



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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GOVERNOR

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**Irving Oil Terminals Inc.
Waldo County
Searsport, Maine
A-413-71-M-R/A (SM)**

**Departmental
Findings of Fact and Order
Air Emission License**

After review of the air emissions license application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., §344 and §590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

1. Irving Oil Terminals Inc. (Irving) has applied to renew their Air Emission License permitting the operation of emission sources associated with their bulk petroleum storage and distribution facility.
2. Irving has also requested to remove Boiler #1 (which was been decommissioned and removed from the site) from the license, and to replace its vapor recovery unit (carbon adsorption system) with a vapor destruction unit (enclosed flame flare).
3. The equipment addressed in this license is located at 52 Station Avenue, Searsport, ME.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Fuel Burning Equipment

<u>Equipment</u>	<u>Maximum Capacity</u>	<u>Maximum Firing Rate (gal/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Install. Date</u>	<u>Stack #</u>
Boiler #2	1.68 MMBtu/hr	12.0	#2 fuel, 0.5%	2000	2
Vapor Combustion Unit	80,784 CFM	21 SCFH	Propane	2011	1

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04679-2094
(207) 764-0477 FAX: (207) 760-3143

Generators

<u>Equipment</u>	<u>MMBtu/hr</u>	<u>Firing Rate (gal/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Install. Date</u>	<u>Stack #</u>
Generator #1	0.7	7.4	Propane	2010	1

Bulk Storage Equipment

<u>Tank Number</u>	<u>Capacity (million gallons)</u>	<u>Current Product Stored</u>	<u>Roof Type</u>
1	7.35	Gasoline	Internal Floating
2	7.35	#2 Fuel Oil	Internal Floating
3	3.36	Kerosene*	Fixed
4	7.35	#6 Fuel Oil*	Fixed
5	3.36	Gasoline	Internal Floating
6	5.25	#2 Fuel Oil	Internal Floating
7	5.67	Kerosene	Internal Floating
8	5.67	#2 Fuel Oil	Internal Floating
9	4.62	#2 Fuel Oil*	Fixed
10	2.10	Diesel Fuel*	Fixed
11	1.68	Ethanol	Internal Floating
12	0.756	Kerosene/Jet*	Fixed
13	2.10	Diesel Fuel*	Fixed
14	0.02	Supreme	Internal Floating
15	0.02	Supreme	Internal Floating

* these tanks are noted for completeness only

Note: those tanks equipped with an internal floating roof are able to store gasoline as well as distillate products

C. Application Classification

The application for Irving includes the licensing of new equipment. Therefore, the license is considered to be a renewal of current licensed emission units with an amendment and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 with the emission limit on VOCs of 49.9 tons per year, the facility is licensed below the major source thresholds and is considered a synthetic minor.

The modification of a minor source is considered a major modification based on whether or not expected emission increases exceed the "Significant Emission Levels" as defined in the Department's regulations. The emission increases are determined by subtracting the current licensed emissions preceding the modification from the maximum future licensed allowed emissions, as follows:

<u>Pollutant</u>	<u>Current License (TPY)</u>	<u>Future License (TPY)</u>	<u>Net Change (TPY)</u>	<u>Sig. Level (TPY)</u>
PM	3.0	0.03	-2.97	100
PM ₁₀	3.0	0.03	-2.97	100
SO ₂	32.0	0.08	-31.92	100
NO _x	8.3	6.5	-1.8	100
CO	0.7	14.4	-13.7	100
VOC	49.9	49.9	0.0	50
Total HAP	9.9	9.9	0.0	

This modification is determined to be a minor modification and has been processed as such.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 CMR 100 (as amended). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in *Definitions Regulation*, 06-096 CMR 100 (as amended). BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Project Description

Irving is proposing to install a John Zink Vapor Combustion Unit (VCU) to control VOC emissions from its loading operations at the terminal. The unit consists of a combustion chamber, anti-flashback burners, an automatic ignition pilot with a continuous monitor, a motor operated vapor block valve, a detonation arrestor, an air-assist blower, piping, instrumentation and a master control panel packaged as an assembled unit.

