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STATE OF IOWA

THOMAS J. VILSACK, GOVERNOR
SALLY J. PEDERSON, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
JEFFREY R. VONK, DIRECTOR

August 27, 2001

Laura Hopkins-Hiles, Environmental Manager
Lafarge Corporation
301 East Front Street
Buffalo, IA 52728

RE: Lafarge Davenport Plant Operating CKD Landfill
Permit No. 82-SDP-16-97P
Permit Renewal

Dear Ms. Hopkins-Hiles:

Enclosed is the renewed permit for the Lafarge Davenport Plant Operating CKD Landfill. The permit and the approved plans must be kept at the sanitary disposal project in accordance with solid waste rule 567 IAC 103.2(2)"c". Please review the permit with your operators, as they must become familiar with it.

Note that the permit contains special provisions that may require a response or action by you which, if not properly complied with, may prompt enforcement action by this department.

During the review, it was noted that Lafarge is not conducting the groundwater quality monitoring plan in accordance with the Department's requirements. The specific deficiencies are that: 1) Water samples are not being tested for pH and specific conductance and 2) All laboratory data and the associated Department sampling forms 542-1322 and 542-1324 are not being submitted. From this point forward, the permit holder shall sample for all 17 parameters listed in Special Provision #5c. and submit the laboratory results and Department sampling forms 542-1322 and 542-1324 to the Department's Main and local Field offices within 45 days of sample collection in accordance with Special Provision #5h.

You are also required to prepare and submit (see Special Provision #2b.) a plan describing the method of dust control utilized in freezing weather instead of wetting. The plan, due by October 1, 2001, shall address dust control relative to CKD waste transport and disposal activities.

The Department hereby acknowledges receipt of a copy of the property deed for legal entitlement for inclusion with your permit renewal application. We should also inform you that on May 31, 2001 we received the five-year in-situ permeability testing of the monitoring wells dated May 23, 2001 and prepared by Geotechnical Services Inc. These documents have been placed in the permit record files for this facility.

Laura Hopkins-Hiles, Environmental Manager
Lafarge Davenport Plant Operating CKD Landfill
Permit Renewal

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August 27, 2001

If you have any questions regarding this permit, please contact Jeff Simmons at (515) 281-8968 or F. Doc Hallada at 281-6807.

Sincerely,



Lavoy Haage
Supervisor
Solid Waste Section

LHJNS\O:LAFA_PMT01X.doc

Attachment

copy: Brian Petermann, P.E.
Black & Veatch Corporation
11401 Lamar
Overland Park, KS 66211

DNR Field Office #6

F. Doc Hallada, DNR

Jeff Simmons, DNR

**IOWA DEPARTMENT OF NATURAL RESOURCES
SANITARY DISPOSAL PROJECT PERMIT**

- I. Permit Number:** 82-SDP-16-97P
Lafarge Davenport Plant Operating CKD Landfill
- II. Permitted Agency:** Lafarge Corporation
- III. Project Location:** A part of the N $\frac{1}{2}$, NE $\frac{1}{4}$ of Section 23 and a part of the S $\frac{1}{2}$, SW $\frac{1}{4}$, SE $\frac{1}{4}$ of Section 14, both in T77N, R2E, Scott County, Iowa. The development area is located between N 1500 to N 2300 and W 250 to E 500.

