 Fed. Reg. 818F (April 30, 1971), are to be applied throughout all parts of Texas. The Primary Standards are to be achieved no later than three (3) years after the Implementation Plan is approved by the Environmental Protection Agency, and the Secondary Standards are to be achieved within a reasonable time thereafter as so determined by the Texas Air Control Board.
- Rule 25. The general rules contained herein shall be in force immediately and shall supersede all previous General Provisions and Procedural Rules of the Texas Air Control Board.

Date Adopted: January 26, 1972

Date Filed with the Secretary of State: February 4, 1972

Date Effective: March 5, 1972

REGULATION I

CONTROL OF AIR POLLUTION FROM  
SMOKE, VISIBLE EMISSIONS, AND PARTICULATE MATTER

Rule 101. Outdoor Burning

101.1 No person may cause, suffer, allow or permit any outdoor burning within the State of Texas, except as provided by Rule 101.2.

101.2 Outdoor burning is authorized in the following instances if no nuisance is or will be created:

101.21 Outdoor burning when conducted pursuant to a written grant of authority by the Texas Air Control Board or Executive Secretary.

101.22 Outdoor burning for the purpose of training fire-fighting personnel when requested by certified mail and when authorized in writing by the local air pollution control agency or local health unit. If notice of denial from the local air pollution control agency or local health unit is not received within ten (10) days of the request, the burning is authorized. Authorization to conduct outdoor burning under this provision may be revoked by the Texas Air Control Board if it is found that this provision is used to circumvent Rule 101.

101.23 Outdoor burning of domestic waste at and from a property designed for and used exclusively as a private residence, housing not more than three families when collection of the domestic waste is not provided by the local governmental entity having jurisdiction.

101.24 Outdoor burning consisting of campfires and fires used solely for recreational or ceremonial purposes, or in the non-commercial preparation of food.

101.25 Outdoor burning in a rural area of trees, brush, grass, and other dry vegetable matter from such area in land-clearing, right-of-way maintenance

operations, forest management purposes, and range land management purposes, if all the following conditions are met:

- 101.251 The burning must be outside the corporate limits of a city or town except when it is necessary to eliminate a naturally occurring fire hazard.
- 101.252 The wind direction at the time of starting the burning must be away from any nearby city, town, residence, recreational, commercial, or industrial area.
- 101.253 The burning must be at least one thousand feet from any residence, recreational, commercial, or industrial area except those located on the property where the burning is to take place, except when it is necessary to eliminate a naturally occurring fire hazard.
- 101.254 Heavy oils, asphaltic materials, items containing natural or synthetic rubber or any material other than dry plant growth which may produce unreasonable amounts of smoke must not be burned.
- 101.255 If the burning will cause smoke to blow onto or across a highway, it is the responsibility of the person initiating the burning to post flagmen on affected roads in accordance with the requirements of the Department of Public Safety.
- 101.256 The initial burning for land clearing and right-of-way maintenance purposes may be commenced after 9:00 a.m. Material which will not be completely consumed before 5:00 p.m. shall not be added to the fire.
- 101.257 Burning within an area should be staggered so that total atmospheric loads of smoke are reduced.

- 101.258 Burning shall not be conducted when meteorological forecasts predict wind movement of less than three (3) miles per hour or greater than fifteen (15) miles per hour or when a significant shift in wind direction is predicted which could produce adverse effects to personnel, animals, or property during the burning period.
- 101.259 Burning shall not be conducted during periods of actual or predicted persistent (12 hours or more) low-level (below 1600 feet) atmospheric inversions or in areas covered by a current air stagnation advisory.
- 101.26 Outdoor burning of the garbage and rubbish generated by a city or town having a population of less than 5,000, as determined by the most recent federal census, or by any unincorporated area serving less than 5,000, as determined by the most recent federal census, may be conducted if the following conditions are met:
- 101.261 The city or unincorporated area and the location of the burning must be outside a defined Standard Metropolitan Statistical Area.
- 101.262 Cities in newly designated Standard Metropolitan Statistical Areas shall have eighteen (18) months after the designation of the Standard Metropolitan Statistical Area to comply with Rule 101.
- 101.263 The location of the burning must not be within a city or town; must be at least one mile from any residential, recreational, commercial, or industrial area; and must be at least 300 yards from any public road.
- 101.264 The initial burning may be commenced only between the hours of 9:00 a.m. and 1:00 p.m. Combustible material must not be added to the fire between 1:00 p.m. of one day and 9:00 a.m. of the following day.
- 101.265 The exceptions provided by Rule 101.26 will not apply after December 31, 1973, to cities with a population over 3,000, as determined by the most recent federal census.

- 101.27 Outdoor burning of hydrocarbons from pipeline breaks and oil spills may be allowed upon proper notification as set forth in Rule 7 of the General Rules, if the Executive Secretary determines that the burning is necessary to protect the public welfare.
- 101.3 No disposal or deposit outdoors of any material capable of igniting spontaneously is allowed except where the disposal or deposit is made pursuant to a specific grant of authority by the Texas Air Control Board or the Executive Secretary.
- 101.4 The authority to conduct outdoor burning under this Regulation does not exempt or excuse the person responsible from the consequences, damages, or injuries resulting from the burning and does not exempt or excuse anyone from complying with all other applicable laws or ordinances, Regulations and orders of governmental entities having jurisdiction even though the burning is otherwise conducted in compliance with the Regulation.

Rule 102. Incineration

- 102.1 No person may cause, suffer, allow, or permit the burning of garbage or rubbish in a single-chamber residential or commercial incinerator unless the Executive Secretary approves an incinerator demonstrated to provide equivalent performance to multiple chamber incinerators.
- 102.2 No person may cause, suffer or permit the burning of garbage or rubbish in a single-chamber incinerator constructed after April 1, 1972, unless the Executive Secretary approves an incinerator demonstrated to provide equivalent performance to multiple-chamber incinerators.

Rule 103. Visible Emissions.

- 103.1 No person may cause, suffer, allow, or permit visible emissions from any stationary flue to exceed an opacity of 30% averaged over a 5-minute period.\* No person may cause, suffer, allow, or permit visible emissions from any stationary flue beginning construction after January 31, 1972, to exceed an opacity of 20% averaged over a 5-minute period. Visible emissions during the cleaning of a firebox or the building of a new fire, sootblowing, equipment changes, ash removal and rapping of precipitators may exceed the limits set forth in Rule 103.1 for a period aggregating not more than five minutes in any sixty consecutive minutes, nor more than six hours in any ten-day period.

- 103.2 No person may cause, suffer, allow, or permit visible emissions from a waste gas flare for more than five minutes in any 2-hour period except as provided in Rule 12.1 of the General Rules.
- 103.3 No person may cause, suffer, allow, or permit excessive visible emissions from any building or enclosed facility.
- 103.4 No person may cause, suffer, allow, or permit excessive visible emissions from motor vehicles for more than ten consecutive seconds.
- 103.5 No person may cause, suffer, allow, or permit excessive visible emissions from any railroad locomotive, ship or any other vessel, except during reasonable periods of engine start-up.
- 103.6 No person may cause, suffer, allow, or permit visible emissions from any stationary flue having a total flow rate of 100,000 acfm or more to exceed an opacity of 15% averaged over a 5-minute period unless an optical instrument capable of measuring the opacity of emissions is installed in the flue. Records of all such measurements shall be retained as provided for in Rule 9 of the General Rules. The provision shall not apply to flues having gas streams containing moisture which interferes with proper instrument operation, if so determined by the Executive Secretary.
- 103.7 Contributions from uncombined water shall not be included in determining compliance with Rule 103. The burden of proof which establishes the applicability of Rule 103.7 shall be upon the person seeking to come within its provisions.
- Rule 104. Particulate Matter From Materials Handling, Construction, and Roads.
- 104.1 Rule 104 shall apply only in Standard Metropolitan Statistical Areas where the federal air quality standards for particulate matter are exceeded.
- 104.2 No person may cause, suffer, allow, or permit any fine material to be handled, transported, or stored without taking at least the following precautions to prevent particulate matter from becoming airborne:
- 104.21 Application of water or suitable chemicals or some other covering on materials stockpiles, and other surfaces which can create airborne dusts under normal conditions;

- 104.22 Installation and use of hoods, fans and filters to enclose, collect, and clean the emissions of dusty materials;
- 104.23 Covering or wetting at all times when in motion, of open-bodied trucks, trailers, or railroad cars transporting materials in areas where the general public has access which can create airborne particulate matter.
- 104.3 No person may cause, suffer, allow or permit a building structure to be used, constructed, altered, repaired or demolished without taking at least the following precautions to prevent particulate matter from becoming airborne:
- 104.31 Use of water or chemicals where feasible for control of dust in the demolition of buildings or structures, in construction operations, or in the clearing of land;
- 104.32 Use of adequate methods to prevent airborne particulate matter during sandblasting of buildings or other similar operations.
- 104.4 No person may cause, suffer, allow, or permit a road to be used, constructed, altered, or repaired without taking at least the following precautions to prevent particulate matter from becoming airborne:
- 104.41 Application of asphalt, oil, water or suitable chemicals on heavily traveled dirt streets as necessary.
- 104.42 Paving of public or commercial parking surfaces having more than five parking spaces.
- 104.43 Removal as necessary from paved street and parking surfaces of earth or other material which have a tendency to become airborne.
- 104.5 Alternate means of control may be approved by the Executive Secretary of the Texas Air Control Board.

Rule 105. Particulate Matter

105.1 No person may cause, suffer, allow, or permit emissions of particulate matter from any source to exceed the allowable rates specified in Table 1 and/or Figure 1.