The unit will be in stand-by mode, with no pilot flame, the vapor block valve closed and air-assist blower off until loading occurs at the truck rack, at which time the vapor combustion unit is initiated by an electric signal from the loading rack. Once the start-up sequence on the VCU has been executed and the pilot ignited, product loading is initiated at the loading rack.

If necessary during combustion of vapors, the minimum temperature required to achieve complete combustion, 400°F or a temperature determined by stack testing to achieve the emissions concentration specified in the license, will be maintained during operation by a combination of assist gas and combustion air damper modulation, as required, to maintain sufficient combustion temperature to achieve peak emission control efficiency.

As loading operations are completed, vapor flow to the VCU decreases and the pressure monitoring system starts the shut-down sequence. As part of the sequence, the pilot and air-assist blowers will remain operational for a brief period after loading is complete. If no further loading occurs, the VCU will revert to stand-by mode.

C. Boiler #2

Irving operates Boiler #2 for office and garage heating. The boiler has a maximum design heat input of 1.68 MMBtu/hr firing #2 fuel oil with a maximum sulfur content of 0.5% by weight. The boiler was installed prior to 1960 and exhausts through its own stack.

Due to the size and year of installation, Boiler #2 is not subject to the New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, for units greater than 10 MMBtu/hr manufactured after June 9, 1989.

1. BPT Findings

The BPT emission limits for the boiler were based on the following:

PM/PM ₁₀	– 0.08 lb/hour, BPT;
SO ₂	– based on firing ASTM D396 #2 fuel oil, 0.5% sulfur – 0.5036 lb/hour, mass balance;
NO _x	– 0.3 lb/MMBtu, BPT;
CO	– 5 lb/1000 gal, AP-42, Table 1.3-1, dated 5/10;
VOC	– 0.34 lb/1000 gal, AP-42, Table 1.3-3, dated 5/10;
Opacity	– visible emissions from the boiler shall not exceed 20% opacity on a 6 minute block average, except for no more than one (1) six (6) minute block average in a continuous 3- hour period.

Irving shall be limited to 20,000 gallons per year of #2 fuel oil for Boiler #2.

Until December 31, 2015, the fuel oil fired in Boiler #2 shall be ASTM D396 compliant #2 fuel oil (maximum sulfur content of 0.5% by weight). Per 38 MRS §603-A(2)(A)(3), beginning January 1, 2016, the facility shall fire #2 fuel oil with a maximum sulfur content limit of 0.005% by weight (50 ppm), and beginning January 1, 2018, the facility shall fire #2 fuel oil with a maximum sulfur content limit of 0.0015% by weight (15 ppm).

Periodic Monitoring

Periodic monitoring for the boiler shall include recordkeeping to document fuel use both on a monthly and 12-month rolling total basis. Documentation shall include the type of fuel used and sulfur content of the fuel.

2. 40 CFR Part 63 Subpart JJJJJ

Boiler #2 is not subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* (40 CFR Part 63 Subpart JJJJJ). Boiler #2 meets the definition of “Hot Water Heater” and is exempted from Subpart JJJJJ. Boiler #2 is limited to 200° Fahrenheit and a maximum operating pressure of 50 psig. Water capacity is limited to 70 gallons.

D. Emergency Generator #1

Irving operates an emergency generator with a maximum input rating of 0.7 MMBtu per hour, firing propane. The generator was manufactured and installed in 2000.

Because of its date of manufacture, Emergency Generator #1 is not subject to 40 CFR 60.4230, Subpart JJJJ – Standards of Performance for New Stationary Sources (NSPS), Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.

1. BPT Findings

The BPT emission limits for the generator are based on the following:

- PM/PM₁₀ – 0.08 lb/MMBtu – BPT;
- SO₂ – based on firing propane, 0.0006 lb/MMBtu;
- NO_x – 2.27 lb/MMBtu, AP-42, Table 3.2-3 (dated 7/00);
- CO – 3.51 lb/MMBtu, AP-42, Table 3.2-3 (dated 7/00);
- VOC – 0.03 lb/MMBtu, AP-42, Table 3.2-3 (dated 7/00);
- Opacity – visible emissions from the diesel emergency generator shall not exceed 20% opacity on a 6 minute block average, except for no more than two (2) six (6) minute block averages in a 3 hour period.

