



State of Ohio Environmental Protection Agency

Northeast District Office

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Bob Taft, Governor
Bruce Johnson, Lieutenant Governor
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CERTIFIED MAIL

December 13, 2005

Ms. Allison Knowles
Von Roll America, Inc.
1250 Saint George Street
East Liverpool, OH 43920

**RE: HAZARDOUS WASTE PERMIT MODIFICATIONS, VON ROLL AMERICA, INC. ,
OHD 980 613 541 / 02-15-0589**

- 1) **CLASS 1A APPROVAL - "REVISION ZERO" OF THE PART B PERMIT APPLICATION (Sections B through J, PITS #050722-1A-1)**
- 2) **CLASS 1A APPROVAL - "REVISION ZERO" OF THE PART B PERMIT APPLICATION (Section K, PITS # 050901-1A-1)**
- 3) **CLASS 1 ACKNOWLEDGMENT - REVISIONS TO THE VRA PERMIT TO MATCH THE PART B PERMIT APPLICATION (PITS #051129-1-1)**

Dear Ms. Knowles:

Ohio Environmental Protection Agency (Ohio EPA) is in receipt of a request dated July 20, 2005 from Von Roll America, Inc. (VRA) for a Class 1 permit modification with Director's prior approval (**Class 1A**). This modification included **Revision Zero of Sections B through J** of the Part B permit application, and was assigned a permit information tracking system (PITS) ID number of **050722-1A-1**. The following addendums to this modification were submitted:

two addendums to Section B dated September 1 and September 13, 2005;
an addendum to Section C dated September 21, 2005;
an addendum to Section D dated October 7, 2005;
an addendum to Section F dated September 16, 2005;
an addendum to Section G dated September 13, 2005;
an addendum to Section H dated September 21, 2005;
an addendum to Section I dated September 20, 2005, and;
an addendum to Section J dated September 1, 2005.

VRA submitted an addendum dated October 21, 2005 that included pages for Sections C, D, F, G, H, I, and J. VRA also submitted a final addendum dated November 10, 2005 that included pages for Sections D, G, and J.

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VRA submitted a request dated August 31, 2005 for a Class 1 permit modification with Director's prior approval (**Class 1A**) for **Revision Zero of Section K** of the Part B permit application. Section K was inadvertently not included with Sections B through J. This modification was assigned a PITS ID number of **050901-1A-1**.

In addition, VRA submitted a request dated November 21, 2005 for a Class 1 permit modification to request Ohio EPA to revise language in the Permit Renewal to match language in the Part B permit application. This modification was assigned a PITS ID number of **051129-1-1**.

BACKGROUND:

The Ohio Hazardous Waste Facility Installation and Operation Permit Renewal was issued by Ohio EPA and journalized on March 23, 2005. The Permit Renewal contains a compliance schedule in Condition A.27 (d), with items (i) through (iv) to be submitted to Ohio EPA for approval within 120 days of the permit journalization date. Under Condition A.27(d)(i), the Permittee was required to submit an updated Part B permit application to Ohio EPA. Under Condition A.27(d)(ii), the Permittee was required to include new language regarding POHCs in the Part B permit application. Under Condition A.27(d)(iii), the Permittee was required to include new language regarding dioxin-bearing wastes in the Part B permit application. Under Condition A.27(d)(iv), the Permittee was required to include new language regarding restricted wastes in the Part B permit application.

Many of these changes were required as a result of comments received by Ohio EPA from the public during the comment period on the draft permit for the VRA facility. The submission of Sections B through K of the updated Part B permit application, including the three permit modifications, is referred to as "Revision Zero" by VRA and by Ohio EPA. The submission of "Revision Zero" fulfills Conditions A.27(d)(i) through (iv) of the Permit Renewal.

In addition, VRA submitted a classification determination dated June 1, 2005 regarding the removal of language from Sections C and D of the permit application that prohibit VRA from treating wastes that contain dichlorofluoromethane, trichlorofluoromethane, and bromoform at concentrations greater than or equal to 500 ppm. In a letter dated June 9, 2005, Ohio EPA classified this modification as a class 1 permit modification with Director's prior approval (**class 1A**). Please reference those two letters for additional information. This modification affects many of the same pages as those affected by the revisions required under Condition A.27(d) of the Permit Renewal. As such, with Ohio EPA's concurrence, VRA included this Class 1A modification with the revisions required under Condition A.27 (d). Ohio EPA review of "Revision Zero" of the Part B permit application included an evaluation of the removal of the language prohibiting VRA from treating these wastes.

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Finally, VRA submitted several modifications to Ohio EPA after the submission of "Revision Zero" on July 20, 2005. Those modifications affected the version of the permit application that was in effect at the time of those modification submittals (the "current" version, not "Revision Zero"). Those modifications were approved separately by Ohio EPA and revised pages were also incorporated into the addendums to the various sections of "Revision Zero" affected by those modifications.

FOR APPROVAL:

With this letter, Ohio EPA approves the above-referenced modifications and the addendums submitted pursuant to Ohio Administrative Code Rule 3745-50-51 and accordingly Ohio EPA has updated the facility's Part B permit application and Permit Renewal.

Text that has been removed from the Permit Renewal as a result of this approval is indicated by strike-through font. Text that has been added to the Permit Renewal as a result of this approval is presented in small-cap font. Text that was revised in the Permit Renewal as a result of previous modifications has been corrected to eliminate strike-through and upper case font. The changes made to pages 14 and 85 of the Permit Renewal were as a result of the Class 1A modifications (PITS#050722-1A-1, #050901-1A-1), while the rest of the changes were made as a result of the Class 1 modification (PITS #051129-1-1).

The following modifications have been made to the Ohio Hazardous Waste Facility Installation and Operation Permit Renewal journalized on March 23, 2005:

- Page 14
- (d) (i) through (iv) removed/added -
 - ~~(d) The Permittee shall submit for approval to the Ohio EPA within ninety 120 days after permit journalization:~~
 - ~~(i) An amended permit application updated for changes resulting from permit modifications approved between the dates of issuance of the draft permit and issuance of the final renewal permit. The updated permit application is to be submitted as a Class 1 modification requiring director's prior approval in accordance with OAC rule 3745-50-51. RESERVED~~
 - ~~(ii) A permit modification to change the applicable sections in the approved Part B permit application to include new language regarding principal organic hazardous constituents (POHCs). The updated permit application is to be submitted as a Class 1 modification requiring director's prior approval in accordance with OAC rule 3745-50-51. RESERVED~~

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~~(iii) A permit modification to change the applicable sections in the approved Part B permit application to include new language regarding dioxin-bearing waste. This modification shall also include language restrictions for wastes carrying the codes, F032, F039, K043, and K099. The updated permit application is to be submitted as a Class 1 modification requiring director's prior approval in accordance with OAC rule 3745-50-51. RESERVED~~

~~(iv) A permit modification to change the applicable sections in the approved Part B permit application to include new language regarding restricted wastes. The updated permit application is to be submitted as a Class 1 modification requiring director's prior approval in accordance with OAC rule 3745-50-51. RESERVED~~

Page 18 B.1(b) added -
(IV) THE PERMITTEE MAY RECEIVE OFF-SITE GENERATED NON-HAZARDOUS WASTEWATER (NHW) FOR USE ON-SITE AS PROCESS WATER. WHEN NEEDED, THE NHW MAY BE TREATED THROUGH THE GENERAL WASTEWATER TREATMENT SYSTEM PRIOR TO USE AT THE FACILITY.

Page 18 B.1(b) added -
(V) THE PERMITTEE MAY RECEIVE OFF-SITE GENERATED WASTE TO BE USED IN FUEL BLENDING OPERATIONS. THIS WASTE MAY, OR MAY NOT, BE BLENDED AND STORED IN PERMITTED TANKS PRIOR TO TRANSPORT OFF-SITE TO PERMITTED FACILITIES FOR TREATMENT.

Page 18 B.1(c) added -
THE PERMITTEE MAY RECEIVE AND STORE OFF-SITE GENERATED WASTE (THIRD PARTY WASTE) THAT WILL NOT BE INCINERATED AT THE FACILITY. THIS WASTE WILL BE TRANSPORTED OFF-SITE TO A PERMITTED FACILITY FOR TREATMENT AND/OR RECLAMATION. THIRD PARTY WASTE WILL BE MANAGED IN ACCORDANCE WITH THIS PERMIT AND THE APPROVED PART B PERMIT APPLICATION.

Page 35 3rd paragraph removed/added -
The Permittee may treat Class 1A Flammable Liquids through the ~~Direct Organic Tanker South Unit~~ DIRECT FEED MECHANISMS INCLUDING DIRECT TO KILN PROCESSING.

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- Page 37 C.1.(e) removed -
~~All wastes subjected to container treatment activities will be sent to the incinerator for further treatment prior to being sent off-site.~~
- Page 42 C.14, 3rd sentence removed/added -
~~At a minimum,~~ Staging areas must meet secondary containment standards, HAVE AUTOMATIC FIRE DETECTION AND SUPPRESSION SYSTEMS, AND HAVE A ROOF OR CANOPY WHEN POSSIBLE.
- Page 42 C.14 eliminated -
upper case font from previous modifications has been corrected
- Page 42a C.14(b)(4) removed -
~~, and at a minimum, once every 12 hours~~
- Page 42b eliminated -
upper case font from previous modifications has been corrected
- Page 42c eliminated -
strike-through and upper case font from previous modifications has been corrected
- Page 42d eliminated -
strike-through and upper case font from previous modifications has been corrected
- Page 43 D. General Overview added -
The Permittee is authorized for tank storage and treatment activities associated with organic and inorganic waste treatment operations, laboratory processes, internal and external truck washes, ~~and~~ general wastewater treatment, AND FUEL BLENDING.
- Page 43 D.(A) 2nd paragraph removed/added -
~~Blending (treatment) in tanks at the organic tank farm and in container pump-out tanks is limited by the capacity of the Incineration System.~~ TANKS MAY ALSO BE USED TO ACCUMULATE WASTE FOR FUEL BLENDING OPERATIONS. WASTE RECEIVED FROM OFF-SITE MAY BE BLENDED IN TANKS IN THE ORGANIC WASTE TANK FARM AND IN CONTAINER PUMP-OUT TANKS PRIOR TO TRANSPORT OFF-SITE TO A PERMITTED FACILITY TO BE USED AS FUEL OR FOR FURTHER TREATMENT. SECTION C OF THE APPROVED PART B PERMIT APPLICATION INCLUDES WASTE RESTRICTIONS ASSOCIATED WITH THE FUEL BLENDING OPERATIONS.

