

217/785-1705

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)

PERMITTEE

Illinois Marine Towing, Inc.
Attn: Cindy Van Duyne
800 Jackson Avenue, Suite B
Mandeville, Louisiana 70448

Application No.: 09120009

I.D. No.: 031462AAM

Applicant's Designation:

Date Received: December 4, 2009

Subject: Shipyard - Barge Gas Freeing

Date Issued: December 18, 2012

Expiration Date: December 18, 2022

Location: 16600 Des Plaines River Road and 15330 Canal Bank Road, Lemont,
Cook County, 60439

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of:

Des Plaines River Road:

Barge Venting System; and
Four (4) 3,500 Gallon Waste Tanks

Canal Bank Road:

Barge Gas Freeing/Cleaning; and
Four (4) 3,500 Gallon Product Storage Tanks

pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued:
 - i. To limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 100 tons/year for Volatile Organic Material (VOM), 10 tons/year for any single Hazardous Air Pollutant (HAP), and 25 tons/year for any combination of such HAPs)). As a result, the source is excluded from the requirements to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit are described in Attachment A.
 - ii. To establish federally enforceable production and operating limitations, which restrict the potential to emit for VOM to less than 25 tons per year so that the source is not subject to the requirements 35 Ill. Adm. Code Part 218 Subpart TT (Other Emission Units).
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permit(s) for this location.

2. Pursuant to 35 Ill. Adm. Code 212.301, no person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.
- 3a. Pursuant to 35 Ill. Adm. Code 218.122(a), no person shall cause or allow the discharge of more than 3.6 kg/hour (8 lbs/hour) of organic material into the atmosphere during the loading of any organic material from the aggregate loading pipes of any loading area having through-put of greater than 151 cubic meters per day (40,000 gallons/day) into any railroad tank car, tank truck or trailer unless such loading area is equipped with submerged loading pipes or a device that is equally effective in controlling emissions and is approved by the Illinois EPA according to the provisions of 35 Ill. Adm. Code 201, and further processed consistent with 35 Ill. Adm. Code 218.108.
- b. Pursuant to 35 Ill. Adm. Code 218.122(b), no person shall cause or allow the loading of any organic material into any stationary tank having a storage capacity of greater than 946 liters (250 gallons), unless such tank is equipped with a permanent submerged loading pipe or an equivalent device approved by the Illinois EPA according to the provisions of 35 Ill. Adm. Code Part 201, and further processed consistent with 35 Ill. Adm. Code 218.108, or unless such tank is a pressure tank as described in 35 Ill. Adm. Code 218.121(a) or is fitted with a recovery system as described in 35 Ill. Adm. Code 218.121(b)(2).
- c. Pursuant to 35 Ill. Adm. Code 218.301, no person shall cause or allow the discharge of more than 3.6 kg/hour (8 lbs/hour) of organic material into the atmosphere from any emission unit, except as provided in 35 Ill. Adm. Code 218.302, 218.303, or 218.304 and the following exception: If no odor nuisance exists the limitation of 35 Ill. Adm. Code 218 Subpart G (Use of Organic Material) shall only apply to photochemically reactive material.
4. This permit is issued based upon the source not being subject to the New Source Performance Standards (NSPS) for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations), 40 CFR 60 Subpart XX because the source does not receive gasoline by pipeline, ship or barge.
5. This permit is issued based upon the source not being subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Benzene Emissions From Benzene Transfer Operations, 40 CFR 61 Subpart BB because benzene is not loaded into tank trucks, railcars, or marine vessels at this source.
6. This permit is issued based upon the source not being subject to the Maximum Achievable Control Technology (MACT) standards and Reasonably Available Control Technology (RACT) standards of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Marine Tank Vessel Tank Loading Operations, 40 CFR 63 Subpart Y because the source does not load marine vessels. Pursuant to 40 CFR 63.561, marine tank vessel loading operation means any operation under which a commodity is bulk

loaded onto a marine tank vessel from a terminal, which may include the loading of multiple marine tank vessels during one loading operation.