<u>Unit</u>	<u>PM</u> <u>(lb/hr)</u>	<u>PM₁₀</u> <u>(lb/hr)</u>	<u>SO₂</u> <u>(lb/hr)</u>	<u>NO_x</u> <u>(lb/hr)</u>	<u>CO</u> <u>(lb/hr)</u>	<u>VOC</u> <u>(lb/hr)</u>
Emergency Generator	0.06	0.06	0.01	1.59	2.46	0.02

The emergency generator shall be limited to 500 hours of operation a year, based on a 12-month rolling total. Irving shall keep records of the hours of operation of the unit.

2. 40 CFR Part 63, Subpart ZZZZ

The federal regulation 40 CFR Part 63, Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines* is applicable to the emergency generator listed above. The unit is considered an existing, emergency stationary reciprocating internal combustion engine at an area HAP source and is not subject to New Source Performance Standards regulations. EPA's August 9, 2010 memo specifically does not exempt this unit from the federal requirements.

Emergency Definition:

Emergency stationary reciprocating internal combustion engine (RICE) is defined in 40 CFR Part 63, Subpart ZZZZ as any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc. Stationary RICE used for peak shaving are not considered emergency stationary RICE. Stationary RICE used to supply power to an electric grid or that supply non-emergency power as part of a financial arrangement with another entity are not considered to be emergency engines, except as permitted under §63.6640(f).

§63.6640(f) limits maintenance checks and readiness testing of the units to 100 hours per year. Emergency stationary RICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph, as long as the power provided by the financial arrangement is limited to emergency power.

The Emergency Generator shall be operated and maintained according to the manufacturer's emission-related written instructions or Irving shall develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR §63.6625(e)]

A non-resettable hour meter shall be installed and operated on the Emergency Generator. [40 CFR §63.6625(f)]

The Emergency Generator shall be limited to 100 hours per year for maintenance and testing. Up to 50 hours per year of the 100 hours per year may be used in non-emergency situations (this does not include peak shaving or generating income or a financial arrangement with another entity). A maximum of 15 hours per year (of the 50 hours per year) may be used as part of a demand response program. [40 CFR §63.6640(f)(1)]

Irving shall keep records that include maintenance conducted on the Emergency Generator and the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the hours spent for emergency operation, including what classified the operation as emergency and how many hours spent for non-emergency. If the generator is used for demand response operation, Irving must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response. [40 CFR §63.6655(e) and (f)]

E. Vapor Combustion Unit

Irving is proposing to replace its present vapor collection unit with an air-assisted, John Zink Vapor Combustion Unit, with a capacity of 10,800 gallons of product loaded per minute. The pilot and assist fuel for this unit is propane.

BACT for the Vapor Combustion Unit shall include proper combustion practice, the use of propane as the pilot and assist fuel, and the following:

NO _x :	Emission rate of 10 milligrams per liter of product loaded
CO:	Emission rate of 4 milligrams per liter of product loaded
VOC:	Emission rate of 10 milligrams per liter of product loaded
Opacity:	Visible emissions from the VCU stack shall not exceed 10% opacity based on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a three (3) hour period

F. Distillate and Residual Oil Storage Tanks

Irving operates 5 large tanks capable of storing petroleum products. These tanks vary in size and throughput depending on the demand for distillates throughout the year.

G. Gasoline Storage Tanks

In addition to the above distillate storage, Irving also operates 7 large tanks and 2 20,000 gallon tanks with internal floating roofs capable of storing gasoline. These tanks shall be equipped, maintained and operate such that:

1. there is an internal floating roof with closure seal(s) between the roof edge and the tank wall and these are maintained so as to prevent vapor leakage;
2. the internal floating roof and the closure(s) will be maintained such that there are no holes, tears, or other openings in the seal or between the seal and the floating roof;
3. all storage tank openings, except stub drains, are equipped with covers, lids or seals which remain closed at all times;
4. all automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports;
5. all rim vents, if provided, are to be set to open only when the roof is being floated off the leg supports or at the manufacturer's recommended setting;
6. if any holes, tears, or other openings are present, Irving shall make repairs as soon as practical, but no later than 15 calendar days with the first attempt at repair to be made no later than 5 days from the initial detection of the leak.