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- Page 47 D.1.(a) 2nd paragraph removed/added -
Liquids from clean-up activities and/or spills, or storm waster collected from active process area "C" water sumps are transferred to the Facility's ~~wastewater storage tank~~ PROCESS WATER HOLDING TANK (W-5).
- Page 47 D.1.(a) 2nd paragraph removed/added -
Process water from the incinerator train is stored in two existing tanks PROCESS WATER HOLDING TANKS (TANKS ~~TANKS~~ W-6 and W-7) with a total capacity of 60,000 gallons (each tank holds 30,000 gallons).
- Page 49 D.1.(b) added -
During any calendar year, the Permittee shall not manage, through tank storage, hazardous waste in excess of the maximum annual quantity set forth in Condition B.1.(b) of this permit. AN EXCEPTION TO THIS LIMIT IS WASTE RECEIVED, TREATED, AND STORED FOR THE PURPOSE OF FUEL BLENDING OPERATIONS.
- Page 51 D.5.(b) eliminated -
upper case font has been corrected (Section F of)
- Page 77 (d) removed/added -
Wastes in a wide variety of chemical compositions and physical states possessing a wide range of BTU values are scheduled for receipt Monday through ~~Friday~~ SUNDAY at the facility.
- Page 78 I(A).1.(d) continued added -
wastes are described in broad compositional ranges. Wastes are received in a variety of container sizes and in bulk form as solids, liquids, slurries, sludges, ~~and~~ solid/liquid mixtures, AND AS SPECIFIC APPROVED COMPRESSED GASEOUS WASTE STREAMS LISTED IN SECTION C-1A(1) OF THE APPROVED PART B PERMIT APPLICATION.
- Page 79 I(A).2.(a)(iv) added -
Compressed gases are prohibited from being fed to the incineration system, with the exception of gases that may be used as propellant in aerosol cans (~~see Section C~~) AND SPECIFIC COMPRESSED GASEOUS WASTE STREAMS AS APPROVED FOR INCINERATION AND LISTED IN SECTION C-1A(1) OF THE APPROVED PART B PERMIT APPLICATION.
- Page 79 I(A).2.(c)(ii) removed/added -
~~waste containing asbestos~~; RESERVED

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Page 80 I(A).2.(c) (iii) removed/added (to correct mistake) -
 dioxin-bearing waste: waste requiring specific treatment technology, i.e.,
 destruction and removal efficiency (DRE) of 99.9999%; waste assigned
 federal hazardous waste codes F020 through F024 F023, F026, and F027;

Page 80 I(A).2.(c) (vii) removed/added -
 compressed gases with the exception of gases used as propellant in aerosol
 cans, AND SPECIFIC COMPRESSED GASEOUS WASTE STREAMS AS APPROVED FOR
 INCINERATION AND LISTED IN SECTION C-1A(1) OF THE APPROVED PART B PERMIT
 APPLICATION.

Page 85 I(A).3.(k)(ii) removed/added -

 THE INCINERATION SYSTEM HAS FUGITIVE EMISSION MECHANISMS ASSOCIATED
 WITH THE COMBUSTION CHAMBERS.

Page 105 Attachment 3 continued removed/added -
 ECIS Recorded regularly
 Monitored continuously

Page 106 Attachment 3 continued added -

FEED REST RICTIO N	POSITIVE DISPLACEMEN T PUMPS	SLUDGE AND SLURRY LANCE FEED RATE SHALL NOT EXCEED 20,099 LB/HR (ONE HOUR AVERAGE) OR 19,602 LB/HR (FOUR HOUR AVERAGE) MONITORED AND RECORDED CONTINUOUSLY	AS NEEDED OR AT LEAST ANNUALLY	WFCO
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Page 109 Attachment 4 added -
E) ...This enclosed unit has a reinforced concrete floor that has been treated to resist chemicals that are managed and stored in this unit. CONTAINERS, INCLUDING TANKERS AND ROLL-OFFS, MAY BE STAGED IN THIS UNIT IN ACCORDANCE WITH SECTION D OF THE APPROVED PART B PERMIT APPLICATION AND THIS PERMIT. DESIGNATED PROCESSING OF WASTE IS ALSO PERMITTED IN THIS UNIT IN ACCORDANCE WITH THE APPROVED PART B PERMIT APPLICATION. Four inch speed bumps...

Page 109 Attachment 4 removed/added -
F) ...the scrubber or in the DeNox System. NON-HAZARDOUS WASTEWATER GENERATED OFF-SITE MAY BE RECEIVED AND ACCUMULATED IN TANK W-5 FOR USE AS PROCESS WATER IN DESIGNATED UNITS AT THE FACILITY. If analytical of this water indicates it is in need of treatment prior to reuse USE, it is piped through the sand filter (W-9) followed by the carbon filter (W-10) PRIOR TO TRANSFER TO TANK W-4. The filter system is ...

Page 110 Attachment 4 added -
G) ...and roadways where waste is transported. TANKS W-4 AND W-5, DESCRIBED IN SECTION D OF THE APPROVED PART B PERMIT APPLICATION, ARE ALSO USED TO STORE PROCESS WATER FROM THE FACILITY AND NON-HAZARDOUS WASTEWATER GENERATED OFF-SITE TO BE USED AS PROCESS WATER IN DESIGNATED UNITS AT THE FACILITY. The water is stored in...

Page 110 Attachment 4 removed/added -
G) ...separates the "B" and "C" collection water tanks. ~~There have been no documented releases from this unit.~~ The potential for release to ground water, surface water, on-site soils, and air is low.

ON JANUARY 15, 1992, VRA DISCHARGED ABOUT 176,000 GALLONS OF WATER FROM A STORM WATER HOLDING TANK IN THE WASTEWATER STORAGE TANK FARM TO THE OHIO RIVER. THE STORM WATER DISCHARGED HAD A PH OF 9.5, EXCEEDING THE MAXIMUM ALLOWABLE PH OF 9.0. CITY WATER AND FRESH CONCRETE WERE SUSPECTED OF CONTRIBUTING TO THE HIGH PH VALUE.

ON SEPTEMBER 17, 2002, VRA DISCHARGED ABOUT 300 GALLONS OF 1% ACID SOLUTION FROM A "B" STORM WATER HOLDING TANK TO THE OHIO RIVER. THE MEASURED PH AT OUTFALL 601 WAS DISCOVERED TO BE 1.5, WHICH EXCEEDED THE MAXIMUM ALLOWABLE PH. THE DISCHARGE TO THE RIVER WAS A RESULT OF A LEAK IN THE TANK DISCHARGE VALVE. SEVERAL CORRECTIVE ACTIONS WERE IMPLEMENTED TO ENSURE A REOCCURRENCE OF THIS INCIDENT WOULD BE PREVENTED.

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- Page 111 Attachment 4 added -
K) ...Containers are placed on pallets and stored in racks OR STAGED IN ACCORDANCE WITH SECTION D OF THE APPROVED PART B PERMIT APPLICATION. The unit has the capacity ...
- Page 113 Attachment 4 added -
N) ...This unit manages containerized wastes generated off-site. TANKERS MAY ALSO BE STAGED IN THIS UNIT IN ACCORDANCE WITH SECTION D OF THE APPROVED PART B PERMIT APPLICATION AND THIS PERMIT. The wastes are subsequently...
- Page 113 Attachment 4 added -
O) ...into skip hoist hoppers, may also occur in this building. CONTAINERS MAY BE STAGED IN THIS UNIT IN ACCORDANCE WITH SECTION D OF THE APPROVED PART B PERMIT APPLICATION AND THIS PERMIT. WMU 15 is ...
- Page 114 Attachment 4 added -
S) WMU 19- INCINERATOR FEED BUILDING - IN ADDITION TO CONTAINING THE BULK SOLID WASTE STORAGE TANKS (WMU 17) AND THE FEED MECHANISMS TO THE INCINERATOR SYSTEM (WMU 1), THIS UNIT ALSO INCLUDES TWO DIRECT FEED UNITS. THESE TWO DIRECT FEED UNITS ARE THE DIRECT ORGANIC TANKER SOUTH AND THE DIRECT DRUM PUMP-OUT.

THE DIRECT ORGANIC TANKER SOUTH IS LOCATED IN A BAY SOUTH OF AND ADJACENT TO THE BULK SOLID WASTE STORAGE TANKS. THE UNIT INCLUDES AN UNLOADING SYSTEM TO TRANSFER LIQUID WASTE FROM TANKER TRUCKS DIRECTLY TO WMU1 BY PRESSURIZING THE TANKER TRUCK WITH NITROGEN THUS DISPLACING THE CONTENTS. THE FEED RATE IS DETERMINED USING THE SCALE LOCATED IN THE BAY. THE UNIT HAS AN AUTOMATED FIRE DETECTION AND SUPPRESSION SYSTEM CAPABLE OF EXTINGUISHING CLASS 1A FLAMMABLE LIQUIDS. THE DIRECT ORGANIC TANKER SOUTH IS EQUIPPED WITH VAPOR RECOVERY AND ALL DOORS ARE KEPT CLOSED DURING OFF-LOADING TO ENSURE A NEGATIVE PRESSURE THUS CONTROLLING POSSIBLE FUGITIVE EMISSIONS AND THE RELEASE OF ODORS DURING UNLOADING ACTIVITIES. DIRECT ORGANIC TANKER SOUTH IS ISOLATED FROM THE REST OF THE INCINERATOR FEED BUILDING BY WALLS TO THE NORTH, SOUTH, AND WEST, WITH A ROLL-UP DOOR LOCATED ON THE EAST SIDE FOR TANKER ENTRY. THE FLOOR IS CURBED TO CONTAIN 10,000 GALLONS AND INCLUDES A SMALL SUMP TO CONTAIN MINOR SPILLS OR LEAKS. THE BAY IS PAVED WITH REINFORCED CONCRETE TREATED TO RESIST CHEMICALS THAT ARE MANAGED IN THE UNIT. WHEN NOT FEEDING WASTE TO WMU 1, BULK WASTE CONTAINERS MAY BE STAGED IN THIS BAY IN ACCORDANCE WITH THE APPROVED PART B PERMIT APPLICATION.

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THERE HAVE BEEN NO DOCUMENTED RELEASES FROM THIS UNIT. THE POTENTIAL FOR RELEASE TO GROUND WATER, SURFACE WATER, ON-SITE SOILS, AND AIR IS LOW.

