UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

MAR 3 0 2007

(AE-17J)

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Julius Essenburg, President
Holland Terminal, Inc.
630 Ottawa Avenue
Holland, Michigan 49423

Dear Mr. Essenburg:

Enclosed is a file stamped Consent Agreement and Final Order (CAFO) which resolves Holland Terminal, Inc., docket n umber CAA-05-2006-0038. As indicated by the filing stamp on its first page, we filed the CAFO with the Regional Hearing Clerk on MAR 3 0 2007.

Pursuant to paragraph 10 of the CAFO, Holland Terminal, Inc. must pay the civil penalty within 30 days of MAR 3 0 2007. Your check must display the case docket number, CAA-05-2006-0038, and the billing document number, 2750703A007.

Please direct any questions regarding this case to Michael Berman, Associate Regional Counsel, (312) 886-6837.

Sincerely yours,

Bonnie D Bush

Bonnie Bush, Acting Section Chief
Air Enforcement and Compliance Assurance Section (MI/WI)

Enclosure

cc: Clifford Knaggs,
Knaggs, Harter, Brake & Schneider, PC

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

IN THE MATTER OF:	)	**Docket No. CAA-05-2006-0038**
	)	
Holland Terminal, Inc. Holland, Michigan	)	**Proceeding to Assess a Civil Penalty under Section 113(d) of the Clean Air Act, 42 U.S.C. § 7413(d)**
Respondent.	)	
	)	

Consent Agreement and Final Order

1. Complainant, the Director of the Air and Radiation Division, United States Environmental Protection Agency, Region 5 (U.S. EPA), brought this administrative action seeking a civil penalty under Section 113(d) of the Clean Air Act ("the Act"), 42 U.S.C. § 7413(d).

2. On September 29, 2006, U.S. EPA filed the complaint in this action against Respondent, Holland Terminal, Inc. d/b/a Holland Terminal Company ("Holland Terminal"). The complaint alleges that Holland Terminal violated R336.1910 and R336.1604(2)(a) of the Michigan State Implementation Plan ("SIP") at its facility in Holland, Michigan, in part based upon violations alleged by the Air Quality Division of the Michigan Department of Environmental Quality ("AQD-MDEQ").

3. Holland Terminal filed an answer and requested a hearing under Section 113(d)(2) of the Act, 42 U.S.C. § 7413(d)(2).

Stipulations

4. Holland Terminal admits the jurisdictional allegations in the complaint, neither admits nor denies the factual allegations in the complaint, other than those it admitted in its answer, and denies that the violations occurred.

5. Holland Terminal waives any right to contest the allegations in the complaint and its right to appeal this consent agreement and final order ("CAFO").

6. Holland Terminal certifies and U.S. EPA acknowledges that it is complying fully with R336.1910 and R336.1604(2)(a) of the Michigan SIP.

7. Respondent consents to the assessment of the civil penalty specified in this CAFO and to the terms of this CAFO.

8. The parties agree that settling this action without further litigation, upon the terms in this CAFO, is in the public interest.

Civil Penalty

9. In consideration of factors specified in Section 113(e) of the Act, 42 U.S.C. § 7413(e), the facts of this case, and Holland Terminal's cooperation, U.S. EPA agrees to mitigate the proposed penalty of $133,775 to $55,000.

10. Holland Terminal must pay the $55,000 civil penalty by cashier's or certified check payable to the "Treasurer, United States of America," within 30 days after the effective date of this CAFO.

11. Holland Terminal must send the check to:

U.S. EPA - Region 5
P.O. Box 371531
Pittsburgh, Pennsylvania 15251-7531

12. A transmittal letter, stating the Respondent's name, complete address, the case docket number, and the billing document number must accompany the payment. Respondent must write the case docket number and the billing document number on the face of the check. Respondent must send copies of the check and transmittal letter to:

Attn: Regional Hearing Clerk, (E-19J)
U.S. Environmental Protection Agency, Region 5
77 West Jackson Blvd.
Chicago, Illinois 60604-3511

Attn: Compliance Tracker, (AE-17J)
Air Enforcement and Compliance Assurance Branch
Air and Radiation Division
U.S. Environmental Protection Agency, Region 5
77 West Jackson Blvd.
Chicago, Illinois 60604-3511

Michael R. Berman, (C-14J)
Office of Regional Counsel
U.S. Environmental Protection Agency, Region 5
77 West Jackson Blvd.
Chicago, Illinois 60604-3511

13. This civil penalty is not deductible for federal tax purposes.

14. If Holland Terminal does not pay timely the civil penalty, U.S. EPA may bring an action to collect any unpaid portion of the penalty with interest, handling charges, nonpayment penalties, and the United States' enforcement expenses for the collection action under Section 113(d)(5) of the Act, 42 U.S.C. § 7413(d)(5). The validity, amount, and appropriateness of the civil penalty are not reviewable in a collection action.

15. Interest will accrue on any overdue amount from the date payment was due at a rate established under 31 U.S.C. § 3717. Holland Terminal will pay a $15 handling charge each month that any portion of the penalty is more than 30 days past due. Holland Terminal will pay a quarterly nonpayment penalty each quarter during which the assessed penalty is overdue

according to Section 113(d)(5) of the Act, 42 U.S.C. § 7413(d)(5). This nonpayment penalty will be 10 percent of the aggregate amount of the outstanding penalties and nonpayment penalties accrued from the beginning of the quarter.

General Provisions

16. This CAFO resolves Respondent's liability for federal civil penalties for the violations alleged in the complaint.

17. U.S.EPA approves Holland Terminal's revised Malfunction Abatement Plan (MAP) version 5.4 dated March 2, 2007 (attached to this CAFO as Exhibit A) as an accurate description of the design and operation of the air pollution control equipment at the facility and as acceptable and adequate responses to the potential malfunctions described therein.

18. This CAFO does not affect the right of U.S. EPA or the United States to pursue appropriate injunctive or other equitable relief or criminal sanctions for any violation of law, other than the alleged violations described in the complaint.

19. This CAFO does not affect Holland Terminal's responsibility to comply with the Act and other applicable federal, state, and local laws and regulations. Except as provided in paragraphs 16 and 17 above, compliance with this CAFO will not be a defense to any actions subsequently commenced pursuant to federal laws and regulations administered by Complainant.

20. This CAFO constitutes an "enforcement response" as that term is used in "U.S. EPA's Clean Air Act Stationary Source Civil Penalty Policy" to determine Holland Terminal's "full compliance history" under Section 113(e) of the Act, 42 U.S.C. § 7413(e).

21. The terms of this CAFO bind Holland Terminal, its successors, and assigns.

22. Each person signing this consent agreement certifies that he or she has the authority to sign this consent agreement for the party whom he or she represents and to bind that party to its terms.

23. Each party agrees to bear its own costs and attorneys' fees in this action.

24. This CAFO constitutes the entire agreement between the parties.

U.S. Environmental Protection Agency, Complainant

3/29/07
Date

Stephen Rothblatt, Director
Air and Radiation Division
U.S. Environmental Protection
Agency, Region 5 (A-18J)

Holland Terminal, Inc. Respondent

3-22-07
Date

Julius Essenburg, President
Holland Terminal, Inc. d/b/a Holland Terminal Company

CONSENT AGREEMENT AND FINAL ORDER
Holland Terminal, Inc.
Docket No. CAA-05-2006-0038

Final Order

It is ordered as agreed to by the parties and as stated in the consent agreement, effective immediately upon filing of this CAFO with the Regional Hearing Clerk. This final order disposes of this proceeding pursuant to 40 C.F.R. § 22.18.