H. NSPS

Tanks #1-13 commenced construction prior 1973 and are therefore not subject to EPA New Source Performance Standards (NSPS) Subpart K, Ka and Kb for Storage Vessels for Petroleum Liquids manufactured after June 11, 1973 with capacities greater than 40,000 gallons.

Tanks #1-3, #5-8 and #11 were not constructed or modified, as defined in 40 CFR 60.3, after December 17, 1980 and are therefore not subject to EPA New Source Performance Standards (NSPS) Subpart XX, Standards of Performance for Bulk Gasoline Terminals.

I. Annual Throughput Limit

- A. Irving shall not exceed an annual gasoline and ethanol throughput limit for the facility of 220,000,000 gallons, based on a 12-month rolling total. [06-096 CMR 115, BPT]
- B. Compliance with the throughput limits described above shall be demonstrated by a monthly log kept on-site and available to the Department upon request. [06-096 CMR 115, BPT]

J. VOC Emissions

- A. Facility wide VOC emissions from the boiler, gasoline storage tanks and the bulk storage gasoline terminal shall not exceed 49.9 tons per year based on a 12-month rolling total. [06-096 CMR 115, BPT]
- B. Compliance shall be demonstrated by monthly calculations of facility emissions including emissions calculated using EPA TANKS program or an alternate approved by the Department. [06-096 CMR 115, BPT]

K. Total HAPs

- A. Facility wide total HAP emissions from the boiler, gasoline storage tanks and the bulk storage gasoline terminal shall not exceed 9.9 tons per year based on a 12-month rolling total. [06-096 CMR 115, BPT]
- B. Compliance shall be demonstrated by annual calculations of the facility emissions including emissions calculated using EPA TANKS program or an alternate approved by the Department. [06-096 CMR 115, BPT]
- C. If any calculation demonstrates HAP emissions in excess of 5.0 tons per year for total HAPs, Irving shall begin calculating HAP emissions on a monthly basis. [06-096 CMR 115, BPT]

L. Recordkeeping

- A. For all recordkeeping required by this license, Irving shall maintain records of the most current six (6) year period.
- B. Records shall be maintained showing the following information for each of the petroleum storage tanks in order to calculate annual and 12-month rolling total VOC emissions [06-096 CMR 115, BPT]:

1. Quantity and type of product stored in each tank;
 2. Reid vapor pressure of product stored;
 3. Maximum true vapor pressure of product stored;
 4. Average storage temperature;
 5. Average throughput of each tank;
 6. Tank emissions calculated using EPA TANKS program or an alternative approved by the Department;
 7. Tank truck emissions assuming 1.3% of vapors are displaced during loading (based on assumed capture efficiency of 98.7% as given in 40 CFR Part 63, Subpart R);
 8. HAP speciation data as given by the American Petroleum Institute (API) or other speciation data as obtained by a supplier; and
 9. Annual gasoline throughput for the facility.
- C. Irving shall calculate and record the 12-month rolling total facility VOC emissions (expressed in tons) from the loading racks, storage tanks and fugitive sources (i.e. pumps, valves and flanges).
- D. Irving shall maintain records of all monthly inspections and leak inspections of all equipment utilizing sight, smell and hearing.

M. Fugitive Emissions

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20% in any one (1) hour.

N. General Process Emissions

Visible emissions from any general process source shall not exceed 20% opacity on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a one (1) hour period.

O. Annual Emissions

Irving shall be restricted to the following annual emissions, based on a 12-month rolling total and the following limits:

- annual facility throughput of 220,000,000 gallons of gasoline and ethanol,
- a fuel limit of 20,000 gallons of #2 fuel oil in Boiler #2, and
- a facility-wide emission limit of 49.9 tons of VOCs.