7. Pursuant to 35 Ill. Adm. Code 212.314, 35 Ill. Adm. Code 212.301 shall not apply and spraying pursuant to 35 Ill. Adm. Code 212.304 through 212.310 and 35 Ill. Adm. Code 212.312 shall not be required when the wind speed is greater than 40.2 km/hour (25 mph). Determination of wind speed for the purposes of this rule shall be by a one-hour average or hourly recorded value at the nearest official station of the U.S. Weather Bureau or by wind speed instruments operated on the site. In cases where the duration of operations subject to this rule is less than one hour, wind speed may be averaged over the duration of the operations on the basis of on-site wind speed instrument measurements.
- 8a. This permit is issued based on the storage tanks not being subject to 35 Ill. Adm. Code 218.120 (Control Requirements for Storage Containers of VOL). Pursuant to 35 Ill. Adm. Code 218.119(a), the limitations of volatile organic liquid (VOL) with a maximum true vapor pressure of 0.5 psia or greater in any stationary tank, reservoir, or other container of 151 cubic meters (40,000 gallons) capacity or greater, except to vessels with a capacity greater than or equal to 40,000 gallons storing a liquid with a maximum true pressure of less than 0.5 psia.
- b. Pursuant to 35 Ill. Adm. Code 218.122(c), if no odor nuisance exists the limitations of 35 Ill. Adm. Code 218.122 shall only apply to the loading of volatile organic liquid with a vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3°K (70°F).
- c. This permit is issued based on the storage tanks not being subject to 35 Ill. Adm. Code 218.123(b) (Petroleum Liquid Storage Tanks). Pursuant to 35 Ill. Adm. Code 218.123(a)(6) the requirements of 35 Ill. Adm. Code 218.123(b) shall not apply to any stationary storage tank volatile petroleum liquid is not stored.
- d. This permit is issued based on the solvent cleaning operations at this source not being subject to the requirements of 35 Ill. Adm. Code 218.187(b) (Other Industrial Solvent Cleaning Operations Material and Control Requirements). Pursuant to 35 Ill. Adm. Code 218.187(a)(1), the requirements of 35 Ill. Adm. Code 218.187 shall apply to all cleaning operations that use organic materials at sources that emit a total of 226.8 kg/month (500 lbs/month or more of VOM from cleaning operations at the source, in the absence of air pollution control equipment.
- e. This permit is issued based on the source not being subject to 35 Ill. Adm. Code 218 Subpart GG (Marine Terminals) because source does not load and is not permitted to load gasoline or crude oil.
- f. This permit is issued based on the barge gas freeing operation not being subject to the requirements of 35 Ill. Adm. Code Part 218 Subpart TT (Other Emission Units). This is a result of federally enforceable production and operating limitations established in this permit, which restrict the potential to emit for VOM from emissions units not included within the categories specified in 35 Ill. Adm. Code 218 Subparts B or E to less than 25 tons per year.

- 9a. Pursuant to 35 Ill. Adm. Code 212.306, all normal traffic pattern access areas surrounding storage piles specified in 35 Ill. Adm. Code 212.304 and all normal traffic pattern roads and parking facilities which are located on mining or manufacturing property shall be paved or treated with water, oils or chemical dust suppressants. All paved areas shall be cleaned on a regular basis. All areas treated with water, oils or chemical dust suppressants shall have the treatment applied on a regular basis, as needed, in accordance with the operating program required by 35 Ill. Adm. Code 212.309, 212.310 and 212.312.
- b. Pursuant to 35 Ill. Adm. Code 212.309(a), the emission units described in 35 Ill. Adm. Code 212.304 through 212.308 and 35 Ill. Adm. Code 212.316 shall be operated under the provisions of an operating program, consistent with the requirements set forth in 35 Ill. Adm. Code 212.310 and 212.312, and prepared by the owner or operator and submitted to the Illinois EPA for its review. Such operating program shall be designed to significantly reduce fugitive particulate matter emissions.
- c. Pursuant to 35 Ill. Adm. Code 212.310, as a minimum the operating program shall include the following:
 - i. The name and address of the source;
 - ii. The name and address of the owner or operator responsible for execution of the operating program;
 - iii. A map or diagram of the source showing approximate locations of storage piles, conveyor loading operations, normal traffic pattern access areas surrounding storage piles and all normal traffic patterns within the source;
 - iv. Location of unloading and transporting operations with pollution control equipment;
 - v. A detailed description of the best management practices utilized to achieve compliance with 35 Ill. Adm. Code 212 Subpart K, including an engineering specification of particulate collection equipment, application systems for water, oil, chemicals and dust suppressants utilized and equivalent methods utilized;
 - vi. Estimated frequency of application of dust suppressants by location of materials; and
 - vii. Such other information as may be necessary to facilitate the Illinois EPA's review of the operating program.
- d. Pursuant to 35 Ill. Adm. Code 212.312, the operating program shall be amended from time to time by the owner or operator so that the operating program is current. Such amendments shall be consistent with 35 Ill. Adm. Code 212 Subpart K and shall be submitted to the Illinois EPA for its review.