THE DIRECT DRUM PUMP-OUT UNIT IS LOCATED WEST OF AND ADJACENT TO THE DIRECT ORGANIC TANKER SOUTH AND IS ENCLOSED AND ISOLATED FROM THE REST OF THE INCINERATION FEED BUILDING. THE UNIT HAS TWO STATIONS FOR FEEDING CONTAINERIZED LIQUIDS TO WMU 1 VIA LANCES. WASTE FEED RATES ARE MEASURED USING A SCALE. THE UNIT HAS AN AUTOMATED FIRE DETECTION AND SUPPRESSION SYSTEM CAPABLE OF EXTINGUISHING CLASS 1A FLAMMABLE LIQUIDS. THE TYPES OF WASTE PROCESSED IN THIS UNIT INCLUDE ODOROUS WASTE, WATER-REACTIVE WASTE, CLASS 1A FLAMMABLE LIQUIDS, AND HIGHLY REACTIVE WASTE STREAMS. DIRECT DRUM PUMP-OUT IS ISOLATED FROM THE REST OF THE INCINERATOR FEED BUILDING BY WALLS TO THE NORTH, EAST, AND WEST, WITH A ROLL-UP DOOR LOCATED ON THE SOUTH SIDE FOR TRANSFER OF CONTAINERS INTO THE UNIT. THE DOORS ARE KEPT CLOSED DURING PROCESSING TO CONTROL FUGITIVE EMISSIONS AND TO MAXIMIZE THE EFFORTS OF THE VAPOR RECOVERY SYSTEM IN THE FORM OF SNORKELS OVER EACH STATION. THE UNIT HAS SECONDARY CONTAINMENT WITH A CAPACITY OF 1,125 GALLONS THAT INCLUDES A SUMP. THE FLOOR IS PAVED WITH REINFORCED CONCRETE TREATED TO RESIST CHEMICALS THAT ARE MANAGED IN THE UNIT. HOSES AND LINES USED TO FEED THE WASTE ARE FLUSHED BETWEEN TRANSFER OF EACH WASTE STREAM USING A COMPATIBLE MATERIAL. THERE HAVE BEEN NO DOCUMENTED RELEASES FROM THIS UNIT. THE POTENTIAL FOR RELEASE TO GROUND WATER, SURFACE WATER, ON-SITE SOILS, AND AIR IS LOW.

Page 115 Attachment 4 removed/added -
continued- Area of Concern (AOC) - Former Charter Oil Facility Release Area -

...As a result of past documented releases ~~at the facility~~ FROM THE CHARTER OIL COMPANY, ground water and soil contamination exists at the VRA facility. According to March 1990 analytical data, ~~the facility has~~ groundwater contamination of benzene, toluene, ethylbenzene, xylene, acetone, trimethylbenzene, trichloroethene, and total petroleum hydrocarbons WAS PRESENT IN THE AREA UNDERLYING THE VRA FACILITY. ON-GOING GROUNDWATER MONITORING IN ACCORDANCE WITH THE VRA PERMIT, IN THE AREA DELINEATING THE CONTAMINANT PLUME, HAS DETERMINED GROUNDWATER CONTAMINATION FROM THE AREA OF CONCERN STILL EXISTS. THE HISTORIC CONTAMINATION LINKED TO THE AOC IS BEING ADDRESSED THROUGH CONDITION E OF THE PERMIT RENEWAL. ~~Remedial actions related to contamination at the Former Charter Oil Facility Release Area are ongoing pursuant to Interim Orders with Ohio EPA.~~

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Enclosed are copies of the modified pages of the Ohio Hazardous Waste Facility Installation and Operation Permit Renewal originally journalized on March 23, 2005 and modified on December 13, 2005. Also enclosed are complete date-stamped copies of the Part B permit application revisions (Sections B, C, D, F, G, H, I, J, K). These pages have been included to ensure that all involved parties have written confirmation of the changes.* If you have any questions concerning this action, please contact Michelle Tarka or Patricia Natali at the East Liverpool Field Office (330) 385-8421 / (330) 385-8447.

Sincerely,



William T. Skowronski
District Chief

WTS/MT:ddw

Enclosure

- ec: Frank Popotnik, Ohio EPA, DHWM, NEDO (w/copy of application and permit pages)
Michelle Tarka, Ohio EPA, DHWM, NEDO (w/copy of application and permit pages)
Patricia Natali, Ohio EPA, DHWM, NEDO (letter only)
- cc: Pamela Allen, Ohio EPA, Manager, ITTSS, DHWM (letter only)
Jeremy Carroll, Ohio EPA, Supervisor, Engineering Unit, DHWM (letter only)
John Gaitskill, US EPA, Region V (letter only)
Carrie Beringer, VRA (letter only)

* Also, in accordance with Ohio Administrative Code Rule 3745-50-51 (D)(1)(a)(ii), VRA shall send a notice within 90 days of an approved Class 1A modification to all persons on the Agency mailing list.

keywords: permit Revision Zero

- ~~(d) The Permittee shall submit for approval to the Ohio EPA within ninety 120 days after permit journalization:~~
- ~~(i) An amended permit application updated for changes resulting from permit modifications approved between the dates of issuance of the draft renewal permit and issuance of the final renewal permit. The updated permit application is to be submitted as a Class 4 modification requiring director's prior approval in accordance with OAC rule 3745-50-51. RESERVED~~
 - ~~(ii) A permit modification to change the applicable sections in the approved Part B permit application to include new language regarding principal organic hazardous constituents (POHCs). The updated permit application is to be submitted as a Class 4 modification requiring director's prior approval in accordance with OAC rule 3745-50-51. RESERVED~~
 - ~~(iii) A permit modification to change the applicable sections in the approved Part B permit application to include new language regarding dioxin-bearing waste. This modification shall also include language restrictions for wastes carrying the codes, F032, F039, K043, and K099. The updated permit application is to be submitted as a Class 4 modification requiring director's prior approval in accordance with OAC rule 3745-50-51. RESERVED~~
 - ~~(iv) A permit modification to change the applicable sections in the approved Part B permit application to include new language regarding restricted wastes. The updated permit application is to be submitted as a Class 4 modification requiring director's prior approval in accordance with OAC rule 3745-50-51. RESERVED~~
- (e) The Permittee shall submit a written RFI Workplan to Ohio EPA within 270 days after the effective date of this permit according to Permit Condition E.5(a).

- (iii) Maximum total waste feed shall not exceed 29,651 lb/hr (one hour average) or 28,565 lb/hr (four hour average).
- (iv) Annual and hourly feed rates for twelve metals, barium, mercury, silver, thallium, nickel, selenium, antimony, arsenic, beryllium, cadmium, chromium and lead, are listed in Attachment 2 to this Permit. The feed rates shall not be exceeded and shall be monitored and recorded on a continuous basis.
- (v) The total feed rate, including the waste feed rate and auxiliary fuel to the incinerator, is limited to the range between 49 million BTU/hr to 97.8 million BTU/hr heat input (three hour rolling average).
- (j) The combustion zone, defined as midway down the PCC to midway up the secondary combustion chamber (SCC), is the region in the incineration system where volatilized organic compounds are thermally destroyed. The temperature is monitored as specified in Permit Condition I(A).5. and Attachments 1 and 3 to this permit, and shall be maintained as follows:
 - (i) maximum temperature in the PCC shall not exceed 2,200°F instantaneous and 2,174°F on a four hour rolling average;
 - (ii) minimum temperature in the PCC shall not drop below 1,800°F instantaneous and 1,830°F on a four hour rolling average;
 - (iii) minimum temperature in the SCC shall not drop below 1600°F.
- (k) The Permittee shall control fugitive emissions from the combustion zone of the incineration system by:
 - (i) maintaining a constant negative pressure/draft throughout the incineration system and associated heat recovery and flue gas cleaning equipment via the induced draft (ID) fan and ID fan discharge volume damper as monitored and recorded in accordance with Attachments 1 and 3 to this permit; and
 - (ii) THE INCINERATION SYSTEM HAS FUGITIVE EMISSION MECHANISMS ASSOCIATED WITH THE COMBUSTION CHAMBERS.

OHIO EPA DHHM
DEC 13 2005

B. GENERAL FACILITY CONDITIONS

**B.1. Design, Maintenance and Operation of Facility
OAC Rule 3745-54-31**

- (a) The Permittee shall design, construct, maintain, and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste constituents to air, soil, and ground or surface waters which could threaten human health or the environment.
- (b) The Permittee is limited to treating the following quantities of hazardous waste in any one calendar year from any off-site sources during the life of the permit, until such time as this Condition is modified, renewed, or revised. This is a facility wide limitation and includes all units.
 - (i) The two incinerators (1 existing, 1 not yet constructed) may treat a combined total of 176,000 tons per year of hazardous waste. Each individual incinerator may treat 88,000 tons per year;
 - (ii) The Inorganic Waste Treatment System (not yet constructed) may treat 83,000 tons per year of hazardous waste; and
 - (iii) The General Wastewater Treatment System (not yet constructed) may treat up to ten percent of the total waste received at the facility. This ten percent limitation will be subject to revision as required by any agreements between the facility and the city of East Liverpool.
 - (iv) THE PERMITTEE MAY RECEIVE OFF-SITE GENERATED NON-HAZARDOUS WASTEWATER (NHW) FOR USE ON-SITE AS PROCESS WATER. WHEN NEEDED, THE NHW MAY BE TREATED THROUGH THE GENERAL WASTEWATER TREATMENT SYSTEM PRIOR TO USE AT THE FACILITY .
 - (v) THE PERMITTEE MAY RECEIVE OFF-SITE GENERATED WASTE TO BE USED IN FUEL BLENDING OPERATIONS. THIS WASTE MAY, OR MAY NOT, BE BLENDED AND STORED IN PERMITTED TANKS PRIOR TO TRANSPORT OFF-SITE TO PERMITTED FACILITIES FOR TREATMENT .

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- (c) THE PERMITTEE MAY RECEIVE AND STORE OFF-SITE GENERATED WASTE (THIRD PARTY WASTE) THAT WILL NOT BE INCINERATED AT THE FACILITY. THIS WASTE WILL BE TRANSPORTED OFF-SITE TO A PERMITTED FACILITY FOR TREATMENT AND /OR RECLAMATION. THIRD PARTY WASTE WILL BE MANAGED IN ACCORDANCE WITH THIS PERMIT AND THE APPROVED PART B PERMIT APPLICATION .

B.2. Required Notices
OAC Rule 3745-54-12

- (a) The Permittee shall notify the Director in writing at least four weeks in advance of the date the Permittee expects to receive hazardous waste from a foreign source, as required by OAC Rule 3745-54-12(A). Notice of subsequent shipments of the same waste from the same foreign source is not required.

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Building C, also known as the Lab Pack Building, is 56' x 60' with racks installed to store up to 13,200 gallons in a variety of container types and sizes. Total secondary containment in this building is 11,200 gallons. The building is used primarily for the storage and management of lab pack and loose pack waste as well as processing third party waste as described in Permit Condition C.1(d) and Section C in the permit application. The building is also used for other processing activities as described in Section D of the permit application. Containers processed or staged in Building C will be no more than five (5) cubic yards in size. The building is equipped with forced air ventilation, a breathing airline, and vapor recovery collection points used during processing activities.

The Container Holding Building, also known as the Slag Canopy, is 50' x 50' with a storage capacity of 100,000 gallons. The building is enclosed on three sides to minimize the accumulation of storm water. Total secondary containment is 10,520 gallons. Containers, greater than 85 gallons, can be stored on the floor and in heavy duty racks installed on the east and west side of the building. Waste stored in this building must be non-reactive and compatible. Processing of waste for use in the Bucket Hoist may be conducted in this building (see Section D-2e(4) of the permit application).

