

PART I LEGAL AUTHORITY

Pursuant to the Environmental Protection Law, as amended (KRS Chapter 224) and attendant regulations promulgated thereunder by the Kentucky Natural Resources and Environmental Protection Cabinet, in the Kentucky Administrative Regulations title 401, a permit is issued to DeMil International (DeMil), Inc. (hereinafter, referred to as the "permittee") for hazardous waste storage and treatment at 400 Williams Mine Road, in Nortonville, Kentucky, at latitude 37° 18' 00" N and longitude 87° 27' 00" W (KYR-000-007-211). It is noted that portions of this site are used by Donovan Commercial Industries, Inc. (DCI), an explosives manufacturing facility.

The permittee must comply with all terms and conditions of the permit. This permit consists of the conditions set forth in Part II (Specific Conditions), Part III (Standard Conditions), Part IV (Corrective Action), Part V (Waste Minimization) Part VI (Land Disposal Restrictions), Part VII (RCRA Organic Air Emissions Standards for Process Vents and Equipment Leaks), Part VIII (Referenced Attachments) and the applicable waste management regulations. Applicable regulations are those which are in effect on the date of issuance. For future permit actions including modifications or revocation and reissuance, the applicable regulations shall be those which are in effect on the date the final decision is issued [401 KAR 30:020, Section 7 (eff. 5-8-90)].

This permit is based on the assumption that the information in the permit application submitted on June 17, 1996 as modified by subsequent amendments (herein referred to as the application) is accurate and that the facility will be operated as specified in the application and this permit. Any inaccuracies found in this information could lead to the termination or modification of this permit and potential enforcement action [401 KAR 38:040, Section 4 (eff. 3-12-97); and 401 KAR 40:040, Section 1 (eff. 12-2-83)]. The Permittee shall inform the Cabinet of any deviation from, or changes in the information in the application, which would affect the Permittee's ability to comply with the applicable regulations or permit conditions [401 KAR 38:030, Section 1 (eff. 3-12-97)]. Should there be an instance where there appears to be conflict between a permit condition and text from the application, the permit condition will supersede the text in the application.

It is acknowledged that the Hazardous Waste Branch Manager has been designated as the representative of the Cabinet. Therefore, all submittals required by this permit may be addressed to the Hazardous Waste Branch Manager.

This permit is effective December 1, 1999, and shall remain in effect until the specified expiration date, unless revoked and reissued, or terminated [401 KAR 38:040, Section 2 (eff. 3-12-97); 401 KAR 38:040, Section 4 (eff. 3-12-97); 401 KAR 38:050, Section 2 (eff. 3-12-97); and 401 KAR 40:050, Section 1 (eff. 12-2-83)].

PART II SPECIFIC CONDITIONS

II.A FACILITY DESCRIPTION

- II.A.1. This permit is issued for storage and treatment of hazardous wastes at DeMil International, Inc., Nortonville, Kentucky, (hereinafter referred to as the “permittee” or “facility”) (see 401 KAR 34:005, Section 1(93), (eff. 3-12-97)).

Storage will take place in four (4) storage magazines. Treatment will occur in one (1) Blast Chamber building. The facility description is provided in Part B of the permit application and is hereby incorporated and attached as part of this permit (Attachment B-Facility Description).

- II.A.2. Treatment, in this permit, is limited to the deactivation of reactive (D003) waste. Therefore, the permittee may not accept on to its site, any waste that does not bear the D003 Reactive Waste code. In addition to the D003 code, the waste stream may also bear the waste codes listed below. This list has been obtained from the Part A in the permit application and is hereby incorporated and attached as part of this permit (Attachment A-Part A Application). Each of these hazardous wastes shall be stored as specified within this permit.

WASTE CODE	DESCRIPTION
D001	Ignitable Waste
D002	Corrosive Waste
D003	Reactive Waste
D004	Waste Containing Arsenic
D005	Waste Containing Barium
D006	Waste Containing Cadmium
D007	Waste Containing Chromium
D008	Waste Containing Lead
D010	Waste Containing Selenium
D011	Waste Containing Silver
D021	Waste Containing Chlorobenzene
D023	Waste Containing o-Cresol

D024	Waste Containing m-Cresol
D025	Waste Containing p-Cresol
D026	Waste Containing Cresol
D027	Waste Containing 1,4-Dichlorobenzene
D028	Waste Containing 1,2-Dichloroethane
D029	Waste Containing 1,1-Dichloroethylene
D030	Waste Containing 2,4-Dinitrotoluene
D036	Waste Containing Nitrobenzene
D037	Waste Containing Pentachlorophenol
D041	Waste Containing 2, 4, 5-Trichlorophenol
D042	Waste Containing 2, 4, 6-Trichlorophenol
D043	Waste Containing Vinyl Chloride
K044	Wastewater treatment sludges from the manufacturing and processing of explosives.
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.
P009	Ammonium Picrate
P081	Nitroglycerine
U105	2,4-Dinitrotoluene
U106	2,6-Dinitrotoluene
U234	1,3,5-Trinitrobenzene

II.A.3 The maximum allowable storage or treatment capacities are listed below. This list has also been obtained from the Part A (Attachment A) in the permit application. The capacity in weight over time units (pounds per hour) represents total weight of the waste as received from the generator. It does not represent the Net Explosive Weight (NEW).

Unit Name	Process Code	Process Capacity	Unit of Measure	No. of Individual Units
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Magazines 1,2	S01	200	cubic yards	2
Magazines 3,4	S01	1024	cubic yards	2
Blast Chamber Building	X99	3000	pounds per hour	1

II.B. GENERAL FACILITY STANDARDS

II.B.1. General Waste Analysis

The permittee shall comply with all the requirements set forth under 401 KAR 34:020, Section 4 (eff. 3-12-97). The Waste Analysis Plan is provided in Part C of the permit application and is hereby incorporated and attached as part of this permit (Attachment C - Waste Characteristics).

II.B.1.a. The permittee may not accept on to its site any waste that does not bear the D003 Reactive Waste code.

II.B.1.b. The permittee may not accept on to the site any waste that contains free liquids (with the sole exception provided in the II.B.1.c.). All K044 and K046 wastes must be pressed and dried prior to acceptance on site.

II.B.1.c. The permittee may accept munitions that have ampules containing no more than 10 ml of a liquid. These ampules must be encased within the munition item and be treated as received (i.e. without any prepping) in the chamber.

II.B.1.d. All wastes generated on site will be handled as hazardous until a waste determination per 401 KAR 32:010 Section 2 demonstrates otherwise. The waste determination for blast chamber debris must be conducted as soon as there is a sufficient quantity of debris in the Fragmentation Containment Unit, or equivalent device, (hereinafter, referred to as FCU) to collect a representative sample. If an FCU is not used, a waste determination must be made upon removal of any materials (including, but not limited to, dunnage and/or pea gravel) from the chamber. Until analytical results confirm otherwise, all such materials

must be handled as hazardous waste. Any waste generated by treating listed wastes maintain the listing and, thereby, remain hazardous.

II.B.1.e. For each waste treatment program, the permittee may substitute generator knowledge for chemical analysis after the waste stream is adequately characterized through consistent analysis results. The permittee shall submit written notification to the Hazardous Waste Branch whenever such a substitution is made. The notification shall include the analysis results upon which the substitution was based.

II.B.1.f. Any waste coming in contact with a listed waste must be handled from then on as a listed waste.

II.B.2. Security

The permittee shall comply with all requirements set forth under 401 KAR 34:020, Section 5 (eff. 3-12-97), and Attachment F (Procedures to Prevent Hazards) which is attached and incorporated as part of this permit.

II.B.2.a. The permittee shall maintain security which monitors and controls entry into the site twenty four (24) hours a day.

II.B.2.b. The permittee shall maintain signs at the entrance to the facility and other locations which are legible from twenty-five (25) feet from any direction and read

"DANGER-Unauthorized Personnel-Keep Out".

II.B.2.c. The permittee shall ensure that the fence around each magazine is properly maintained and that their gates and doors remain locked except during loading or unloading of wastes.

II.B.2.d. The permittee shall ensure that the Blast Chamber Building is locked whenever the chamber and the prep area activities cease for the day. Even during working hours, whenever there is waste present, the Blast Chamber Building must be locked whenever it is not

staffed by the permittee's personnel.

- II.B.2.e The permittee will ensure that any on-site contractors and their activities at or near the regulated units are monitored at all times by the permittee's personnel.

II.B.3. General Inspection Requirements

The permittee shall comply with all requirements set forth under 401 KAR 34:020, Section 6 (eff. 3-12-97), 401 KAR 34:180, Section 5 (eff. 3-12-97, and 401 KAR 34:190, Section 6, (eff. 3-12-97). The permittee shall remedy any deterioration or malfunction discovered by an inspection. Records of inspection shall be kept as required by 401 KAR 34:020, Section 6(4), (eff. 3-12-97).

- II.B.3.a. The Inspection Schedule included in Attachment F (Procedures to Prevent Hazards) of this permit is hereby incorporated and attached as part of this permit.
- II.B.3.b. In addition to the above referenced Inspection Schedule, the permittee shall record all inspections in the inspection log format included in Attachment F (Procedures to Prevent Hazards) of this permit.
- II.B.3.c. The permittee shall also adhere to all applicable regulations and requirements of the U.S. Department of Defense, Bureau of Alcohol, Tobacco & Firearms (ATF), OSHA and parallel state agencies. Any citations for non-compliance received from these agencies must be reported to the Division within three (3) working days.

II.B.4. Personnel Training

The permittee shall conduct personnel training as required by 401 KAR 34:020, Section 7, (eff. 3-12-97). The Training Outline is recorded as part of this permit, Attachment H (Personnel Training), and shall be the basis of the actual training manuals. Employees who handle, store and ship hazardous wastes are required to complete training courses relating to chemical hazards.

- II.B.4.a. The permittee shall maintain training documents and records as required by 401 KAR 34:020, Section 7(4) and (5), (eff. 3-12-97).

- II.B.4.b. All new employees hired in the positions that involve hazardous waste management shall successfully complete the training within six (6) months of their employment and must not work in unsupervised positions until they have completed the training, 401 KAR 34:020, Section 7(2) (eff. 3-12-97).
- II.B.4.c. All employees involved in hazardous waste management shall receive appropriate training and this training shall be repeated/reviewed annually (within 365 calendar days), as specified in 401 KAR 34:020, Section 7(3) (eff. 3-12-97).
- II.B.4.d The permittee shall prepare and maintain detailed job descriptions with all information required by 401 KAR 34.020, Section 7(4) (eff. 3-12-97), for the emergency coordinator, foreman, operators, analyst, technicians and all personnel involved in the hazardous waste storage facility.

II.B.5. Requirements for Ignitable, Reactive or Incompatible Wastes

- II.B.5.a. The permittee shall not place hazardous waste in an unwashed container which previously held incompatible wastes or material, as specified in 401 KAR 34:180, Section 8 (eff. 3-12-97).
- II.B.5.b. The permittee shall comply with the Storage Compatibility Grouping requirements of DOD 4145.26-M “DOD Contractor Safety Requirements for Ammunitions and Explosives.”
- II.B.5.c. The permittee shall utilize the procedures listed under Attachment C (Waste Characteristics) and Attachment D (Process Information) and Attachment F (Procedures to Prevent Hazards) to ensure that ignitable, reactive or incompatible wastes are not stored improperly.

