IN THE MATTER OF

DRAGON PRODUCTS COMPANY, LLC	)	SOLID WASTE and
THOMASTON, KNOX COUNTY, MAINE	)	NATURAL RESOURCES
CLOSURE, RECLAMATION and	)	PROTECTION and FRESHWATER
NRPA	)	WETLAND ALTERATION and
#S-020777-WO-B-N	)	WATER QUALITY
#S-020778-WO-C-N	)	CERTIFICATION
#L-4152-TH-T-N	)	
(APPROVAL WITH CONDITIONS)	)	NEW LICENSE

Pursuant to the provisions of 38 M.R.S.A. Sections 480-A et seq. and 1301 et seq., 06-096 CMR Chapters 400 (effective January 23, 2001), 401 (effective September 6, 1999) and 405 (effective June 16, 2006), Solid Waste Management Regulations (Regulations), 06-096 CMR 310 (effective December 5, 2006), Wetland and Waterbodies Protection, and Section 401 of the Federal Water Pollution Control Act, the Board of Environmental Protection (Board) has considered the application of DRAGON PRODUCTS COMPANY, LLC (Dragon or applicant) with its supportive data and other related materials on file and FINDS THE FOLLOWING FACTS:

1. APPLICATION SUMMARY

A. Application: The applicant has applied for closure and reclamation of two waste storage piles, the Cement Kiln Dust (CKD) Storage Pile and the Waste Clinker Storage Pile, at its Thomaston manufacturing plant. The applicant has also applied for approval to alter 80,966 square feet of emergent, wet meadow and scrub shrub wetland to construct an engineered leachate pond at the southern terminus of the Waste Clinker Storage Pile.

B. History: Dragon operates a cement manufacturing plant in Thomaston, Maine. Cement production began at the plant in 1927. The entire Dragon site is approximately 1,100 acres in size. The cement manufacturing process starts with raw ingredients that include limestone, sand and iron ore. The raw materials are ground into a powder and sent through the cement kiln at very high temperatures. The raw materials emerge from the kiln as clinker. Clinker is then interground with gypsum to form cement. Heat within the kiln runs counter to the flow of the feedstock. Material blown back with the heat currents is captured in the kiln air pollution control device (kiln baghouse). This material is known as cement kiln dust (CKD). Previously, clinker that did not meet strict quality control specifications (such as strength, color and chemical composition) was removed from the process and stockpiled. This material is known as waste clinker. Dragon's plant in Thomaston produces approximately 500,000 tons of portland cement per year.

DRAGON PRODUCTS COMPANY, LLC THOMASTON, KNOX COUNTY, MAINE CLOSURE and RECLAMATION and NRPA #S-020777-WO-B-N #S-020778-WO-C-N #L-4152-TH-T-N (APPROVAL WITH CONDITIONS)	2))))))))	SOLID WASTE and NATURAL RESOURCES PROTECTION and FRESHWATER WETLAND ALTERATION and WATER QUALITY CERTIFICATION NEW LICENSE

The Waste Clinker Storage Pile was established in the 1940s or earlier and encompasses an area of approximately 12 acres east of the cement kiln. Prior to reclamation activities, ~~T~~the stockpile containeds ~~an~~ estimated 304,000 tons of waste clinker in addition to an unknown quantity of waste cement, refractory and coating material, limestone and rock, and coal. Since 1996, waste clinker has been reused in the kiln feed process and no new waste clinker has been placed in the stockpile.

The CKD Storage Pile was established in 1970 and encompasses an area of approximately 15 acres west of the cement kiln. Prior to reclamation activities, ~~T~~the stockpile containeds ~~an~~ estimated 845,000 tons of CKD. Prior to 1969, Dragon discharged CKD directly to the atmosphere. In 1969 and 1970, Dragon installed a fabric filtration system for capturing airborne CKD. With the collection of CKD in the early 1970s, Dragon began stockpiling CKD in and adjacent to Quarry #4. In 1996, Dragon installed a dust scoop recycling system that allowed for the reintroduction of newly generated CKD back into the process. This substantially reduced the amount of CKD that was generated. The CKD Storage Pile has received no net addition of CKD material since 1998 and no new CKD has been added to the pile since 2004.

On December 31, 1991, Dragon submitted two special waste landfill license applications, one for the CKD Storage Pile and one for the Waste Clinker Storage Pile, to the Department of Environmental Protection (Department) for review and approval. Those applications were accepted as complete for processing on January 21, 1992. Since 1992, the Department and Dragon have had ongoing discussions and negotiations concerning issues related to the licensing and regulation of the piles.

Dragon has been monitoring groundwater quality at the CKD and Waste Clinker Storage Piles since 1991. Based on that groundwater quality monitoring data, the Department documented impacts in monitoring wells associated with the CKD Storage Pile. In April 2005, as part of a corrective action plan in response to those groundwater impacts, Dragon proposed to place a 12-inch barrier layer overlain by topsoil and vegetation on all but four acres of the CKD Storage Pile. The Department approved this corrective action plan in May 2005 and Dragon began regrading and covering the CKD Storage Pile in July 2005. In October 2005, Dragon finished covering all but four acres of the CKD Storage Pile.

On June 22, 2005, the Department issued a Schedule of Compliance (SOC) to Dragon which required several items to be addressed. Among them, Dragon was required to update its Operations Manual for the storage piles; complete feasibility studies for the reuse of waste clinker and CKD in the cement-making process; and submit an annual report to the Department documenting compliance with the SOC. Thus far, Dragon has complied with all of the requirements of the SOC.

DRAGON PRODUCTS COMPANY, LLC	3)	SOLID WASTE and
THOMASTON, KNOX COUNTY, MAINE	)	NATURAL RESOURCES
CLOSURE and RECLAMATION and	)	PROTECTION and FRESHWATER
NRPA	)	WETLAND ALTERATION and
#S-020777-WO-B-N	)	WATER QUALITY
#S-020778-WO-C-N	)	CERTIFICATION
#L-4152-TH-T-N	)	
(APPROVAL WITH CONDITIONS)	)	NEW LICENSE

On October 6, 2005, the Board voted to assume jurisdiction over the pending solid waste license applications and to hold a public hearing on the matter. A public hearing on the matter was held on September 21 and 22, 2006 and February 15, 2007.

On December 22, 2005, in view of the fact that the use of the solid waste facilities had changed since the original application submission, Dragon submitted modified license applications that proposed the closure and reclamation of both the CKD Storage Pile and the Waste Clinker Storage Pile. In January 2006, the Department changed the administrative codes for the pending Waste Clinker Storage Pile and CKD Storage Pile license applications from S-020777-WD-A-R and S-020778-WD-A-R to S-020777-WO-B-N and S-020778-WO-C-N, respectively. This change was strictly administrative in nature and coded the license applications as closure and reclamation rather than operating special waste landfills.

On May 24, 2006, Department staff inspected the Waste Clinker and CKD Storage Piles. A significant leachate breakout was observed on the south side of the CKD Storage Pile. Dragon was required to submit a corrective action plan to correct this problem. On July 12, 2006, Dragon submitted a work plan to investigate the cause of the leachate breakout. The information obtained during this investigation was used to develop the leachate control plan contained in Dragon's current applications.

During the course of the Department's review of the pending solid waste closure and reclamation applications, the Department recommended locating the leachate storage pond for the Waste Clinker Storage Pile to the south side of that pile. This area is the geographic low point and would allow the applicant to capture and store all leachate from the Waste Clinker Storage Pile. Leachate from the south end of the Waste Clinker Storage Pile currently drains to this area and has since the creation of the pile. The applicant modified its application to reflect the Department's recommendation. The location of the proposed leachate storage pond is such that construction of this pond will impact a wetland and requires a Natural Resources Protection Act (NRPA) license. On October 25, 2006, Dragon submitted the required NRPA license application. The application was accepted as complete for processing on November 15, 2006. On January 18, 2007, the Board voted to assume jurisdiction over the NRPA license application.

A public hearing on the solid waste license applications was held on September, 21 and 22, 2006 and February 15, 2007. All parties were allowed to present testimony regarding the NRPA license application at the February 15, 2007 public hearing.

On February 6, 2007, the applicant's attorney forwarded a letter informing the Department that Dragon Products Company, Inc. had been converted from a Delaware corporation to a Delaware limited liability company and its name was

changed to Dragon Products Company, LLC. Dragon Products Company, LLC is a company in good standing and is authorized to conduct business in Maine.

C. Summary of Proposal:

(1) Waste Clinker Storage Pile: Dragon is proposing to close and reclaim the Waste Clinker Storage Pile. The applicant proposes to construct a 1.84 million-gallon high density polyethylene (HDPE) geomembrane-lined leachate storage pond at the southern terminus of the Waste Clinker Storage Pile in the area of the historical unlined leachate impoundment, impacting 80,966 square feet of emergent, wet meadow and scrub shrub wetland. The applicant is proposing to construct the pond in the proposed location to protect surface and ground water resources from potential adverse effects during storage and reclamation of the waste clinker material. The pond is sized to contain the leachate flow from the entire Waste Clinker Storage Pile during a 25-year/24-hour rainfall event. The applicant proposes to excavate existing sediments in the area and line it with a 60-mil (0.06-inch) HDPE geomembrane. The pond will cover an approximate area of 56,000 square feet with a depth, including two feet of freeboard, of 7 feet. The interior slopes will be graded to 3 horizontal feet to 1 vertical foot (3H:1V) and the exterior slopes will be graded to 2H:1V. A series of 4-inch perforated HDPE collection pipes bedded in stone will be installed under the pond liner to collect groundwater flows and alleviate pressures on the liner. A new pump station will be installed at the pond's northwest corner to accept leachate from the pond and pump up to 125 gallons per minute to the cement kiln for recycling and reuse within the kiln's pre-heater conditioning tower. In addition, an emergency overflow will be constructed at the southeast corner of the pond to maintain the integrity of the pond during a rainfall event greater than the designed 25-year/24-hour rainfall event.

Dragon is also proposing the construction of a toe drain to collect leachate moving radially from beneath the Waste Clinker Storage Pile and direct it to a new pump station from which it will be directed into the leachate transport system. The applicant is proposing to collect runoff from the open area of the pile in HDPE geomembrane-lined swales and direct it to the leachate storage pond. All leachate collected in the storage pond, toe drain, and underdrain will be pumped through existing force mains into the two two-million-gallon leachate storage tanks adjacent to the cement kiln for storage prior to reuse in the cement kiln's pre-heater conditioning tower.