The amount of waste stored in each area will not exceed the permitted capacity at any time. All waste stored, processed, or treated will ultimately be fed to the incineration system for thermal treatment with the exception of third party waste as described in Permit Condition C.1(d). Treatment processes currently permitted at the facility will not render the waste non-hazardous. The Permittee is not permitted to store Class 1A Flammable Liquids, defined by National Fire Protection Association (NFPA) codes as liquids with a flashpoint <73 degrees Fahrenheit and a boiling point <100 degrees Fahrenheit anywhere on-site. The Permittee may treat Class 1A Flammable Liquids through the ~~Direct Organic Tanker South Unit~~ DIRECT FEED MECHANISMS INCLUDING DIRECT TO KILN PROCESSING.

Container types received at the facility may include, but are not limited to, drums, pails, boxes, totes, cylinders, consumer packages, lab packs, rolloffs, tanker trucks, and refrigerated trucks. Containers that may be received, stored, and processed at the facility are composed of materials such as steel, wood, fiber, and plastic. Sizes and volumes of waste containers vary from millimeter vials in lab packs to cubic yard boxes, tanker trucks, and end dump trailers.

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The Permittee shall store hazardous waste in the types of containers (size and type) described in Sections C and D of the approved Part B permit application. The Permittee may not store waste for more than one year in any storage area unless such storage is solely for the purpose of accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal.

- (b) For the purpose of compliance with the capacity limitation of this permit, each container will be considered to be storing an amount of hazardous waste equal to its capacity, regardless of the actual quantity stored in the container.
- (c) Conditions C.1(a) and C.2 shall not apply to the Permittee's activities as a generator accumulating hazardous waste on-site in compliance with the provisions of OAC Rule 3745-52-34(A).

However, when accumulating waste within permitted container storage areas, in accordance with OAC Rule 3745-52-34(A), the Permittee shall not, for the total amount of hazardous waste stored and accumulated, exceed the maximum container storage inventory established under this Condition.

- (d) The Permittee may receive and store waste in containers without intending to treat this waste on-site (third party waste). The Permittee may transfer waste to another permitted facility for additional treatment, storage or disposal. The Permittee will handle this waste in accordance with the practices and procedures in Sections C and D of the approved Part B permit application.
- (e) The Permittee shall not operate as an off-site facility for treatment in containers without first submitting a permit modification. Waste managed at the facility in containers may undergo pretreatment processes such as polymerization, blending, consolidation, splitting, size reduction, steam heating, or the addition of absorbent prior to treatment by the incineration system. ~~All wastes subjected to container treatment activities will be sent to the incinerator for further treatment prior to being sent off-site.~~

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C.14 Container Staging

As applied to this permit, staging refers to the temporary placement of off-site generated waste within the facility. Staging areas are identified and described in the Part B permit application. ~~At a minimum,~~ Staging areas must meet secondary containment standards, HAVE AUTOMATIC FIRE DETECTION AND SUPPRESSION SYSTEMS , AND HAVE A ROOF OR CANOPY WHEN POSSIBLE. The Permittee will ensure that the volume of containers staged in permitted areas does not exceed the secondary containment capacities for each area. The volume of hazardous waste placed in any staging area will be accrued toward the maximum storage inventory limit established by this permit.

Time limits for staging have been designated and are described below. Anticipated time for staging containers over these periods must be brought to the attention of Ohio EPA on-site inspectors in advance. Additional time may be acceptable under certain circumstances. Ohio EPA retains the right to disallow staging of waste in any portion of the facility and require the Permittee to incinerate the waste or place it into storage. Please refer to Section D of the Part B permit application for more information regarding specific staging requirements and conditions.

- (a) Waste may be staged in the Truck Holding and Sampling area for up to 3 days. See permit application section D-2c.
- (b) Containers in the Container Processing Building (CPB) shall be staged according to the specific processes being performed. Staging areas have different uses that include, but are not limited to, containers destined for processing through various means and staging of orphan and discrepant containers. See permit application section D-2d.
 - (1) Container Receiving Area (Unloading Docks) and Receiving Conveyor - Containers can be staged at the Container Receiving Area for up to 1 day. Bulk waste containers and container trucks may be staged in the Unloading Dock for up to 3 days. Containers may be staged on the Receiving Conveyor up to 1 day. See permit application section D-2d and D-2d(1).
 - (2) Splitting Station (split staging area/area north of splitting station) - Containers may be staged in this area up to 14 days. All split containers must be managed following compatibility rules and be inspected daily. See permit application section D-2d(2) and section D-2d.

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- (3) Container Pump-Out Stations - A container can be staged at the Container Pump-Out Stations for up to 1 day. See permit application section D-2d and D-2d(3).
 - (4) Queuing Lanes (Feed Conveyor 2nd Floor) - Containers staged on the 2nd Floor Feed Conveyors do not have a time limit when the incinerator is in operation. Containers must be removed from the Feed Conveyor carriages within 24 hours of initiating shutdown procedures during an outage. Containers may be loaded on the Feed Conveyor carriages 48 hours prior to start-up after an outage. The containers in this area must be inspected once per shift, ~~and at a minimum, once every 12 hours~~. See permit application section D-2 and D-2d(9).
 - (5) North Wall of the CPB - Containers awaiting discrepancy resolution, not related to manifest discrepancies, and drums destined for direct drum pump-out may be placed in designated locations along the North Wall of the CPB. A container may be staged at the North Wall for up to 5 days. See permit application section D-2d.
 - (6) All other containers in the CPB shall be processed, which includes placement in permitted storage areas, within 1 day of receipt at the facility. Up to 3 days is acceptable under certain circumstances when Ohio EPA on-site inspectors are informed of the situation. SEE PERMIT APPLICATION SECTION D-2D.
- (c) Incinerator Feed Building -
- (1) The canopied bulk waste unloading area (in front of the Bulk Solid Waste Tanks) may be used to stage both bulk containers and other containers. See permit application section D-2e.
 - (i) Bulk deliveries may be staged up to 3 days.
 - (ii) Containers being staged before dumping to the dump-to-pit roll-off can be staged for up to 1 day.
 - (iii) Containers being staged for Bucket Hoist processing can be staged in this location. See Permit (c)(4)(iii) for

specific time restrictions on filling Bucket Hoist hoppers.

- (2) Direct Organic Tanker Unloading Station (Bay 3/South Bay) - when not in use feeding waste to the incinerator, bulk waste containers may be staged in Bay #3 up to 3 days. See permit application section D-2e(2).
- (3) Direct Drum Pump-Out Stations - A container can be staged at the Container Pump-Out Stations for up to 1 day. See permit application section D-2d.
- (4) Bucket Hoist (Skip Hoist) - Loading of Bucket Hoist hoppers may occur in any canopied "C" containment area equipped with automated fire detection and suppression systems. Examples of those areas include the canopied bulk waste unloading area in front of the Bulk Solid Waste Tanks, in Building B, in Building C, in the Container Holding Building, and in the CPB. If the material has the potential to emit organic vapors, it will be processed under vapor recovery. Additional restrictions regarding processing of waste, compatibilities, and aisle space apply. See permit application section D-2 and D-2e(4).
 - (i) Prior to processing or storage, all filled Bucket Hoist hoppers must remain in a canopied "C" containment area equipped with automated fire detection and suppression and vapor recovery if the material has the potential to emit organic vapors.
 - (ii) Hoppers may be staged on the Bucket Hoist Containment Platform for up to 1 day. A person must be present at the Direct Drum Station during the time a hopper is staged on the Containment Platform. Hoppers must be sent to the incinerator or removed from the platform and sent back to a staging or storage area prior to the person at the Direct Drum Station leaving that position.
 - (iii) Hoppers must be processed or placed into storage within 2 days (48 hours) of first initiating the filling of the hopper. The 48 hour time period begins when

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the individual containers are first staged in an area and includes consolidation in the hoppers. By the end of the 48 hours, the filled hoppers must be processed or stored in a permitted storage area.

- (d) Organic Tanker Unload Stations (East Bay/Bay 1, Bay 2, Bay 3) - The Organic Tanker Unloading Bays may be used to stage bulk waste containers for up to 3 days. See permit application section D-2f.
- (e) Building B (External Truck Wash) - Staging of bulk containers is permitted for up to 3 days. Staging of other containers is permitted for up to 1 day, in accordance with restrictions regarding compatibilities and aisle space. See permit application section D-2h.
- (f) Building C (Lab Pack Building) - Containers, other than lab packs or loose packs, processed or staged in Building C will be no more than five cubic yards in size, with the required aisle space, prior to further processing. Containers, other than lab packs or loose packs, may be staged in the Lab Pack Building for up to 5 days. See permit application section D-2i.
- (g) Container Holding Building (Slag Canopy) - Containers less than (<)85 gallons may be staged in the Container Holding Building for bucket hoist hopper filling for up to 1 day. While being filled, Bucket Hoist hoppers may be staged for up to 48 hours. The 48 hour time period begins when the individual containers are first staged until the hoppers must be processed to the hoist or stored. See permit application section D-2j.
- (h) Containers of waste designated as direct feed waste (not to be stored on-site) will be processed within 24 hours of receipt at the facility. Bulk containers of direct feed waste may be staged, if necessary, in areas of the facility which are covered, have automatic fire detection and suppression systems, and are in "C" storm water management areas. Locations include Truck Holding and Sampling Bays, Organic Tanker Unloading Bays, Direct Organic Tanker Unloading Areas, Container Receiving Unloading Docks.
- (i) The Permittee shall remove all containers being staged for processing and treatment and place them in permitted storage areas within 24 hours of

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beginning a scheduled or unscheduled outage. However, if the designated time limits for staging will not be exceeded before the incinerator is operating, the Permittee may continue processing and staging activities in accordance with time limits specified here and in Section D of the Part B permit application.

- (i) All other containers staged for processing activities or at locations not previously specified shall be processed within 24 hours of receipt at the facility.

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D. TANK STORAGE, TREATMENT AND MANAGEMENT

General Overview

The Permittee is authorized for tank storage and treatment activities associated with organic and inorganic waste treatment operations, laboratory processes, internal and external truck washes, and general wastewater treatment, AND FUEL BLENDING. These activities are described below. Construction has not been started or is only partially completed for many of the permitted operations. Additional specific details for tank systems, including piping and instrumentation diagrams (P&IDs), are provided in Section D of the permit application.

(A) Organic Waste Treatment Operations

Organic waste treatment operations include bulk solid waste storage tanks, an organic tank farm, pump-out tanks, and flue gas scrubber effluent treatment. The bulk solid waste storage tanks are located in the Incinerator Feed Building. These tanks are utilized to process loose solid waste received in containers, end-dumps and roll off boxes. Four tanks with a total capacity not to exceed 2,400 cubic yards of waste are permitted. Two of these have been installed. The installed tanks are each 18 feet by 33 feet and hold up to 600 cubic yards each of waste. The tanks are reinforced concrete, in-ground, open-topped tanks. There are no pumps, piping, bypass systems, or pressure relief devices associated with these tanks. Waste destined for the bulk solid waste storage tanks cannot carry RCRA waste codes of D002 and D003 or contain any free liquids.