105.11 If a source has an effective stack height less than the standard effective stack height as determined from Table 2 and/or Figure 2, the allowable emission level must be reduced by multiplying it by

$$\left( \frac{\text{Effective Stack Height}}{\text{Standard Effective Stack Height}} \right)^2$$

105.12 Effective stack height shall be calculated by the following equation:

$$h_e = h + 0.083v_e D_e \left[ 1.5 + 0.82 \left( \frac{T_e - 550}{T_e} \right) \right] D_e$$

Where:

$h_e$  = Effective stack height in feet (ft)

$h$  = Physical stack height above ground level in feet (ft)

$v_e$  = Stack exit velocity in feet per second (ft/sec)

$D_e$  = Stack exit inside diameter in feet (ft)

$T_e$  = Stack exit temperature in degrees Rankin (OR)

105.2 No person may cause, suffer, allow or permit emissions of particulate matter from a source or sources operated on a property or from multiple sources operated on contiguous properties to exceed any of the following net ground level concentrations.

105.21 One hundred (100) micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) of air sampled, averaged over any five (5) consecutive hours.

105.22 Two hundred (200) micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) of air sampled, averaged over any three (3) consecutive hours.

105.23 Four hundred (400) micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) of air sampled, averaged over any one (1) hour period.

105.3 Rules 105.1 and 105.2 shall not apply to solid fossil fuel fired steam generators.

105.31 No person may cause, suffer, allow, or permit emissions of particulate matter from any solid fossil fuel fired steam generator to exceed 0.3 lb. per million B.T.U. heat input.

Rule 106. Transient Operations.

106.1 Rules 103 and 105 shall not apply to portable hot-mix asphaltic concrete plants, portable rock-crusher, and other transient operations engaged in public works projects which are not operated at the same premise for more than six months if all the following conditions are met:

106.11 The plant is located at least one mile outside the nearest corporate limits of any city or town.

106.12 The plant is located at least one mile from any occupied facility or recreational area other than that located on the same property as the plant.

106.13 The plant is equipped with cyclones, or wet scrubbers, or water sprays at the material transfer points open to the atmosphere, or other equipment or systems approved by the Executive Secretary, properly installed, in good working order and in operation.

106.2 The time requirement for Rule 106.1 may be extended by the Executive Secretary upon written request.

106.3 All emissions from sources operating under provisions of Rule 106 shall be controlled so as not to permit or create a nuisance.

106.4 Rule 106 shall not apply in Dallas or Harris Counties.

106.5 Rule 106 shall not apply to portable hot-mix asphaltic concrete plants after December 31, 1974.

Rule 107. Agricultural Process.

107.1 Rules 103, 104, 105 and 108 shall not apply to any person affected by Section 3.10 (e) of the Texas Clean Air Act.

- 107.2 No person affected by Section 3.10 (e) of the Texas Clean Air Act may cause, suffer, allow, or permit emissions of particulate matter from any or all sources associated with a specific process to exceed the allowable levels specified in Table 3 and/or Figure 3, except as provided by Rule 107.3.
- 107.3 Any person affected by Section 3.10 (e) of the Texas Clean Air Act who does not wish to be controlled by the process weight method, established by Rule 107.2, may select an alternate method of control which the Executive Secretary finds will provide emission control efficiency and measurement to achieve the same goal as Rule 107.2.
- 107.4 Any person affected by Section 3.10 (e) of the Texas Clean Air Act who does not select an alternate method and notify the Executive Secretary, in writing, prior to any plant investigation by the staff of the Texas Air Control Board, shall be controlled by the process weight method established by Rule 107.2, unless the Executive Secretary, at his discretion, chooses to accept proposals for an alternate method at that time.
- 107.5 Nothing herein is intended to affect the limitations on burning set out in Rule 101.
- 107.6 Persons affected by Rule 107 shall be in compliance with the provisions set forth herein by February 15, 1973.
- Rule 108. Persons affected by this Regulation shall be in compliance with the provisions contained herein no later than December 31, 1973. Not later than six months after the effective date of this Regulation, any person affected by this Regulation shall submit to the Texas Air Control Board a written report on his compliance status, including but not limited to, the minimum time required to design, procure, install and test abatement equipment or procedures. Progress reports shall be submitted to the Board every four months commencing in July of 1972 until compliance is achieved.
- All persons shall continue to be governed by the provisions of Regulation I, which became effective on March 16, 1967, and amended on January 23, 1968, September 12, 1969, and May 18, 1971, and Regulation II, which became effective February 22, 1968, and amended on September 12, 1969, until December 31, 1973, at which time this Regulation shall supersede the previous Regulation I and II.

Date Adopted: January 26, 1972

Date Filed with Secretary of State: February 4, 1972

Date Effective: March 5, 1972

TABLE 1  
ALLOWABLE PARTICULATE EMISSION RATES  
FOR SPECIFIC FLOW RATES

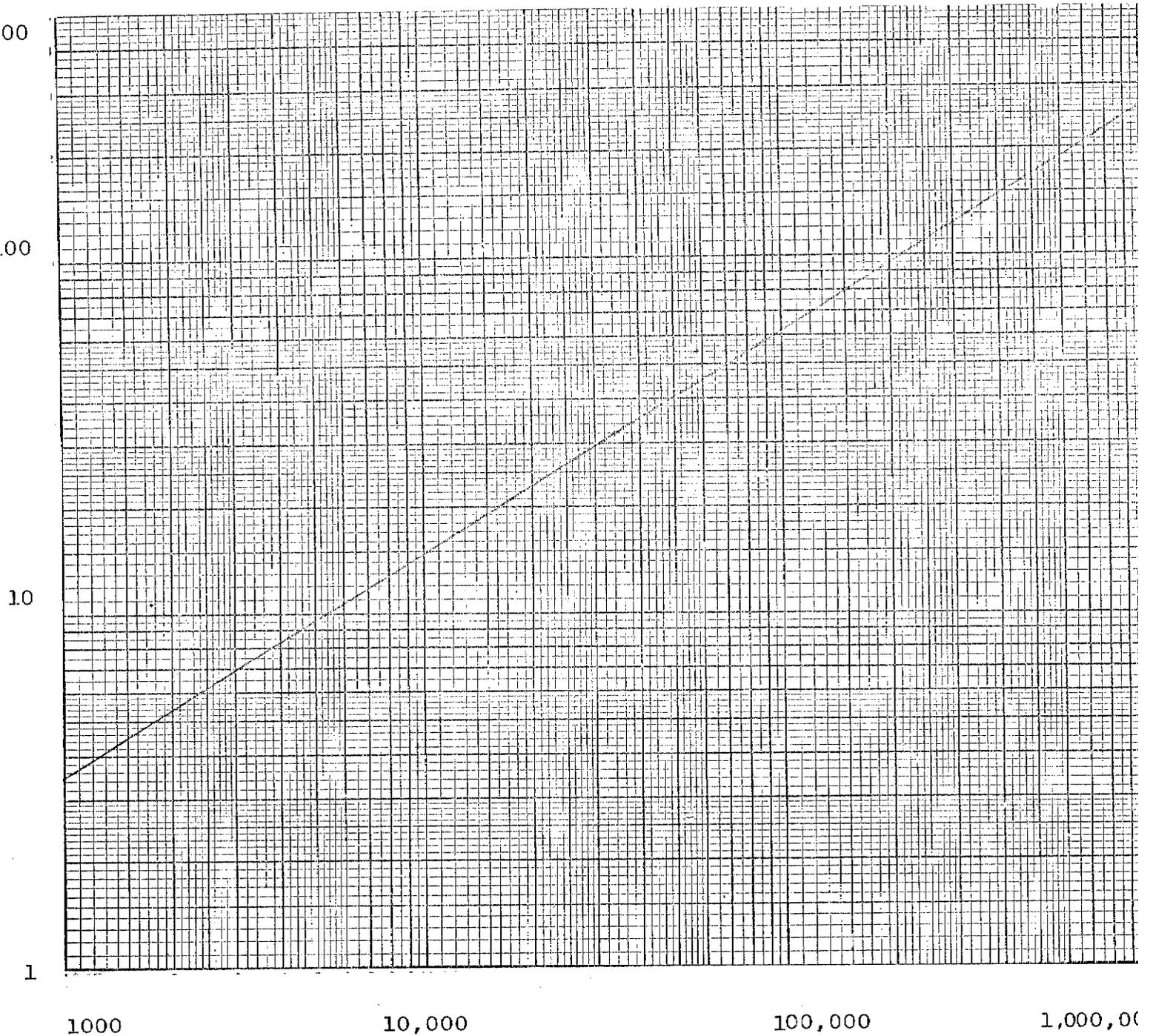
Effluent Flow Rate acfm	Rate of Emission lb/hr
1,000	3.5
2,000	5.3
4,000	8.2
6,000	10.6
8,000	12.6
10,000	14.5
20,000	22.3
40,000	34.2
60,000	44.0
80,000	52.6
100,000	60.4
200,000	92.9
400,000	143.0
600,000	184.0
800,000	219.4
1,000,000	252.0

Interpolation and extrapolation of the data in this table shall be accomplished by the use of the equation  $E=0.048 q^{0.62}$  where E is the allowable emission rate in lb/hr and q is the stack effluent flow rate in acfm.

FIGURE 1

ALLOWABLE PARTICULATE EMISSION RATES

FOR SPECIFIC FLOW RATES



STACK EFFLUENT FLOW RATE (acfm)

TABLE 2

STANDARD EFFECTIVE STACK HEIGHT  
 BASED ON SPECIFIC FLOW RATES

Effluent Flow Rate acfm	Standard Effective Stack Height ft
1,000	12
2,000	15
4,000	19
6,000	22
8,000	24
10,000	26
20,000	34
40,000	43
60,000	49
80,000	55
100,000	59
200,000	75
400,000	96
600,000	110
800,000	122
1,000,000	132

Interpolation and extrapolation of the data in this Table shall be accomplished by the use of the equation  $H_e = 1.05 q^{0.35}$  where  $H_e$  is the standard effective stack height in feet and  $q$  is the stack effluent flow rate in acfm.