II.C. PREPAREDNESS AND PREVENTION

II.C.1. Design and Operation of Facility

- II.C.1.a. The permittee shall comply with all applicable

requirements set forth under 401 KAR 34:030, Section 2 (eff. 2-4-86), which states that the permittee must maintain and operate the facility to minimize the possibility of a fire, explosion or unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, surface water, or ground water which could threaten human health or environment.

II.C.1.b. The permittee shall comply with DOD 4145.26-M “DOD Contractor Safety Requirements for Ammunitions and Explosives.”

II.C.1.c. The permittee will install and maintain on Highway 41 signs that identify the entrance to Williams Mine Road and read “**DeMil International**”. These signs must be large enough to be clearly visible to incoming trucks from a distance of one hundred (100) yards.

II.C.1.d. To ensure safe transportation of waste to and from the site, the permittee shall maintain the section of Williams Mine Road between Highway 41 and the facility gate.

II.C.1.e. The permittee may not transport waste off site or receive incoming waste shipments at the following local times:

1. Friday’s between 6:00 p.m. and 9:30 p.m.
2. The last Saturday of each month between 5:45 p.m. and 10:00 p.m..
3. Easter Sunday’s between 10:30 a.m. and 12:30 p.m..

II.C.2. Equipment Required

The permittee shall comply with all requirements set forth under 401 KAR 34:030, Section 3, (eff. 2-4-86).

II.C.2.a. At a minimum, the permittee shall keep all equipment at the facility as specified in the Contingency Plan. The Contingency Plan is hereby attached and incorporated by reference, as Attachment G.

II.C.2.b. The permittee shall maintain all emergency equipment at the locations which are listed in Appendix G and Appendix J of the Contingency Plan (Attachment G).

II.C.3. Testing and Maintenance of Equipment

The permittee shall comply with all requirements set forth under 401 KAR 34:030, Section 4, (eff. 2-4-86). The permittee shall test all equipment at the facility for quality and maintain all equipment at the facility in good working order, to ensure proper operation in time of emergency, consistent with 401 KAR 34:030, Section 4, (eff. 2-4-86) and the inspection schedule given in Attachment F (Procedures to Prevent Hazards).

II.C.4. Access to Communication or Alarm System

The permittee shall comply with all requirements set forth under 401 KAR 34:030, Section 5, (eff. 2-4-86).

II.C.5. Required Aisle Space

The permittee shall comply with all requirements set forth under 401 KAR 34:030, Section 6, (eff. 2-4-86), and as specified in Attachment D (Process Information) of this permit. Aisles in all magazines will be at least 3 ft wide with the following exception.

II.C.6. Arrangements with Local Authorities

The permittee shall comply with all requirements set forth under 401 KAR 34:030, Section 7, (eff. 2-4-86).

II.C.6.a. The permittee shall make the appropriate arrangements with local hospitals, fire and police departments, and other appropriate agencies for emergency response service by sending copies of the Contingency Plan to these agencies within one month of issuance of this permit as required is 401 KAR 34:040, Section 4. The permittee shall document in the operating record any refusal by any of the agencies to enter into such arrangements.

II.D. CONTINGENCY PLAN AND EMERGENCY RESPONSE

II.D.1. Purpose and Implementation of Contingency Plan

The permittee shall comply with all requirements set forth under 401 KAR 34:040, Section 2, (eff. 2-4-86). The permittee shall immediately carry out the provisions of the Contingency Plan, incorporated in this permit as Attachment G, and follow the emergency procedures described in 401 KAR 34:040, Section 7 (eff. 2-4-86), whenever there is an imminent or actual emergency situation including a fire, explosion, or unplanned sudden or non sudden release of any hazardous waste or hazardous waste constituent at the facility.

II.D.2. Copies of the Contingency Plan

The permittee shall comply with all requirements set forth under 401 KAR 34:040, Section 4, (eff. 2-4-86). In addition, prior to accepting the first shipment of waste, a copy of the contingency plan must also be submitted to the Kentucky Department of Environmental Protection's (KDEP) Emergency Response Team (ERT). The copies will include the name and contact information of a designated contingency contractor.

II.D.3. Amendment of Contingency Plan

The permittee shall review and amend the Contingency Plan as required by 401 KAR 34:040, Section 5 (eff. 2-4-86).

II.D.4. Emergency Coordinator

The permittee shall comply with all requirements set forth under 401 KAR 34:040, Section 6, (eff. 2-4-86), concerning the Emergency Coordinator.

II.D.5. Emergency Procedures

The permittee shall comply with all requirements set forth under 401 KAR 34:040, Section 7 (eff. 2-4-86). The procedure stated in the Contingency Plan (Attachment G), must be implemented in accordance with the plan whenever there is an imminent or actual emergency situation including any release of hazardous waste or hazardous constituents, fire or explosion in areas where hazardous waste management activities take place.

The permittee must note in the operating record the time, date and details

of any incident that requires implementing the Contingency Plan.

II.D.6. Content of Contingency Plan

The permittee must comply with the direction set forth in 401 KAR 34:040, Section 3 (eff. 2-4-86).

The contingency plan must describe the actions facility personnel must take to comply with sections 2 and 7 of KAR 34:040. In response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste constituents to air soil, surface water, or ground water at the facility.

The plan must describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and state and local emergency response teams to coordinate emergency services.

The plan must list names, addresses, and phone numbers of all persons qualified to act as an emergency coordinator.

The plan must list all emergency equipment at the facility and where this equipment is required.

The plan must be modified to include an evacuation plan for facility personnel. This plan must be submitted for review under permit condition II.K.1.a.v..

II.D.7. Notification to the Cabinet

The permittee must comply with notification procedures set forth in 401 KAR 34:040, Section 7 (eff. 2-4-86), and outlined in Attachment G (Contingency Plan).

II.D.8. Incidents in the Vicinity of the Facility

The permittee will also respond to off site incidents involving trucks with incoming or outgoing DeMil or DCI shipments within a radius of 25 miles from the facility. The contingency plan shall be modified to include procedures for response to off-site incidents, including a list of emergency response equipment to be taken during the initial response. This information must be submitted for review under permit condition II.K.1.a.vi..

II.E. MANIFEST SYSTEM

II.E.1. Use of the Manifest System

The permittee shall comply with the manifest requirements of 401 KAR 34:050, Sections 2 and 3 (eff. 3-12-97).

II.E.2. Manifest Discrepancy Report

II.E.2.a. If a discrepancy is not resolved within 15 days after receiving the waste the permittee shall immediately submit to the cabinet a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue. [401 KAR 34:050, Section 3 (eff. 3-12-97)].

II.E.2.b. The permittee shall not accept any unmanifested hazardous waste at this facility except as provided in Condition II.F.4.

II.F. RECORDKEEPING AND REPORTING

II.F.1. Operating Record

The permittee shall maintain records of all hazardous wastes stored at the facility in accordance with the record keeping procedures set forth in 401 KAR 34:050, (eff. 3-12-97).

II.F.2. Availability, Retention, and Disposition of Records

The permittee shall comply with all requirements set forth under 401 KAR 34:050, Section 5, (eff. 3-12-97).

II.F.3. Annual Report

The permittee shall comply with all requirements set forth under 401 KAR 34:050, Section 6, (eff. 3-12-97). The permittee shall submit Annual Reports on the form designated by the Cabinet and may provide an electronic transfer of Annual Report data if the permittee utilizes a computer system to record Annual Report data.

II.F.4. Unmanifested Waste

The permittee shall comply with all the requirements set forth under 401 KAR 34:050, Section 7 (eff. 3-12-97).

II.F.5. Additional Reports

The permittee shall comply with all requirements set forth under 401 KAR 34:050, Section 8, (eff. 3-12-97).

II.F.6. Release Reporting

II.F.6.a. The permittee shall report to the Division within 24 hours of detection, when a release or spill occurs from any of the regulated units to the environment. A release of one pound or less of hazardous waste, that is immediately contained and cleaned up, need not be reported. If the permittee has reported the release pursuant to KRS 224.01-400, that report satisfies the requirements of this condition.

II.F.6.b. Within 30 days of detecting the release to the environment from the regulated unit, the permittee shall submit a report to the Division containing the following information:

- II.F.6.b.i. Precise location of the release;
- II.F.6.b.ii. Specific pollutant or contaminant or hazardous substance released;
- II.F.6.b.iii. Concentration and quantity of the pollutant or contaminant or hazardous substance in the release;
- II.F.6.b.iv. Circumstances and cause of the release;
- II.F.6.b.v. Likely route of migration of the release;
- II.F.6.b.vi. Characteristics of the surrounding environment (including soil composition, geology, hydrogeology, and climate);
- II.F.6.b.vii. Results of any monitoring or sampling conducted in connection with the release. If the permittee finds it will be impossible to meet this time period, the permittee should provide the Hazardous Waste Branch Manager with a schedule of when the results will be available. This schedule must be provided before the required 30 day submittal period expires.

- II.F.6.b.viii. Description of response action taken or planned.
- II.F.6.b.ix. The name, address, and phone number of the person who can be contacted for additional information concerning the release.

II.G. CLOSURE

II.G.1. Closure Performance Standards

The permittee shall comply with all requirements and close the facility as set forth under 401 KAR 34:070, (eff. 3-12-97), 401 KAR 34:180, Section 9, (eff. 3-12-97, and 401 KAR 34:250, Section 2, (eff. 3-12-97).

II.G.2. Notification of Closure

The permittee shall notify the Hazardous Waste Branch Manager at least 45 days prior to the date closure is expected to begin as set forth under 401 KAR 34:070, Section 3(4)(a) (eff. 3-12-97).

II.G.3. Closure Plan and Amendment of Closure Plan

The permittee shall comply with all requirements and close the facility as set forth under 401 KAR 34:070, Section 3, (eff. 3-12-97). The permittee shall carry out closure as described in the attached Closure Plan. The Closure Plan is hereby adopted and incorporated by reference as Attachment I and attached as a part of this permit. The permittee shall amend the Closure Plan whenever necessary in accordance with 401 KAR 34:070, Section 3(3) (eff. 3-12-97).

II.G.4. Time Allowed for Closure

The permittee shall comply with 401 KAR 34:070, Section 4, (eff. 3-12-97). Within ninety (90) days after receiving the final volume of hazardous waste, the permittee must treat, remove from the unit or facility, or dispose of on-site all hazardous wastes in accordance with the approved Closure Plan in Attachment I. All partial and final closure activities shall be completed as described in the attached Closure Plan; and within 180 days after receiving the final volume of hazardous waste, unless a longer period is approved by the Hazardous Waste Branch Manager. Further, all equipment and the facility will be decontaminated and washing residues removed.

II.G.5. Disposal or Decontamination of Equipment, Structures and Soils

The permittee shall decontaminate and/or dispose of all contaminated facility equipment, structures and soils as required by 401 KAR 34:070, Section 5, (eff. 3-12-97), and the Closure Plan, Attachment I.

II.G.6. Certification of Closure

Within sixty (60) days of completion of the closure of a hazardous waste unit, the permittee must submit to the Hazardous Waste Branch Manager, by registered mail, a certification that closure for the hazardous waste unit was performed in accordance with the specifications in the approved closure plan. The certification must be signed by the owner or operator and by an independent professional engineer registered in the Commonwealth of Kentucky. Documentation supporting the independent registered professional engineer's certification must be furnished to the Hazardous Waste Branch Manager upon request in accordance 401 KAR 34:070, Section 6, (eff. 3-12-97).