The installed portion of the organic tank farm is located in a building at the southeast end of the facility. It contains 18 aboveground tanks with a capacity of 288,000 gallons. The Permittee is authorized to eventually store a total capacity of 612,300 gallons of waste in 52 tanks. The purpose of the Organic Waste Tank Farm is to receive, blend, and store bulk liquid and sludge waste prior to treatment in the Incineration System. ~~Blending (treatment) in tanks at the organic tank farm and in container pump-out tanks is limited by the capacity of the Incineration System.~~ TANKS MAY ALSO BE USED TO ACCUMULATE WASTE FOR FUEL BLENDING OPERATIONS. WASTE RECEIVED FROM OFF-SITE MAY BE BLENDED IN TANKS IN THE ORGANIC WASTE TANK FARM AND IN CONTAINER PUMP-OUT TANKS PRIOR TO TRANSPORT OFF-SITE TO A PERMITTED FACILITY TO BE USED AS FUEL OR FOR FURTHER TREATMENT. SECTION C OF THE APPROVED PART B PERMIT APPLICATION INCLUDES WASTE RESTRICTIONS ASSOCIATED WITH THE FUEL BLENDING OPERATIONS. Existing tanks have secondary containment sized to contain the volume of the largest tank in each group. Tanks are equipped with level and temperature alarms, safety cutoffs, bypass systems, pressure and vacuum relief safety devices, and inert gas blanketing. Section D of the permit application describes each tank as well as the material of construction and the tank specifications.

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waste that is ignitable, reactive, or incompatible with other waste. If waste is to be placed in a tank that already contains waste, these procedures will be followed to verify the compatibility of the wastes before they are combined.

D.1. Process Capacity/Annual Limitation/Waste Identification
ORC Section 3734.02(F) and OAC Rule 3745-50-43

- (a) The Permittee is permitted for no more than 134 aboveground tanks with a design capacity of 2,926,100 gallons for pumpable liquid waste, four in-ground tanks with a design capacity of 600 cubic yards each (2,400 cubic yards total) of non-reactive, loose solid waste, and five aboveground tanks with a design capacity of 180 cubic yards for solid treatment residue.

Currently, there are eighteen existing tanks located in the Organic Waste Tank Farm for receiving, blending and storing 288,000 gallons of hazardous waste. There are five existing Pump-out Tanks located in the PT Tank Farm adjacent to the Container Processing Building for blending and storing 14,800 gallons of hazardous waste. There is one Pump-out Tank associated with the facility's Extruder for blending and storing 500 gallons of hazardous waste. A rapid sand filter and carbon filter (both of which are in tanks) may be used to treat contaminated storm water and liquids collected in the facility's C-Areas, described in Section B of the permit application. Liquids from clean-up activities and/or spills, or storm water collected from active process area "C" water sumps are transferred to the Facility's ~~wastewater storage tank~~ PROCESS WATER HOLDING TANK (W-5). If analytical of this water indicates the water is in need of treatment, the water may be incinerated, sent off-site for treatment, or transferred through the carbon and sand filters to Tank W-4. Water in this storage tank is considered "recycled" water and may be used as make-up water for, but not limited to, the Four-Stage Wet Scrubber or in the DeNOx System mixed with ammonia and injected into the Secondary Combustion Chamber. Process water from the incinerator train is stored in two existing ~~tanks~~ PROCESS WATER HOLDING TANKS (TANKS ~~TANKS~~ W-6 AND W-7) with a total capacity of 60,000 gallons (each tank holds 30,000 gallons). There are two existing in-ground tanks located in the Incinerator Feed Building for storing 600 cubic yards of bulk, loose, non-reactive, solid waste (1,200 cubic yards total). These tanks are subject to the terms of this Permit and the approved Part B permit application, and as follows:

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PT-4 (1102):	7,000	9' diam x 13'9"	Yes - in place	organic and inorganic hazardous wastes
PT-5 (0660):	300	3' diam x 5'4"	Yes - in place	organic and inorganic hazardous wastes
PT-6 (1304):	500	5' diam x 5'1"	Yes - in place	organic and inorganic hazardous wastes
L-1 (1050):	1,000	4' diam x 10'6"	Yes - in place	lab waste
S-1 (1501):	600 cubic yards	18' x 33'	no	bulk, loose, non-reactive hazardous solid wastes
S-2 (1502):	600 cubic yards	18' x 33'	no	bulk, loose, non-reactive hazardous solid wastes
W-4 (1400):	250,000	33' diam x 40'	Yes - in place	spill, clean-up, potentially contaminated storm water
W-5 (1500):	250,000	33' diam x 40'	Yes - in place	spill, clean-up, ptentially contaminated storm water
W-8 (3100):	6,000	10' diam x 10'	Yes - in place	process water
W-9 (3000):	1,700	7' diam x 6'	Yes - in place	process water
W-10 (3300):	7,000	10' diam x 12'	Yes - in place	process water
W-6 (2000):	30,000	12' diam x 36'	Yes - in place	process water
W-7 (2100):	30,000	12' diam x 36'	Yes - in place	process water

- (b) During any calendar year, the Permittee shall not manage, through tank storage, hazardous waste in excess of the maximum annual quantity set forth in Condition B.1(b) of this permit. AN EXCEPTION TO THIS LIMIT IS WASTE RECEIVED, TREATED, AND STORED FOR THE PURPOSE OF FUEL BLENDING OPERATIONS.
- (c) The Permittee may conduct blending (treatment) in tanks at the organic tank farm or in the container pumpout tanks to facilitate treatment of the waste by incineration and for the purpose of off-site transfer or fuels blending.
- (d) The Permittee is prohibited from storing or treating hazardous waste that is not identified in the facility's Part A permit application. Section C of the approved Part B permit application, the Waste Characteristics and Waste Analysis Plan (WAP), describes wastes which are prohibited from being accepted by the facility and those which are restricted once accepted due to

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- (a) The Permittee shall inspect the tank systems, in accordance with the inspection schedule in Section F of the approved Part B permit application and shall complete the items in Permit Conditions D.5(b) and D.5(c) as part of those inspections.
- (b) The Permittee shall inspect the overflow controls, in accordance with the procedure and schedule in Section F of the approved Part B permit application.
- (c) The Permittee shall inspect the following components of the tank system once each operating day:
 - (i) aboveground portions of the tank system, if any, to detect corrosion or releases of waste;
 - (ii) data gathered from monitoring and leak detection equipment (e.g., pressure or temperature gauges, monitoring wells) to ensure that the tank system is being operated according to its design; and
 - (iii) construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system, to detect erosion or signs of releases of hazardous waste (e.g., wet spots, dead vegetation).
- (d) Reserved.
- (e) The Permittee shall immediately remove from service any permitted tank with a remaining wall thickness that is less than the design minimum wall thickness. The design minimum wall thickness is the total design wall thickness minus the design corrosion allowance. The wall thickness of each active tank shall be inspected and measured on an annual basis and compared to the design wall thickness found in Section D of the approved Part B permit application. Section D also includes the design corrosion allowance for each tank in the relevant attachment to Section D. This procedure will be conducted in order to evaluate the integrity of the tanks.

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and efficient operation of the incineration train are listed in Attachment 1 to this permit. When the DCS detects any of these parameters not being met, it is programmed to automatically terminate all hazardous waste feeds to the incineration system, an automatic WFCO occurs. In addition to those operating limit parameters which result in an AWFCO, there are also parameters (see Attachment 1) that, when the DCS or an operator detects the parameters not being met, require a manual WFCO.

In addition to the parameters listed in Attachment 1 to this permit, several other events trigger the suspension of waste feed to the incineration system. Examples of these parameters are listed below:

- (i) interruption of scrubber water circulation to any of the four stages;
- (ii) malfunction of the primary or combustion air fan;
- (iii) water level in the boiler deficient as monitored by the level of water in the steam drum;
- (iv) failure of the evaporative quench or spray dryer;
- (v) general loss of electrical power/power failure;
- (vi) any of the monitoring equipment not operating properly. For example, the monitoring equipment and analyzers for CO, O₂, HCl, THC, total feed rate including the waste feed rate and the auxiliary fuel to the PCC, temperatures in the PCC, SCC, and the inlet to the ESP, process flow, heat release from the system (in MMBTU/HR), pressure in the SCC, pH probe in the scrubber, air, steam, oxygen pressure at the nozzles in the SCC, natural gas burner blower in the SCC.

(d) Types of Wastes to be Burned

Wastes in a variety of chemical compositions and physical states possessing a wide range of BTU values are scheduled for receipt Monday through Friday SUNDAY at the facility. Hazardous waste codes approved for acceptance, storage, and treatment are listed in the Part A of the permit application. Prohibited and restricted wastes are described in Section C of the permit application. The wastes received at the facility range from consumer-packaged materials, for which the composition and characteristics of the wastes are well known, to materials derived from clean-up sites where the

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wastes are described in broad compositional ranges. Wastes are received in a variety of container sizes and in bulk form as solids, liquids, slurries, sludges, and solid/liquid mixtures, AND AS SPECIFIC APPROVED COMPRESSED GASEOUS WASTE STREAMS LISTED IN SECTION C-1A(1) OF THE APPROVED PART B PERMIT APPLICATION. The wastes may be fed to the incineration system via several feed mechanisms which are described in Section D of the approved permit application. Waste accepted for thermal treatment will have a thermal stability class ranking equal to or higher than Class 1 chemicals as found on the Principal Hazardous Organic Constituent Thermal Stability Index developed at the University of Dayton Research Institute (UDRI).

(e) Principal Organic Hazardous Constituent (POHC) Selected and Rationale

Ohio EPA has adopted the position that if a facility selects a POHC, ranked Class 1 on the thermal stability ranking index developed at the UDRI, and achieves the required destruction and removal efficiency (DRE), that demonstrates the facility can burn chemicals characterized as Class 1 or greater on the index. Because Class 1 contains the most difficult-to-incinerate organic hazardous constituents, the Permittee would not be restricted from feeding organic hazardous constituents to the incinerator listed in the Appendix to OAC Rule 3745-51-11 of the Administrative Code. VRAWTI has used monochlorobenzene (MCB) which is a liquid, Class 1 compound as the POHC for their annual performance tests for the past several years and successfully achieved DRE. In addition, MCB is a compound with a low heat of combustion which means it is difficult to incinerate as determined in the Heat of Combustion System.

I(A).2. Identification Criteria for Permitted, Restricted, and Prohibited Waste
OAC Rule 3745-57-44 and 3745-57-43

Unless otherwise authorized, the Permittee may incinerate the following hazardous wastes, as specified in this permit and only under the terms of this permit. The Permittee may only feed the hazardous wastes as identified below at the facility subject to Permit Conditions I(A).3. through I(A).5., and I(A).8.

