MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

November 15, 2012

PERMIT TO INSTALL
67-12

ISSUED TO
Waterfront Petroleum Terminal Company

LOCATED AT
5431 West Jefferson Avenue
Detroit, Michigan

IN THE COUNTY OF
Wayne

STATE REGISTRATION NUMBER
P0305

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: **August 15, 2012**	
DATE PERMIT TO INSTALL APPROVED: **November 15, 2012**	SIGNATURE: **Lynn Fiedler**
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

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Common Abbreviations / Acronyms

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	BTU	British Thermal Unit
BACT	Best Available Control Technology	°C	Degrees Celsius
CAA	Clean Air Act	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	dscf	Dry standard cubic foot
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter
CO_2e	Carbon Dioxide Equivalent	°F	Degrees Fahrenheit
COM	Continuous Opacity Monitoring	gr	Grains
EPA	Environmental Protection Agency	Hg	Mercury
EU	Emission Unit	hr	Hour
FG	Flexible Group	H_2S	Hydrogen Sulfide
GACS	Gallon of Applied Coating Solids	hp	Horsepower
GC	General Condition	lb	Pound
GHGs	Greenhouse Gases	kW	Kilowatt
HAP	Hazardous Air Pollutant	m	Meter
HVLP	High Volume Low Pressure *	mg	Milligram
ID	Identification	mm	Millimeter
LAER	Lowest Achievable Emission Rate	MM	Million
MACT	Maximum Achievable Control Technology	MW	Megawatts
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram
MAP	Malfunction Abatement Plan	NO_x	Oxides of Nitrogen
MDEQ	Michigan Department of Environmental Quality (Department)	PM	Particulate Matter
MSDS	Material Safety Data Sheet	PM10	PM less than 10 microns diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM2.5	PM less than 2.5 microns diameter
NSPS	New Source Performance Standards	pph	Pounds per hour
NSR	New Source Review	ppm	Parts per million
PS	Performance Specification	ppmv	Parts per million by volume
PSD	Prevention of Significant Deterioration	ppmw	Parts per million by weight
PTE	Permanent Total Enclosure	psia	Pounds per square inch absolute
PTI	Permit to Install	psig	Pounds per square inch gauge
RACT	Reasonably Available Control Technology	scf	Standard cubic feet
ROP	Renewable Operating Permit	sec	Seconds
SC	Special Condition	SO_2	Sulfur Dioxide
SCR	Selective Catalytic Reduction	THC	Total Hydrocarbons
SRN	State Registration Number	tpy	Tons per year
TAC	Toxic Air Contaminant	µg	Microgram
TEQ	Toxicity Equivalence Quotient	VOC	Volatile Organic Compound
VE	Visible Emissions	yr	Year

* For High Volume Low Pressure (HVLP) applicators, the pressure measured at the HVLP gun air cap shall not exceed ten (10) pounds per square inch gauge (psig).

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**

2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**

3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**

4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**

5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R 336.1219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **(R 336.1219)**

6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**

7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**

8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.

9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. **(R 336.1301)**
    a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
    b) A visible emission limit specified by an applicable federal new source performance standard.
    c) A visible emission limit specified as a condition of this Permit to Install.

12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in R 336.1370(2). **(R 336.1370)**

