

3. The Permit Omits Several Key Provisions of the Portland Cement NESHAP.

The draft air permit does not include as permit conditions several key provisions of the portland cement NESHAP. In particular, the regulations contain separate emission standards for particulate emissions and opacity from clinker coolers. *See* 40 CFR § 63.1345. With respect to PM, the permit includes clinker coolers under Emission Unit 0-CPROD and sets the PM standard applicable to this unit in Permit Condition 59. Based on the description of the process in the air permit application, it appears that emissions from the clinker cooler are exhausted together with emissions from the kiln itself. However, under the NESHAP, clinker coolers are subject to a stricter particulate matter standard than the kiln itself (.10 lb per ton of feed vs. .30 lb. per ton of feed). Given that the two sources apparently will be exhausted together, the kiln as a whole should be required to meet the stricter PM standard for clinker coolers. In the alternative, SLC must devise a means of monitoring PM from the clinker cooler separately. Otherwise, the facility will effectively be allowed to emit PM from the clinker cooler in excess of the limit set in the NESHAP. (Obviously, if the clinker cooler exhausts separately, these emissions must be regulated under a separate permit condition that implements the standard for clinker coolers found in 40 CFR § 63.1345.)

Similarly, the regulations establish an opacity standard for clinker coolers of 10 percent. Currently, the permit contains an opacity standard of 20 percent for Emission Unit 0-CPROD generally (*see* Permit Condition 60) and an opacity standard of 10 percent for emission points MILL1 and MILL2 within Emission Unit 0-CPROD (*see* Permit Conditions 76 and 77). Since the kiln and clinker cooler appear to exhaust together, the facility should be subject to the stricter opacity standard applicable to clinker coolers. (Obviously, if the clinker cooler exhausts separately these emissions must be regulated under a separate permit condition that implements the standard for clinker coolers found in 40 CFR § 63.1345.)

4. The Permit Omits Requirements Applicable to All NESHAP Sources.

All emission sources subject to NESHAPs must comply not only with the provisions of the specific applicable standards but with the requirements of 40 C.F.R. Part 63, Subpart A General Provisions. Table 1 of Subpart LLL identifies which of the general provisions of Subpart A apply to sources regulated under the cement plant NESHAP. Although many of these provisions are definitions or other requirements that do not necessarily need to be included in a permit, others do impose specific obligations on affected sources. For example, 40 C.F.R. § 63.5(b) prohibits source owner/operators from using diluents or other means to conceal emissions. 40 C.F.R. § 63.6(e) contains provisions governing operation and maintenance, including requirements for a written start-up,

shutdown and malfunction plan. Provisions such as these that mandate specific actions (or prohibit certain actions) must be included in the draft permit as applicable requirements.

In the case of the Athens Generating facility, the permit includes key general provisions from the comparable section of the new source performance standards regulations, 40 C.F.R. Part 60, Subpart A. However, no comparable provisions from 40 C.F.R. Part 63, Subpart A have been included in the draft SLC permit. DEC must revise the SLC permit to include all provisions from Subpart A that impose specific requirements on the Greenport facility and are not specifically addressed or referenced in Subpart LLL itself.

G. New Source Performance Standard for Nonmetallic Mineral Processing Plants and Coal Preparation Plants.

1. Introduction/Background.

The New Source Performance Standards (NSPS) under 42 U.S.C. § 7411, establish technology-based emission standards for new and modified sources of criteria and other contaminants in specific categories. The NSPS essentially establish a “technological floor” ensuring that all new or modified sources in a particular source category meet certain minimum emission standards. Unlike PSD and NSR, these standards apply throughout the country, regardless of whether the facility is located in an attainment or nonattainment area.

EPA has established a NSPS standard in 40 CFR Part 60, Subpart OOO that applies to “non-metallic mineral processing plants,” a category that includes any facility with equipment that is used to crush or grind any non-metallic mineral, such as cement plants. 40 CFR § 60.670, 671. Subpart OOO establishes limits for particulate matter and/or opacity associated with various equipment at such facilities, including transfer points on belt conveyors, crushers, storage bins, and other equipment. EPA also has established a NSPS for “coal preparation plants,” set forth in 40 CFR Part 60, Subpart Y.

2. The Draft Permit Includes No Permit Conditions Addressing Compliance with the NSPS for Nonmetallic Mineral Processing Plants or Coal Preparation Plants.

SLC’s Air Permit Application provides that:

Subparts Y and OOO will apply to various aspects of the Greenport Project. Since the kiln gases will be used to thermally dry the coal in the coal mill, Subpart Y will be invoked. Subpart OOO will apply because new crushing, handling and storage equipment will be located at the mine. SLC will comply with all applicable sections of these NSPS.

SLC Air Permit Application, p. 3-6. However, the draft permit contains no permit conditions whatsoever addressing compliance with these requirements. Consistent with the comments in Section II above, the NSPS provisions should, at minimum, be specifically referenced in the permit even if the standards are superseded by other, stricter emission limits. This information is necessary to ensure that the permit is complete and that all applicable requirements are specifically identified in the permit for enforcement purposes.

In fact, however, it appears that the standards for certain sources are stricter under the NSPS than other applicable regulations. For example, Subpart OOO establishes an opacity limit of 7 percent for discharges from baghouses that control emissions only from an individual, enclosed storage bin. 40 CFR § 60.672(f). These stricter standards must be included in the preconstruction permit as enforceable permit limits.

H. 6 NYCRR Part 212 – Emissions of Hazardous Air Pollutants from Process Sources.

1. Introduction/Background.

For over 30 years, New York State has regulated emissions of pollutants, including air toxics, under 6 NYCRR Part 212 or predecessor regulations. Part 212 is a risk-based regulation that assesses the level of control required for “general process sources” based on the toxicity and quantity of the contaminant being emitted. Under Part 212, DEC assigns a hazard rating to each contaminant on a site-specific basis ranging from “A” (high toxicity) to “D” (assigned primarily to water vapor and simple asphyxiants). Using a Table set forth at 6 NYCRR § 212.9(b), DEC will determine the proper level of control based on the rating assigned and the “emission rate potential” of the source. For solid particles rated B or C, Part 212 establishes different permissible emission rates based on process weight. Where determination of permissible emission rate using process weight is not applicable, DEC establishes a permissible emission rate for particulates of 0.050 grains per cubic foot of exhaust.

Part 212 essentially applies to any process source that emits contaminants that are not regulated under other, category-specific regulations. It also applies to emissions of highly toxic contaminants that may not be adequately regulated under these category-specific standards. For example, DEC has established limits on emissions of VOCs from surface coating operations. As a result, Part 212 does not regulate most VOCs from sources in this category. However, Part 212 does regulate emissions of A-rated VOCs from surface coating operations; it also regulates emissions of non-VOC contaminants, such as PM or SO₂, from these operations. As set forth in greater detail below, although there are limits on the extent

of controls that can be required under Part 212, it remains a powerful tool for regulating emissions of air contaminants not adequately covered by other programs.

SLC's air permit application includes a provision expressly excluding the facility from regulation under Part 212. As set forth in greater detail below, we question the legal and factual basis for this conclusion, particularly with respect to emissions of mercury.

2. SLC's Draft Permit Incorrectly Asserts that the Facility is Excluded from Regulation Under 6 NYCRR Part 212.

Permit Condition 25 specifically identifies 6 NYCRR Part 212 as a nonapplicable requirement, citing 6 NYCRR § 201-6.5(g). As a preliminary matter, identifying nonapplicable requirements is relevant only to Title V permits for purposes of establishing a "permit shield". DEC's air permit application and instructions specify that the "Determination of Non-Applicability" is to be completed for Title V permits only.

More important, the permit includes the following reason for identifying Part 212 as a nonapplicable requirement: "6 NYCRR Part 212 is not applicable to particulate and gaseous emissions regulated by 6 NYCRR Part 220 or 40 CFR Part 63, Subpart LLL." This statement overstates the exemptions contained in Part 212 for portland cement plants. 6 NYCRR provides that

the following process emission sources are not subject to the provisions of this Part: . . . (b) kilns and clinker coolers in portland cement plants subject to Part 220 of this Title with respect to emissions which are not given an A rating . . . and process emission sources other than kilns and clinker coolers in a portland cement plant with respect to opacity of emissions only.

Under this provision, emissions of A-rated contaminants from the kiln and clinker cooler and all emissions (except opacity) from other sources at portland cement plants are potentially regulated under 6 NYCRR Part 212.

With respect to exemptions based on federal regulations, 6 NYCRR specifies that process sources that are covered by a NSPS under 40 CFR Part 60 or NESHAPs in 40 CFR Part 61 "satisfy the requirements of this Part for the contaminant regulated by the federal standard if the source owner can demonstrate that the source is in compliance with the respective regulation." The NSPS for portland cement plants, nonmetallic mineral processing plants, and coal preparation plants do not specifically address air toxics; accordingly this "exemption" is unavailable for HAPs. Moreover, only contaminants covered by NESHAPs issued under Part 61 (and not Part 63) are exempt from regulation under Part 212. Accordingly, 40 CFR Part 63, Subpart LLL applies *in addition to* Part 212

not instead of it.

The omission of any reference to Part 63 is important because of the crucial difference between the Part 63 NESHAP regulations and the requirements of 6 NYCRR Part 212. 40 CFR Part 63, Subpart LLL, the cement plant NESHAP implements “maximum achievable control technology” for cement plants – a technology-based emission standard. 6 NYCRR Part 212 (like the Part 61 NESHAPs) establishes risk-based standards.¹⁶ In deciding what level of control to require, DEC examines the particular risks posed by emissions of a contaminant and then imposes a level of control. Pursuant to 6 NYCRR § 212.5(d) sources must meet the levels of control required by Part 212 unless they can demonstrate that lesser controls constitute BACT.