The applicant is proposing to reclaim the Waste Clinker Storage Pile to an elevation that matches the existing topography. Reclamation activities at the Waste Clinker Storage Pile consist of excavation, crushing, screening, and removal of waste clinker material for recycling in Dragon's cement kiln. The applicant anticipates reclaiming at least 30,000 tons of waste

clinker per year and estimates that reclamation of the Waste Clinker Storage Pile will be complete in four to seven years. After the Waste Clinker Storage Pile reaches final grades, the applicant intends to remove the HDPE geomembrane-lined pond and reestablish the wetland with vegetation by regrading, soil placement and replanting the area. Once the pond is removed, the applicant intends to place a deed restriction on the restored area.

(2) CKD Storage Pile: Dragon is proposing to close and reclaim the CKD Storage Pile. In 2005, Dragon covered approximately 11 acres of the 15-acre pile with a 12-inch barrier layer overlain by topsoil and vegetation. The applicant is proposing to cover two additional acres with the same type of cover system.

Additionally, the applicant is proposing to reclaim the CKD Storage Pile. Reclamation activities at the CKD Storage Pile consist of excavation and removal of the CKD. It has not yet been determined whether Dragon will reclaim CKD material fromfro the part of the stockpile that is below grade in Quarry #4. The applicant proposes to achieve reclamation in 2-acre phases. Once a phase is completed, that area will be covered and a new 2-acre phase will be opened. Reclamation of the CKD Storage Pile is estimated to take approximately 60 years at current reclamation rates. However, as soon as the Waste Clinker Storage Pile is completely reclaimed, the applicant anticipates that the rate of CKD reclamation and recycling can be increased.

2. PUBLIC PARTICIPATION

A. Board Assumption of Jurisdiction Over Solid Waste Applications: On October 6, 2005, the Board voted to assume jurisdiction over the two pending solid waste license applications and to hold a public hearing on the matter.

B. Intervenors: The deadline for receipt of Petitions for Leave to Intervene was November 18, 2005. The Board received two timely Petitions for Intervention.

☎🗁① Town of Thomaston (Town): The Town, as an agency of local government, has the right to participate as an intervenor in accordance with the Maine Administrative Procedures Act. The Town expressed specific interest in matters potentially affecting the environment and the economy in Thomaston. The Town sufficiently demonstrated that it had a direct and substantial interest which may be affected by the proceedings, had reasonably specific contentions regarding the subject matter of the hearing and the appropriate statutory criteria, and was prepared and capable of participation in the hearing in order to support such contentions. Therefore, the Town's Petition for Intervention was approved by the Board in the First Procedural Order dated January 19,

2006. The Town was represented throughout the proceeding by the law firm of Gibbons & Calderwood, LLP.

☎🗎🕑 Neighbors for a Safe Dragon (NSD): NSD is a citizen's group consisting of abutters and neighbors of Dragon's Thomaston manufacturing plant and other mid-coast citizens. NSD's petition described various aspects of the operation and location of the CKD Storage Pile and Waste Clinker Storage Pile that it asserts adversely affect NSD members and the environment in which NSD members live, conduct business and recreate. The NSD petition demonstrated that it had a direct and substantial interest which may be affected by the proceedings, had reasonably specific contentions regarding the subject matter of the hearing and the appropriate statutory criteria, and was prepared and capable of participation in the hearing in order to support such contentions. Therefore, NSD's Petition for Intervention was approved by the Board in the First Procedural Order dated January 19, 2006. NSD was represented throughout the proceeding by the law firm of Perkins, Thompson, Hinckley & Keddy.

C. Pre-hearing Conferences: Two pre-hearing conferences were held at Department offices on March 14, 2006 and June 8, 2006. The purpose of the conferences was to review the responsibilities of the applicant and the intervenors, the relevant review criteria and issues to be addressed during the public hearing, the procedural rules that were to be followed in preparation for and during the hearing, and scheduling of the hearing.

D. Procedural Orders: Five Procedural Orders were issued pursuant to this proceeding.

☎🗁🕑 First Procedural Order: The First Procedural Order approved the Petitions for Intervention from the Town and NSD.

☎🗎🕑 Second Procedural Order: The Second Procedural Order documented the outcome of the first pre-hearing conference held on March 14, 2006. The purpose of the conference was to review the responsibilities of the applicant and intervenors, the relevant review criteria, the issues to be addressed at the public hearing, and the procedural rules to be followed in preparation for and during the public hearing. Following the first pre-hearing conference, in a letter dated March 28, 2006, NSD argued that the Board must reject the applicant's modifications to the pending applications and consider the original special waste landfill license applications that were submitted in 1992, that the geographic scope of the review be extended to the entire manufacturing plant where reclaimed CKD and waste clinker is handled, and that the relevant statutory review criteria be expanded. The Board's rulings in the Second Procedural Order clarified these issues.

DRAGON PRODUCTS COMPANY, LLC THOMASTON, KNOX COUNTY, MAINE CLOSURE and RECLAMATION and NRPA #S-020777-WO-B-N #S-020778-WO-C-N #L-4152-TH-T-N (APPROVAL WITH CONDITIONS)	7))))))))	SOLID WASTE and NATURAL RESOURCES PROTECTION and FRESHWATER WETLAND ALTERATION and WATER QUALITY CERTIFICATION NEW LICENSE

☎ Third Procedural Order: The Third Procedural Order documented the outcome of the second pre-hearing conference held on June 8, 2006. The purpose of the conference was to discuss a schedule for the public hearing, including submission of pre-filed testimony, site visit, and hearing date, and certain procedural matters associated with the organization and conduct of the hearing. The Order further clarified the role of Department staff during the public hearing.

☎ Fourth Procedural Order: The Fourth Procedural Order ruled on Dragon's motion to strike the testimony of certain NSD witnesses. The Board denied Dragon's motion. Additionally, NSD had requested a subpoena for the appearance of Dr. Andrew Smith, Maine State Toxicologist. The Board denied this request for subpoena.

☎ Fifth Procedural Order: The Fifth Procedural Order ruled on NSD's January 9, 2007 request for additional time to submit comments regarding the applicant's leachate management system associated with the Waste Clinker Storage Pile. The deadline for comments regarding this matter was January 5, 2007. The Board ~~ruled~~ denied NSD's request for additional time.

E. Board Assumption of Jurisdiction Over the NRPA Permit: Based on discussions with and recommendations from Department staff regarding leachate management at the Waste Clinker Storage Pile, Dragon proposed to relocate the leachate storage pond associated with the pile to the southern end of the pile. This design change will allow all rainfall hitting the pile to be treated as leachate, collected in a HDPE geomembrane-lined storage pond, and sent back to the cement kiln for use in the cement-making process. Since the proposed leachate storage pond is located in a wetland, Dragon was required to submit an application for a NRPA license to the Department. Because the NRPA project and the solid waste projects are closely connected, the Board voted on January 18, 2007 to assume jurisdiction over the NRPA license application.

F. Public Hearing: The Board's Third Procedural Order required pre-filed direct testimony by August 10, 2006. Additionally, pre-filed rebuttal testimony was due on September 14, 2006. Prior to the public hearing, a site visit was conducted on August 17, 2006. The site visit was attended by Board members, staff to the Board, Department project staff, the applicant, and counsel representing the intervenors. A public hearing regarding the two solid waste applications was held on September 21 and 22, 2006. The applicant, the Town and NSD were given the opportunity to present testimony and to cross-examine the other parties. A public comment session was held on the evening of September 21, 2006. At the conclusion of the Board's session on September 22, 2006, the record was held open on a limited number of issues to receive specific documents, including those associated with revisions to the Waste Clinker Storage Pile leachate management system. The hearing was continued until February 15, 2007, at which time the

applicant and intervenors were given the opportunity to present testimony regarding the revisions to the leachate storage pond design associated with the Waste Clinker Storage Pile and the NRPA application. At the conclusion of the February 15, 2007 hearing, the record was closed.

G. Request to Reopen Record: On February 13, 2007, NSD filed a motion to reopen the record for additional evidence to be presented. At its regular meeting on March 1, 2007, the Board voted to deny NSD's request.

3. TITLE, RIGHT OR INTEREST

In accordance with Chapter 400.4(A), the applicant has submitted deeds, as filed with the Knox County Registry of Deeds, for the parcel of property under its ownership where the CKD and Waste Clinker Storage Piles are located.

Therefore, the Board finds that the applicant has demonstrated sufficient title, right, or interest to the property on which the facilities are located.

4. FINANCIAL ABILITY

A. Funding for Development, Operation, Closure and Post-closure Care of the Solid Waste Facilities: Chapter 400.4(B) of the Regulations requires the applicant to demonstrate the financial ability to "design, operate, maintain, close and (if applicable) accomplish the post-closure care of solid waste facilities in a manner consistent with all applicable requirements." The applicant has submitted cost estimates for the design and permitting, closure, post-closure care and maintenance, and reclamation activities for the two solid waste facilities. As designed, the total design and permitting costs are estimated to be $24,000; the closure costs are estimated to be $495,000; the post-closure care and maintenance costs are estimated to be $170,000; and the reclamation costs are estimated to be $165,000 annually. Dragon proposes to fund these activities through internally generated funds. Dragon Products Company, LLC is wholly-owned by a company named Giant Cement Company. ~~a U.S. holding company named CDN-USA, Inc. CDN-USA, Inc. is wholly-owned by two Spanish cement producers, Cementos Portland, S.A. and Cementos Lemona S.A. The applicant has submitted financial information that indicates that CDN-USA has assets totaling in excess of $157,000,000 as of November 30, 2005. Additionally,~~ Dragon's earnings from 2005 totaled approximately $8,100,000.

The Board finds that the applicant has demonstrated that it has adequate financial capacity to undertake the proposed project consistent with the State's environmental standards and laws.

B. Financial Assurance: Chapter 400.4(B) further requires the applicant for a solid waste disposal facility to "provide adequate financial assurance for closure, post-care…in compliance with the financial assurance requirements of section 11."

The applicant proposes to meet this requirement through a surety bond and standby trust or other form of financial assurance allowed by Chapter 400.11. The amount of the financial assurance will be based on the costs of a third party completing the closure and post-closure activities which include: final grading; shaping; installation of cover; and establishment of surface water and erosion control features; inspections; site repair; and maintenance; mowing; groundwater and surface water monitoring; leachate management and treatment; and snow removal. The amount covered by the surety bond and standby trust or other form of financial assurance allowed by Chapter 400.11 will be updated annually.

