



ENVIRONMENTAL AND PUBLIC PROTECTION CABINET

Ernie Fletcher
Governor

Department for Environmental Protection
Division of Waste Management
14 Reilly Road
Frankfort, Kentucky 40601-1190
www.kentucky.gov

Teresa J. Hill
Secretary

November 28, 2006

Mr. Wayne A. Thomas, Vice President and General Manager
Manufacturing and Engineering
Daicel Safety Systems America, LLC
720 Old Liberty Church Road
Beaver Dam, Ohio County, Kentucky 42320

RE: Hazardous Waste Operating Permit
Beaver Dam, Ohio County, Kentucky
EPA ID KYD 000-034-207; AI 6238

Dear Mr. Thomas:

The Kentucky Division of Waste Management (Division), Hazardous Waste Branch, has approved your application for a Hazardous Waste Operating Permit to treat hazardous waste.

Enclosed is the permit with a list of the activities covered and the conditions of the permit. Also enclosed are the Division's response to comments received prior to the close of the public comment period.

If you have any questions, contact Mr. John Jump P.E. at 502 564-6716.

Sincerely,

A handwritten signature in black ink, appearing to read "R. Bruce Scott".

R. Bruce Scott, P.E., Director
Division of Waste Management

RBS/wt
Attachment (2)

C: Kenneth Lapierre, US EPA Region 4
April Webb, P. E., DWM
John Jump, P.E., DWM
Wilson Tan, DWM
Chad Henson, DSSA

**Kentucky Natural Resources and Environmental Protection Cabinet
Department for Environmental Protection
Division of Waste Management**

HAZARDOUS WASTE MANAGEMENT FACILITY PERMIT

Daicel Safety Systems America, LLC
720 Old Liberty church Road
Beaver Dam, KY 40475-5060
EPA ID KYR-000-034-207, AI 6238

The Division of Waste Management hereby grants the above-named facility a permit to engage in activity specified below. This permit has been issued under the provision of KRS Chapter 224 and regulations promulgated pursuant thereto and is subject to all conditions and operating limitations contained herein. Issuance of this permit does not relieve the Permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet and/or other federal, state, and local agencies.

Part I	-Legal Authority
Part II	-Specific Conditions
Part III	-Standard Conditions
Part IV	-Corrective Action
Part V	-Waste Minimization
Part VI	-Land Disposal Restrictions
Part VIII	-Referenced Attachments

No deviation from the plans and specifications submitted with your application or the conditions specified herein is allowed, unless authorized in writing from the Division of Waste Management. Violation of the terms and conditions specified herein shall render this permit null and void. All rights of inspection by representatives of the Division of Waste Management are reserved. Conformance with all applicable Waste Management Regulations is the responsibility of the Permittee. Receipt of the permit fee and financial assurance specified below is hereby acknowledged.

PERMIT TYPE:	Operating	PERMIT NUMBER:	KYR-000-034-207
TYPE OF ACTIVITY:	Treatment	COUNTY:	Ohio
PERMIT FEE:	\$20,260	EFFECTIVE DATE:	<u>December 28, 2006</u>
CLOSURE AMOUNT:	\$10,000	EXPIRATION DATE:	<u>December 28, 2016</u>
POST-CLOSURE AMOUNT:	NA		
CLOSURE INSTRUMENT:	LOC		
POST-CLOSURE INSTRUMENT:	NA		
SUDDEN LIABILITY INSURANCE:	\$1M/\$2M		
HAZARDOUS WASTE MANAGEMENT UNITS:	Pellet Burn Cage		
NON-SUDDEN LIABILITY INSURANCE:	NA		

Issued this 28th day of November, 2006



Director
Division of Waste Management

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 1 of 48

AIOO6238 EPA ID, KYR-000-034-207:

Narrative Requirements:

PART I - Legal Authority:

Condition No.	Condition
T-1	<p>PART I - Legal Authority: Permittee.</p> <p>Pursuant to the Environmental Protection Law, as amended (KRS Chapter 224) and attendant regulations promulgated thereunder by the Kentucky Environmental and Public Protection Cabinet, in the Kentucky Administrative Regulations Title 401, a hazardous waste permit is issued to Daicel Safety Systems America, LLC, 720 Old Liberty church Rd., Beaver Dam, Kentucky, 42320 hereinafter referred to as the "Permittee"), for treatment of hazardous waste, at latitude 37 deg. 22' 27" N and longitude 86 deg. 49' 35" W, EPA ID KYR 000 034 207, Agency Interest 6238.</p> <p>Based on the following statute: [KRS 224.01]</p>
T-2	<p>PART I - Legal Authority: Effective Date.</p> <p>(1) This permit is effective on (January 17, 2007.).</p> <p>(2) This permit shall remain in effect for 10 years until (January 17, 2017), unless revoked and reissued, or terminated.</p> <p>Based on the following regulations: [401 KAR 38:040 Section 2 and 4, 401 KAR 38:050 Section 2, 401 KAR 40:050 Section 1]</p>
T-3	<p>PART I - Legal Authority: Sections of Permit.</p> <p>This permit consists of the conditions set forth in:</p> <p>Part I Legal Authority</p> <p>Part II Specific Conditions</p> <p>Part III Standard Conditions</p> <p>Part V Waste Minimization</p> <p>Part VI Land Disposal Restrictions</p> <p>Part VIII Referenced Attachments and the applicable waste management regulations.</p> <p>Based on the following regulation and statute: [401 KAR 38:030 Section 3]</p>
T-4	<p>PART I - Legal Authority: Applicable Statutes and Regulations.</p> <p>Applicable regulations are those which are in effect on the date of issuances, modification, revocation or reissuance of this permit.</p> <p>Based on the following statute: [KRS 224.46-530(1)(g)]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 2 of 48

AIOO6238 (continued):

Narrative Requirements:

PART I - Legal Authority:

Condition No.	Condition
T-5	<p>PART I - Legal Authority: Permit Basis.</p> <p>(1) This permit is based on the assumption that the information in the permit application dated February, 2005, received on March 9, 2006, 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.</p> <p>(2) Any inaccuracies found in this information could lead to the termination or modification of this permit and potential enforcement.</p> <p>(3) The Permittee shall inform the Hazardous Waste Branch Manager 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.</p> <p>Based on the following regulations: [401 KAR 40:040 Section 1, 401 KAR 38:030 Section 1, 401 KAR 38:040 Section 4]</p>

PART II - Specific Conditions - Facility Description:

Condition No.	Condition
T-6	<p>PART II - Specific Conditions - Facility Description: Permittee.</p> <p>This permit is issued to Daicel Safety Systems America, LLC, 720 Old Liberty Church Rd., Beaver Dam, KY 42320, (hereinafter referred to as the "Permittee"), for treatment of hazardous waste.</p> <p>Based on the following regulation: [401 KAR 34:005 Section 1(93)]</p>
T-7	<p>PART II - Specific Conditions - Facility Description: Hazardous Waste Management Unit.</p> <p>Following is the hazardous waste management unit the Permittee is permitted to operate at the facility:</p> <p>1. Pellet Burn Cage.</p> <p>Based on the following statute: [KRS 224.46-530(1)(g)]</p>
T-8	<p>PART II - Specific Conditions - Facility Description: Waste Stream.</p> <p>The hazardous waste which may be treated at this facility is listed below. This hazardous waste shall be managed as specified within this permit.</p> <p>1. Gas Generant Pellets (D003).</p> <p>Based on the following statute: [KRS 224.46-530(1)(g)]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 3 of 48

AIOO6238 (continued):

Narrative Requirements:

PART II - Specific Conditions - General Facility Standards:

Condition No.	Condition
T-9	<p>PART II - Specific Conditions - General Facility Standards: No Off-Site Hazardous Waste.</p> <p>The Permittee shall not accept for treatment, hazardous waste generated off-site.</p> <p>Based on the following regulation and statute: [401 KAR 34:020 Section 3(1), KRS 224.46-530(1)(g)]</p>
T-10	<p>PART II - Specific Conditions - General Facility Standards: Waste Analysis Plan.</p> <p>The Permittee shall follow the approved Waste Analysis Plan.</p> <p>Based on the following regulation: [401 KAR 34:020 Section 4(4)]</p>
T-11	<p>PART II - Specific Conditions - General Facility Standards: Security.</p> <p>(1) The Permittee shall comply with the security requirements in the approved Procedures to Prevent Hazards.</p> <p>The Permittee shall also:</p> <ul style="list-style-type: none">(a) Maintain security, which controls entry to the site twenty-four (24) hours per day, 7 days per week.(b) Maintain the gates and fences around the hazardous waste area in good operating condition at all times.(c) Maintain signs at the entrance to the facility and other locations that are legible from twenty-five (25) feet from any direction and read: "DANGER-Unauthorized Personnel-Keep Out." <p>Based on the following regulations: [401 KAR 34:020 Section 5]</p>
T-12	<p>PART II - Specific Conditions - General Facility Standards: Inspections and Remedies.</p> <p>The Permittee shall comply with all inspection and remedy requirements in the approved Procedures to Prevent Hazards including:</p> <ul style="list-style-type: none">(1) Inspection Schedule.(2) Records of Inspections.(3) Remedy any deterioration or malfunction of equipment or structures. <p>Based on the following regulation: [401 KAR 34:020 Section 6]</p>
T-13	<p>PART II - Specific Conditions - General Facility Standards: Personnel Training.</p> <p>The Permittee shall conduct personnel training as required by the approved Personnel Training plan.</p> <p>Based on the following regulation: [401 KAR 34:020 Section 7]</p>
T-14	<p>PART II - Specific Conditions - General Facility Standards: Initial Training</p> <p>All new employees hired in the positions that involve the handling, storing, or shipment of hazardous waste 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.</p> <p>Based on the following Regulation: [401 KAR 34:020 Section 7(2)]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 4 of 48

AIOO6238 (continued):

Narrative Requirements:

PART II - Specific Conditions - General Facility Standards:

Condition No.	Condition
T-15	<p>PART II - Specific Conditions - General Facility Standards: Annual Training.</p> <p>All employees involved in hazardous waste management at the facility shall be given appropriate training and this training shall be repeated/reviewed annually (every 365 days).</p> <p>Based on the following regulation: [401 KAR 34:020 Section 7(3)]</p>
T-16	<p>PART II - Specific Conditions - General Facility Standards: Job Description and Training.</p> <p>The Permittee shall prepare and maintain the following documents at the facility:</p> <p>(1) A Job Title for each position at the facility related to hazardous waste management, and the names of the employee(s) filling each job.</p> <p>(2) A written Job Description for each job title, including the requisite skill, education, or other qualifications, and duties of employees assigned to each position.</p> <p>Based on the following regulation: [401 KAR 34:020 Section 7(4)]</p>
T-17	<p>PART II - Specific Conditions - General Facility Standards: Training Records.</p> <p>(1) Training records on current personnel shall be kept until closure of the facility.</p> <p>(2) Training records on former employees shall be kept for at least three (3) years from the date the employee last worked at the facility.</p> <p>(3) Personnel training records may accompany personnel transferred within the same company.</p> <p>Based on the following regulation: [401 KAR 34:020 Section 7(5)]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 5 of 48

AIOO6238 (continued):

Narrative Requirements:

PART II - Specific Conditions - General Facility Standards:

Condition No.	Condition
T-18	<p>PART II - Specific Conditions - General Facility Standards: General Requirements for Ignitable, Reactive, or Incompatible Wastes.</p> <p>(1) The Permittee shall take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste shall be separated and protected from sources of ignition or reaction including but not limited to: open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (for example, from heat-producing chemical reactions), and radiant heat.</p> <p>(2) While ignitable or reactive waste is being handled, the Permittee shall confine smoking and open flames to specially designated locations. "No Smoking" signs shall be conspicuously placed wherever there is a hazard from ignitable or reactive waste.</p> <p>(3) Unless treating hazardous waste, the Permittee shall take precautions to prevent reactions which:</p> <ul style="list-style-type: none">(a) Generate extreme heat or pressure, fire or explosions, or violent reactions.(b) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment.(c) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosion.(d) Damage the structural integrity of the device or facility.(e) Through other like means threaten human health or the environment. <p>(3) The Permittee shall document compliance with this condition. This documentation may be based on references to published scientific or engineering literature, data from trial tests (for example, bench scale or pilot scale tests), waste analyses (as specified in Section 4 of this administrative regulation), or the results of the treatment of similar wastes by similar treatment.</p> <p>Based on the following regulation: [401 KAR 34:020 Section 8]</p>
T-19	<p>PART II - Specific Conditions - General Facility Standards: Waste Analysis Plan.</p> <p>The Permittee shall utilize the procedure in the approved Waste Analysis Plan and Process Information to ensure that ignitable, reactive or incompatible wastes are managed properly.</p> <p>Based on the following statute. [KRS 224.46-530(1)(g)]</p>

PART II - Specific Conditions - Preparedness and Prevention:

Condition No.	Condition
T-20	<p>PART II - Specific Conditions - Preparedness and Prevention: Safe Operation.</p> <p>The Permittee shall 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, or surface water, which could threaten human health or environment.</p> <p>Based on the following regulation: [401 KAR 34:030 Section 2]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 6 of 48

AIOO6238 (continued):

Narrative Requirements:

PART II - Specific Conditions - Preparedness and Prevention:

Condition No.	Condition
T-21	<p>PART II - Specific Conditions - Preparedness and Prevention: Required Equipment</p> <p>This facility must be equipped with the following, unless it can be demonstrated to the Cabinet that none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below:</p> <ul style="list-style-type: none">(1) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel.(2) A device, such as a telephone (immediately available at the scene of operations) or a hand-held two (2) way radio, capable of summoning emergency assistance from local police departments, fire departments, or state or local emergency response teams.(3) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment.(4) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems. <p>Based on the following regulation: [401 KAR 34:030 Section 3]</p>
T-22	<p>PART II - Specific Conditions - Preparedness and Prevention: Testing and Maintenance of Equipment.</p> <p>All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency.</p> <p>Based on the following regulation: [401 KAR 34:030 Section 4]</p>
T-23	<p>PART II - Specific Conditions - Preparedness and Prevention: Access to Communications or Alarm System.</p> <ul style="list-style-type: none">(1) Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee.(2) If there is ever just one (1) employee on the premises while the facility is operating, he must have immediate access to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two (2) way radio, capable of summoning external emergency assistance. <p>Based on the following regulation: [401 KAR 34:030 Section 5]</p>
T-24	<p>PART II - Specific Conditions - Preparedness and Prevention: Required Aisle Space.</p> <p>The Permittee shall maintain aisle space in hazardous waste storage areas to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area in an emergency.</p> <p>Based on the following regulation: [401 KAR 34:030 Section 6]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 7 of 48