In the present case, the SLC facility will result in emissions of various air toxics, including mercury, lead, and other toxic metals, as well as other contaminants including dioxins and furans that would likely be considered A-rated contaminants. Under 6 NYCRR § 212.9(b), Table 2, if the emission rate potential for these contaminants from the kiln is 1 lb./hour or more, the facility must achieve 99% control or BACT. Below 1 lb./hour, DEC has discretion regarding whether to require controls. SLC should delete Permit Condition 25 identifying Part 212 as a nonapplicable requirement and include permit conditions identifying the levels of control required consistent with 6 NYCRR Part 212 and DEC’s Air Guide-1.

3. A Recent Circuit Court Decision Rejecting Key Elements of the NESHAP Makes Compliance with Part 212 Crucial.

In developing MACT for the portland cement industry, EPA established emission floors of “no control” for sulfuric acid, mercury and total hydrocarbons (a surrogate for organic HAPs other than dioxin/furan) because EPA found no cement plants using control technologies for these pollutants. In *National Lime Association v. Environmental Protection Agency*, 233 F.3d 625 (D.C. Cir. 2000), the Sierra Club argued that EPA’s failure to set limits for these contaminants violated ~~the~~ CAA § 112’s requirement that EPA establish emission limits for each of “the hazardous air pollutants listed for regulation.” The Court of Appeals for the District of Columbia Circuit agreed, noting that “nothing in the statute suggests that EPA may set emission levels only for those listed HAPs controlled with technology.” *Id.* at 633. The court therefore remanded the regulation back to EPA to set

¹⁶ Congress originally adopted a NESHAP program that required EPA to develop risk-based standards for sources of hazardous air pollutants. Political and other difficulties made development of these standards extremely difficult; as a result, 20 years after the statute was enacted, EPA had issued NESHAPs for only eight contaminants. In an effort to accelerate federal regulation of HAPs, Congress revised the federal statute to require the development of technology-based standards (i.e., MACT) first; only if these standards are inadequate to protect public health, is EPA required to develop risk-based standards.

emission standards for these pollutants. The court also remanded the statute back to EPA to assess potential “beyond the floor” standards for HAP metals, concluding that EPA failed to consider non-air quality health and environmental impacts of such standards for these metals.

The Circuit Court’s decision holds that the existing MACT standards do not properly regulate emissions of key HAPs, including mercury, total hydrocarbons, sulfuric acid and hazardous metals, from cement plants. These weaknesses in the MACT standard mean DEC must regulate individual HAP emissions under 6 NYCRR Part 212; otherwise, such emissions will go essentially unregulated.

I. Other Material Handling Issues.

1. The Application and Draft Permit Fails Adequately to Address Clinker Handling Activities.

a. Clinker Storage.

The application fails clearly to articulate all possible adverse scenarios for the potential storage of clinker. Outdoor storage of clinker and subsequent stacking and reclamation of such outdoor clinker storage piles, particularly with front end loaders, can be a serious cause of fugitive dust emissions which is entirely avoidable by providing for adequate slack clinker storage silo capacity. As the plant will be first built, it will incorporate a single 45,000 metric ton capacity clinker storage silo; a future silo of similar size is planned. A single 45,000 metric ton silo can store 7.5 days of clinker production at 6,000 metric tons of clinker per day. If the silo started empty and one of the finish mills went down (171 tons cement per hour – unknown clinker handling capacity but assumed at 171 tons/hour), the excess clinker production while operating at the full rate would use up the clinker silo capacity in 11 days in the absence of a kiln production cutback. While the company also plans to utilize the clinker handling capacity at the Catskill mill for clinker produced at Greenport the applications failu to discuss the worst case problems associated with dispatch of clinker to silo storage and potential problems that can occur as a result of extended mechanical malfunction at one of the finish cement mills.

The draft permit should be amended to prohibit outdoor storage of both specification and non-specification clinker as an unnecessary source of fugitive emissions that can be completely eliminated by the use of adequate clinker storage and handling capacity. SLC must also explain all potentially negative storage and production scenarios which would lead to problems in clinker storage capacity.

b. Clinker Transfer.

While the company clearly contemplates using Greenport clinker at the Catskill finish

mill site, the application contains few details on how this transfer will be accomplished. There are no indications of truck loadout and the type of truck to be used for such transfers and there is no indication at the Catskill site as to how such trucks will be unloaded. The overriding concern is the control of fugitive emissions for transfers of specification clinker. The plans should prohibit loading and transferring clinker in open top trucks, either with or without soft covers. All clinker transport should take place in enclosed truck units similar to those used to transport cement. SLC's failure to provide information about how clinker will be transferred and how emissions will be controlled is unacceptable and must be remedied before any permit is granted and before the EIS can be regarded as complete.

c. Management of Off-Spec Clinker.

While the application shows an off-specification clinker silo, there are no details that indicate the storage capacity of this silo. Production of off-specification clinker can result during inadequate heating conditions of the kiln or improper mix of feed materials to the kiln. These adverse production conditions should be assigned a worst case condition time interval to justify whether the off-spec clinker silo is adequately sized. The permit should explicitly ban the use of outdoor storage for off-specification clinker.

Figure 2-14 of the air permit application shows three conveyance exits from the off-specification clinker silo. Two of these exits are to the existing cement finish mill conveyor and one of these exits shows loading to open top trucks. Loading open-top trucks with off-specification clinker is a needless source of fugitive emissions that can be controlled by loading to enclosed tank trucks. There is no information on how such trucks would be unloaded. Dumping of open trucks of off-spec clinker and subsequent front end loading of off-spec clinker to raw material hoppers should not be allowed. There is no conveyor from the off-specification clinker silo to recycle such materials back into the raw feed system. The application should not be approved until all features of off-spec clinker handling are clearly shown and any needless generation of fugitive emissions are eliminated.

2. Other Material Handling Issues.

The air permit application and resulting draft permit raise other material handling issues with air impacts:

- ***Spray conditioning towers.*** Spray conditioning towers are known to generate dust drop-out that must be removed from the bottom of towers. While the spray tower in the alkali bypass system shows a controlled conveyor removal system for spray tower drop-out PM, the spray conditioning tower for the main precalciner/preheater flue gas output (tower 441-IJ, Figure 2-7) does not show any control of tower bottom drop out. This activity can be a significant source of PM and should be handled by a controlled conveyor system or

other means to ensure that collected air contaminants are not re-entrained in outdoor air as fugitive emissions during loadout operations.

- **Raw material blending.** Although the raw material blending haul is shown in Figure 2-1 there are no details provided sufficient to determine the air pollution potential of this structure. For example, there is no information to show whether the blending haul is totally enclosed or whether it is open on the sides. There is no detail indicating how stacking of corrective limestone and mill scale piles occurs. No information is provided on the moisture content as typically delivered for corrective limestone and mill scale to make a determination on whether front end loading reclamation of the pile will cause emissions.
- **Raw mill system.** In reviewing the raw mill system in Figure 2-3 of the application and associated text there is no adequate information available to determine how pressurization of the flyash feedstock and raw feed input locations to raw feed grinder assembly 361 will be avoided. For example, the drawings do not show air lock feeders for the fly ash and raw feed inputs into the raw feed grinder assembly. These details are important because fugitive emissions at this location would represent uncontrolled kiln gas emissions that would be escaping at the grinder with no stack. It is presumed that the baghouse control at EP#11 is intended to control raw feed conveyors and bucket elevators and not fugitive emissions from the feed entrance points to the raw feed grinder.
- **Baghouse cement kiln dust (CKD).** All drawings show that baghouse collected particulate matter in the main kiln/in-line mill PM collection system is recycled back into the raw feed conveyor system. If SLC intends to waste any of the main baghouse cement kiln dust, then the air permit application must be amended to show the emission control system and handling equipment to ensure that cement kiln dust from the main baghouse system will not be released as a fugitive emission.
- **Offloading from alkali bypass.** Drawings of the alkali bypass system in Figure 2-12 of the application show two points where cement kiln dust will be loaded into open top trucks. The principal offloading point shows a water spray on a conveyor which subsequently loads to an open top truck. This type of system is not an acceptable or state-of-the-art system for offloading and transport of cement kiln dust from the alkali bypass system and this further does not represent BACT for PM emission control. A water spray on a conveyor of cement kiln dust does not even come close to achieving efficient or complete wetting of such dust. As a result, conveyor dumping of such CKD material into open top trucks can be expected to cause severe fugitive dust emissions. Subsequent operation of such trucks, either as open container vehicles or with soft covers, can also be expected to be significant PM emission sources.
- **CKD transportation.** At the August, 2000 forum event in Hudson, company officials

specifically committed to a pelletizing system and enclosed trucks for handling and transport of cement kiln dust from the Greenport plant. The system as proposed in the latest application not only fails to provide either a pelletizing or pug mill system for complete wetting of CKD, it also fails to provide the state-of-the-art type of PM control required by PSD BACT rules.