The Board finds that Dragon will provide financial assurance sufficient to ensure that funds are available to pay for the anticipated costs of compliance with all solid waste facility closure, post-closure, and post-closure monitoring requirements for a period of 30 years after closure of the solid waste facilities provided that, within 60~~30~~ days of issuance of this Order, Dragon submits the surety bond and standby trust agreement or other form of financial assurance allowed by Chapter 400.11 for Department review and approval, Dragon implements the approved financial assurance mechanism, and Dragon updates the approved financial assurance mechanism on an annual basis in accordance with the Regulations.

5. TECHNICAL ABILITY

Chapter 400.4(C) of the Regulations requires the applicant to demonstrate that it has the technical ability to "design, construct, operate, maintain, close and (if applicable) accomplish post-closure care of the solid waste facility in a manner consistent with state environmental regulations."

Design and construction of the solid waste facilities ~~is~~are the responsibility of Dragon's Technical Department. Dragon's Technical Department has retained the services of Sevee & Maher Engineers, Inc. (SME) to oversee solid waste facility design, construction and closure. SME has expertise in geology, hydrogeology, civil engineering and landfill design.

Environmental monitoring, permit compliance and maintenance of the solid waste facilities ~~is~~are the responsibility of Dragon's Environmental Department. Dragon's Environmental Manager has over 20 years experience with regulatory compliance and is a State of Maine licensed Professional Engineer.

Detailed resumes of the responsible individuals were submitted as part of the applicant's pre-filed direct testimony affirmatively demonstrating the applicant's ability to design, construct, reclaim, maintain, close and monitor the solid waste facilities.

DRAGON PRODUCTS COMPANY, LLC THOMASTON, KNOX COUNTY, MAINE CLOSURE and RECLAMATION and NRPA #S-020777-WO-B-N #S-020778-WO-C-N #L-4152-TH-T-N (APPROVAL WITH CONDITIONS)	10))))))))	SOLID WASTE and NATURAL RESOURCES PROTECTION and FRESHWATER WETLAND ALTERATION and WATER QUALITY CERTIFICATION NEW LICENSE

The Board finds that the applicant has the technical ability to operate and maintain the solid waste facilities in a manner consistent with all applicable state environmental requirements.

6. TRAFFIC MOVEMENT

Chapter 400.4(D) of the Regulations requires that the applicant "make adequate provision for the safe and uncongested traffic movement of all types into, out of, and within the proposed solid waste facility."

Dragon currently operates large quarry dump trucks and a front-end loader to transport CKD and waste clinker. All travel associated with the reclamation activities will occur on internal roadways. Reclamation activities will not generate any additional traffic on public roadways. Internal access roads to and from the CKD and Waste Clinker Storage Piles are of varying widths from 15 feet to 50 feet and are a mixture of gravel and concrete~~asphalt~~.

The Board finds that the applicant has made adequate provisions for the safe and uncongested movement of traffic of all types into, out of, and within the solid waste facilities.

7. EXISTING USES AND SCENIC CHARACTER

Bird Hazard to Aircraft: The proposed reclamation activities associated with the CKD and Waste Clinker Storage Piles will not take place within 10,000 feet of any airport.

DRAGON PRODUCTS COMPANY, LLC THOMASTON, KNOX COUNTY, MAINE CLOSURE and RECLAMATION and NRPA #S-020777-WO-B-N #S-020778-WO-C-N #L-4152-TH-T-N (APPROVAL WITH CONDITIONS)	11))))))))	SOLID WASTE and NATURAL RESOURCES PROTECTION and FRESHWATER WETLAND ALTERATION and WATER QUALITY CERTIFICATION NEW LICENSE

Historic Sites: The Waste Clinker Storage Pile has been in existence since at least the 1940s and the CKD Storage Pile has been in existence since 1970. Additionally, the waste piles are located on the property of a manufacturing plant and the proposed reclamation activity is consistent with the current activities at the manufacturing plant. Reclamation of the CKD Storage Pile has been occurring since 2002 when Dragon received a Department-issued program approval license for the agronomic utilization of CKD. Reclamation of waste clinker has been occurring since 2005 when the applicant undertook a feasibility study pursuant to the SOC to determine whether waste clinker could be reintroduced back into the cement-making process.

Visual Impact: SME evaluated the proposed reclamation activities in terms of unreasonable interference with views from established public viewing areas as well as other potential viewshed locations. SME established that it was possible to view the CKD reclamation activities to the southwest of the pile on Route 1 and Route 131. In 2005, 11 acres of the 15-acre CKD Storage Pile were covered and vegetated improving the appearance of the pile. Additionally, the current application proposes to cover and vegetate another two acres of the pile, leaving only two acres uncovered for reclamation activities. The applicant also notes that as the CKD Storage Pile is reclaimed, the elevation of the pile will continue to decrease. SME did not identify any possible public viewing areas within the immediate vicinity of the Waste Clinker Storage Pile. The applicant is proposing to reclaim the entire Waste Clinker Storage Pile.

Noise: The applicant proposes to meet the requirements of Chapter 400.4(F)(2). The applicant proposes to use properly operating and maintained mufflers on all trucks and front-end loaders associated with reclamation of the CKD Storage Pile. Additionally, the applicant monitored noise levels at the closest residence to the CKD Storage Pile while conducting typical reclamation activities at the pile. The applicant reports that all readings were below the sound level limits listed in 400.4(F)(2). The applicant also monitored noise levels using a sound meter at the closest residence to the Waste Clinker Storage Pile during typical screening operations at the pile. The applicant reports that all readings were below the sound level limits listed in 400.4(F)(2).

Existing Uses of Neighboring Property: Neighboring property is currently used for mixed residential and commercial uses. The CKD and Waste Clinker Storage Piles are part of an industrial manufacturing plant which has been in existence since the 1920s. The existing residential and commercial uses will not be adversely impacted by the reclamation of the CKD and Waste Clinker Storage Piles.

Intervenor NSD argued that the CKD Storage Pile is a source of dust and as such adversely impacts residential and commercial uses and property. Air quality issues are discussed in Finding of Fact 8 of this Order.

DRAGON PRODUCTS COMPANY, LLC THOMASTON, KNOX COUNTY, MAINE CLOSURE and RECLAMATION and NRPA #S-020777-WO-B-N #S-020778-WO-C-N #L-4152-TH-T-N (APPROVAL WITH CONDITIONS)	12))))))))	SOLID WASTE and NATURAL RESOURCES PROTECTION and FRESHWATER WETLAND ALTERATION and WATER QUALITY CERTIFICATION NEW LICENSE

The Board finds that the proposed reclamation and closure activities will have no unreasonable adverse effect on existing uses and scenic character.

8. AIR QUALITY

Chapter 400.4(G) of the Regulations requires a demonstration that the proposed reclamation activities will "not unreasonably adversely affect air quality." The Regulations specifically require that the applicant control fugitive dust and nuisance odors.

Existing Air Emissions License: The applicant holds a current air emissions license (#A-326-70-A-I) for the entire manufacturing plant from the Department's Bureau of Air Quality pursuant to Chapter 140. This license states, "Visible emissions from fugitive emissions sources (including stockpiles and roadways) shall not exceed an opacity of 20 percent, except for no more than five (5) minutes in any 1-hour period. Compliance is determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20 percent in any one (1) hour."

Fugitive Dust: The applicant has submitted Operations and Maintenance Manuals for both the CKD and Waste Clinker Storage Piles which include a dust control plan. The applicant proposes to visually monitor for opacity at the CKD and Waste Clinker Storage Piles and associated access roads. The applicant proposes to suspend reclamation activities if opacity reaches 10 percent as measured on a 6-minute block average basis. Additionally, the applicant proposes to control fugitive dust using water on the CKD, waste clinker and access roads as necessary to maintain compliance with the ~~proposed 1~~20-percent opacity standard. The applicant also proposes to suspend reclamation activity at the CKD and Waste Clinker Storage Piles when weather conditions are such that the operations at the piles generate fugitive dust that may exceed applicable standards. Furthermore, many of the internal roads at the manufacturing plant are paved to reduce fugitive dust emissions.

NSD witnesses commented extensively about fugitive dust being generated from the CKD and Waste Clinker Storage Piles and the manufacturing plant in general. Abutters and neighbors to Dragon's Thomaston manufacturing plant testified that fugitive dust from the storage piles and the entire manufacturing plant adversely affected their lives, their health, and their ability to enjoy their property. Dragon introduced evidence that fugitive dust has not caused these adverse effects. However, this proceeding only addressed the closure and reclamation applications for the CKD and Waste Clinker Storage Piles and not the entire manufacturing plant.

Additionally, testimony from the general public was given during the evening session of the public hearing on September 21, 2006. Many were Dragon employees and business associates ~~and~~who spoke in support of Dragon. Several

long-term employees of Dragon testified that they had no adverse health effects from working at the manufacturing plant. Dragon's Human Resources Manager testified that no employee dust-related health issues had been reported to the company. Some members of NSD and the owner of a neighboring business also spoke and expressed concern and frustration regarding fugitive dust emissions from the CKD and Waste Clinker Storage Piles and the entire manufacturing plant. A representative from the Natural Resources Council of Maine (NRCM) spoke and urged the Board to require Dragon to control fugitive dust emissions and leachate originating from the waste piles. Department staff also received one written submission during the public comment period from a member of the public regarding fugitive dust from Dragon's cement manufacturing plant. The submission indicated that Dragon had improved its fugitive dust emissions from the cement manufacturing plant in the recent past but alleged that a neighboring business was responsible for significant fugitive dust emissions in the community. This information was forwarded to the Department's Bureau of Air Quality.

During the site visit on August 17, 2006, Board members observed that 11 acres of the 15-acre CKD Storage Pile had been covered and successfully vegetated and that the Waste Clinker Storage Pile is partially covered with vegetation minimizing the potential for fugitive dust emissions.

Odors: CKD and waste clinker are not putrescible materials and do not generate nuisance odors.