II.H. FINANCIAL REQUIREMENTS

II.H.1. Cost Estimate for Facility Closure

The permittee's closure cost estimate is specified in Attachment I (Closure Plan). The permittee shall comply with all requirements as set forth under 401 KAR 34:090, Section 1, (eff. 3-12-97), including the requirements to adjust and revise the cost estimates, when necessary. The inflationary adjustment or recalculation of the cost estimate will be made every year, thirty (30) days after the close of the facility's fiscal year and before submission of updated information to the Division.

II.H.2. Financial Assurance and Liability Requirements

The permittee shall comply with all applicable requirements as set forth under 401 KAR 34:080 (eff. 3-12-97).

II.H.2.a. The permittee shall demonstrate continuous compliance with the requirements under 401 KAR 34:090, Section 2 (eff. 3-12-97), by providing documentation of financial assurance for at least the amount of the current cost estimate.

II.H.2.b. The permittee shall demonstrate continuous compliance with the requirements of 401 KAR 34:120 (eff. 3-12-97), including requirements to have and maintain liability coverage for sudden accidental occurrences in the amount of at least \$1 million per occurrence with an annual aggregate of at least \$2 million, exclusive of legal defense costs.

II.H.2.c. The permittee must demonstrate compliance with the financial assurance requirements in 401 KAR 34:090, (eff. 3-12-97) and 401 KAR 34:120 (eff. 3-12-97), in during the life of this permit.

II.H.3. Incapacity of Permittee, Guarantor, or Financial Institutions

The permittee shall comply with the requirements of 401 KAR 34:130, (eff. 9-25-90), whenever necessary.

II.I CONTAINER MANAGEMENT PRACTICES

II.I.1. Construction of Storage Magazines

The following standards will govern the construction of the storage magazines :

1. Design specifications in Attachment D (Process Information)
2. 401 KAR 34:180
3. 29 CFR 1910.109(c)(3)
4. Army Regulation (AR) 190-11, "Physical Security of Arms, Ammunition, and Explosives"
5. DOD 4145.26-M, "DOD Contractor's Safety Manual for Ammunition and Explosives"

II.I.2. Use and Management of Containers

The permittee may store, in DOT approved containers and subject to the terms of this permit, a total volume of one thousand two hundred twenty four (1224) cubic yards of hazardous waste (specified in Permit Condition II.A.2.) in the storage areas specified in II.A.4.

- II.I.2.a. The permittee is prohibited from storage of hazardous waste that is not identified in Permit Condition II.A.2.
- II.I.2.b. Containers that store hazardous waste must remain closed at all times except when placing or removing waste. Roll off bins that store debris must have fixed covers.

II.I.3. Condition of Containers

The permittee shall comply with all requirements set forth under 401 KAR 34:180, Section 2, (eff. 3-12-97) to ensure that all hazardous waste containers are in good condition. If a container holding hazardous waste is not in good condition (e.g. severe rusting, apparent structural defects) or if it begins to leak, the permittee shall transfer the hazardous waste from such container to a container that is in good condition or otherwise manage the waste in compliance with the conditions of this permit.

II.I.4. Compatibility of Waste with Containers

The permittee shall comply with all requirements set forth under 401 KAR 34:180, Section 3, (eff. 3-12-97).

II.I.5. Management of Containers

- II.I.5.a. The permittee shall manage and inspect the containers in accordance with 401 KAR 34:180, Sections 4 and 5 (eff. 3-12-97) and according to the container management system delineated in Attachment D (Process Information).
- II.I.5.b. The permittee shall perform an inventory of all hazardous waste munitions and explosives at least annually.

II.I.6. Inspection

The permittee shall maintain the Inspection form in accordance with the requirement of 401 KAR 34:180, Section 5 (eff. 3-12-97).

II.I.7. Containment

The permittee shall maintain the containment system in accordance with the requirements of 401 KAR 34:180, Section 6, (eff. 3-12-97) and as specified in the attached drawings in Attachment D (Process Information).

II.I.8. Special Requirements for Ignitable or Reactive Wastes

When storing ignitable or reactive wastes, the permittee must comply with the requirements of 401 KAR 34:020, Section 8, (eff. 3-12-97); and 401 KAR 34:180, Section 7, (eff. 3-12-97) and with Attachment F (Procedures to Prevent Hazards). Any activity that will require compliance with 401 KAR 34:020, Section 8(1) and (2), (eff. 3-12-97), shall not be allowed without supporting documentation as specified in 401 KAR 34:020, Section 8, (3).

II.I.9. Special Requirements for Incompatible Wastes

The permittee shall comply with all requirements set forth under 401 KAR 34:180, Section 8 (eff. 3-12-97). The permittee shall comply with the Storage Compatibility Grouping requirements of DOD 4145.26-M "DOD Contractors' Safety Requirements for Ammunitions and Explosives" listed in Attachment F (Procedures to Prevent Hazards)

II.I.10. Special Requirements for Restricted Wastes

The storage of hazardous wastes restricted from land disposal under 401 KAR Chapter 37 is prohibited unless the requirements of 401 KAR Chapter 37:050 are met.

II.J. BLAST CHAMBER BUILDING

II.J.1. The Blast Chamber Building will be constructed and operated according to 401 KAR 34:250 Section 2 and the description and specifications provided in the Attachment D (Process Information). It must also meet any applicable DOD and ATF requirements.

II.J.2. The permittee will comply with the air emission limits specified in Permit # F-98-028 issued to DeMil International, Inc. by the Kentucky Division for Air Quality on May 17, 1999. Any instances of non-compliance constitute a violation of this permit and must be reported to the Hazardous Waste Branch within ten (10) calendar days. Additionally, the air emissions from the blast chamber stack shall not exceed the acute exposure risk based limits specified in the following table. The acute exposure risk based limits shall be in effect until the permit is modified to incorporate the results of the site-specific risk assessment required by permit condition II.K.3.g..

Parameter	Emissions Limit (lb/hr)	Basis of Limit
Particulate Matter (3 hr. average)	4.9E+00	DAQ Permit
Lead/Lead Oxide	2.16E+00	DAQ Permit
Hydrogen Chloride	1.88E+01	DAQ Permit
Chlorine	2.16E+00	DAQ Permit
Arsenic	6.5E-03	Acute Exposure Risk Level
Barium	5.2E+01	Acute Exposure Risk Level
Cadmium	1.0E+00	Acute Exposure Risk Level
Chromium	5.2E+00	Acute Exposure Risk Level
Selenium	2.1E+01	Acute Exposure Risk Level
Silver	1.0E+01	Acute Exposure Risk Level

II.J.3 Treatment of waste that generate HCl emissions will be limited to less

than 40 hours per week.

- II.J.4. The Blast Chamber Building will not be used for overnight storage of wastes. All waste that is not treated should be returned to the storage magazines at the end of the work day.
- II.J.5. The maximum permitted treatment capacity for the chamber is 3000 pounds per hour of waste (total weight). The maximum allowable net weight of explosive content (NEW) per detonation is 15 pounds.
- II.J.6. All individuals inside the building must use ear protection equipment and other personal protective equipment (PPE) required by the Standard Operating Procedures (SOP) manual (outlined in II.K.1) whenever the blast chamber is being operated.
- II.J.7. The blast chamber may not be operated unless a qualified Explosive Ordinance Demolition (EOD) technician and a fully functional EOD suit is present on site.
- II.J.8. The Blast Chamber will vent to the Air Pollution Control System (APCS) described in Attachment D (Process Information). If the APCS is out of service for any reason, all Blast Chamber activities must cease. Hazardous waste shall not be treated in the Blast Chamber during the baghouse cleaning cycle.
- II.J.9. In the event of a power outage, all Blast Chamber Building activities must cease and the permittee must take appropriate steps to ensure that there is no uncontrolled release of emissions to the environment. The permittee must also implement the SOP requirements on personnel safety and the handling of waste that was being prepared for treatment.
- II.J.10. Prior to storage on-site, FCUs and Blast Mats used for a treatment program must be decontaminated before being removed from the chamber. The blast mats and emptied FCUs must be swept with a brush or broom, and vacuumed to remove debris. Prior to shipping off-site or during final closure of the facility, the blast mats and FCUs must be decontaminated according to the procedure listed in Attachment I. All decontamination procedures must be listed in the approved SOP for each waste program.
- II.J.11. The permittee will take appropriate steps to ensure that the debris from the FCUs are transferred into roll-off bins without generating fugitive emissions. Residue on the outer surface of the FCU will first be removed while still inside the chamber. The transfer of the contents of

the FCU will occur just outside the chamber door. During this transfer, the chamber door will remain open and the chamber fan will be operational. The debris may only be transferred to top-entry fixed-cover roll-off bins.

- II.J.12. Waste from different sources (for example, chamber debris vs. baghouse dust) may not be mixed unless they have **both** been previously characterized and determined to be non-hazardous. The mixing of two hazardous (or one hazardous and one non-hazardous) waste streams that results in a non-hazardous waste constitutes unpermitted hazardous waste treatment.
- II.J.13. For the purpose of consolidation, the permittee may combine two or more hazardous waste streams to create a single hazardous waste stream that bears the waste codes of all the waste streams combined.
- II.J.14. Any substance that comes in contact with a listed waste shall from then on be handled as a listed waste. Any substance that comes in contact with non-listed hazardous waste shall be subject to the same waste analysis procedures as the waste itself. To minimize such occurrences, the permittee shall implement the decontamination procedures for the Blast Chamber, FCU and Blast Mats specified in the approved SOP.
- II.J.15. The permittee may use the Blast Chamber for Explosive Depth Hardening (EDH) activities involving product materials. However, the permittee must decontaminate the chamber and the expansion tank prior to utilizing the facility for product producing processes. Decontamination shall include removing all gravel, dust, and other debris then cleaning the area sufficiently such that wipe samples taken from the chamber and expansion tank pass Region IX Industrial PRGs.
- The permittee will notify the Division in writing within 5 work days when EDH activities have concluded and the facility returns to hazardous waste destruction operations.
- EDH operations may not receive or generate any wastes with codes not listed in the permit without a modification to the permit prior to the handling of such waste.
- II.J.16. The permittee may use the Blast Chamber for Research and Development (R&D) testing activities involving products from their explosive manufacturing processes. However, the permittee must ensure that all permit conditions II.J are met.

R&D operations may not receive or generate any wastes with codes not listed in the permit without a modification to the permit prior to the handling of such waste.

- II.J.17. The permittee will submit written notification to the Hazardous Waste Branch 10 working days prior to decontamination procedures being implemented. The notification will include a plan for decontamination, number of samples to be conducted, and disposal plan for waste generated.

Within 30 days after the completion of the decontamination of the detonation chamber and pollution abatement system the permittee shall notify the Division. This notification will include analysis results for the verification sampling conducted at the end of the decontamination process.

II.K COMPLIANCE SCHEDULE

II.K.1. Standard Operating Procedures

- II.K.1.a. 30 days prior to the receipt of the first shipment of hazardous waste, the permittee will submit for the Division's review and approval a Standard Operating Procedures (SOP) Manual for the facility. The SOP must follow the approved specifications listed in Attachment F (Procedures to Prevent Hazards). The SOP will contain/address the following items:

II.K.1.a.i. Procedures during a power outage. This includes issues involving personnel safety and the handling of waste currently being prepared for treatment.

II.K.1.a.ii. Standard decontamination procedures for the Blast Chamber, FCU and blast mats.