FIGURE 2

STANDARD EFFECTIVE STACK HEIGHT

BASED ON SPECIFIC FLOW RATES

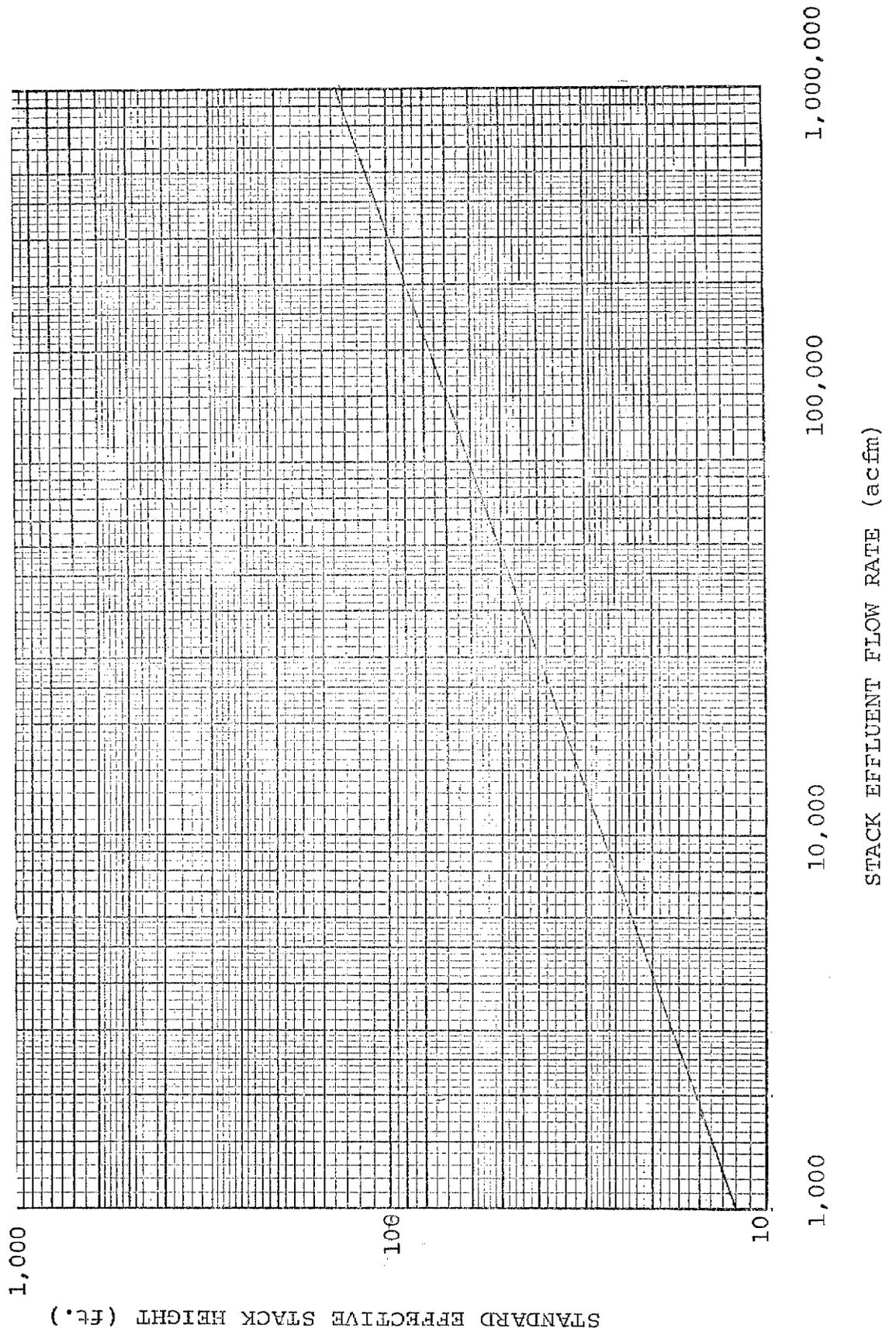


TABLE 3

## ALLOWABLE RATE OF EMISSION BASED ON PROCESS WEIGHT RATE

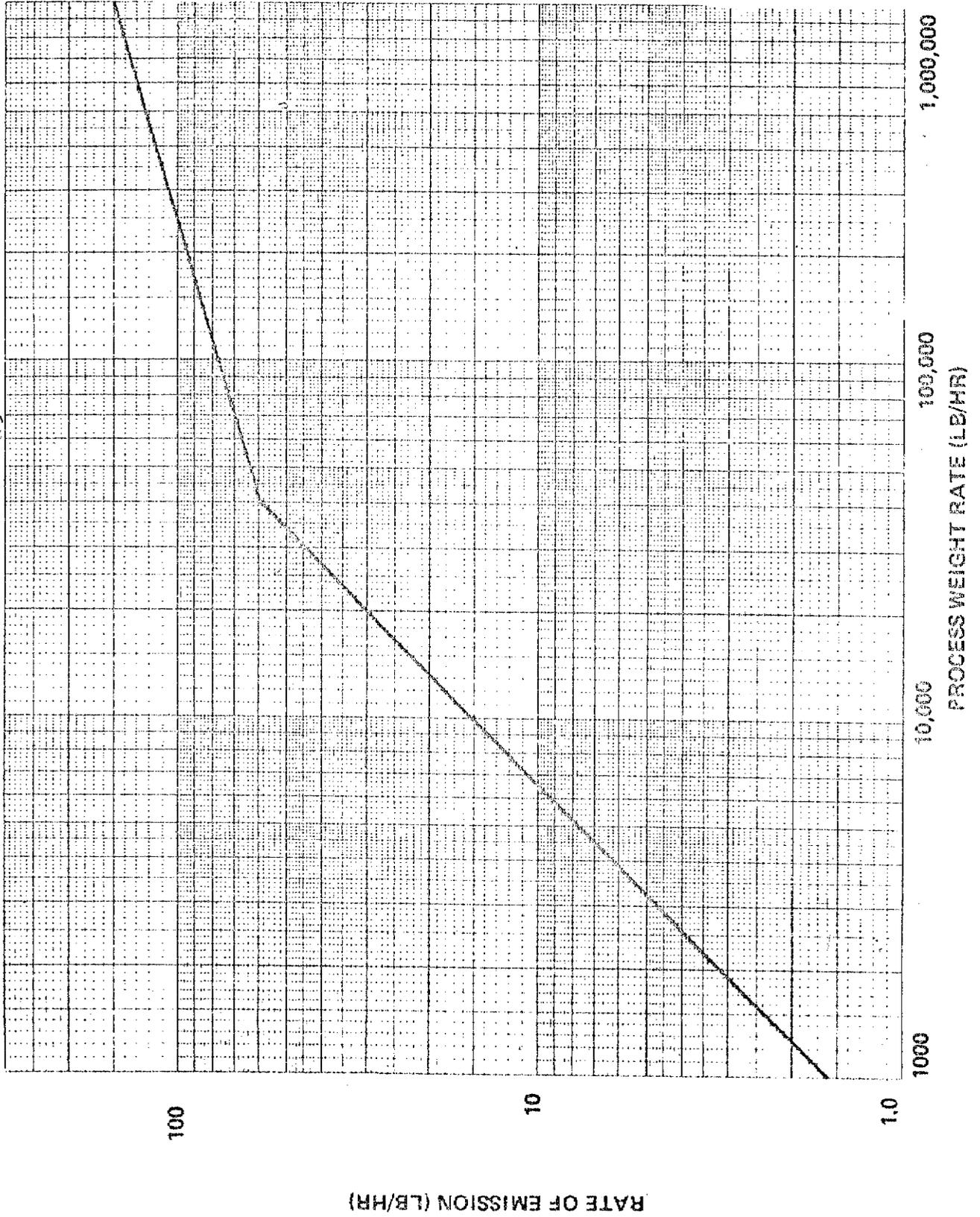
PROCESS WEIGHT RATE	RATE OF EMISSION	PROCESS WEIGHT RATE	RATE OF EMISSION
lb/hr	lb/hr	lb/hr	lb/hr
1,000	1.6	16,000	24.2
1,500	2.4	18,000	27.2
2,000	3.1	20,000	30.1
2,500	3.9	30,000	44.9
3,000	4.7	40,000	59.7
3,500	5.4	50,000	64.0
4,000	6.2	60,000	67.4
5,000	7.7	70,000	70.5
6,000	9.2	80,000	73.2
7,000	10.7	90,000	75.7
8,000	12.2	100,000	78.1
9,000	13.7	150,000	87.7
10,000	15.2	200,000	95.2
12,000	18.2	250,000	101.5
14,000	21.2	500,000	123.9

\* Interpolation of the data in this table for process weights up to 40,000 lb/hr shall be accomplished by the use of the equation  $E = 3.12 (p^{0.985})$ , and interpolation and extrapolation of the data for process weight rates in excess of 40,000 lb/hr shall be accomplished by use of the equation  $E = 25.4 (p^{0.237})$  where E = rate of emission in pounds per hour and P = process weight rate in tons per hour.

FIGURE 3

ALLOWABLE PARTICULATE EMISSION LEVELS BASED ON  
PROCESS WEIGHT RATE

AG. PROCESSES



RATE OF EMISSION (LB/HR)

REGULATION II

CONTROL OF AIR POLLUTION FROM SULFUR COMPOUNDS

Rule 201. Control of Sulfur Dioxide.

201.1 No person may cause, suffer, allow, or permit emissions of sulfur dioxide from any sulfuric acid plant burning elemental sulfur to exceed the allowable rates specified in Table 4 and/or Curve A of Figure 4.