The Board finds that the proposed reclamation activities will not unreasonably adversely affect air quality provided that the applicant:

- Within ~~3~~60 days of issuance of this Order, updates the dust control sections of its Operations and Maintenance Manuals to meet the requirements of its air emissions permit (#A-326-70-A-I). Specifically, visible emissions from the stockpiles and associated access roads must not exceed an opacity standard of 20 percent, except for no more than five (5) minutes in any 1-hour period. Compliance is determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20 percent in any one (1) hour.
- Waters or ~~V~~vacuum sweeps all paved roads in dry weather in the immediate vicinity of the CKD and Waste Clinker Storage Piles on days when material is being reclaimed from the piles or transported off-site or at any time when dust is visible on paved access roads leading to and from the storage piles.
- Applies Department-approved dust control substances to ~~all~~ gravel roads used in the reclaim process in the immediate vicinity of the CKD and Waste Clinker Storage

Piles on dry weather days when material is being reclaimed from the piles or transported off-site.

- Installs, with Department review and approval of location, four (4) high volume air samplers, two (2) associated with the Waste Clinker Storage Pile and two (2) associated with the CKD Storage Pile, to monitor for fugitive dust emissions. Within ~~3~~60 days of issuance of this Order, a plan which proposes the locations and timeframe for placement of these monitors must be submitted to the Department for review and approval. The applicant must gather samples once a week at the associated monitoring stations whenever material is being reclaimed from either pile, except for periods of monitoring equipment malfunction. Samples must be collected and analyzed utilizing the method described in the Federal Register/ Vol. 47, NO.234/Monday, December 6, 1982/Rules and Regulations/ Appendix B - Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere (High-Volume Method). Additionally, once per week Dragon must collect and analyze samples from both samplers at one of the storage piles on the same day for quality assurance purposes. Dragon must submit a summary of air monitoring results to the Department with its solid waste annual report due April 30 of each year. Dragon must also make all monitoring data available for inspection at the Department's request. At the end of a one-year period, the data will be reviewed by the Department, and if warranted, the Department may extend the monitoring for an additional period.
- Installs, with Department review and approval of location, two (2) video cameras, one (1) associated with the Waste Clinker Pile and one (1) associated with the CKD Storage Pile, to monitor for fugitive dust emissions. Within ~~3~~60 days of issuance of this Order, a plan which proposes the locations and timeframe for placement of these cameras must be submitted to the Department for review and approval. The video cameras must be capable of taking one (1) frame every five (5) seconds. During reclamation activities, ~~T~~the video cameras must record continuously to monitor ~~for wind-blown fugitive dust and also~~ for fugitive dust emissions associated with the reclamation activities except for periods of camera equipment malfunction. Dragon must make all video records available for inspection at the Department's request. At the end of a one-year period, the data will be reviewed by the Department, and if warranted, the Department may extend the monitoring for an additional period.

9. SURFACE WATER QUALITY

Stormwater Management:

1) CKD Storage Pile: Stormwater runoff from the intermediate cover installed on the CKD Storage Pile during 2005 is collected in perimeter ditches and directed to a stormwater detention pond on the west side of the pile. The

detention pond is designed to accommodate peak stormwater flow rates from the drainage area at or below pre-cover rates during a 25-year/24-hour duration rainfall event. These stormwater control structures will also serve to control stormwater runoff from the additional 2-acre portion of the pile which Dragon is proposing to cover as part of this application. Stormwater from the active reclamation area will be contained by berms within the operating area and allowed to infiltrate into the pile.

2) Waste Clinker Storage Pile: Throughout the duration of reclamation activities, Dragon proposes to collect and contain all stormwater runoff from the Waste Clinker Storage Pile in HDPE geomembrane-lined perimeter channels and direct it to a HDPE geomembrane-lined leachate storage pond. It will be treated as leachate and used to supply the cement kiln's pre-heater conditioning tower. After completion of the reclamation project, an updated stormwater management plan will be prepared as part of the final closure design for the pile.

The Board finds that the proposed stormwater management plan will control run-on and run-off, and will infiltrate, detain, or retain water falling on the solid waste facilities during a storm of intensity up to and including a 25-year/24-hour duration rainfall event such that the rate of flow of stormwater from the solid waste facilities after closure and reclamation does not exceed the rate of outflow of stormwater from the solid waste facilities prior to closure and reclamation of the solid waste facilities as required by the Regulations.

Erosion and Sediment Control: To minimize erosion and sedimentation during reclamation, closure, and post-closure periods, Dragon proposes to implement a combination of temporary and permanent control measures. Temporary measures will include silt fence, stone check dams, bark mulch sediment barriers, stabilized construction entrances, and erosion control mats. Permanent measures will include lined ditches, riprap aprons and plunge pools, erosion control mats, topsoil, seed, and mulch. All erosion and sedimentation control measures will be installed and maintained in accordance with the *Maine Erosion and Sediment Control BMPs (March 2003)*. Erosion and sedimentation control inspection and maintenance programs have been developed for both the CKD and Waste Clinker Storage Piles.

The Board finds that the proposed project will not cause unreasonable sedimentation or erosion of soil.

LEACHATE MANAGEMENT SYSTEM

CKD Storage Pile: The CKD Storage Pile is an unlined waste storage pile located in a former schist quarry (Quarry #4). There is no underlying leachate collection system. Currently, leachate migrating through shot rock overburden to the northwest of the pile is being collected by an interceptor trench that drains to wet well manhole MH-Q4. Additional leachate seepage through shot rock overburden to the south and west of the pile was identified and delineated during 2006. As part of the closure and reclamation project, Dragon proposes to construct approximately 1650 linear feet of new interceptor trench along the south and west sides of the pile to collect the additional leachate seepage. The interceptor trench will consist of six and eight-inch diameter perforated HDPE collection pipe backfilled with drainage stone. It will be keyed into underlying clay deposits. The new interceptor trench will also drain to MH-Q4.

Waste Clinker Storage Pile:

A. Leachate Collection Channels: To collect and contain leachate runoff from the Waste Clinker Storage Pile, Dragon proposes to construct HDPE geomembrane-lined collection channels around the perimeter of the pile. The channels are sized to convey leachate runoff from a 25-year/24-hour duration rainfall event to the HDPE geomembrane-lined leachate storage pond. The leachate collection channels will be removed following completion of the reclamation project.

B. Toe Drain System: To collect leachate migrating radially away from the Waste Clinker Storage Pile, Dragon proposes to construct a four to twelve-foot deep toe drain around the perimeter of the pile. The toe drain will consist of a six inch diameter perforated HDPE collection pipe in a trench backfilled with drainage stone. It will drain to a new HDPE geomembrane-lined pump station at its low point from where it will be pumped to a reconstructed leachate pump station. The toe drain will continue to function after reclamation has been completed until the liquid collected indicates that the water quality in the toe drain is statistically comparable to background (monitoring well B-4).

C. Leachate Storage Pond: Dragon proposes to construct a 1.84 million-gallon temporary lined storage pond to contain leachate runoff from the Waste Clinker Storage Pile. The pond will be lined with a 60-mil (0.06-inch) HDPE geomembrane. Underdrains will be provided to control groundwater pressures beneath it. It has been sized to contain leachate runoff from a 25-year/24-hour duration rainfall event while maintaining a minimum of two feet of freeboard. The leachate storage pond will drain to a reconstructed leachate pump station. The applicant did not propose, as part of the Construction Quality Assurance (CQA) Program for installation of the HDPE geomembrane liner, to require inspector certification in accordance with the Geosynthetic Institute's recently established Construction Quality Assurance-Inspectors Certification Program (CQA-ICP) or equivalent on-going certification in accordance with the program established by the National Institute for Certification in Engineering Technology (NICET). The leachate storage pond will be decommissioned, and the natural wetlands in the area restored, following completion of the reclamation project.

Leachate Transport System: Leachate collected in MH-Q4 on the northwest side of the CKD Storage Pile is pumped directly through an existing force main system to two cylindrical concrete holding tanks with a combined capacity of two million gallons. Leachate collected in the proposed Waste Clinker Storage Pile toe drain pump station, and in the proposed leachate storage pond, will all be pumped through existing force mains to a common, existing transfer point located adjacent to Quarry #5. From the transfer point, it will be pumped through an existing force main system to two cylindrical concrete holding tanks with a capacity of two million gallons each. From there, it will be used to supply the cement kiln's pre-heater conditioning tower. All force mains have adequate capacity to convey the anticipated peak leachate flows.

NSD's expert witness suggested that Dragon should install extraction wells in the CKD Storage Pile in order to control leachate and prevent it from impacting surrounding ground and surface water. The Town's expert witness did not agree with this approach and deemed it to be impractical given the relatively low hydraulic conductivity (1×10^{-5} to 1×10^{-7} cm/sec) of the CKD. The Town asserted that leachate could more effectively be controlled through the use of an interceptor trench as proposed by the applicant. Department staff concur that the construction of the interceptor trench has a higher likelihood of effectively controlling leachate moving radially from the CKD Storage Pile.

The Board finds that the applicant has proposed leachate collection, conveyance and storage systems designed in accordance with the Regulations provided that:

- Within 360 days of issuance of this order, the applicant updates its CQA Plan for the installation of the HDPE geomembrane liner to require inspector certification in accordance with the Geosynthetic Institute's recently established Construction Quality Assurance-Inspectors Certification Program (CQA-ICP) or equivalent on-going

certification in accordance with the program established by the National Institute for Certification in Engineering Technology (NICET).

- Within ~~3~~60 days of issuance of this Order, the applicant updates its leachate management plan, including an updated water balance, to provide for storage and management of all leachate generated at the solid waste facilities during times when the kiln is not in operation. The updated water balance and leachate management plan must be based on the most critical conditions anticipated over the life of the project and consider the timing and maximum duration of kiln shut-downs, the available storage capacity of the two concrete leachate holding tanks, and the need to operate the proposed leachate storage pond within its design parameters, including the maintenance of two feet of freeboard.

ENVIRONMENTAL MONITORING PLAN

The Environmental Monitoring Plan (EMP) summarizes the sampling procedures and analytical methods to be used for water quality monitoring at the CKD and Waste Clinker Storage Piles. The Department has reviewed water quality monitoring that has been performed at the facilities since 1990. In 1998, the Department initiated discussions with Dragon regarding the development and implementation of an EMP for compliance with the requirements of Chapter 405 of the Regulations. Currently the facilities do not have a Department approved EMP. The proposed procedures, protocols, methods, and monitoring locations in the proposed EMP, dated December 28, 2006 and prepared by SME, meet the requirements of Chapter 405 of the Regulations.