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Flexible Group ID
EU_TK-201	Above ground Storage Tank (AST): Currently used to store light fuel oil. Nominal capacity 1,804,740 gallons.	----
EU_TK-202	AST: Insulated, fitted with internal product heating coils, may be used to store light fuel oil, heavy fuel oil, coal tar, and asphalt cement. Nominal capacity 2,819,880 gallons.	FG_PTI-ACTanks
EU_TK-203	AST: Insulated, fitted with internal product heating coils, may be used to store light fuel oil, heavy fuel oil, coal tar, and asphalt cement. Nominal capacity 2,819,880 gallons.	FG_PTI-ACTanks
EU_TK-204	AST: Insulated, fitted with internal product heating coils, may be used to store light fuel oil, heavy fuel oil, coal tar, and asphalt cement. Nominal capacity 2,819,880 gallons.	FG_PTI-ACTanks
EU_TK-205	AST: Insulated, fitted with internal product heating coils, may be used to store light fuel oil, heavy fuel oil, coal tar, and asphalt cement. Nominal capacity 2,105,460 gallons.	FG_PTI-ACTanks
EU_TK-206	AST: Insulated, fitted with internal product heating coils, may be used to store light fuel oil, heavy fuel oil, coal tar, and asphalt cement. Nominal capacity 3,289,860 gallons.	FG_PTI-ACTanks
EU_TK-207	AST: Insulated, fitted with internal product heating coils, may be used to store light fuel oil, heavy fuel oil, coal tar, and asphalt cement. Nominal capacity 3,289,860 gallons.	FG_PTI-ACTanks
EU_TM-1	Truck transfer manifold/lane 1 for transfers between the facility and trucks. Throughput capacity is about 750 gallons per minute. Bottom loading.	FG_Transfers
EU_TM-2	Truck transfer manifold/lane 2 for transfers between the facility and trucks. Throughput capacity is about 750 gallons per minute. Bottom loading.	FG_Transfers
EU_TM-3	Truck transfer manifold/lane 3 for transfers between the facility and trucks. Throughput capacity is about 600 gallons per minute. Bottom loading.	FG_Transfers
EU_TM-4	Truck transfer manifold/lane 4 for transfers between the facility and trucks. Throughput capacity is about 600 gallons per minute. Bottom loading.	FG_Transfers
EU_TM-5	Truck transfer manifold/lane 5 for transfers between the facility and trucks. Throughput capacity is about 750 gallons per minute. Top/splash loading.	FG_Transfers
EU_TM-6	Truck transfer manifold/lane 6 for transfers between the facility and trucks. Throughput capacity is about 750 gallons per minute. Top/splash loading.	FG_Transfers
EU_TM-7	New truck transfer manifold/lane 7 for transfers between the facility and trucks. Throughput capacity is about 600 gallons per minute. Top/splash loading.	FG_Transfers
EU_TM-8	New truck transfer manifold/lane 8 for transfers between the facility and trucks. Throughput capacity is about 600 gallons per minute. Top/splash loading.	FG_Transfers
EU_TM-9	New truck transfer manifold/lane 9 for transfers between the facility and trucks. Throughput capacity is about 750 gallons per minute. Top/splash loading.	FG_Transfers

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Flexible Group ID
EU_BM-1	Marine vessel transfer station used for transfers of heavy fuel oil, asphalt cement, and coal tar between the facility and marine vessels. The facility's pumping capacity to load marine vessels is about 4,200 gallons per minute. Transfers to the facility powered by pumps on the marine vessel may occur at different rates. Submerged fill.	FG_Transfers
EU_BM-2	Marine vessel transfer station used for transfers of heavy fuel oil, asphalt cement, and coal tar between the facility and marine vessels. The facility's pumping capacity to load marine vessels is about 4,200 gallons per minute. Transfers to the facility powered by pumps on the marine vessel may occur at different rates. Submerged fill.	FG_Transfers
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.		

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG_Transfers	Transfer manifolds/lanes currently used to transfer asphalt cement and light and heavy fuel oils to and from the petroleum products terminal. Truck transfer manifold nominal capacities, including the proposed manifolds, are currently allocated as follows. All coal tar and light fuel oil loading of trucks occurs by bottom loading: Asphalt cement: 162,000 gallons/hour Light fuel oil: 162,000 gallons/hour Heavy fuel oil: 45,000 gallons/hour Coal tar: 45,000 gallons/hour	EU_TM-1, EU_TM-2, EU_TM-3, EU_TM-4, EU_TM-5, EU_TM-6, EU_TM-7, EU_TM-8, EU_TM-9, EU_BM-1, EU_BM-2
FG_PTI-ACTanks	Insulated ASTs fitted with internal product heating coils, when the tanks are used to store asphalt cement.	EU_TK-202, EU_TK-203, EU_TK-204, EU_TK-205, EU_TK-206, EU_TK-207
FGFACILITY	All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.	----