201.11 If a source has an effective stack height less than the standard effective stack height as determined from Table 5 and/or Curve A of Figure 5, the allowable emission rates must be reduced by multiplying it by

$$\left( \frac{\text{Effective Stack Height}}{\text{Standard Effective Stack Height}} \right)^2$$

201.12 Effective stack height shall be calculated by the following equation:

$$h_e = h + 0.083v_e D_e \left[ 1.5 + 0.82 \left( \frac{T_e - 550}{T_e} \right) D_e \right]$$

Where:

- $h_e$  = Effective stack height in feet (ft)
- $h$  = Physical stack height above ground level in feet (ft)
- $v_e$  = Stack exit velocity in feet per second (ft/sec)
- $D_e$  = Stack exit inside diameter in feet (ft)
- $T_e$  = Stack exit temperature in degrees Rankin ( $^{\circ}R$ )

201.2 No person may cause, suffer, allow, or permit emissions of sulfur dioxide from any sulfuric acid plant to exceed the allowable rates specified in Table 6 and/or Curve B of Figure 4.

201.21 If a source has an effective stack height less than the standard effective stack height as determined from Table 7 and/or Curve B of Figure 5, the allowable emission rates must be reduced by multiplying it by

$$\left( \frac{\text{Effective Stack Height}}{\text{Standard Effective Stack Height}} \right)^2$$

201.22 Effective stack height shall be calculated by the equation in Rule 201.12.

201.3 No person may cause, suffer, allow, or permit emissions of sulfur dioxide from any sulfur recovery plant to exceed the allowable rates specified in Table 8 and/or Curve C of Figure 4.

201.31 If a source has an effective stack height less than the standard effective stack height as determined from Table 9 and/or Curve D of Figure 5, the allowable emission rates must be reduced by multiplying it by:

$$\left( \frac{\text{Effective Stack Height}}{\text{Standard Effective Stack Height}} \right)^2$$

201.32 Effective stack height shall be calculated by the equation in Rule 201.12.

201.4 No person may cause, suffer, allow, or permit emissions of sulfur dioxide from nonferrous smelters to exceed 0.8% by volume of the total flue gas.

201.41 If a source has an effective stack height less than the standard effective stack height as determined from Table 10 and/or Curve C of Figure 5, the allowable emission rates must be reduced by multiplying it by:

$$\left( \frac{\text{Effective Stack Height}}{\text{Standard Effective Stack Height}} \right)^2$$

201.42 Effective stack height shall be calculated by the equation in Rule 201.12.

201.5 No person may cause, suffer, allow, or permit emissions of sulfur dioxide from any solid fossil fuel fired steam generator to exceed 3.0 lb. per million B.T.U. heat input. New proven technology must be applied in removing sulfur dioxide from the emission from solid fossil fuel fired steam generators when it becomes available.

201.6 No person may cause, suffer, allow, or permit emissions of sulfur dioxide from any liquid fuel fired steam generator, furnace, or heater to exceed 440 ppm, by volume.

201.61 If a source has an effective stack height less than the standard effective stack height as determined from Table 11 and/or Figure 6, the allowable emission concentration must be reduced by multiplying it by:

$$\left( \frac{\text{Effective Stack Height}}{\text{Standard Effective Stack Height}} \right)^2$$

201.62 Effective stack height shall be calculated by the equation in Rule 201.12.

201.7 No person in Galveston or Harris Counties may cause, suffer, allow, or permit emissions of sulfur dioxide from a source or sources operated on a property or multiple sources operated on contiguous properties to exceed a net ground level concentration of 0.28 ppm averaged over any 30-minute period.

201.8 No person in Jefferson or Orange Counties may cause, suffer, allow, or permit emissions of sulfur dioxide from a source or sources operated on a property or multiple sources operated on contiguous properties to exceed a net ground level concentration of 0.32 ppm averaged over any 30-minute period.

201.9 No person may cause, suffer, allow, or permit emissions of sulfur dioxide from a source or sources operated on a property or multiple sources operated on contiguous properties to exceed a net ground level concentration of 0.4 ppm averaged over any 30-minute period.

201.10 Emission rates of sulfur dioxide from sources not regulated by Rules 201.1, 201.2, 201.3, 201.4, 201.5, and 201.6 may be set by the Executive Secretary as necessary to attain ambient air quality standards.

Rule 202. Persons affected by this regulation shall be in compliance with the provisions contained herein no later than December 31, 1973. Not later than six months after the effective date of this regulation, any person affected by this regulation shall submit to the Texas Air Control Board a written report on his compliance status, including but not limited to, the minimum time required to design, procure, install and test abatement equipment or procedures. Progress reports shall be submitted to the Board every four months commencing in August of 1972 until compliance is achieved.

All persons shall continue to be governed by the provisions of Regulation III which became effective on February 22, 1968, until December 31, 1973, at which time this regulation shall supersede the previous Regulation III.

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TABLE 4

SULFURIC ACID PLANTS BURNING ELEMENTAL SULFUR  
ALLOWABLE SULFUR DIOXIDE EMISSION RATES  
FOR SPECIFIC FLOW RATES

EFFLUENT FLOW RATE	RATE OF EMISSION
scfm	lb/hr
1,000	19.8
2,000	39.6
4,000	79.2
6,000	119.0
8,000	158.0
10,000	198.0
20,000	396.0
40,000	792.0
60,000	1190.0
80,000	1580.0
100,000	1983.0

Interpolation and extrapolation of the data in this Table shall be accomplished by the use of the equation  $E = 0.0198 q$ , where E is the allowable emission rate in lb/hr and q is the stack effluent flow rate in scfm.

10,000

ALLOWABLE SO<sub>2</sub> EMISSION RATE (lb/hr)

1,000

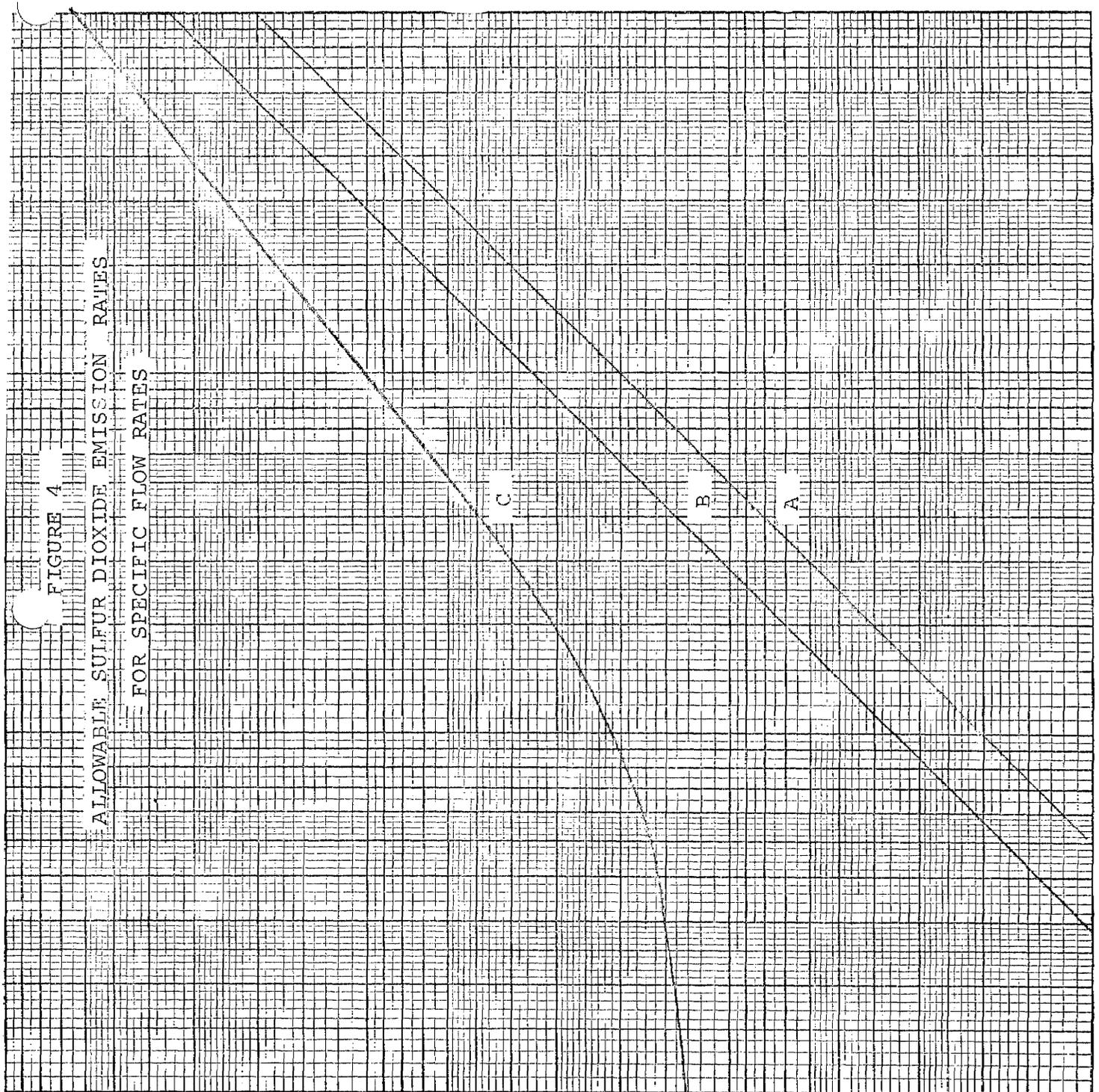
100

10

FIGURE 4

ALLOWABLE SULFUR DIOXIDE EMISSION RATES

FOR SPECIFIC FLOW RATES



100,000

10,000

1,000

STACK FLOW RATE (scfm)

TABLE 5

SULFURIC ACID PLANTS BURNING ELEMENTAL SULFUR  
STANDARD EFFECTIVE STACK HEIGHT  
BASED ON SPECIFIC FLOW RATES

EFFLUENT FLOW RATE	STANDARD EFFECTIVE STACK HEIGHT
scfm	ft
1,000	28
2,000	40
4,000	56
6,000	69
8,000	79
10,000	89
20,000	125
40,000	177
60,000	217
80,000	250
100,000	280

Interpolation and extrapolation of the data in this Table shall be accomplished by the use of the equation  $H_e = 0.885 q^{0.5}$ , where  $H_e$  is the standard effective stack height in ft. and  $q$  is the effluent flow rate in scfm.