AIOO6238 (continued):

Narrative Requirements:

PART II - Specific Conditions - Preparedness and Prevention:

Condition No.	Condition
T-25	<p>PART II - Specific Conditions - Preparedness and Prevention: Arrangements with Local Authorities.</p> <p>(1) The Permittee must attempt to make the following arrangements, as appropriate for the type of waste handled at this facility and the potential need for the services of these organizations:</p> <ul style="list-style-type: none">(a) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility, associated hazards, places where facility personnel would normally be working, entrances to any roads inside the facility, and possible evacuation routes.(b) Where more than one (1) police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority:(c) Agreements with state emergency response teams, emergency response contractors, and equipment suppliers.(d) Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility. <p>(2) Where state or local authorities decline to enter into such arrangements, the Permittee must document the refusal in the operating record.</p> <p>Based on the following regulation: [401 KAR 34:030 Section 7]</p>

PART II - Specific Conditions - Contingency Plan and Emergency Response:

Condition No.	Condition
T-26	<p>PART II - Specific Conditions - Contingency Plan and Emergency Response: Implementation of Contingency Plan.</p> <p>The provisions of the approved Contingency Plan must be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.</p> <p>Based on the following regulation: [401 KAR 34:040 Section 2(2)]</p>
T-27	<p>PART II - Specific Conditions - Contingency Plan and Emergency Response: Copies of Contingency Plan.</p> <p>A copy of the Contingency Plan and all revisions to the plan must be:</p> <ul style="list-style-type: none">(1) Maintained at the facility.(2) Submitted to all local police departments, fire departments, hospitals, and state and local emergency response teams that may be called upon to provide emergency services.(3) Submitted to the Kentucky Emergency Response Center in Frankfort. <p>Based on the following regulation: [401 KAR 34:040 Section 4]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 8 of 48

AIOO6238 (continued):

Narrative Requirements:

PART II - Specific Conditions - Contingency Plan and Emergency Response:

Condition No.	Condition
T-28	<p>PART II - Specific Conditions - Contingency Plan and Emergency Response: Amendment of Contingency Plan.</p> <p>The Contingency Plan must be reviewed, and immediately amended, if necessary, whenever:</p> <ol style="list-style-type: none">(1) The facility permit is revised.(2) The plan fails in an emergency.(3) The facility changes (e.g., in its design, construction, operation, maintenance, or other circumstances) in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency.(4) The list of emergency coordinators changes.(5) The list of emergency equipment changes. <p>Based on the following regulation: [401 KAR 34:040 Section 5]</p>
T-29	<p>PART II - Specific Conditions - Contingency Plan and Emergency Response: Emergency Coordinator.</p> <ol style="list-style-type: none">(1) At all times, there must be an emergency coordinator either on the facility or on call (i.e., available to respond to an emergency by reaching the facility within approximately 60 minutes), with the responsibility for coordinating all emergency response measures.(2) The Emergency Coordinator must be thoroughly familiar with all aspects of the facility's Contingency Plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout.(3) The Emergency Coordinator must have the authority to commit the resources needed to carry out the Contingency Plan. <p>Based on the following regulation: [401 KAR 34:040 Section 6]</p>
T-30	<p>PART II - Specific Conditions - Contingency Plan and Emergency Response: Activate Alarms</p> <p>Whenever there is an imminent or actual emergency situation, the Emergency Coordinator (or his designee when the emergency coordinator is on call) must immediately:</p> <ol style="list-style-type: none">(1) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel.(2) Notify appropriate state or local agencies as specified in the Contingency Plan. <p>Based on the following regulation: [401 KAR 34:040 Section 7(1)]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 9 of 48

AIOO6238 (continued):

Narrative Requirements:

PART II - Specific Conditions - Contingency Plan and Emergency Response:

Condition No.	Condition
T-31	<p>PART II - Specific Conditions - Contingency Plan and Emergency Response: Written Report.</p> <p>(1) The Permittee must note in the Operating Record the time, date, and details of any incident that requires implementing the Contingency Plan.</p> <p>(2) Within fifteen (15) days after release of hazardous waste at or above the Reportable Quantity (RQ), the Permittee must submit a written report to the Hazardous Waste Branch Manager.</p> <p>(3) The report must include:</p> <ul style="list-style-type: none">(a) Name, address, and telephone number of the Permittee.(b) Name, address, and telephone number of the facility.(c) Date, time, and type of incident (e.g., fire, explosion).(d) Name and quantity of materials involved.(e) The extent of injuries, if any.(f) An assessment of actual or potential hazards to human health or the environment, where this is applicable.(g) Estimated quantity and disposition of recovered material that resulted from the incident. <p>Based on the following regulation: [401 KAR 34:040 Section 7(10)]</p>
T-32	<p>PART II - Specific Conditions - Contingency Plan and Emergency Response: Emergency Coordinator Response</p> <p>(1) Whenever there is a release, fire, or explosion, the Emergency Coordinator must immediately identify the character, exact source, amount, and areal extent of any released materials. He may do this by observation or review of facility records, and if necessary, by chemical analysis.</p> <p>(2) Concurrently, the Emergency Coordinator must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic irritating or asphyxiating gases that are generated, or the effects of any hazardous surface water run-off from water or chemical agents used to control fire and heat-induced explosions).</p> <p>Based on the following regulations: [401 KAR 34:040 Section 7(2), 401 KAR 34:040 Section 7(3)]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC
Facility Requirements

Activity ID No.: APE20040004

Page 10 of 48

AIOO6238 (continued):

Narrative Requirements:

PART II - Specific Conditions - Contingency Plan and Emergency Response:

Condition No.	Condition
T-33	<p>PART II - Specific Conditions - Contingency Plan and Emergency Response: Notifications.</p> <p>If the Emergency Coordinator determines that the facility has had a release, fire, or explosion which could threaten human health or the environment outside the facility, he must report his findings as follows:</p> <p>(1) If his assessment indicates that evacuation of local areas may be advisable, he must immediately notify appropriate local authorities as outlined in the approved Contingency Plan, and be available to help appropriate officials decide whether local areas should be evacuated.</p> <p>(2) He must immediately notify the Kentucky Environmental Response Team using their twenty-four (24) hour toll free number 800-928-2380). The report must include:</p> <ol style="list-style-type: none">1. Name and telephone number of report.2. Name and address of facility.3. Time and type of incident (e.g., release, fire).4. Name and quantity of material(s) involved, to the extent known.5. The extent of injuries, if any.6. The possible hazards to human health or the environment outside the facility. <p>Based on the following regulation: [401 KAR 34:040 Section 7(4)]</p>
T-34	<p>PART II - Specific Conditions - Contingency Plan and Emergency Response: Prevent Recurrence.</p> <p>During an emergency, the Emergency Coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers.</p> <p>Based on the following regulation: [401 KAR 34:040 Section 7(5)]</p>
T-35	<p>PART II - Specific Conditions - Contingency Plan and Emergency Response: Secure Recovered Waste.</p> <p>Immediately after an emergency, the Emergency Coordinator must provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water or ground water, or other material that results from a release, fire, or explosion at the facility.</p> <p>Based on the following regulation: [401 KAR 34:040 Section 7(7)]</p>
T-36	<p>PART II - Specific Conditions - Contingency Plan and Emergency Response: Affected Areas.</p> <p>The Emergency Coordinator must ensure that, in the affected area(s) of the facility:</p> <p>(1) No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed.</p> <p>(2) All emergency equipment listed in the Contingency Plan is cleaned and fit for its intended use before operations are resumed.</p> <p>Based on the following regulation: [401 KAR 34:040 Section 7(8)]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 11 of 48

AIOO6238 (continued):

Narrative Requirements:

PART II - Specific Conditions - Manifest System:

Condition No.	Condition
T-37	<p>PART II - Specific Conditions - Manifest System: Receive No Hazardous Waste</p> <p>The Permittee shall not accept for treatment at this facility any hazardous generated off-site.</p> <p>Based on the following statute: [KRS 224.46-530(1)(g)]</p>
T-38	<p>PART II - Specific Conditions - Manifest System: General Requirements.</p> <p>(1) If the Permittee transports, or offers for transportation, hazardous waste for off-site treatment, storage, or disposal, he shall prepare a manifest, incorporated by reference in Section 2 of 401 KAR 32:100 (Appendix on Hazardous Waste Manifest and Instructions), and if necessary, the continuation sheet that is incorporated by reference in Section 4 of 401 KAR 32:100, according to the instructions included in 401 KAR 32:100.</p> <p>(2) The Permittee shall designate on the manifest the facility which is permitted to handle the waste described on the manifest.</p> <p>(3) The Permittee may also designate on the manifest one (1) alternate facility which is permitted to handle his waste in the event an emergency prevents delivery of the waste to the primary designated facility.</p> <p>(4) If the transporter is unable to deliver the hazardous waste to the designated facility or the alternate facility, the Permittee shall either designate another facility, or instruct the transporter to return the waste.</p> <p>Based on the following regulation. [401 KAR 32:020 Section 1]</p>
T-39	<p>PART II - Specific Conditions - Manifest System: Acquisition of Manifests.</p> <p>(1) If the state to which the shipment is manifested (consignment state) supplies the manifest and requires its use, then the Permittee shall use that manifest and include all information required in 401 KAR 32:100.</p> <p>(2) If the consignment state does not require use of their manifest, or supply the manifest, then the Permittee shall use Kentucky's manifest and include all information required in 401 KAR 32:100.</p> <p>Based on the following regulation: [401 KAR 32:020 Section 2]</p>
T-40	<p>PART II - Specific Conditions - Manifest System: Number of Copies.</p> <p>The manifest consists of at least the number of copies which will provide the Permittee, each transporter, and the owner or operator of the designated facility with one (1) copy each for their records and another copy to be returned by the operator of the designated facility to the Permittee.</p> <p>Based on the following regulation: [401 KAR 34:020 Section 3]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 12 of 48

AIOO6238 (continued):

Narrative Requirements:

PART II - Specific Conditions - Manifest System:

Condition No.	Condition
T-41	<p>PART II - Specific Conditions - Manifest System: Use of the Manifest.</p> <p>(1) The Permittee shall:</p> <ul style="list-style-type: none">(a) Sign the manifest certification by hand.(b) Obtain the handwritten signature of the initial transporter and date of acceptance on the manifest.(c) Retain one (1) copy of each manifest signed according to this condition in addition to the signed copy returned from the designated facility which received the waste. Both copies shall be retained on record for at least three (3) years from the date the waste was accepted by the initial transporter. <p>(2) The Permittee shall give the transporter the remaining copies of the manifest.</p> <p>(3) For shipments of hazardous waste within the United States solely by water (bulk shipments only), the Permittee shall send three (3) copies of the manifest dated and signed in accordance with this section to the owner or operator of the designated facility or the last water (bulk shipment) transporter to handle the waste in the United States if exported by water. Copies of the manifest are not required for each transporter.</p> <p>(4) For rail shipments of hazardous waste within the United States, the Permittee shall send at least three (3) copies of the manifest dated and signed in accordance with this section to:</p> <ul style="list-style-type: none">(a) The next non-rail transporter, if any; or(b) The designated facility if transported solely by rail; or(c) The last rail transporter to handle the waste in the United States if exported by rail. <p>(5) For shipments of hazardous waste to a designated facility in an authorized state which has not yet obtained authorization to regulate that particular waste as hazardous, the Permittee shall assure that the designated facility agrees to sign and return the manifest to the Permittee, and that any out-of-state transporter signs and forwards the manifest to the designated facility with the shipment.</p> <p>Based on the following regulation. [401 KAR 32:020 Section 4]</p>
T-42	<p>PART II - Specific Conditions - Manifest System: Exception Reporting.</p> <p>(1) If the Permittee does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within thirty- five (35) days of the date the waste was accepted by the initial transporter, he shall contact the transporter and/or the owner or operator of the designated facility to determine the status of the hazardous waste.</p> <p>(2) The Permittee shall submit an exception report to the Hazardous Waste Branch Manager if he has not received a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within forty-five (45) days of the date the waste was accepted by the initial transporter. The exception report shall include:</p> <ul style="list-style-type: none">(a) A legible copy of the manifest for which the generator does not have confirmation of delivery.(b) A cover letter signed by the Permittee explaining the efforts taken to locate the hazardous waste and the results of those efforts. <p>Based on the following regulation: [401 KAR 32:040 Section 3]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 13 of 48

AIOO6238 (continued):

Narrative Requirements:

PART II - Specific Conditions - Recordkeeping and Reporting:

Condition No.	Condition
T-43	<p>PART II - Specific Conditions - Recordkeeping and Reporting: Annual Reporting.</p> <p>(1) The Permittee shall prepare and annually submit a Hazardous Waste Annual Report, DEP Form 7072-91, incorporated by reference in Section 5 of this administrative regulation.</p> <p>(2) The Hazardous Waste Annual Report shall be submitted to the Hazardous Waste Branch Manager no later than March 1 for the preceding calendar year.</p> <p>(3) The Permittee shall provide a duplicate copy of the Hazardous Waste Annual Report to the Ohio County Judge Executive so he may make the report available to the county law enforcement and emergency services for emergency planning purposes.</p> <p>Based on the following regulation: [401 KAR 34:050 Section 2]</p>
T-44	<p>PART II - Specific Conditions - Recordkeeping and Reporting: Operating Record.</p> <p>(1) The Permittee shall keep a written operating record at his facility.</p> <p>(2) The following information shall be recorded, as it becomes available, and maintained in the operating record until closure of the facility:</p> <p>(a) A description and the quantity of each hazardous waste treated, and the method and date of its treatment, at the facility as described in 401 KAR 34:290 (Appendix on Record Keeping Instructions).</p> <p>(b) The location of each hazardous waste within the facility and the quantity at each location.</p> <p>(c) Records and results of waste analyses and waste determinations.</p> <p>(d) Summary reports and details of all incidents that require implementing the Contingency Plan.</p> <p>(e) Records and results of facility and equipment inspections for three (3) years.</p> <p>(f) Monitoring, testing or analytical data, and corrective action.</p> <p>(h) All closure and post closure cost estimates.</p> <p>(i) A certification by the Permittee no less often than annually, that the Permittee has a program in place to reduce the volume and toxicity of hazardous waste that he generates to the degree determined by the Permittee to be economically practicable; and the proposed method of treatment, storage or disposal is that practicable method currently available to the Permittee which minimizes the present and future threat to human health and environment.</p> <p>(m) For an off-site treatment facility, a copy of the notice, and the certification and demonstration, if applicable, required of a generator under Section 7 or 8 of 401 KAR 37:010 (Land Disposal Restrictions).</p> <p>(p) For an off-site storage facility, a copy of the notice, and the certification and demonstration if applicable, required of the generator under Section 7 or 8 of 401 KAR 37:010 (Land Disposal Restrictions).</p> <p>Based on the following regulation: [401 KAR 34:050 Section 4]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC
Facility Requirements

Activity ID No.: APE20040004

Page 14 of 48

AIOO6238 (continued):

Narrative Requirements:

PART II - Specific Conditions - Recordkeeping and Reporting:

Condition No.	Condition
T-45	<p>PART II - Specific Conditions - Recordkeeping and Reporting: Additional Reports. In addition to submitting the annual report, the Permittee shall also report to the Cabinet:</p> <ul style="list-style-type: none">(1) Any releases of hazardous waste at or above the Reportable Quantity (RQ).(2) Fire or Explosions.(3) Facility closure.(4) Any other report required by a condition of this permit. <p>Based on the following regulation: [401 KAR 34:050 Section 8]</p>

PART II - Specific Conditions - Closure:

Condition No.	Condition
T-46	<p>PART II - Specific Conditions - Closure: Closure Plan. The Permittee shall comply with all requirements of the regulations cited in this condition and close the facility as outlined the approved Closure Plan. Based on the following regulation: [401 KAR 34:070]</p>
T-47	<p>PART II - Specific Conditions - Closure: Pre-Closure Notification. The Permittee shall notify the Hazardous Waste Branch Manager by certified mail, at least 60 days prior to the date the Permittee expects to begin closure of a "miscellaneous", subpart X, regulated unit. Based on the following regulation: [401 KAR 34:070 Section 3(4)(a)]</p>
T-48	<p>PART II - Specific Conditions - Closure: Amend Closure Plan The Permittee shall amend the Closure Plan whenever necessary in accordance with the specified regulation in this condition. Based on the following regulation: [401 KAR 34:070 Section 3(3)]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 15 of 48

AIOO6238 (continued):

Narrative Requirements:

PART II - Specific Conditions - Closure:

Condition No.	Condition
T-49	<p>PART II - Specific Conditions - Closure: Remove all Hazardous Waste.</p> <p>(1) The Permittee must, within ninety (90) days after receiving the final volume of hazardous waste in a hazardous waste management unit, remove all hazardous wastes.</p> <p>(2) The Cabinet may approve a longer period if the Permittee complies with all applicable requirements for requesting a modification to the permit and demonstrates that:</p> <ul style="list-style-type: none">(a) The activities required to comply with this subsection will, of necessity, take longer than ninety (90) days to complete; or(b) The hazardous waste management unit or facility has the capacity to receive additional hazardous wastes, or has the capacity to receive nonhazardous wastes, and;(c) There is a reasonable likelihood that the Permittee or another person will recommence operation of the hazardous waste management unit or the facility within one (1) year; and(d) Closure of the hazardous waste management unit or facility would be incompatible with continued operation of the site; and(e) The Permittee has taken and will continue to take all steps necessary to prevent threats to human health and the environment, including compliance with all applicable permit requirements. <p>Based on the following regulation: [401 KAR 34:070 Section 4(1)]</p>
T-50	<p>PART II - Specific Conditions - Closure: Complete Closure</p> <p>(1) The Permittee shall complete partial and final closure activities in accordance with the approved Closure Plan and within 180 days after receiving the final volume of hazardous wastes, or the final volume of nonhazardous wastes at the hazardous waste management unit or facility.</p> <p>(2) The Cabinet may approve an extension to the closure period if the Permittee complies with all applicable requirements for requesting a modification to the permit and demonstrates that:</p> <ul style="list-style-type: none">(a) The partial or final closure activities will, of necessity, take longer than 180 days to complete; or(b) The hazardous waste management unit or facility has the capacity to receive additional hazardous wastes, or has the capacity to receive nonhazardous wastes, and;(c) There is reasonable likelihood that the Permittee or another person will recommence operation of the hazardous waste management unit or the facility within one (1) year; and(d) Closure of the hazardous waste management unit or facility would be incompatible with continued operation of the site; and(e) The Permittee has taken and will continue to take all steps to prevent threats to human health and the environment from the unclosed but not operating hazardous waste management unit or facility, including compliance with all applicable permit requirements. <p>Based on the following regulation: [401 KAR 34:070 Section 4(2)]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 16 of 48

AIOO6238 (continued):

Narrative Requirements:

PART II - Specific Conditions - Closure:

Condition No.	Condition
T-51	<p>PART II - Specific Conditions - Closure: Disposal or Decontamination of Equipment, Structures and Soils.</p> <p>(1) The Permittee shall decontaminate and/or dispose of all contaminated facility equipment, structures and soils as required by the specified regulations in this condition, and the procedures outlined in the approved Closure Plan.</p> <p>(2) By removing any hazardous wastes or hazardous constituents during partial and final closure, the Permittee is a generator of hazardous waste and shall handle that waste in accordance with all applicable requirements of 401 KAR Chapter 32 (Standards Applicable to Generator of Hazardous Waste).</p> <p>Based on the following regulation: [401 KAR 34:070 Section 5]</p>
T-52	<p>PART II - Specific Conditions - Closure: Closure Complete Notification.</p> <p>(1) The Permittee shall submit to the Hazardous Waste Branch Manager, by registered mail, within sixty (60) days of completion of closure of the hazardous waste management unit, a certification that closure for the hazardous waste management unit was performed in accordance with the specification in the approved Closure Plan.</p> <p>(2) The certification shall be signed by the Permittee and by an independent professional engineer registered in the Commonwealth of Kentucky.</p> <p>(3) Documentation supporting the independent registered professional engineer's certification shall be furnished to the Hazardous Waste Branch Manager.</p> <p>Based on the following regulation: [401 KAR 34:070 Section 6]</p>

PART II - Specific Conditions - Financial Requirements:

Condition No.	Condition
T-53	<p>PART II - Specific Conditions - Financial Requirements: Section 2. Applicability.</p> <p>(1) The requirements of 401 KAR 34:090 (Closure Financial Requirements) apply to this facility.</p> <p>(2) The requirements of 401 KAR 34:100 (Use of a Mechanism for Closure and Postclosure) apply to this facility.</p> <p>(3) The requirements of 401 KAR 34:120 (Liability Requirements) apply to this facility.</p> <p>(4) The requirements of 401 KAR 34:130 (Incapacity of Owners or Operators, Gaurantors, or Financial Institutions) apply to this facility.</p> <p>Based on the following regulation: [401 KAR 34:080 Section 2]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 17 of 48

AIOO6238 (continued):

Narrative Requirements:

PART II - Specific Conditions - Financial Requirements:

Condition No.	Condition
T-54	<p>PART II - Specific Conditions - Financial Requirements: Closure Cost Estimate.</p> <p>(1) The Permittee's closure cost estimate is specified in Appendix C, Closure Plan of the attached permit application.</p> <p>(2) The Permittee shall comply with all requirements as set forth under the specified regulations in this condition, including the requirements to adjust and revise the cost estimates, when necessary.</p> <p>(3) As applicable, the inflationary adjustment or recalculation of the cost estimate will be either made every year, thirty (30) days after the close of the facility's fiscal year, or sixty (60) days prior to the anniversary date of the instrument established, by the Permittee.</p> <p>Based on the following regulation: [401 KAR 34:090 Section 1]</p>
T-55	<p>PART II - Specific Conditions - Financial Requirements: Demonstrate Financial Requirements Compliance.</p> <p>The Permittee shall demonstrate continuous compliance with the financial requirements of this permit, by providing documentation of financial assurance for at least the amount of the current cost estimate.</p> <p>Based on the following regulation: [401 KAR 34:090 Section 2]</p>
T-56	<p>PART II - Specific Conditions - Financial Requirements: Financial Liability.</p> <p>(1) The permittee shall demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental occurrences arising from operations of the facility.</p> <p>(2) The Permittee shall have and maintain liability coverage for sudden or accidental occurrences in the amount of at least \$1,000,000 per occurrence with an annual aggregate of at least \$2,000,000, exclusive of legal defense costs.</p> <p>(3) This liability coverage may be demonstrated as specified in subsections (1) to (6) of this section of the regulation:</p> <p>Based on the following regulation: [401 KAR 34:120 Section 1]</p>
T-57	<p>PART II - Specific Conditions - Financial Requirements: Notification.</p> <p>(1) The Permittee shall notify the Hazardous Waste Branch Manager by certified mail of the commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming the Permittee as debtor, within ten (10) days after commencement of the proceeding.</p> <p>(2) A guarantor of a corporate guarantee as specified in Section 8 of 401 KAR 34:090, Section 8 of 401 KAR 34:100, and Section 7 of 401 KAR 34:120 shall make such a notification if he is named as debtor as specified under the terms of the corporate guarantee (see 401 KAR 34:165).</p> <p>Based on the following regulation: [401 KAR 34:130]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 18 of 48

AIOO6238 (continued):

Narrative Requirements:

PART II - Specific Conditions - Detection Monitoring Program - Monitoring Program and Data Evaluation:

Condition No.	Condition
T-58	<p>PART II - Specific Conditions - Detection Monitoring Program - Monitoring Program and Data Evaluation: Sampling and Testing Methods.</p> <p>(1) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (2) The method used to obtain representative samples of the wastes to be analyzed must be the appropriate method from 401 KAR 31:120 (Appendix on Chemical Analysis Test Methods).</p> <p>(3) Laboratory methods must be those specified in the most recent edition of Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846 current edition) or a method approved by the Cabinet.</p> <p>Based on the following regulations: [401 KAR 38:030 Section 1(10)(a), 401 KAR 31:120]</p>
T-59	<p>PART II - Specific Conditions - Detection Monitoring Program - Monitoring Program and Data Evaluation: Soil and Surface Water Monitoring Program.</p> <p>(1) The Permittee will implement a Soil and Surface Water Monitoring Program as outlined in Attachment AA, "Waste characterization Study, November 2006", Section 4.2 "Soil and Surface Water Sampling" annually.</p> <p>Based on the following statute:</p> <p>. [KRS 224.46-530(1)(g)]</p>

PART III - Standard Conditions - Effect of the Permit:

Condition No.	Condition
T-60	<p>PART III - Standard Conditions - Effect of the Permit: Effect of the Permit.</p> <p>(1) Compliance with permit during its term constitutes compliance with KRS Chapter 224 for the purpose of enforcement, except for those requirements not included in the permit which:</p> <ul style="list-style-type: none">(a) Become effective by statute.(b) Are promulgated under 401 KAR Chapter 37 (Land Disposal Restrictions) restricting the placement of hazardous wastes in or on the land.(c) Are promulgated under 401 KAR 35:275, 35:280, or 35:281 (Air Emission Standards). <p>(2) The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.</p> <p>(3) The issuance of this permit does not allow the Permittee to cause injury to persons or property or invasion of other private rights, or any infringement of state or local laws or administrative regulations.</p> <p>Based on the following regulation: [401 KAR 38:010 Section 3]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC
Facility Requirements

Activity ID No.: APE20040004

Page 19 of 48

AIOO6238 (continued):

Narrative Requirements:

PART III - Standard Conditions - Permit Actions:

Condition No.	Condition
T-61	<p>PART III - Standard Conditions - Permit Actions: Modification and Termination.</p> <p>(1) This permit may be modified, revoked and reissued, or terminated for cause.</p> <p>(2) The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a modification of planned changes or anticipated noncompliance, does not stay any permit condition.</p> <p>Based on the following regulation: [401 KAR 38:030 Section 1(6)]</p>
T-62	<p>PART III - Standard Conditions - Permit Actions: Transfers.</p> <p>(1) This permit is not transferable to any person except after notice to the Hazardous Waste Branch Manager.</p> <p>(2) The Cabinet may require modification or revocation and reissuance of the permit to change the name of the Permittee and incorporate such other requirements as may be necessary.</p> <p>Based on the following regulation: [401 KAR 38:030 Section 1(12)(c)]</p>

PART III - Standard Conditions - Severability:

Condition No.	Condition
T-63	<p>PART III - Standard Conditions - Severability: Modification, Suspension and Revocation of a Permit.</p> <p>The Cabinet may modify, suspend or revoke this permit for:</p> <p>(1) Violation of any requirement of KRS Chapter 224 or the respective administrative regulations promulgated pursuant thereto.</p> <p>(2) Aiding, abetting, or permitting the violation of any provisions of 401 KAR Chapters 30 through 47 (Hazardous Waste).</p> <p>(3) Any action or omission associated with maintenance and operation of the facility that could or does create a threat to public health or the environment.</p> <p>(4) Violations of a condition of this permit.</p> <p>(5) Misrepresentation or omission of a significant fact by the Permittee either in the application for the permit or in information subsequently reported to the Cabinet.</p> <p>(6) Failure to comply with an order issued by the Cabinet.</p> <p>Based on the following regulation: [401 KAR 40:040 Section 1]</p>
T-64	<p>PART III - Standard Conditions - Severability: Invalid Provisions.</p> <p>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 or diminished.</p> <p>Based on the following regulation: [401 KAR 30:020 Section 5]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 20 of 48

AIOO6238 (continued):

