# The Kansas Department of Health and Environment

**FACT SHEET**
**ASH GROVE CEMENT COMPANY**
**CHANUTE, KANSAS**
**FINAL PERMIT DETERMINATION**
**June 17, 2010**

This fact sheet, in accordance with the requirements of 40 CFR 124.8, has been prepared for the Final Resource Conservation and Recovery Act (RCRA) permit that the Kansas Department of Health and Environment (KDHE) and the U.S. Environmental Protection Agency (EPA) are issuing jointly to Ash Grove Cement Company, for its hazardous waste management and cement production facility located at 1801 North Santa Fe Street, Chanute, Kansas. Ash Grove Cement Company (Ash Grove) submitted a RCRA Part B permit renewal application to continue operating this hazardous waste storage and processing facility. In the interim, all hazardous waste management activities have been and are currently taking place under the authority of the facility's expired permit. The final permit will allow storage and processing of hazardous waste in containers and tanks from on-site and off-site hazardous waste facilities. Any treatment, storage or disposal of hazardous waste not authorized in this permit is prohibited.

## I. Facility Permit Overview

Ash Grove owns and operates a five stage pre-heater/pre-calciner cement kiln that burns hazardous waste to supplement the facility's fuel needs. In 2006 Ash Grove applied for the renewal of its RCRA permit to continue to operate the hazardous waste storage and processing facility at 1801 North Santa Fe Street, Chanute, Kansas. The facility was originally permitted to store and process hazardous wastes in 1996, however, Ash Grove began burning hazardous waste in 1986 when cement plants were exempt from hazardous waste regulations if the waste had energy value and was burned as fuel for cement manufacturing. In 1998 the facility increased its hazardous waste storage capacity with the addition of three new storage tanks, and in 2000 the permit was modified again when the facility replaced the old wet kiln system with the current dry process pre-heater/pre-calciner cement kiln. The 2000 modification also included the replacement of a container storage building and the addition of a new containerized conveyance system. The most recent modification to the facility was finalized in 2008 with the addition of a bulk waste derived fuel storage tank/silo and pneumatic conveyance system.

In addition to cement production related activities such as quarrying and crushing limestone, proportioning and grinding raw materials, pyroprocessing of raw material mixes to form portland cement clinker, and the grinding of clinker with gypsum to form Portland cement; Ash Grove also operates three distinct hazardous waste management systems to supplement the facility's pyroprocessing fuel needs. The cement manufacturing process requires large amounts of thermal energy and hazardous waste, also referred to as Waste Derived Fuel (WDF), is capable of supplying a significant portion of this energy. Activities associated with the hazardous waste management systems include the receiving, blending, and storage of Waste Derived Fuel (WDF). The WDF replaces traditional fossil fuels; coal coke, and natural gas used to provide the heat energy for the kilns. The receipt, storage, and processing of hazardous waste at Ash Grove are regulated under the Resource Conservation and Recovery Act (RCRA) and under the Kansas

Hazardous Waste regulations, which are the subject of this permit. The combustion of hazardous waste in the pyroprocessing cement kiln is regulated by the Environmental Protection Agency (EPA), 40 CFR Part 63, subpart EEE and is not the subject of this permit.

The principle waste management activity at the facility is the receipt of hazardous waste liquids, solids, and semi solid sludge from off-site generators and other hazardous waste processors, which are then processed into a fuel for use in the pyroprocessing cement kiln. On occasion the facility may receive waste that can not be processed into a useable fuel; these wastes may be temporally stored and transferred on to other permitted facilities. The facility utilizes an approved Waste Analysis Plan (WAP) that describes the procedures, sampling and analysis requirements, and rationale that is followed to ensure adequate information is available to identify and manage hazardous waste safely. The WAP is contained in Section 3 of the Part B Application.