FIGURE 5

STANDARD EFFECTIVE STACK HEIGHT  
BASED ON SPECIFIC FLOW RATES

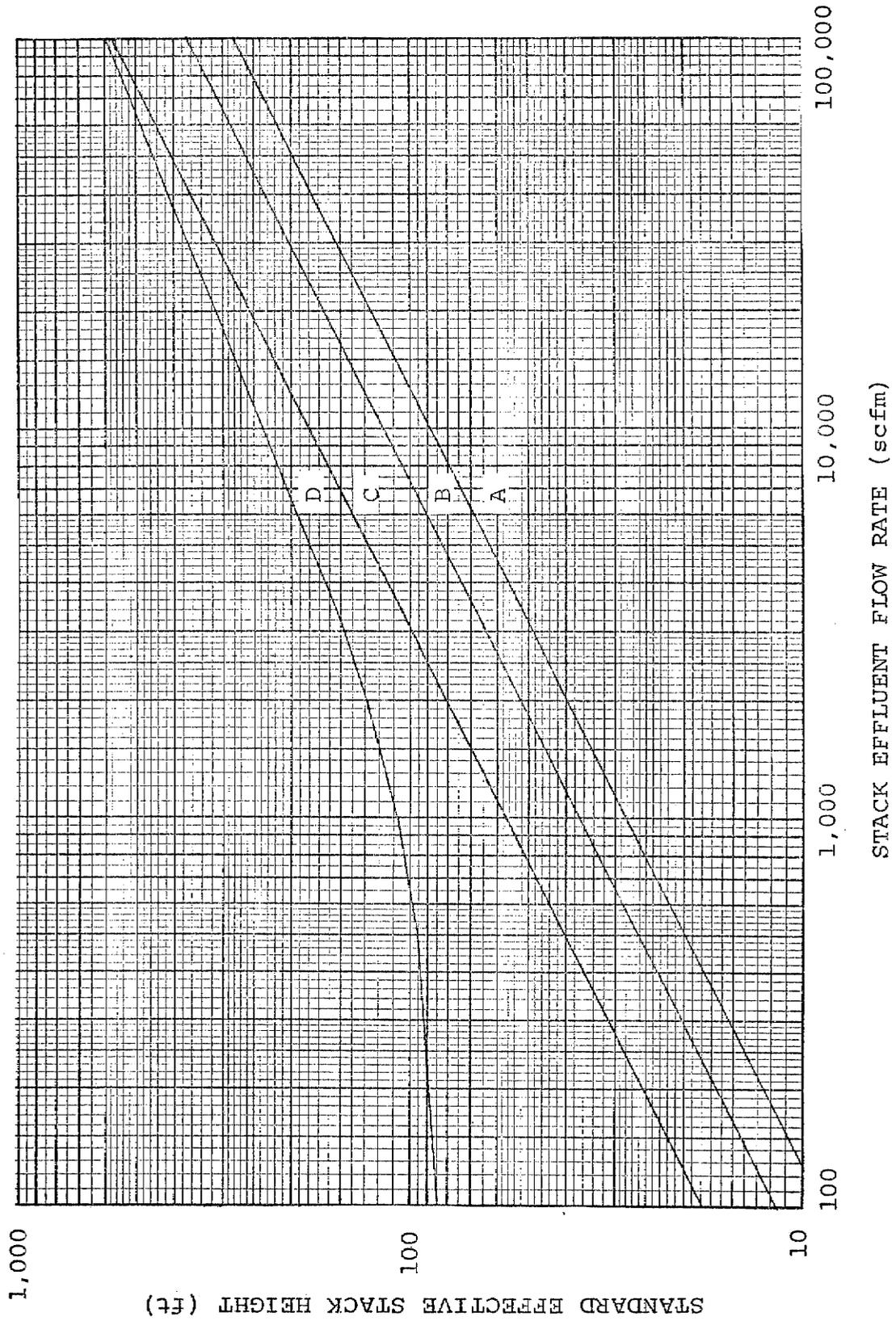


TABLE 6

SULFURIC ACID PLANTS BURNING OTHER THAN ELEMENTAL SULFUR  
ALLOWABLE SULFUR DIOXIDE EMISSION RATES  
FOR SPECIFIC FLOW RATES

EFFLUENT FLOW RATE	RATE OF EMISSION
scfm	lb/hr
1,000	34.7
2,000	69.4
4,000	138.8
6,000	208.2
8,000	277.6
10,000	347.0
20,000	694.0
40,000	1388.0
60,000	2082.0
80,000	2776.0
100,000	3470.0

Interpolation and extrapolation of the data in this Table shall be accomplished by the use of the equation  $E = 0.0347 q$ , where E is the allowable emission rate in lb/hr and q is the stack effluent flow rate in scfm.

TABLE 7

SULFURIC ACID PLANTS BURNING OTHER THAN ELEMENTAL SULFUR  
STANDARD EFFECTIVE STACK HEIGHT  
BASED ON SPECIFIC FLOW RATES

EFFLUENT FLOW RATE	STANDARD EFFECTIVE STACK HEIGHT
scfm	ft
1,000	37
2,000	52
4,000	74
6,000	91
8,000	105
10,000	117
20,000	165
40,000	234
60,000	287
80,000	331
100,000	370

Interpolation and extrapolation of the data in this Table shall be accomplished by the use of the equation  $H_e = 1.17 q^{0.5}$ , where  $H_e$  is the standard effective stack height in ft. and  $q$  is the stack effluent flow rate in scfm.

TABLE 8

## SULFUR RECOVERY PLANTS

ALLOWABLE SULFUR DIOXIDE EMISSION RATES FOR  
SPECIFIC FLOW RATES

EFFLUENT FLOW RATE	RATE OF EMISSION
scfm	lb/hr
1,000	214
2,000	305
3,000	396
4,000	487
5,000	579
6,000	670
7,000	759
8,000	845
9,000	929
10,000	1012
20,000	1766
30,000	2447
40,000	3084
50,000	3690

Interpolation and extrapolation of the data in this Table for stack effluent flow rates less than or equal to 4,000 scfm shall be accomplished by the use of the equation  $E = 123.4 + 0.091 q$ , where E is the allowable emission rate in lb/hr and q is the stack effluent flow rate in scfm. Interpolation and extrapolation of the data for stack effluent flow rates in excess of 4,000 scfm shall be accomplished by the use of the equation  $E = 0.614 q^{0.8042}$ .

TABLE 9

## SULFUR RECOVERY PLANTS

STANDARD EFFECTIVE STACK HEIGHT  
BASED ON SPECIFIC FLOW RATES

EFFLUENT FLOW RATE	STANDARD EFFECTIVE STACK HEIGHT
scfm	ft
100	85
500	96
1,000	109
2,000	129
3,000	148
4,000	164
5,000	178
6,000	192
7,000	204
8,000	215
9,000	226
10,000	236
20,000	311
30,000	366
40,000	411
50,000	450
60,000	484
80,000	544
100,000	595

Interpolation and extrapolation of the data for stack effluent flow rates less than or equal to 4,000 scfm shall be accomplished by the use of the equation  $H_e = 7.4 [123.4 + 0.091 q]^{0.5}$ , where  $H_e$  is the standard effective stack height in feet and  $q$  is the stack effluent flow rate in scfm. Interpolation and extrapolation of the data for stack effluent in excess of 4,000 scfm shall be accomplished by the use of the equation  $H_e = 5.8q^{0.402}$ .

TABLE 10

## NON FERROUS SMELTERS

STANDARD EFFECTIVE STACK HEIGHT  
BASED ON SPECIFIC FLOW RATES

EFFLUENT FLOW RATE	STANDARD EFFECTIVE STACK HEIGHT
scfm	ft
1,000	57
2,000	80
3,000	99
4,000	114
5,000	127
6,000	139
7,000	151
8,000	161
9,000	171
10,000	180
20,000	255
30,000	312
40,000	360
50,000	402

Interpolation and extrapolation of the data in this Table shall be accomplished by the use of the equation  $H_e = 1.8 q^{0.5}$ , where  $H_e$  is the standard effective stack height in ft. and  $q$  is the stack effluent flow rate in scfm.