The following conditions apply to: FG_Transfers

DESCRIPTION: Transfer manifolds/lanes currently used to transfer asphalt cement and light and heavy fuel oils to and from the petroleum products terminal. Truck transfer manifold nominal capacities, including the proposed manifolds, are currently allocated as follows. All coal tar and light fuel oil loading of trucks occurs by bottom loading:

Asphalt cement: 162,000 gallons/hour
Light fuel oil: 162,000 gallons/hour
Heavy fuel oil: 45,000 gallons/hour
Coal tar: 45,000 gallons/hour

Emission Units: EU_TM-1, EU_TM-2, EU_TM-3, EU_TM-4, EU_TM-5, EU_TM-6, EU_TM-7, EU_TM-8, EU_TM-9, EU_BM-1, EU_BM-2

POLLUTION CONTROL EQUIPMENT: None

I. EMISSION LIMITS

NA

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Total asphalt cement transferred	66,500,000 gallons per month	Calendar month	FG_Transfers	SC VI.2	R 336.1225, R 336.1702(a), R 336.1205(1)
2. Total asphalt cement transferred	6,000,000 gallons per 24-hour period[1]	Calendar day	FG_Transfers	SC VI.4	R 336.1225
3. Asphalt cement transferred to marine vessels and to storage tanks	3,500,000 gallons per 24-hour period[1]	Calendar day	FG_Transfers	SC VI.4	R 336.1225
4. Light fuel oil transferred	51,300,0000 gallons per month	Calendar month	FG_Transfers	SC VI.2	R 336.1225, R 336.1702(a), R 336.1205(1)
5. Heavy fuel oil transferred	41,000,000 gallons per month	Calendar month	FG_Transfers	SC VI.2	R 336.1225, R 336.1702(a), R 336.1205(1)
6. Total coal tar transferred	5,000,000 gallons per month	Calendar month	FG_Transfers	SC VI.2	R 336.1225(2), R 336.1702(a), R 336.1205(1)
7. Coal tar transferred to marine vessels	78,300 gallons per hour[1]	Any one-hour period	FG_Transfers	SC VI.3	R 336.1225(2)
8. Coal tar transferred to trucks	78,300 gallons per hour[1]	Any one-hour period	FG_Transfers	SC VI.3	R 336.1225(2)
9. Coal tar transferred to storage tanks	158,000 gallons per hour[1]	Any one-hour period	FG_Transfers	SC VI.3	R 336.1225(2)

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall only transfer coal tar to trucks and marine vessels by bottom loading or by submerged filling. The permittee shall not transfer coal tar to marine vessels or trucks by splash filling.[1] **(R 336.1225(2))**

2. The permittee shall conduct only one type of transfer involving coal tar during any one-hour period, as listed below.[1] **(R 336.1225(2))**
   (a) Transfers to marine vessels.
   (b) Transfers to trucks.
   (c) Transfers to storage tanks.

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. The permittee shall keep the most recent three years of records on file at the facility. **(R 336.1201(3))**

1 The permittee shall complete all required calculations and records in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.[1] **(R 336.1225)**

2. Each calendar month, the permittee shall record the throughputs of asphalt cement, light fuel oil, heavy fuel oil, and coal tar for FG_Transfers in a satisfactory manner. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1225, R 336.1702(a), R 336.1205(1))**

3. Whenever the permittee transfers coal tar through equipment in FG_Transfers, the permittee shall monitor and record, in a satisfactory manner, all of the following. The permittee shall keep all records on file and make them available to the Department upon request. Bills of lading may be used to provide any of this information that they contain.[1] **(R 336.1225(2))**
   (a) The amount of coal tar transferred to marine vessels, in gallons
   (b) The amount of coal tar transferred to trucks, in gallons
   (c) The amount of coal tar transferred to storage tanks, in gallons
   (d) For each transfer, the date that transfer began and the times that transfer began and ended