Total Licensed Annual Emissions for the Facility

Tons per year

(Used to calculate the annual license fee)

<u>Equipment</u>	<u>PM</u>	<u>PM₁₀</u>	<u>SO₂</u>	<u>NO_x</u>	<u>CO</u>	<u>VOC</u>	<u>Total Hap</u>
Boiler #2	0.2	0.2	0.7	0.4	0.1	-	-
Emergency Generator	0.1	0.1	0.1	0.4	0.1	-	-
Tanks	-	-	-	-	-	35.7	9.9
Vapor Combustion Unit	-	-	-	5.7	14.2	14.2	-
Total TPY	0.03	0.03	0.08	6.5	14.4	49.9	9.9

III. AMBIENT AIR QUALITY ANALYSIS

According to 06-096 CMR 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Modeling is not required for a renewal if the total emissions of any pollutant released do not exceed the following and there are no extenuating circumstances:

<u>Pollutant</u>	<u>Tons/Year</u>
PM	25
PM ₁₀	25
SO ₂	50
NO _x	100
CO	250

Based on the total facility licensed emissions, Irving is below the emissions level required for modeling.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-413-71-M-R/A subject to the following conditions:

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S.A. §347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [06-096 CMR 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 CMR 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 CMR 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353-A. [06-096 CMR 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 115]

- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 CMR 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 CMR 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 CMR 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
 - A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 2. pursuant to any other requirement of this license to perform stack testing.
 - B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - C. submit a written report to the Department within thirty (30) days from date of test completion.
[06-096 CMR 115]
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
 - A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and

- B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
- C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

[06-096 CMR 115]

- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 CMR 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 CMR 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 CMR 115]

SPECIFIC CONDITIONS

(16) **Boiler #2**

A. Fuel

- 1. Total fuel use for Boiler #2 shall not exceed 20,000 gallons per year of #2 fuel oil, based on a 12-month rolling total basis.

2. Until December 31, 2015, the #2 fuel oil fired in the boiler shall be ASTM D396 compliant, with a maximum sulfur content of 0.5% by weight. [06-096 CMR 115, BPT]
3. Beginning January 1, 2016, the facility shall fire #2 fuel oil with a maximum sulfur content of 0.005% by weight (50 ppm). [38 MRSA §603-A(2)(A)(3)]
4. Beginning January 1, 2018, the facility shall fire #2 fuel oil with a maximum sulfur content of 0.0015% by weight (15 ppm). [38 MRSA §603-A(2)(A)(3)]
5. Compliance shall be demonstrated by fuel records from the supplier showing the quantity, type, and the percent sulfur of the fuel delivered (if applicable). Records of annual fuel use shall be kept on a monthly and 12-month rolling total basis. [06-096 CMR 115, BPT]

B. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

Emission Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #2	0.20	0.20	0.85	0.50	0.06	0.01

C. Visible emissions from Boiler #2 shall not exceed 20% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a continuous 3-hour period. [06-096 CMR 101]

(17) **Emergency Generator**

- A. The Emergency Generator is limited to 500 hours per year total operation, based on a 12-month rolling total. Compliance shall be demonstrated by a written log of all generator operating hours. [06-096 CMR 115]
- B. The Emergency Generator shall fire propane. Compliance shall be demonstrated by fuel records from the supplier documenting the type of fuel delivered. [06-096 CMR 115, BPT]
- C. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Emergency Generator	0.10	0.10	0.10	1.59	2.46	0.02

D. Visible Emissions

Visible emissions from the Emergency Generator shall not exceed 10% opacity on a six (6) minute block average basis, except for no more than one (1) block average in a three (3) hour period.

1. No later than October 19, 2013, Irving shall meet the following operational limitations for the spark ignition emergency generator:
 - a. Change the oil and filter annually,
 - b. Inspect the spark plugs annually, and
 - c. Inspect the hoses and belts annually and replace as necessary.

A log shall be maintained documenting compliance with the operational limitations.