- ***Loading of ships and barges.*** Page 1-40 of the EIS indicates that pneumatically conveyed loading of Hudson River ships and barges will be used to load cement coming from the cement buffer bin at the terminus of the tube conveyor into the barges and ships. Although air displacement and loading emissions at the buffer bin will be baghouse controlled, no emission control system is shown, proposed or discussed in regard to pneumatic loading of the ships and barges in either the text or in Figure 2-19 of the application. Uncontrolled pneumatic loading of ships and barges will produce highly objectionable, very heavy fugitive emissions of cement dust at the Hudson River dockside location. This is completely unacceptable and the application and permit must not be approved until and unless fugitive emissions from ship loading is controlled with an air tight loading technique and a baghouse control system for PM-laden displacement air.
- ***Baghouse hopper collection points.*** Many baghouse hopper collection points are shown throughout the schematic drawings of the material handling equipment. However, SLC has provided no details on how the collected dust will be managed except for the very largest of the baghouses on the principal emission points for the kiln, the alkali bypass, the clinker cooler and the raw feed storage silos. No information is provided on baghouse hopper loadout at baghouses numbered 01, 10, 11, 13, 12, 14, 20, 60, 19, 18, 26, 29, 33, 39, 37, 30, 34, 40, 38, 44, 54 and 52.
- ***Reintroduction of collected contaminants.*** The draft permit attempts at Permit Conditions 8-10 to ensure that collected air contaminants are not re-entrained and released to the atmosphere. At the very least, SLC must disclose whether these loadout points are directed to enclosed conveyors or will be serviced with mobile enclosed bins with baghouse control for receiving these collected air contaminants. In addition, SLC should be required to disclose how these collected PM materials will either be re-introduced to the process without causing dust emissions or disposed. Use of open top, uncontrolled dump vehicles for this purpose should be prohibited by the draft permit.
- ***Coal, coke and raw material dockside transfer.*** Figure 2-19 of the application indicates dockside material transfer activities involving coal, petroleum coke, gypsum and corrective/additive unloading. The transfer activities show a crane-clamshell loading system, a conveyor loading system, a surge pile at dockside and front end loader utilization to an open hopper and conveyor transfer system. Additionally, the EIS indicates that the open hopper system is a traveling one that can traverse a length of the shoreline. Many details

necessary to determine the PM emission potential of this set of dockside material transfer operations are not disclosed in the application. There is no information on worst case low material moisture conditions. A baghouse emission control system appears to be shown for the control of the buffer bin at the terminus of the tube conveyor and for the transfer point from the traveling hopper conveyor. However, it not at all clear that the conveyor for unloading barges and ships will be a covered, controlled conveyor system. There is no information about over-pile stacking of the dockside storage piles and the nature of any such drop height controls on this stacking operation. It is clear that ordinary front end loader/hopper operations will be used to reclaim the dockside storage piles to the hopper. This is not the most effective system for limiting PM emissions from dockside loading operations in this sensitive area, which is adjacent to public property intended for recreation.

- ***Crane clamshell transfer operations.*** Finally, crane-clamshell transfer operations from ships and barges to the dockside hopper will likely cause spilling of materials into the Hudson River; this should be identified as a potential transfer operation whose environmental impact must be identified and clarified in the EIS.

3. SLC's Provisions Governing Preparation of a Fugitive Dust Control Plan are Inadequate.

Permit Condition 86 provides for SLC submittal and DEC approval of a comprehensive site fugitive dust plan. This condition is found in the "state enforceable" section of the permit and cites to 6 NYCRR § 211.2, New York's general prohibition against pollution. The permit should not be approved without a federally enforceable fugitive dust control plant that embodies BACT for sources of fugitive dust.

Fugitive dust control is a crucial element of environmental protection associated with the operation of every cement plant. Such plans can have a considerable range of stringency, specificity and enforceability. Because of the extensive public interest in this facility, SLC should prepare a draft fugitive dust plan for public comment as part of the permit issuance process. Appendix H to SLC's air permit application concerning the development of the fugitive dust control plan offers few specifics. What language there is suggests that the fugitive plan is likely to be inadequate. For example, Appendix H indicates that control measures will be required only "when needed." Those types of fugitive dust control plans do not provide adequate stringency, accountability and enforceability to be effective.

In particular, DEC should insist that SLC commit now by amendment of Appendix H to a fugitive dust control plan that requires the following types of stringent control measures:

- Enforceable Performance Standards

- Visible emissions from paved and unpaved roadways and storage piles should not exceed 5% opacity, instantaneous average, as an enforceable visible emission limitation.
- Visible emissions from conveyor transfer points should not exceed 10%, six-minute average.
- Truck speeds on paved roads should be limited to 10 MPH; speeds on unpaved roads should be limited to 5 MPH.

Enforceable Plan Elements

- All main haulage ways at the site should be paved.
- Overhead stack loading of all uncovered storage piles should incorporate drop height controls in order to limit emissions during conveyor loading.
- Paved roads should be subject to twice daily wet sweeping and additional watering with clean (not turbid silt-containing) water to avoid visible emissions. Unpaved roads should be subject to watering to ensure that visible emission goals are met.
- Truck tire washing should be incorporated to control trackout of material from unpaved roads and surfaces onto paved surfaces. Truck tire washing facilities should also ensure that material on paved roads is not tracked out onto city and county public roads. Truck washing facilities should also ensure that loaded trucks do not have non-bin surfaces with visible accumulations of material that can be spilled on or off-site.
- Site operational requirements should ensure that spilled materials on paved roads are promptly removed before such materials are tracked to adjacent areas.
- Site operational requirements should ensure that all loaded and empty open bin trucks are tarped in order to leave or enter the site.
- Trained visible emission observers and mandatory recordkeeping on visible emission observations of roads and storage piles should be required to ensure compliance.
- Mandatory recordkeeping requirements should ensure that road sweeping and watering activities can be tracked for compliance purposes.

- Onsite Equipment Requirements

- Onsite equipment must include a street sweeper capable of sweeping and collecting fine particles without re-entraining such collected air contaminants.
- A mobile vacuum truck with baghouse control should be available to clean up spills and to empty collection points.
- Variable length chute controls should be required on all overhead stacking conveyors to limit uncontrolled drop heights onto storage piles.

- **Employee Training and Staffing**

- All process areas must have at least one certified visible emission observer for all daylight shifts.

DEC should provide a separate public notice and comment period for approval of the actual fugitive dust control plan.

J. Other Comments.

Below are several additional comments/concerns about the SLC's draft preconstruction permit:

- **Permit Condition 58** –*SO*₂ emission limits under 6 NYCRR § 225-1.5(b). SLC appears to be intending to comply with the sulfur-in-fuel limits by obtaining a variance from DEC which will allow them to use an equivalent emission rate. However, the provisions of this permit condition are extremely general. They do not convey the basis for the variance or how SLC will comply with the variance. In fact, no sulfur-in-fuel calculations are included in the permit application. At minimum, the specifics of the monitoring (Type, Upper Limit, Reference Test Method, etc.) must be revised to mirror those in Permit Condition 57 (SO₂ compliance under Part 220) to clarify that the facility is relying on CEMS information to demonstrate compliance with its equivalent emission rate (whatever that rate may be). Also, the monitoring description must be revised to clarify the basis for the equivalency determination.

- **V. THE DEIS FAILS TO ADEQUATELY ADDRESS THE IMPACTS OF PM_{2.5}**

SLC's air permit application addresses only emissions of contaminants that are regulated by specific federal or state-enforceable applicable requirements. However, the Greenport facility will be emitting other contaminants which, while not currently regulated

under federal law, nevertheless pose a potential risk to public health. Of particular concern are emissions of fine particulate matter known as PM_{2.5} (particulate matter with a diameter of less than 2.5 microns). As set forth in greater detail below, SLC's analysis of PM_{2.5} emissions from the Greenport facility focuses solely on whether the emissions will exceed the newly adopted NAAQS, omitting any discussion whatsoever of the adverse effects of additional PM_{2.5} emissions on the health of persons living near the plant. These effects must be addressed as part of a complete SEQRA analysis. In addition, SLC's PM_{2.5} analysis ignores the impact of emissions from other nearby PM_{2.5} sources. This and other flaws in the scientific basis of SLC's PM_{2.5} analysis are discussed in greater detail below.

SLC addresses emissions of fine particulate in Appendix H2 to the DEIS. As SLC correctly notes, EPA traditionally regulated PM₁₀ (particulate matter with a diameter of 10 microns or under) under the National Ambient Air Quality Standards (NAAQS). In conjunction with its mandatory review of the NAAQS for PM, EPA concluded that fine particulate posed a particular threat to public health and should be regulated separately. This conclusion was reached following an assessment of thousands of peer-reviewed scientific studies on PM emissions and extensive review by the scientific community, public interest groups, industry, and the general public. Among other things, EPA concluded that fine particles penetrate deeply in the lungs and thus are more likely than coarse particles to contribute to adverse health effects such as premature death, increased hospital admissions and emergency room visits (primarily involving the elderly and individuals with heart and lung conditions) and aggravation of existing conditions such as asthma.

Based on the results of this review, EPA revised the NAAQS for PM₁₀ and adopted a new NAAQS for PM_{2.5} in 1997. Implementation of the new standards was slowed somewhat by litigation challenging the standard on various grounds. The District Court for the District of Columbia Circuit vacated the new standards, concluding, among other things, that EPA had failed to articulate an "intelligible principle" for setting the NAAQS. Early this year, however, the Supreme Court reversed the D.C. Circuit Court, concluding that Congress had properly delegated rulemaking authority to EPA and upholding the PM_{2.5} standard.¹⁷ DEC currently is collecting the necessary data on ambient air concentrations of PM_{2.5} and should begin the process of designating nonattainment areas in the next several years.

¹⁷ Although dated April 27, 2001, SLC's DEIS fails to address the Supreme Court's decision, implying that the status of the PM_{2.5} standard is still uncertain.