CKD Storage Pile

A. Historical Monitoring and Investigations: Environmental monitoring was initiated at the CKD Storage Pile in 1990 with the installation of the B-1, B-2, and B-3 monitoring well series. Each well series includes a cluster of three monitoring wells installed at varying depths beneath the ground surface. The wells are constructed to monitor groundwater characteristics in the shallow overburden, deep overburden, and shallow bedrock. Monitoring of leachate collected in a detention pond located to the west of the pile (DQ-1) was also initiated at this time.

In 1998, as a result of discussions with the Department, Dragon modified its monitoring program to include additional parameters required by Chapter 405. A deep bedrock well (approximately 120 feet below ground surface) was installed at the B-1 well series (B-1Z).

In the spring of 1999 monitoring wells B-1A and B-3B were eliminated from the monitoring program due to low yielding groundwater and, in the

case of B-3B, the presence of CKD around the well screen. Dragon began submitting monitoring results to the Department in 1999 for the surface water monitoring location SP-1, located at the outlet of the constructed wetland to the south of the CKD Storage Pile.

Assessment monitoring was initiated at the B-2 well series (B-2, B-2A, and B-2B) in October 2004 as a result of statistically significant increases in groundwater parameter concentrations, in particular sulfate. These wells currently remain under Assessment Monitoring and will remain so until the Department makes a finding that successful corrective action has been completed.

Dragon initiated a Department approved corrective action by regrading and constructing an intermediate cover at the CKD Storage Pile in 2005. Approximately 75 percent of the CKD Storage Pile was covered with four acres on the east side of the pile remaining exposed. During the regrading process, monitoring point DQ-1 was eliminated. In the fall of 2005, Dragon reported a leachate breakout on the west side of the pile. Dragon responded by installing a shallow groundwater extraction well (MH-Q4) to the west of the pile. The leachate breakout was attributed to removal of the leachate detention pond west of the pile (where the former DQ-1 monitoring point was located) during regrading of the CKD Storage Pile.

On May 24, 2006, Department personnel observed brownish, high pH water in ground surface depressions of refilled test pits in the vicinity of the B-1 well series, south of the CKD Storage Pile. Dragon personnel and their consultant indicated that the purpose of the test pits was to assess the extent of “shot-rock” (the waste rock that is left over after quarrying has taken place) which was deposited during historical operation of Quarry #4, located beneath the CKD Storage Pile. The presence of the high pH water appeared to be the result of leachate migration from the CKD Storage Pile through the transmissive shallow “shot-rock” layer. The presence of “shot-rock” was also observed in an eroded area in the bottom of the “dry” stormwater detention pond to the west of the CKD Storage Pile.

Department personnel performed field measurements of pH, specific conductance and temperature at multiple surface water locations, primarily in the vicinity of the CKD Storage Pile. Results of these field measurements indicated high pH and specific conductance surface water at locations to the northwest, west, and south of the CKD Storage Pile.

Based on these results, the Department required that Dragon complete an investigation to determine the extent of the transmissive "shot-rock" layer and migration of leachate. The Department also required inclusion of three additional surface water monitoring locations in the monitoring program.

Dragon's consultant, SME, completed the "shot-rock" investigation in the summer of 2006. The objective of the investigation was to determine the appropriate remedial measure to collect leachate migrating away from the CKD Storage Pile though the "shot-rock". The investigation included measuring pH and specific conductance of surface seeps and shallow groundwater surrounding the CKD Storage Pile, determining the extent and depth of "shot rock" surrounding the pile through a series of test pits and probes, and installing six piezometers into the pile to evaluate leachate head conditions. Based on the results of the investigation, SME designed a continuous interceptor trench, keyed into native marine clay underlying the "shot-rock", around the south and west side of the CKD Storage Pile. This design has been incorporated into Dragon's proposed leachate management system for the CKD Storage Pile.

B. Proposed EMP: Environmental monitoring will be performed at the CKD Storage Pile in accordance with the Environmental Monitoring Plan, Waste Clinker Storage Pile And Cement Kiln Dust Storage Pile, Dragon Products Company, Inc., Thomaston, Maine, Revised December 28, 2006, prepared by SME. The following locations will be monitored:

Groundwater Monitoring Locations:

- Well Cluster B-1, B-1B, B-1Z (existing location)
- Well Cluster B-2, B-2A, B-2B (existing location)
- Well Cluster B-3, B-3A (existing location)
- Well Cluster B-4, B-4A, B-4B (existing background groundwater location)
- Well Cluster B-5A, B-5B (proposed location)
- Well Cluster B-6A, B-6B (proposed location)

(b) Surface Water Monitoring Locations:

- SP-1/SP1 – outlet of constructed wetland south of CKD Storage Pile
- S-2/S2 – intermittent stream north of stormwater detention pond
- S-3 – U.S. Route 1 culvert inlet northwest of CKD Storage Pile
- S-4 – end of drainage channel south of CKD Storage Pile
- S-5 – ditch at southwest corner of CKD Storage Pile
- S-6 – background location on Mill Stream northwest of CKD Storage Pile

(c) Leachate:

- MW06-05 – monitoring well located within the CKD Storage Pile

All above listed monitoring locations will be monitored for parameters as required by Chapter 405. In addition, piezometers will be installed outside the proposed CKD Storage Pile interceptor trench (toe drain) and will be monitored for water levels, field parameters, bicarbonate, and sulfate, only. The number and location of the proposed piezometers will be a condition of this license.

The applicant proposes to collect from monitoring locations three times per year during April/May, July/August, and October/November.

Within the first year following the installation of the CKD Storage Pile interceptor trench, Dragon will conduct supplemental sampling of the stormwater flowing in the ditch immediately upgradient of the stormwater pond inlet. This location will be sampled during four separate rainfall events of an inch or more. Samples will be collected following the procedures outlined in the approved EMP.

B. Waste Clinker Storage Pile

1) Historical Monitoring and Investigations: Monitoring well series C-1, C-2, C-3, and C-4 were installed at the Waste Clinker Storage Pile in 1990. Each well series includes a cluster of two to three monitoring wells installed at

varying depths beneath the ground surface. The wells are constructed to monitor groundwater characteristics in the shallow overburden, deep overburden, and shallow bedrock. The record of historical monitoring data begins in 1996 for the monitoring well series; surface water monitoring location UNS-1 located on an intermittent stream to the east of the Waste Clinker Pile; and leachate collected from a detention pond located at the southern end of the pile (CD-1).

In 1998, as a result of discussions with the Department, Dragon modified its monitoring program to include additional parameters required by Chapter 405.

2) Proposed EMP: Environmental monitoring will be performed at the Waste Clinker Storage Pile in accordance with the Environmental Monitoring Plan, Waste Clinker Storage Pile and Cement Kiln Dust Storage Pile, Dragon Products Company, Inc., Thomaston, Maine, revised December 28, 2006, prepared by SME. The following locations will be monitored:

(a) Groundwater Monitoring Locations:

- Well Cluster C-1, C-1A, C-1B (existing location)
- Well Cluster C-2, C-2B (existing location)
- Well Cluster C-4, C-4A, C-4B (existing location)
- Well Cluster C-5A, C-5B (proposed location)

(Note: monitoring Well Cluster C-3 was removed from the program since it was deemed redundant to sampling conducted at Well Cluster C-4.)

(b) Surface Water Monitoring Locations:

- UNS-1 – unnamed stream northeast of Waste Clinker Storage Pile
- CP-2 – temporary location south of leachate storage pond

(c) Leachate:

- CP-1/CD1 – leachate wetwell on west end of leachate storage pond

(d) Residential Well Monitoring:

Pending homeowner permission, two sampling events, a minimum of two weeks apart, are proposed for the private water supply well associated with the mobile home located at the intersection of Buttermilk Lane and Marsh Road. The water samples will be analyzed for the same parameters as the monitoring wells identified for the Waste Clinker Storage Pile in the Environmental Monitoring Plan. Results from these monitoring events will be evaluated to determine if additional monitoring is warranted at this location.

All above listed monitoring locations will be monitored for parameters as required by Chapter 405.

Except for the residential well, the applicant proposes to collect from monitoring locations three times per year during April/May, July/August, and October/November.

NSD's expert witness expressed concern about the adequacy of Dragon's EMP. It was suggested that geophysical investigative techniques such as seismic refraction, electromagnetic and terrain conductivity be used to determine whether the existing groundwater monitoring wells are located in the correct areas and to site additional wells. The Town's expert witness did not agree with the use of geophysical investigative techniques to locate additional groundwater monitoring wells. The Town's witness did agree that one or two additional wells associated with the CKD Storage Pile would yield valuable information. The Town's witness did not agree with locating an additional monitoring well associated with the Waste Clinker Storage Pile.

After the initial staff review, pre-filed direct and rebuttal testimony, and the public hearing on September 22, 2006, the record of the proceeding was left open for Dragon to update its EMP. The updates included two additional groundwater monitoring wells associated with the CKD Storage Pile and one additional groundwater monitoring well associated with the Waste Clinker Storage Pile. Location of the two additional

groundwater monitoring wells associated with the CKD Storage Pile will be determined based on the results of a Very Low Frequency (VLF) surface geophysical survey. The updated EMP, dated December 28, 2006, also includes several additional surface water monitoring locations associated with both storage piles and a proposal from the applicant to analyze the residential well located at the intersection of Buttermilk Lane and Marsh Road, pending homeowner permission.

The Board finds that the updated proposed EMP meets the requirements of Chapter 405 provided that the applicant:

- Receives Department approval for the locations and number of piezometers installed downgradient of the CKD Storage Pile interceptor trench (toe drain). Location of the piezometers will be based on field conditions and the need to adequately monitor the effectiveness of the interceptor trench relative to the downgradient water quality conditions.
- Collects samples from all surface water sample locations included in both the CKD and Waste Clinker monitoring programs on the first Wednesday of the month on a bimonthly basis. This augmented sampling schedule will result in the collection of a total of six samples at each location during the course of one year. The additional sampling events will be used to assess the variability of surface water monitoring data. At the end of a two year period (12 sampling events), the data will be reviewed and recommendations will be made regarding the future monitoring schedule. It is anticipated that freezing and dry conditions may prevent collection of samples at times during the two year period. Samples that are not collected during a scheduled sampling event should be noted in monitoring reports with information describing the conditions preventing the sample collection.