- (a) The following criteria must be adhered to when determining the acceptability of wastes at the facility for storage and/or treatment:
- (i) The wastes must be approved by the Ohio EPA, Division of Hazardous Waste Management, in accordance with the conditions set forth in Section C of the approved Part B permit application.
 - (ii) The Permittee must not feed any hazardous waste containing any organic hazardous constituents listed in the Appendix to Rule 3745

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- 51-11 of the Administrative Code unless the constituent has a thermal stability class ranking equal to or higher than Class 1.
- (iii) According to Section C, the total chlorine content of the materials fed to the incinerator system shall not exceed 2700 pounds per hour (three operating hour average). This would include the second incineration system if and when it is constructed.
 - (iv) The physical state of the waste feed shall be liquid, solid, slurry or sludge. Compressed gases are prohibited from being fed to the incineration system with the exception of gases that may be used as propellant in aerosol cans (~~see Section C~~) AND SPECIFIC COMPRESSED GASEOUS WASTE STREAMS AS APPROVED FOR INCINERATION AND LISTED IN SECTION C-1A(1) OF THE APPROVED PART B PERMIT APPLICATION.
 - (v) The Permittee shall not incinerate or treat any State-recognized hazardous waste whose current Ohio EPA hazardous waste code does not appear in the approved Part A permit application or any waste listed in Section C of the approved Part B permit application categorized as being prohibited from incineration or any waste for which the facility is not designed to receive, handle, store, or treat. Permittee may treat federally approved codes the state has not yet promulgated.
 - (vi) The total feed rate, including the waste feed rate and auxiliary fuel to the incineration system, is limited to the range between 49 million BTU/hr and 97.8 million BTU/hr heat input (three hour operating average).
- (b) Throughout operation, the Permittee shall conduct sufficient analysis in accordance with Section C of the approved Part B permit application to verify that waste received by the facility conforms with the waste scheduled. Analysis will be conducted to ensure that the waste fed to the incinerator is within the physical and chemical composition limits specified in this permit and the approved Part B permit application.
 - (c) Wastes, in accordance with Section C of the approved Part B permit application, that are prohibited from acceptance on-site include:
 - (i) waste containing polychlorinated biphenyls (PCBs) in excess of 50 parts per million or, waste that is, or was at one time, regulated by TSCA, 40 CFR 761;
 - (ii) ~~waste containing asbestos~~; RESERVED

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- (iii) dioxin-bearing waste: waste requiring specific treatment technology, i.e., destruction and removal efficiency (DRE) of 99.9999%; waste assigned federal hazardous waste codes F020 through ~~F024~~ F023, F026, and F027;
- (iv) infectious waste;
- (v) chemical warfare agents (CWA) and other chemical weapons or debris generated from the manufacture and/or cleanup of CWAs;
- (vi) radioactive wastes;
- (vii) compressed gases with the exception of gases used as propellant in aerosol cans, AND SPECIFIC COMPRESSED GASEOUS WASTE STREAMS AS APPROVED FOR INCINERATION AND LISTED IN SECTION C-1A(1) OF THE APPROVED PART B PERMIT APPLICATION.
- (viii) other prohibited wastes as described in Section C.

Additional information regarding the prohibited wastes listed above can be found in C-1a(1) in Section C of the approved Part B permit application.

- (d) Wastes that are restricted at the facility are described in Section C of the approved Part B permit application. Examples of restricted wastes include:
 - (i) wastes that may require special handling and/or storage requirements;
 - (ii) wastes with treatment restrictions; and
 - (iii) wastes that carry any of the federal hazardous waste codes that are required to meet LDR treatment standard for dioxins and furans, such as F032, F039, K043, and/or K099.
- (e) Only waste feed systems specified in Section D of the approved Part B permit application may be used to feed wastes to the incineration system.
- (f) No waste may be fed to the SCC.
- (g) The Permittee shall determine the composition and heat value of any auxiliary fuel used in the incineration of any hazardous waste, during start-up and shut-down procedures, and during upset conditions.

High BTU auxiliary fuel which may be hazardous, but only because it is

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System Parameter	Instrument (DCS Tag #) and Monitoring System	Operating Limit and Monitoring Frequency	Calibration Frequency	Back-up System
Spray Dryer Outlet Temperature/ ESP Inlet Temperature	TI - 6002, Redundant thermocouples	Must be above 250 F; and Must be below 450 F Recorded continuously	every 5 weeks	WFCO
Scrubber Liquid Flows	FI-7001 FI-7204 FI-7304 FI-7404, Flow meter	1 st stage, quench flow 2 nd stage, 1 st packed bed flow 3 rd stage, 2 nd packed bed flow* 4 th stage, ring jet flow Monitored continuously	annually or as needed	Pump pressure transmitter and WFCO (see Attachment 1, flow to 3 rd stage)
pH of Scrubber at 3 rd Stage	AI - 7307, pH probe	> 7 pH Monitored continuously	as needed	WFCO
Ring Jet Pressure Drop, 4 th Stage Scrubber	PDI-7405, Pressure transmitter	Must be > 13.4 inwc Recorded continuously	monthly	WFCO
THC at Stack	AI - 7850, THC analyzer	< 100 ppm (one minute average) Recorded continuously	daily annual RATA	WFCO
HCl at Stack	AI - 7820, HCl analyzer	Must be < 4 lbs/hr Recorded continuously	daily annual RATA	*Flow rate to the 3 rd stage of the scrubber
Opacity at Stack	AI - 7815, Opacity analyzer	<20% (six minute average) Recorded continuously	daily annual RATA	None
Process Flow	FI - 7805, Flow meter	< 65,000 scfm Recorded continuously	daily	WFCO
Incineration Process Heat Release (system load)	HI-7610 AVG2, Distributed control system (DCS)	Must be below 97.8 MMBTU/HR on a 3 hour rolling average; Recorded continuously	yearly	WFCO
ID Fan	HS - 7610, Distributed control system (DCS)	Must be operating Monitored continuously	NA	WFCO
ECIS	HS-5740 HS-7140 Manual check	Activated carbon feed rate Recorded regularly MONITORED CONTINUOUSLY	monthly	WFCO

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System Parameter	Instrument (DCS Tag) and Monitoring System	Operating Limit and Monitoring Frequency	Calibration Frequency	Back-up System
FEED RESTRICTION	MICRO-MOTION METERS, POSITIVE DISPLACEMENT PUMPS, AND SCALES	TOTAL FEED RATE, 29,651 LBS/HR (ONE HOUR AVERAGE) OR 28,565 LBS/HR (FOUR HOUR AVERAGE) MONITORED AND RECORDED CONTINUOUSLY	MONTHLY AND/OR ACCORDING TO MANUFACTURER'S RECOMMENDATION	WFCO
Feed Restriction	Scales	Solid waste feed rate, 16,576 lbs/hr (one hour average) or 15,265 lbs/hr (four hour average) Monitored and recorded continuously	According to manufacturer's recommendation	WFCO
Feed Restriction	Real Time Monitor	Chlorine feed rate 2700 lbs/hr (three hour average) Monitored and recorded continuously	NA	WFCO
Feed Restriction	Real Time Monitor	Metal feed rates as listed in Attachment 2 Monitored and recorded continuously	NA	WFCO
FEED RESTRICTION	POSITIVE DISPLACEMENT PUMPS	SLUDGE AND SLURRY LANCE FEED RATE SHALL NOT EXCEED 20,099 LB/HR (ONE HOUR AVERAGE) OR 19,602 LB/HR (FOUR HOUR AVERAGE) MONITORED AND RECORDED CONTINUOUSLY	AS NEEDED OR AT LEAST ANNUALLY	WFCO
Plume Suppression (Reheat Fan)	HS - 7710, DCS	Plume suppression must be operated continuously except during maintenance	NA	Manual reset
By-Pass or Auxiliary Fuel	Front wall gas burners, HS-3520; auxiliary fuel, HS-3120	Must be available at all times waste is being fed to the incinerator	According to manufacturer's recommendation	WFCO

* FLOW TO SCRUBBER 2ND PACKED BED BECOMES A PERMIT LIMIT DURING TIMES WHEN THE HCI ANALYZER IS BEING CALIBRATED OR IS MALFUNCTIONING.

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gallon epoxy-phenolic lined carbon steel blending tank, two 2,000 gallon carbon steel overflow tanks, and one 20,000 gallon carbon steel fuel oil storage tank. The unit is divided into two containment areas by a raised concrete aisle running east to west lengthwise down the center of the building, separating the unit into two tank groups, nine in each group.

The floor of this unit is constructed of reinforced concrete that has been treated to resist chemicals that are managed in this unit. The entire combined containment area is surrounded by an exterior concrete dike wall. Each separate containment area, including sumps, has a containment capacity of about 21,500 gallons. Organic vapors from this unit are vented to a vapor recovery system which is described in Section D of the approved Part B permit application. This unit manages bulk liquid wastes generated off-site and liquid wastes generated on-site before transfer to the incinerator system for treatment. There has been one release from this unit on December 29, 1999. The Contingency Plan was activated and the area was remediated. Approximately 50 gallons of a mixture of waste solvent and water was released to the gravel/soil area adjacent to, and on the west side of, the Organic Waste Tank Farm. A total of 87,061 pounds of gravel and clay were excavated and removed. The potential for release to ground water, surface water, on-site soils, and air is low.

- C) **WMU 3: Organic Tanker Unload Station** - This unit is a 60 foot by 75 foot, building used to unload bulk liquid waste from tank trucks after the waste shipment has been approved. THE UNIT IS ALSO USED FOR TRANSFERRING SPECIFIC APPROVED GASEOUS WASTE STREAMS DIRECTLY TO THE INCINERATION SYSTEM AS DESCRIBED IN SECTIONS C AND D OF THE APPROVED PART B PERMIT APPLICATION. It is adjacent to, and north of, the Organic Waste Tank Farm (WMU 2). The unit is divided into three stations separated by fire walls. The east station is used to direct feed aqueous LIQUID waste AND SPECIFIC APPROVED GASEOUS WASTE STREAMS to the incineration system. The floor of this unit is constructed of reinforced concrete that has been treated to resist chemicals. A combination of 7.5 inch speed bumps, and 8 inch curbs surrounds each unloading station. The paved surface in each station is sloped toward a reinforced concrete sump. Each separate containment area, including sumps, curbs contoured surfaces, speed bumps has a containment capacity of about 10,000 gallons. Each station is facilitated to collect vapors that may be emitted during off loading procedures. These fugitive emissions are transferred to the facility's vapor recovery system. This unit manages tank trucks containing bulk liquid wastes AND SPECIFIC APPROVED GASEOUS WASTE STREAMS generated off-site. Wastes are unloaded from tank trucks at this WMU into the Organic Waste Tank Farm (WMU 2) OR DIRECTLY TO THE KILN (WMU 1). TANKERS MAY BE STAGED IN THIS UNIT IN ACCORDANCE WITH SECTION D OF THE APPROVED PART B PERMIT APPLICATION AND THIS PERMIT. DESIGNATED PROCESSING OF WASTE IS ALSO PERMITTED IN THIS UNIT IN ACCORDANCE WITH THE APPROVED PART B PERMIT APPLICATION. There have been no documented releases from this unit. The potential for release to ground water, surface water, on-site soils, and air is low.
- D) **WMU 4: Truck Sample and Hold Area**- This unit is a 60 foot by 96 foot open-

liquid or solid waste. Trucks are held at this unit until sample analyses are completed and the shipment has been approved or rejected. TANKERS MAY ALSO BE STAGED IN THIS UNIT IN ACCORDANCE WITH SECTION D OF THE APPROVED PART B PERMIT APPLICATION AND THIS PERMIT. The unit is divided into six stations. The floor of this unit is constructed of reinforced concrete that has been treated to resist chemicals that are managed in this unit. A combination of 6 inch speed bumps and 6 inch curbs surround the unit. The paved surface of the unit is sloped toward a reinforced concrete sump. This unit has a containment capacity of approximately 31,000 gallons. There have been no documented releases from this unit. The potential for release to ground water, surface water, on-site soils, and air is low.