3-30-07
Date

Mary A. Gade
Regional Administrator
U.S. Environmental Protection
Agency, Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3511

Exhibit A

Malfunction Abatement Plan

For

The Holland Terminal Company

630 Ottawa Avenue
Holland, Michigan

Version 5.4
March 2, 2007

Prepared by:

Environmental Partners, Inc.
305 Hoover Boulevard, Suite 200
Holland, Michigan 49423

Section 1 - Malfunction Abatement Plan

1.0 Introduction

The Holland Terminal Company (HTC) operates a bulk petroleum storage and distribution terminal located at 630 Ottawa Avenue, Holland, Michigan 49423. A site location map is included in Figure 1. Above ground storage tanks receive, store and distribute petroleum products by way of a distribution loading rack, used to load tanker trucks. The facility operates under Michigan Air Permit #395-97 and can operate 24 hours per day, and 365 days per year. Emergency contacts and facility resources are summarized in the emergency contact list, located in Table 1.

Table 1
Facility Emergency Contacts

Contact	Office Phone Number	Cell / 24-Hour Contact No.
Mike Swan	616-396-3858 ext.110	616-393-7294
Chuck Johnson	616-396-3858 ext.103	616-772-2304
Steve Dryfout	616-396-3858	616-836-3640

The purpose of this Malfunction Abatement Plan (MAP) is to prevent, detect, and correct malfunctions or equipment failures resulting in emissions exceeding applicable air emission limitations. This plan has been prepared as required by Michigan Air Pollution Control Rule 911 (R 336.1911) and as requested by the U.S.EPA working in cooperation with the Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD). This version of the MAP replaces all previous versions of the site MAP and will be active upon review and approval by the EPA and/or the MDEQ-AQD District Office.

Normal operations of the terminal include emissions to the environment. Excessive venting and emissions may be minimized by properly operating and maintaining the system components. Catastrophic events, for example, severe weather, fire, acts of terrorism, acts of vandalism, and catastrophic equipment failures can cause product and vapor losses. While these events are possible, they are not considered normal and thus are not the subject of this plan.

Site inspections of various types and frequencies have been developed specific to this facility. A summary of the inspections and the schedule for the inspections is included in Table 2 and Appendix A. Inspections are only to be conducted when weather conditions permit safe access for personnel. To prevent slip, trip and fall accidents, no inspection are to be conducted if there is ice on the stairs, ladders, scaffolds, or platforms that would present a slip, trip or fall hazard. Ice is generally a continuous serious safety

hazard during the months of January and February and can extend into the months of November, December and March.

During warm weather, individuals should avoid inspections and outdoor work during electrical storms or when conditions are favorable for dangerous weather and/or lightning to develop.

Holland Terminal prohibits anyone from climbing on top of the tanks for any reason when the tanks are receiving product. Nothing in this plan shall prohibit or prevent the Holland Terminal Company from maintaining the equipment or protecting the environment when conditions are present which require immediate action to prevent an equipment catastrophic failure or loss.

Table 2

Air Compliance Facility Inspection Schedule

Season(s)	Frequency	Inspection Description
All	Daily	Storage Tank Visual Inspection
All except Winter[1]	Weekly	Tank Vent Visual Inspection
Winter[1]	Monthly	Tank Vent Visual Inspection
All	Monthly	Monthly Facility Inspection Checklist
All	Quarterly	Tank Vent Mechanical Inspection
All	As needed	John Zink Operating Log

Note: Winter for purposes of the MAP is for the period of Nov. 1 to Apr. 1

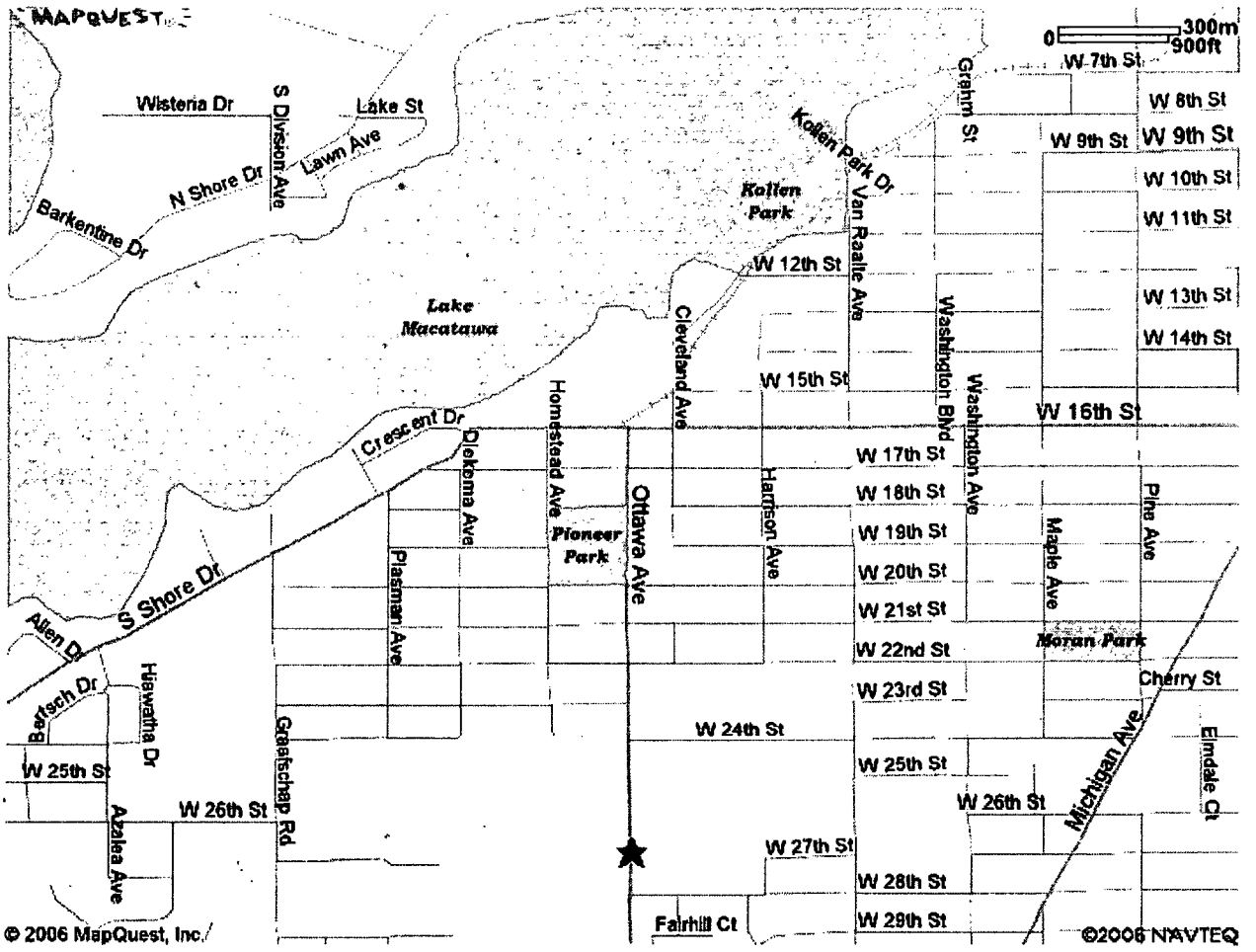
2.0 Facility and Emission System Description

Petroleum products are received from Wolverine Pipeline Company by way of the pipeline transfer connection to the terminal. The pipeline transfer connection is located in the north-western corner of the site, and includes transfer equipment owned and operated by the Wolverine Pipeline Company. The transfer station is monitored by the Wolverine Pipeline Company during product shipments to HTC. At the time of plan preparation, the products handled include various grades of no-lead gasoline, and No. 2 fuel oil. A site map showing the equipment and the site layout is included in Figure 2.