II.K.1.a.iii. Scenario's involving EDH activities before and after treatment of listed hazardous waste, non-listed hazardous waste, waste that may still be hazardous, waste that is pre-determined to be no longer hazardous. The SOP will list each scenario and provide clear instructions on the waste determination and equipment (chamber, FCU, blasting mats,

and expansion chamber) decontamination procedures for each one. EDH activities may only contributed wastes with waste codes that are included in the permit.

II.K.1.a.iv. Scenario's involving R&D activities before and after treatment of listed hazardous waste, non-listed hazardous waste, waste that may still be hazardous, waste that is pre-determined to be no longer hazardous. The SOP will list each scenario and provide clear instructions on the waste determination and equipment (chamber, FCU and blasting mats) decontamination procedures for each one. R&D activities may only contributed wastes with waste codes that are included in the permit.

II.K.1.a.v. An evacuation plan for facility personnel. This plan will then be incorporated into the Contingency Plan. (See permit condition II.D.6.)

II.K.1.a.vi. Procedures for response to off-site incidents, including a list of emergency response equipment to be taken during the initial response. This plan will then be incorporated into the Contingency Plan. (See permit condition II.D.8.)

II.K.1.b. Subsequently, for every new waste treatment program, prior to receiving the waste on site, the permittee will submit an addendum to the existing SOP that meets the requirements of II.K.1.a..

II.K.2. Explosive Testing Pit

II.K.2.a. Within 30 days after the Technology Demonstration Report has been submitted, the permit conditions modified as necessary, and the Chamber certified as operational, the permittee shall cease any activities at the testing pit and will submit a sampling plan to the Hazardous Waste Branch for approval. The plan will list

the materials tested there, the possible constituents of concern, proposed sampling and analysis methodology, and any remedial measures should they be required.

II.K.2.b. Within 60 days of approval from the Hazardous Waste Branch, the permittee will implement the approved plan. The permittee will notify the Hazardous Waste Branch with at least seven (7) working days prior to the commencement of sampling activities.

II.K.2.c. Within 60 days of the completion of sampling/remedial activities, the permittee shall submit to the Hazardous Waste Branch a report which includes the following:

II.K.2.c.i. A detailed description of the field activities completed during implementation, including sampling and any remedial activities.

II.K.2.c.ii. Analytical results of all samples collected.

II.K.2.c.iii. A detail description of the methods of staging, transportation, and disposal employed for any hazardous substances, pollutants and contaminants, including identifying the transporter, manifest system, and disposal facility employed.

II.K.3. Technology Demonstration

II.K.3.a. The permittee shall conduct a Technology Demonstration Test (TDT) to identify and quantify the emissions from the Blast Chamber Unit. The permittee may request approval from the Hazardous Waste Branch to conduct the TDT on an existing Blast Chamber Unit which has the same design and operating conditions as the unit described in this Permit.

II.K.3.b. During the TDT, stack emissions should be sampled and analyzed for the following toxic constituents:

- dioxins/furans;

- volatile organics;
- semi-volatile organics (including PCBs, PAHs, and chlorobenzenes/chlorophenols);
- toxic metals; and
- potentially unreacted explosive compounds in the waste.

Sampling and analysis procedures and lists of specific volatile and semi-volatile organics and metals which should be identified and quantified during the test are provided in EPA's "Guidance on Collection of Emissions Data to Support Site-Specific Risk Assessments at Hazardous Waste Combustion Facilities, Peer Review Draft," (EPA 530-D-98-002, August 1998).

II.K.3. c. The permittee shall submit the TDT plan with a risk assessment protocol at least ninety (90) days prior to construction completion. The plan shall contain the following information:

- II.K.3.c.i. A description of the Blast Chamber and associated air pollution control system. The following areas need to be addressed:
1. Description of the Blast Chamber unit;
 2. Prime mover (Induced Draft fan) capacity;
 3. Waste loading system description;
 4. Waste residue handling system description;
 5. Any continuous emission monitoring (CEM) systems;
 6. Air pollution control systems (fabric filter);
 7. Construction materials;
 8. Location and description of temperature, pressure, and flow indicators and control devices; and
 9. Start-up and shut-down procedures.
- II.K.3.c.ii. A detailed description of sampling, analysis, and monitoring procedures for

the TDT including:

1. Sampling and monitoring equipment and calibration procedures;
2. Sampling and monitoring methods;
3. Sampling and monitoring frequency;
4. Sampling and monitoring locations;
5. Analytical methods and procedures; and
6. A quality assurance project plan (QAPP) describing the quality assurance and quality control (QA/QC) procedures for the testing.

II.K.3.c.iii. A detailed test protocol. This must include:

1. Characterization of the waste to be treated during the test including the reactive, toxic organic and toxic metal constituents in the waste; and
2. Designation of planned test operating conditions including the waste batch sizes and feeding frequencies.
3. One of the test batches should include material which contains or is spiked with material likely to generate Dioxans/furans;

II.K.3.c.iv. A detailed test schedule. This must include:

1. The number of test conditions and the number of replicate sampling runs for each test condition;
2. The duration of the testing;
3. An estimated quantity of waste to be treated during the test; and
4. The time frame for submitting the testing results.

II.K.3.c.v. A risk assessment protocol should be included which describes all parameters and procedures to be utilized when assessing all risk associated with the emissions from the Blast Chamber. The

risk assessment should contain an evaluation of direct inhalation exposure to the emissions identified and quantified pursuant to condition II.K.3.b. of this permit.

- II.K.3.d. The permittee may treat hazardous waste in the Blast Chamber for a total of 100 detonation shots prior to the TDT being conducted. The maximum treatment limits specified in condition II.J.5. must be adhered to.
- II.K.3.e. Within sixty (60) days after the TDT plan has been approved by the Division or (60) days after construction is completed, whichever comes later, the permittee shall conduct the test pursuant to the approved test plan.
- II.K.3.f. After the TDT has been conducted and prior to final modification of the permit to incorporate the revised air emission limits, the permittee may continue to operate the chamber for a maximum of 8 hours per day at rate equal to 50% of the designed operational rate (The maximum permitted treatment capacity for the chamber during this period is 1500 pounds per hour total weight of the waste. The maximum allowable net weight of explosives and explosive waste per detonation is 7.5 pounds).
- II.K.3.g. The results of the TDT shall be used to conduct a risk assessment in accordance with the approved risk assessment protocol required by Condition II.K.3.c.v. The risks from all hazardous/toxic constituents identified and quantified in the emissions from the Blast Chamber shall be calculated in the risk assessment. The risk assessment shall be submitted to the Cabinet with the results of the TDT within ninety (90) days of completing the testing.
- II.K.3.h. If the risk assessment indicates that risk from the operation of the facility is unacceptable or if the TDT plan submitted as per II.K.3.c. is not approved, the permittee must immediately stop treatment of hazardous waste in the Blast Chamber and do one of

the following:

- II.K.3.h.i. Begin closure pursuant to Permit Condition II.G. and the Closure Plan in Attachment I to this permit; or
 - II.K.3.h.ii. Within 30 days of notification from the Division, submit for the Division's approval a revised TDT plan for the procedure to be repeated and risks recalculated. The revised plan must include proposed changes to the design and/or operation of the Blast Chamber and Air Pollution Control System which are expected to reduce the emissions and result in an acceptable risk. Prior to repeating the TDT, treatment of hazardous waste in the Blast Chamber shall be limited 50% of operational design capacity as defined in Condition II.J.5. of this Permit and for a maximum of 8 hours per day.
- II.K.3.i. If the risk assessment indicates that risk from the operation of the facility is acceptable, the permittee will do the following within 30 days of notification from the Cabinet:
- II.K.3.i.i. Initiate a permit modification to incorporate changes in emissions limits and/or operating procedures which have been shown to be protective in the risk assessment.
 - II.K.3.i.ii. Submit a copy of the test results, revised risk calculations and a list of the proposed changes in the RCRA permit modification to the Kentucky Division for Air Quality.
- II.K.3.j. If, after completing two Technology Demonstration Tests, the risk assessment indicates that risk from the operation of the facility is still unacceptable, upon notification from the Cabinet, the permittee will

immediately stop treatment of hazardous waste in the Blast Chamber and begin closure pursuant to Permit Condition II.G. and the Closure Plan in Attachment I to this permit.

PART III STANDARD CONDITIONS

III.A. EFFECT OF PERMIT

Compliance with the terms of this permit constitutes compliance with KRS 224.46-520 for purposes of enforcement. Issuance of this permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of State or local laws or regulations. Compliance with the terms of this permit does not constitute a defense to any action brought under Section 3013, 7003, 3008(a) or 3007 of the Resource Conservation and Recovery Act of 1976, as amended (42 USC 6901 ~~et seq.~~), commonly known as RCRA; Sections 104(a), 106(a) and 107 of the Comprehensive Environmental Response, Compensation & Liability Act of 1980 (CERCLA); the equivalent state statutes, or any other law governing protection of public health or the environment for any imminent and substantial endangerment to human health, welfare or the environment (see 401 KAR 38:010, Section 3 (eff. 3-12-97), and 401 KAR 38:030, Sections 1(3), 1(4), and 1(7) (eff. 3-12-97)).

III.B. PERMIT ACTIONS

This permit may be modified, revoked and reissued, or terminated for cause as specified in 401 KAR 38:040, Sections 1, 2, 3, and 4 (eff. 3-12-97), 401 KAR 38:050, Section 2 (eff. 3-12-97), 401 KAR 40:040, Section 1 (eff. 12-2-83), 401 KAR 38:030, Sections 1(1), 1(6), 1(8), and 1(12)(c) (eff. 3-12-97) and 401 KAR 38:070, Section 1 (eff. 3-12-97). The filing of a request for a permit modification, revocation and reissuance, or termination or the notification of planned changes or anticipated non-compliance on the part of the permittee does not stay the applicability or enforceability of any permit condition (see 401 KAR 38:030, Section 1(6) (eff. 3-12-97)).

III.C. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby (see 401 KAR 30:020, Section 5 (eff. 5-8-90)).

III.D. DEFINITIONS

For the purpose of this permit, terms used herein shall have the same meaning as those in Title 401 of the Kentucky Administrative Regulations (see 401 KAR Chapters 38, 34 and 30), unless this permit specifically provides otherwise; where terms are not otherwise defined, the meaning associated with such terms shall be as defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term (see 401 KAR 30:010 Section 1 (eff. 3-12-97)).

- III.D.1. “Facility” for purposes of this permit means:
- (a) all contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (for example, one or more landfills, surface impoundments, or combinations of them).
 - (b) For the purpose of implementing corrective action under Section 12 of 401 KAR 34:060 (eff. 3-12-97), all contiguous property under the control of the owner or operator seeking a permit. This definition also applies to facilities implementing corrective action under KRS 224.46-520.
- III.D.2. “Hazardous constituents” or “Hazardous waste constituents” for purposes of the permit are those substances listed in 401 KAR 31:170 (eff. 3-12-97), and include hazardous constituents released from solid waste and hazardous constituents that are reaction by-products.
- III.D.3. The term "solid waste" for purposes of the permit means any garbage, refuse, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agriculture operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved material in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (86 Stat. 880), or source, special nuclear, or by product material as defined by the Atomic Energy Act of 1954, as amended (68 Stat. 923).
- III.D.4. A “Solid Waste Management Unit” (SWMU) for the purposes of this permit includes any unit which has been used for the treatment, storage, or disposal of waste at any time, irrespective of whether the unit is or ever was intended for the management of waste. RCRA regulated hazardous waste management units are also Solid Waste

Management Units. SWMUs include areas that have been contaminated by routine and systematic releases of hazardous waste or hazardous constituents, excluding one-time accidental spills that are immediately remediated and cannot be linked to waste management activities (e.g. product or process spills).