For the reasons set forth below the analysis of PM_{2.5} in Appendix H2 of the DEIS is both legally and scientifically suspect. As a preliminary matter, Appendix H2 is improperly slanted toward enforcement of the Clean Air Act, analyzing the impact of PM_{2.5} emissions solely in relation to the NAAQS. SLC discusses only whether an assumed emission rate for PM_{2.5} would raise nearby ambient concentrations enough to exceed the assumed standard of 15 micrograms per cubic meter given a wide range of assumed possible PM_{2.5} levels. In particular, it provides estimates of an annual average PM_{2.5} increment over a 24-hour period, plus an estimate of the maximum increment that will be experienced only once per year. Appendix H2 does not, however, evaluate in any way the health risks posed by PM_{2.5}.

Unlike the air permitting process, SEQRA is focused, not on compliance with applicable requirements, but on assessing the actual impacts of the facility on the surrounding community. In particular, the SEQRA process requires SLC to carefully consider the potential adverse environmental impacts associated with the action and mitigate, avoid or minimize those impacts to the maximum extent practicable. This analysis is utterly lacking in Appendix H2.

SLC briefly mentions the adverse public health effects of PM_{2.5} but then suggests that there are scientific uncertainties concerning those effects. In discussing PM_{2.5}, SLC utterly ignores the very abundant evidence summarized by EPA in the criteria document supporting the standard and accepted by the majority of scientists in the field. This research shows that PM_{2.5} poses a threat to public health at levels well below the standard.¹⁸ SLC fails to discuss in any meaningful way the public health impacts of PM_{2.5} from the Greenport facility, let alone specifically evaluate what impact the additional emissions of PM_{2.5} from the facility will have on the surrounding community.

The absence of this analysis is particularly striking since the Greenport facility will be located a short distance from several sensitive receptors. In particular, the plant will be located only 1 mile from Columbia Memorial Hospital and an elementary school. Appendix H2 does not address the impact of the Greenport facility on these receptors in any way. Moreover, although H2 averages emissions of PM_{2.5} over the year, the prevailing winds in the area are different in the summer and winter months. As a result, the concentrations of

18 In fact, the Court of Appeals, in remanding the standard back to EPA, essentially acknowledged that there are no safe levels of PM_{2.5} in the atmosphere and any addition posed increased health risks. As a result, it concluded that EPA failed to articulate an "intelligible principle" for setting the standard at 15 micrograms annual average rather than at some lower level.

PM_{2.5}, and the potential impact on public health, may be significantly higher in one season than another. Appendix H2 fails to address this issue.

The scientific bases for SLC's emission estimates are also suspect. As a preliminary matter, SLC does not specify in Appendix H2 what emission rate it modeled. As a result, it is impossible to assess the accuracy of its emission estimates for the Greenport facility. Equally important, SLC modeled the dispersion of only its own assumed PM_{2.5} emissions. It utterly ignored the impact of all other local sources of PM_{2.5} listed in the DEIS, including the Athens power plant which will be located a mere 4 miles away and will be a significant source of PM_{2.5}. Preliminary calculations suggest that if emissions from the Athens plant were properly considered, total PM_{2.5} emissions would be much higher than those estimated in Appendix H2 and could exceed the NAAQS standard set by EPA.

Finally, SLC focuses extensively on emissions of secondary PM_{2.5} which is produced spontaneously in the atmosphere by reactions among pollutant gases. In particular, SLC suggests that the reductions in emissions of NO_x and SO₂ associated with the shutdown of Catskill will result in significant reductions in secondary PM formation, offsetting emissions from the Greenport facility. As noted in the comments on SLC's draft air permit, SLC does not specifically commit in its permit to shut down Catskill, making reliance on these emission reductions questionable. Moreover, as SLC itself acknowledges, these reductions would occur in a different location than the primary PM emissions from the Greenport plant. Thus, it is uncertain what benefit, if any, these reductions will have for the members of the community living and working in the immediate vicinity of the Greenport plant who directly affected by primary PM_{2.5} emissions from the facility.

Where, as here, there is no enforceable standard and thus no firm basis for regulating emissions under the air program, DEC *must* assess under SEQRA whether these emissions will cause a significant adverse environmental impact, including a threat to public health. In particular, SLC must analyze various operating scenarios to determine the maximum daily, average daily and yearly maximum PM_{2.5} emissions from the facility and what areas those emissions are likely to impact, with particular attention to sensitive receptors. SLC must then examine what impact emissions at those levels will have on public health and the environment. DEC must then undertake the SEQRA analyses and issue findings and impose conditions demonstrating that adverse impacts have been mitigated to the maximum extent practicable.

VI. MINING

SLC relies heavily upon the claim that its entire mining operation is grandfathered under SEQRA because its initial mining approval pre-dated the effective date of SEQRA. While the DEIS contains the statement that SLC and Department Staff have “agreed to disagree” on the extent of the SEQRA exemption, the reality is that the DEIS is devoid of the necessary information that a Lead Agency should require to assess the impacts of the expanded mining operations that the agency believes are subject to SEQRA. Moreover, the draft mining permit is devoid of operating conditions to limit the extent of mining operations and to protect the public from the adverse impacts associated with the expanded mine operations. While the applicant is free to disagree with the Lead Agency as to what should be included and considered in the DEIS, it is the Lead Agency’s views which must prevail in terms of including information for the hard look - not the applicant’s. The applicant is free to reserve its rights and seek judicial review after the final permit decision if it feels that its permit has been denied or impermissibly conditioned based on illegally applied SEQRA concerns, however it may not circumscribe the SEQRA process in the interim. That is what has happened in this case.

There seems to be little disagreement between DEC and SLC that the current Mined Land Reclamation Permit is based upon a Mined Land Use Plan (MLUP) which is based upon an extraction rate of 2 million tons per year (tpy) of total extraction or 1.8 million metric tons per year (mty).¹⁹ In one respect this is the maximum amount of output from the mine which can be considered grandfathered under SEQRA. However, SLC also recognizes that the mine has largely been unused for limestone production for the last quarter of a century and portions of the mine have been leased to A. Colarusso & Sons (Colarusso) for aggregate and shale mining at an annual rate of approximately 453,000 mty (500,000 tpy). Under this application, SLC seeks to expand the total output of the mine to 6.1 million mty a **338% increase** over the existing MLUP amount and a **1,346% increase** over the existing use!²⁰

As noted, SEQRA excludes from its requirement actions undertaken or approved prior to September 1, 1976, the effective date of the legislation. However, there are two important exclusions:

¹⁹ Throughout the DEIS and permit materials, SLC alternates between using English and Metric forms of measurement, which generally serves to confuse the reviewer and may understate the scope of its operations. Wherever possible, FOH has attempted to use the metric measures to provide a consistent form of measurement of the impacts of the project.

²⁰ Even those enormous increases do not represent the ceiling of potential impacts since SLC does not recognize any right of DEC to limit the level of operations and the draft Mining permit contains no limit on the annual rate of extraction.

(i) In the case of an action where it is still practicable either to modify the action in such a way as to mitigate potentially adverse environmental effects or to choose a feasible and less environmentally damaging alternative, in which case the commissioner may, at the request of any person or on his own motion, in a particular case, or generally in one or more classes of cases specified in rules and regulations, require the preparation of an environmental impact statement pursuant to this article; or

(ii) In the case of an action where the responsible agency proposes a modification of the action and the modification may result in a significant adverse effect on the environment, in which case an environmental impact statement shall be prepared with respect to such modification.

ECL Sec. 8-0111(5)(a).

Subparagraph (ii) above specifically requires consideration of the environmental impacts associated with the modification of a previously approved action. The first exemption, subparagraph (i) specifically vests in the Department the discretion to require an EIS and consider the potential environmental impacts when it is still practicable to modify an action to avoid adverse impacts. Both circumstances are clearly present in this case. In the first instance, the request to increase extraction activities more than three-fold clearly requires consideration of its environmental impacts. Secondly, where the life of the mine is greater than 100 years and adverse impacts will result from blasting, processing, traffic and visual impacts, it is practicable to mitigate those impacts by the imposition of reasonable conditions that do not impact SLC's ability to operate the mine. This is especially true in light of the fact that SLC has essentially not used the mine since the enactment of SEQRA. Instead, SLC has effectively warehoused the limestone in the mine and leased a portion of the mine to an adjoining mining operation (Colarusso) to allow it to take aggregate and shale from the mine.

Had Department staff taken the hard look at the mining issues, it would have noticed the following deficiencies in MLUP and either denied the requested modification or severely conditioned its approval.

Blasting

Blasting associated with mining activities produces three types of impacts (1) seismic impacts from the blasts; (2) noise impacts; and (3) fugitive dust air pollution impacts. The noise and fugitive dust impacts are discussed below. This section of the comments will address the blasts themselves.

SLC claims that the current MLUP permits 3 blasts per week with 3-5 seconds per blast.

This equals 9-15 seconds of blast noise per week. The proposed updated MLUP calls for 2 blasts per week with 5-7 seconds per blast, or 10-14 seconds of blast noise per week. The total duration is essentially the same. SLC claims that the magnitude of the blasts will remain the same. Thus, leaving the impression that there is no change or potential adverse impact from the increased extraction rate. If it seems counter-intuitive as to how there can be a three-fold increase in extraction with less blasting, its because SLC is wrong.

SLC claims it will produce a maximum of 80,000 metric tons of material per blast. [DEIS Appendix A; p. A-15]. At the current approved extraction rate of 1.8 mty that equates to approximately 22.5 blasts a year, less than SLC's claim of 2 blasts a month as its current operations. What SLC does not disclose is that at its projected extraction rate of 6.1 mty, there will be more than 76 blasts at the at the maximum level equating to between 1 and 2 blasts each and every week of the year. Thus from a weekly rate standpoint, the duration of an individual blast may be similar but over a year there would be more than three times as many blast events (thus three times the potential for offsite damage). Blasting effects are unpredictable-the more blasts, the more chance something unexpected will happen with potentially damaging consequences.