Wastes are received via rail and over the road in both bulk and palletized containers. Upon receipt, waste manifest and other documentation is reviewed to verify the contents of each shipment and once verified palletized containers are unloaded and moved to designated area of the Solid Waste Derived Fuel (SWDF) container storage building for inspection and sampling. After being sampled and analyzed in accordance with the approved WAP, containers are staged as needed in the SWDF surge building and the SWDF container feed area where they are eventually loaded onto a conveyor system that feeds the containers into the kiln. Each of the container storage areas listed in Table 1, with the exception of the Bulk Waste Derived Fuel (BWDF) Storage Area, has concrete secondary containment systems designed in accordance with 40 CFR 264.175 requirements that are capable of containing 10% of the areas permitted storage capacity and 100% of the largest capacity container permitted for each area. The facilities total permitted container storage capacity is 196,864 gallons. Table 1 lists the storage capacity of each container storage area.

**Table 1. Container Storage Area Capacities**

| Storage Area | Storage Capacity |
|---|---|
| SWDF Container Storage Building | Maximum of 111,636 total gallons |
| SWDF Surge Building | Maximum of 40,320 total gallons |
| SWDF Container Feed Area | Maximum of 11,508 total gallons |
| North LWDF Unloading Area | Maximum of 5,700 total gallons<br>(Bulk LWDF or BWDF Containers only) |
| South LWDF Unloading Area | Maximum of 5,700 total gallons<br>(Bulk LWDF or BWDF Containers only) |
| BWDF Storage Area | Maximum of 22,000 total gallons<br>(Approximately 4 Truck Trailers) |

In addition to the container storage areas, the facility also utilizes two distinct and separate tank systems to manage hazardous waste and deliver it to the pyroprocessing system at the facility; the Liquid Waste Derived Fuel (LWDF) tank system and the Bulk Waste Derived Fuel (BWDF) tank system.

The LWDF tank system has a total of five (5) 38,000 gallon aboveground tanks located in two separate containment areas that are adjacent to each other; these areas are referred to as the West LWDF Storage Tank Area and the East LWDF Storage Tank Area. The West LWDF area contains two (2) tanks and the East LWDF area contains three(3) tanks. All LWDF tanks are situated within metal buildings that have concrete secondary containment structures designed to contain 100% of the volume of the largest tank within the structure plus the potential rainfall generated from a 25 year 24 hour storm event. The floor of each containment area is sloped to a sump where a pump is used to remove accumulated precipitation. Each tank is equipped with either a mechanical or electronic level measuring device, which is connected to a high level alarm that will alert employees to prevent overflowing the tanks. All tanks are vented to the facility's pyroprocessing system, and each tank is also equipped with an emergency pressure release vent.

In addition to the storage tank areas there are three distinct bulk container unloading areas referred to as the Rail Car Unloading Station, the North LWDF Unloading Area, and the South LWDF Unloading Area. The Rail Car Unloading Station is located adjacent to and north of the West LWDF Storage Tank Area while the North and South Truck unloading Areas are located adjacent to and south of both storage tank areas. All three unloading stations have adequate secondary containment to contain 100% of the largest rail car or tanker truck to be unloaded, and each of the truck unloading stations have adequate secondary containment to allow the unloading areas to be used for bulk container storage when needed.

The BWDF tank system consist of one (1) 300 cubic yard aboveground storage tank/silo positioned above two (2) 15 cubic foot metering kettles with associated piping, an air emissions dust collection baghouse mounted atop the tank/silo, a concrete pad where trucks are parked while unloading, and an equipment pad where compressors and blowers that provided the motive air for the conveyance of BWDF to the pyroprocessing system are located. The entire system with the exception of the unloading area is contained within a metal building. The BWDF system is not permitted to store or manage wastes that contain free liquids and therefore secondary containment for the tank and truck unloading area is not provided.

Each tank that stores hazardous waste has been inspected and certified by qualified independent engineers as having adequate structural integrity per 40 CFR 264.191. The facility's total permitted LWDF tank storage capacity is 190,000 gallons, and total BWDF storage capacity is 300 cubic yards. Table 2 lists the dimensions and storage capacities of each storage tank.