- III.D.5. A "release" for purposes of this permit includes any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment of any hazardous waste or hazardous waste constituents.
- III.D.6. "Contamination" for purposes of this permit refers to the presence of any hazardous waste constituent in a concentration which exceeds the background concentration of that constituent in the immediate vicinity of the facility (in areas not affected by the facility).
- III.D.7. "Extent of contamination" for purposes of this permit is defined as the horizontal and vertical area in which the concentrations of hazardous constituents in the environmental media being investigated are above detection limits or background concentrations indicative of the region, whichever is appropriate as determined by the Hazardous Waste Branch Manager.
- III.D.8. "Corrective action," for purposes of this permit, may include all corrective measures necessary to protect human health and the environment from all releases of hazardous waste or hazardous waste constituents from any solid waste management unit at the facility, regardless of the time at which waste was placed in the unit, as required under KRS 224.46-530, 401 KAR 34:060, Section 11 and Section 12 (eff. 3-12-97).
- III.D.9. "Interim Measures" for purposes of this permit are actions necessary to minimize or prevent the further migration of contaminants and limits actual or potential human and environmental exposure to contaminants while long-term corrective action remedies are evaluated and, if necessary, implemented.
- III.D.10. A "unit" for purposes of this permit includes, but is not limited to, any area in which waste has been placed on or in the ground, any landfill, surface impoundment, waste pile, land treatment unit, incinerator, injection well, tank, container storage area, septic tank, drain field, wastewater treatment unit, elementary neutralization unit, transfer facility, or recycling unit.

- III.D.11. "Regulated units" are any hazardous waste land disposal units which received hazardous waste after January 26, 1983 and are thereby subject to groundwater protection as defined in 401 KAR Chapter 34.
- III.D.12. "Area of Concern" (AOC) for purposes of this permit includes any area having a probable release of a hazardous waste or hazardous constituent which is not from a Solid Waste Management Unit and is determined by the Hazardous Waste Branch Manager to pose a current or potential threat to human health or the environment. Such Areas of Concern may require investigations and remedial action as required under KRS 224.46-530(1)(g) and 401 KAR 38:030) Section 3 (eff. 3-12-97) in order to ensure adequate protection of human health and the environment.
- III.D.13. "Landfill" for the purposes of this permit includes any disposal facility or part of a facility where hazardous waste is placed in or on the land and which is not a pile, a land treatment facility, a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground mine, a cave, or a corrective action management unit.
- III.D.14. "Land Disposal" for purposes of this permit means placement in or on the land and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, underground mine or cave, or concrete vault or bunker intended for disposal purposes.

III.E. DUTIES AND REQUIREMENTS

III.E.1. Duty to Comply

The permittee must comply with all conditions of this permit except to the extent and for the duration that such non-compliance is authorized by an emergency permit. Any permit non-compliance constitutes a violation of KRS Chapter 224 and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or for denial of a permit renewal application as specified in 401 KAR 38:030, Section 1(1) (eff. 3-12-97).

III.E.2. Conflicting Provisions

The conditions of this permit are to be construed as being compatible with and complimentary to each other. In the event that any of these conditions are found to be contradictory, the more stringent provisions shall apply. (See 401 KAR 30:020, Section 4 (eff. 5-8-90)).

III.E.3. Duty to Reapply

At least 180 days before this permit expires, the permittee must submit a complete application for a new permit if the permittee wishes to continue any activity allowed under this permit (see 401 KAR 38:030, Section 1(2) (eff. 3-12-97), 401 KAR 38:040 (eff. 3-12-97), 401 KAR 38:050 (eff. 3-12-97) and 401 KAR 38:070 (eff. 3-12-97)). The permittee shall apply for a new permit in accordance with the regulations in effect 180 days prior to the expiration of this permit.

III.E.4. Permit Expiration

This Permit and all conditions herein will remain in effect beyond the permit's expiration date if the permittee has submitted a timely, complete application and through no fault of the permittee, the Cabinet has not issued a new permit as set forth in 401 KAR 38:040, Section 6(1) (eff. 3-12-97).

III.E.5. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the conditions of this permit (see 401 KAR 38:030, Section 1(3) (eff. 3-12-97)).

III.E.6. Duty to Mitigate

The permittee shall take all reasonable steps to minimize releases to the environment and shall carry out such measure as are reasonable to prevent any significant adverse impacts on the environment resulting from non-compliance with this permit (see 401 KAR 38:030, section 1(4) (eff. 3-12-97)).

III.E.7. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or

similar systems when necessary to achieve compliance with the conditions of the permit (see 401 KAR 38:030, Section 1(5) (eff. 3-12-97)).

III.E.8. Duty to Provide Information

The permittee shall furnish the Cabinet, within a reasonable time, any information requested to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish the Cabinet with copies of the records kept as a requirement of this permit (see 401 KAR 38:030, Section 1(8) (eff. 3-12-97)).

III.E.9. Inspection and Entry

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Cabinet or an authorized representative (see 401 KAR 38:030, Section 1(9) (eff. 3-12-97)):

- III.E.9.a. To enter at reasonable times the permittee's premises where the regulated facility or activity is located or conducted; or where records must be kept under the conditions of this permit;
- III.E.9.b. To have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- III.E.9.c. To inspect, at reasonable times, any facility's, equipment, (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- III.E.9.d. To sample or monitor, at reasonable times, any substances or parameters at any location for the purposes of assuring permit compliance or as otherwise authorized by KRS Chapter 224. Split samples and copies of analysis will be provided to the permittee upon request.

III.E.10. Monitoring and Records

- III.E.10.a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain representative samples of the wastes to be analyzed must be the

appropriate method from 401 KAR 31:120 (eff. 3-12-97). Laboratory methods must be those specified in the Test Methods for Evaluating Solid Waste: Physical/Chemical Methods [SW-846 as identified in 401 KAR 30:010, Section 3 (eff. 3-12-97)] or a method approved by the Cabinet in accordance with 401 KAR 31:060, Section 6 (eff. 3-12-97)).

- III.E.10.b. The permittee shall retain records at the facility of all monitoring information, copies of all reports and records required by this permit, and records of all data used to complete the application for this permit for a period of at least three (3) years from the date of the sample, measurement, report or record or until corrective measures on the regulated unit(s) are completed, whichever date is later. These periods may be extended by the request of the Cabinet at any time and are automatically extended during the course of any unresolved enforcement action regarding this facility (see 401 KAR 38:030, Section 1 (eff. 3-12-97) and 401 KAR 34:050, Section 5 (eff. 3-12-97)). The above permit condition also applies to all records which must be maintained for the solid waste management units at the facility.
- III.E.10.c. Records of monitoring information shall include (see 401 KAR 38:030, Section 1(10) (eff. 3-12-97)):
 - III.E.10.c.i. The date, exact place, and time of sampling or measurements;
 - III.E.10.c.ii. The individual(s), third-party laboratory or testing service that performed the sampling or measurements;
 - III.E.10.c.iii. The date(s) analyses were performed;
 - III.E.10.c.iv. The individual(s), third-party laboratory or testing service that performed the analyses;
 - III.E.10.c.v. The analytical techniques or methods used; and

III.E.10.c.vi. The results of such analyses including the detection limits.

III.E.11. Reporting Planned Changes

The permittee shall give notice to the Hazardous Waste Branch Manager as soon as possible of any planned physical alterations or additions to the facility (401 KAR 38:030, Section 1 (12) (eff. 3-12-97)) or that could affect solid waste management units at the facility. This would apply to all contiguous land, structures, other appurtenances and improvements on the land, used for the treatment, storage or disposal of solid waste.

III.E.12. Anticipated Non-Compliance

The permittee shall give to the Hazardous Waste Branch Manager advance notice of any planned change in the permitted facility or activity that may result in non-compliance with permit requirements (see 401 KAR 38:030, Section 1(12)(b) (eff. 3-12-97)).

III.E.13. Transfer of Permit

This Permit may be transferred to a new owner or operator only if it is modified or revoked and reissued pursuant to 401 KAR 38:040, Section 2(2)(b) (eff. 3-12-97) and 401 KAR 38:050, Section 2 (eff. 3-12-97) or a minor modification made pursuant to 401 KAR 38:040, Section 3(4) (eff. 3-12-97), in order to identify the new permittee and incorporate such other requirements as may be necessary under KRS Chapter 224. Until the new owner or operator has demonstrated compliance with Section 1 of 401 KAR 34:080, the old owner/operator shall continue to maintain financial assurance until released by the Hazardous Waste Branch Manager in writing. Before transferring ownership or operation of the facility during its operating life, the permittee shall notify the new owner/operator in writing of the requirements of 401 KAR Chapters 38 and 34 and this permit (see 401 KAR 34:020, Section 3(3) (eff. 3-12-97)), and this permit is not transferable to any person except after notice to the Hazardous Waste Branch Manager (see 401 KAR 38:030, Section 1(12)(c) (eff. 3-12-97)).

III.E.14. Compliance Schedule

Reports of compliance or non-compliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than fourteen (14) days following each scheduled date as required by 401 KAR 38:030, Section 1(12)(e) (eff. 3-12-97).

III.E.15. Two Hour Reporting

The permittee shall report to the Hazardous Waste Branch Manager any non-compliance with the permit, which may endanger human health or the environment. Any information shall be provided orally within two (2) hours from the time the permittee becomes aware of the circumstances (Kentucky twenty-four (24) hour reporting number (502) 564-2380 or (800) 928-2380. The information in Conditions III.E.14.a. and III.E.14.b. must be reported orally within two (2) hours (see 401 KAR 38:030, Section 1(12)(f) (eff. 3-12-97)).

III.E.15.a. Information concerning release of any hazardous wastes or hazardous waste constituents that may cause an endangerment to public drinking water supplies; and

III.E.15.b. Any information of a release or discharge of hazardous waste constituents or of a fire or explosion at the permitted facility which could threaten the environment or human health outside the facility.

III.E.15.c. The description of the occurrence and its cause shall include:

III.E.15.c.i. Name, address, and telephone number of the owner or operator and the reporter;

III.E.15.c.ii. Name, address, telephone number, and EPA identification number of the facility;

III.E.15.c.iii. Date, time, and type of incident;

III.E.15.c.iv. Name and quantity of material(s) involved;

III.E.15.c.v. The extent of injuries, if any;

III.E.15.c.vi. An assessment of actual or potential hazard to the environment and human health outside the facility, where this is applicable; and

III.E.15.c.vii. Estimated quantity and disposition of recovered material that resulted from the incident.

A written submission shall also be provided within fifteen (15) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the non-compliance and its cause; the periods of non-compliance (including exact dates and times); whether the non-compliance has been corrected; and if the non-compliance has not been corrected, the anticipated time it is expected to continue; and steps planned or taken to reduce, eliminate, and prevent reoccurrence of the non-compliance.

III.E.16. Other Non-Compliance

The permittee shall report all instances of non-compliance not reported above, at the time annual reports are submitted. The reports shall contain the information listed in Condition II.E.14 of this permit, (see 401 KAR 38:030, Section 1(12)(g) (eff. 3-12-97).

III.E.17. Permit Modification

This Permit will be modified pursuant to 401 KAR 38:040, Section 3 (eff. 3-12-97) to incorporate the corrective action plans, if necessary, developed as specified throughout Part IV of this Permit, and financial assurance for corrective action as required under 401 KAR 34:060, Section 12 (eff. 3-12-97).