Narrative Requirements:

PART III - Standard Conditions - Definitions:

Condition No.	Condition
T-65	<p>PART III - Standard Conditions - Definitions: Catch All.</p> <p>(1) For the purpose of this permit, terms used herein shall have the same meaning as those in Title 401 of Kentucky Administrative Regulations, Chapters 30, 34, and 38, unless this permit specifically provides otherwise.</p> <p>(2) 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.</p> <p>Based on the following regulation: [401 KAR 30:010 Section 1]</p>
T-66	<p>PART III - Standard Conditions - Definitions: Manager, Division Cabinet</p> <p>(1) The term "Manager" means Manager, Hazardous Waste Branch, Division of Waste Management.</p> <p>(2) The term "Director" means Director, Division of Waste Management, Department of Environmental Protection, Environmental and Public Protection Cabinet.</p> <p>(3) The term "Division" means the Division of Waste Management, Department for Environmental Protection.</p> <p>(4) The term "Cabinet" means the Environmental and Public Protection Cabinet.</p> <p>(5) "Manager", "Director", "Division", and "Cabinet" can be used interchangeably.</p> <p>Based on the following statute: [KRS 224.46-530(1)(g)]</p>
T-67	<p>PART III - Standard Conditions - Definitions: "Contamination" means:</p> <p>The degradation of naturally occurring water, air, or soil quality either directly or indirectly as a result of human activities. Based on the following regulation: [401 KAR 34:005 Section 1(48)]</p>
T-68	<p>PART III - Standard Conditions - Definitions: "Hazardous Constituent" means:</p> <p>Constituents which conform to the requirements of the Resource Conservation and Recovery Act (RCRA), as amended and includes the constituents listed in 401 KAR 31:170 (Appendix on Hazardous Waste Constituents).</p> <p>Based on the following regulation and statute: [401 KAR 38:005 Section 1(116), KRS 224.01-110(42)]</p>
T-69	<p>PART III - Standard Conditions - Definitions: "Hazardous Waste" means:</p> <p>A constituent which caused the Cabinet to list the hazardous waste in 401 KAR 31:040 (Lists of Hazardous Wastes), or a constituent listed in Section 5(3) of 401 KAR 31:030 (Characteristics of Hazardous Waste), Section 5(3).</p> <p>Based on the following statutes and regulation: [KRS 224.46-530(1)(g), KRS 224.01-010(42), 401 KAR 38:005 Section 1(119)]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 21 of 48

AIOO6238 (continued):

Narrative Requirements:

PART III - Standard Conditions - Definitions:

Condition No.	Condition
T-70	<p>PART III - Standard Conditions - Definitions: "On-site" means: The same or geographically contiguous property which may be divided by public or private right-of-way, provided the entrance and exit between the properties is at a crossroads intersection, and access is by crossing, as opposed to going along the right-of-way. Noncontiguous properties owned by the Permittee but connected by a right-of-way which he controls and to which the public does not have access is also considered on-site property. Based on the following regulation: [401 KAR 34:005 Section 1(187)]</p>
T-71	<p>PART III - Standard Conditions - Definitions: "Facility" means: (1) All contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. (2) A facility may consist of several treatment, storage, or disposal operational units (for example, one or more landfills, surface impoundments, or combinations of them) (3) For the purpose of implementing corrective action under Section 12 of 401 KAR 34:060 (Groundwater Protection), all contiguous property under the control of the Permittee. This definition also applies to facilities implementing corrective action under KRS 224.46-520. Based on the following statute: [KRS 224.46-530(1)(g)]</p>
T-72	<p>PART III - Standard Conditions - Definitions: "Regulated Units" are: Any hazardous waste land disposal units which received hazardous waste after January 26, 1983. Based on the following regulation: [401 KAR 34:005 Section 1(234)]</p>
T-73	<p>PART III - Standard Conditions - Definitions: "Site" means; The land or water area where any facility or activity is physically located or conducted, including adjacent land used in connection with the waste facility or activity. Based on the following regulation: [401 KAR 34:005 Section 1(250)]</p>
T-74	<p>PART III - Standard Conditions - Definitions: "Unit" 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. Based on the following statute: [KRS 224.46-530(1)(g)]</p>
T-75	<p>PART III - Standard Conditions - Definitions: "Solid Waste Management Unit (SWMU)" means: Any discernible unit at which wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at a facility at which wastes have been routinely and systematically released. Based on the following regulation: [401 KAR 34:005 Section 1(255)]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 22 of 48

AIOO6238 (continued):

Narrative Requirements:

PART III - Standard Conditions - Definitions:

Condition No.	Condition
T-76	<p>PART III - Standard Conditions - Definitions: "Solid Waste" means: Any garbage, refuse, sludge, and other discarded material, including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, commercial, mining (excluding coal mining wastes, coal mining by-products, refuse and overburden), agricultural operations, and from community activities, but does not include those materials including, but not limited to, sand, soil, rock, gravel, or bridge debris extracted as part of a public road construction project funded wholly or in part with state funds, recovered material, special wastes as designated by KRS 224.50-760, solid or dissolved material in domestic sewage, manure, crops, crop residue, or a combination thereof which are placed on the soil for return to the soil as fertilizers or soil conditioners, or solid or dissolved material in irrigation return flows or industrial discharges which are point sources subject to permits 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). Based on the following statute: [KRS 224.46-530(1)(g)]</p>
T-77	<p>PART III - Standard Conditions - Definitions: A "release" means: 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. Based on the following statute: [KRS 224.46-530(1)(g)]</p>
T-78	<p>PART III - Standard Conditions - Definitions: "Extent of Contamination" means: 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 Cabinet. Based on the following statute: [KRS 224.46-530(1)(g)]</p>
T-79	<p>PART III - Standard Conditions - Definitions: "Corrective Action (CA)," includes: 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, and the specified regulation in this condition. Based on the following statute and regulations: [KRS 224.46-530(1)(g), 401 KAR 34:060 Section 11, 401 KAR 34:060 Section 12]</p>
T-80	<p>PART III - Standard Conditions - Definitions: "Interim Measures (IM)" means: 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. Based on the following statute: [KRS 224.46-530(1)(g)]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC
Facility Requirements

Activity ID No.: APE20040004

Page 23 of 48

AIOO6238 (continued):

Narrative Requirements:

PART III - Standard Conditions - Definitions:

Condition No.	Condition
T-81	<p>PART III - Standard Conditions - Definitions: "Area of Concern" (AOC) includes: Any area having evidence of a release of a hazardous waste or hazardous constituent which is not from a Solid Waste Management Unit and poses 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 (Conditions Applicable to All Permits), Section 3 in order to ensure adequate protection of human health and the environment. Based on the following statute: [KRS 224.46-530(1)(g)]</p>
T-82	<p>PART III - Standard Conditions - Definitions: "Landfill" 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. Based on the following statute: [KRS 224.46-530(1)(g)]</p>
T-83	<p>PART III - Standard Conditions - Definitions: "Land Disposal" includes: Any placement of hazardous waste in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, salt bed formation, or underground mine or cave. Based on the following statutes: [KRS 224.46-530(1)(g), KRS 224.01-010(43)]</p>

PART III - Standard Conditions - Duties and Requirements:

Condition No.	Condition
T-84	<p>PART III - Standard Conditions - Duties and Requirements: Duty to Comply. The Permittee must comply with all conditions of this 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. Based on the following regulation: [401 KAR 38:030 Section 1(1)]</p>
T-85	<p>PART III - Standard Conditions - Duties and Requirements: Duty to Reapply. (1) If the Permittee wished to continue an activity allowed under this permit after the expiration date, the Permittee must apply for and obtain a new permit. (2) The Permittee shall submit a new application at least 180 days before the expiration date of the effective permit (3) The Cabinet may require additional information to be included in the application to ensure protection of human health and the environment. Based on the following regulations: [401 KAR 38:030 Section 1(2), 401 KAR 38:070 Section 5]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 24 of 48

AIOO6238 (continued):

Narrative Requirements:

PART III - Standard Conditions - Duties and Requirements:

Condition No.	Condition
T-86	<p>PART III - Standard Conditions - Duties and Requirements: Duty to Halt or Reduce Activity.</p> <p>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.</p> <p>Based on the following regulation: [401 KAR 38:030 Section 1(3)]</p>
T-87	<p>PART III - Standard Conditions - Duties and Requirements: Duty to Mitigate.</p> <p>The Permittee shall take all reasonable steps to minimize releases to the environment and shall carry out such measures as are reasonable to prevent any significant adverse impacts on the environment resulting from non-compliance with this permit.</p> <p>Based on the following regulation: [401 KAR 38:030 Section 1(4)]</p>
T-88	<p>PART III - Standard Conditions - Duties and Requirements: Duty to Properly Operate and Maintain.</p> <p>(1) The Permittee shall at all times properly operate and maintain all facilities and systems (and related appurtenances) of treatment and control that are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes but is not limited to:</p> <ul style="list-style-type: none">(a) Effective performance.(b) Adequate funding.(c) Adequate operator staffing.(d) Adequate operator training.(e) Adequate laboratory and process controls, including appropriate quality assurance procedures. <p>(2) This condition requires the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit.</p> <p>Based on the following regulation: [401 KAR 38:030 Section 1(5)]</p>
T-89	<p>PART III - Standard Conditions - Duties and Requirements: Duty to Provide Information.</p> <p>(1) The Permittee shall furnish the Hazardous Waste Branch Manager, within a reasonable time, any information which the Cabinet may request, to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit.</p> <p>(2) The Permittee shall also furnish the Hazardous Waste Branch Manager, with copies of the records required to be kept by this permit.</p> <p>Based on the following regulation: [401 KAR 38:030 Section 1(8)]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 25 of 48

AIOO6238 (continued):

Narrative Requirements:

PART III - Standard Conditions - Duties and Requirements:

Condition No.	Condition
T-90	<p>PART III - Standard Conditions - Duties and Requirements: Duty to Allow Entry and Inspection.</p> <p>The Permittee shall allow the Cabinet, or an authorized representative of the Cabinet, upon presentation of credentials to:</p> <ol style="list-style-type: none">(1) Enter at reasonable times the Permittee's premises where the regulated facility or activity is located or conducted, or where records must be kept as a condition of this permit.(2) Have access to and copy any records that are kept as a condition of this permit.(3) Inspect at reasonable times any facility's equipment, (including monitoring and control equipment), practices, or operations regulated by this permit.(4) Sample or monitor any substances or parameters at any location for the purposes of assuring permit compliance as authorized by the Kentucky Revised Statutes.(5) Split samples and copies of analysis will be provided to the Permittee upon request. <p>Based on the following regulation: [401 KAR 38:030 Section 1(9)]</p>
T-91	<p>PART III - Standard Conditions - Duties and Requirements: Duty to Allow Cabinet to Inspect New Units.</p> <p>The Permittee shall not begin treatment or storage of hazardous wastes in any new or proposed hazardous waste management unit, until the Permittee has complied with the following:</p> <ol style="list-style-type: none">(1) The Permittee has submitted to the Hazardous Waste Branch Manager by certified mail or hand delivery, a letter signed by the Permittee and a professional engineer registered in the Commonwealth of Kentucky stating that the Solid Waste Management Unit has been constructed in accordance with this permit.(2) The Permittee has received confirmation that the appropriate Cabinet personnel has inspected the new Solid Waste Management Unit has determined that the new unit is in compliance with the conditions of this permit; or(3) The Permittee has received confirmation that the Cabinet has either waived the inspection, or has within fifteen (15) days, notified the Permittee of the Cabinet's intent to not to inspect. <p>Based on the following regulation and statute: [401 KAR 38:030 Section 1(9), KRS 224.46-530(1)(g)]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 26 of 48

AIOO6238 (continued):

Narrative Requirements:

PART III - Standard Conditions - Duties and Requirements:

Condition No.	Condition
T-92	<p>PART III - Standard Conditions - Duties and Requirements: Duty to Monitor and Record.</p> <p>(1) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.</p> <p>(2) The Permittee shall retain records of all monitoring information, including all calibration and maintenance records, copied of all reports required by this permit, annual Waste Minimization Certification, land disposal certifications, 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, certification or application. This period may be extended by request of the Cabinet at any time.</p> <p>(3) Records of monitoring information shall include:</p> <ul style="list-style-type: none">(a) The date, exact place, and time of sampling or measurements.(b) The individual who performed the sampling or measurements.(c) The date analyses were performed.(d) The individual who performed the analyses.(e) The analytical techniques or methods used.(f) The results of such analyses including the detection limits. <p>Based on the following regulation: [401 KAR 38:030 Section 1(10)]</p>
T-93	<p>PART III - Standard Conditions - Duties and Requirements: Duty to Sign and Certify.</p> <p>(1) All applications, reports, or information submitted to the Cabinet, shall be signed and certified by a responsible corporate officer, general partner, or principal executive officer of at least the level of vice president, or by a duly authorized representative of that person.</p> <p>(2) Certifications shall include the language; "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."</p> <p>Based on the following regulations: [401 KAR 38:030 Section 1(11), 401 KAR 38:070 Section 7]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 27 of 48

AIOO6238 (continued):

Narrative Requirements:

PART III - Standard Conditions - Duties and Requirements:

Condition No.	Condition
T-94	<p>PART III - Standard Conditions - Duties and Requirements: Immediate Notification.</p> <p>(1) The Permittee shall report any noncompliance which may endanger human health and the environment, orally, within two (2) hours from the time the Permittee becomes aware of the circumstances.</p> <p>(2) The following must be reported orally within two (2) hours.</p> <p>(a) Information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies, including both surface water and groundwater used for public drinking water supply.</p> <p>(b) Any information of a release or discharge of hazardous waste, or of a fire or explosion from a hazardous waste site or facility, which could threaten the environment or human health outside the facility. The description of the occurrence and its cause shall include:</p> <p>(1) Name, address, and telephone number of the Permittee.</p> <p>(2) Name, address, and telephone number of the facility.</p> <p>(3) Date, time and type of incident.</p> <p>(4) Name and quantity of material(s) involved.</p> <p>(5) The extent of injuries, if any.</p> <p>(6) An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable.</p> <p>(7) Estimated quantity and disposition of recovered material that resulted from the incident.</p> <p>(3) A written submission shall be provided within fifteen (15) days of the time the Permittee becomes aware of the circumstances. The written submission shall contain:</p> <p>(a) A description of the noncompliance and its cause.</p> <p>(b) The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected.</p> <p>(c) The anticipated time it is expected to continue.</p> <p>(d) Steps taken or planned to reduce, or eliminate, and prevent the reoccurrence of the noncompliance.</p> <p>Based on the following regulation: [401 KAR 38:030 Section 1(12)(f)]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 28 of 48

