STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAVID P. LITTELL
COMMISSIONER

Dragon Products Company, Inc.
Knox County
Thomaston, Maine
A-326-77-1-A

Departmental
Findings of Fact and Order
Regional Haze
Best Available Retrofit Technology
Determination

After staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A, §344, §582, §590 and §603, the Department finds the following facts:

I. REGISTRATION

A. Introduction

FACILITY	Dragon Products Company, Inc. (Dragon)
INITIAL LICENSE NUMBER and AMENDMENTS	A-326-70-A-I A-326-70-B-A
LICENSE TYPE	BART Determination Amendment
NAICS CODES	32731
NATURE OF BUSINESS	Cement Manufacturing
FACILITY LOCATION	Thomaston, Maine
DETERMINATION ISSUANCE DATE	April 3, 2008

Best Available Retrofit Technology (BART) is defined in 38 MRSA §582, sub-§5-C as an emission limitation based on the degree of reduction achievable through the application of the best system of continuous emission reduction for each visibility-impairing air pollutant that is emitted by an existing stationary facility. The emission limitation must be established, on a case-by-case basis, taking into consideration the technology available, the costs of compliance, the energy and non-air quality environmental impacts of compliance, any pollution control equipment in use or in existence at the source, the remaining useful life of the source, and the degree of improvement in visibility that may reasonably be anticipated to result from the use of such technology.

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769-2094
(207) 764-0477 FAX: (207) 760-3143

web site: www.maine.gov/dep

A facility is determined to have BART eligible emission units if the following criteria outlined in the Regional Haze Rule found in 40 CFR, Part 51 are met:

1. The facility falls into one the 26 source specific categories identified in the Clean Air Act (CAA) of 1977,
2. The facility has emission units that entered operation in the 15 years prior to the adoption of the CAA, and
3. The facility has the potential to emit more than 250 tons/year of a single visibility impairing pollutant from units that fall under criteria #2.

Per 38 MRSA §603-A, sub-§8; for those BART eligible units determined by the Department to require additional sulfur air pollution controls to improve visibility, the controls must:

1. Be installed and operational no later than January 1, 2013; and
2. Either:
    a. Require the use of oil having 1% or less of sulfur by weight; or,
    b. Be equivalent to a 50% reduction in sulfur dioxide emissions from a BART eligible unit based on a BART eligible unit source emission baseline determined by the Department under 40 CFR, Section 51.308 (d)(3)(iii)(2006) and 40 CFR, Section 51, Appendix Y (2006).

B. Emission Equipment

The following emission unit is determined to be BART eligible under 40 CFR, Section 51:

CAA Source Specific Category	Emission Unit	Unit Capacity	Date of Start-up
Portland Cement (category 4)	Kiln	440 MMBtu/hr	1971 Initial start-up; 2004 Modification from a wet system to a dry system

II. EMISSION UNIT AND CONTROL EQUIPMENT DESCRIPTION

A. Kiln

The cement rotary kiln was originally built in 1971 as a wet process cement kiln with a capacity of 306 MMBtu/hr. In 2004, Dragon modernized the kiln system by converting it to a more efficient dry cement manufacturing process with a capacity of 440 MMBtu/hr.

The kiln may fire the following fuels: a coal/coke blend, a #2-#4 fuel oil blend, specification and non-specification waste oil, and whole tires and tree chips. In addition to the main raw materials of oxides of calcium (limestone), silica, aluminum, and iron, the raw materials may also include petroleum-contaminated soils, landfill leachate, petroleum-contaminated water, fly ash, Kraft pulp mill green liquor dregs, lime mud and lime wastes, slaker grit, and foundry sand. Clinker is produced in the calciner and the counter-current rotary kiln where chemical reactions occur during high temperature processing. The burners at the discharge end of the kiln produce a current of hot gases that heat the clinker, the calcined material and raw materials in succession as the hot gases pass upward toward the feed end.

The license modification for the converted kiln system included a BACT (Best Available Control Technology) analysis. The BACT findings for the new dry process have been determined to be appropriate BART requirements for the kiln system at Dragon. [Note: The kiln system includes emissions from the in-line raw mill and alkali (preheater) bypass emitted from the common main kiln stack.]

BART Determination

1. PM
   Dragon shall operate a baghouse to control PM emissions from the kiln system to 9.4 lb/hr and 0.3 lb/ton dry kiln feed.

2. SO_2
   Dragon shall limit SO_2 emissions from the kiln system to 70.0 lb/hr on a 90 day rolling average and 306.6 tons/year.

3. NO_x
   Dragon shall operate an SNCR (Selective Non-Catalytic Reduction) system to reduce NO_x emissions from the calciner, which will reduce NO_x emission from the kiln system to 350.0 lb/hr on a 90 day rolling average and 1533.0 tons/year.

B. Implementation Dates

The BART determination for the Kiln is currently required in existing Air Emission Licenses. No further implementation is required.

ORDER

The Department hereby finds that Dragon Products Company, Inc. is meeting the requirements of 40 CFR, Part 51 as currently licensed.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

DONE AND DATED IN AUGUSTA, MAINE THIS 3rd DAY OF April , 2008.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: James P. Brooks for
DAVID P. LITTELL, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date filed with the Board of Environmental Protection: _____

This Order prepared by Kathleen E. Tarbuck, Bureau of Air Quality.

FILED
APR - 4 2008
BOARD OF ENVIRONMENTAL PROT.
STATE OF MAINE