III.E.18. Other Information

If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Cabinet, such facts or information shall be submitted (or corrected) promptly. In addition, upon request, the permittee shall furnish to the Cabinet any information related to compliance with the permit (see 401 KAR 38:070, Section 7 (eff. 3-12-97), and 401 KAR 38:030, Section 1(12)(i) (eff. 3-12-97)).

III.E.19. Signatory Requirement

All reports or information required by this permit, or otherwise submitted to the Cabinet, shall be signed and certified by a principal executive officer, of at least the level of vice president, or by a duly authorized representative of that person in accordance with 401 KAR 38:070, Section 7 (eff. 3-12-97), and 401 KAR 38:030, Section 1(11) (eff. 3-12-97).

III.F. CHANGES TO PERMIT

This permit will be subject to any further statutory or regulatory changes whose purpose is the protection of health and welfare of the citizens of the Commonwealth or their environment (see 401 KAR 38:040, Section 2(1)(e) (eff. 3-12-97)), except as provided in 401 KAR 38:010, Section 3 (eff. 3-12-97).

III.G. DOCUMENTS TO BE MAINTAINED AT FACILITY SITE

The permittee shall maintain at the facility, until closure is completed and certified by an independent registered professional engineer, the following documents and amendments, revisions and modifications to these documents:

- III.G.1. This permit and any correspondence regarding this permit;
- III.G.2. Operating record as required by 401 KAR 34:050, Section 4 (eff. 3-12-97);
- III.G.3. Personnel training documents and records as required by 401 KAR 34:020, Section 7, (eff. 3-12-97);
- III.G.4. Inspection schedule (including Attachment III of this permit) as required by 401 KAR 34:040, Section 4 (eff. 2-4-86);
- III.G.5. Container Management Practice documents as required by 401 KAR 34:180, (eff. 3-12-97);
- III.G.6. Cost estimates for the facility closure as required by 401 KAR 34:090, Section 4, (eff. 3-12-97);
- III.G.7. Copies of manifests as required by 401 KAR 34:050, Section 2 (eff. 3-12-97);
- III.G.8. Manifest Discrepancy Reports as required by 401 KAR 34:050, Section 6 (eff. 3-12-97);
- III.G.9. Annual Reports as required by 401 KAR 34:050, Section 6 (eff. 2-10-94);
- III.G.10. Unmanifested waste reports as required by 401 KAR 34:050, Section 7 (eff.3-12-97); and

- III.G.11. Copy of the Contingency Plan (including Attachment V of the permit), as required by 401 KAR 34:040, Section 4 (eff. 2-4-86).

III.H. CONFIDENTIAL INFORMATION

The permittee may claim confidential any information required to be submitted by this permit in accordance with 401 KAR 38:070, Section 8 (eff. 3-12-97) and the procedures in 400 KAR 1:060 (eff. 5-14-87).

PART IV CORRECTIVE ACTION

IV.A. APPLICABILITY

The Conditions of this Part apply to:

- IV.A.1. The SWMUs identified in the June 1998 RCRA Facility Assessment Report. All of the Solid Waste Management Units (SWMUs) identified in the report require no further action under this permit at this time. The units are as follows:

SWMU 1	Dumpster 1
SWMU 2	Dumpster 2
SWMU 3	90 Day Area
SWMU 4	Burner

- IV.A.2. Any additional SWMUs or Areas of Concern (AOCs) discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means. As used in this part of the permit, the terms "discover", "discovery", or "discovered" refer to the date on which the permittee either (1) visually observes evidence of a new SWMU or AOC, (2) visually observes evidence of a previously unidentified release of hazardous constituents to the environment, or (3) receives information which suggests the presence of a new release of hazardous waste or hazardous constituents to the environment.

- IV.A.3. Contamination beyond the facility boundary, if applicable. The permittee shall implement corrective actions beyond the facility boundary, where necessary to protect human health and the environment, unless the permittee demonstrates to the satisfaction of the Hazardous Waste Branch Manager that, despite the permittee's best efforts, as determined by the Hazardous Waste Branch Manager, the permittee was unable to obtain the necessary permission to undertake such actions. The permittee is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis. Assurances of financial responsibility for completion of such off-site corrective action will be required.

IV.B. NOTIFICATION AND ASSESSMENT REQUIREMENTS FOR NEWLY IDENTIFIED SWMUs AND AOCs

- IV.B.1. The permittee shall notify the Hazardous Waste Branch Manager in writing, within fifteen (15) calendar days of discovery, of any additional SWMUs or AOCs as discovered under Condition IV.A.2. The notification shall include, at a minimum, the location of the units and all available information pertaining to the nature of the release (e.g., media affected, hazardous constituents released, magnitude of release, etc.). If the Hazardous Waste Branch Manager determines that further investigations are required, the permit shall be modified in accordance with 401 KAR 38:040, Section 2 (eff. 2-10-94).
- IV.B.2. The permittee shall prepare and submit to the Hazardous Waste Branch Manager, within ninety (90) calendar days of notification, a SWMU Assessment Report (SAR) for each SWMU or AOC identified under Condition IV.B.1. At a minimum, the SAR shall provide the following information:
- IV.B.2.i. Location of unit(s) on a topographic map of appropriate scale.
 - IV.B.2.ii. Designation of type and function of unit(s).
 - IV.B.2.iii. General dimensions, capacities and structural description of unit(s) (supply any available plans/drawings).
 - IV.B.2.iv. Dates that the unit(s) was operated.
 - IV.B.2.v. Specification of all wastes that have been managed at/in the unit(s) to the extent available. Include any available data on 401 KAR 31:170, Appendix VIII constituents in the wastes.
 - IV.B.2.vi. All available information pertaining to any release of hazardous waste or hazardous constituents from such unit(s) (to include groundwater data, soil analyses, air, and/or surface water data).
- IV.B.3. Based on the results of the SAR, the Hazardous Waste Branch Manager will determine the need for further investigations at the SWMUs or AOCs discovered in the SAR. If the Hazardous Waste Branch Manager determines that such investigations are needed, the permittee shall be required to prepare a plan for such investigations as outlined in Conditions IV.D.1., and/or IV.E.1.b.

IV.C. NOTIFICATION REQUIREMENTS FOR NEWLY DISCOVERED RELEASES AT PREVIOUSLY IDENTIFIED SWMUs or AOCs

- IV.C.1. The permittee shall notify the Hazardous Waste Branch Manager in writing of any newly discovered release(s) of hazardous waste or hazardous constituents discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means, within fifteen (15) calendar days of discovery. Such newly discovered releases may be from SWMUs or AOCs identified in Condition IV.A.1. for which further investigations were not required.

- IV.C.2. If the Hazardous Waste Branch Manager determines that further investigation of the SWMUs or AOCs is needed, the permittee shall be required to prepare a plan for such investigations as outlined in Conditions IV.D. and/or IV.E.

IV.D. CONFIRMATORY SAMPLING (CS)

- IV.D.1. The permittee shall prepare and submit to the Hazardous Waste Branch Manager, within ninety (90) calendar days of notification by the Hazardous Waste Branch Manager, a Confirmatory Sampling (CS) Work Plan to determine any release from SWMUs or AOCs identified in Condition IV.B. and/or Condition IV.C. The CS Work Plan shall include schedules of implementation and completion of specific actions necessary to determine whether or not a release has occurred. It shall also address applicable requirements and affected media.
- IV.D.2. The CS Work Plan shall be approved by the Hazardous Waste Branch Manager, in writing, prior to implementation. The Hazardous Waste Branch Manager will specify the start date of the CS Work Plan schedule in the letter approving the CS Work Plan. If the Hazardous Waste Branch Manager disapproves the CS Work Plan, the Hazardous Waste Branch Manager will either (1) notify the permittee in writing of the CS Work Plan's deficiencies and specify a due date for submission of a revised CS Work Plan, (2) revise the CS Work Plan and notify the permittee of the revisions, or (3) conditionally approve the CS Work Plan and notify the permittee of the conditions.
- IV.D.3. The permittee shall implement the confirmatory sampling in accordance with the approved CS Work Plan.
- IV.D.4. The permittee shall prepare and submit to the Hazardous Waste Branch Manager in accordance with the schedule in the approved CS Work Plan, a Confirmatory Sampling (CS) Report. The CS Report shall include all data, including raw data, and a summary and analysis of the data.
- IV.D.5. Based on the results of the CS Report, the Hazardous Waste Branch Manager will determine the need for further investigations at the SWMUs or AOCs covered in the CS Report. If the Hazardous Waste Branch Manager determines that such investigations are needed, the permittee shall be required to prepare a RCRA Facility Investigation Work Plan as outlined in Condition IV.E. The Hazardous Waste Branch Manager will notify the permittee of any no further action decision.

IV.E. RCRA FACILITY INVESTIGATION (RFI)

IV.E.1. RFI Work Plan(s)

IV.E.1.a. The permittee shall prepare and submit to the Hazardous Waste Branch Manager, within the time frame established in the Confirmatory Sampling Report or in the Hazardous Waste Branch Manager's response to the report, a RCRA Facility Investigation (RFI) Work Plan(s) for those units identified in the Confirmatory Sampling Report that require further investigations.

IV.E.1.b. The RFI Work Plan(s) shall include schedules of implementation and completion of specific actions necessary to determine the nature and extent of releases and the potential pathways of contaminant releases to the air, land, surface water, and groundwater. The Work Plan(s) shall also include a schedule for submitting Progress Reports.

IV.E.1.c. The RFI Work Plan(s) must be approved by the Hazardous Waste Branch Manager, in writing, prior to implementation. If the Hazardous Waste Branch Manager disapproves the RFI Work Plan(s), the Hazardous Waste Branch Manager will either (1) notify the permittee in writing of the RFI Work Plan's deficiencies and specify a due date for submission of a revised RFI Work Plan, or (2) revise the RFI Work Plan and notify the permittee of the revisions and start date of the schedule within the approved RFI Work Plan, or (3) conditionally approve the RFI Work Plan and notify the permittee of the conditions.

IV.E.2. RFI Implementation

The permittee shall implement the RFI(s) in accordance with the approved RFI Work Plan(s). The permittee shall notify the Hazardous Waste Branch Manager twenty (20) days prior to any sampling activity.

IV.E.3. RFI Progress Reports

IV.E.3.a. The Progress Reports shall contain the following

information at a minimum:

- IV.E.3.a.i. A description of the portion of the RFI completed;
 - IV.E.3.a.ii. Summaries of findings;
 - IV.E.3.a.iii. Summaries of any deviations from the approved RFI Work Plan during the reporting period;
 - IV.E.3.a.iv. Summaries of all contacts with local community public interest groups or State government;
 - IV.E.3.a.v. Summaries of any problems or potential problems encountered during the reporting period;
 - IV.E.3.a.vi. Actions taken to rectify problems;
 - IV.E.3.a.vii. Changes in relevant personnel;
 - IV.E.3.a.viii. Projected work for the next reporting period;
 - IV.E.3.a.ix. Summaries of laboratory/ monitoring data, etc., and the presence of high levels of hazardous wastes and hazardous constituents in soils and groundwater.
- IV.E.3.b. The permittee shall prepare and submit to the Hazardous Waste Branch Manager, Draft and Final RCRA Facility Investigation Report(s) for the investigations conducted pursuant to the RFI Work Plan(s). The Draft RFI Report(s) shall be submitted to Hazardous Waste Branch Manager for review in accordance with the schedule in the approved RFI Work Plan(s). The Final RFI Report(s) shall be submitted to the Hazardous Waste Branch Manager within the time specified by the Hazardous Waste Branch Manager in the response to the Draft RFI Report. The RFI Report(s) shall include an analysis and summary of all required investigations of SWMUs

and AOCs and their results. The summary shall describe the type and extent of contamination at the facility, including sources and migration pathways, identify all hazardous constituents present in all media, and describe actual or potential receptors. The RFI Report(s) shall also describe the extent of contamination (qualitative/quantitative) in relation to background levels indicative of the area. The Hazardous Waste Branch Manager will review the Final RFI Report(s) and notify the permittee of the need for further investigations and/or the need for a Corrective Measures Study to meet the requirements of IV.F. The Hazardous Waste Branch Manager will notify the permittee of any no further action decision. Any further investigative action required by the Hazardous Waste Branch Manager shall be prepared and submitted in accordance with a schedule specified by the Hazardous Waste Branch Manager and approved in accordance with Condition IV.E.1.b.