[40 CFR §63.6603(a) and Table 2(d); and 06-096 CMR 115]

2. A non-resettable hour meter shall be installed and operated on the generator. [40 CFR §63.6625(f)]
3. Maintenance, Testing, and Non-Emergency Operating Situations
 - a. The Emergency Generator shall be limited to 100 hours per year for maintenance and testing. Up to 50 hours per year of the 100 hours per year may be used in non-emergency situations (this does not include peak shaving or generating income or a financial arrangement with another entity). A maximum of 15 hours per year (of the 50 hours per year) may be used as part of a demand response program. These limits are based on a 12-month rolling total. Compliance shall be demonstrated by a written log of all generator operating hours. [40 CFR §63.6640(f)(1) and 06-096 CMR 115]
 - b. Irving shall keep records that include maintenance conducted on the Emergency Generator and the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the hours spent for emergency operation, including what classified the operation as emergency and how many hours spent for non-emergency. If the generator is used for demand response operation, Irving must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response. [40 CFR §63.6655(e) and (f)]

4. The Emergency Generator shall be operated and maintained according to the manufacturer's emission-related written instructions or Irving shall develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR §63.6625(e)]

(18) Vapor Combustion Unit

- A. Irving may install an air-assisted John Zink Vapor Combustion Unit, with a maximum capacity of 10,800 gallons of product loaded per minute.
- B. Irving shall fire propane as the pilot and assist fuel.
- C. Irving shall meet the following emissions limits for the VCU:

NO _x :	Emission rate of 10 milligrams per liter of product loaded
CO:	Emission rate of 4 milligrams per liter of product loaded
VOC:	Emission rate of 10 milligrams per liter of product loaded
Opacity:	Visible emissions from the VCU stack shall not exceed 10% opacity based on a six (6) minutes block average basis, except for no more than one (1) six (6) minute block average in a three (3) hour period

(19) Distillate Storage Tanks

- A. Irving shall conduct routine inspections of all distillate storage tanks at a minimum of once every month around the perimeter of the tank and roof. [06-096 CMR 115, BPT]
- B. The following records shall be maintained at the source and available for inspection by the Department [06-096 CMR 115, BPT]:
 1. inspection log documenting any detected leaks, holes, tears, or other openings and the correction action taken, and
 2. monthly throughput specifying quantity and types of volatile petroleum liquids in each tank and the period of storage.

(20) Gasoline Storage Tanks

- A. Tanks #1, #2, #5-#8 inclusive and #11, #14 and #15, shall each be equipped, maintained and operate such that:
 1. there is an internal floating roof with closure seal(s) between the roof edge and the tank wall and these are maintained so as to prevent vapor leakage; [06-096 CMR 111]

2. the internal floating roof and the closure seal(s) will be maintained such that there are no holes, tears, or other openings in the seal or between the seal and the floating roof; [06-096 CMR 111]
 3. all storage tank openings, except stub drains, are equipped with covers, lids or seals which remain closed at all times; [06-096 CMR 111]
 4. all automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports; [06-096 CMR 111]
 5. all rim vents, if provided, are to be set to "open" only when the roof is being floated off the leg supports, or at the manufacturer's recommended setting.
 6. if any holes, tears, or other openings are present Irving shall make repairs as soon as practical, but no later than 15 calendar days with the first attempt at repair to be made no later than 5 days from the initial detection of the leak. [06-096 CMR 115, BPT]
- B. Irving shall comply with the following source inspection requirements: [06-096 CMR 111]
1. routine inspection of floating roofs are to be conducted through roof hatches once every month, and
 2. a complete inspection of the cover and seal is to be performed at least once every ten years and each time the tank is emptied and degassed. These inspections shall be conducted by visually inspecting the floating roof deck, deck fittings and rim seals.
- C. The following records shall be maintained at the source and available for inspection by the Department:
1. inspection log documenting routine monthly inspections of floating roof covers and seals; [06-096 CMR 111]
 2. inspection log documentation LEL readings to be done a minimum of every six months with the inspection of the floating roof covers and seals, which shall include explanation of any excessive increases in LEL readings as compared to normal operating conditions; [06-096 CMR 111]
 3. inspection log documenting all complete inspections of cover and seal to be performed whenever the tank is emptied and degassed, at a minimum of once every ten years; [06-096 CMR 111]
 4. inspection log documenting detected leaks, holes, tears or other openings and the corrective action taken; [06-096 CMR 115, BPT]
 5. monthly throughput specifying quantity and types of volatile petroleum liquids in each tank and the period of storage; and [06-096 CMR 111]

6. average monthly product storage temperatures and maximum true vapor pressures or Reid vapor pressures of volatile petroleum liquids. [06-096 CMR 111]

D. For those tanks that are equipped for dual storage, Irving shall comply with all requirements as applicable for storage of gasoline whenever the tank in question is put into gasoline service. No notification is required when products are switched provided the tank is equipped with an internal floating roof for proper storage.