TABLE 11

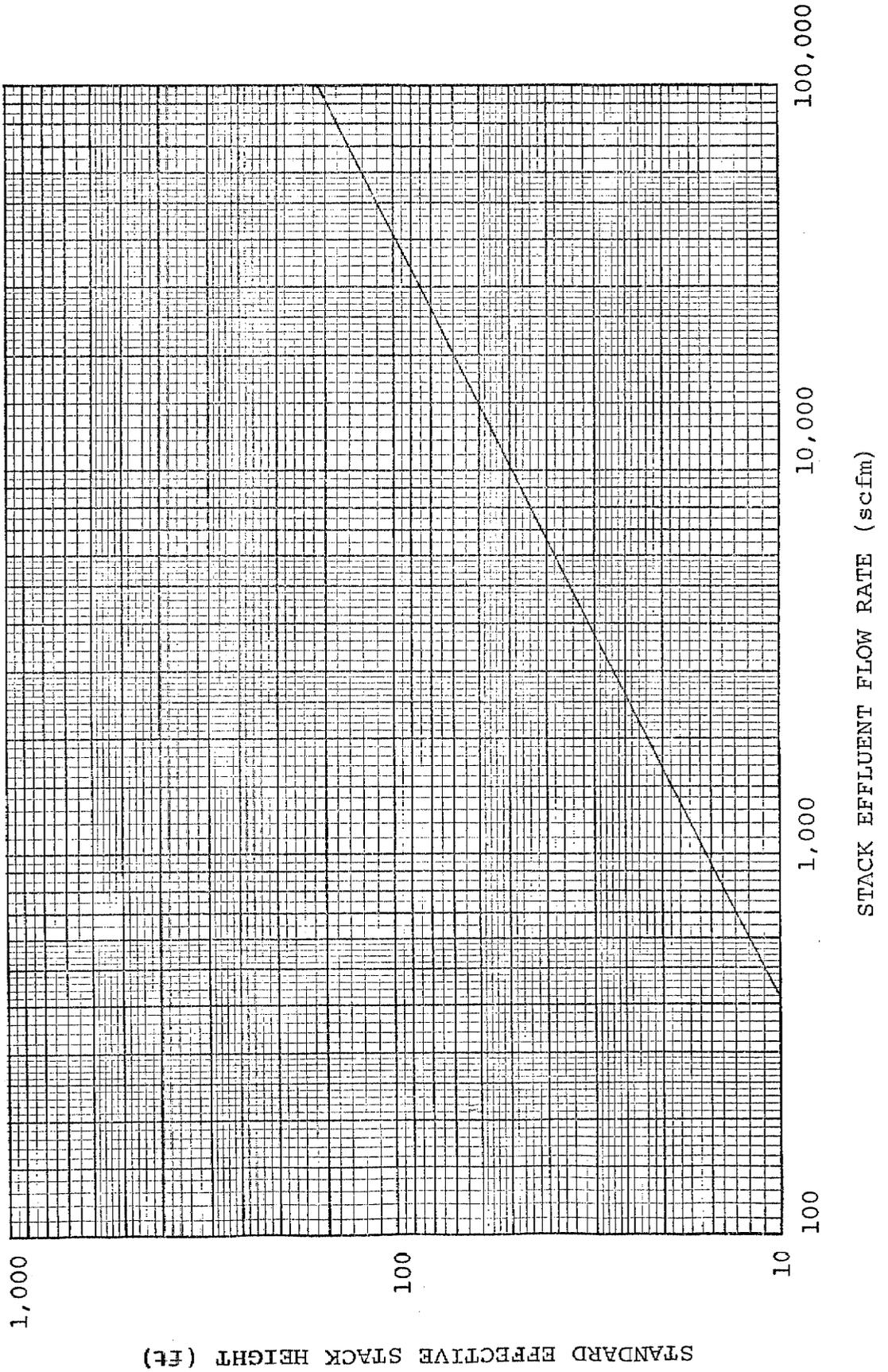
STEAM GENERATORS, BOILERS AND HEATERS BURNING  
LIQUID FUEL STANDARD EFFECTIVE STACK HEIGHT  
BASED ON SPECIFIC FLOW RATE

EFFLUENT FLOW RATE	STANDARD EFFECTIVE STACK HEIGHT
scfm	ft.
1,000	15
2,000	22
4,000	31
6,000	38
8,000	44
10,000	49
20,000	69
40,000	98
60,000	120
80,000	138
100,000	155

Interpolation and extrapolation of the data in this Table shall be accomplished by the use of the equation  $H_e = 0.49 q^{0.50}$ , where  $H_e$  is the standard effective stack height in feet and  $q$  is the stack effluent flow rate in scfm.

FIGURE 6

STANDARD EFFECTIVE STACK HEIGHT  
BASED ON SPECIFIC FLOW RATES



REGULATION IV

CONTROL OF AIR POLLUTION  
FROM MOTOR VEHICLES

- Rule 401. Maintenance and operation of air pollution control systems or devices used to control emissions from motor vehicles.
- 401.1 Any person owning or operating any motor vehicle or motor vehicle engine on which is installed or incorporated a system or device used to control emissions from the motor vehicle in compliance with Federal motor vehicle rules shall maintain the system or device in good operable condition and shall use it at all times that the motor vehicle or motor vehicle engine is operated.
- 401.2 No person may remove or make inoperable any system or device used to control emissions from a motor vehicle or motor vehicle engine or any part thereof, except where the purpose of removal of the system or device or part thereof is to install another system or device, or part thereof which is intended to be equally effective in reducing atmospheric emissions from the vehicle.
- 401.3 No person may sell any motor vehicle in the State of Texas that is not equipped with the control systems or devices that were a part of the motor vehicle or motor vehicle engine when sold by the manufacturer.
- 401.4 Any part or component of an air pollution control system or device of a motor vehicle or motor vehicle engine equipped with such air pollution control system or device in compliance with the Federal motor vehicle rules shall not be replaced with a different part or component unless such part or component is designated as a replacement for the specific make and model of the vehicle or vehicle engine.
- Rule 402. Distribution of low lead gasolines.
- 402.1 After July 1, 1974, each distributor of gasoline intended for motor vehicle use shall provide at least one grade of gasoline containing no more than 0.05 grams of lead per gallon.

Rule 403. The rules contained in this Regulation shall be in force immediately and shall supersede the previous Regulation IV of the Texas Air Control Board which became effective on February 22, 1968.

Date Adopted: January 26, 1972

Date Filed with Secretary of State: February 4, 1972

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REGULATION V

CONTROL OF AIR POLLUTION FROM VOLATILE  
ORGANIC COMPOUNDS AND CARBON MONOXIDE

- Rule 501. Regulation V shall apply only in the following counties: Bexar, Dallas, El Paso, Galveston, Harris, Nueces, and Travis. Other counties of the State will be added by the Texas Air Control Board if excessive levels of oxidants are indicated. Counties listed in Rule 501 may be deleted by the Texas Air Control Board if adequate monitoring data indicates that oxidant levels throughout the county are acceptable.
- Rule 502. Storage of Volatile Organic Compounds.
- 502.1 No person shall place, store, or hold in any stationary tank, reservoir, or other container of more than 50,000 gallons capacity any volatile organic compounds unless such tank, reservoir, or other container is a pressure tank capable of maintaining working pressures sufficient at all times to prevent vapor or gas loss to the atmosphere or is designed and equipped with one of the following vapor loss control devices:
- 502.11 A floating roof, consisting of a pontoon type, double deck type roof, or internal floating cover, which will rest on the surface of the liquid contents and be equipped with a closure seal or seals to close the space between the roof edge and tank wall. This control equipment shall not be permitted if the volatile organic compounds have a vapor pressure of 11.0 pounds per square inch absolute or greater under actual storage conditions. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.
- 502.12 A vapor recovery system, consisting of a vapor gathering system capable of collecting the volatile organic compound vapors and gases discharged and a vapor disposal system capable of processing such volatile organic vapors and gases so as to prevent their emission to the atmosphere and with all tank gauging and sampling devices gas-tight except when gauging or sampling is taking place.
- 502.13 Other equipment or means as may be approved by the Executive Secretary of the Texas Air Control Board.

502.2 No person shall place, store, or hold in any new stationary storage vessel of more than 1,000 gallons capacity, any volatile organic compound unless such vessel is equipped with a permanent submerged fill pipe or is a pressure tank as described in 502.1 or is fitted with a vapor recovery system as described in 502.12.

502.3 Crude oil and condensate storage containers are exempt from Rule 502.

Rule 503. Volatile Organic Compounds Loading Facilities.

503.1 No person shall permit the loading of volatile organic compounds from any loading facility having 20,000 gallons, or more throughput per day, averaged over any 30-day period, unless such facility is equipped with a vapor collection and disposal system, or its equivalent approved by the Executive Secretary of the Texas Air Control Board, properly installed, in good working order and in operation.

When loading is effected through the hatches of a tank truck or trailer or railroad tank car with a loading arm equipped with a vapor collecting adaptor, pneumatic, hydraulic, or other mechanical means shall be provided to force a vapor-tight seal between the adaptor and the hatch. A means shall be provided to prevent liquid drainage from the loading device when it is removed from the hatch of any tank truck, trailer, or railroad tank cars, or to accomplish complete drainage before such removal. When loading is effected through means other than hatches, all loading and vapor lines shall be equipped with fittings which make vapor-tight connections and which close automatically when disconnected.

503.2 All loading facilities for ships, barges and crude oil are exempt from Rule 503.

Rule 504. Volatile Organic Compound - Water Separation.

504.1 No person shall use any compartment of any single or multiple compartment volatile organic compound water separator which compartment receives 200 gallons or more of volatile organic compounds a day from any equipment processing, refining, treating, storing, or handling volatile organic compounds unless such compartment is equipped with one of the following vapor loss control devices, properly installed, in good working order, and in operation:

- 504.11 A container having all openings sealed and totally enclosing the liquid contents. All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.
- 504.12 A container equipped with a floating roof, or internal floating cover, which will rest on the surface of the contents and be equipped with a closure seal or seals to close the space between the roof edge and tank wall. All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.
- 504.13 A container equipped with a vapor recovery system, consisting of a vapor gathering system capable of collecting the volatile organic compound vapors and gases discharged and a vapor disposal system capable of processing such volatile organic compound vapors and gases so as to prevent their emission to the atmosphere and with all tank gauging and sampling devices gas-tight except when gauging or sampling is taking place.
- 504.14 Other equipment or means as may be approved by the Executive Secretary of the Texas Air Control Board.

504.2 Volatile organic compound-water separators used exclusively in conjunction with the production of crude oil are exempt from Rule 504.

Rule 505. Waste Gas Disposal.