4. The permittee shall monitor and record, in a satisfactory manner, the information listed in (a) and (b) below for FG_Transfers on a calendar day basis. Each day's record shall itemize the transfers and shall include, for each transfer, the information listed in (c) and (d) below. Bills of lading may be used to provide any of this information that they contain. If a transfer to or from a single marine vessel covers parts of more than one calendar day, the transfer's total amount shall be allocated among the calendar days according to the amount transferred during the calendar day. Each transfer to or from a truck shall be allocated to the calendar day in which it begins.[1] **(R 336.1225)**
   (a) The total amount of asphalt cement transferred during the calendar day, in gallons
   (b) The total amount of asphalt cement transferred to marine vessels and storage tanks during the calendar day, in gallons
   (c) The amount of asphalt cement transferred during the individual transfer, in gallons
   (d) The duration of the individual transfer

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

NA

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply to: FG_PTI-ACTanks

DESCRIPTION: Insulated ASTs fitted with internal product heating coils, when the tanks are used to store asphalt cement.

Emission Units: EU_TK-202, EU_TK-203, EU_TK-204, EU_TK-205, EU_TK-206, EU_TK-207

POLLUTION CONTROL EQUIPMENT: None

I. EMISSION LIMITS

NA

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. The permittee shall keep the most recent three years of records on file at the facility. **(R 336.1201(3))**

1. The permittee shall monitor and record the temperature of asphalt cement in each tank in FG_PTI-ACTanks at least once per week when the tank temperature set point is less than 330°F. The permittee shall monitor and record the temperature of asphalt cement in each tank at least once per day that the facility receives or transfers material when the tank temperature set point is greater than or equal to 330°F. If at any time the monitored temperature in any tank in FG_PTI-ACTanks exceeds 370°F the permittee shall take actions to quickly and safely reduce the temperature of the asphalt cement stored in that tank. If a tank in FG_PTI-ACTanks is not storing asphalt cement, the permittee shall record that status for the tank, in lieu of a temperature record. The permittee shall keep records of these actions, of the tank temperatures, and of the days that the facility receives or transfers material on file and make the records available to the Department upon request. **(R 336.1225, R 336.1702(a), R 336.1901)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

NA

The following conditions apply Source-Wide to: FGFACILITY

POLLUTION CONTROL EQUIPMENT: None

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOC	17.0 tons per year	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	FGFACILITY SC VI.2; FG_Transfers SC VI.2	R 336.1702(a)
2. Each individual HAP	Less than 10 tons per year	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	FGFACILITY SC VI.3; FG_Transfers SC VI.2	R 336.1205(1)
3. Aggregate HAPs	Less than 25 tons per year	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	FGFACILITY SC VI.3; FG_Transfers SC VI.2	R 336.1205(1)

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. The permittee shall keep the most recent three years of records on file at the facility. **(R 336.1201(3))**

1. The permittee shall complete all required calculations and records in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1702(a))**

2. The permittee shall calculate the VOC emission rate from FGFACILITY monthly, for the preceding 12-month rolling time period, using a method acceptable to the AQD District Supervisor. The permittee may maintain VOC emission calculations and monthly throughput records in lieu of performing monthly VOC emission calculations. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1702(a))**

3. The permittee shall keep, in a satisfactory manner, individual and aggregate HAP emission calculations determining the annual emission rate of each in tons per 12-month rolling time period as determined at the end of each calendar month, as required by SC I.2 and I.3. For the first month following permit issuance, the calculations shall include the summation of emissions from the 11-month period immediately preceding the issuance date. For each month thereafter, calculations shall include the summation of emissions for the appropriate number of months prior to permit issuance plus the months following permit issuance for a total of 12 consecutive months. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

NA