- E) **WMU 5: Building B (External Truck Wash)**- This unit is a 25 foot by 70 foot building that is used for storage and processing of wastes. This enclosed unit has a reinforced concrete floor that has been treated to resist chemicals that are managed and stored in this unit. CONTAINERS, INCLUDING TANKERS AND ROLL-OFFS, MAY BE STAGED IN THIS UNIT IN ACCORDANCE WITH SECTION D OF THE APPROVED PART B PERMIT APPLICATION AND THIS PERMIT. DESIGNATED PROCESSING OF WASTE IS ALSO PERMITTED IN THIS UNIT IN ACCORDANCE WITH THE APPROVED PART B PERMIT APPLICATION. Four inch speed bumps are located at the entrance and exit of the building. The paved surface inside the unit is sloped toward a reinforced concrete sump and trench. The contoured floor surface, sump, and trench have a containment capacity of about 7,000 gallons. The building is facilitated to collect vapors that may be released during processing activities. These fugitive emissions are transferred to the facility's vapor recovery system. There have been no documented releases from this unit. The potential for release to ground water, surface water, on-site soils, and air is low.
- F) **WMU 6- Wastewater Treatment**- This unit, which consists of a sand and carbon filter and a back wash settling tank, is used to treat liquids from clean-up activities and/or spills, or storm water collected from "C" and rejected "B" containment systems. The storm water collection systems, "A", "B" and "C" are described in Section B of the approved Part B permit application. Liquids from the "C" containment areas at the facility are transferred to Tank W-5 in the Storm Water Storage Tank Farm (WMU 7). From Tank W-5, the water is transferred to Tank W-4 where it may be incinerated at WMU 1 or used as make-up water for, but not limited to, the scrubber or in the DeNox System. NON-HAZARDOUS WASTEWATER GENERATED OFF-SITE MAY BE RECEIVED AND ACCUMULATED IN TANK W-5 FOR USE AS PROCESS WATER IN DESIGNATED UNITS AT THE FACILITY. If analytical of

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this water indicates it is in need of treatment prior to reuse, it is piped through the sand filter (W-9) followed by the carbon filter (W-10) PRIOR TO TRANSFER TO TANK W-4. The filter system is occasionally back washed to a tank within the Process Water Tanks (WMU 8). The Wastewater Treatment System is located in an indoor 25 foot by 60.33 foot concrete containment area with a 3.66 foot high berm, a concrete sump and a reinforced concrete floor that has been treated to resist chemicals that are managed in this unit. There have been no documented releases from this unit. The potential for release to ground water, surface water, on-site soils, and air is low.

- G) WMU 7- Storm Water Storage Tank Farm- This unit is a 46.5 foot by 202 foot

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concrete tank farm used to store storm water from "C" and "B" containment areas. The storm water collection systems, "A", "B" and "C" are described in Section B of the approved Part B permit application. This water, with the exception of "A" areas, has the potential for contamination as it is collected from active storage and process areas and roadways where waste is transported. TANKS W-4 AND W-5, DESCRIBED IN SECTION D OF THE APPROVED PART B PERMIT APPLICATION, ARE ALSO USED TO STORE PROCESS WATER FROM THE FACILITY AND NON-HAZARDOUS WASTEWATER GENERATED OFF-SITE TO BE USED AS PROCESS WATER IN DESIGNATED UNITS AT THE FACILITY. The water is stored in five open top vertical tanks: three 200,000 gallon carbon steel tanks storing "B" water, one 250,000 gallon carbon steel tank storing "C" water, Tank W-5; and one 250,000 gallon carbon steel tank for storing the treated "C" water, Tank W-4. The area under the tanks is paved with reinforced concrete treated to resist chemicals that are managed in this unit, and it is surrounded by a 6.67 foot high reinforced concrete dike. An intermediate reinforced concrete wall 3 inches lower than the surrounding dike separates the "B" and "C" collection water tanks. ~~There have been no documented releases from this unit.~~ The potential for release to ground water, surface water, on-site soils, and air is low.

ON JANUARY 15, 1992, VRA DISCHARGED ABOUT 176,000 GALLONS OF WATER FROM A STORM WATER HOLDING TANK IN THE WASTEWATER STORAGE TANK FARM TO THE OHIO RIVER. THE STORM WATER DISCHARGED HAD A PH OF 9.5, EXCEEDING THE MAXIMUM ALLOWABLE PH OF 9.0 CITY WATER AND FRESH CONCRETE WERE SUSPECTED OF CONTRIBUTING TO THE HIGH PH VALUE.

ON SEPTEMBER 17, 2002, VRA DISCHARGED ABOUT 300 GALLONS OF 1% ACID SOLUTION FROM A "B" STORM WATER HOLDING TANK TO THE OHIO RIVER. THE MEASURED PH AT OUTFALL 601 WAS DISCOVERED TO BE 1.5, WHICH EXCEEDED THE MAXIMUM ALLOWABLE PH. THE DISCHARGE TO THE RIVER WAS A RESULT OF A LEAK IN THE TANK DISCHARGE VALVE. SEVERAL CORRECTIVE ACTIONS WERE IMPLEMENTED TO ENSURE A REOCCURRENCE OF THIS INCIDENT WOULD BE PREVENTED.

- H) WMU 8- Process Water Tanks- This unit is an approximately 50 foot by 25 foot concrete tank farm used to store scrubber water and filter system backwash water from the Wastewater Treatment System (WMU 6). The tank farm contains two 30,000 gallon fiberglass-reinforced plastic tanks (W-6 and W-7) for storing scrubber water and one approximately 6,000 gallon carbon-steel tank (W-8) for backwash water from WMU 6. The area under the tanks is paved with reinforced concrete treated to resist chemicals that are managed at this unit, and it is surrounded by a 3.67 foot high reinforced concrete dike with a containment capacity of 38,000 gallons. There have been no documented releases from this unit. The potential for release to ground water, surface water, on-site soils, and air is low.

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- I) **WMU 9- Laboratory Waste Storage Tank-** This unit is a 1,000 gallon fiberglass-reinforced horizontal plastic tank located in a covered concrete containment vault. The vault has been treated to resist chemicals that are managed in this unit and is covered with a steel top. The facility's laboratory wastes are piped directly from the laboratory to this tank before being transferred to the Organic Waste Tank Farm (WMU 2) via vacuum truck and ultimately incinerated at SMU 1. There have been no documented releases from this unit. The potential for release to ground water, surface water, on-site soils, and air is low.

- J) **WMU 10-Container Processing Building-** This unit is a 100 foot by 237 foot area in a building located between the Organic Waste Tank Farm (WMU 2) and the incineration system (WMU 1). WMU 10 is designed to receive containerized waste from off site and prepare it for incineration at WMU 1. The unit is located

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on the south side of an enclosed building with operations on three levels. Level one is the ground floor of the unit and slopes to area sumps. Level two is the intermediate conveyor floor and slopes to area floor drains that discharge to sumps on level one. Level three is the conveyor gallery with a curbed floor to contain spill. The floors are constructed of reinforced concrete treated to resist chemicals that are managed in this unit. This unit is surrounded by a six inch high reinforced concrete curb with 1.5 inch speed bumps located at interior doors and at the unloading platform. The floor area is sloped towards three reinforced concrete sumps. The contained areas and sumps for this unit have a capacity of about 50,000 gallons. Organic vapors from specific process areas in this unit are vented to a vapor recovery system.

Activities within WMU 10 include off-loading, weighing, sampling, labeling, and palletizing containers; container pump-out stations, a station for splitting of materials into smaller charges, consolidation of wastes into superpacks, filling bucket hoist hoppers and heating of waste in drums. Containers may be transferred from this unit to: (1) the incineration system; (2) any of the four container storage areas; (3) direct drum feed unit in the Incinerator Feed Building; (4) Building B (External Truck Wash) for processing; (5) Building C (Lab Pack Building) for processing; (6) the extruder; (7) directly to the bucket hoist feed mechanism. Within WMU 10, containers of waste are moved by means of a conveyor system or by fork lift. Containerized wastes generated on site such as contaminated debris and PPE are also managed in this unit. There have been no documented releases from WMU 10. The potential for release to ground water, surface water, on-site soils, and air is low.

- K) WMU 11- Building A Storage Area (Drum Warehouse of the Container Processing Building) - This unit constitutes the north side of the Container Processing Building (WMU 10). WMU10 and WMU 11 are separated by a concrete fire wall and doors. The dimensions are 100 foot by 210 foot. Building A is designed to store containerized waste from on-site and off-site sources before incineration at WMU 1. Containers are placed on pallets and stored on racks OR STAGED IN ACCORDANCE WITH SECTION D OF THE APPROVED PART B PERMIT APPLICATION. The unit has the capacity to store approximately six thousand 55-gallon drums or the equivalent of any combination of different sized containers. The permitted storage capacity is 510,000 gallons. The storage area has been designed to have separate concrete containment curbs for each set of racks and waste is segregated according to compatibilities. The entire combined containment area is surrounded on three sides by exterior concrete walls. The fourth side, consists of a fire wall with three doors that have 1.5 inch high speed bumps. The floor is constructed of reinforced concrete treated to resist chemicals that are managed in this unit. The floor in each area is sloped toward