10. STORAGE PILE COVER SYSTEMS

A. CKD Storage Pile: During 2005, as part of an approved corrective action plan, approximately 11 acres (approximately 75 percent) of the CKD Storage Pile was regraded to create maximum slopes of 3H:1V and covered with an intermediate cover consisting of a 12-inch barrier layer of clay with a minimum hydraulic conductivity of 5 x 10^{-7} cm/sec overlain by six inches of vegetative topsoil. At the time the corrective action plan was approved, the Department determined that the intermediate cover design was appropriate for the storage pile and would adequately prevent infiltration of water into the waste, thus reducing the amount of leachate generated from the CKD Storage Pile. As part of the closure and reclamation project, Dragon proposes to install intermediate cover, of the same design employed during the 2005 corrective action, over an additional area of approximately two acres. As reclamation proceeds, approximately two acres will be left open for mining at any given time with

intermediate cover, designed as specified above, on the remaining area. At the completion of reclamation, Dragon proposes to install a permanent final cover system in accordance with the Regulations in effect at that time.

1) Variance: Chapter 401.4(C)(8)(b) requires that intermediate cover consist of 18 inches of soil. The applicant is proposing to place an intermediate cover consisting of a 12-inch barrier layer with a minimum hydraulic conductivity of 5 x 10^{-7} cm/sec overlain by six inches of vegetative topsoil.

The Board finds that the closure design meets the intent of Chapter 401.4(C)(8)(b) in that it will limit infiltration of water through the pile and promote runoff of clean stormwater while also allowing the applicant to effectively reclaim/mine the waste material for reuse in the cement-making process.

B. Waste Clinker Storage Pile: The reclamation plan for the Waste Clinker Storage Pile is designed to create grades that match the existing site topography. During reclamation, all runoff from the pile will be directed to leachate collection channels around the perimeter and transported to a new leachate storage pond. Once final grades are reached, and if complete reclamation of the pile is not possible, Dragon proposes to install a permanent final cover system in accordance with the Regulations in effect at that time.

The Board finds that the closure designs for the CKD and Waste Clinker Storage Piles meet the requirements of the Regulations provided that after reclamation of each pile is complete the applicant submits for Department review and approval a complete final closure application meeting the requirements of the Regulations in effect at that time.

11. RECLAMATION SEQUENCING PLAN

A. CKD Storage Pile: Phase 1 of the CKD Storage Pile reclamation will include installation of an additional two acres of intermediate cover on the east side of the pile. Reclamation of approximately 30,000 tons of CKD will take place within the remaining two acres of open area on the southeast corner of the pile over a period of approximately three years. Once interim grades of 3H:1V have been reached within the Phase 1 area, intermediate cover will be installed. Phase 2 will take place to the west of Phase 1 where intermediate cover will be removed and reused or stockpiled. Any stockpiled cover material will be handled in accordance with the proposed erosion and sedimentation control plan. Approximately 30,000 tons of CKD will be reclaimed over a period of approximately three years. Conceptually it is anticipated that reclamation will continue in a clockwise manner around the pile. It is anticipated that the reclamation of CKD will be completed in approximately 60 years.

B. Waste Clinker Storage Pile: Waste clinker reclamation will take place from the top of the pile to the bottom until the grades match the existing topography. Once final grades have been achieved, final cover will be installed in accordance with the Regulations in effect at that time, the leachate pond will be removed, and the

wetlands restored. At the current reuse rate, it is anticipated that the reclamation of waste clinker will be completed in four to seven years.

The Board finds that the reclamation sequencing plan meets the requirements of the Regulations.

12. NATURAL RESOURCE PROTECTION ACT APPLICATION

The applicant proposes to alter 80,966 square feet of emergent, scrub shrub and wet meadow wetland to construct a leachate storage pond adjacent the Waste Clinker Storage Pile. The proposed leachate storage pond will be located in a disturbed wetland area that has historically received leachate from the Waste Clinker Storage Pile. As part of its NRPA application, the applicant submitted a detailed description of the proposed leachate storage pond and the stormwater management and erosion control measures to be implemented during its construction and operation. The applicant also submitted a "Wetland Mitigation Plan" dated October 2006 (Revised December 2006) prepared by Woodlot Alternatives, Inc. describing the existing condition of the wetland to be altered, and the measures for eventually removing the detention pond and restoring the wetland upon completion of the waste clinker reclamation activities at the site.

A. Soil Erosion:

Department staff reviewed the applicant's erosion and sedimentation control plan and found it acceptable.

The Board finds that the activity will not cause unreasonable erosion of soil or sediment nor unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.

B. Habitat Considerations:

The applicant submitted an existing conditions survey indicating that the wetland adjacent to the Waste Clinker Storage Pile is part of a larger wetland complex that extends from the railroad spur associated with the Dragon plant eastward along the Marsh Road. The wetland complex includes emergent, wet meadow, scrub shrub, and forested habitats, many of which have been affected by historical human disturbance. Ponded surface water in the area of the wetland to be altered to accommodate the proposed leachate detention pond is highly alkaline (pH of 12) due to leachate which currently accumulates in this area. Given these alkaline conditions, vegetation is limited to a few tolerant and highly adaptive species. No significant or essential wildlife habitats were identified by the applicant.

Department staff has reviewed the proposed project and Department records indicate that there are no Essential or Significant Wildlife Habitats associated with the project site.

The Board finds that the activity will not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine or marine fisheries or other aquatic life.

C. Water Quality Considerations:

An unnamed stream drains a wetland area located to the northeast of the proposed project site. This unnamed stream flows beneath Buttermilk Lane into Marsh Brook and then to the Weskeag River. No disturbance is proposed in or adjacent to the stream, and the proposed stormwater and erosion control measures should prevent the discharge of leachate or sediments to the stream during construction and operation of the leachate detention pond.

The Board finds that the proposed project will not violate any state water quality law, including those governing the classification of the State's waters.

D. Wetland and Waterbodies Protection Rules:

The applicant proposes to alter 80,966 square feet of emergent, scrub shrub and wet meadow wetland to construct a leachate storage pond adjacent the Waste Clinker Storage Pile.

The Department's Wetlands and Waterbodies Protection Rules, Chapter 310, require that the applicant meet the following standards:

1) Avoidance: No activity may be permitted if there is a practicable alternative to the project that would be less damaging to the environment. Each application for a Tier II Freshwater Wetland Alteration permit must provide an analysis of alternatives in order to demonstrate that a practicable alternative does not exist. The applicant submitted an alternative analysis for the proposed project completed by SME and dated October 2006 with a last revision of December 2006. The applicant has avoided additional wetland impacts by placing the leachate storage pond in an area that is already impacted by the adjacent Waste Clinker Storage Pile. The applicant considered utilizing an upland site located in the northwest corner, however, due to the existing topography of the area, waste clinker leachate is currently being retained in the wetland causing the wetland to be highly degraded, with sediment retention as its principal function. The leachate storage pond installation will allow the contaminated leachate from the entire pile to be reused and will prevent further surface and groundwater contamination.

2) Minimal Alteration: The amount of wetland to be altered must be kept to the minimum amount necessary for meeting the overall purpose of the project. The applicant has sized the leachate storage pond to contain flows from a 25-year/24-hour duration rainfall event while maintaining two feet of freeboard

and its structural integrity. The applicant is unable to minimize impacts further due to access requirements to install the leachate storage pond and perimeter toe drain. The applicant intends to remove additional contaminated sediment located to the east of the pile and restore the area with common borrow and native, non-invasive wetland vegetation.

3) Compensation: In accordance with Chapter 310.5(C), compensation is required to achieve the goal of no net loss of wetland functions and values. The applicant is currently reclaiming the Waste Clinker Storage Pile and estimates that complete reclamation ~~the wetland restoration~~ will occur within four to seven years. Wetland restoration will begin within 12 months after completing reclamation activities at the Waste Clinker Pile. The applicant intends to remove the leachate storage pond, underdrain, and other related structures and remove the accumulated sediments. The area will then be excavated and regraded to approximately one foot below the proposed finish grade of the restored wetland. Clean topsoil will be installed to bring the area to finish grade with the intention of creating a shallow pit and mound microtopography, which is anticipated to increase the flora and fauna diversity and increase surface water retention. After final grading, native, non-invasive wetland species will be installed totaling approximately 600 trees and shrubs per acre, including 400 trees per acre in planned forested cover types. In addition, following planting, the area will be seeded with a mix of native wetland species and coarse woody debris will be installed to cover at least 4 percent of the ground surface. Finally, the applicant has also included a deed restriction to protect the area in perpetuity and a 5-year, biannual post-construction monitoring plan for the reclamation area.

The Board finds the deed restriction and post-construction monitoring plan acceptable.

The Board finds that the applicant has avoided and minimized wetland impacts to the greatest extent practicable, and that the proposed project represents the least environmentally damaging alternative that meets the overall purpose of the project provided that the applicant forward to the Department the recorded deed restriction upon completion of the wetland restoration.

E. Other Considerations: In its review of the wetlands alteration proposal, Department staff did not identify any other issues involving existing scenic, aesthetic, or navigational uses, soil erosion, habitat or fisheries, the natural transfer of soil, natural flow of water, water quality, or flooding.

13. NO UNREASONABLE RISK TO A SIGNIFICANT GROUND WATER AQUIFER

Chapter 400.4(K) requires that the proposed solid waste facilities may not pose an unreasonable risk that a discharge to a significant ground water aquifer will occur. This standard applies to the proposed reclamation activities.

The CKD and Waste Clinker Storage Piles do not overlie a mapped sand and gravel aquifer based on information available from the Maine Geological Survey Significant Sand and Gravel Aquifer Maps.

The CKD Storage Pile is located in a former schist quarry (Quarry #4) and is in direct contact with bedrock. Placement of cover material on all but two acres of the CKD Storage Pile will reduce the amount of precipitation moving through the CKD material and into the groundwater. Reclamation activities at the CKD Storage Pile consist of excavation and removal of the CKD. Removal of CKD from the pile will likely result in improved groundwater quality at the CKD Storage Pile.

The Waste Clinker Storage Pile is situated on between 25 and 140 feet of overburden. Reclamation activities at the Waste Clinker Storage Pile consist of excavation, screening and removal of waste clinker material. Removal of waste clinker from the pile will likely result in improved groundwater quality at the Waste Clinker Storage Pile.

The Board finds that the reclamation activities at the CKD and Waste Clinker Storage Piles will not pose an unreasonable risk that a discharge to a significant ground water aquifer will occur.