Gasoline vapors liberated by the product receipt, storage, handling and distribution are contained using a vapor balance system and are controlled by an on-site vapor recovery unit. The vapor recovery unit was manufactured by The John Zink Company and functions to recover gasoline from vapors using one of two carbon adsorption tanks. The petroleum vapors are reduced from typically anticipated activities under four (4) operating scenarios:

1) Vapors liberated during pipeline receipts
2) Vapors liberated during tank truck (rack) loading
3) Breathing losses due to tank headspaces expansion and contraction, and
4) During VRU equipment operation

Figure 1
Site Location Map



The Holland Terminal
630 Ottawa Avenue
Holland, Michigan 49423

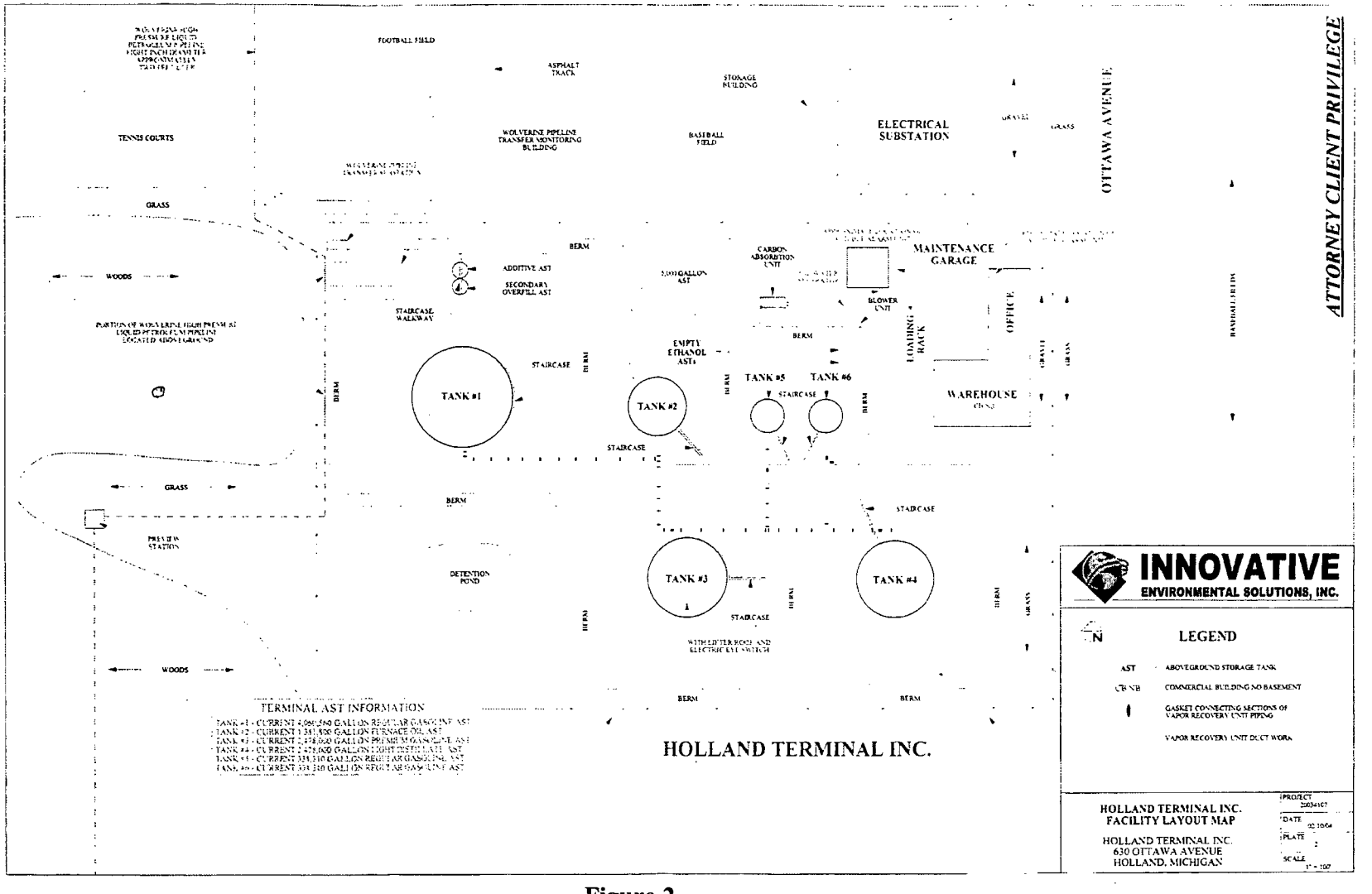

ATTORNEY CLIENT PRIVILEGE
FOOTBALL FIELD
ASPHALT TRACK
STORAGE BUILDING
TENNIS COURTS
WOLVERINE PIPELINE TRANSFER MONITORING BUILDING
BASEBALL FIELD
ELECTRICAL SUBSTATION
OTTAWA AVENUE
GRASS
WOODS
BERM
ADDITIVE AST
SECONDARY OVERFILL AST
5,000 GALLON AST
CARBON ABSORBTION UNIT
MAINTENANCE GARAGE
BLOWER UNIT
STAIRCASE WALKWAY
OFFICE
EMPTY ETHANOL ASTs
LOADING RACK
TANK #1
TANK #2
TANK #5
TANK #6
STAIRCASE
WAREHOUSE
TANK #3
TANK #4
DETENTION POND
PRESSURE STATION
WITH LIFTER ROD AND ELECTRIC EYE SWITCH
TERMINAL AST INFORMATION
HOLLAND TERMINAL INC.
INNOVATIVE
ENVIRONMENTAL SOLUTIONS, INC.
LEGEND
AST - ABOVEGROUND STORAGE TANK
CB NB - COMMERCIAL BUILDING NO BASEMENT
GASKET CONNECTING SECTIONS OF VAPOR RECOVERY UNIT PIPING
VAPOR RECOVERY UNIT DUCT WORK
HOLLAND TERMINAL INC.
FACILITY LAYOUT MAP
HOLLAND TERMINAL INC.
630 OTTAWA AVENUE
HOLLAND, MICHIGAN
PROJECT
DATE
PLATE
SCALE

Figure 2

The four (4) operating scenarios are described in detail below in the section titled ***Normal Operations***. A schematic diagram showing the gasoline vapor balance system is included in Figure 3. The schedule of the bulk storage tank contents and their sizes is included in Table 3. Not included are small support tanks such as the ethanol above ground storage tanks, the pipeline additive tank, the pipeline secondary tank or other site support tanks.

Table 3
Capacities and Contents of Bulk Petroleum Storage Tanks

Tank No.	Tank Capacity	Tank Contents
Tank No. 1	96,680 Barrels / 4,060,560 Gallons	Regular No-Lead Gasoline
Tank No. 2	32,876 Barrels / 1,380,792 Gallons	No. 2 Fuel Oil - Diesel
Tank No. 3	59,304 Barrels / 2,490,768 Gallons	Premium No-Lead Gasoline
Tank No. 4	59,252 Barrels / 2,488,584 Gallons	No. 2 Fuel Oil - Diesel
Tank No. 5	8,070 Barrels / 338,940 Gallons	Regular No-Lead Gasoline
Tank No. 6	8,080 Barrels / 339,360 Gallons	Regular No-Lead Gasoline

Product overfill protection is provided in other site emergency plans. If a malfunction occurs due to tank overfilling, or similar emergency condition, the responding personnel should refer to those procedures which are adopted by reference.