IV.F. INTERIM MEASURES (IM)

IV.F.1. IM Work Plan

- IV.F.1.a. If, at any time the Hazardous Waste Branch Manager determines that a release or a potential release from solid waste management units (SWMUs) or areas of concern (AOCs) at the facility poses a threat to human health or the environment, the Hazardous Waste Branch Manager may require the permittee to abate, minimize, stabilize, mitigate, or eliminate the release(s) or threat of release(s).

The following factors may be considered by the Hazardous Waste Branch Manager in determining whether interim measures are required:

- i. Time required to develop and implement a final remedy;
- ii. Actual or potential exposure of nearby populations or environmental receptors to hazardous waste (including hazardous constituents);

- iii. Actual or potential contamination of drinking water supplies or sensitive ecosystems;
- iv. Further degradation of the medium which may occur if remedial action is not initiated expeditiously;
- v. Presence of high levels of hazardous wastes (including hazardous constituents) in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release;
- vi. Presence of high levels of hazardous wastes (including hazardous constituents) in soils at or near the surface, that may migrate;
- vii. Weather conditions that may cause hazardous wastes (including hazardous constituents) to migrate or be released;
- viii. Risks of fire or explosion, or potential for exposure to hazardous wastes (including hazardous waste constituents) as a result of an accident or failure of a container or handling system;
- ix. Other situations that may pose threats to human health and the environment, especially if those threats are imminent and immediate.

If the Hazardous Waste Branch Manager determines that an interim measure is necessary, the Hazardous Waste Branch Manager will notify the permittee of the necessary actions required.

- IV.F.1.b. Upon notification by the Hazardous Waste Branch Manager, the permittee shall prepare and submit an Interim Measures (IM) Work Plan for any SWMU or AOC which the Hazardous Waste Branch Manager determines is necessary. IM should be designed to minimize or prevent the further migration of contaminants and limit human and environmental exposure to contaminants while long-term corrective action remedies are evaluated and, if necessary, implemented. The IM Work Plan shall be submitted

within the specified time identified by the Hazardous Waste Branch Manager in such notification. Such interim measures may be conducted concurrently with investigations required under the terms of this permit. The permittee may initiate IM at anytime by submitting an IM Work Plan for approval to the Hazardous Waste Branch Manager.

IV.F.1.c. The IM Work Plan shall ensure that the interim measures are designed to mitigate any current or potential threat(s) to human health or the environment and is consistent with and integrated into any long-term solution at the facility. The IM Work Plan shall include: the interim measures objectives, procedures for implementation (including any designs, plans, or specifications), and schedules for implementation.

IV.F.1.d. The IM Work Plan must be approved by the Hazardous Waste Branch Manager, in writing, prior to implementation. The Hazardous Waste Branch Manager will specify the start date of the IM Work Plan schedule in the letter approving the IM Work Plan. If the Hazardous Waste Branch Manager disapproves the IM Work Plan, the Hazardous Waste Branch Manager will either (1) notify the permittee in writing of the IM Work Plan's deficiencies and specify a due date for submission of a revised IM Work Plan, or (2) revise the IM Work Plan and notify the permittee of the revisions and the start date of the schedule within the approved IM Work Plan, or (3) conditionally approve the IM Work Plan and notify the permittee of the conditions.

IV.F.2. IM Implementation

IV.F.2.a. The permittee shall implement interim measures in accordance with the approved IM Work Plan

IV.F.2.b. The permittee shall give notice to the Hazardous Waste Branch Manager as soon as possible of any planned changes, reductions or additions to the IM Work Plan.

IV.F.2.c. Final approval of corrective action required under 401 KAR 34:060, Section 12, (eff. 3-12-97) which is

achieved through interim measures shall be in accordance with 401 KAR 38:040, Section 2 (eff. 3-12-97) and Condition IV.H. as a permit modification.

IV.F.3. IM Reports

IV.F.3.a. If required, the permittee shall provide the Hazardous Waste Branch Manager with progress reports at intervals specified in the approved Work Plan. The Progress Reports shall contain the following information at a minimum:

IV.F.3.a.i. A description of the portion of the interim measures completed;

IV.F.3.a.ii. Summaries of all deviations from the IM Work Plan during the reporting period;

IV.F.3.a.iii. Summaries of all problems or potential problems encountered during the reporting period;

IV.F.3.a.iv. Projected work for the next reporting period;

IV.F.3.a.v. Copies of laboratory/monitoring data.

IV.F.3.b. The permittee shall prepare and submit to the Hazardous Waste Branch Manager, within ninety (90) calendar days of completion of interim measures conducted under Condition IV.F., an Interim Measures (IM) Report. The IM Report shall contain the following information at a minimum:

IV.F.3.b.i. A description of interim measures implemented;

IV.F.3.b.ii. Summaries of results;

IV.F.3.b.iii. Summaries of all problems encountered;

IV.F.3.b.iv. Summaries of accomplishments and/or effectiveness of interim measures; and

IV.F.3.b.v. Copies of all relevant laboratory/monitoring data.

IV.G. CORRECTIVE MEASURES STUDY

IV.G.1. Corrective Measures Study (CMS) Work Plan

- IV.G.1.a. The permittee shall prepare and submit a CMS Work Plan for those units requiring a CMS in accordance with the schedule in the Final RFI Report or within ninety (90) calendar days of notification by the Hazardous Waste Branch Manager that a CMS is required.
- IV.G.1.b. The CMS Work Plan shall include schedules of implementation and completion of specific actions necessary to complete a CMS. The CMS workplan shall include all investigations necessary to ensure compliance with 401 KAR 34:060, Section 12, (eff. 9-23-92); and 401 KAR 38:030, Section 3, (eff. 3-10-88). The permittee shall implement corrective actions beyond the facility boundary, as set forth in Condition IV.A.3.
- IV.G.1.c. The Hazardous Waste Branch Manager will either approve or disapprove, in writing, the CMS Work Plan. If the Hazardous Waste Branch Manager disapproves the CMS Work Plan, the Hazardous Waste Branch Manager will either (1) notify the permittee in writing of the CMS Work Plan's deficiencies and specify a due date for submittal of a revised CMS Work Plan, or (2) revise the CMS Work Plan and notify the permittee of the revisions and the start date of the schedule within the approved CMS work Plan, or (3) conditionally approve the CMS Work Plan and notify the permittee of the conditions.

IV.G.2. Corrective Measures Study Implementation

The permittee shall begin to implement the Corrective Measures Study according to the schedules specified in the CMS Work Plan.

IV.G.3. CMS Report

- IV.G.3.a. The permittee shall prepare and submit to the Hazardous Waste Branch Manager a draft and final CMS Report for the study conducted pursuant to the approved CMS Work Plan. The draft CMS Report shall be submitted to the Hazardous Waste Branch Manager within ninety (90) calendar days from the Hazardous Waste Branch Manager's approval of the CMS Work Plan. The final CMS Report shall be submitted to the Hazardous Waste Branch Manager within thirty (30) days of receipt of the Hazardous Waste Branch Manager's comments on the draft CMS Report. The final CMS Report shall: summarize any bench-scale or pilot tests conducted; include an evaluation of each remedial alternative; present all information gathered under the approved CMS Work Plan; and contain adequate information to support the Hazardous Waste Branch Manager's decision on the recommended remedy.
- IV.G.3.b. If the Hazardous Waste Branch Manager determines that the Final CMS Report does not fully satisfy the information requirements, the Hazardous Waste Branch Manager may disapprove the Final CMS Report. If the Hazardous Waste Branch Manager disapproves the Final CMS Report, the Hazardous Waste Branch Manager will notify the permittee in writing of deficiencies in the Final CMS Report and specify a due date for submittal of a revised Final CMS Report. The Hazardous Waste Branch Manager will notify the permittee of any no further action decision.
- IV.G.3.c. Based on preliminary results and the Final CMS Report, the Hazardous Waste Branch Manager may require the permittee to evaluate additional remedies or particular elements of one or more proposed remedies.

IV.H. REMEDY APPROVAL AND PERMIT MODIFICATION

- IV.H.1. A remedy shall be selected from the remedial alternatives evaluated in the CMS. It will be based at a minimum on protection of human

health and the environment, in accordance with specific site conditions, existing regulations, and guidance. The selected remedy may include any interim measures implemented.

- IV.H.2. Pursuant to 401 KAR 38:040, Section 2 (eff. 3-12-97), a permit modification will be initiated by the Hazardous Waste Branch Manager after recommendation of a remedy under Condition IV.H.1. This modification will serve to incorporate a final remedy into this permit.
- IV.H.3. Within the time specified in the final CMS Report or in a permit modification, the permittee shall demonstrate financial assurance for completing the approved remedy.

IV.I. MODIFICATION OF THE CORRECTIVE ACTION SCHEDULE

- IV.I.1. If at any time the Hazardous Waste Branch Manager determines that modification of the corrective action schedule is necessary, the Hazardous Waste Branch Manager may initiate a modification to the schedule.
- IV.I.2. Modifications that are initiated and finalized by the Hazardous Waste Branch Manager will proceed in accordance with 401 KAR 38:040, Section 2 (eff. 3-12-97).
- IV.I.3. Modifications to the schedule will not require a modification to the permit.

IV.J. IMMINENT HAZARDS

- IV.J.1. The permittee shall report to the Hazardous Waste Branch Manager any potential or existing imminent hazard to public health or the environment from any release of hazardous waste or hazardous constituents. Such information shall be reported orally within 24 hours from such time the permittee becomes aware of the circumstances.
- IV.J.2. A written report shall also be provided to the Hazardous Waste Branch Manager within fifteen (15) calendar days of the time the permittee becomes aware of the circumstances. The written report shall contain a description of the release and its cause; the period of the release; whether the release has been stopped; and if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the release. It should also include

any additional information required in II.F.6..

