

ORDINANCE NO. 7508

AN ORDINANCE ESTABLISHING STANDARDS FOR INDUSTRIAL FURNACES OR BOILERS THAT BURN HAZARDOUS WASTE AS A FUEL OR FOR THE PURPOSE OF DESTRUCTION AND AMENDING ORDINANCE #3522 BEING ENTITLED "AN ORDINANCES TO REGULATE SMOKE AND CONTROL AIR QUALITY WITHIN THE CITY OF HAMMOND, INDIANA" PASSED BY THE COMMON COUNCIL ON THE 23RD DAY OF JANUARY 1967 AND APPROVED BY THE MAYOR ON THE 30TH DAY OF JANUARY 1967, AND AMENDING ORDINANCE #4621 BEING ENTITLED "AN ORDINANCE SETTING FEES FOR AIR POLLUTION CONTROL PERMITS WITHIN THE CITY OF HAMMOND, INDIANA PASSED BY THE COMMON COUNCIL ON THE 23RD DAY OF JUNE 1980 AND APPROVED BY THE MAYOR ON THE 24TH DAY OF JUNE 1980, AND AMENDING ORDINANCE #7102 BEING ENTITLED "AN ORDINANCE ESTABLISHING A DEPARTMENT OF ENVIRONMENTAL MANAGEMENT WITH AN AIR POLLUTION CONTROL DIVISION AND A SOLID WASTE, WATER AND NOISE POLLUTION DIVISION IN THE CITY OF HAMMOND, INDIANA" PASSED BY THE COMMON COUNCIL ON THE 19TH DAY OF DECEMBER 1988 AND APPROVED BY THE MAYOR ON THE 21ST DAY OF DECEMBER 1988. (AS AMENDED)

BE IT ORDAINED by the Common Council of the City of Hammond, Indiana:

SECTION 1.

That Article III Section 3.2 of Ordinance 7102 is hereby amended to include the following, and Article VI 6.15 of Ordinance 3522 is hereby amended to include a new Section to read as follows:

Section 6.15

Standards for Industrial Furnaces or Boilers that Burn Hazardous Waste as a Fuel or for the Purpose of Destruction.

SECTION 2. DEFINITIONS

A. "Waste Derived Fuel" is any solid, liquid, or gaseous substance consisting of, containing, or derived from, a

waste substance (s) or material (s) including, but not limited to: waste defined as hazardous waste by the United States Environmental Protection Agency, or the Indiana Department of Environmental Management, or is classified, listed or manifested as a waste or hazardous waste substance or material by the State where the substance or material originated from, or Hammond Ordinance No. 4686, or Industrial Waste as defined by Hammond Ordinance No. 4290, or chemicals solvents, spent halogenated solvents, paints, varnishes, animal fats, contaminated waters, synthetically produced oils, oils derived from coal, animal or vegetable oils, automotive crankcase oil, other automotive liquids, gasoline

and oil truck and barge residues, oil spill clean-up  
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residues, oils recovered from wastewater treatment, metalworking oils, lubricating oils, turbine lubricating oils, diesel engine lubricating oils, quenching oils, hydraulic fluids, dielectric fluids, tars, and by-products or off-specification products from any manufacturing process.

B. "Equipment" means any fuel burning, fuel treatment, energy recovery, combustion, process, heat recovery, thermal treatment, or incineration device with a rated heat input of 250,000 Btu's per hour or greater, that utilizes Waste Derived Fuels.

C. "Utilize(s)" means to burn, use, treat, recover the heat or energy from, or to dispose of, in any manner.

### SECTION 3. DESTRUCTION AND REMOVAL EFFICIENCY, ACCEPTABLE AMBIENT LEVELS

A. No person shall utilize any waste derived fuel and/or equipment regulated by this Ordinance unless the following conditions, and the other requirements of this Ordinance, are met:

1. For all equipment utilizing waste derived fuels, regulated by this Ordinance, the Destruction and Removal Efficiency shall be 99.9999 percent (%) for all organic hazardous constituents in the waste derived fuel.

2. The predicted ambient concentrations are the maximum annual average off-site ground level exposures to any air contaminant. The predicted ambient concentrations shall be determined by stack testing in conjunction with air dispersion modelling. Other estimation methods may be employed in lieu of stack test data if approved by the Chief.