Thus it is clear that the amount of blasting will be significantly greater than previously allowed under the current MLUP. The potential increase over the existing rate of extraction is even greater. Giving credence to SLC's claim that Colarusso currently removes 453,000 mty at the maximum blast level that equals only 6.25 blasts a year, whereby SLC seeks permission to increase the number of blasting events more than 12 times!

SLC compounds the deception and understates its impacts by claiming that the perception of blasting will be about the same, except with a greater frequency. [DEIS p. A-17, emphasis added]. This is inaccurate because SLC has not conducted any study of the impacts on surrounding properties of existing blasting levels and an assessment of the impacts from the increased activity. While individual blasts may not produce vibrations sufficient to cause damage, the cumulative effects of a tripling of the number of blasts all at a maximum level is likely to cause structural damage. Reliance upon the U.S. Bureau of Mines standards is of no comfort and provides no protection for nearby landowners, since it only control the size of individual blasts and does not address cumulative impacts of frequent, long-term blasting.

The simple fact is that currently blasting occurs very infrequently and is of lesser magnitude than proposed by SLC. Inexplicably, that change has not been fully studied. Even more disturbing is that SLC has implicitly recognized the potential damage that will be caused by its blasting operations. On May 25, 2001, after the DEIS was released for public comment, SLC conducted some test blasting. As reported in the Register-Star, SLC placed 150 seismographs in Hudson, Greenport and Claverack and undertook a series of

four test shots and one production shot. The Register-Star reported numerous citizen reports of impacts from the test blasts. Daniel and Rebecca Iuliano of Becraft Avenue, Greenport, sent a letter on that day to Friends of Hudson in which they state that:

“ at 1:00 PM we felt 2 blasts in quick succession. The first of the two was strong enough to shake pictures, etc on the walls and rattle the windows. The second was a low rumble that was felt more in the floor. At 1:04 PM, we felt another quick blast, not as strong as the first . . . Neither blast caused any visible damage to our home on this day. However we are concerned about what damage our home will suffer after long-term blasting, particularly if there are numerous blasts as strong as the first one”.

While SLC has conducted the test blast and collected seismic data, none of that information has been included in the DEIS or been made available to the public. What is known is that people who have lived for years in proximity to the existing mine noticed a substantial difference over past blasting operations by Colarusso. Thus, it would appear that Colarusso has not been using the same magnitude blasts as contemplated by SLC and the SLC blasting will have a significant impact on surrounding properties.

The draft mining permit does not protect against these impacts since it has not limitations on the duration or frequency of any blasting.

Noise

Increased operation of the mine will also result in greater impacts which have not been fully considered in the DEIS. Specifically under the Future No-Build scenario, SLC claims with the increased off-site handling of an additional 500,000 tpy of aggregate, the DEIS claims that noise levels would be increased by an imperceptible 0.8 dBA. There is absolutely no substantiation of that claim. Moreover, the increased noise levels from the off-site transport of the additional aggregate is completely ignored. The projected negligible increase under the No-Build is unlikely because the projected doubling of aggregate removal implies a doubling of haul traffic, which would suggest an increase in haul traffic noise generation of 3 dBA, which is certainly not imperceptible.

SLC also claims that movement of an additional 2 million mty of rock onsite is negligible to offsite receptors is not substantiated by quantitative analysis using the methodology established in the DEIS for estimating offsite noise levels.

The noise impact of the primary crusher on the Federation of Polish Sportsmen Club (FPS) is not adequately assessed. SLC's attenuation factor for the primary crusher appears overstated. A crusher noise level of 86.1 dBA at 50 feet was measured at the Catskill facility. To achieve the 30 dB of distance attenuation claimed by SLC, the receptor would

need to be 1,600 feet from the crusher noise source. SLC's attenuation factor table provides for 30 dB of attenuation for distances of 800 to 1,600 feet. The table should provide for 24-30 dB of attenuation at this range of distances. This means that unless the primary crusher is at least 1600 feet from the FPS Club, SLC's noise analysis underestimates the potential noise impact from this source. This potential underestimation of noise levels at the receptors applies to all the Catskill stationary noise sources measured at 50 feet. As a result, it is apparent that the noise analysis consistently understates the potential overall noise impact of the project.

Visual

The proposed MLUP continues SLC's intention at the latter stages of the use of the mine to continue mining until even the ridge of Bercraft Mountain is removed. While that impact is not expected to occur for some 50 years and after the cement plant is dismantled, it will nevertheless permanently remove an important feature in the area and permanently change the topography in Columbia County. Just recently the DEC Commissioner has ruled that the complete removal of a mountain for the sake of a gravel mining operation is an unmitigated adverse environmental impact which is inconsistent with the needs of the surrounding community. Lane Construction Corp. v. Cahill, 270 A.D. 2d 609 (3rd Dept. 2000). Clearly, such an issue should be considered in the context of the modification of the MLUP for SLC's Greenport quarry. It is still practicable to mitigate that adverse impact by modifying the permit to require SLC to maintain the ridge of Bercraft Mountain. While it may not result in SLC maximizing its profits from the mine, the standard under SEQRA is not a maximization of profit but a balancing of legitimate social and economic interests and the interest of maintaining the environment. Therefore the DEIS should consider the environmental impacts, including the visual impacts of the complete destruction of Bercraft Mountain and determine if that is an appropriate outcome.

* * *

The foregoing demonstrate that a tripling of production from the mine will inevitably result in significant adverse impacts which must be considered and mitigated consistent with the intent of SEQRA. The Department must impose conditions to assure that such impacts do not result from the expansion and should institute controls to remedy deficiencies in the current MLUP. Notwithstanding any prior agreement with the Department, it clear that impacts can be mitigated and it is the burden of SLC to demonstrate that any proposed controls are impracticable and irreparably harm any vested rights it may enjoy. However, before the Department can reach that conclusion, the DEIS must be supplemented to more fully address the issues of blasting, noise, fugitive dust emissions and visual impacts from the removal of Bercraft Mountain.

VII. NOISE IMPACTS

The noise impacts of the project, separate and apart from the noise generated by the mining operations have been seriously understated by SLC and will, by its own projected numbers result in a significant increase in noise levels at identified receptors. Department staff seem to be exacerbating the problem by only requiring a noise mitigation plan as a condition of the permit for the project and allowing SLC to operate with a 10 dBA increase in daytime ambient noise levels, even though a 10 dBA increase is often perceived as a doubling of noise levels. By sanctioning these unmitigated noise levels, the Department is violating its own guidance and permitting unnecessary adverse impacts on those who live and work near the SLC facilities.

In the DEIS, SLC relies heavily upon the Noise Control ordinances of Greenport and Hudson as support for its claim that noise from its operations will not have an adverse impact on the environment. The Town of Greenport and City of Hudson Noise Control Codes, which are essentially identical, establish a sound level standard of 70 decibels (at the nearest property line under the Greenport code, the Hudson ordinance appears to require that standard on the subject property). Contrary to the DEIS, the NYSDEC “Program Policy on Assessing and Mitigating Noise Impacts” does not state that local regulations have precedence over NYSDEC guidance levels. The policy only states that it does not supersede any local noise ordinances or regulations. By limiting the project noise impact standard to the local code 70 dB level, SLC has not evaluated the project noise against other relevant and more stringent guidance/regulations. One example is 6NYCRR 360-1.14 (p), which stipulates a 57 dB(A) Leq residential property noise level limit from 7 am to 10 p.m. in rural areas (47 dB(A) from 7 am to 10 p.m.). If this standard were applied to the project, it appears the facility would not comply with the standard without consideration of mitigation measures. Other noise regulations and guidelines typically used in evaluating project noise impacts (a purpose of the SEQRA process) include U.S. Department of Housing & Urban Development site acceptability standards, based on day-night energy-equivalent noise levels (Ldn) and EPA guidance on yearly Ldn values that protect public health and welfare with a margin of safety. In the case of the HUD guidance, Ldn levels above 65dB are usually considered unacceptable. For residential areas, EPA identifies an Ldn equal to or less than 55dB as sufficient to protect public health and welfare with a margin of safety. Since the facility is proposed for 24/7 operation, use of the Ldn should have been employed to evaluate the project against these recognized standards.

The DEIS states that for the purposes of noise code compliance, the 70dB limit in the local codes means a one-hour Leq of 70 dBA. This arbitrarily biases the analysis in SLC’s favor because the one-hour Leq is a time-weighted average sound level over a one-hour period. By definition, a time weighted average level of 70dBA means actual sound levels will exceed 70dBA some of the time. In other words, the facility could meet a 70 dBA Leq

(1) standard while violating the 70 dB local ordinance limit. Furthermore, because the local codes do not specify a time limit (e.g., Leq (1 hr.) or L10 (20 min.)), the codes are of questionable validity and usefulness for environmental impact assessment. It is likely that they are intended for enforcement use to measure whether the 70 dB limit is being exceeded instantaneously.

It is incorrect to state that the local codes are the applicable noise criteria and standards for evaluating the project's noise impacts. SEQRA requires evaluation of noise impacts and requires identification of adverse impacts and measures to avoid or mitigate those impacts to maximum extent practicable. In evaluating a project it is necessary to assess both compliance with applicable regulations and the degree of project impacts. Equating regulatory compliance with no adverse impact is not advisable because it is possible to achieve compliance with a particular code and have severe adverse impact at the same time. SLC's analysis basically asserts this conclusion.