AIOO6238 (continued):

Narrative Requirements:

PART III - Standard Conditions - Duties and Requirements:

Condition No.	Condition
T-95	<p>PART III - Standard Conditions - Duties and Requirements: Duty to Report Noncompliance Not Previously Reported.</p> <p>The Permittee shall report all instances of noncompliance not previously reported, at the time the "Hazardous Waste Annual Report" is submitted. The report shall contain the following Information:</p> <ol style="list-style-type: none">(1) Name, address, and telephone number of the Permittee.(2) Name, address, and telephone number of the facility.(3) Date, time and type of incident.(4) Name and quantity of material(s) involved.(5) The extent of injuries, if any.(6) An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable.(7) Estimated quantity and disposition of recovered material that resulted from the incident. <p>Based on the following regulation. [401 KAR 38:030 Section 1(12)(g)]</p>
T-96	<p>PART III - Standard Conditions - Duties and Requirements: Immediate Notification Phone Number.</p> <p>The Permittee shall report any noncompliance with the permit which may endanger human health or the environment orally within two (2) hours from the time the Permittee becomes aware of the circumstances. The Permittee must call the Kentucky twenty-four (24) hour Emergency Response reporting number (800) 928-2380.</p> <p>Based on the following regulation: [401 KAR 38:030 Section 1(12)(f)]</p>
T-97	<p>PART III - Standard Conditions - Duties and Requirements: Duty to Provide Other New Information.</p> <ol style="list-style-type: none">(1) When the Permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Cabinet, he shall promptly submit such facts or information.(2) The Permittee shall furnish to the Hazardous Waste Branch Manager, upon request, any information related to compliance with the permit. <p>Based on the following regulation: [401 KAR 38:030 Section 1(12)(i)]</p>
T-98	<p>PART III - Standard Conditions - Duties and Requirements: Duty to Report.</p> <p>The Permittee shall give notice to the Hazardous Waste Branch Manager, as soon as possible, of any planned physical alterations or additions to the permitted facility that could affect Solid Waste Management Units or Areas of Concern identified at this facility.</p> <p>Based on the following regulation: [401 KAR 38:030 Section 1(12)(a)]</p>
T-99	<p>PART III - Standard Conditions - Duties and Requirements: Anticipated Noncompliance.</p> <p>The Permittee shall give advance notice to the Division's Bowling Green Field Office (270 746-7475) and copied to the Hazardous Waste Branch Manager, of any planned changes in the permitted facility or activity that may result in non-compliance with permit requirements.</p> <p>Based on the following regulation: [401 KAR 38:030 Section 1(12)(b)]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC
Facility Requirements

Activity ID No.: APE20040004

Page 29 of 48

AIOO6238 (continued):

Narrative Requirements:

PART III - Standard Conditions - Duties and Requirements:

Condition No.	Condition
T-100	<p>PART III - Standard Conditions - Duties and Requirements: Changing Operators.</p> <p>Before transferring ownership or operators at Daicel Safety Systems America, Beaver Dam, the Permittee shall notify the new owner/operator in writing of all the permit requirements.</p> <p>Based on the following regulation: [401 KAR 34:020 Section 3(3)]</p>

PART III - Standard Conditions - Changes to the Permit:

Condition No.	Condition
T-101	<p>PART III - Standard Conditions - Changes to the Permit: New Additions or Alternations.</p> <p>The Cabinet may modify the permit when there are material and substantial alterations or additions to the permitted facility or activity, which occurred after permit issuance, which justify the application of permit conditions that are different or absent in the existing permit.</p> <p>Based on the following regulation: [401 KAR 34:040 Section 2(1)(a)]</p>
T-102	<p>PART III - Standard Conditions - Changes to the Permit: New information.</p> <p>(1) The Cabinet may modify the permit when the Cabinet receives new information.</p> <p>(2) Permits may be modified during their terms for this cause only if the information was not available at the time of permit issuance, and justify the application of different permit conditions.</p> <p>Based on the following regulation: [401 KAR 34:040 Section 2(1)(b)]</p>
T-103	<p>PART III - Standard Conditions - Changes to the Permit: New Statutes, Standards, or Administrative Regulations.</p> <p>The Cabinet may modify the permit when the standards or administrative regulations on which this permit is based have been changed by statute, amended standards, administrative regulations, or by judicial decision after the permit was issued.</p> <p>Based on the following regulation: [401 KAR 38:040 Section 2(1)(c)1]</p>
T-104	<p>PART III - Standard Conditions - Changes to the Permit: Conditions Remain in Effect.</p> <p>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.</p> <p>Based on the following regulation: [401 KAR 38:040 Section 6(1)]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 30 of 48

AIOO6238 (continued):

Narrative Requirements:

PART III - Standard Conditions - Confidential Information:

Condition No.	Condition
T-105	<p>PART III - Standard Conditions - Confidential Information: Claims.</p> <p>(1) The Permittee may claim confidential any information required to be submitted by this permit.</p> <p>(2) Any such claim shall be asserted at the time of submission in the manner prescribed on the application form or instructions or, in the case of other submissions, by stamping the words "confidential business information" on each page containing such information.</p> <p>(3) If no claim is made at the time of submission, the Cabinet may make the information available to the public without further notice.</p> <p>(4) If a claim is asserted, the information will be treated in accordance with the procedures in KRS 224.10-212 (Public Information) and any other provision of the administrative regulations relating to confidentiality of information.</p> <p>(5) Denial of claims of confidentiality. Claims that the name and address of any permit applicant or permittee is confidential will be denied.</p> <p>Based on the following regulation and statute: [401 KAR 38:070 Section 8, 400 KAR 1:060]</p>

PART IV - Corrective Action - Applicability:

Condition No.	Condition
T-106	<p>PART IV - Corrective Action - Applicability: List of SWMUs and AOCs.</p> <p>The following is a list of Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) at this facility.</p> <p>(1) Pellet Burn Cage.</p> <p>(2) See Appendix A for additional list of SWMU's and AOC's</p> <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>
T-107	<p>PART IV - Corrective Action - Applicability: Additional SWMUs and AOCs.</p> <p>The Corrective Action conditions apply to any additional Solid Waste Management Units (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:</p> <p>(1) Visually observes evidence of a new SWMU or; AOC.</p> <p>(2) Visually observes evidence of a previously unidentified release of hazardous constituents to the environment</p> <p>(3) Receives information which suggests the presence of a new release of hazardous waste or hazardous constituents to the environment.</p> <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 31 of 48

AIOO6238 (continued):

Narrative Requirements:

PART IV - Corrective Action - Applicability:

Condition No.	Condition
T-108	<p>PART IV - Corrective Action - Applicability: Applicability Beyond Boundary.</p> <p>(1) 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 Cabinet that, despite his best efforts, he was unable to obtain the necessary permission to undertake such actions.</p> <p>(2) 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. Measures to address such releases will be determined on a case-by-case basis.</p> <p>(3) Assurances of financial responsibility for completion of such off-site corrective action will be required.</p> <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>

PART IV - Corrective Action - Notification and Assessment Requirements for Newly Identified SWMUs and AOCs:

Condition No.	Condition
T-109	<p>PART IV - Corrective Action - Notification and Assessment Requirements for Newly Identified SWMUs and AOCs: Notifications.</p> <p>The Permittee shall notify the Hazardous Waste Branch Manager in writing, within fifteen (15) calendar days of discovery, of any additional SWMUs or AOCs discovered under any conditions. The notification shall include, at a minimum:</p> <p>(1) The location of the unit(s)</p> <p>(2) All available information pertaining to the nature of the release (e.g., media affected, hazardous constituents released, magnitude of release, etc.).</p> <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>
T-110	<p>PART IV - Corrective Action - Notification and Assessment Requirements for Newly Identified SWMUs and AOCs: Assessment Report.</p> <p>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 new SWMU identified at the facility.</p> <p>At a minimum, the SAR shall provide the following information:</p> <p>(1) Location of unit(s) on a topographic map of appropriate scale.</p> <p>(2) Designation of type and function of unit(s).</p> <p>(3) General dimensions, capacities and structural description of unit(s) (supply any available plans/drawings).</p> <p>(4) Dates that the unit(s) was operated.</p> <p>(5) Specification of all wastes that have been managed at/in the unit(s) to the extent available.</p> <p>(6) 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).</p> <p>Based on the following regulation: [401 KAR 34:060 Section 12, 401 KAR 31:170]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 32 of 48

AIOO6238 (continued):

Narrative Requirements:

PART IV - Corrective Action - Notification and Assessment Requirements for Newly Identified SWMUs and AOCs:

Condition No.	Condition
T-111	<p>PART IV - Corrective Action - Notification and Assessment Requirements for Newly Identified SWMUs and AOCs: Further Investigation.</p> <p>If the Cabinet determines that further investigation of the SWMUs or AOCs is needed to protect human health and the environment, the Permittee shall prepare a plan for such investigations.</p> <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>

PART IV - Corrective Action - Notification Requirements for Newly Discovered Releases at Previously Identified SWMUs or AOCs:

Condition No.	Condition
T-112	<p>PART IV - Corrective Action - Notification Requirements for Newly Discovered Releases at Previously Identified SWMUs or AOCs:</p> <p>(1) The Permittee shall notify the Hazardous Waste Branch Manager of any newly discovered releases of hazardous waste or hazardous waste constituents from previously identified units.</p> <p>(2) If the Cabinet determines that further investigation of a previously identified unit is needed, the Permittee will be notified in writing, and required to prepare a plan for such investigations.</p> <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>

PART IV - Corrective Action - Confirmatory Sampling (CS):

Condition No.	Condition
T-113	<p>PART IV - Corrective Action - Confirmatory Sampling (CS): CS Work Plan.</p> <p>(1) The Permittee shall prepare and submit to the Hazardous Waste Branch Manager, within ninety (90) calendar days of notification by the Branch Manager for a newly discovered SWMU or AOC, a Confirmatory Sampling (CS) Work Plan to determine if there were any releases.</p> <p>(2) The CS Work Plan shall include;</p> <p>(a) Schedules of implementation and completion of specific actions necessary to determine whether or not a release has occurred.</p> <p>(b) Affected media.</p> <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 33 of 48

AIOO6238 (continued):

Narrative Requirements:

PART IV - Corrective Action - Confirmatory Sampling (CS):

Condition No.	Condition
T-114	<p>PART IV - Corrective Action - Confirmatory Sampling (CS): Approval/Disapproval.</p> <p>(1) 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.</p> <p>(2) If the Hazardous Waste Branch Manager disapproves the CS Work Plan, the Branch Manager will either;</p> <p>(a) 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.</p> <p>(b) Revise the CS Work Plan and notify the Permittee of the revisions, or</p> <p>(c) Conditionally approve the CS Work Plan and notify the Permittee of the conditions.</p> <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>
T-115	<p>PART IV - Corrective Action - Confirmatory Sampling (CS): CS Implementation.</p> <p>The Permittee shall implement the confirmatory sampling in accordance with the approved CS Work Plan.</p> <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>
T-116	<p>PART IV - Corrective Action - Confirmatory Sampling (CS): Submitting CS Reports.</p> <p>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.</p> <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>

PART IV - Corrective Action - RCRA Facility Investigation (RFI):

Condition No.	Condition
T-117	<p>PART IV - Corrective Action - RCRA Facility Investigation (RFI): RFI Work Plan or NFA.</p> <p>(1) 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.</p> <p>(2) 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.</p> <p>(3) The Hazardous Waste Branch Manager will notify the Permittee of any no further action decision.</p> <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 34 of 48

AIOO6238 (continued):

Narrative Requirements:

PART IV - Corrective Action - RCRA Facility Investigation (RFI):

Condition No.	Condition
T-118	<p>PART IV - Corrective Action - RCRA Facility Investigation (RFI): RFI Work Plan.</p> <p>The Permittee shall prepare and submit to the RFI Work Plan to the Hazardous Waste Branch Manager, within ninety (90) calendar days of notification, or the time frame established in the Confirmatory Sampling Report for any units that require further investigations.</p> <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>
T-119	<p>PART IV - Corrective Action - RCRA Facility Investigation (RFI): RFI Work Plan Content.</p> <p>(1) A RFI Work Plan shall meet the requirements of the RFI Guidance, EPA-530/SW-89-031, as described in Attachment 2, RCRA Facility Investigation (RFI) Work Plan Outline, that is hereby incorporated into this permit.</p> <p>(2) The RFI Work Plan shall include;</p> <p>(a) Schedules of implementation and completion of specific actions necessary to determine the nature and extent of releases and the potential pathways of contaminat releases to the air, land, surface waters, and groundwater.</p> <p>(b) Justification and/or documentation that a release is not probable, or a pathway is not complete, if a unit or a media/pathway associated with a unit is not included in the RFI Work Plan. such deletions of a unit, media, or pathway are subject to the approval of the Hazardous Waste Branch Manager</p> <p>(c) A schedule for submitting RFI Progress Reports.</p> <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>
T-120	<p>PART IV - Corrective Action - RCRA Facility Investigation (RFI): Approval/Disapproval.</p> <p>(1) The RFI Work Plan must be approved by the Hazardous Waste Branch Manager, in writing, prior to implementation.</p> <p>(2) If the Hazardous Waste Branch Manager disapproves the RFI Work Plan, he will either;</p> <p>(a) 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</p> <p>(b) 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</p> <p>(c) Conditionally approve the RFI Work Plan and notify the Permittee of the conditions.</p> <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>
T-121	<p>PART IV - Corrective Action - RCRA Facility Investigation (RFI): Implementation.</p> <p>The Permittee shall implement the approved RFI.</p> <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 35 of 48

AIOO6238 (continued):