3. The Acceptable Ambient Level (A.A.L.) for any air pollutant or air contaminant is the predicted ambient concentration which satisfies the following requirements:  
a. For carcinogenic compounds, the ratio of the predicted ambient concentrations to the Risk-Specific Dose (RSD) given in Appendix V of 40 CFR Part 266 must be calculated for each compound. The sum of these ratios cannot exceed 1.0 (see equation below);

$$1.0 \leq \sum_{i=1}^n \frac{\text{Predicted Ambient Concentration (i)}}{\text{Risk Specific Dose (i)}}$$

Where: n = total number of carcinogenic compounds being fed to the furnace.

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b. For noncarcinogenic compounds, the predicted ambient concentrations cannot exceed the RAC specified in Appendix IV of 40 CFR Part 266; and

c. For other 40 CFR Part 261, Appendix VIII hazardous constituents, the predicted ambient concentration cannot exceed 0.1 micrograms per cubic meter or the Threshold Limit Value (TLV) established by the American Conference of Government Industrial Hygienists (A.C.G.I.H.) divided by a factor of 420, whichever is more stringent.

#### SECTION 4. DIFFUSION MODELLING, PERMITS, RISK ASSESSMENT

A. Any person who utilizes any waste derived fuel and/or equipment regulated by this Ordinance shall conduct an Ambient Air Diffusion Screening Model to ensure that the emissions from the waste derived fuel and/or equipment does not result in an excessive ambient air concentration of any air contaminant. Such Ambient Air Diffusion Screening Modeling shall be conducted under worst case conditions (both operating and meteorological) using a diffusion model guidance found in Guidelines for Air Quality Maintenance Planning and Analysis, Volume 10R: Procedures for Evaluating Air Quality Impact of New Stationary Sources. U.S.E.P.A. Publication No. EPA 450/4-77-001. An excessive ambient air concentration shall occur when the concentration estimates from screening techniques indicate that the Prevention of Significant Deterioration (PSD) increment or National Ambient Air Quality Standards (NAAQS) may be approached or exceeded or the Acceptable Ambient Level (A.A.L.) may be approached or exceeded. If an excessive ambient air concentration occurs, then a more refined modelling analysis is appropriate and the model shall be one acceptable to the Chief. The Chief shall use the Guideline on Air Quality models (Revised) as described in Appendix X of 40 CFR Part 266 in establishing criteria for demonstrating that a model is not applicable.

For sources utilizing waste derived fuels prior to the effective date of this Ordinance, all modelling shall be completed and submitted to the Hammond Department of Environmental Management - Air Pollution Control Division no later than 180 days after the effective date of this Ordinance. All modelling required under this Section shall be at the expense of the owner or operator of the equipment.

B. Any installation Permit request submitted after the effective date of this Ordinance for equipment utilizing any waste

derived fuel(s), shall contain an Ambient Air Diffusion Model. The Ambient Air Diffusion Model shall be supplied by the Applicant, and shall be at the Applicants expense and

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shall follow the same requirements found in Section 4.A. of this Ordinance, except it shall be submitted with the Installation Permit request.

C. Prior to any Operation Permit being issued under this Ordinance for any equipment utilizing any waste derived fuel(s), the Applicant shall be required to provide the Chief with an Ambient Air Diffusion Model to ensure that the emissions from the waste derived fuels and/or equipment does not result in any excessive ambient air concentrations of any air contaminant. The Ambient Air Diffusion Model shall be supplied by the Operation Permit Applicant and be prepared at the Applicant's expense and shall have the same requirements found in Section 4.A. of this Ordinance.

The Air Diffusion Modelling required by this Ordinance shall be verified by at least four (4) ambient air monitoring sites (locations) that have the predicted highest maximum concentration of particulate, gaseous and/or toxic air pollutants emitted by the equipment regulated by this Ordinance.

The ambient air monitoring required by this Section shall be at the applicants or permit holders expense and shall remain in effect until the equipment regulated by this Ordinance ceases to operate. The Chief shall determine which ambient air contaminants that shall be monitored. All of the ambient air monitoring data gathered by this Section shall be submitted monthly to the Hammond Department of Environmental Management - Air Pollution Control Division no later than 15 days following the month during which the data was generated. The ambient air monitoring required by this Section shall be functioning within 180 days of the effective date of this Ordinance for

existing sources and within 180 days after the issuance of an Operation Permit for new sources.