IV. Responsible Official

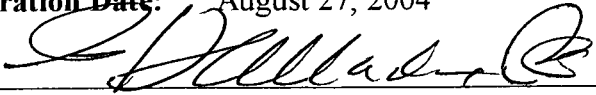
Name: Laura Hopkins-Hiles, Environmental Manager
Address: Lafarge Corporation
301 East Front Street
Buffalo, IA 52728
Phone: 563/328-6256
FAX: 563/323-7001

V. Licensed Design Engineer

Name: Brian Petermann, P.E.
Address: Black & Veatch Corporation
11401 Lamar
Overland Park, KS 66211
Phone: 913/458-7459
FAX: 913/458-2934

Iowa License Number: 14115

- VI. Date Permit Issued:** August 27, 2001
- VII. Permit Expiration Date:** August 27, 2004

VIII. Issued by: 
Land Quality and Waste Management Assistance Division
for the Director



IX. General Provisions

The above named permitted agency is hereby authorized to operate a sanitary landfill at the described location in conformance with Iowa Code chapter 455B, the rules pursuant thereto existing at the time of issuance, and any subsequent new rules which may be duly adopted, and any provisions contained in Section X of this permit.

The project shall be operated according to the engineering plans and specifications approved by the Department of Natural Resources and these shall become a part of this permit. Any modifications or deviations from the engineering plans and specifications must have prior approval by the Department and an amendment to this permit issued.

The permitted service areas and conditions are specified in Special Provision #1 in Section X. Any deviations from the specified comprehensive planning documents, including changes in waste accepted from outside the permitted service areas, or any changes in the amount of waste, or changes in the waste stream shall have prior comprehensive planning approval by the Department.

The issuance of this permit in no way relieves the applicant of the responsibility for complying with all other local, state, and federal statutes, ordinances, and rules or other requirements applicable to the establishment and operation of this sanitary landfill.

No legal or financial responsibility arising from the construction or operation of the approved project shall attach to the State of Iowa or the Department of Natural Resources due to the issuance of this permit.

If title to this project is transferred, the new owner must apply to the Department for a transfer of this permit within thirty days of the date of title transfer. This permit is void sixty days after the date of title transfer unless the Department has transferred the permit.

In accordance with Chapter 455B.310 of the Iowa Code, the permit holder is exempted from solid waste tonnage fees for CKD disposal at the permitted landfill. This exemption does not relieve the permit holder from the tonnage reporting requirements listed below.

The permit holder shall file a quarterly Fee-Exempt Material Quarterly Report utilizing the Department's Form 542-3276FE for all wastes received, recycled/reused, and disposed at the sanitary landfill in accordance with Iowa Code section 455B.310. The quarterly report shall incorporate a detailed breakdown of all accepted solid waste authorized under this permit.

The Fee-Exempt Material Quarterly Reports will be due January 1, April 1, July 1 and October 1 for the quarters ending September 30, December 31, March 31 and June 30, respectively. The permit holder shall mail the completed form to the Waste Management Assistance Bureau, Wallace State Office Building, 502 East Ninth Street, Des Moines, Iowa 50319. This reporting procedure supersedes any previous conflicting permit provisions.

Solid waste disposed at this site shall not exhibit free liquids, toxic or hazardous properties. No hazardous wastes as defined by Iowa Code section 455B.411 may be disposed at this landfill.

This facility shall be staked as necessary and inspected on a semiannual basis by a professional engineer licensed in the State of Iowa. The engineer shall prepare a brief report describing the site's conformance and nonconformance with the permit and the approved plans and specifications during the inspections. These reports shall be submitted by May 1 and November 1 each year to the Department's Main and local Field offices. The Department shall be notified if any inspection reveals any nonconformance with the permit and approved plans and specifications.

Failure to comply with Iowa Code chapter 455B, or any rule of order promulgated pursuant thereto, or any or all provisions of this permit may result in 1) a civil penalty of up to \$5000 for each day of violation, pursuant to Iowa Code section 455B.307, or 2) the suspension or revocation of this permit, pursuant to Iowa Code section 455B.305.

X. Special Provisions

1. The permit holder is authorized to accept cement kiln dust (CKD) for disposal in accordance with the approved Lafarge Corporation Comprehensive Plan, Part I. The Comprehensive Plan, Part I as approved by the Land Quality and Waste Management Assistance Division on July 2, 2001; any approved amendments to the plan; and the latest plan update; are hereby incorporated as permit plan documents.