14. FLOODING

The standards related to flooding are set forth in Chapter 400.4(M) of the Regulations. The proposed closure and reclamation activities will not occur within a 100-year floodplain, according to the Federal Emergency Management Agency flood insurance map for Thomaston.

The applicant has submitted a detailed stormwater management plan which is discussed in Finding of Fact 9.A above.

The Board finds that the proposed project will not unreasonably cause or increase flooding on-site or on adjacent properties nor create an unreasonable flood hazard.

15. LIABILITY INSURANCE

In accordance with the provisions of Chapter 400.10 of the Regulations, the applicant has submitted a copy of the most recent liability policy for sudden and accidental occurrences for the solid waste facilities. Included in the policy are coverages for bodily injury and personal property damages in excess of the required minimum amounts.

Therefore, the Board finds that the applicant has demonstrated adequate proof of liability insurance for sudden and accidental occurrences for the solid waste facilities, provided that Dragon submits the current certificate of insurance to the Department on an annual basis and the policy remains in effect throughout the reclamation and closure of the storage piles.

DRAGON PRODUCTS COMPANY, LLC THOMASTON, KNOX COUNTY, MAINE CLOSURE and RECLAMATION and NRPA #S-020777-WO-B-N #S-020778-WO-C-N #L-4152-TH-T-N (APPROVAL WITH CONDITIONS)	30))))))))	SOLID WASTE and NATURAL RESOURCES PROTECTION and FRESHWATER WETLAND ALTERATION and WATER QUALITY CERTIFICATION NEW LICENSE

16. CIVIL AND CRIMINAL DISCLOSURE

The applicant has provided a civil and criminal disclosure statement prepared in accordance with Chapter 400.12.

The applicant states that none of the persons listed in the disclosure statement has any criminal convictions in Maine, other states, the United States, or any other country. The applicant further states that no persons listed in the disclosure statement has any adjudicated civil violations of environmental laws or regulations administered in Maine, other states, the United States or any other country.

The applicant discloses that it is working under a Schedule of Compliance (SOC) issued by the Commissioner of the Department of Environmental Protection on June 22, 2005, relating to the CKD and Waste Clinker Storage Piles. Thus far, Dragon has met the requirements of that SOC.

Furthermore, the applicant discloses that it has been issued three~~two~~ Notices of Violation from the Department in the past five years. The first was issued in November 2005 by the Department's Bureau of Land and Water Quality for discharging pollutants to waters of the State without a permit. In this case, the driver of a Dragon concrete truck rinsed the truck chute onto the ground where it subsequently flowed into a tributary of the Mousam River. This violation was settled by an Administrative Consent Agreement dated September 7, 2006, in which Dragon paid a penalty of $1,860. The second was issued on February 28, 2006, by the Department's Bureau of Air Quality for violations of Dragon's air emissions license. In this case, the applicant's continuous opacity monitoring system was not recording reliable data for at least 95% of the time. Opacity exceedences since 2004 were also included. These violations were settled by an Administrative Consent Agreement dated September 7, 2006, in which Dragon paid a penalty of $12,300. Additionally, a third Notice of Violation was issued by the Department's Bureau of Air Quality for violations of Dragon's air emissions license. In this case, the applicant violated the license particulate matter emission limit on the new cement kiln during stack testing that took place on May 16, 2006. Dragon then replaced all of the approximately 2,100 bags in the bag house associated with the cement kiln. When stack testing took place again on July 31~~17~~, 2006, the violation had been corrected to the Department's satisfaction. The Department and Dragon are currently in negotiations to resolve this violation through an Administrative Consent Agreement. The Board finds that the applicant has filed an accurate Civil and Criminal Record, prepared in accordance with Chapter 400.12. The Board finds that the applicant has shown past violations of certain environmental laws, as described in the application, will not prevent Dragon from operating the proposed solid waste facilities in compliance with Maine laws and regulations in that Dragon has conducted the required corrective actions to resolve its previous violations.

BASED on the above Findings of Fact, and subject to the conditions listed below, the Board makes the following CONCLUSIONS:

DRAGON PRODUCTS COMPANY, LLC THOMASTON, KNOX COUNTY, MAINE CLOSURE and RECLAMATION and NRPA #S-020777-WO-B-N #S-020778-WO-C-N #L-4152-TH-T-N (APPROVAL WITH CONDITIONS)	31))))))))	SOLID WASTE and NATURAL RESOURCES PROTECTION and FRESHWATER WETLAND ALTERATION and WATER QUALITY CERTIFICATION NEW LICENSE

1. The applicant has demonstrated sufficient title, right, or interest to the property on which the facilities are located.

2. The applicant has provided adequate evidence of financial capacity and technical ability to meet air and water pollution control and other applicable regulatory standards provided that within ~~3~~60 days of issuance of this Order, the applicant submits the proposed surety bond and standby trust agreement or other form of financial assurance allowed by Chapter 400.11 for Department review and approval; Dragon implements the approved financial assurance mechanism; and Dragon updates the approved financial assurance mechanism on an annual basis in accordance with the Regulations.

3. The applicant has made adequate provisions for the movement of traffic into, out of and within the proposed facilities.

4. The applicant has made adequate provision for fitting the development harmoniously into the existing natural environment and the development will not adversely affect the existing uses, scenic character, or natural resources in the municipality or in neighborhood municipalities.

5. The proposed project will not unreasonably adversely affect air quality provided that:

   A. Within ~~3~~60 days of issuance of this Order, the applicant updates the dust control sections of its Operations and Maintenance Manuals to meet the requirements of its air emissions permit (#A-326-70-A-I). Specifically, visible emissions from the stockpiles and associated access roads must not exceed an opacity standard of 20 percent, except for no more than five (5) minutes in any 1-hour period. Compliance is determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20 percent in any one (1) hour; and

   B. The applicant waters or vacuum sweeps all paved roads during dry weather in the immediate vicinity of the CKD and Waste Clinker Storage Piles on days when material is being reclaimed from the piles or transported off-site or at any time when dust is visible on paved access roads leading to and from the storage piles; and

   C. The applicant applies Department approved dust control substances to ~~all~~ gravel roads used in the reclaim process in the immediate vicinity of the CKD and Waste Clinker Storage Piles on dry weather days when material is being reclaimed from the piles or transported off-site; and

   D. The applicant installs, with Department review and approval of location, four (4) high volume air samplers, two (2) associated with the Waste Clinker Storage Pile and two (2) associated with the CKD Storage Pile, to monitor for fugitive dust emissions. Within ~~3~~60 days of issuance of this Order, a plan which proposes the locations and timeframe for placement of these monitors must be submitted to the

Department for review and approval. The applicant must gather samples once a week at the associated monitoring station whenever material is being reclaimed from either pile, except for periods of monitoring equipment malfunction. Samples must be collected and analyzed utilizing the method described in the Federal Register/ Vol. 47, NO.234/Monday, December 6, 1982/Rules and Regulations/ Appendix B - Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere (High-Volume Method). Additionally, once per week Dragon must collect and analyze samples from both samplers at one of the storage piles on the same day for quality assurance purposes. Dragon must submit a summary of air monitoring results to the Department with its solid waste annual report due April 30 of each year. Dragon must also make all monitoring data available for inspection at the Department's request. At the end of a one year period, the data will be reviewed by the Department, and if warranted, the Department may extend the monitoring for an additional period; and

E. The applicant installs, with Department review and approval of location, two (2) video cameras, one (1) associated with the Waste Clinker Pile and one (1) associated with the CKD Storage Pile, to monitor for fugitive dust emissions. Within ~~3~~60 days of issuance of this Order, a plan which proposes the locations and timeframe for placement of these cameras must be submitted to the Department for review and approval. During reclamation activities, ~~T~~the video cameras must be capable of taking one (1) frame every five (5) seconds. The video cameras must record continuously to monitor for ~~wind-blown fugitive dust and also for~~ fugitive dust emissions associated with the reclamation activities except for periods of camera equipment malfunction. Dragon must make all video records available for inspection at the Department's request. At the end of a one year period, the data will be reviewed by the Department, and if warranted, the Department may extend the monitoring for an additional period.

6. The proposed project will not pose an unreasonable risk that a discharge to a significant groundwater aquifer will occur in that the storage piles are not located over a significant sand and gravel aquifer.

7. The proposed project will not cause unreasonable erosion of soil or sediment, nor inhibit the natural transfer of soil. The applicant has made adequate provisions for controlling erosion and managing stormwater provided the approved stormwater management and erosion control plan are fully implemented.

8. The proposed project will not unreasonably cause or increase the flooding of the alteration area or on adjacent properties, nor create an unreasonable flood hazard to any structure.

9. The proposed project and variance will not pollute any water of the State, contaminate the ambient air, constitute a hazard to health or welfare or create a nuisance, provided that:

A. Within ~~3~~60 days of issuance of this Order, the applicant updates its CQA Plan for the installation of the waste clinker leachate storage pond and collection channel geomembrane liners to require inspector certification in accordance with the Geosynthetic Institute's recently established Construction Quality Assurance-Inspectors Certification Program (CQA-ICP) or equivalent on-going certification in accordance with the program established by the National Institute for Certification in Engineering Technology (NICET); and

B. Within ~~3~~60 days of issuance of this Order, the applicant updates its leachate management plan, including an updated water balance, to provide for storage and management of all leachate generated at the solid waste facilities during times when the kiln is not in operation. The updated water balance and leachate management plan must be based on the most critical conditions anticipated over the life of the project and consider the timing and maximum duration of kiln shut-downs, the available storage capacity of the two concrete leachate holding tanks, and the need to operate the proposed leachate storage pond within its design parameters, including the maintenance of two feet of freeboard.

C. The applicant receives Department approval for the locations and number of piezometers installed downgradient of the CKD Storage Pile interceptor trench (toe drain). Location of the piezometers will be based on field conditions and the need to adequately monitor the effectiveness of the interceptor trench relative to the downgradient water quality conditions; and

D. The applicant collects samples from all surface water sample locations included in both the CKD and Waste Clinker monitoring programs on the first Wednesday of the month on a bimonthly basis. This augmented sampling schedule will result in the collection of a total of six samples at each location during the course of one year. The additional sampling events will be used to assess the variability of surface water monitoring data. At the end of a two year period (12 sampling events), the data will be reviewed and recommendations will be made regarding the future monitoring schedule. It is anticipated that freezing and dry conditions may prevent collection of samples at times during the two year period. Samples that are not collected during a scheduled sampling event must be noted in monitoring reports with information describing the conditions preventing the sample collection; and

E. After reclamation activities at each pile have been completed, ~~T~~the applicant submits for Department review and approval a complete final closure application meeting the requirements of the Regulations in effect at that time.