D. A Risk Assessment shall be conducted by a company or organization, not affiliated with the Applicant, and shall be prepared for each Installation and/or Operation Permit required for any equipment utilizing any waste derived fuels. A Risk Assessment shall be required with each Installation Permit request for a new sources utilizing waste derived fuels. The Risk Assessment shall be required within 180 days of the effective date of this Ordinance for existing sources utilizing waste derived fuels. The company or organization preparing the Risk Assessment for the Applicant shall adhere to the "Guidelines for Carcinogen Risk Assessment" found in Federal Register volume 51 Number 185 beginning with page

33992 dated September 24, 1986. The acceptable ambient air risk shall be the Acceptable Ambient Level (A.A.L.) established in Section 3 of this Ordinance. Also, an

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Acceptable Risk shall be the risk of increased lifetime cancer for the most exposed individual (a hypothetical person assumed to reside at the point of maximum, off-site, ground-level impact, assumed to weigh 154 pounds and to be continuously exposed (24 hour per day) to air contaminants over a 70-year lifetime), which is greater than 1 in 1,000,000. If a proposed source exceeds the A.A.L. or the Acceptable Risk then no Installation Permit can be issued. Those existing sources that utilize waste derived fuels and fail to meet the A.A.L. or the Acceptable Risk, shall be in violation of this Section and shall have their Operation Permit revoked.

E. Any equipment that utilized waste derived fuels shall, within 180 days of the issuance of an Operation Permit, begin a Health Screening and Assessment for those Hammond residents located within a one half mile radius of the maximum exposed individuals location. The Health Screening and Assessment required shall be comprised of 20 persons

who agree to participate in the Health Screening Evaluation. The Health Screening and Assessment shall be paid for by the owner or operator holding an Operation Permit to utilize waste derived fuels. The screening shall take the form, at a minimum, of an annual baseline physical, identical to those performed annually on Hammond Fire Department Hazardous Material Responders. The health Screening and Assessment shall also include any additional requirements or tests prescribed by the board of the Hammond Health Department, which shall adopt a complete Screening and Assessment protocol within 90 days of the effective date of this Ordinance. The Board of the Hammond Health Department shall report to the Common Council and Mayor annually, on or before January 20 of each calendar year on the results of the Health Screening and Assessment required by this Ordinance. No person participating in this health Screening program shall be identified by name in the Board's reports but only as to medical findings.

#### SECTION 5. SAMPLING AND ANALYSIS

##### A. Sampling - Tank

1. For a tank with a capacity of 1,000 gallons or less, a representative sample of waste derived fuel shall consist of at least a single sample of sufficient volume and weight for all analyses required by the Chief. Single samples shall be taken from each tank at a level of fifty percent (50%) of the liquid height from the bottom of the tank.

2. For a tank with a capacity of greater than 1,000 gallons, a representative sample of waste derived fuel shall

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consist of a composite sample taken in a manner acceptable to the Chief. A single sample taken in accordance with Section 5(A) shall constitute a composite sample only where the owner or operator can demonstrate to the Chief that the contents of the tank were sufficiently agitated prior to and during the taking of the sample.

## B. Analysis

1. The analysis of the representative sample of waste derived fuel required by this Ordinance shall be conducted using the methods specified by the Chief for such analysis.
2. Such sampling and analysis shall be done at the owner or operators expense.

## C. Stack Testing

1. A boiler or industrial furnace burning waste derived fuel must achieve a destruction and removal efficiency (DRE) of 99.9999% for all organic hazardous constituents in the waste feed. To demonstrate conformance with this requirement, 99.9999% DRE must be demonstrated during a trial burn for each principal organic hazardous constituent (POHC) designated in paragraph j of this section. The equation for calculating the DRE is given in 40 CFR Section 266.104(a). The stack emission test methods shall be those established by the U.S.E.P.A. and shall contain the following elements:

a. An analysis of each waste or mixture of wastes to be burned which includes:

1. heat value of the waste in the form and composition in which it will be burned.
2. Viscosity (if applicable), or description of the physical form of the waste.

b. An identification of any hazardous organic constituents.

c. An approximate qualification of the hazardous constituents identified in the waste.

d. A detailed engineering description of the furnace for which the permit is sought.

e. A detailed description of sampling and monitoring procedures.

f. A detailed test schedule for each waste for which the



trial burn is planned including date(s), duration,

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quantity of waste to be burned, and other relevant factors.

g. A detailed test protocol, including, for each waste identified, the ranges of temperature, waste feed rate, combustion gas velocity, use of auxiliary fuel, and any other relevant parameters that will be varied to affect the destruction and removal efficiency of the furnace.

h. A description of, and planned operating conditions for, any emission control equipment which will be used.

i. Procedures for rapidly stopping waste feed, shutting down the incinerator, and controlled emissions in the event of an equipment malfunction.

j. One or more POHCs shall be designated by the owner and/or operator for each waste feed to be burned at the facility. POHCs shall be designated based on the degree of difficulty of destruction of the organic constituents in the waste and on their concentrations or mass in the waste feed considering the results of the waste analysis data in the trial burn plan. All POHCs selected for use during the trial burn must be approved by the Chief.