The permitted service area is limited to CKD waste generated on site in accordance with the provisions of this permit.

In accordance with 567 IAC 101.5(7), the permit holder shall submit the Comprehensive Solid Waste Management Plan, Part I update to the Department approved plan at the time of permit renewal, due 90 days prior to expiration of this permit.

2. The permit holder shall develop, operate, and close the site in accordance with the Closure and Development Plan and Supplement to the Closure and Development Plan approved on August 25, 1997 and the following conditions:
 - a. During CKD transport activities from the plant to the disposal site, all necessary measures shall be taken to prevent blowing dust.
 - b. The CKD will be conditioned (pelletized) prior to disposal in order to reduce the potential for dust generation. The conditioned material will be wetted and compacted during disposal to minimize permeability and enhance the strength of the CKD deposit. Wetting of the conditioned material is not allowed when ambient temperatures fall below 32° F.

The permit holder shall prepare a plan that describes the dust control method to be utilized during freezing weather in lieu of wetting. The plan shall be submitted by October 1, 2001 to the Department's Main office for consideration of issuance of an amendment to incorporate the plan into the permit.

- c. Solid waste at the site may remain uncovered on a daily or weekly basis as authorized by the Department letter dated July 31, 1997 as long as wind and water do not erode the disposed waste and dust emissions are controlled.
- d. The permit holder shall apply an intermediate soil cover of two feet to areas of the landfill that will not be utilized for more than two months.
- e. The active work face shall be kept to a minimum and shall be smoothed out and compacted to promote drainage of precipitation while reducing erosion and infiltration.

3. Surface water shall be diverted around the fill area and surface drainage shall be provided at the toe of the working face.
4. An all weather fill area accessible during all weather conditions under which solid waste is received and disposed at the site shall be provided at all times.
5. Hydrologic monitoring at the site shall be conducted in accordance with the Hydrologic Monitoring System Plan (HMSP) approved on August 25, 1997 and the following provisions:

- a. The HMSP shall include groundwater monitoring points MW-1A, MW-1B, MW-3, MW-3L, MW-7 (upgradient) and MW-4, MW-5, MW-11, MW-12, and Quarry Sump (downgradient). Additionally, the dry leachate monitoring wells MW-8, MW-9, and MW-10 will be monitored for the presence of leachate and shall be sampled if they produce leachate.
- b. Department construction documentation form 542-1277 and boring logs for all monitoring wells and piezometers shall be submitted within 30 days of installation. Department construction documentation form 542-1323 shall be submitted within 30 days of establishing surface water monitoring points.

Abandonment of any monitoring point requires prior approval by the Department.

- c. The permit holder shall collect water samples from each water quality monitoring point in March and September of each year. Samples shall be analyzed for the following parameters: arsenic, barium, cadmium, chromium, lead, copper, and zinc (dissolved metals) and pH, specific conductance, calcium, magnesium, sodium, potassium, chloride, sulfate, bicarbonate, and nitrates (indicator parameters).
- d. The elevation of water in each monitoring well shall be measured and recorded on a monthly basis.
- e. The Method Detection Limit (MDL) for the test parameters shall not exceed action levels as defined in 567 IAC chapter 133. If the action levels cannot be feasibly achieved using procedures described in 567 IAC 103.2(5), then the MDL shall not exceed the lowest feasible level.
- f. Samples collected for dissolved metals analysis shall be field filtered, preserved, and promptly transferred to a certified laboratory for analysis.
- g. If laboratory results exceed the upgradient mean plus two standard deviations or the Maximum Contaminant Level (MCL) for any parameter, the Department shall be notified within 30 days of receipt of the analytical results.
- h. Results of all analysis and the associated Department sampling forms 542-1322 and 542-1324 shall be submitted to the Department's Main and local Field offices within 45 days of the sample collection.