10. The applicant has demonstrated adequate proof of liability insurance for sudden and accidental occurrences for the solid waste facilities, provided Dragon submits the current certificate of insurance to the Department on an annual basis and the policy remains in effect throughout the reclamation and closure of the storage piles.

DRAGON PRODUCTS COMPANY, LLC THOMASTON, KNOX COUNTY, MAINE CLOSURE and RECLAMATION and NRPA #S-020777-WO-B-N #S-020778-WO-C-N #L-4152-TH-T-N (APPROVAL WITH CONDITIONS)	34))))))))	SOLID WASTE and NATURAL RESOURCES PROTECTION and FRESHWATER WETLAND ALTERATION and WATER QUALITY CERTIFICATION NEW LICENSE

11. The information submitted by the applicant and on file with the Department regarding Dragon's previous violations of certain environmental laws, as described in the civil and criminal disclosure for Dragon, demonstrates that Dragon has willingly conducted all required corrective actions. Thus, the civil and criminal record does not provide a basis to deny approval for Dragon to close and reclaim the CKD and Waste Clinker Storage Piles, as proposed in this application, in compliance with Maine laws and regulations.

12. The proposed wetlands alteration project will not unreasonably interfere with existing scenic, aesthetic, recreational, or navigational uses.

13. The proposed project wetlands alteration will not unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.

14. The proposed wetlands alteration project will not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine, or marine fisheries or other aquatic life provided that the applicant will forward to the Department the recorded deed restriction upon completion of the wetland restoration.

15. The proposed wetlands alteration project will not unreasonably interfere with the natural flow of any surface or subsurface waters.

16. The proposed wetlands alteration project will not violate any state water quality law including those governing the classifications of the State's waters.

17. The proposed wetlands alteration project is not on or adjacent to a sand dune.

18. The proposed wetlands alteration project is not on an outstanding river segment as noted in Title 38 M.R.S.A. Section 480-P.

THEREFORE, the Board with this license order, SUPERSEDES THE SOC and APPROVES the above noted application of DRAGON PRODUCTS COMPANY, LLC, including the variance request to Chapter 401.4(C)(8)(b), SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations:

1. The Standard Conditions of Approval, copies attached as Appendices A and B.

2. Within ~~3~~60 days of issuance of this Order, the applicant shall submit the proposed surety bond and standby trust agreement or other form of financial assurance allowed by Chapter 400.11 for Department review and approval. The applicant shall implement the approved financial assurance mechanism. The applicant shall update the approved financial assurance mechanism on an annual basis in accordance with the Regulations.

DRAGON PRODUCTS COMPANY, LLC THOMASTON, KNOX COUNTY, MAINE CLOSURE and RECLAMATION and NRPA #S-020777-WO-B-N #S-020778-WO-C-N #L-4152-TH-T-N (APPROVAL WITH CONDITIONS)	35))))))))	SOLID WASTE and NATURAL RESOURCES PROTECTION and FRESHWATER WETLAND ALTERATION and WATER QUALITY CERTIFICATION NEW LICENSE

3. Within ~~3~~60 days of issuance of this Order, the applicant shall update the dust control sections of its Operations and Maintenance Manuals to meet the requirements of its air emissions permit (#A-326-70-A-I). Specifically, visible emissions from the stockpiles and associated access roads must not exceed an opacity standard of 20 percent, except for no more than five (5) minutes in any 1-hour period. Compliance is determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20 percent in any one (1) hour.

4. The applicant shall water or vacuum sweep all paved roads during dry weather in the immediate vicinity of the CKD and Waste Clinker Storage Piles on days when material is being reclaimed from the piles or transported off-site or at any time when dust is visible on paved access roads leading to and from the storage piles.

5. The applicant shall apply Department-approved dust control substances to ~~all~~ gravel roads used in the reclaim process in the immediate vicinity of the CKD and Waste Clinker Storage Piles on dry weather days when material is being reclaimed from the piles or transported off-site.

6. The applicant shall install, following Department review and approval of location, four (4) high volume air samplers, two (2) associated with the Waste Clinker Storage Pile and two (2) associated with the CKD Storage Pile, to monitor for fugitive dust emissions. Within ~~3~~60 days of issuance of this Order, a plan which proposes the locations and timeframe for placement of these monitors shall be submitted to the Department for review and approval. The applicant shall gather samples once a week at the associated monitoring station whenever material is being reclaimed from either pile, except for periods of monitoring equipment malfunction. Samples shall be collected and analyzed utilizing the method described in the Federal Register/ Vol. 47, NO.234/Monday, December 6, 1982/Rules and Regulations/ Appendix B - Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere (High-Volume Method). Additionally, once per week Dragon must collect and analyze samples from both samplers at one of the storage piles on the same day for quality assurance purposes. Dragon must submit a summary of air monitoring results to the Department with its solid waste annual report due April 30 of each year. Dragon must also make all monitoring data available for inspection at the Department's request. At the end of a one year period, the data will be reviewed by the Department, and if warranted, the Department may extend the monitoring for an additional period.

7. The applicant shall install, following Department review and approval of location, two (2) video cameras, one (1) associated with the Waste Clinker Pile and one (1) associated with the CKD Storage Pile, to monitor for fugitive dust emissions. Within ~~3~~60 days of issuance of

this Order, a plan which proposes the locations and timeframe for placement of these cameras must be submitted to the Department for review and approval. During reclamation activities, ~~T~~the video cameras must be capable of taking one (1) frame every five (5) seconds. The video cameras must record continuously to monitor for ~~wind-blown fugitive dust and also for~~ fugitive dust emissions associated with the reclamation activities, except for periods of camera equipment malfunction. Dragon must make all video records available for inspection at the Department's request. At the end of a one year period, the data will be reviewed by the Department, and if warranted, the Department may extend the monitoring for an additional period.

8. The applicant shall implement the approved stormwater management and erosion and sedimentation control plan. The applicant shall take all necessary measures to ensure that its activities or those of its agents do not result in measurable erosion of soil at the solid waste facilities.

9. Within ~~3~~60 days of issuance of this Order, the applicant shall update its CQA Plan for the installation of the waste clinker leachate storage pond and collection channel geomembrane liners to require inspector certification in accordance with the Geosynthetic Institute's recently established Construction Quality Assurance-Inspectors Certification Program (CQA-ICP) or equivalent on-going certification in accordance with the program established by the National Institute for Certification in Engineering Technology (NICET).

10. Within ~~3~~60 days of issuance of this Order, the applicant shall update its leachate management plan, including an updated water balance, to provide for storage and management of all leachate generated at the solid waste facilities during times when the kiln is not in operation. The updated water balance and leachate management plan shall be based on the most critical conditions anticipated over the life of the project and consider the timing and maximum duration of kiln shut-downs, the available storage capacity of the two concrete leachate holding tanks, and the need to operate the proposed leachate storage pond within its design parameters, including the maintenance of two feet of freeboard.

11. The applicant shall receive Department approval for the locations and number of piezometers installed downgradient of the CKD Storage Pile interceptor trench (toe drain). Location of the piezometers will be based on field conditions and the need to adequately monitor the effectiveness of the interceptor trench relative to the downgradient water quality conditions.

12. The applicant shall collect samples from all surface water sample locations included in both the CKD and Waste Clinker monitoring programs on the first Wednesday of the month on a bimonthly basis. This augmented sampling schedule will result in the collection of a total of six samples at each location during the course of one year. The additional sampling events

DRAGON PRODUCTS COMPANY, LLC THOMASTON, KNOX COUNTY, MAINE CLOSURE and RECLAMATION and NRPA #S-020777-WO-B-N #S-020778-WO-C-N #L-4152-TH-T-N (APPROVAL WITH CONDITIONS)	37))))))))	SOLID WASTE and NATURAL RESOURCES PROTECTION and FRESHWATER WETLAND ALTERATION and WATER QUALITY CERTIFICATION NEW LICENSE

will be used to assess the variability of surface water monitoring data. At the end of a two year period (12 sampling events), the data will be reviewed and recommendations will be made regarding the future monitoring schedule. It is anticipated that freezing and dry conditions may prevent collection of samples at times during the two year period. Samples that are not collected during a scheduled sampling event shall be noted in monitoring reports with information describing the conditions preventing the sample collection.

13. After reclamation activities at each pile have been completed, ~~T~~the applicant shall submit for Department review and approval a complete final closure application meeting the requirements of the Regulations in effect at that time.

14. The applicant shall submit the current certificate of insurance to the Department on an annual basis and the policy shall remain in effect throughout the reclamation and closure of the storage piles.

15. The applicant shall forward to the Department the recorded deed restriction upon completion of the wetland restoration.

16. The applicant shall submit an annual report to the Department and Town on April 30 of each year for the previous calendar year's activities at the CKD and Waste Clinker Storage Piles in accordance with the Regulations. The annual report shall include: a summary of reclamation activities; a summary of water quality monitoring data; a summary of air monitoring data; an updated reclamation sequencing plan for each pile; any proposed updates to the operations and maintenance manuals for the piles; and any proposed changes to the approved EMP. The operations and maintenance manuals and the EMP shall be updated as conditions dictate.

DONE AND DATED AT AUGUSTA, MAINE THIS _____ DAY

OF _____, 2007.

BOARD OF ENVIRONMENTAL PROTECTION

BY: _____
Matthew Scott, Presiding Officer

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.

DRAGON PRODUCTS COMPANY, LLC THOMASTON, KNOX COUNTY, MAINE CLOSURE and RECLAMATION and NRPA #S-020777-WO-B-N #S-020778-WO-C-N #L-4152-TH-T-N (APPROVAL WITH CONDITIONS)	38))))))))	SOLID WASTE and NATURAL RESOURCES PROTECTION and FRESHWATER WETLAND ALTERATION and WATER QUALITY CERTIFICATION NEW LICENSE

Date of initial receipt of application: 12/31/1991

Date of application acceptance: 01/21/1992

Date filed with Board of Environmental Protection:

This Order was prepared by Carla Hopkins, Stephen Farrar, Richard Heath, Bureau of Remediation and Waste Management; and Danielle Obery, Bureau of Land and Water Quality.

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