3.0 Site Security

The facility is secured on all sides by a chain linked fence. Two motor operated gates allow truck traffic into and out of the facility from Ottawa Avenue, via card and numeric input pads located at the gate entrances. The gate systems operate automatically to allow traffic out of the facility.

Each of the six (6) bulk storage tanks is also equipped with high level alarms which sound to alert the operators of high product levels in the tanks. The alarms are tied back to the Wolverine Pipeline system such that high tank alarms will alert filling operators to stop the product shipment into the terminal.

4.0 Normal Operations

Petroleum vapors liberated at the HTC are captured and retained within the bulk storage tank headspace. Normal vapor storage, handling, and treatment operation consists of four (4) primary activities or operations. Petroleum vapors will be released to the atmosphere when the set points for the individual tank vents are exceeded. This plan addresses conditions and situation

which may cause emissions of volatile compounds. The common activities related to vapor handling include:

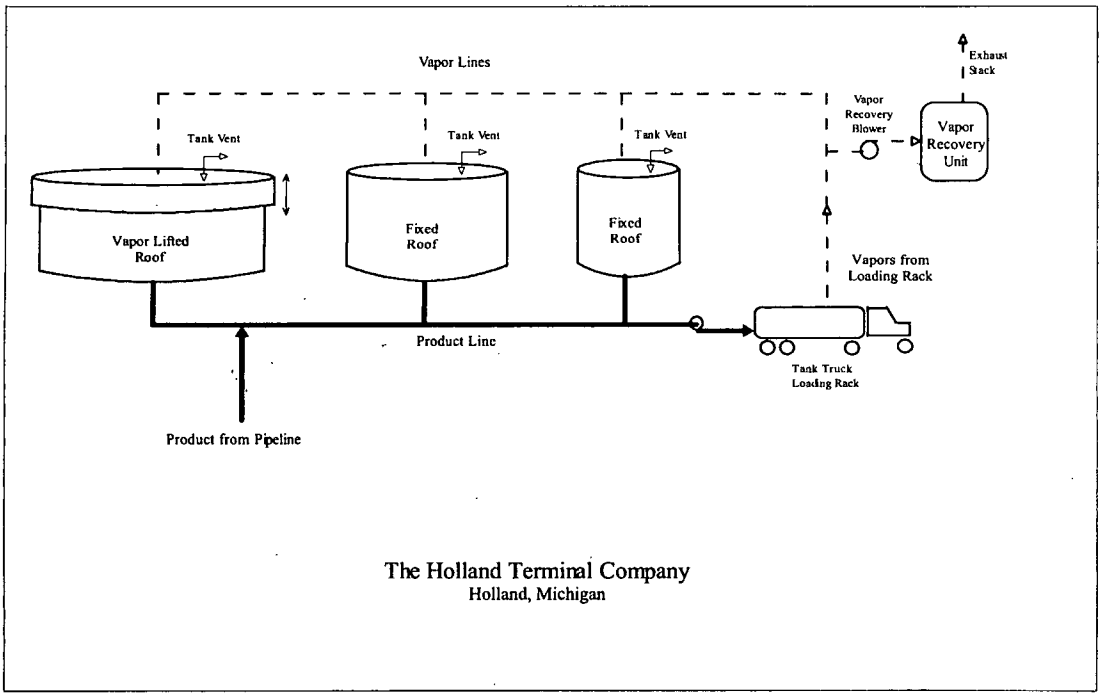
- Product Pipeline Receipts
- Tank Truck Loading
- Atmospheric/Ambient Heating and Cooling
- VRU Operation

Each of these potential emission scenarios are described in detail in each of the respective following sections of this MAP.

4.1 Product Pipeline Receipt

Bulk petroleum products are received from the Wolverine Pipeline for storage and distribution from bulk storage tanks. The bulk storage tanks are interconnected with a common vapor header, allowing the free flow of vapors between the tanks. Incoming petroleum products displace vapors held in the storage tank headspaces. The fuel oil tanks are currently isolated from the common vapor header by a rotating blind flange. In response to the displaced vapors and increased pressure within the receiving tank, vapors migrate to the vapor lifted roof on Tank #3.

Figure 3
Gasoline Vapor Balance System Schematic



Tank #3 is equipped with a vapor lifted roof that is free floating and which rises during shipments in response to incoming product, regardless of which one of the interconnected tanks is receiving the shipment. When the lifter roof on Tank #3 reaches 2/3 of the travel height (approximately 8 feet of a total travel height of approximately 12 feet) an automatic switch triggers the operation of the on-site vapor recovery unit (VRU). The emission of vapors resulting from product movement into and out of the storage tanks are defined as working "losses."

Vapor losses associated with bulk tank receipts are minimized by maintaining a slight pressure (approximately 4 inches of water pressure) in the vapor collection system. Vapor expansion and contractions are maintained within the moveable lifter roof, and excess vapors are processed by the VRU. The VRU may be operated to process vapors in the containment system which results in lowering the vapor lifted roof on Tank #3.

4.2 Tank Truck Loading

Vapor tight tank trucks are filled at the loading racks using bottom loading equipment. Tank trucks must be connected to the vapor collection system for product to flow to the truck. The flexible hose which connects the truck to the vapor collection system is equipped with a check valve to prevent vapors from escaping.

Tank truck vapors from an empty truck are displaced by incoming product during truck loading, are captured by the flexible vapor connection and are directed to the bulk tank vapor collection system. The interconnected bulk tanks allow the free flow of vapors within the system. Products removed from a specific storage tank are replaced by vapors displaced in the tank truck. The VRU is **NOT** an integral control device for tanker loading and as a result it may be operated but is not required to be operated during tank truck loading. Rather vapors are balanced within the bulk storage system such that liquids in the storage tank are replaced by vapors that were displaced during product loading. Vapors generated during tank truck loading are also defined as working "losses" but are calculated separately from storage tank working losses.

Vapor losses associated with tanker truck loading are contained within the vapor handling system by balancing liquid removal with tank truck vapor recoveries. The lifter roof adds flexibility and additional storage space for vapor containment to accommodate tank content expansions and contractions that are common due to atmospheric conditions and differences in vapor and/or liquid temperatures.

Tanks which are isolated from the vapor collection system, such as the fuel oil #2 storage tanks, will send product to the loading rack but will not receive vapors from the loading truck due to the isolation from the vapor collection header. The tank truck vapors while loading #2 will be directed to the lifter roof on Tank #3 and the lifter roof will rise in response.

4.3 Atmospheric/Ambient Heating and Cooling

Storage tank contents (liquids and vapors) undergo expansion and contraction due to changes in temperature and to a lesser extent, changes in atmospheric pressure. During periods of expansion and contraction, the lifter roof on Tank #3 responds by going up or down, and/or vents on the tanks may open to the atmosphere allowing air into the tanks, or by direct venting of vapors to the atmosphere when the set points for the individual tank vents are exceeded. After the venting episode, a properly operating vent will close and reseal. Vapors generated from heating and cooling are defined as "breathing losses."

Vapor losses are minimized by maintaining a slight positive pressure (approximately 4 inches of water pressure) in the vapor collection system. Breathing losses common to fixed wall tanks are minimized by way of this slight operating pressure in combination with the lifter roof expansion and contraction capability. Note that the slight pressure maintained in the system exerted by the weight of the lifter room is very small. As a result, the tanks remain defined as "atmospheric tanks" even though there may be a slight positive pressure within the vapor collection system relative to atmospheric pressure.