IV.K. WORK PLAN AND REPORT REQUIREMENTS

- IV.K.1. All work plans and schedules shall be subject to approval by the Hazardous Waste Branch Manager prior to implementation to assure that such work plans and schedules are consistent with the requirements of this permit and with applicable regulations and guidance. The permittee shall revise all submittals and schedules as specified by the Hazardous Waste Branch Manager. Upon approval, the permittee shall implement all work plans and schedules as written.
- IV.K.2. All work plans and reports shall be submitted in accordance with the approved schedule. Extensions of the due date for submittals may be granted by the Hazardous Waste Branch Manager based on the permittee's demonstration that sufficient justification for the extension exists.
- IV.K.3. If the permittee or the Division at any time determines that the SAR information, or the CS Work Plan, or RFI Work Plan(s) no longer satisfy the requirements of this permit for prior or continuing releases of hazardous waste or hazardous constituents from solid waste management units and/or areas of concern, the permittee shall submit an amended RFI Work Plan(s) to the Hazardous Waste Branch Manager within ninety (90) calendar days of such determination or from receiving notification from the Division.
- IV.K.4. All reports shall be signed and certified in accordance with 401 KAR 38:070, Section 7 (eff. 3-12-97).
- IV.K.5. Two (2) copies of all reports and work plans shall be provided by the permittee to the Hazardous Waste Branch Manager at the following address:

Manager, Hazardous Waste Branch
Division of Waste Management
14 Reilly Road,
Frankfort, Kentucky 40601

IV.L. APPROVAL/DISAPPROVAL OF SUBMITTALS

- IV.L.1 The Hazardous Waste Branch will review the work plans, reports, schedules, and other documents ("submittals") which require the Hazardous Waste Branch Manager's approval in accordance with the

conditions of this permit. The Hazardous Waste Branch Manager will notify the permittee in writing of any submittal that is disapproved, and the basis therefore. In the event the permittee disagrees, in whole or in part, with the Hazardous Waste Branch Manager's decision of a submittal or disapproval of any revised submittal required by the permit, the permittee has the right to seek a hearing under KRS 224.10-420(2).

PART V WASTE MINIMIZATION

V.A. GENERAL RESTRICTIONS

Pursuant to 401 KAR 34:050, Section 4(2)(i) (effective 3-12-97), the permittee must certify, no less often than annually, that:

- V.A.1. The permittee has a program in place to reduce the volume and toxicity of hazardous waste generated to the degree determined by the permittee to be economically practicable; and
- V.A.2. The proposed method of treatment, storage or disposal is the most practicable method available to the permittee which minimizes the present and future threat to human health and the environment.

V.B. RECORDING REQUIREMENTS

The permittee shall maintain copies of this certification in the facility operating record as required by 401 KAR 34:050, Section 4(2)(i) (effective 3-12-97).

V.C. WASTE MINIMIZATION OBJECTIVES

The Waste Minimization program required under V.A. above should address the following objectives and elements:

V.C.1. Top Management Support

The permittee shall maintain and update the following documents:

- V.C.1.a. A policy dated and signed, by management, describing management support for waste minimization and for implementation of a waste minimization plan.
- V.C.1.b. A description of employee awareness and training programs designed to involve employees in waste minimization planning and implementation to the maximum extent feasible.
- V.C.1.c. A description specifying how a waste minimization plan has been incorporated into management practices so as to ensure ongoing efforts with respect to product design, capital planning, production operations, and

maintenance.

V.C.2. Characterization of Waste Generation

The permittee shall identify and document types, amounts, and hazardous constituents of waste streams, with the source and date of generation.

V.C.3. Periodic Waste Minimization Assessments

V.C.3.a. The permittee shall identify and document all points in a process where materials can be prevented from becoming a waste, or can be recycled.

V.C.3.b. The permittee shall identify the potential for waste reduction and recycling techniques applicable to each waste generated at the facility, with a cost estimate for capital investment and implementation.

V.C.3.c. The permittee shall update and maintain a description of technically and economically practical waste reduction/recycling options to be implemented at the facility, and a planned schedule for implementation.

V.C.3.d. The permittee shall prepare and maintain an adequate assessment for specific performance goals, preferably quantitative, for the source reduction of waste by stream. Whenever possible, goals should be stated as weight of waste generated per standard unit of production, as defined by the generator.

V.C.4. Cost Allocation System

The permittee, on an annual basis, shall update a Cost Allocation System specific to the operation of the facility with respect to waste reduction. The following shall be addressed in preparation of the document:

V.C.4.a. Identification of waste management costs for each waste, factoring in liability, transportation, recordkeeping, personnel, pollution control, treatment, disposal, compliance and oversight costs to the extent feasible.

V.C.4.b. Description of how each department at the facility is held accountable for the wastes they generate.

V.C.4.c. The comparison of waste management costs with costs of potential reduction and recycling techniques applicable to each waste at the facility.

V.C.5. Technology Transfer

The permittee shall update and maintain at the facility a description of efforts to seek and exchange technical information on waste minimization from other parts of the company, other firms, trade associations, technical assistance programs, and professional consultants.

V.C.6. Program Evaluation

The permittee, on an annual basis, shall evaluate the waste minimization program specified in Attachment L of this permit. The evaluation, at a minimum shall contain the following:

V.C.6.a. Description of types and amounts of hazardous waste reduced or recycled.

V.C.6.b. Analysis and quantification of progress made relative to each performance goal established and each reduction technique to be implemented.

V.C.6.c. Amendments to waste minimization plan and explanation.

V.C.6.d. Explanation and documentation of reduction efforts completed or in progress before development of the waste minimization plan.

V.C.6.e. Explanation and documentation regarding impediments to hazardous waste reduction specific to the individual facility.

PART VI LAND DISPOSAL RESTRICTIONS

VI.A. GENERAL RESTRICTIONS

- VI.A.1. 401 KAR Chapter 37 identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances which an otherwise prohibited waste may continue to be placed on or in a land treatment, storage or disposal unit. The permittee shall maintain compliance with the requirements of 401 KAR Chapter 37. Where the permittee has applied for an extension, waiver or variance under 401 KAR Chapter 37, the permittee shall comply with all restrictions on land disposal under this Part once the effective date for the waste has been reached pending final approval of such application.

VI.B. LAND DISPOSAL PROHIBITIONS AND TREATMENT STANDARDS

- VI.B.1. A restricted waste identified in 401 KAR Chapter 37 may not be placed in a land disposal unit without further treatment unless the requirements of 401 KAR Chapter 37 are met.
- VI.B.2. The storage of hazardous wastes restricted from land disposal under 401 KAR Chapter 37 is prohibited unless the requirements of 401 KAR Chapter 37 are met.

PART VII
RCRA ORGANIC AIR EMISSION STANDARDS

VII.A. INTRODUCTION AND APPLICABILITY

VII.A.1. On February 10, 1994 Air Emission Standards for Process Vents (401 KAR 34:275) for hazardous waste treatment, storage and disposal facilities were promulgated. This regulation (401 KAR 34:275) contains emission standards for process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, and air or steam stripping operations that process hazardous waste with an annual average total organic concentration of at least ten (10) parts per million (ppm) by weight.

- a. The permittee currently does not have any hazardous waste management units that are regulated under 401 KAR 34:275.

VII.A.2. On February 10, 1994 Air Emission Standards for Equipment Leaks (401 KAR 34:280) for hazardous waste treatment, storage and disposal facilities were promulgated. This regulation (401 KAR 34:280) contains emission standards that address leaks from specific equipment (i.e., pumps, valves, compressors, etc.) that contains or contacts hazardous waste that has an organic concentration of at least ten (10) percent by weight.

- a. The permittee currently does not have any hazardous waste management units that are regulated under 401 KAR 34:280.

VII.A.3. On March 12, 1997, Air Emission Standards for Tanks, Surface Impoundments, and Containers (401 KAR 34:281) for hazardous waste treatment, storage and disposal facilities were promulgated. 401 KAR 34:281 contains organic air emission standards for tanks, containers, surface impoundments, and miscellaneous units which manage hazardous waste containing an average volatile organic concentration of greater than or equal to 100 ppmw at the point of waste origination. Federal Air Emission Standards for Tanks, Surface Impoundments, and Containers (40 CFR 264, Subpart CC) contains standards for tanks, containers, miscellaneous units which manage hazardous waste containing an average volatile organic concentration of greater than or equal to 500 ppmw at the point of waste origination. When required, the permittee may request a variance to meet the standards of 40 CFR 264, Subpart CC in lieu of the standards listed in 401 KAR 34:281.

- a. The permittee currently does not have any hazardous waste management units that are regulated under 401 KAR 34:281.

VII.B. ORGANIC AIR EMISSION STANDARDS AND NOTIFICATION OF NEW UNITS

- VII.B.1. Prior to constructing any equipment with process vents subject to the requirements of 401 KAR 34:275, or installing any additional equipment subject to the requirements of 401 KAR 34:280, or prior to modifying the current process such that existing equipment previously not subject to the requirements of 401 KAR 34:280 becomes subject to these requirements, the permittee shall supply the specific Part B information required pursuant to 401 KAR 38:240, and 401 KAR 38:250, as applicable, and shall obtain a permit modification in accordance with the requirements of 401 KAR 38:040, Section 3 (eff. 3-12-97).
- VII.B.2. Prior to installing any tank, container, surface impoundment or miscellaneous unit subject to 401 KAR 34:281 and 40 CFR 264, Subpart CC, the permittee shall apply for a permit modification under 401 KAR 38:040, Section 3 (eff. 3-12-97), and provide specific Part B application information required under 401 KAR 38:090 (eff. 3-12-97), 401 KAR 38:150 through 38:170 (eff. 3-12-97), as applicable, with the modification request.

VII.C. GENERAL STANDARDS

The permittee shall comply with the applicable requirements of 401 KAR 34:275 (eff. 3-12-97) (40 CFR 264, Subpart AA), 401 KAR 34:280 (eff. 3-12-97) (40 CFR 264, Subpart BB), and 401 KAR 34:281 (eff. 3-12-97) (40 CFR 264, Subpart CC).

VII.D. REPORTING REQUIREMENTS

- VII.D.1. For each container which manages hazardous waste that is exempted from using air emission controls, a written report shall be submitted to the Manager, Hazardous Waste Branch within fifteen (15) days of each occurrence when hazardous waste is placed waste management unit(s) in non-compliance with the conditions of 40 CFR 264.1082(c)(1) or (c)(2), as applicable. The written report shall contain the facility identification number, facility name and address, a description of the non-compliance event and the cause, the dates of the non-compliance, and the actions taken to correct the non-compliance and prevent re-occurrence of the non-compliance.
- VII.D.2. All reports shall be signed and dated by an authorized representative of the permittee, pursuant to 401 KAR 38:070, Section 7 (eff. 3-12-97).

PART VIII
REFERENCED ATTACHMENTS

- VIII.A. ATTACHMENT A, PART A from Permit Application
- VIII.B. ATTACHMENT B, FACILITY DESCRIPTION from Permit Application
- VIII.C. ATTACHMENT C, WASTE CHARACTERISTICS from Permit Application
- VIII.D. ATTACHMENT D, PROCESS INFORMATION from Permit Application
- VIII.E. ATTACHMENT E, GROUNDWATER MONITORING
- VIII.F. ATTACHMENT F, PROCEDURES TO PREVENT HAZARDS from Permit Application
- VIII.G. ATTACHMENT G, CONTINGENCY PLAN from Permit Application
- VIII.H. ATTACHMENT H, PERSONNEL TRAINING from Permit Application
- VIII.I. ATTACHMENT I, CLOSURE PLAN from Permit Application
- VIII.J. ATTACHMENT J, RCRA ORGANIC AIR EMISSION REQUIREMENTS
- VIII.K. ATTACHMENT K, WASTE MINIMIZATION CERTIFICATION OBJECTIVES from Permit Application
- VIII.L. ATTACHMENT L, SUBMITTALS REQUIRED UNDER PERMIT CONDITION II.K. (COMPLIANCE SCHEDULE)