**Table 2. Tank Dimensions and Storage Capacities**

| Tank System | Tank Number | Capacity (Gallons) | Dimensions | Total Tank System Capacity (Gallons) |
|---|---|---|---|---|
| West LWDF Tank System | 1 | 38,000 | 14 ft (Dia) x 33 ft | 76,000 |
| | 2 | 38,000 | 14 ft (Dia) x 33 ft | |
| East LWDF Tank System | 3 | 38,000 | 14 ft (Dia) x 33 ft | 114,000 |
| | 4 | 38,000 | 14 ft (Dia) x 33 ft | |
| | 5 | 38,000 | 14 ft (Dia) x 33 ft | |
| BWDF Tank System | 6 | 300 (cubic yards) | 14 ft (Dia) x 40 ft | 300 cubic yards |

All permitted container storage areas, storage tanks, and unloading areas are located within the fenced boundary of the cement plant. All container storage areas and storage tanks comply with 40 CFR Part 264 Subpart I and Subpart J respectively, and applicable 40 CFR Part 270 requirements. Emergency equipment is available at the facility and appropriate warning signs are posted on the perimeter fences. Most liquid and solid hazardous wastes stored at the facility are destined for use as fuel in the cement kiln, however, some waste may be transported off-site to other RCRA treatment, storage, or disposal facilities (TSDFs) for management in an environmentally safe manner. In the event of closure, all storage areas and the pyroprocessing system will be decontaminated in accordance with the approved closure plan. Additional information on the hazardous waste management activities at the Ash Grove facility can be found in the final permit, administrative record, or obtained from the KDHE contact.

## II. Permitting Regulatory Authority

In October 1985, the State of Kansas received final authorization from the Environmental Protection Agency (EPA) to implement its own hazardous waste management program in lieu of the federal program, except for those portions covered by the 1984 Hazardous and Solid Waste Amendments (HSWA). Authority for the corrective action portion of the RCRA program has not been delegated to the State of Kansas and is currently administered by the EPA.

The final permit sets forth in a concise document all of the applicable requirements that KDHE and EPA will require the Permittee to comply with during the 10-year duration of the permit. The final hazardous waste permit consists of two parts: Part I (KDHE) - hazardous waste management units, and Part II (EPA) - Hazardous and Solid Waste Amendments (HSWA) requirements. The agencies have determined that the finalized permits will comply with the applicable state and federal regulations.

The KDHE portion of the final permit is being issued under authority of the Kansas Statutes Annotated (KSA) 65-3430 et seq. and the Kansas Administrative Regulation (KAR) 28-31-9. Part I includes standard permit conditions, general facility conditions, and regulatory provisions for storage in containers and tanks and air emission standards.

Documents that support the permit conditions specified in Part I and Part II are part of the administrative record. Applicable regulations are found in 40 CFR Parts 260 through 264, 268, 270, and 124, as specified in Part II of this permit.

## III. Summary of the RCRA Permitting Process

State and federal hazardous waste laws require that the public be given at least 45 days to review the administrative record for the draft permit prior to the regulatory agencies taking a final action. The purpose of having a public comment period is to ensure that interested parties has the opportunity to evaluate the conditions specified in the final permit and to provide their input into the permit decision-making process. The public comment period began on August 31, 2009 and was originally scheduled to end on October 16, 2009; however, due to significant interest in the draft permit a public hearing was held in Chanute, Kansas, on December 3, 2009 and the public comment period was extended thru December 18, 2009. Also on December 3, 2009, preceding the public hearing, representatives of KDHE and EPA held an availability session in order for interested parties to obtain information on and clarification of the draft permit. The administrative record, which included the draft permit, permit application, and other relevant permitting correspondence, was available for public review at the following locations:

Kansas Department of Health and Environment
Hazardous Waste Permits Section
1000 SW Jackson Street, Suite 320
Topeka, Kansas 66620-0001
Contact: Mostafa Kamal
Tel: (785) 296-1609

City of Chanute Public Library
111 N. Lincoln
Chanute, Kansas
Contact: Susan Willis
Tel: (620) 431-3820

U.S. Environmental Protection Agency
Region VII Office - RCRA Branch
901 North 5th Street
Kansas City, Kansas 66101
Contact: Ken Herstowski
Tel: (913) 551- 7631

In accordance with 40 CFR 124.17, KDHE and EPA prepared a *Unified Response to Comments* which addresses all written comments and public testimony received and is included in the administrative record. Although comments received did not result in any significant changes to the draft permit, minor revisions to correct typographical errors and clarify some permit conditions were made to both the Part I and Part II permits.