4.4 Vapor Recovery Unit Operation

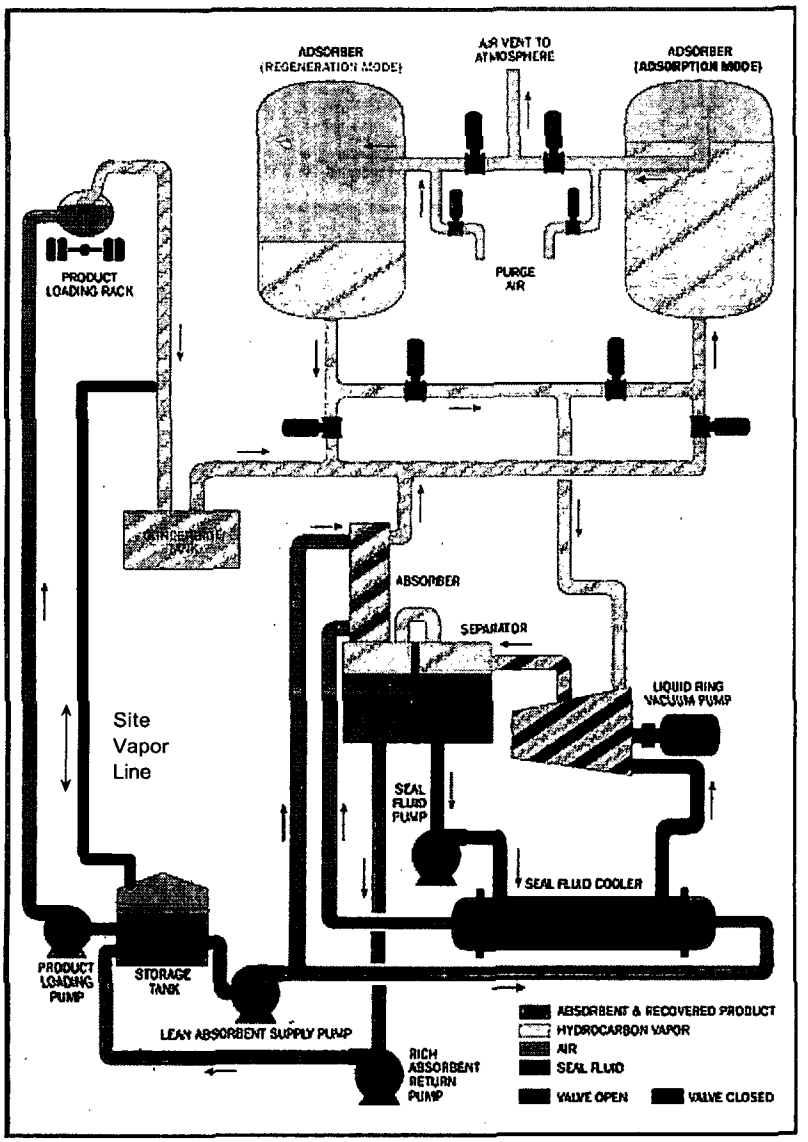
The on-site Vapor Recovery Unit (VRU) is a John Zink Company, Model #AA355-5-8B, which is capable of operating automatically, as described above or manually. During operation of the VRU petroleum vapors are directed from the vapor line to one of two carbon canisters. The VRU operates using carbon adsorption, which removes the majority of petroleum products from the vent stream. Treated vapors are directed to the atmosphere and vent directly through the exhaust stack. Recovered product is directed back to the storage tank system.

The second carbon canister is subjected to a "regeneration" cycle to recover petroleum products and to ready the carbon for additional petroleum vapor adsorption. In so doing the VRU cycles between on-line adsorption and carbon regeneration, for each of the two beds. A schematic diagram of the John Zink Vapor Recovery System is included in Figure 4.

Emissions generated during operation of the VRU are a function of the control efficiency of the carbon adsorption beds. The VRU was deployed to control and remove excess vapors generated from pipeline shipments, however the unit does not differentiate how the vapors were generated, it simply processes vapors introduced through the vapor collection system.

Vapor losses associated with the VRU are principally a function of the carbon adsorption capability. Over time, carbon treatment effectiveness may drop, and bed conditions may vary. Therefore, it is considered standard practice to include carbon evaluations to ensure proper control effectiveness of the VRU.

Figure 4
John Zink Vapor Recovery System Schematic



Preventive maintenance (PM) on the mechanical components of the VRU follows the manufactures recommendations. HTC may elect to contract this activity to others. The PM activity performed will be determined by HTC at the time of the unit evaluation.

During regular operation of the VRU, Holland Terminal personnel are able to visually monitor VRU operation through instrumentation read outs.

The Vapor lifted roof accommodates vapor storage due to the lifter roof movement inherent in Tank #3. This added storage capacity lessens the urgency associated with a failed or minor malfunction in the VRU. Vapors can be "stored" in Tank #3 (vapor roof extended) until the VRU can be returned to service. Due to the unique configuration of the vapor control mechanisms at HTC, truck shipments do not rely upon the operation of the VRU for vapor processing. Thus a failed or malfunctioning unit does not necessarily translate to excessive or un-permitted emissions.

STEPS TO TAKE IN THE EVENT OF A VRU FAILURE

1) IN THE EVENT OF A VRU FAILURE, NOTE ANY WARNING LIGHTS ILLUMINATED ON THE UNIT CONTROL PANNEL.
2) SHUT THE UNIT OFF
    a. If a low supply error is noted, reestablish gasoline supply and proceed to step 3,
    b. If a MOV (motor operated valve) failure is noted, proceed to reset step 3.
    c. All other errors or failures proceed to step 3.
3) PRESS SYSTEM "**RESET**."
4) RESTART UNIT
5) IN THE EVENT OF CONTINUED FAILURES, CONTACT THE FOLLOWING RESOURCES:
    a. For electrical related problems, contact the offsite electrician.
    b. For all other system problems, contact the John Zink Company Service and Repair Technician.

This MAP recognizes that readily available spare parts can assist in limiting the down time and improve the serviceability of vapor control equipment. Table 4 includes a list of spare parts that may be maintained on site for the VRU. HTC may determine that various parts do not require onsite availability and thus may adjust their inventory as appropriate.

Table 4
Spare Parts List for the VRU

John Zink Company Recommended Spare Parts	
RCS Electric Power M. O. V.	Presser Flow Control
Electro Switch #31204A	Switches D44L RIRA
Micro Switches	Gaskets
Fenwal Therm Switch – temp. control	Lamp bulb
Treric Thermo-meter	All other spare parts can be obtained within one or two business days
McDaniel control gauge	

5.0 Vapor Lifted Roof

Storage Tank #3 is fitted with an external, vapor lifted cover (roof). A common vapor header connects the gasoline bulk storage tanks to allow pressure equalization between the tanks, the VRU and the loading rack. The pressure equalization and the expanding capacity of Tank #3 allows an added measure of vapor storage and containment, as described below.

Floating roof tanks are common, however vapor lifted roofs are less so. The vapor containment gained by the vapor lifted roof are provided by two primary factors:

1) At no time are wetted surfaces for any of the bulk gasoline storage tanks in direct contact with the atmosphere, and
2) By containing the vapors at a slightly positive pressure relative to the atmosphere, the partial pressure in the tank headspace allows vapors to expand and contract without the need to take in fresh air or breath out excess vapor volumes.
3) Reduced fresh air into the tanks results in lower venting volume requirements.

The vapor retention within the enclosure allows the vapors to be absorbed back into the liquid when temperatures allow (for example at night). In so doing, the vapor lifted roof acts similarly to a large balloon, allowing the vapors to be held for processing and to maximize re-absorption into the gasoline product. A side benefit to the vapor lifted roof is that reduced volumes of air are introduced into the storage tanks. Generally, fresh air introduced into fixed wall tanks increases liquid evaporation (and product losses) and increases breathing losses.