k. During the trial burn (or as soon after the burn as is practical), the applicant must make the following determinations:

1. A quantitative analysis of the trial POHCs in the waste feed to the incinerator.
2. A quantitative analysis of the exhaust gas for the concentration and mass emissions of the trial POHCs, oxygen (O<sub>2</sub>) and hydrogen chloride (HCl).
3. A quantitative analysis of the scrubber water (if any), ash residues, and other residues, for the purpose of estimating the fate of the trial POHC's.
4. A computation of destruction and removal efficiency (DRE).
5. If the HCl emission rate exceeds 1.8 kilograms of HCl per hour (4 pounds per hour), a computation of HCl removal efficiency.

6. A computation of particulate emissions.
7. An identification of sources of fugitive emissions and their means of control.
8. A measurement of average, maximum and minimum temperatures and combustion gas velocity.
9. A continuous measurement of carbon monoxide (CO) in the exhaust gas.
10. Such other information as necessary to ensure that the trial burn will determine compliance with the performance standards.

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1. The equipment shall be operating at maximum design capacity during the stack test utilizing the maximum volume of waste derived fuel specified in the Installation or Operation Permit Application. The boiler or industrial furnace shall be operated at its minimum allowable operating temperature during the test.

m. All sampling and analysis required by this Subsection shall be done according to currently approved U.S.E.P.A. methods.

All stack emission test costs shall be borne by the owner and/or operator shall be conducted within 90 days of the completion of construction of the equipment, or after the Installation Permit expires (one year after it is issued), which ever occurs first.

2. For equipment that currently possesses an Operation Permit, a stack emission test shall be required for the purpose of determining the Destruction and Removal Efficiency of 99.9999% required by this Ordinance. The stack emission test methods shall be the same specified in Section 5.C. The stack emission test costs shall be borne by the owner and/or operator of the equipment. The stack emission test shall be conducted within 180 days of the effective date of this Ordinance. Additional stack emission testing to demonstrate continued compliance with the 99.9999% Destruction and Removal Efficiency shall also be performed during each odd number calendar year (using the last digit of the calendar year to determine odd or

even) during which an Operation Permit is issued for equipment regulated by this ordinance.

3. A boiler or industrial furnace which burns waste derived fuel must demonstrate compliance with metals emissions limitations required by SECTION 3 of this Ordinance.

a. During this compliance test, the owner and/or operator will feed test solutions containing predetermined amounts of the carcinogenic and toxic metals listed in 40 CFR 266.106. Procedures for determining the amounts of the metals to be fed to the boiler or industrial furnace during the test are given in 40 CFR Section 266.106(e). The feed rates of the individual metals during the compliance test will become the maximum allowable metals feed rates provided the conditions described in SECTION 3 of this Ordinance are satisfied.

b. Emission testing for metals shall be conducted using the Multiple Metals Train as described in Appendix IX of 40 CFR part 266.

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c. The compliance test shall be conducted while operating the boiler or industrial furnace at its maximum production rate an maximum allowable operating temperature.

D. All sampling and analysis required by this Subsection shall be done according to currently approved U.S.E.P.A. methods.

#### SECTION 6. OPERATIONAL REQUIREMENTS

A. No waste derived fuel shall be utilized during the start-up or shut down of any equipment covered by this Ordinance. No waste derived fuel which contains POHCs with lower heats of combustion or a higher ranking on the thermal stability index than the POHCs used in the trial burn may be utilized in the boiler or industrial furnace.

B. The owner or operator of any equipment utilizing the waste derived fuel regulated by this Ordinance shall submit, to the Chief, a report that includes the following information based upon the previous one (1) month calendar period:

1. A detailed chemical description of each waste derived fuel being utilized.
2. The total volume of each fuel utilized and/or waste derived fuel burned at each date and time.
3. A copy of each waste manifest representing waste derived fuels to be utilized in the equipment regulated by this Ordinance.

C. The Chief shall place conditions on the Operation Permit of any source utilizing waste derived fuels. Such conditions shall include, but not be limited to: monitoring and reporting process parameters, requiring the owner or operator to conduct inspections and record those inspections, establish feed rates, require the analysis of the waste derived fuels and residues, require ambient air monitoring, require in-stack monitoring, establish process emission limits both instantaneous, hourly, etc., control fugitive process emissions, and any other related requirements as determined by the Chief.