## IV. Final Permit Decision

The Secretary of KDHE and the EPA Region 7 Director of the Air, RCRA, and Toxics Division (ARTD) have consider all comments received during the public comment period and have made a final decision to renew the joint permit. Notice has been given to the applicant, all persons who submitted written comments, all persons who provided testimony at the public hearing, and those who requested notice of the final permit decision. Comments received during the public comment period resulted in revision(s) to the draft permit. Therefore, the permit will become effective 30 days after service of notice of the final decision or at a later date, if an appeal of the permit is requested under 40 CFR 124.19.

Appeals of the KDHE and EPA decision to issue this permit must be made within 33 days of service of the final decision. Any person who filed comments on the draft permit may petition to review any condition of the permit decision on which comments were raised during the public comment period. Any person who failed to file comments on the draft permit may petition for administrative review of changes from the draft to the final permit only. All petitions for review must be received no later than **July 20, 2010**.

Any petition for review shall contain a statement of the reasons supporting the petitioned review, including a demonstration that any issues being raised were raised during the public comment period and, when appropriate, a showing that the condition in question is based on: (1) a finding of fact or conclusion of law which is clearly erroneous, or (2) an exercise of discretion or an important policy consideration which the Secretary of Health and Environment or EPA Environmental Appeals Board (EAB), should, in their discretion, review. Submissions made by mail should be sent to the following addresses, with sufficient time allowed for delivery. The EAB can otherwise be contacted by telephone at (202) 233-0122.

Appeals of permit conditions contained in Part I of the permit must be filed with the Secretary of the Kansas Department of Health and Environment, at the following location:

Roderick Bremby, Secretary
Kansas Department of Health and Environment
1000 SW Jackson, Suite 540
Topeka, Kansas, 66612-1368

Appeals of permit conditions contained in Part II must be filed with the EPA EAB, at one of the following locations:

For Mail Delivery:

U. S. Environmental Protection Agency
Environmental Appeals Board (MC-1103B)
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

For hand-delivery, including couriers and delivery services:

U.S. Environmental Protection Agency
Colorado Building
1341 G Street, NW
Suite 600
Washington, D.C. 20005

## V. Permit Organization

The permit is organized in the following manner:

| **Part I (KDHE)** | **Description** |
|---|---|
| Cover Sheet | Sets forth basic legal authority. |
| Section I<br>Standard Permit Conditions | General permit conditions which are the regulatory requirements specified in 40 CFR 270. |
| Section II<br>General Facility Conditions | General facility permit conditions which are the regulatory requirements specified in 40 CFR 264. |
| Section III<br>Storage In Containers | Specific operating conditions, limitations, procedures, container limitations, and requirements which implement the regulatory requirements of 40 CFR 264Subpart I. |
| Section IV<br>Storage In Tanks | Specific operating conditions, limitations, procedures, container limitations, and requirements which implement the regulatory requirements of 40 CFR 264, Subpart J. |
| Section V<br>Miscellaneous Subpart X Units | Specific operating conditions, limitations, procedures, and requirements which implement the regulatory requirements of 40 CFR 264, Subpart X. |
| Section VI<br>Air Emission Standards | Specific operating conditions, limitations, procedures, and requirements which implement the regulatory requirements of 40 CFR 264, Subparts AA, BB, and CC. |
| **Part II (EPA)**<br>**Hazardous and Solid Waste Amendments (HSWA) Permit** | Specific conditions requiring evaluation of releases of hazardous constituents from solid waste management units and corrective action as appropriate; air emission requirements. |