- 505.1 No person shall emit a waste gas stream from any ethylene producing plant into the atmosphere under normal operating conditions unless the waste gas stream is burned properly at a temperature equal to or greater than 1300°F in a smokeless flare or a direct-flame incinerator.
- 505.2 No person shall emit a waste gas stream from any catalyst regeneration of a petroleum cracking system, basic oxygen furnace, or fluid-coking unit into the atmosphere unless the waste gas stream is properly burned at a temperature equal to or greater than 1300°F in a direct-flame incinerator or boiler.
- 505.3 No person shall emit a waste gas stream from any iron cupola into the atmosphere unless the waste gas stream is properly

burned at a temperature equal to or greater than 1300°F in an afterburner having a retention time of at least one fourth ( $\frac{1}{4}$ ) of a second, and having a steady flame that is not affected by the cupola charge and relights automatically if extinguished.

505.4 Waste gas streams from blast furnaces shall be burned in a smokeless flare or be used in one or more of the following ways:

505.41 To preheat the blast air before injection into the furnace through the tuyeres;

505.42 For steam generation;

505.43 For the heating of soaking pits;

505.44 For the underfiring of coke ovens;

505.45 For other miscellaneous heating uses.

505.5 Other methods of reducing emissions of volatile organic compounds and carbon monoxide from waste gas streams may be approved by the Executive Secretary of the Texas Air Control Board.

506. The Executive Secretary, after consultation with appropriate local agencies, may exempt specific volatile organic compounds from the application of this Regulation if it can be demonstrated that the emissions from the compound are relatively non-reactive in the formation of photochemical oxidants.

Rule 507. Persons affected by this regulation shall be in compliance with the provisions contained herein no later than December 31, 1973. Not later than 6 months after the effective date of this regulation, any person affected by this regulation shall submit to the Texas Air Control Board a written report on his compliance status, including but not limited to, the minimum time required to design, procure, install and test abatement equipment or procedures. Progress reports shall be submitted to the Board every four months commencing in September of 1972 until compliance is achieved.

Date Adopted: January 26, 1972

Date Filed with Secretary of State: February 4, 1972

Date Effective: March 5, 1972

## REGULATION VI

### CONTROL OF AIR POLLUTION BY PERMITS FOR NEW CONSTRUCTION OR MODIFICATION

- Rule 601. Section 3.27 (a) and Section 3.28 (a) of the Texas Clean Air Act require any person who plans to construct any new facility or to engage in the modification of any existing facility which may emit air contaminants into the air of this State to obtain a construction permit from the Texas Air Control Board before any actual work is begun on the facility, and to obtain an operating permit from the Texas Air Control Board in order to continue to operate the facility after a sixty day start-up period.
- Rule 602. The owner of the facility is responsible for applying for and obtaining a permit to construct and operate.
- Rule 603. Consideration for Granting a Permit to Construct and Operate.
- 603.1 In order to be granted a permit to construct, the owner of the proposed facility shall demonstrate that:
- 603.11 The proposed facility will comply with all Rules and Regulations of the Texas Air Control Board and with the intent of the Texas Clean Air Act.
- 603.12 The proposed facility will not prevent the maintenance or attainment of any ambient air quality standard.
- 603.13 The proposed facility will not cause significant deterioration of existing ambient air quality in the area.
- 603.14 The proposed facility will have provisions for measuring the emission of significant air contaminants as determined by the Executive Secretary.
- 603.15 The proposed facility will be located in accordance with proper land use planning.
- 603.16 The proposed facility will achieve the performance specified in the application for a permit to construct.
- 603.2 If the owner of the proposed facility cannot demonstrate that the facility will comply with Rule 603.16, a conditional construction permit may be granted until such time as the owner can demonstrate compliance with Rule 603.16.

603.3 In order to be granted a permit to operate the owner of the facility shall demonstrate that:

603.31 The facility is complying with the Rules and Regulations of the Texas Air Control Board and the intent of the Texas Clean Air Act.

603.32 The facility has been constructed in accordance with the requirements and conditions contained in the permit to construct.

Rule 604. Pursuant to Section 3.27 (a) of the Texas Clean Air Act, a permit to construct and a permit to operate shall not be required for those sources exempt by the Texas Air Control Board. A list of exemptions is available upon request from the Executive Secretary of the Board.

Rule 605. Persons desiring to be exempt from the permit system may apply in writing to the Executive Secretary of the Texas Air Control Board.

Rule 606. Installations exempt by the Texas Air Control Board may be required by local air pollution control agencies to receive a permit or permits from that agency, or register with that agency.

Rule 607. The rules contained in this Regulation shall be in force immediately and shall supersede the previous Regulation VI which became effective on June 17, 1971.

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Date Filed with Secretary of State: February 4, 1972

Date Effective: March 5, 1972

REGULATION VII

CONTROL OF AIR POLLUTION FROM NITROGEN COMPOUNDS

Rule 701. The state of technology for controlling nitrogen oxides (NO<sub>x</sub>) emissions from stationary sources is most uncertain. Although some improvement can be achieved in NO<sub>x</sub> emissions from gas and oil burning stationary sources at this time, it is uncertain what emission levels can be achieved with the existing stationary sources in Texas. An intense investigation is being conducted by the electric power generation industry in conjunction with the Texas Air Control Board to determine these levels. Accordingly, NO<sub>x</sub> emission standards for existing stationary sources except nitric acid manufacturing plants will not be promulgated until June 30, 1972. Until June 30, 1972, all stationary sources of NO<sub>x</sub> emissions must be operated according to procedures designed to minimize NO<sub>x</sub> emissions. These procedures must be commensurate with safety and good operating practice.

Rule 702. Nitric Acid Manufacturing.

702.1 No person may cause, suffer, allow, or permit emissions of nitrogen oxides, calculated as nitrogen dioxide, from any nitric acid manufacturing plant to exceed 600 parts per million by volume.

Rule 703. Persons affected by this regulation shall be in compliance with the provisions contained herein no later than December 31, 1973. Not later than 6 months after the effective date of this regulation, any person affected by this regulation shall submit to the Texas Air Control Board a written report on his compliance status, including but not limited to the minimum time required to design, procure, install and test abatement equipment or procedures. Progress reports shall be submitted to the Board every four months commencing in October of 1972 until compliance is achieved.

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REGULATION VIII

CONTROL OF AIR POLLUTION EMERGENCY EPISODES

Rule 801. Episode Criteria

801.1 Emergency Episode - The excessive build-up of air contaminants to a level which would, if sustained, pose an imminent and substantial endangerment to the health of persons.

801.2 Episode Criteria - The conditions by which the severity of an emergency episode is judged and which determine what action must be taken. The Executive Secretary in making such judgment shall be guided by the following criteria:

801.21 Air Pollution Forecast - An internal watch by personnel of the Texas Air Pollution Control Services that may be actuated by receipt of an Atmospheric Stagnation Advisory (ASA), or equivalent local forecast of stagnant atmospheric conditions, is in effect.

801.22 "Alert" - The level of the concentration of air contaminants at first stage when control action is to begin, necessitating the declaration of an Air Pollution Alert. First stage concentration occurs when any of the following levels is reached at the monitoring site:

Sulfur Dioxide (SO<sub>2</sub>) - 800 µg/M<sup>3</sup> (0.3 ppm),  
24-hour average

Particulate - 3.0 COHs or 375 µg/M<sup>3</sup>, 24-hour  
average

Sulfur Dioxide and Particulate Combined - product  
of sulfur dioxide ppm, 24-hour average, and COHs  
equal to 0.2 or product of sulfur dioxide -- µg/M<sup>3</sup>,  
24-hour average, and particulate µg/M<sup>3</sup>, 24-hour  
average equal to 65 x 10<sup>3</sup>

Carbon Monoxide (CO) - 17 mg/M<sup>3</sup> (15 ppm), 8-hour  
average

Oxidant (O<sub>3</sub>) - 200 µg/M<sup>3</sup> (0.1 ppm) 1-hour average

Nitrogen Dioxide (NO<sub>2</sub>) - 1130 µg/M<sup>3</sup> (0.6 ppm),  
1-hour average, 282 µg/M<sup>3</sup> (0.15 ppm), 24-hour  
average,

and meteorological conditions are such the pollutant concentrations can be expected to remain at the above levels for twelve (12) or more hours or increase unless control actions are taken.

801.23 "Warning" - The level of the concentration of air contaminants at second stage that indicates air quality is continuing to degrade and that additional control actions are necessary. The declaration of an Air Pollution Warning is necessary at second stage. Second stage concentration occurs when any one of the following levels is reached at the monitoring site:

Sulfur Dioxide (SO<sub>2</sub>) - 1,600 µg/M<sup>3</sup> (0.6 ppm), 24-hour average.

Particulate - 5.0 COHs or 625 µg/M<sup>3</sup>, 24-hour average.

Sulfur Dioxide and Particulate Combined - Product of sulfur dioxide ppm, 24-hour average and COHs equal to 0.8 or product of sulfur dioxide µg/M<sup>3</sup>, 24-hour average and particulate µg/M<sup>3</sup>, 24-hour average equal to 261 x 10<sup>3</sup>.

Carbon Monoxide (CO) - 34 mg/M<sup>3</sup> (30 ppm), 8-hour average.

Oxidant (O<sub>3</sub>) - 800 µg/M<sup>3</sup> (0.4 ppm) 1-hour average.

Nitrogen Dioxide (NO<sub>2</sub>) - 2,260 µg/M<sup>3</sup> (1.2 ppm), 1-hour average; 565 µg/M<sup>3</sup> (0.3 ppm), 24-hour average,

and meteorological conditions are such that pollutant concentration can be expected to remain at the above levels for twelve (12) or more hours or increase unless control actions are taken.

801.24 "Emergency" - The level of concentration of air contaminants at third stage that indicates air quality is continuing to degrade to the point that the most stringent controls become necessary. The declaration of an Air Pollution Emergency is necessary at third stage. Third stage concentration occurs when any one of the following levels is reached at the monitoring site:

Sulfur Dioxide (SO<sub>2</sub>) - 2,100 µg/M<sup>3</sup> (0.8 ppm),  
24-hour average.