- 10a. In the event that the operation of this emission unit results in an odor nuisance, the Permittee shall take appropriate and necessary actions to minimize odors, including but not limited to, changes in raw material or installation of controls, in order to eliminate the odor nuisance.
 - b. All residual material must be removed from barge before venting commences.
 - c. This permit is issued based on no transfer or handling of gasoline occurring at this source. The transfer or handling of gasoline at this source will require that the Permittee first obtain a construction permit from the Illinois EPA and the demonstration of compliance with all applicable requirements.
- 11a. This permit is issued based on this source not being a participating source in the Emissions Reduction Market System (ERMS), 35 Ill. Adm. Code Part 205, pursuant to 35 Ill. Adm. Code 205.200. This is based on the source's actual VOM emissions during the seasonal allotment period from May 1 through September 30 of each year being less than 10 tons and the source's baseline emissions also being less than 10 tons.
 - b. In the event that the source's VOM emissions during the seasonal allotment period equal or exceed 10 tons, the source shall become a participating source in the ERMS and shall comply with 35 Ill. Adm. Code Part 205, by holding allotment trading units (ATUs) for its VOM emissions during each seasonal allotment period, unless the source obtains exemption from the ERMS by operating with seasonal VOM emissions of no more than 15 tons pursuant to a limitation applied for and established in a Clean Air Act Permit Program (CAAPP) permit or a Federally Enforceable State Operating Permit (FESOP).
 - c. Pursuant to 35 Ill. Adm. Code 205.316(a), any participating or new participating source shall not operate without a CAAPP permit or FESOP. Pursuant to 35 Ill. Adm. Code 205.316(a)(2), if a participating or new participating source does not have a CAAPP permit containing ERMS provisions and the source elects to obtain a permit other than a CAAPP permit, the source shall apply for and obtain a FESOP that contains, in addition to other necessary provisions, federally enforceable ERMS provisions, including baseline emissions, allotment for each seasonal allotment period, identification of any units deemed to be insignificant activities for purposes of the ERMS, emissions calculation methodologies, and provisions addressing all other applicable requirements of 35 Ill. Adm. Code Part 205.
- 12a. Emissions from and operation of barge venting system shall not exceed the following limits:

<u>Location</u>	<u>VOM Emissions</u>		<u>Single HAP</u>		<u>Combination HAP</u>	
	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>
Des Plaines River						
Road	0.2	2.00	0.07	0.71	0.19	1.83
Canal Bank Road	1.79	<u>17.90</u>	0.64	<u>6.37</u>	1.64	<u>16.43</u>
Total:		19.90		7.08		18.26

These limits are based on the maximum equipment operation, maximum emissions, and standard emission estimation procedures (Section 5.2, AP 42, Fifth Edition, Volume I, July 2008). The loading loss rate (L_L) for VOM emissions shall be determined from Equation 1 of Section 5.2, AP-42, as follows:

$$L_L = 12.46 \times (S P M) / (460 + T)$$

where:

- L = Loading loss rate in lbs VOM/1,000 gallons throughput;
- S = Saturation Factor (0.5 for Barges);
- P = True Vapor Pressure of Liquid Loaded (psia);
- M = Molecular Weight of Liquid Loaded (lbs/lb-mole); and
- T = Temperature of Liquid Loaded (°F)

- b. Emissions from and operation of the storage tanks shall not exceed the following limits:

Emission Unit	VOM Emissions		Single HAP		Combination HAP	
	(Tons/Mo)	(Tons/Yr)	(Tons/Mo)	(Tons/Yr)	(Tons/Mo)	(Tons/Yr)
Des Plaines						
River Road	0.02	0.15	0.01	0.08	0.02	0.17
Canal Bank Road	0.14	<u>1.38</u>	0.07	<u>0.74</u>	0.15	<u>1.47</u>
Total:		<u>1.53</u>		<u>0.82</u>		<u>1.64</u>

These limits are based on the maximum tank throughput and standard emission factors from (Section 7.1, AP-42 Fifth Edition, Volume I, November 2006 or TANKS Emissions Estimation Software, Version 4.09D, October 5, 2006 for storage tanks).

- c. Compliance with the annual limits of this permit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).
13. Pursuant to 40 CFR 63.10(b)(3), if an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to Section 112(d) or (f) of the Clean Air Act, and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under 40 CFR Part 63) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person

making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the USEPA and/or Illinois EPA to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of 40 CFR Part 63 for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with USEPA guidance materials published to assist sources in making applicability determinations under Section 112 of the Clean Air Act, if any. The requirements to determine applicability of a standard under 40 CFR 63.1(b)(3) and to record the results of that determination under 40 CFR 63.10(b)(3) shall not by themselves create an obligation for the owner or operator to obtain a Title V permit.