Proper operation of the vapor lifted roof includes the free movement of the lifter roof suspended above the vapors. Measurements indicate a static pressure of approximately 4 inches of water pressure (2.25.ounces per square inch) is needed to suspend the (dry) vapor lifted roof. Precipitation (rain and snow) may increase the load on the roof which corresponds to an increase in the vapor pressure for the entire system. It is anticipated that to raise the roof, friction losses must be momentarily overcome, and thus the instantaneous pressures during expansion events

may be slightly higher than the pressures needed to suspend the roof. Venting at the individual tanks may take place during episodes of rapidly increasing pressure, and these venting episodes are considered normal emission events.

Substantial leaks or open venting from the vapor system components are not desirable and if significant they could prevent the lifter roof from rising above the lower rests. Lack of vapor lifted roof movements on warm days or during product receipts is an indication of a possible vapor leak in the system, and should be investigated. Since the mechanical vents on the tanks are likely sources of vapor losses in the system, a separate section of the MAP addresses tank venting and vent maintenance procedures.

The Vapor lifted roof also provides an added measure of vapor storage due to the movement inherent in Tank #3. This added flexible storage capacity lessens the urgency associated with a failed or minor malfunction in the VRU. Vapors can be temporarily "stored" in Tank #3 (vapor roof extended) until the VRU can be returned to service. For this terminal, truck shipments do not rely upon the operation of the VRU for tank truck processing. Thus a failed or malfunctioning unit does not necessarily translate to excessive or un-permitted emissions during tank truck filling or during periods when petroleum product is being held in storage.

Section 2 - Tank Vent Program of Maintenance

6.0 Tank Vent Function and Description

The storage tanks are equipped with pressure relief, pressure/vacuum (breather) relief, and/or emergency vents to provide the safe flow of vapors out of the tank and the flow of fresh air into the tank, as operating conditions dictate. In the simplest of terms, the vent header is designed to equalize pressures between the stored contents of the tanks while a tank vent is intended to allow vapor or air flow between the tank and the atmosphere. The vent function at HTC goes beyond simple vapor and air flow to include the following:

1) To protect the tank integrity from damage resulting from either over (positive) pressurization or under (negative) pressurization. This is accomplished by pressure or pressure/vacuum venting. The vent settings are established by the manufacturer, prior to deployment. Note that the vent settings are not typically adjustable in the field and thus adjustment is not advised.

2) To prevent the introduction of foreign matter, insects and birds from entering the tank contents and/or interfering with the venting mechanism and venting seal surfaces.

3) To provide emergency pressure relief in the event of a tank fire or other events that may cause a rapid increase in tank pressures.

4) To retain a slight positive pressure and to a lesser extent, a slight vacuum on the vapor collection system, within the specifications for the bulk storage tanks and vents. The general specifications for the system are as follows:

   A) Pressure = 3.0 ounces per square inch (breather vent setting)
   B) Vacuum = 0.5 ounces per square inch (breather vent setting)
   C) Emergency Vents = 3.5 ounces per square inch (emergency vent setting), with one exception; the 20 inch manhole emergency vent on Tank #6 is set at 3.3 ounces per square inch.

6.1 Proper Venting

A properly operating vent will remain sealed until the set point is attained. See manufacturer's literature and specifications for the operating ranges and variations for the set point activation pressures. For pressure/vacuum vents, the vent may open when either positive or negative pressures (relative to atmospheric pressure) reach or exceeds the set point of the vent. For a typical breathing vent, this will occur when internal pressures in the tank or vapor

collection system exceed 3.0 ounces per square inch, or if vacuum levels falls below 0.5 ounces per square inch. A detailed list of the tank vents and the pressure and vacuum settings for the tank vents is included in Table 5.

Table 5
Storage Tank Venting Schedule

Tank No.	Tank Contents	Number Each	Size (inches)	Function Type*	Pressure Setting (Ounces/in^2)	Vacuum Setting (Ounces/in^2)
1	Reg. N.L.	3	10	B	3	0.5
	Reg. N.L.	2	10	P	3.5	N.A.
2	#2 Fuel Oil	1	8	B	3	0.5
	#2 Fuel Oil	1	20	E,P,MH	3.5	N.A.
3	Prem. N.L.	1	8	B	3.5	0.5
	Prem. N.L.	1	20	E,P,MH	3.5	N.A.
4	#2 Fuel Oil	1	10	B	3	0.5
	#2 Fuel Oil	1	20	E,P,MH	3.5	N.A.
5	Reg. N.L.	1	6	B	3	0.5
	Reg. N.L.	1	20	E,P,MH	3.5	N.A.
6	Reg. N.L.	3	6	B	3	0.5
	Reg. N.L.	1	20	E,P,MH	3. 3	N.A.

Note*: B = Breather style, Pressure and Vacuum Relief
P = Pressure Relief
E = Emergency Pressure Relief
V = Vacuum Relief
MH = Manhole Style Emergency Vent

Emergency vents are activated or opened when the pressure in the tank reaches or exceeds 3.5 ounces per square inch. These vents are designed to provide greater venting volume that may result under certain circumstances such as during tank fires, or other emergency situations which cause rapid expansions of the tank contents. A properly operating vent will open to allow sufficient flow into or out of the tank system, thus protecting the tank shell.

6.2 Potential Vent Failures

STICKING VENTS - Sticking vents (not opening) may be caused by the deposit of gummy substances or the breakdown of materials used to seal the vent. DO NOT OIL ANY PART OF THE VENT ASSEMBLY, unless directed by the manufacturer to do so. Sticking vents may cause abnormal conditions inside the tank, either pressure levels

that are too high or vacuum levels that are too low. The tank integrity may be compromised under these circumstances and immediate response to vent the tank must be undertaken by knowledgeable and qualified response personnel. Safety of the responding personnel and others, potential property damage, and potential impact/hazards to the environment must be considered.

NON-SEALING VENTS- Pressure/vacuum vents, pressure relief vents, and emergency vents are all equipped with sealing surfaces to prevent excessive loss of vapors to the environment, or in the case of vacuum vents, premature flow of air into the tank. Non-sealing vents may occur for any number of reasons, such as the presence of foreign matter on the sealing surface, sticking or improperly operating valve actuator, as well as degradation or damage to the sealing surfaces. DO NOT OIL ANY PART OF THE VENT ASSEMBLY, unless directed by the manufacturer to do so.

The manufacturer warns that damage to the sealing surface may occur during inspection if the components are dropped, nicked or damaged in anyway. As a result, unnecessary disassembly, rough handling, improper use of tools, etc. should be avoided.

6.3 Vent Maintenance

HTC currently conducts periodic inspections of the facility. The inspection procedures are located in other sections of the site malfunction abatement plan. The storage tanks are equipped with several different models, different styles and varying sizes of vents. Visual (sight), olfactory (smell), and tactile (touch) senses should be used by the site inspection crew to determine venting events. These methods can be used to determine vent operating conditions. Since venting may be normal occurrence, the presence of vapors from a vent should be noted, but are not necessarily an indication of a failed vent mechanism.

The lifter roof position, atmospheric conditions, and the operating mode at the time of a vapor venting episode may be the cause for the observation, and thus should both be noted in the inspection log located in Appendix B. In the event that the site inspection personnel feel that conditions may be contributing to abnormal venting, the inspector should note the condition in the inspection log located in Appendix B. If the venting episode does not subside after a reasonable period, or after a change in the operating condition, the vent should be inspected and repaired or replaced as may be appropriate. Venting should only occur when the pressure (or vacuum) exceeds the manufacturer's set points on the respective venting devices. See Table 5 for a schedule of the vent manufacturer's set points.