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- N) WMU 14- Container Receiving Area (unloading docks) - This unit consists of two covered truck unloading docks that abut the northeast side of the Container Processing Building (WMU 10). The unloading docks are paved with reinforced concrete treated to resist chemicals that are managed in this unit. A reinforced concrete containment wall and speed bump border the north and east edges of the unit along the two sides not bordered by the Container Processing Building (WMU 10). A reinforced concrete containment trench is located along the south side of each unloading station. The paved surface of each dock is sloped toward these trenches. This unit manages containerized wastes generated off-site. TANKERS MAY ALSO BE STAGED IN THIS UNIT IN ACCORDANCE WITH SECTION D OF THE APPROVED PART B PERMIT APPLICATION AND THIS PERMIT. The wastes are subsequently unloaded to the Container Processing Building (WMU 10). There have been no documented releases from this unit. The potential for release to ground water, surface water, on-site soils, and air is low.
- O) WMU 15- Container Holding Building (Slag Canopy)- This unit is a 50 foot by 50 foot structure used to store containers larger than 85 gallons of nonreactive, compatible waste. Examples include roll-off boxes, tanker trucks, cubic yard boxes, and totes. Processing of some waste streams, e.g., consolidation of consumer packaged waste into skip hoist hoppers, also may occur in this building. CONTAINERS MAY BE STAGED IN THIS UNIT IN ACCORDANCE WITH SECTION D OF THE APPROVED PART B PERMIT APPLICATION AND THIS PERMIT. WMU 15 is located just north of the incineration system (WMU 1). The unit has a roof and is enclosed on three sides to minimize the accumulation of storm water. The floor of this unit is constructed of reinforced concrete treated to resist chemicals that are managed at this unit, and is bordered by a six inch high speed bump on two sides and a six inch high curb on the other two sides. The paved surface within the speed bumps and curbs is sloped towards a concrete sump. The curb and speed bumps of this covered unit have a containment capacity of 10,520 gallons. There have been no documented releases from this unit. The potential for release to ground water, surface water, on-site soils, and air is low.
- P) WMU 16- Less than 90 Day Accumulation Areas - These units are currently sited at the following locations: (1) east of the Building B (External Truck Wash) (WMU 5), and (2) along the utility bridge north of the Organic Waste Unloading Area (WMU 3). The areas store wastes generated on-site, typically containers holding slag and flyash (the treatment residuals from the incineration process), slag quench water, used refractory brick, and spent activated carbon. They are uncovered and located over reinforced concrete in containment areas. Curbing, sumps, and sloped berms control run-on and are part of the containment system. There have been no documented releases from this unit. The potential for release to ground water, surface water, on-site soils, and air is low.

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- Q) **WMU 17- Bulk Solid Waste Storage Tanks-** This unit consists of two reinforced concrete tanks located inside the Incinerator Feed Building. The units are open topped tanks separated by a center wall to prevent the co-mingling of waste. The total capacity of the two existing tanks is approximately 1,200 cubic yards. Bulk solid waste is unloaded from trucks or roll-offs into the tanks through doors located on the east side of the tanks. The waste is blended and transferred via an overhead crane from the tanks to the incineration system (SWMU 1) for treatment. Vapors released from the waste are collected by vapor recovery vents in the tank area and conveyed to the vapor recovery system. There have been no documented releases from this unit. The potential for release to ground water, surface water, on-site soils, and air is low.
- R) **WMU 18- Building C (Lab Pack Building)-** Building C is located east of the Container Processing Building (WMU 10). The building is fully enclosed with exterior containment curbing. The base of the interior of the building is sloped to a sump located in the northwest corner. The containment capacity of this building is 11,200 gallons. Containers of waste stored in this building are placed on pallets (or equivalent) and /or in heavy duty storage racks to prevent contact with the building floor. This area has two-level racks with the ability to store an equivalent of 240 fifty five gallon drums or 13,200 gallons. The primary use for this unit is for auditing lab packs but other processing activities and the storage of lab packs are also permitted. The unit is connected to the vapor recovery system and is used during auditing lab packs or other waste processing activities when there is a potential for the release of vapors or fugitive emissions. There have been no documented releases from this unit. The potential for release to ground water, surface water, on-site soils, and air is low.
- S) **WMU 19- INCINERATOR FEED BUILDING -** IN ADDITION TO CONTAINING THE BULK SOLID WASTE STORAGE TANKS (WMU 17) AND THE FEED MECHANISMS TO THE INCINERATOR SYSTEM (WMU 1), THIS UNIT ALSO INCLUDES TWO DIRECT FEED UNITS. THESE TWO DIRECT FEED UNITS ARE THE DIRECT ORGANIC TANKER SOUTH AND THE DIRECT DRUM PUMP-OUT.

THE DIRECT ORGANIC TANKER SOUTH IS LOCATED IN A BAY SOUTH OF AND ADJACENT TO THE BULK SOLID WASTE STORAGE TANKS. THE UNIT INCLUDES AN UNLOADING SYSTEM TO TRANSFER LIQUID WASTE FROM TANKER TRUCKS DIRECTLY TO WMU1 BY PRESSURIZING THE TANKER TRUCK WITH NITROGEN THUS DISPLACING THE CONTENTS. THE FEED RATE IS DETERMINED USING THE SCALE LOCATED IN THE BAY. THE UNIT HAS AN AUTOMATED FIRE DETECTION AND SUPPRESSION SYSTEM CAPABLE OF EXTINGUISHING CLASS 1A FLAMMABLE LIQUIDS. THE DIRECT ORGANIC TANKER SOUTH IS EQUIPPED WITH VAPOR RECOVERY AND ALL DOORS ARE KEPT CLOSED DURING OFF-LOADING TO ENSURE A

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NEGATIVE PRESSURE THUS CONTROLLING POSSIBLE FUGITIVE EMISSIONS AND THE RELEASE OF ODORS DURING UNLOADING ACTIVITIES. DIRECT ORGANIC TANKER SOUTH IS ISOLATED FROM THE REST OF THE INCINERATOR FEED BUILDING BY WALLS TO THE NORTH, SOUTH, AND WEST, WITH A ROLL-UP DOOR LOCATED ON THE EAST SIDE FOR TANKER ENTRY. THE FLOOR IS CURBED TO CONTAIN 10,000 GALLONS AND INCLUDES A SMALL SUMP TO CONTAIN MINOR SPILLS OR LEAKS. THE BAY IS PAVED WITH REINFORCED CONCRETE TREATED TO RESIST CHEMICALS THAT ARE MANAGED IN THE UNIT. WHEN NOT FEEDING WASTE TO WMU 1, BULK WASTE CONTAINERS MAY BE STAGED IN THIS BAY IN ACCORDANCE WITH THE APPROVED PART B PERMIT APPLICATION. THERE HAVE BEEN NO DOCUMENTED RELEASES FROM THIS UNIT. THE POTENTIAL FOR RELEASE TO GROUND WATER, SURFACE WATER, ON-SITE SOILS, AND AIR IS LOW.

THE DIRECT DRUM PUMP-OUT UNIT IS LOCATED WEST OF AND ADJACENT TO THE DIRECT ORGANIC TANKER SOUTH AND IS ENCLOSED AND ISOLATED FROM THE REST OF THE INCINERATION FEED BUILDING. THE UNIT HAS TWO STATIONS FOR FEEDING CONTAINERIZED LIQUIDS TO WMU 1 VIA LANCES. WASTE FEED RATES ARE MEASURED USING A SCALE. THE UNIT HAS AN AUTOMATED FIRE DETECTION AND SUPPRESSION SYSTEM CAPABLE OF EXTINGUISHING CLASS 1A FLAMMABLE LIQUIDS. THE TYPES OF WASTE PROCESSED IN THIS UNIT INCLUDE ODOROUS WASTE, WATER-REACTIVE WASTE, CLASS 1A FLAMMABLE LIQUIDS, AND HIGHLY REACTIVE WASTE STREAMS. DIRECT DRUM PUMP-OUT IS ISOLATED FROM THE REST OF THE INCINERATOR FEED BUILDING BY WALLS TO THE NORTH, EAST, AND WEST, WITH A ROLL-UP DOOR LOCATED ON THE SOUTH SIDE FOR TRANSFER OF CONTAINERS INTO THE UNIT. THE DOORS ARE KEPT CLOSED DURING PROCESSING TO CONTROL FUGITIVE EMISSIONS AND TO MAXIMIZE THE EFFORTS OF THE VAPOR RECOVERY SYSTEM IN THE FORM OF SNORKELS OVER EACH STATION. THE UNIT HAS SECONDARY CONTAINMENT WITH A CAPACITY OF 1,125 GALLONS THAT INCLUDES A SUMP. THE FLOOR IS PAVED WITH REINFORCED CONCRETE TREATED TO RESIST CHEMICALS THAT ARE MANAGED IN THE UNIT. HOSES AND LINES USED TO FEED THE WASTE ARE FLUSHED BETWEEN TRANSFER OF EACH WASTE STREAM USING A COMPATIBLE MATERIAL. THERE HAVE BEEN NO DOCUMENTED RELEASES FROM THIS UNIT. THE POTENTIAL FOR RELEASE TO GROUND WATER, SURFACE WATER, ON-SITE SOILS, AND AIR IS LOW.

Area Of Concern (AOC) - Former Charter Oil Facility Release Area

The property where VRA is located was formerly occupied by Charter Oil. The Charter Oil facility included approximately 7.2 acres of property which consisted of a building, the barge off-loading pier which extended into the Ohio River and a petrochemical terminal. The petrochemical terminal, approximately two acres, consisted of ten large capacity above ground storage tanks surrounded by an earthen dike, a metal transfer pipeline ten inches in diameter and a tanker truck terminal. The transfer pipeline connected the storage tanks to a barge terminal in the Ohio River, and also to a truck

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load-out area north of the storage tank area. The petrochemical terminal and tanks have since been removed. Additional information regarding Charter Oil can be found in Section E of this permit.

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A spill history at the Charter Oil facility included large releases of hazardous materials. In the Spring of 1983, approximately 19,000 gallons of xylene released into the environment when a crack developed in the side of a storage tank located within the storage tank farm. In April of 1985, a site investigation report was prepared by Weston-Sper, a consultant for U.S. EPA. The report identified a suspected release into the environment of 33,000 gallons mineral spirits from the Charter Oil facility in early 1984. This release allegedly occurred through a storage tank leak. An alleged third release of an unidentified material of approximately 200,000 gallons into the environment was reported to have occurred at the Charter Oil facility in June of 1984. A federal investigation was conducted in response to an alleged theft of solvents from Charter Oil facility. Such investigations revealed that the pipelines leading from the storage tanks to the truck loading area were severely corroded, thus indicating the possibility of numerous releases. This alleged release was never confirmed.

Area of Concern (AOC) - Former charter Oil Facility Release Area

As a result of past documented releases ~~at the facility~~ FROM THE CHARTER OIL COMPANY, ground water and soil contamination exists at the facility. According to March 1990 analytical data, ~~the facility has~~ ground water contamination of benzene, toluene, ethylbenzene, xylene, acetone, trimethylbenzenes, trichloroethene, and total petroleum hydrocarbons WAS PRESENT IN THE AREA UNDERLYING THE VRA FACILITY. ON-GOING GROUNDWATER MONITORING IN ACCORDANCE WITH THE VRA PERMIT, IN THE AREA DELINEATING THE CONTAMINANT PLUME, HAS DETERMINED GROUNDWATER CONTAMINATION FROM THE AREA OF CONCERN STILL EXISTS. THE HISTORIC CONTAMINATION LINKED TO THE AOC IS BEING ADDRESSED THROUGH CONDITION E OF THE PERMIT RENEWAL. ~~Remedial actions related to contamination at the Former Charter Oil Facility Release Area are ongoing pursuant to Interim Orders with Ohio EPA.~~