Narrative Requirements:

PART IV - Corrective Action - RCRA Facility Investigation (RFI):

Condition No.	Condition
T-122	<p>PART IV - Corrective Action - RCRA Facility Investigation (RFI): Progress Reports.</p> <p>If the time required to complete the RFI is greater than 180 days, the Permittee shall provide the Hazardous Waste Branch Manager with quarterly RFI Progress Reports.</p> <p>The Progress Reports shall contain the following information at a minimum:</p> <ol style="list-style-type: none">(1) A description of the portion of the RFI completed.(2) Summaries of findings.(3) Summaries of any deviations from the approved RFI Work Plan during the reporting period.(4) Summaries of all contacts with local community public interest groups.(5) Summaries of any problems or potential problems encountered during the reporting period.(6) Actions taken to rectify problems.(7) Changes in relevant personnel.(8) Projected work for the next reporting period(9) Summaries of laboratory/monitoring data, etc.(10) The presence of high levels of hazardous wastes and hazardous constituents in soils and groundwater. <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>
T-123	<p>PART IV - Corrective Action - RCRA Facility Investigation (RFI): Draft and Final Reports.</p> <ol style="list-style-type: none">(1) The Permittee shall prepare and submit to the Hazardous Waste Branch Manager, Draft and Final RCRA Facility Investigation Reports for the investigations conducted pursuant to the RFI Work Plan.(2) The Draft RFI Report shall be submitted to Hazardous Waste Branch Manager for review in accordance with the schedule in the approved RFI Work Plan.(3) The Final RFI Report shall be submitted to the Hazardous Waste Branch Manager within the time specified by the Branch Manager in the response to the Draft RFI Report. <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 36 of 48

AIOO6238 (continued):

Narrative Requirements:

PART IV - Corrective Action - RCRA Facility Investigation (RFI):

Condition No.	Condition
T-124	<p>PART IV - Corrective Action - RCRA Facility Investigation (RFI): Final Report Content.</p> <p>RFI Final Reports shall include;</p> <ol style="list-style-type: none">(1) An analysis and summary of all required investigations of SWMUs and AOCs and their results.(2) A description of the type and extent of contamination at the facility including:<ol style="list-style-type: none">(a) Sources and migration pathways(b) Identify all hazardous constituents present in all media.(c) Identify and describe actual or potential receptors.(3) The extent of contamination (qualitative/quantitative) in relation to background levels indicative of the area. <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>

PART IV - Corrective Action - Interim Measures (IM):

Condition No.	Condition
T-125	<p>PART IV - Corrective Action - Interim Measures (IM): Authority.</p> <p>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 Branch Manager may require the Permittee to implement interim measures (IM) to abate, minimize, stabilize, mitigate, or eliminate the release or threat of release.</p> <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>
T-126	<p>PART IV - Corrective Action - Interim Measures (IM): Work Plan.</p> <ol style="list-style-type: none">(1) 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 that the Cabinet determines is necessary.(2) IM shall 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.(3) The IM Work Plan shall be submitted within the specified time.(4) Such interim measures may be conducted concurrently with investigations required under the terms of this permit.(5) The Permittee may initiate IM at anytime by submitting an IM Work Plan for approval to the Hazardous Waste Branch Manager. <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 37 of 48

AIOO6238 (continued):

Narrative Requirements:

PART IV - Corrective Action - Interim Measures (IM):

Condition No.	Condition
T-127	<p>PART IV - Corrective Action - Interim Measures (IM): Work Plan Content.</p> <p>(1) The IM Work Plan shall ensure that the interim measures are designed to mitigate any current or potential threats to human health or the environment and is consistent with and integrated into any long-term solution at the facility.</p> <p>(2) The IM Work Plan shall include:</p> <ul style="list-style-type: none">(a) The interim measures objectives.(b) Procedures for implementation (including any designs, plans, or specifications).(c) Schedules for implementation. <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>
T-128	<p>PART IV - Corrective Action - Interim Measures (IM): Approval/Disapproval.</p> <p>(1) The Hazardous Waste Branch Manager will either approve or disapprove, in writing, the IM Work Plan.</p> <p>(2) The Hazardous Waste Branch Manager will specify the start date of the IM Work Plan schedule if approved.</p> <p>(3) If the Hazardous Waste Branch Manager disapproves the IM Work Plan, the Branch Manager will either;</p> <ul style="list-style-type: none">(a) 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(b) 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(c) Conditionally approve the IM Work Plan and notify the Permittee of the conditions. <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>
T-129	<p>PART IV - Corrective Action - Interim Measures (IM): Implement.</p> <p>The Permittee shall implement interim measures in accordance with the approved IM Work Plan.</p> <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>
T-130	<p>PART IV - Corrective Action - Interim Measures (IM): Progress Reports.</p> <p>(1) If required, the Permittee shall provide the Hazardous Waste Branch Manager with IM Progress Reports at intervals specified in the approved IM Work Plan.</p> <p>(2) The Progress Reports shall contain the following information at a minimum:</p> <ul style="list-style-type: none">(a) A description of the portion of the interim measures completed.(b) Summaries of all deviations from the IM Work Plan during the reporting period.(c) Summaries of all problems or potential problems encountered during the reporting period.(d) Projected work for the next reporting period(e) Copies of laboratory/monitoring data. <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 38 of 48

AIOO6238 (continued):

Narrative Requirements:

PART IV - Corrective Action - Interim Measures (IM):

Condition No.	Condition
T-131	<p>PART IV - Corrective Action - Interim Measures (IM): Notice of IM Work Plan Changes.</p> <p>The Permittee shall give notice to the Hazardous Waste Branch Manager within 45 days, of any planned changes, reductions or additions to the IM Work Plan.</p> <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>
T-132	<p>PART IV - Corrective Action - Interim Measures (IM): Final IM Report.</p> <p>(1) The Permittee shall prepare and submit to the Hazardous Waste Branch Manager, within ninety (90) calendar days of completion of IM, a Final Interim Measures (IM) Report.</p> <p>(2) The Final IM Report shall contain the following information at a minimum:</p> <ul style="list-style-type: none">(a) A description of interim measures implemented.(b) Summaries of results.(c) Summaries of all problems encountered.(d) Summaries of accomplishments and/or effectiveness of interim measures(e) Copies of all relevant laboratory/monitoring data. <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>

PART IV - Corrective Action - Corrective Measures Study (CMS):

Condition No.	Condition
T-133	<p>PART IV - Corrective Action - Corrective Measures Study (CMS): Work Plan.</p> <p>(1) 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 (RCRA Facility Investigation) Report, or within ninety (90) calendar days of notification by the Hazardous Waste Branch Manager that a CMS is required.</p> <p>(2) The CMS may be performed concurrently with the RFI process if the Cabinet determines that sufficient investigative details are available.</p> <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 39 of 48

AIOO6238 (continued):

Narrative Requirements:

PART IV - Corrective Action - Corrective Measures Study (CMS):

Condition No.	Condition
T-134	<p>PART IV - Corrective Action - Corrective Measures Study (CMS): Work Plan Content.</p> <p>(1) The CMS Work Plan shall at a minimum, meet the requirements of Attachment 3, the corrective Measures Study Outline.</p> <p>(2) The CMS Work Plan shall include:</p> <p>(a) Schedules of implementation and completion of specific actions necessary to complete a CMS.</p> <p>(b) All investigations necessary to ensure compliance with regulatory and statutory requirements.</p> <p>(3) The Permittee shall provide sufficient justification and/or documentation for any unit deleted from the CMS Work Plan. Such deletion of a unit is subject to the approval of the Cabinet.</p> <p>Based on the following regulations: [401 KAR 34:060 Section 12, 401 KAR 38:030 Section 3]</p>
T-135	<p>PART IV - Corrective Action - Corrective Measures Study (CMS): Approval/Disapproval.</p> <p>(1) The Hazardous Waste Branch Manager will either approve or disapprove, in writing, the CMS Work Plan.</p> <p>(2) If the Hazardous Waste Branch Manager disapproves the CMS Work Plan, he shall either;</p> <p>(a) 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</p> <p>(b) 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</p> <p>(c) Conditionally approve the CMS Work Plan and notify the Permittee of the conditions.</p> <p>Based on the following regulations: [401 KAR 34:060 Section 12]</p>
T-136	<p>PART IV - Corrective Action - Corrective Measures Study (CMS): Implementation.</p> <p>The Permittee shall begin to implement the Corrective Measures Study according to the schedules specified in the approved CMS Work Plan.</p> <p>Based on the following regulations: [401 KAR 34:060 Section 12]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 40 of 48

AIOO6238 (continued):

Narrative Requirements:

PART IV - Corrective Action - Corrective Measures Study (CMS):

Condition No.	Condition
T-137	<p>PART IV - Corrective Action - Corrective Measures Study (CMS): Final CMS Report.</p> <p>(1) 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.</p> <p>(2) The draft CMS Report shall be submitted to the Hazardous Waste Branch Manager per the schedule approved in the CMS Work Plan.</p> <p>(3) The Final CMS Report shall be submitted to the Hazardous Waste Branch Manager within thirty (30) days of receipt of the Branch Manager's comments on the draft CMS Report.</p> <p>(4) The final CMS Report shall:</p> <ul style="list-style-type: none">(a) Summarize any bench-scale or pilot tests conducted.(b) Include an evaluation of each remedial alternative(c) Present all information gathered under the approved CMS Work Plan.(d) Contain adequate information to support the Hazardous Waste Branch Manager's decision on the recommended remedy. <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>
T-138	<p>PART IV - Corrective Action - Corrective Measures Study (CMS): Final CMS Report Approval/Disapproval.</p> <p>(1) If the Hazardous Waste Branch Manager determines that the Final CMS Report does not fully satisfy the information requirements, he may disapprove the Final CMS Report.</p> <p>(2) If the Hazardous Waste Branch Manager disapproves the Final CMS Report, he 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.</p> <p>(3) The Cabinet will notify the Permittee of any no further action decision.</p> <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>
T-139	<p>PART IV - Corrective Action - Corrective Measures Study (CMS): Additional Remedies.</p> <p>The Cabinet may require the Permittee to evaluate additional remedies or particular elements of one or more proposed remedies in the Final CMS Report.</p> <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 41 of 48

AIOO6238 (continued):

Narrative Requirements:

PART IV - Corrective Action - Remedy Approval and Permit Modification:

Condition No.	Condition
T-140	<p>PART IV - Corrective Action - Remedy Approval and Permit Modification: Remedy Selection.</p> <p>(1) A remedy shall be selected from the remedial alternatives evaluated in the corrective Measures Study (CMS).</p> <p>(2) 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.</p> <p>(3) The selected remedy may include any interim measures implemented.</p> <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>
T-141	<p>PART IV - Corrective Action - Remedy Approval and Permit Modification: Permit Modification.</p> <p>The permit will be modified to incorporate the corrective action (CA) plans, if necessary, developed as specified throughout this permit.</p> <p>Based on the following regulations: [401 KAR 34:060 Section 12, 401 KAR 38:040 Section 2]</p>

PART IV - Corrective Action - Work Plan and Report Requirements:

Condition No.	Condition
T-142	<p>PART IV - Corrective Action - Work Plan and Report Requirements: Amended Plans and Reports.</p> <p>(1) If the Permittee or the Cabinet at any time determines that the SWMU Assessment Report (SAR) information, or the Confirmatory Sampling (CS) Work Plan, or RCRA Facility Investigation (RFI) Work Plan 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 SAR, CS, or RFI Work Plan.</p> <p>(2) The amended plan or report shall be submitted to the Hazardous Waste Branch Manager within ninety (90) calendar days of such determination or from receiving notification from the Cabinet.</p> <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>
T-143	<p>PART IV - Corrective Action - Work Plan and Report Requirements: Number of Copies.</p> <p>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:</p> <p>Manager, Hazardous Waste Branch Division of Waste Management 14 Reilly Road Frankfort, KY 40601</p> <p>Based on the following regulation: [401 KAR 34:060 Section 12]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC
Facility Requirements

Activity ID No.: APE20040004

Page 42 of 48

AIOO6238 (continued):

Narrative Requirements:

PART V - Waste Minimization - General Restrictions:

Condition No.	Condition
T-144	<p>PART V - Waste Minimization - General Restrictions: Operating Record.</p> <p>The Permittee shall include in the Operating Record no less often than annually, that:</p> <p>(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.</p> <p>(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 or the environment.</p> <p>Based on the following regulation: [401 KAR 34:050 Section 4(2)(i)]</p>

PART V - Waste Minimization - Objectives:

Condition No.	Condition
T-145	<p>PART V - Waste Minimization - Objectives: Waste Streams.</p> <p>The Permittee shall identify and document types, amounts, and hazardous constituents of waste streams, with the source and date of generation.</p> <p>Based on the following regulation and statute: [401 KAR 34:050 Section 4(2)(i), KRS 224.46-530(1)(g)]</p>
T-146	<p>PART V - Waste Minimization - Objectives: Assessment.</p> <p>The Permittee shall conduct a periodic waste minimization assessment as follows:</p> <p>(1) The Permittee shall identify and document all points in a process where materials can be prevented from becoming a waste, or can be recycled.</p> <p>(2) 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.</p> <p>(3) 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.</p> <p>(4) 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.</p> <p>Based on the following regulation and statute: [401 KAR 34:050 Section 4(2)(i), KRS 224.46-530(1)(g)]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 43 of 48

AIOO6238 (continued):

Narrative Requirements:

PART V - Waste Minimization - Objectives:

Condition No.	Condition
T-147	<p>PART V - Waste Minimization - Objectives: Required Documents.</p> <p>The Permittee shall maintain and update the following documents:</p> <ol style="list-style-type: none">(1) A policy dated and signed, by management, describing management support for waste minimization and for implementation of a waste minimization plan.(2) A description of employee awareness and training programs designed to involve employees in waste minimization planning and implementation to the maximum extent feasible.(3) 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. <p>Based on the following regulation and statute: [401 KAR 34:050 Section 4(2)(i), KRS 224.46-530(1)(g)]</p>
T-148	<p>PART V - Waste Minimization - Objectives: Annual cost Allocation Review.</p> <p>The Permittee, on an annual basis, shall update a Waste Minimization Cost Allocation System specific to the operation of the facility with respect to waste reduction, which includes:</p> <ol style="list-style-type: none">(1) 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.(2) Description of how each department at the facility is held accountable for the wastes they generate.(3) The comparison of waste management costs with costs of potential reduction and recycling techniques applicable to each waste at the facility. <p>Based on the following regulation and statute: [401 KAR 34:050 Section 4(2)(i), KRS 224.46-530(1)(g)]</p>
T-149	<p>PART V - Waste Minimization - Objectives: Seek and Exchange Information.</p> <p>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.</p> <p>Based on the following regulation and statute: [401 KAR 34:050 Section 4(2)(i), KRS 224.46-530(1)(g)]</p>
T-150	<p>PART V - Waste Minimization - Objectives: Annual Review.</p> <p>The Permittee, on an annual basis, shall evaluate the Waste Minimization Program. The evaluation, at a minimum shall contain the following:</p> <ol style="list-style-type: none">(1) Description of types and amounts of hazardous waste reduced or recycled.(2) Analysis and quantification of progress made relative to each performance goal established and each reduction technique to be implemented.(3) Amendments to waste minimization plan and explanation.(4) Explanation and documentation of reduction efforts completed or in progress before development of the waste minimization plan.(5) Explanation and documentation regarding impediments to hazardous waste reduction specific to the individual facility. <p>Based on the following regulation and statute: [401 KAR 34:050 Section 4(2)(i), KRS 224.46-530(1)(g)]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 44 of 48

AIOO6238 (continued):

Narrative Requirements:

PART VI - Land Disposal Restrictions - General Restrictions:

Condition No.	Condition
T-151	PART VI - Land Disposal Restrictions - General Restrictions: LDR. A waste restricted by Land Disposal Requirements, as 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. [401 KAR 37:010 Section 2(2)]
T-152	PART VI - Land Disposal Restrictions - General Restrictions: Prohibitions on Storage of Restricted Waste. Except as provided in this section, the storage of hazardous wastes restricted from land disposal under 401 KAR 37:030 (Prohibition on Land Disposal) is prohibited, unless the following conditions are met: (1) The Permittee stores (for no more than 90 days) such wastes in tanks, containers, or containment buildings on site solely for the purpose of the accumulation of such quantities of hazardous waste as necessary to facilitate proper recovery, treatment, or disposal. (2) Each container is clearly labeled with the words "Hazardous Waste," marked to identify its contents and the date each period of accumulation begins. Based on the following regulation: [401 KAR 37:050 Section 1(1)]

PART VIII - Referenced Attachments:

Condition No.	Condition
T-153	PART VIII - Referenced Attachments: Part A - Permit Application. The facility Part A, Permit Application is located in Appendix A of the permit application which is hereby incorporated into this permit. [KRS 224.46-530(1)(g)]
T-154	PART VIII - Referenced Attachments: Part B - Facility Description. The Facility Description is located in Section II.A and Appendix B of the permit application which is incorporated into this permit. [KRS 224.46-530(1)(g)]
T-155	PART VIII - Referenced Attachments: Waste Analysis Plan. The facility Waste Characteristics and Waste Analysis Plan is located in section II.B and Appendix D, F, and AA "Waste Characterization Study, November 2006" of the permit application which is incorporated into this permit. Based on the following statute: [KRS 224.46-530(1)(g)]
T-156	PART VIII - Referenced Attachments: Process Information The facility Process Information is located in Section III and Appendix E of the permit application which is incorporated into this permit. [KRS 224.46-530(1)(g)]

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 45 of 48

AIOO6238 (continued):

Narrative Requirements:

PART VIII - Referenced Attachments:

Condition No.	Condition
T-157	PART VIII - Referenced Attachments: The facility Protection of Groundwater is located in Section II.G and Appendix K of the permit application which is incorporated into this permit. [KRS 224.46-530(1)(g)]
T-158	PART VIII - Referenced Attachments: Procedures to Prevent Hazards. The Procedure to Prevent Hazards is located in Section II.C and Appendix G, and Section 4.0 of Appendix AA "Waste Characterization Study, November 2006" of the permit application which is incorporated into this permit. [KRS 224.46-530(1)(g)]
T-159	PART VIII - Referenced Attachments: Contingency Plan. The facility Contingency Plan is located in Section II.D and Appendix I and H of the permit application which is incorporated into this permit. [KRS 224.46-530(1)(g)]
T-160	PART VIII - Referenced Attachments: Personnel Training. The facility Personnel Training information is located in Section II.D and Appendix J of the permit application which is incorporated into this permit. [KRS 224.46-530(1)(g)]
T-161	PART VIII - Referenced Attachments: Closure Plan. The facility Closure Plan is located in Section II.F and Appendix C of the permit application which is incorporated into this permit. [KRS 224.46-530(1)(g)]
T-162	PART VIII - Referenced Attachments: Other Federal Laws. Information concerning Other Federal Laws is located in Section IV of the permit application which is incorporated into this permit. [KRS 224.46-530(1)(g)]
T-163	PART VIII - Referenced Attachments: Waste Minimization Plan. The facility Waste Minimization Plan is located in Section V.A.3 of the permit application which is incorporated into this permit. [KRS 224.46-530(1)(g)]

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 46 of 48

AREA1 (Pellet Burn Cage) Pallet Burn Cage, Miscellaneous Subpart X Unit:

Narrative Requirements:

PART II - Specific Conditions - Manifest System:

Condition No.	Condition
T-1	<p>PART II - Specific Conditions - Manifest System: Reactive Only.</p> <p>The gas generator pellets will be hazardous only due to the characteristic of reactivity.</p> <p>Based on the following statute: [KRS 224.46-530(1)(g)]</p>

PART II - Specific Conditions - Closure:

Condition No.	Condition
T-2	<p>PART II - Specific Conditions - Closure: Closure.</p> <p>At closure of a miscellaneous unit, the Permittee shall:</p> <ol style="list-style-type: none">(1) Closed in a manner that shall ensure protection of human health and the environment.(2) Comply with all applicable requirements of the approved Closure Plan(3) Remove or decontaminate all waste residues, contaminated containment system components (for example, liners), contaminated soils, and structures and equipment contaminated with waste, and manage them as hazardous waste, if appropriate. <p>Based on the following regulation: [401 KAR 34:250 Section 4]</p>

PART II - Specific Conditions - Management of Hazardous Waste in Miscellaneous Units:

Condition No.	Condition
T-3	<p>PART II - Specific Conditions - Management of Hazardous Waste in Miscellaneous Units: Burn Area.</p> <p>The Permittee will only operate the Pellet Burn Cage on the concrete pad designated for this purpose and located as described in Section II.A.3 of the permit application.</p> <p>Based on the following statute: [KRS 224.46-530(1)(g)]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 47 of 48

AREA1 (continued):

Narrative Requirements:

PART II - Specific Conditions - Management of Hazardous Waste in Miscellaneous Units:

Condition No.	Condition
T-4	<p>PART II - Specific Conditions - Management of Hazardous Waste in Miscellaneous Units: Prevent Run-off.</p> <p>The Permittee will prevent run-off from the concrete pad treatment area by:</p> <ol style="list-style-type: none">(1) Maintaining the 6" perimeter berm on the concrete pad.(2) Covering the concrete pad with a tarp when not in use.(3) Maintaining the integrity of the concrete pad, sump, and associated piping, filter, and valves.(4) Keeping the sump drain valve closed when not intentionally draining the sump.(5) Not operating Pellet Burn Cage in inclement weather. <p>Based on the following statute: [KRS 224.46-530(1)(g)]</p>
T-5	<p>PART II - Specific Conditions - Management of Hazardous Waste in Miscellaneous Units: Meteorological Conditions.</p> <p>The Permittee shall not perform any treatment in the Pellet Burn Cage during the following conditions:</p> <ol style="list-style-type: none">(1) Sustained wind speeds greater than 10 miles per hour.(2) During electrical storms or when the threat exists prior to the initiation of a treatment event, within 5 miles of the Permittee's facility.(3) During precipitation events.(4) During an air pollution event or temperature inversion.(5) During periods of low total overcast or reduced visibility of less than 1,000 feet.(6) Less than one hour before sunset or less than one hour after sunrise. <p>Based on the following statute:</p> <ol style="list-style-type: none">(5) During periods of low total <p>Based on the following statute: [KRS 224.46-530(1)(g)]</p>
T-6	<p>PART II - Specific Conditions - Management of Hazardous Waste in Miscellaneous Units: Maximum Quantity per Burn.</p> <p>The Maximum amount of hazardous waste to be treated during one (1) treatment event shall not exceed 100 lbs of net total weight.</p> <p>Based on the following statute: [KRS 224.46-530(1)(g)]</p>
T-7	<p>PART II - Specific Conditions - Management of Hazardous Waste in Miscellaneous Units: Restricted Waste.</p> <p>The Permittee shall only treat the gas generating pellets, described in the attached permit application, in the Pellet burn Cage.</p> <p>Based on the following statute: [KRS 224.46-530(1)(g)]</p>
T-8	<p>PART II - Specific Conditions - Management of Hazardous Waste in Miscellaneous Units: Max number of Events per Day.</p> <p>The Permittee shall not exceed 6 treatment events per day in total.</p> <p>Based on the following statute: [KRS 224.46-530(1)(g)]</p>

Hazardous Waste Facility Operating TSDF Permit

Daicel Safety Systems America LLC

Facility Requirements

Activity ID No.: APE20040004

Page 48 of 48

AREA1 (continued):

Narrative Requirements:

PART II - Specific Conditions - Management of Hazardous Waste in Miscellaneous Units:

Condition No.	Condition
T-9	<p>PART II - Specific Conditions - Management of Hazardous Waste in Miscellaneous Units: Process Information.</p> <p>The Permittee shall construct, operate, maintain, and inspect the miscellaneous unit specified in this permit and as specified in Section III, Process Information, in the attached permit application.</p> <p>Based on the following statute: [KRS 224.46-530(1)(g)]</p>

PART VI - Land Disposal Restrictions - Prohibitions and Treatment Standards:

Condition No.	Condition
T-10	<p>PART VI - Land Disposal Restrictions - Prohibitions and Treatment Standards: DEACT.</p> <p>The residue from the treated gas generator pellets shall meet the Land Disposal Restriction (LDR) treatment standard of DEACT before shipping off-site.</p> <p>Based on the following regulation and statute: [401 KAR 37:040 Section 1, KRS 224.46-530(1)(g)]</p>

APPENDICES

Daicel Safety Systems America, LLC Hazardous Waste Permit

Appendix A – List of SWMUs and AOCs

Solid Waste Management Units (SWMU)

TO BE DETERMINED

Areas of Concern (AOC)

TO BE DETERMINED

APPENDIX B

RCRA Facility Investigation (RFI) Work Plan Outline

APPENDIX B

RCRA FACILITY INVESTIGATION (RFI) WORK PLAN OUTLINE

I. RFI WORK PLAN REQUIREMENTS

The Permittee shall prepare a RCRA Facility Investigation (RFI) Work Plan that meets the requirements of Part IV of this permit and the RFI Guidance, EPA-530/SW-89-031. This Work Plan shall also include the development of the following plans, which shall be prepared concurrently:

A. Project Management Plan

Permittee shall prepare a Project Management Plan, which will include a discussion of the technical approach, schedules and personnel. The Project Management Plan will also include a description of qualifications of personnel performing or directing the RFI, including contractor personnel. This plan shall also document the overall management approach to the RCRA Facility Investigation.

B. Sampling and Analysis Plan(s)

The Permittee shall prepare a plan to document all monitoring procedures: field sampling, sampling procedures and sample analysis performed during the investigation to characterize the environmental setting, source, and releases of hazardous constituents, so as to ensure that all information and data are valid and properly documented. The Sampling Strategy and Procedures shall be in accordance with Characterization of Hazardous Waste Sites - A Methods Manual: Volume II. Available Sampling Methods, EPA-600/4-84-076, or EPA Region 4 Engineering Support Branch's Standard Operating Procedure and Quality Assurance Manual (SOP). Any deviations from these references must be requested by the applicant and approved by the Division. The Sampling and Analysis Plan will incorporate appropriate existing data and specify additional data gathering which must specifically discuss the following unless the EPA-600/4-84-076 or SOP procedures are specifically referenced.

1. Sampling Strategy

- a) Selecting appropriate sampling locations, depths, etc.;
- b) Obtaining all necessary ancillary data;
- c) Determining conditions under which sampling should be conducted;
- d) Determining which media are to be sampled (e.g., groundwater, air, soil, sediment, subsurface gas);
- e) Determining which parameters are to be measured and where;
- f) Selecting the frequency of sampling and length of sampling period;
- g) Selecting the types of samples (e.g., composites vs. grabs) and number of

samples to be collected.

2. Sampling Procedures

- a) Documenting field sampling operations and procedures, including;
 - (1) Documentation of procedures for preparation of reagents or supplies, which become an integral part of the sample (e.g., filters, preservatives, and absorbing reagents);
 - (2) Procedures and forms for recording the exact location and specific considerations associated with sample acquisition;
 - (3) Documentation of specific sample preservation method;
 - (4) Calibration of field instruments;
 - (5) Submission of field-biased blanks, where appropriate;
 - (6) Potential interferences present at the facility;
 - (7) Construction materials and techniques, associated with monitoring wells and piezometers;
 - (8) Field equipment listing and sampling containers;
 - (9) Sampling order; and
 - (10) Decontamination procedures.
- b) Selecting appropriate sample containers;
- c) Sampling preservation; and
- d) Chain-of-custody, including:
 - (1) Standardized field tracking reporting forms to establish sample custody in the field prior to shipment; and
 - (2) Pre-prepared sample labels containing all information necessary for effective sample tracking.

3. Sample Analysis

Sample analysis shall be conducted in accordance with SW-846: "Test Methods for Evaluating Solid Waste - Physical/Chemical Methods" (third edition). The sample analysis section of the Sampling and Analysis Plan shall specify the following:

- a) Chain-of-custody procedures, including:
 - (1) Identification of a responsible party to act as sampling custodian at the laboratory facility authorized to sign for incoming field samples, obtain documents of shipment, and verify the data entered onto the sample custody records;
 - (2) Provision for a laboratory sample custody log consisting of serially numbered standard lab-tracking report sheets; and
 - (3) Specification of laboratory sample custody procedures for sample

handling, storage, and dispersement for analysis.