Particulate - 7.0 COHs or 875 µg/M<sup>3</sup>, 24-hour  
average.

Sulfur Dioxide and Particulate Combined - Product  
of sulfur dioxide ppm, 24-hour average and COHs  
equal to 1.2 or product of SO<sub>2</sub> µg/M<sup>3</sup>, 24-hour  
average and particulate µg/M<sup>3</sup>, 24-hour average  
equal to 393 x 10<sup>3</sup>.

Carbon Monoxide (CO) - 46 mg/M<sup>3</sup> (40 ppm), 8-hour  
average.

Oxidant (O<sub>3</sub>) - 1,200 µg/M<sup>3</sup> (0.6 ppm), 1-hour  
average.

Nitrogen Dioxide (NO<sub>2</sub>) - 3,000 µg/M<sup>3</sup> (1.6 ppm),  
1-hour average; 750 µg/M<sup>3</sup> (0.4 ppm), 24-hour  
average,

and meteorological conditions are such that  
this condition can be expected to continue  
for twelve (12) or more hours.

Rule 802 Provisions Governing Emergency Episode Control

802.1 When the Executive Secretary determines that episode  
criteria levels will be reached, he shall make or have  
made a declaration of an Air Pollution Alert, an Air  
Pollution Warning, or an Air Pollution Emergency, and  
the owner and/or operator of an emission source shall  
upon notice put into effect the abatement strategy  
emission plans as set forth in Appendices I, II, and  
III, respectively, which are made a part of this  
Regulation, according to the following schedule:

802.11 Air Pollution Alert - When an Air Pollution  
Alert is declared, any owner and/or operator  
of an emissions source shall take Alert Level  
Actions and put into effect emission reduction  
plans as set forth in Appendix I.

802.12 Air Pollution Warning - When an Air Pollution  
Warning is declared, any owner and/or operator  
of an emissions source shall take Warning  
Level Actions and put into effect emission  
reduction plans as set forth in Appendix II.

802.13 Air Pollution Emergency - When an Air Pollution  
Emergency is declared, any owner and/or operator  
of an emission source shall take Emergency level  
actions and put into effect emission reduction  
plans as set forth in Appendix III.

802.2 In the event a specified criteria level has been reached at one or more monitoring sites solely because of emissions from a limited number of sources, these sources shall be notified that the emission reduction plans of Appendices I, II, and III, or standby plans, are required to be put into effect until the criteria of the specified levels no longer apply.

802.3 Enforcement - The Governor or any other properly designated official shall have the authority to declare an air pollution episode in accordance with Rule 801.2. The power to declare an emergency, to act on the basis of that declaration, and to take applicable enforcement measures is set forth in Section 3.14 (c) and Sub-Chapter D of the Texas Clean Air Act.

Rule 803. Compliance Schedule

803.1 Any owner and/or operator of a stationary source emitting 100 tons or more of any air contaminant per year shall submit in writing to the Executive Secretary, no later than 90 days after the adoption of this regulation, an emission reduction plan and monitoring schedule pertaining to his particular source in accordance with the objectives of Appendices I, II, and III, and Rule 802 herein. The emission reduction plan shall contain a statement as to the percent of reduction expected to be attained by implementation of each phase according to the Appendices. Each emission reduction plan, when approved by the Executive Secretary, shall be binding as of the effective date of this Rule. If an emergency episode should occur before the effective date, the sources affected by Rule 803.1 will be requested to take voluntary abatement action to reduce emissions during the emergency episode. If a request for voluntary curtailment of emissions does not result in reduction of the emissions, the Executive Secretary shall take the actions provided for in Section 3.14 of the Texas Clean Air Act to reduce or discontinue immediately the emission of air contaminants.

803.2 Any owner and/or operator responsible for the operation of a source of air contaminants emitting less than 100 tons per year may be notified in writing by the Board or the Executive Secretary of the requirements of this regulation and shall be required to submit in writing to the Executive Secretary emission reduction plans designed to reduce or eliminate emissions pertaining to his

particular source in accordance with the objectives of Appendices I, II, and III, and Rule 803 herein. Each reduction plan shall be submitted 90 days after request. When approved by the Executive Secretary, the plan shall be binding. If an emergency episode should occur prior to the Executive Secretary's request, the sources affected by this Rule 803.2 may be requested to take voluntary abatement action to reduce emissions during the emergency episode. If a request for voluntary curtailment of emissions does not result in the reduction of the emissions, the Executive Secretary shall take the actions provided for in Sec. 3.14 of the Texas Clean Air Act to reduce or discontinue immediately the emission of air contaminants.

Rule 804. An Operations Manual for Emergency Episodes

Detailed procedures for public notification of impending (and actual) ASA's, Alert, Warning, and Emergency Phases; actions required by Texas Air Pollution Control Services personnel and local air pollution control personnel; notification of public officials; transmission of information to contiguous states as required will be made, upon publication, a part of this regulation.

Rule 805. The rules contained in this regulation shall be in force immediately.

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APPENDIX I

ABATEMENT STRATEGIES FOR EMISSION REDUCTION PLANS

ALERT LEVEL

Part A. GENERAL

1. There shall be no open burning by any persons of tree waste, vegetation, refuse, or debris in any form.
2. The use of incinerators for the disposal of any form of solid waste shall be limited to the hours between 12:00 noon and 4:00 p.m. except where the incinerator is an anti-pollution device integral in a process allowed to operate under "Source Curtailment" sections.
3. Persons operating fuel-burning equipment which required boiler lancing or soot blowing shall perform such operations only between the hours of 12:00 noon and 4:00 p.m.
4. Persons operating motor vehicles should eliminate all unnecessary operations.

Part B. SOURCE CURTAILMENT

Any person responsible for the operation of a source of air pollutants listed below shall take all required control actions for this Alert Level.

<u>Source of Air Pollution</u>	<u>Control Action</u>
1. Coal or oil-fired electric power generating facilities.	<ol style="list-style-type: none"><li>a. Substantial reduction by utilization of fuels having low ash and sulfur content.</li><li>b. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.</li><li>c. Substantial reduction by diverting electric power generation to facilities outside of Alert Area.</li></ol>

APPENDIX II

ABATEMENT STRATEGIES FOR EMISSION REDUCTION PLANS

WARNING LEVEL

Part A. GENERAL

1. There shall be no open burning by any persons of tree waste, vegetation, refuse, or debris in any form.
2. The use of incinerators for the disposal of any form of solid waste shall be prohibited except where the incinerator is an anti-pollution device integral in a process allowed to operate under "Source Curtailment" sections.
3. Persons operating fuel-burning equipment which requires boiler lancing or soot blowing shall perform such operations only between the hours of 12:00 noon and 4:00 p.m.
4. Persons operating motor vehicles must reduce operations by the use of car pools and increased use of public transportation and elimination of unnecessary operation.

Part B. SOURCE CURTAILMENT

Any person responsible for the operation of a source of air pollutants listed below shall take all required control actions for this Warning Level.

Source of Air Pollution

Control Action

- |  |   |
|--|---|
| 1. Coal or oil-fired electric power generating facilities. | a. Maximum reduction by utilization of fuels having lowest ash and sulfur content.                                      |
|  | b. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing. |
|  | c. Maximum reduction by diverting electric power generation to facilities outside of Warning Area.                      |

- c. Maximum reduction of heat load demands for processing.
- d. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing or soot blowing.

### APPENDIX III

#### ABATEMENT STRATEGIES FOR EMISSION REDUCTION PLANS

##### EMERGENCY LEVEL

###### Part A. GENERAL

1. There shall be no open burning by any persons of tree waste, vegetation, refuse, or debris in any form.
2. The use of incinerators for the disposal of any form of solid or liquid waste shall be prohibited except where the incinerator is an anti-pollution device integral in a process allowed to operate under "Source Curtailment" sections.
3. All places of employment described below shall immediately cease operations.
  - a. Mining and quarrying of nonmetallic minerals.
  - b. All construction work except that which must proceed to avoid emergent physical harm.
  - c. All manufacturing establishments except those required to have in force an air pollution emergency plan.
  - d. All wholesale trade establishments; i.e., places of business primarily engaged in selling merchandise to retailers, or industrial, commercial, institutional or professional users, or to other wholesalers, or acting as agents in buying merchandise for or selling merchandise to such persons or companies, except those engaged in the distribution of drugs, surgical supplies and food.
  - e. All offices of local, county, and State government including authorities, joint meetings, and other public bodies excepting such agencies which are determined by the chief administrative officer of local, county, or State government, authorities, joint meetings and other public bodies to be vital for public safety and welfare and the enforcement of the provisions of this order.
  - f. All retail trade establishments except pharmacies, surgical supply distributors, and stores primarily engaged in the sale of food.
  - g. Banks, credit agencies other than banks, securities and commodities brokers, dealers, exchanges and services; offices of insurance carriers, agents and brokers, real estate offices.

2. Coal and oil-fired process steam generating facilities.
  - a. Maximum reduction by reducing heat and steam demands to absolute necessities consistent with preventing equipment damage.
  - b. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.
  - c. Taking the action called for in the emergency plan.
  
3. Manufacturing industries of the following classifications:
  - Primary Metals Industries.
  - Petroleum Refining.
  - Chemical Industries.
  - Mineral Processing Industries.
  - Grain Industry.
  - Paper and Allied Products
  - a. Elimination of air pollutants from manufacturing operations by ceasing, curtailing, postponing or deferring production and allied operations to the extent possible without causing injury to persons or damage to equipment.
  - b. Elimination of air pollutants from trade waste disposal processes which emit solid particles, gases, vapors, or malodorous substances.
  - c. Maximum reduction of heat load demands for processing.
  - d. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing or soot blowing.