The DEIS has other deficiencies with respect to noise:

1. Table 15-2 is inconsistent with typical guidance on assessing the impacts of changes in noise levels. Other agencies (e.g., FHWA, NYCDEP) consider an increase of more than 5 dBA as a significant impact. This is important because at most receptors (Nos. 1, 2, 3, 5 & 6) predicted project noise increments under certain conditions are greater than 5 dBA; in fact, several receptors are predicted to have more than a 10 dBA increase. Yet the DEIS erroneously concludes that the project would not result in any significant adverse impact from stationary or mobile noise sources.

2. According to the NYSDEC "Program Policy on Assessing and Mitigating Noise Impacts", increases as small as 3-6 dB may have adverse noise impact where the most sensitive of receptors are present. Increases more than 6 dB require closer analysis of impact potential and increases of 10 dB or more deserve consideration of avoidance and mitigation measures in most cases. As noted at several project receptors, increases of considerably more than 10 dB are predicted. Further guidance in the document states that in non-industrial settings (e.g., at receptor No. 6 at the Federation of Polish Sportsman Club) project noise levels should not exceed ambient levels at the receptor by more than 6 dBA. At receptor No. 6 the exceedance is up to 14.7 dBA. The applicant's analysis does not comply with NYSDEC guidance.

3. For sensitive receptors, severe impacts can occur with noise increases as low as 1 or 2 dBA. For example, consider the Federal Transit Administration "Transit Noise and Vibration Impact Assessment" document which relates project noise levels to ambient noise levels. According to the FTA document, where ambient levels are low (45-50 dBA), noise increases with a project of 5 to 7 dBA constitute an impact. However, where ambient

noise levels are high (65 to 70 dBA), noise increases of as little as 1 dBA constitute an impact and increases of 3 to 4 dBA constitute a severe impact. A review of Tables 15-6 and 15-7 in the DEIS shows major impacts according to these criteria.

4. Many of the monitoring locations were too close to roads and highways to accurately represent ambient conditions in the study area. Over influence of road noise will result in an overestimate of background ambient levels.

5. There is no spectral analysis of project noise levels. The use of octave-band SPL's as a noise descriptor for industrial sources is typically included in a comprehensive noise impact assessment because industrial facilities can generate substantial low-frequency noise levels with significant impacts. The non-linearity of human hearing causes sounds dominated by low frequency components to seem louder than broadband sounds that have the same A-weighted level.

6. Noise from the mining operations including blasting should be included and should be viewed as part of the project. Considering only part of an action is contrary to the intent of SEQRA. Excluding evaluation of blasting noise and vibration impacts and mitigation is an omission in the analysis.

7. Sunday noise levels are sometimes lower than Saturday. Since the project proposes a 7-day-a-week operation, the maximum change in noise (impact) may occur on Sunday not Saturday. The evaluation of weekend project noise impacts based on Saturday levels is a deficiency in the analysis unless it was verified that Sunday levels are not significantly different than Saturday levels in the study area.

8. Substantiation is lacking that use of Catskill plant measurements accurately represents the potential noise generation of the Greenport plant. Differences in size of operation, for example, can have a substantial effect on noise levels. Documentation of the actual noise to be generated by the extensive conveyor system is inadequate. Absent more data, it is not possible to determine if the project noise levels have been underestimated or overestimated.

9. The DEIS is lacking in any assessment of the noise impacts from the dock operations. No potential noise levels from the unloading or loading of ships and barges are presented nor is there any mention of any measures to limit the noise generated from those operations. Related to the lack of information on noise generated from the dock is the lack of any assessment of noise impact to Athens which is directly across the river from the dock. Even if the Hudson noise ordinance was a definitive limitation for SEQRA consideration in the City of Hudson (which it is not), as Lead Agency, DEC has an obligation to assure that the project will not result in adverse noise impacts on surrounding communities

such as Athens and Claverack.

VIII. VISUAL IMPACTS

The Visual Resources chapter of the DEIS presents extensive information relevant to the visual impacts of the proposed Greenport project, and also draws general conclusions about the visual impacts of the project, but the DEIS does not provide an assessment of the visual impacts at the individual viewpoints chosen for use in the study. The attached tables 1 and 2 provide such an analysis, based entirely on the information provided in the DEIS.

The visual impact analysis presented in tables 1 and 2 is based on the following guidelines:

- _ The primary cause of negative visual impact is incongruity. Visual incongruities with particular relevance to the proposed SLC project include the following:
 - _ A built structure in an otherwise natural setting
 - _ A modern structure in an otherwise historic setting
 - _ An industrial structure in an otherwise residential or agricultural setting
 - _ Breaks in the horizon or ridgeline

- _ An object that extends above the horizon or ridgeline has greater visual impact than an identical object that does not.

- _ The greater the otherwise unbroken visual expanse in which an object appears, the greater its visual impact.

- _ An object in the background has less visual impact in a scene dominated by objects in the foreground.

- _ Because the human eye is drawn to water in a scene consisting primarily of land, an impact to the view of the water is more significant than an impact to the view of the land.

- _ Objects that appear large have greater visual impact than objects that appear small.

- _ The presence of a well-maintained barge at a dock neither enhances nor detracts from the aesthetic quality of the dock. This analysis assumes that barges stopping at the Hudson dock will be well maintained.

In its visual resources analysis, SLC states several times that the proposed project site has a history of industrial use. In an analysis of visual impacts, compatibility with existing

land use is relevant only to the extent that it reduces the visual incongruity of the proposed structures. The fact that the proposed cement plant would be generally consistent with historic land use in the vicinity of the Greenport site does not in any way mitigate the aesthetic damage the plant would cause at locations from which the previous industrial uses were not visible.

A. Detailed Visual Impact Assessment

Table 1 assesses the visual impact at the "Key Viewpoints" listed in Table 5-17 of the DEIS. The DEIS indicates that the key viewpoints were selected to be representative of all viewpoints in the area, with some preference given to relatively unobstructed views, viewpoints of public significance, views that would be seen by relatively large numbers of people, and viewpoints that would improve the geographic distribution of the "key viewpoints" as a whole. Table 2 assesses the visual impact at additional viewpoints. Many viewpoints for which photographs are provided in Appendix.

The visual impact assessment presented in tables 1 and 2 is based on the photographs reproduced in DEIS Appendix B1, Key Viewpoints, and Appendix B2, Photographic Simulations. For each photograph from each viewpoint, appendices B1 and B2 include a color photocopy of the photograph as taken, as well as a color photocopy with the addition of a computer simulation of elements of the proposed facility that would be visible in the scene.

For each view of the plant, Appendix B1 also includes a color copy of the photograph with a computer simulation of the "likely worst case winter plume" from the stack. Although the stack is visible in many of the scenes intended to show the worst-case plume, none of the drawn-in plumes are discernible on the color copies in the DEIS. It was therefore impossible to include the visual impact of the plume in the analysis in this memorandum. Unless specifically indicated, all visual impacts referred to in this analysis are impacts of the proposed structures alone. Any visible plume would add to the impact.

If no element of the proposed project is discernible in a simulation reproduced in Appendix B2, the view for which that simulation was prepared is not included in Table 2. It could not be determined whether the project was indiscernible because of the quality of the reproduction or because no element of the proposed project would be visible in the view in question.

For purposes of the analysis presented in tables 1 and 2, elements of the proposed project that would have a significant negative visual impact during "leaf-off" season but would not be visible during "leaf-on" season are assigned a "slight" negative visual impact. Similarly, elements of the proposed project that would have a significant positive visual

impact during leaf-off season but would have no visual impact during leaf-on season are assigned a "slight" positive visual impact.

The detailed visual impacts analysis summarized in tables 1 and 2 shows the following:

_ SLC's proposed changes at the Hudson dock would have a positive visual impact at three "key viewpoints" in Table 1 and no net impact at two. The changes at the dock would have a negative impact on the view from the Rossman-Prospect Avenue Historic District, a "key viewpoint," because the proposed conveyor and conveyor tower would partially block the view of the Hudson River. The changes at the dock would have a positive visual impact at four of the additional viewpoints in Table 2 and no net impact at two of the additional viewpoints.²¹

_ SLC's proposed changes at the former Atlas Cement plant would have a positive visual impact at two key viewpoints because structures would be removed.

_ The proposed cement manufacturing plant in the Greenport mine would have a negative impact at 25 of the 27 "key viewpoints" for which simulated views of the plant are provided in Appendix B1 of the DEIS. The plant would have no impact at the other two "key viewpoints." Of the 25 negative impacts, 12 would be significant and 5 severe. Among the significantly impacted views would be the view from the Rossman-Prospect Avenue Historic District in Hudson and the view from New York State Route 385 north of Athens, a designated "scenic byway" and "scenic area of statewide significance." Among the five severely impacted views would be the following:

_ The view from Promenade Hill Park, a community park in Hudson

_ The view from the Front Street-Parade Hill-Lower Warren Street Historic District in Hudson

_ The view from Cosy Cottage and grounds at Olana State Historic Site, a designated "scenic area of statewide significance."

_ The view of the Hudson-Athens Lighthouse from Hudson River point 1. The Hudson is a designated American Heritage River and the lighthouse is a registered historic site.

The proposed Greenport cement plant would have a negative impact at all 15 of the additional viewpoints in Table 2 for which discernible simulations of the plant are provided

²¹ While SLC may have a positive impact from the removal of the occasional salt piles, the DEIS fails to discuss where those piles will be relocated to, therefore there may no be any positive impact.

in Appendix B2 of the DEIS. The visual impact of the proposed facility would be significant at 10 of the 15 viewpoints and would be severe at 3 others.

The negative visual impacts of the proposed cement plant far outweigh the positive impacts of the proposed changes at the former Atlas Cement plant and the Hudson dock. The negative impacts of the plant would affect many more viewpoints than the positive impacts of the changes at the Hudson dock and the Atlas site. Perhaps more important, construction of the proposed Greenport cement plant would introduce a modern industrial presence into many formerly natural, historic, residential and agricultural scenes. Improving the appearance of existing industrial sites can not mitigate this type of aesthetic impact.