- i. An Annual Water Quality Report (AWQR) summarizing the effects the facility is having on groundwater and surface water quality shall be submitted to the Department's Main and local Field offices by November 30 each year. This report shall be prepared in accordance with 567 IAC 103.2(8)"d" by a Professional Engineer licensed in the State of Iowa. The AWQR shall include the results of the monthly groundwater measurements and the routine groundwater analyses conducted at the monitoring points.
6. Leachate collection, storage, treatment, and disposal areas shall be in accordance with the plans and documents approved on August 25, 1997 and the following conditions:
 - a. Leachate collected from the leachate control system shall be used or treated in one of the following manners: 1) Sprayed onto the active area of CKD disposal to control dust; 2) Utilized in the cement manufacturing process; 3) Evaporated; 4) Treated in an on-site facility with an NPDES permit; or 5) Discharged to a publicly owned treatment works (POTW). If the discharge is to a POTW with a pretreatment program approved by the Department, the discharge must comply with the terms and conditions of a local permit issued for the discharge by the POTW. If the discharge is to a POTW without an approved pretreatment program a completed treatment agreement form shall be submitted to the Department's Wastewater Section. Copies of the local permit or treatment agreement shall be provided to the Department's Solid Waste Section and the local Field office. The treatment agreement must be on DNR Form 31 (542-3221) and must comply with the requirements of 567 IAC 64.3(5).
 - b. The leachate control system shall be operated and maintained in accordance with the approved permit documents. The permit holder shall routinely collect the necessary information and evaluate the effectiveness of the system in controlling the leachate. All documentation shall be summarized in a Leachate Control System Performance Evaluation (LCSPE) Report. Effective control shall be considered as maintaining compliance with maximum leachate head as defined in 567 IAC 103.2(11)"a"(1), achieving the lowest possible leachate head as required in 567 IAC 103.2(12)"b"(2), and maintaining surface and groundwater quality standards at compliance monitoring points.
 - c. Leachate head levels and elevations shall be measured and recorded monthly at all piezometers. Records of leachate contaminants testing required by the treatment works and any NPDES permit for on-site treated leachate discharges shall be maintained.
 - d. The permit holder shall annually submit the LCSPE Report, including record data, as a supplement to the facility Annual Water Quality Report, as defined in 567 IAC 103.2(8). The performance evaluation shall include proposed additional leachate control measures and an implementation schedule in the event that the constructed system is not performing effectively.
7. By means of a variance under the Departmental letter dated August 21, 1997, the permit holder is exempt from the monitoring and reporting of site methane concentrations as required by 567 IAC 103.2(15). This exemption was granted based on the presently defined waste stream consisting exclusively of inorganic industrial waste materials.

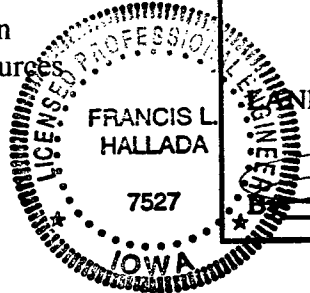
8. The Emergency Response and Remedial Action Plan (ERRAP) submitted by Lafarge Corporation and dated March 19, 2001 in compliance with Iowa Code paragraph 455B.306(6)“d” was approved by the Department on March 27, 2001. The permit holder shall submit an ERRAP that complies with 567 IAC 102.16 at the time of the next permit renewal application due after December 31, 2001. However, an updated ERRAP meeting 567 IAC 102.16 shall be submitted with any request for approval of any facility expansion or significant changes in facility operation prior to the next renewal.
9. By means of a variance under the Departmental letter dated July 31, 1997, the permit holder is exempt from having a certified sanitary landfill operator on duty during all hours of operation at the site as required by 567 IAC 102.13(1). However, Lafarge Corporation is required to have a certified operator at the generation station to direct and monitor landfill operation as proposed. The certified operator shall visit the landfill site as often as necessary but not less than once a week.