The tanks may be equipped with vents that are original to the facility. Disassembly and maintenance on these units is not advised, since permanent damage to the unit may occur during the attempted repair.

Several of the tanks have been retrofitted with new pressure, pressure/vacuum and emergency vents from Shand & Jurs. Proper care for these vents is detailed in the manufactures recommendations for inspection and maintenance for each of the individual vent models. Available literature for several of the vent styles deployed is on file at HTC.

The vents are made of corrosion resistant materials. Shand & Jurs advises the new style vents do not require painting. Working mechanisms and sealing surfaces SHOULD NOT BE PAINTED.

6.4 Vent Inspection

As noted above, daily site inspections are conducted to determine the condition of the equipment and facility. The new breather style (Shand & Jurs Model 94020) calls for inspection of the vent mechanism once every 3 months. Other models suggest seal inspections on regular intervals. As a result, HTC will inspect the breather vents quarterly and other vents will be inspected in the spring and fall to correspond to the beginning and the end of the warm months of the year. This schedule may be adjusted to accommodate safe access to the vent area (tank roofs), or as may be warranted by manufacturer updates and the continual evolution of "best management practices."

Shand & Jurs notes that inspections made are to insure that the vent is opening and will activate at the correct operating pressure. Their approach is intended to prevent over pressurization (or excess vacuum) on the tank shell which may lead to a tank failure. Holland Terminal will follow good management practices to address concerns that the vents work properly, meaning that the vent will open at the manufactures specified openings and reseal as designed.

Section 3 - Facility Inspection Schedule

7.0 Facility Inspections

A new schedule for internal facility inspections (those inspections conducted by HTC) was developed voluntarily per the request of the U.S. EPA. Table 6 summarizes the various inspection types and the inspection frequency for these inspections. Blank inspection forms for recording monthly inspections are included in the Appendices of this plan.

Table 6
Facility Inspection Schedule

Season(s)	Frequency	Inspection Description
All	Daily	Storage Tank Visual Inspection
All except Winter[1]	Weekly	Tank Vent Visual Inspection
Winter[1]	Monthly	Tank Vent Visual Inspection
All	Monthly	Monthly Facility Inspection Checklist
All	Quarterly	Tank Vent Mechanical Inspection
All	As needed	John Zink Operating Log

Note: Winter for purposes of the MAP is for the period of Nov. 1 to Apr. 1

7.1 Daily Inspections

Daily inspections will be conducted every work day of operation for the primary purpose of ensuring the integrity of;

1) the storage tanks
2) the piping systems
3) the emergency containment dikes
4) the loading rack equipment/components
5) the vapor recovery lines (header)
6) the security fencing system

The inspection will note any abnormal conditions to the facility and the facility components as well as the operating condition of the facility based upon sensory observations. The inspection will be performed by the site manager or his designate.

7.2 Weekly Inspections

Weekly inspections will be conducted by HTC staff during all but the winter months by traveling to the top of each of the storage tanks. The purpose of the weekly inspections will be to inspect the tank top openings (vents and covers) to detect leaks and malfunctions in the sealed openings. The inspection shall be recorded per the weekly inspection log located in Appendix B and per the discussion contained in Section 6.3 of this MAP. All tanks should be sealed shut except during venting events when the set points for the individual tank vents are exceeded. This inspection may not be conducted during product receipts since travel to the top of the tanks is not safe during product receipts.

For purposes of this MAP, the winter is defined as the period of time from November 1 to April 1. During this period, travel to the top of the tanks can be dangerous due to ice formation and inclement weather conditions. Further, vapor liberation from storage of gasoline products is minimal during the cold months experienced at this latitude. During the winter period, the weekly tank vent inspections will be conducted once per calendar month. The inspection should be conducted during periods when the weather conditions are conducive to safe travel to the top of the storage tanks. The inspector should also note any general (normal) venting as well as abnormal weather conditions that are believe to be contributing to the observed operation of the vents.

7.3 Monthly Inspections

A monthly facility inspection shall be conducted to document and ensure the proper operation of various facility components and to document ongoing repairs. The facility operators will use the "Monthly Facility Inspection Checklist" to record conditions found during routine inspections and may also use the checklist to document corrective actions and/or repairs conducted pursuant to the inspection. A blank copy of the "Monthly Inspection Checklist" may be found in Appendix B. The inspector should also note any general (normal) venting as well as abnormal weather conditions that are believe to be contributing to the observed operation of the vents.

7.4 Quarterly Vent Inspections

Quarterly vent inspections will be conducted to evaluate the working condition of the vents and to ensure the mechanical working parts are in proper working order. The goals of the quarterly inspection are to:

1) Ensure that the vents open as specified by the manufacturer, and,
2) To ensure the vents reseal upon closing.

The HTC terminal recognizes three primary vent types that are the subject of the quarterly inspection;

1) Breather style (pressure and vacuum) vents.
2) Dome style emergency pressure relief vents.
3) Manhole style emergency relief vents.

HTC will use the blank inspection forms found in Appendix D to inspect the vents on a quarterly basis. Debris, paint and other foreign matter should be cleared away from the vents when discovered. Additionally, the inspection should note the general conditions of the vent as well as any observations that may be relevant to the proper operation of the units.

The equipment manufacturer cautions that improper or excessive handling of the vent components can result in damage to the unit. Therefore, the inspection should be conducted in a manner that does not unnecessarily handle vent components and the sensitive sealing surfaces. Any damage caused during the inspection should be noted, and repairs/replacements should be made as soon as practicable. The inspector should also note any general (normal) venting as well as abnormal weather conditions that are believe to be contributing to the observed operation of the vents.

Section 4 -Vapor Recovery Unit (VRU) Program of Maintenance

8.0 John Zink Model AA 355 Operating Log

The operating parameters for the VRU will be used on an ongoing basis to determine the operating condition and/or the need for maintenance on the VRU. The operators may elect to use a blank VRU "Operating Log" to record the operating conditions and gage readings for this unit. The "Operating Log" was prepared by the VRU manufacturer and has been included in this MAP with minor revisions and clarification. A blank VRU operating log sheet may be found in Appendix C.

Please refer to the John Zink unit manual, training information and service personnel for specific maintenance on this unit. See also section 4.4 of this plan for a description of the VRU function at this location.

Appendix A

· Air Compliance Facility Inspection Schedule

The Holland Terminal Company

Air Compliance Facility Inspection Schedule

Season(s)	Frequency	Inspection Description
All	Daily	Storage Tank Visual Inspection
All except Winter[1]	Weekly	Tank Vent Visual Inspection
Winter[1]	Monthly	Tank Vent Visual Inspection
All	Monthly	Monthly Facility Inspection Checklist
All	Quarterly	Tank Vent Mechanical Inspection
All	As needed	John Zink Operating Log

Note: Winter for purposes of the MAP is for the period of Nov. 1 to Apr. 1

Appendix B

- Weekly Tank Vent Visual Checklist
- Monthly Facility Inspection Checklist

Holland Terminal Company

Weekly Tank Vent Visual Checklist

Instructions: This inspection record will be completed every week during all but the winter months. Place an "X" in the appropriate box for each item. If any response requires elaboration, do so in the "Description and Comments" space provided. Further descriptions or comments should be attached on a separate sheet of paper, if necessary.