(21) Annual Throughput Limit

- A. Irving shall not exceed an annual gasoline and ethanol throughput limit for the facility of 220,000,000 gallons, based on a 12-month rolling total. [06-096 CMR 115, BPT]
- B. Compliance with the throughput limits described above shall be demonstrated by a monthly log kept on-site and available to the Department upon request. [06-096 CMR 115, BPT]

(22) VOC Emissions

- A. Facility wide VOC emissions from the boiler, gasoline storage tanks and the bulk storage gasoline terminal shall not exceed 49.9 tons per year based on a 12-month rolling total. [06-096 CMR 115, BPT]
- B. Compliance shall be demonstrated by monthly calculations of facility emissions including emissions calculated using EPA TANKS program or an alternate approved by the Department. [06-096 CMR 115, BPT]

(23) Total HAP Emissions

- A. Facility wide total HAP emissions from the boiler, gasoline storage tanks and the bulk storage gasoline terminal shall not exceed 9.9 tons per year based on a 12-month rolling total. [06-096 CMR 115, BPT]
- B. Compliance shall be demonstrated by annual calculations of the facility emissions including emissions calculated using EPA TANKS program or an alternate approved by the Department. [06-096 CMR 115, BPT]
- C. If any calculation demonstrates HAP emissions in excess of 5.0 tons per year for total HAPs, Irving shall begin calculating HAP emissions on a monthly basis. [06-096 CMR 115, BPT]

(24) **Fugitive Emissions**

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20% in any one (1) hour. [06-096 CMR 101]

(25) **General Process Emissions**

Visible emissions from any general process source shall not exceed 20% opacity on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a one (1) hour period.

(26) **Recordkeeping**

- A. For all recordkeeping required by this license, Irving shall maintain records of the most current six (6) year period.
- B. Records shall be maintained showing the following information for each of the petroleum storage tanks in order to calculate annual and 12-month rolling total VOC emissions [06-096 CMR 115, BPT]:
 - 1. Quantity and type of product stored in each tank;
 - 2. Reid vapor pressure of product stored;
 - 3. Maximum true vapor pressure of product stored;
 - 4. Average storage temperature;
 - 5. Average throughput of each tank;
 - 6. Tank emissions calculated using EPA TANKS program or an alternative approved by the Department;
 - 7. Tank truck emissions assuming 1.3% of vapors are displaced during loading (based on assumed capture efficiency of 98.7% as given in 40 CFR Part 63, Subpart R);
 - 8. HAP speciation data as given by the American Petroleum Institute (API) or other speciation data as obtained by a supplier; and
 - 9. Annual gasoline throughput for the facility.
- C. Irving shall calculate and record the 12-month rolling total facility VOC emissions (expressed in tons) from the loading racks, storage tanks and fugitive sources (i.e. pumps, valves and flanges).
- D. Irving shall maintain records of all monthly inspections and leak inspections of all equipment utilizing sight, smell and hearing.

(27) **Annual Emission Statement**

In accordance with *Emission Statements*, 06-096 CMR 137 (as amended), the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of:

- 1) A computer program and accompanying instructions supplied by the Department; or
- 2) A written emission statement containing the information required in 06-096 CMR 137.

The emission statement must be submitted as specified by the date in 06-096 CMR 137.

- (28) Irving shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S.A. §605).

DONE AND DATED IN AUGUSTA, MAINE THIS 30th DAY OF November, 2011.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Melanie P. Gifford
PATRICIA W. AHO, COMMISSIONER

The term of this license shall be five (5) years from the signature date above.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 08/12/2011

Date of application acceptance: 08/24/2011

Date filed with the Board of Environmental Protection:

This Order prepared by N. Lynn Cornfield, Bureau of Air Quality.