March 16, 2001

Land Quality Bureau
Environmental Protection Division
Iowa Department of Natural Resources
Henry A. Wallace Building
900 East Grand Avenue
Des Moines, IA 50319-0034

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| PLANS AND SPECIFICATIONS APPURTENANT TO | |
| PERMIT FOR SANITARY DISPOSAL PROJECT | |
| NO. | <u>82-SDP-16-97P</u> |
| DATED | <u>8/27/01</u> |
| IOWA DEPARTMENT OF NATURAL RESOURCES | |
| LAND QUALITY & WASTE MANAGEMENT ASSISTANCE DIVISION | |
| | |



Dear Mr. Simmons:

Enclosed please find the following for your review to authorize re-permitting of the Lafarge Corporation's operating landfill:

- Form 50 – IDNRs Resources Application for Sanitary Disposal Project Permit
- An addendum to both permits 82-SDP-16-97P and 82-SDP-15-96C as requested in Lavoy Haage's correspondences dated February 27th, and March 1st, 2001.
- Hydrologic Monitoring System Plan (HMSP),
- Site Development and Operational Plans and Specifications (DOPS),
- Leachate Control Plan (LCP), and
- Closure and Post-Closure Plan (CPCP).

There have been no substantive changes in the design or operation of this facility from the time of original plan and application certification and submittal and no revisions to the original plans are required. The only change is the fact that I, Laura Hopkins-Hiles, am now the Environmental Manager and person responsible for project operation.

If you have any questions please feel free to contact me at 319-328-6256.

Kind Regards,

Laura Hopkins-Hiles
Environmental Manager
Lafarge Corporation
P.O. Box 4049
Davenport, IA 52808

Permit Holder

**LAFARGE CORPORATION
CORPORATE TECHNICAL SERVICES**

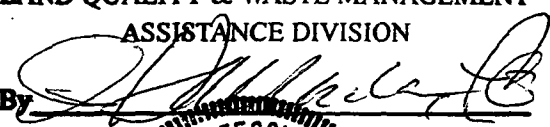
CEMENT KILN DUST

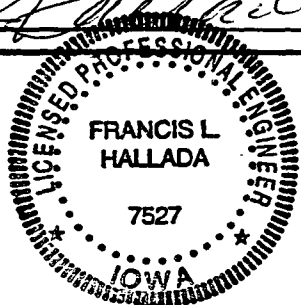
CLOSURE AND DEVELOPMENT PLAN

LAFARGE DAVENPORT PLANT

**PLANS AND SPECIFICATIONS
APPURTENANT TO
PERMIT FOR SANITARY DISPOSAL PROJECT
NO. 82-SDP-16-97P
DATED 8/27/01**

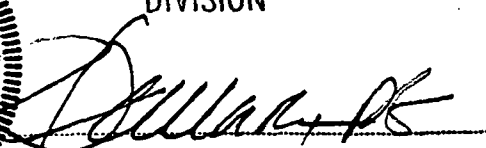
**IOWA DEPARTMENT OF
NATURAL RESOURCES
LAND QUALITY & WASTE MANAGEMENT
ASSISTANCE DIVISION**

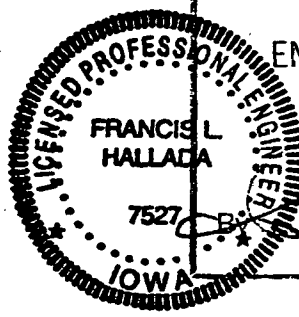
By 



**PLANS AND SPECIFICATIONS
APPURTENANT TO
PERMIT FOR SANITARY DISPOSAL PROJECT
NO. 82-SDP-15-96C
DATED 82-SDP-16-97P, 19
8/25/97**

**IOWA DEPARTMENT OF
NATURAL RESOURCES
ENVIRONMENTAL PROTECTION
DIVISION**

By 



Jan, 97