		YES	NO	Description & Comments
1)	Are any of the vents on Tank 1 leaking vapors?	☐	☐	_____
2)	Are any of the vents on Tank 2 leaking vapors?	☐	☐	_____
3)	Are any of the vents on Tank 3 leaking vapors?	☐	☐	_____
4)	Are any of the vents on Tank 4 leaking vapors?	☐	☐	_____
5)	Are any of the vents on Tank 5 leaking vapors?	☐	☐	_____
6)	Are any of the vents on Tank 6 leaking vapors?	☐	☐	_____

Remarks: _____

_____

_____

Signature: _____ Date: _____

Holland Terminal Company

Monthly Facility Inspection Checklist

Instructions: This inspection record will be completed every month. Place an "X" in the appropriate box for each item. If any response requires elaboration, do so in the "Description and Comments" space provided. Further descriptions or comments should be attached on a separate sheet of paper, if necessary.

		YES	NO	Description & Comments
1)	Do tank surfaces show signs of leakage?	☐	☐	_____
2)	Are tanks damaged, rusted or deteriorated?	☐	☐	_____
3)	Are bolts, rivets, or seams damaged?	☐	☐	_____
4)	Are tank supports deteriorated or damaged?	☐	☐	_____
5)	Have tank foundation eroded or settled?	☐	☐	_____
6)	Are level gauges or alarms damaged or inoperable?	☐	☐	_____
7)	Are vents obstructed?	☐	☐	_____
8)	Are valve seals or gaskets leaking?	☐	☐	_____
9)	Are pipelines or supports damaged or deteriorated?	☐	☐	_____
10)	Are buried pipelines exposed?	☐	☐	_____
11)	Are the loading racks damaged or deteriorated?	☐	☐	_____
12)	Are caps or blind-flanges missing or damaged?	☐	☐	_____
13)	Is secondary containment damaged or stained?	☐	☐	_____
14)	Are dike drainage valves open?	☐	☐	_____
15)	Is the oil/water separator damaged or inoperable?	☐	☐	_____
16)	Is a sheen evident on the oil/water effluent?	☐	☐	_____
17)	Are the fencing, gates and lighting inoperable?	☐	☐	_____
18)	Was product being received during the inspection?	☐	☐	_____
19)	Record the Lifter Roof position at the time of the inspection.			_____
20)	Record the Atmospheric Conditions at the time of the inspection.			_____
21)	Record the VRU operating status during the time of the inspection.			_____

Remarks: _____

_____

_____

Signature: _____ Date: _____

Appendix C

· John Zink Model AA 355 Operating Log

Holland Terminal Company

John Zink Model AA 355
Operating Log

Date: _____ Performed by: _____

Bed Vacuum

P1 101 _____ inches of mercury (In. Hg)
P1 201 _____ inches of mercury (In. Hg)
P1 501 _____ inches of mercury (In. Hg)

Regeneration Time

V-1 _____ minutes (normal 16-17 minutes)
V-2 _____ minutes (normal 16-17 minutes)

Carbon Bed Temperature

V-1 _____ _____ _____° F
V-2 _____ _____ _____° F

Seal Fluid Temperature

T1-401_____ ° F (105° F Max.)

Gas Temperature

T1 -701_____ ° F (90° F Max.)
T1 -303_____ ° F (100° F Max.)

Gasoline Pressures

P1-301 _____ PSIG (normal ≈10)
P1-302 _____ PSIG (normal ≈14)
P1-601 _____ PSIG (normal range 20 – 30, max 50±)
P1-701 _____ PSIG (normal range 20 – 30, max 50±)

Seal Fluid Level Check - O.K? ☐ Yes ☐ No

Gas Level Check - O.K? ☐ Yes ☐ No

Notes:_____
_____
_____
_____

Appendix D

· Quarterly Vent Mechanical Inspection Forms:

- Breather Style
- Dome Style Pressure Relief
- Manhole Style Pressure Relief

Holland Terminal Company

Quarterly Vent Mechanical Inspection Form
Breather Style (Pressure/Vacuum) Vent

Date: _____ Pressure Setting: _____ oz./sq.in.
Tank Number: _____ Vacuum Setting: _____ oz./sq.in.
Vent Description: _____ Inspected by: _____

Caution: The Vent is a delicate instrument. The manufacturer indicates extreme care must be exercised when handling vents and vent components.

1) Remove vent cover to expose vent working mechanism. Note any observations that appear to be abnormal. (Did the cover or the area under the cover have any obstruction or other blockage?)
□ Yes □ No If yes, describe.

_____
_____
_____

2) Inspect both the pressure relief mechanism and the vacuum relief mechanisms. Are both units sealing properly? □ Yes □ No If no, describe.

_____
_____
_____

3) Is a repair to either the pressure or vacuum vent mechanism required? □ Yes □ No
If yes, describe proposed repair or replacement action required.

_____
_____
_____

4) Were any problems observed during the inspection or did damage to the unit occur during the inspection? □ Yes □ No If yes, describe below:

_____
_____
_____

5) Are there any other notes or observations from the inspection? □ Yes □ No If yes, describe:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Holland Terminal Company

Quarterly Vent Mechanical Inspection Form
Dome Style (Pressure) Vent

Date: _____ Pressure Setting: _____ oz./sq.in.
Tank Number: _____ Inspected by: _____
Vent Identification: _____

Caution: The Vent is a delicate instrument. The manufacturer indicates extreme care must be exercised when handling vents and vent components.

1) Remove the vent cover to expose vent working mechanism. Note any observations that appear to be abnormal. Did the cover or the area under the cover have any obstruction or other blockage?
□ Yes □ No If yes, describe.
Notes: _____

2) Inspect pressure relief mechanism. Is the surface sealing properly?
□ Yes □ No If no, describe.

3) Is a repair to the pressure vent mechanism required? □ Yes □ No
If yes, describe proposed repair or replacement action required.

4) Were any problems observed during the inspection or did damage to the unit occur during the inspection? □ Yes □ No If yes, describe below:

5) Are there any other notes or observations from the inspection? □ Yes □ No If yes, describe:

Holland Terminal Company

Quarterly Vent Mechanical Inspection Form
Manhole Style (Pressure) Vent

Date: _____ Pressure Setting: _____ oz./sq.in.
Tank Number: _____ Inspected by: _____
Vent Identification: _____

Caution: Moving the weighted cover on these units can cause sealing damage. Use extreme care when attempting to move or lift the weighted sealing surface.

1) Is the vent releasing vapors? □ Yes □ No If yes reseal and re-inspect and note:

_____

_____

_____

2) Carefully lift the sealing surface to ensure the unit is not stuck in the closed position. Was the unit stuck shut? □ Yes □ No

If yes, describe.

_____

_____

_____

3) Is a repair to this unit required? □ Yes □ No

If yes, describe proposed repair or replacement action required.

_____

_____

_____

4) Were any problems observed during the inspection or did damage to the unit occur during the inspection? □ Yes □ No If yes, describe below:

_____

_____

_____

5) Are there any other notes or observations from the inspection? □ Yes □ No If yes, describe:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

CERTIFICATE OF SERVICE

I, Shanee Rucker, certify that I hand delivered the original of the Consent Agreement and Final Order, docket number CAA-05-2006-0038, to the Regional Hearing Clerk, Region 5, United States Environmental Protection Agency, and that I mailed correct copies by first-class, postage prepaid, certified mail, return receipt requested, to Holland Terminal, Inc. and Clifford Knaggs, Counsel, by placing them in the custody of the United States Postal Service addressed as follows:

Julius Essenburg, President
Holland Terminal, Inc.
630 Ottawa Avenue
Holland, Michigan 49423

Clifford Knaggs
Knaggs, Harter, Brake, & Schneider, PC
7521 Westshire Drive
Suite 100
Lansing, Michigan 48917-8660

on the 30th day of March, 2007.

Dorothy Shaff for SR
Shanee Rucker
AECAS (MI/WI)

CERTIFIED MAIL RECEIPT NUMBER: 7001 0320 0005 8919 3201