- b) Sample storage;
- c) Sample preparation methods;
- d) Analytical Procedures, including:
 - (1) Scope and application of the procedure;
 - (2) Sample matrix;
 - (3) Potential interferences;
 - (4) Precision and accuracy of the methodology; and
 - (5) Method detection limits.
 - (6) Calibration procedures and frequency;
 - (7) Data reduction, validation and reporting;
 - (8) Internal quality control checks, laboratory performance and systems audits and frequency, including:
 - (a) Method blank(s);
 - (b) Laboratory control sample(s);
 - (c) Calibration check sample(s);
 - (d) Replicate sample(s);
 - (e) Matrix-spiked sample(s);
 - (f) Control charts;
 - (g) Surrogate samples;
 - (h) Zero and span gases; and
 - (i) Reagent quality control checks.
 - (9) Preventive maintenance procedures and schedules;
 - (10) Corrective action (for laboratory problems); and
 - (11) Turnaround time.
- e) Data Management Plan

The Permittee shall develop and initiate a Data Management Plan to document and track investigation data and results. This plan shall identify and set up data documentation materials and procedures, project file requirements, and project-related progress reporting procedures and documents. The plan shall also provide the format to be used to present the raw data and conclusions of the investigation.

f) Data Record

The data record shall include the following:

- (1) Unique sample or field measurement code;
- (2) Sampling or field measurement location and sample or measurement type;
- (3) Sampling or field measurement raw data;
- (4) Laboratory analysis ID number;
- (5) Property or component measures; and
- (6) Result of analysis (e.g. concentration).

g) Tabular Displays

The following data shall be presented in tabular displays:

- (1) Unsorted (raw) data;
- (2) Results for each medium, or for each constituent monitored;
- (3) Data reduction for statistical analysis, as appropriate;
- (4) Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and
- (5) Summary data

h) Graphical Displays

The following data shall be presented in graphical formats (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transits, three dimensional graphs, etc.):

- (1) Display sampling location and sampling grid;
- (2) Indicate boundaries of sampling area, and area where more data are required;
- (3) Display geographical extent of contamination;
- (4) Illustrate changes in concentration in relation to distances from the source, time, depth or other parameters; and
- (5) Indicate features affecting inter-media transport and show potential receptors.

II. RCRA Facility Investigation (RFI) Requirements

The Permittee shall conduct those investigations necessary to: characterize the facility (Environmental Setting); define the source (Source Characterization); define the degree and extent of release of hazardous constituents (Contamination Characterization); and identify actual or potential receptors.

The investigations should result in data of adequate technical content and quality to evaluate the risk level and support the development and evaluation of the corrective action plan if necessary. The information contained in a Part B permit application and/or RCRA Section 3019 Exposure Information Report may be referenced as appropriate.

All sampling and analyses shall be conducted in accordance with the Sampling and Analysis Plan. All sampling locations shall be documented in a log and identified on a detailed site map.

A. Environmental Setting

The Permittee shall collect information to supplement and/or verify Part B information on the environmental setting at the facility. The Permittee shall characterize the following as they relate to identified sources, pathways and areas of releases of hazardous constituents from Solid Waste Management Units.

1. Hydrogeology

The Permittee shall conduct a program to evaluate hydrogeologic conditions at the facility. This program shall provide the following information:

- a) A description of the regional and facility specific geologic and hydrogeologic characteristics affecting ground-water flow beneath the facility, including:
 - (1) Regional and facility specific stratigraphy: description of strata including strike and dip, identification of stratigraphic contacts;
 - (2) Structural geology: description of local and regional structural features (e.g., folding, faulting, tilting, jointing, etc.);
 - (3) Depositional history;
 - (4) Regional and facility specific ground-water flow patterns; and
 - (5) Identification and characterization of areas and amounts of recharge and discharge.
- b) An analysis of any topographic features that might influence the ground-water flow system.
- c) Based on field data, tests, and cores, a representative and accurate classification and description of the hydrogeologic units which may be part of the migration pathways at the facility (i.e., the aquifers and any intervening saturated and unsaturated units), including:
 - (1) Hydraulic conductivity and porosity (total and effective);
 - (2) Lithology, grain size, sorting, degree of cementation;
 - (3) An interpretation of hydraulic interconnections between saturated zones; and
 - (4) The attenuation capacity and mechanisms of the natural earth materials (e.g., ion exchange capacity, organic carbon content, mineral content etc.).
- d) Based on data obtained from groundwater monitoring wells and piezometers installed upgradient and downgradient of the potential contaminant source, a representative description of water level or fluid pressure monitoring including:
 - (1) Water-level contour and/or potentiometric maps;

- (2) Hydrologic cross sections showing vertical gradients
 - (3) The flow system, including the vertical and horizontal components of flow; and
 - (4) Any temporal changes in hydraulic gradients, for example, due to tidal or seasonal influences.
- e) A description of man-made influences that may affect the hydrology of the site, identifying:
- (1) Local water-supply and production wells with an approximate schedule of pumping; and
 - (2) Man-made hydraulic structures (pipelines, french drains, ditches, etc.).

B. Soils

The Permittee shall conduct a program to characterize the soil and rock units above the water table in the vicinity of contaminant release(s). Such characterization may include, but not be limited to, the following types of information as appropriate:

1. Surface soil distribution;
2. Soil profile, including ASTM classification of soils;
3. Transects of soil stratigraphy;
4. Hydraulic conductivity (saturated and unsaturated);
5. Relative permeability;
6. Bulk density;
7. Porosity;
8. Soil sorption capacity;
9. Cation exchange capacity (CEC);
10. Soil organic content;
11. Soil pH;
12. Particle size distribution;
13. Depth of water table;
14. Moisture content;
15. Effect of stratification on unsaturated flow;
16. Infiltration;
17. Evapotranspiration;
18. Storage capacity;
19. Vertical flow rate; and
20. Mineral content.

C. Surface Water and Sediment

The Permittee shall conduct a program to characterize the surface water bodies in the vicinity of the facility. Such characterization may include, but not be limited to, the following activities and information:

1. Description of the temporal and permanent surface water bodies including:
 - a) For lakes and estuaries: location, elevation, surface area, inflow, outflow, depth, temperature stratification, and volume;
 - b) For impoundments: location, elevation, surface area, depth, volume, freeboard, and construction and purpose;
 - c) For streams, ditches, and channels: location, elevation, flow, velocity, depth, width, seasonal fluctuations, flooding tendencies (i.e., 100 year event), discharge point(s), and general contents;
 - d) Drainage patterns; and
 - e) Evapotranspiration.
2. Description of the chemistry of the natural surface water and sediments. This includes determining the pH, total dissolved solids, total suspended solids, biological oxygen demand, alkalinity, conductivity, dissolved oxygen profiles, nutrients, chemical oxygen demand, total organic carbon, specific contaminant concentrations, etc.
3. Description of sediment characteristics including:
 - a) Deposition area;
 - b) Thickness profile; and
 - c) Physical and chemical parameters (e.g., grain size, density, organic carbon content, ion exchange capacity, pH, etc.)

D. Air

The Permittee shall provide information characterizing the climate in the vicinity of the facility. Such information may include, but not be limited to:

1. A description of the following parameters:
 - a) Annual and monthly rainfall averages;
 - b) Monthly temperature averages and extremes;
 - c) Wind speed and direction;
 - d) Relative humidity/dew point;
 - e) Atmospheric pressure;
 - f) Evaporation data;
 - g) Development of inversions; and
 - h) Climate extremes that have been known to occur in the vicinity of the facility,

including frequency of occurrence. (i.e. Hurricanes)

2. A description of topographic and man-made features, which affect airflow and emission patterns, including:
 - a) Ridges, hills or mountain areas;
 - b) Canyons or valleys;
 - c) Surface water bodies (e.g. rivers, lakes, bays, etc.);
 - d) Buildings.

E. Source Characterization

For those sources from which releases of hazardous constituents have been detected the Permittee shall collect analytical data to completely characterize the wastes and the areas where wastes have been placed, to the degree that is possible without undue safety risks, including: type, quantity; physical form; disposition (containment or nature of deposits); and facility characteristics affecting release (e.g., facility security, and engineering barriers). This shall include quantification of the following specific characteristics, at each source area:

F. Unit/Disposal Area Characteristics:

1. Location of unit/disposal area;
2. Type of unit/disposal area;
3. Design features;
4. Operating practices (past and present);
5. Period of operation;
6. Age of unit/disposal area;
7. General physical conditions; and
8. Method used to close the unit/disposal area.

G. Waste Characteristics:

1. Type of wastes placed in the unit:
2. Hazardous classification (e.g., flammable, reactive, corrosive, oxidizing or reducing agent);
3. Quantity; and
4. Chemical composition.
5. Physical and chemical characteristics such as:
 - a) Physical form (solid, liquid, gas);
 - b) Physical description (e.g., powder, oily sludge);
 - c) Temperature;
 - d) pH;

- e) General chemical class (e.g., acid, base, solvent);
 - f) Molecular weight;
 - g) Density;
 - h) Boiling point;
 - i) Viscosity;
 - j) Solubility in water;
 - k) Cohesiveness of the waste; and
 - l) Vapor pressure.
6. Migration and dispersal characteristics of the waste such as:
- a) Sorption capability;
 - b) Biodegradability, bioconcentration, biotransformation;
 - c) Photodegradation rates;
 - d) Hydrolysis rates; and
 - e) Chemical transformations.
7. The Permittee shall document the procedures used in making the above determinations.

H. Characterization of Releases of Hazardous Constituents

The Permittee shall collect analytical data on groundwater, soils, surface water, sediment, and subsurface gas contamination in the vicinity of the facility in accordance with the sampling and analysis plan as required above. These data shall be sufficient to define the extent, origin, direction, and rate of movement of contamination. Data shall include time and location of sampling, media sampled, concentrations found, conditions during sampling, and the identity of the individuals performing the sampling and analysis. The Permittee shall address the following types of contamination at the facility:

I. Groundwater Contamination

The Permittee shall conduct a groundwater investigation to characterize any plumes of contamination detected at the facility. This investigation shall at a minimum provide the following information:

- 1. A description of the horizontal and vertical extent of any groundwater plume(s) of hazardous constituents originating from or within the facility;
- 2. The horizontal and vertical direction of contamination movement;
- 3. The velocity of contaminant movement;
- 4. The horizontal and vertical concentration profiles of hazardous constituents in the groundwater plume(s);
- 5. An evaluation of factors influencing the plume movement;

6. An extrapolation of future contaminant movement.
7. The Permittee shall document the procedures used in making the above determinations (e.g., well design, well construction, geophysics, modeling, etc.).

J. Soil Contamination

The Permittee shall conduct an investigation to characterize the contamination of the soil and rock units above the saturated zone in the vicinity of any contaminant release. The investigation may include the following information:

1. A description of the vertical and horizontal extent of soil contamination;
2. A description of appropriate contaminant and soil chemical properties within the contaminant source area and plume. This may include contaminant solubility, speciation, absorption, leachability, exchange capacity, biodegradability, hydrolysis, photolysis, oxidation and other factors that might affect contaminant migration and transformation;
3. Specific contaminant concentrations;
4. The velocity and direction of contaminant movement; and
5. An extrapolation of future contaminant movement.
6. The Permittee shall document the procedures used in making the above determinations.

K. Surface Water and Sediment Contamination

The Permittee shall conduct a surface water investigation to characterize contamination in surface water bodies resulting from releases of hazardous constituents at the facility. The investigation may include, but not be limited to, the following information:

1. A description of the horizontal and vertical extent of any surface water and sediment plume(s) originating from the facility, and the extent of contamination in underlying sediments;
2. The horizontal and vertical direction of surface water and sediment contaminant movement;
3. The contaminant velocity;
4. An evaluation of the physical, biological and chemical factors influencing contaminant movement;
5. An extrapolation of future contaminant movement; and
6. A description of the chemistry of the contaminated surface waters and sediments. This includes determining the pH, total dissolved solids, specific contaminant concentrations, etc.
7. The Permittee shall document the procedures used in making the above determinations.

L. Air Contamination

The Permittee shall conduct an investigation to characterize gaseous releases of hazardous constituents into the atmosphere or any structures or buildings. This investigation may provide the following information:

1. A description of the horizontal and vertical direction of air contaminant movement;
2. The rate and amount of the release; and
3. The chemical and physical composition of the contaminant(s) released, including horizontal and vertical concentration profiles.
4. The Permittee shall document the procedures used in making the above determinations.

M. Potential Receptors

The Permittee shall collect data describing the human populations and environmental systems that are susceptible to contaminant exposure from the facility. Chemical analysis of biological samples and/or data on observable effects in ecosystems may also be obtained as appropriate. The following characteristics shall be identified:

1. Current local uses and planned future uses of groundwater:
2. Type of use (e.g., drinking water source: municipal or residential, agricultural, domestic/non-potable, industrial);
3. Location of ground water users, to include withdrawal and discharge wells, within one mile of the impacted area.
4. The above information should also indicate the aquifer or hydrogeologic unit used and/or impacted for each item.
5. Current local uses and planned future uses of surface waters directly impacted by the facility:
 - a) Domestic and municipal (e.g., potable and lawn/gardening watering);
 - b) Recreational (e.g. swimming, fishing);
 - c) Agricultural;
 - d) Industrial; and
 - e) Environmental (e.g., fish and wildlife propagation).
6. Human use of or access to the facility and adjacent lands, including but not limited to:
 - a) Recreation;
 - b) Hunting;
 - c) Residential;
 - d) Commercial; and
 - e) Relationship between population locations and prevailing wind direction.
7. A general description of the biota in surface water bodies on, adjacent to, or affected

by the facility.

8. A general description of the ecology within area the area adjacent to the facility.
9. A general demographic profile of the people who use or have access to the facility and adjacent land, including, but not limited to: age; sex; and sensitive subgroups.
10. A description of any known or documented endangered or threatened species near the facility.