Demolition of the Catskill cement manufacturing facility will not offset the impacts of the proposed cement plant, because the largest structures at the Catskill facility are more than 200 feet shorter than the proposed preheated tower and stack.

B. Additional Comments

Viewpoint 20 is next to a ball field behind Hudson High School, with the upper portion of the preheated tower and stack visible on the other side of the school. It appears that the visual impact would be greater in front of the school, which is probably a more active area on most days than the ball field.

Two of the "key viewpoints" in SLC's visual resources analysis, VP#64.1 and VP#138.2, are highway intersections: Because the foreground tends to be more cluttered in views from intersections than in views from other points along the road, the use of intersections as viewpoints distorts the visual analysis in SLC's favor. The rating for viewpoint 64.1 might be severely negative rather than significantly negative if the photograph had not been taken at the intersection, where the foreground includes two utility poles and a road sign. The rating for viewpoint 138.2 would probably be significantly negative if the photographs had been taken with the intersection behind the photographer rather than in front of the photographer. The foreground of the photographs is cluttered with road signs, utility poles, parked mobile homes, vehicles waiting at the light, and in one photo the traffic lights themselves.

C. Friends Of Hudson Simulation

Friends of Hudson also retained the services of Vincent Bilotta, an experienced graphic designer with over 15 years of experience with graphic design, animation and visual simulation. Using SLC's own data information in the DEIS, Mr. Bilotta has created independent simulations from the same viewpoints used by SLC. Attached as *Exhibit B*, is a simulation of the plant from Cosy Cottage at Olana State Historic Site. This simulation is

the same location as SLC's VP#142 and the photograph at p. B1-104 of the DEIS, *Exhibit B* demonstrates that, in fact, the plant will appear far larger than shown in the DEIS. Mr. Bilotta used standard simulation software, including World Construction Set, ER Mapper and ArcGIS 8.1 plus USGS elevation data and SLC's own description of its structures set forth at Table 1-3 of the DEIS.

This single sample demonstrates that the visual impacts will be significantly more pronounced than as portrayed in the DEIS.

D. In SLC's Own Words

Several statements from the Visual Resources chapter of the DEIS are worthy of special note:

"The preheated and cement silos are tall vertical elements that break the sinuous horizontal flow of the visible horizon" (page 5-56).

"The height and mass of the proposed cement plant would be disproportionate in scale to other elements of the regional landscape. The proposed cement plant would be a highly dominant visual element" (page 5-57).

"During the 1830s and 1840s, the popularity of this region helped to establish Columbia and Greene counties as the geographic center of the American Romantic Movement, which was founded on the beauties and value of our relationship to nature" (page 5-11). More than 150 years later, millions of people feel the same way about the Columbia/Greene area and the Hudson Valley as a whole, making the preservation of its aesthetic resources especially important. A current 10-part series in *The New York Times*, "In Art's Footsteps," is exploring the ways in which contemporary residents and visitors of the Hudson River region reflect the values of the 19th century landscape painters of the Hudson River School. What the painters and many current residents and visitors have in common is an appreciation for the aesthetic values of the region combined with an acute awareness of the threats posed by increasing human use.

"The Greenport Project will clearly alter the visual impression in the visual study area as the facilities are perceived at the site, from nearby and, in some instances, from a considerable distance" (page 5-62).

E. Conclusion

In the minds of millions of people inside and outside the Hudson Valley, the essence of the Columbia County area is the beauty of its land forms. Industry can be a welcome element of the regional landscape if it conforms to the dimensions of the land. SLC has

proposed to construct a facility on a scale larger than that of the land around it. This would do significant damage to the aesthetic qualities for which the Hudson Valley is most valued, both by residents and by travelers. SLC's own visual analysis shows that the proposed preheated tower and primary stack would be visible above the horizon at numerous locations for miles around the plant. The tower and stack would become hard focal points of otherwise soft and natural vistas, ruining their aesthetic quality and restorative power.

The proposed Greenport cement plant would have substantial visual impacts that can not be mitigated without fundamental changes in the project. This should make the need for the project an issue. SLC's statement on page 17-16 of the DEIS that the cement market is "already flooded" indicates there is no public need for the proposed project.

IX. SOCIO-ECONOMIC IMPACTS

In both the DEIS and in its public relations campaign for the project, SLC touts a claimed economic benefit to Columbia County and the State of New York. Such a claim is important since it must be the counter-balance to the unmitigated adverse impacts caused by the project. In theory, if the socio-economic benefits were great, they could outweigh the adverse environmental impacts caused by the project. However, the claimed economic benefits are grossly overstated and rather than serving to support the project, demonstrate the negative impacts the project will create and highlight the high environmental price that will be paid without any corresponding economic benefit.

In the first instance is the question of any change in employment when the facility is in full operation. In the DEIS [p. 3-14] SLC admits "the proposed project would result in little net change to SLC employment". Comparing its total employment today with projected employment, SLC sees a net increase of **one job!** SLC recognizes that most of its current Catskill employees will transfer to Greenport, yet SLC claims that 20% of its total employment will represent new hires. SLC provides no substantiation for that estimate, since the Greenport facility is in such close proximity to its existing operations and if the wages and benefits claimed by SLC are so attractive, there is no discernable reason why all the employees at Catskill would not seek to retain their jobs. Therefore, there is a real possibility that none of the employment will constitute "new" jobs.

Columbia County Citizens for Better Information, an independent citizens group has retained Robert Pauls, principal of Robert B. Pauls, LLC, an economic consulting firm to consider the economic projections in the DEIS. Mr. Pauls was an invited participant in the community forums sponsored by SLC and noted at the time his skepticism about the claimed economic benefits of the project. Columbia County Citizens for Better Information has generously shared Mr. Pauls' analysis with FOH.

Mr. Pauls has considered SLC's representations and has, in many instances, taken those representations on face value, notwithstanding the lack of supporting information. For instance, Mr. Pauls has not questioned SLC's claim of an average wage of \$65,000 per worker which would be unusually high for this type of industrial work. Mr. Pauls has not questioned the distribution of the work force, although SLC has not provided any information on the current geographic distribution of its employees. Using conservative estimates which tend to benefit SLC more than may be appropriate, Mr. Pauls arrives at a dramatically different conclusion than SLC. While SLC projects an annual economic benefit for Columbia and Greene Counties of \$ 48,740,000, Mr. Pauls projects the actual benefit as \$ 9,748,000.

Economic Benefits from Annual Operation
of Greenport Facility

	DEIS	Probable
	Total in Columbia & Greene Counties	Total in Columbia & Greene Counties
Direct Benefits	(2000 Dollars)	(2000 Dollars)
Wages & Salaries	\$ 10,200,000.00	\$ 2,040,000.00
Other	\$ 23,130.00	\$ 4,626,000.00
Indirect Benefits		
Wages & Salaries	\$ 10,800.00	\$ 2,016,000.00
Other	\$ 5,330.00	\$ 1,066,000.00
Total Costs	\$ 48,740.00	\$ 9,748,000.00

Similar discrepancies result when projections for benefits during construction are analyzed. While SLC projects that \$121.7 Million of its \$320 Million construction budget will be a direct input into the local economy, Mr. Pauls projects the local input to be only \$70 Million.

Summary of Capital Investments
In Construction of the Greenport Facility

		DEIS	Probable
		Assumed Direct Input in Local Economy	Assumed Direct Input in Local Economy
	Total Value		
Expenditure	(2000 Dollars)	(2000 Dollars)	
Equipment	\$ 131,407,000.00	\$ 6,848,000.00	\$ 6,848,000.00
Construction	\$ 128,727,000.00	\$ 106,438,000.00	\$ 54,870,000.00
Engineering	\$ 28,021,000.00	\$ 8,042,000.00	\$ 8,042,000.00
Misc. Costs & Fees	\$ 2,940,000.00	\$ 398,000.00	\$ 398,000.00
Contingency	\$ 29,110,000.00	\$	
Total Costs	\$ 320,205,000.00	\$ 121,726,000.00	\$ 70,158,000.00

Even those assumptions are likely to be overstated. SLC provides no definition of its term “local” and thus raises questions about its assumptions. For example, SLC claims a local benefit of over \$ 8 Million in engineering fees, which Mr. Pauls has accepted without question. However, SLC does not identify what engineering firm in Columbia or Greene Counties it intends to retain for the project. In fact, other than its own in-house engineering concern, SLC seems to be relying upon Malcolm Pirnie as its primary engineer. Malcolm Pirnie’s offices are in White Plains and Latham and thus cannot be considered as a local economic benefit to Columbia or Greene Counties. Furthermore, most of the cost is associated with construction costs, however there is insufficient support for the claim that much if any of those jobs will be from Columbia County. The latest labor statistics for Columbia County show that 666 persons were employed in construction. While the project will require 813 person years of employment over the two year construction schedule it is evident that there is insufficient local skilled construction labor to meet that need, resulting in a likelihood that most jobs will be filled from outside the area, thus providing far less local employment. It also should go without saying, that construction related benefits, even if they were projected accurately are, by definition, extremely temporary, in this case lasting at most two years, and are insufficient reason to support a project with unmitigated environmental impacts.