D. The Chief shall require continuous in-stack monitors to measure those air contaminants that represent either a potential danger to the public or are considered key indicators of the performance of the destruction of the waste derived fuels utilized in the equipment regulated by this Ordinance. Said data and reports required by this Section shall be submitted by the owner or operator of the company utilizing waste derived fuels to the Hammond Department of Environmental Management - Air Pollution Control Division

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monthly, no later than 15 days after the end of the month.

## SECTION 7. CITIZENS ADVISORY COMMITTEE

A Citizens Advisory Committee (C.A.C.) is hereby created to advise the Common Council and the Mayor on the need to monitor and evaluate the risks and health impact related to sources that utilize waste derived fuels in the City. The C.A.C. shall be comprised of fifteen members, unless the Common Council or Mayor fail to name their respective appointees.

Within 30 days of the effective date of this Ordinance the Mayor and Common Council shall each appoint three (3) members to the C.A.C. If either the Mayor or Common Council fails to make their appointments within the prescribed time then their appointments are forfeited and lost.

There shall be six (6) citizen representatives from the Councilmanic District where the equipment utilizing waste derived fuels is located and three (3) At-Large citizen representatives who shall represent the entire City of Hammond on the C.A.C., in addition to those persons appointed by the Common Council and the Mayor. Citizen members, as well as Mayor and Councilmanic appointees shall be residents of the City of Hammond. Citizen seeking a seat on the C.A.C. shall circulate a petition, prepared by the Common Council Attorney, in the Councilmanic District in which both they and the source proposing to utilize waste derived fuels, or a source currently utilizing waste derived fuels, is located. Said petition shall contain the name, address and phone number of each petition signator. Citizen At-Large representatives shall circulate petitions throughout the City of Hammond. Each District or At-large petition shall be circulated by a prospective C.A.C. member for a period of 45 days beginning the day after the effective date of this Ordinance. All petitions then shall be submitted at the end of the 45 days, in duplicate, to the Hammond City Clerk for authentication. The Hammond City Clerk shall report to the Council on the six (6) District and three (3) At-Large petitions with the largest number of authenticated signatures. Said certification

report shall be forwarded to the Council within 30 days after the 45 day petition circulation period has terminated. Said District and At-Large citizen representatives shall be notified by mail within 10 days of certification by the Hammond City Clerk of their membership on the C.A.C.

A Chairperson shall be elected at the first meeting of the C.A.C. which shall occur within 30 days after the District and At-large citizen members are certified. The first C.A.C. meeting shall be initially scheduled and presided over by the President of the Hammond City Council. Once a Chairperson has been elected, that Chairperson shall preside over the C.A.C. activities. A Secretary

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shall also be elected. Subsequent meetings shall be monthly, the date and time set by majority vote. Chairpersons shall serve a one year term. All meetings shall be open to the public and follow Roberts Rules of Order.

Further, said Advisory Committee shall report all of its minutes, findings, and recommendations to the Common Council and Mayor within 5 days of each meeting.

#### SECTION 8. PENALTIES

Whoever violates any provisions of this Ordinance shall be fined not more than \$2,500.00 per offense. Every day a violation occurs shall constitute a separate offense.

#### SECTION 9. SEVERABILITY

If any part or parts, section or subsection, sentence, clause, or phrase of this Ordinance, as now or later amended, for any reason is declared unconstitutional or invalid, the decision shall not affect the validity of the remaining portions of this Ordinance.

#### SECTION 10. EFFECTIVE DATE

This Ordinance shall be in full force and effect immediately after its passage, signed by the President of the Common Council, approved by the Mayor and publication according to law.

/S/ JOSEPH ZUBRENIC JR.  
VICE PRESIDENT  
HAMMOND COMMON COUNCIL

ATTEST:

/S/ GERALD BOBOS  
GERALD BOBOS, CITY CLERK

VETOED by the Mayor on the 20th day of August, 1992.

/S/ THOMAS M. McDERMOTT  
THOMAS M. McDERMOTT, Mayor

PASSED by the Common Council of the City of Hammond, Indiana, on the 10th day of August, 1992, presented to the Mayor for his approval or rejection and VETOED by the Mayor on the 20th day of August, 1992.

/S/ GERALD BOBOS  
GERALD BOBOS, CITY CLERK

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Presented to the Common Council on August 24th, 1992 for consideration of override of Mayor's veto of Ordinance Number 7508. Mayor's veto OVERRIDDEN by the Council on the 24th day of August, 1992.

/S/ JOSEPH ZUBRENIC JR.  
JOSEPH ZUBRENIC, JR.  
HAMMOND COMMON COUNCIL

ATTEST: GERALD BOBOS

GERALD BOBOS, CITY CLERK