- 14a. Pursuant to 35 Ill. Adm. Code 218.129(f), the owner or operator of each storage vessel specified in 35 Ill. Adm. Code 218.119 shall maintain readily accessible records of the dimension of the storage vessel and an analysis of the capacity of the storage vessel. Each storage vessel with a design capacity less than 40,000 gallons is subject to no provisions of 35 Ill. Adm. Code Part 218 other than those required by maintaining readily accessible records of the dimensions of the storage vessel and analysis of the capacity of the storage vessel.
- b. Pursuant to 35 Ill. Adm. Code 218.187(e)(1)(A), the owner or operator of a source exempt from the limitations of 35 Ill. Adm. Code 218.187 because of the criteria in 35 Ill. Adm. Code 218.187(a)(1) shall on and after January 1, 2012, collect and record the following information each month for each cleaning operation, other than cleaning operations identified in 35 Ill. Adm. Code 218.187(a)(2):
 - i. The name and identification of each VOM-containing cleaning solution as applied in each cleaning operation;
 - ii. The VOM content of each cleaning solution as applied in each cleaning operation;
 - iii. The weight of VOM per volume and the volume of each as-used cleaning solution; and
 - iv. The total monthly VOM emissions from cleaning operations at the source.
- c. Pursuant to 35 Ill. Adm. Code 218.187(e)(10), all records required by this 35 Ill. Adm. Code 218.187(e) shall be retained by the source for at least three years and shall be made available to the Illinois EPA upon request.
- 15a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the conditions of this permit:

- i. Design information for the transfer systems showing the presence of a permanent submerged loading pipes;
 - ii. Maintenance and repair records for the tanks, as related to the repair or replacement of the loading pipes;
 - iii. Identification of material type and throughputs for each such material handled at the source (gallons/month and gallons/year);
 - iv. Loading loss rate factor (lbs VOM/1,000 gallons throughput); and
 - v. Monthly and annual emissions of VOM and HAPs with supporting calculations (tons/month and tons/year).
- b. The Permittee shall maintain the following records to allow the confirmation of actual VOM emissions during the seasonal allotment period:
- i. Records of operating data and other information for each individual emission unit or group of related emission units at the source, as appropriate, to determine actual VOM emissions during the seasonal allotment period;
 - ii. Records of the VOM emissions, in tons, during the seasonal allotment period, with supporting calculations, for each individual emission unit or group of related emission units at the source, determined in accordance with the procedures that may be specified in this permit; and
 - iii. Total VOM emissions from the source, in tons, during each seasonal allotment period, which shall be compiled by November 30 of each year.
- c. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five (5) years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer storage device) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.
- 16a. Pursuant to 35 Ill. Adm. Code 218.187(e)(1)(C), the owner or operator of a source exempt from the limitations of 35 Ill. Adm. Code 218.187 because of the criteria in 35 Ill. Adm. Code 218.187(a)(1) shall comply with the following: Notify the Illinois EPA of any record that shows that the combined emissions of VOM from cleaning operations at the source, other than cleaning operations identified in 35 Ill. Adm. Code 218.187(a)(2), ever equal or exceed 226.8 kg/month (500 lbs/month), in the absence of air pollution control equipment, within 30 days after the event occurs.
- b. Pursuant to 35 Ill. Adm. Code 218.990, upon request by the Illinois EPA, the owner or operator of an emission unit which is exempt from the

requirements of 35 Ill. Adm. Code 218 Subparts PP, QQ, RR, TT or 35 Ill. Adm. Code 218.208(b) shall submit records to the Illinois EPA within 30 calendar days from the date of the request that document that the emission unit is exempt from those requirements.

17a. If there is an exceedance of or a deviation from the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance or deviation. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or deviation and efforts to reduce emissions and future occurrences.

b. Two (2) copies of required reports and notifications shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016

If you have any questions on this, please call Mike Dragovich at 217/785-1705.

Edwin C. Bakowski, P.E.
Manager, Permit Section
Division of Air Pollution Control

Date Signed: _____

ECB:MJD:psj

cc: Region 1

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from the barge gas freeing operation operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. The resulting maximum emissions are below the levels, (e.g., 100 tons/year for VOM, 10 tons/year for any single HAP, and 25 tons/year for any combination of such HAPs) at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled, and control measures are more effective than required in this permit.

<u>Emission Unit</u>	E M I S S I O N S (Tons/Year)		
	<u>VOM</u>	Single <u>HAP</u>	Total <u>HAPs</u>
<u>Des Plaines River Road:</u>			
Barge Gas Freeing	2.0	0.71	1.83
Four Waste Storage Tanks	0.15	0.08	0.17
<u>Canal Bank Road:</u>			
Barge Gas Freeing/Cleaning	17.90	6.37	16.43
Four Product Storage Tanks	<u>1.38</u>	<u>0.74</u>	<u>1.47</u>
Totals	<u>21.43</u>	<u>7.90</u>	<u>19.90</u>