The veracity of SLC’s claims of economic benefits are particularly challenged by its own treatment of the impacts to Greene County as a result of an essential shut-down of its Catskill operations. While SLC claims optimistic direct and indirect benefits to the Columbia County economy, it claims there will be no loss to the Greene County economy. This despite the fact that its Catskill employment will drop from 144 to 25, it will dismantle facilities at Catskill, stop operating the Catskill kiln and presumably have far less indirect spending by employees who are now presumed to be doing all of their spending in Columbia County. Given such a dramatic shift in resources with supposed economic benefits to Columbia County, it should follow that there would be drop in Greene County. Given that SLC claims no such drop, even in the assessed valuation of its Catskill facility, it only serves to point out that the claimed economic benefits to Columbia County are illusory.

X. LAND OWNERSHIP ON THE HUDSON WATERFRONT

As part of its application, SLC proposes a significant expansion of its existing dock facilities in Hudson, primarily for the purpose of being able to simultaneously handle outgoing barges receiving cement and in-coming HudsonMax vessels delivering coal and other inputs. SLC has applied to the DEC and the Army Corps of Engineers for a permit to dredge up to 80,000 cubic yards of river bottom and to fill up 51,907 square feet for

construction of its dock facilities.²² Associated with the requested dock expansion, SLC has applied to the New York State Office of General Services for a Grant for Lands Underwater. Very serious issues have arisen with respect to SLC's right to request such a grant including questions about whether it even has valid title to the land it currently occupies.

Public records indicate that SLC does not likely hold title to substantial land areas along the edge of the Hudson River where the company proposes to locate its dock operations. Because of probably unauthorized fill-in of the Hudson River by SLC and/or its predecessor companies beyond boundaries defined by State authority, the locale of the proposed dock occupies a large area of land that in all probability is held in title by the People of the State of New York. In addition, the area of the waterfront that was filled in by proper authority of the State was permitted under the express condition of maintenance in perpetuity of a sizeable dock for use by the public. SLC and its immediate predecessor company failed to comply with this condition, thereby raising the prospect of a return of these lands to the People of the State of New York. The land ownership of the waterfront area would directly affect the nature of any dock operation proposed by SLC if not raising a legal question about the actual right of the company to occupy any part of the area.

The entire area of the current lands along the Hudson River now occupied by SLC's dock is landfill in the bed of the Hudson River. The issue of title ownership concerns approximately 1400 feet along the River's edge that comprises SLC's primary area for its current and proposed active dock use. Authority for a precisely defined fill-in of this area of the Hudson River, along with conditions for the fill-in, was granted by State Legislative Act, Chapter 195, Laws of 1855, and was reconfirmed and slightly revised in a subsequent State Legislative Act, Chapter 167, Laws of 1861. These two Legislative Acts redefined the size and conditions of a previous "Grant of Land Underwater" issue by the State Land Commissioner through Letter Patent to John L. Graham dated December 12, 1836. There is no other apparent State authorization that provides any other definition of this area of the Hudson River permitted to be filled in or any other definition of conditions accompanying any fill-in. The Legislative Acts provide: (a) precise measurements of the area of the Hudson River allowed to be filled in for use of commerce (b) the condition for the filling of the River that states "hereby required forever hereafter to keep open the slip or space now opened by them to the south of their furnace of a width of at least sixty feet, and extending back from the channel of said river at least two hundred and fifty feet, for the use of the public." The restrictions defined by these acts for permitted landfill and the maintenance of the required public dock were honored for generations. Additional, and apparently

²² In the draft Water Quality Certification, Department staff have preliminarily approved a lesser included alternative which includes 60,000 cubic yards of dredging and 6,608 cubic yards (13,504 square feet) of fill.

unauthorized, landfill running most of the entire length of these 1400 feet of the Hudson River as well as the closing of the public dock was carried out by SLC and/or its immediate predecessor company at some time after approximately 1915.

An in-depth research project by Friends of Hudson member Don Christensen and subsequent confirmation by Robert Maclean, Esq., former counsel to OGS have revealed the problems with SLC's existing title. That research was further confirmed by the rejection by OGS of the draft survey supplied by SLC with its application for the grant of state lands, where OGS determined that the proffered survey lacked sufficient detail and supporting information to demonstrate SLC title to the existing lands and the proper delineation of the requested grant.

In the absence of a valid survey the precise extent of the possible unauthorized fill-in of the area cannot be determined. A rough approximation of the unauthorized landfill suggests an area upwards of seven acres and possibly more. All of the area of unauthorized landfill would be lands held in title by the People of the State of New York. Without proper title, SLC's proposed design and use of the waterfront as outlined in the EIS cannot be considered.

The evidence of unauthorized fill by SLC and its predecessors in such a substantial area raises significant questions about the nature of the fill material and the real possibility that it was filled with industrial waste causing contamination to the lands of the People of the State of New York and the Hudson River. While the Joint Permit Application to DEC and the Army Corps of Engineer contains sediment samples in the river, there are no soil samples taken of the existing dock area itself and the area that was illegally filled.

In addition to the illegal and potentially dangerous fill, SLC and its predecessor's violation of the specific conditions of the Legislative grant constitute a gross violation of the public trust. SLC was required to maintain a 60 foot wide public dock area in perpetuity. That requirement constituted an early Legislative recognition that public access to the waterfront, not just by spectators but as an active waterfront was essential to the orderly development and beneficial use by all members of the community. By failing to comply with that condition, title to all lands held by SLC associated with that condition is subject to challenge and revocation. There is well established legal precedent for revoking grants of lands underwater where the grantee has failed to comply with the conditions of the grant.

Non-compliance with the condition is not simply an academic exercise, but raises significant questions with respect to SLC's offered mitigation of a pedestrian walkway around its property so that people can view the river. Regardless of how attractive SLC attempts to make such an access area, it is an inadequate substitute for the lack of public

landing that it was supposed to have maintained in the first place. Before SLC seeks to mitigate the impacts of what it intends to do, it must first restore the condition it was obligated to provide as a condition of the original grant.

Coupled with SLC's violation of its existing grant, are grave concerns regarding the requested expansion of the dock area. The Hudson River Estuary Management Action Plan issued by DEC in 1996 and the 9 NYCRR Part 2, priority use of the Hudson River is to be given to the public by use of lands still owned by the People of the State of New York and thus should preclude an extension of the grant to SLC. This is particularly relevant with the City of Hudson's plans to redevelop the waterfront and increase public access to the river.

The DEIS does a poor job of considering the impacts to the waterfront uses by SLC's activities. Besides, the noise and dust created by the dock activities, the berthing of HudsonMax ships will likely impact recreational boating activities immediately adjacent to SLC's dock. SLC seeks to discount or ignore those impacts by its proposed pedestrian walkway. Obviously, those issues would not even arise if the project did not go forward. More directly and related to the issue of the deficient alternatives analysis, the sole reason for the expansion of the docking facilities and the major threat to other waterfront uses is the use of the HudsonMax ships. The sole need for those ships is associated with the delivery of coal. As noted in our comments on air issues, a proper LAER analysis would lead to the use of natural gas as the primary fuel, not coal, thus eliminating the need for expanded dock facilities.

XI. PURPOSE AND DESCRIPTION OF THE PROJECT

SLC's claim for the need for this project is very short of details and seems to provide no justification for a plant of this size or at this location. As with its alternatives analysis, SLC simply make the conclusory statement without any supporting information.

Other than claiming that there is a growing need for cement and that demand is being met by imported cement, there is no information provided establishing a critical need or what the degree of that need is. There is no doubt that other cement producers are expanding capacity throughout North America and SLC does not provide any information as to what those plans are or the trends in capacity and market demand.

Since SLC is trying to make a case for the approval of a 2 million mty plant, it has the burden of demonstrating the need for such a facility, and prove sufficient need to overcome the adverse impacts associated with the project. However, available data on the Internet demonstrates that cement demand in the United States is in flux. According to the Cement Industry International News Update [www.cemnet.com], cement volume sales and prices in the United States are project to drop by 1% and 3% respectively. Thus this belies the

pressing need for a greater than three-fold increase in production at one Hudson Valley plant.

Nor is the fact that cement may need to be imported to meet temporary excess domestic demand necessarily a problem. While cement prices are not skyrocketing, thus not causing any significant domestic problems, neither is Holcim, SLC's parent experiencing any financial hardships as a result. In its 2000 Annual Report and in the video presentation by its chief financial officer posted on the Holcim web page [www.holcim.com/investor/reports], Holcim reports strong earnings growth and identifies amongst its growth strategies the replacement of wet-process kilns with dry-process kilns to increase profit margins. It also seeks to expand production in North America to increase the profit margin on the cement it imports from its overseas facilities which have excess capacity. There is no claim that any of its operations are unprofitable, simply that it wants to increase profits.

SLC's claim that there is some kind of national interest in assuring self-sufficiency in domestic cement is absurd. SLC is a subsidiary of Holnam which in turn is a subsidiary of Holcim, a Swiss corporation that is one of the largest cement conglomerates in the world. An honest assessment of the whole cement industry would identify a rapid move toward consolidation in the industry with major players acquiring smaller companies and plants throughout the world at a furious pace. [See www.cemnet.com]. While cement is a major component of much construction, its necessity for daily life is not the same as oil and the United States is not facing a prospect of a cement embargo which will threaten the national economy. Moreover, SLC does not represent a conscientious member of the cement industry. Its care for the local economy and environment is contrasted with the fact that it closed the former Atlas Cement Plant in Greenport in the mid 1970's thus throwing out of work hundreds of employees and it exacerbated its actions by leaving to decay all of the old industrial infrastructure, not willing to spend the funds necessary to clean up its debris.

The need for the project is also confused by the lack of detail as to what SLC will continue to do with its existing Catskill plant. The DEIS makes vague references of continuing operations at Catskill, not just for the CKD landfill, but to continue some final grinding, bagging and distribution facilities. The DEIS does not state why such operations need to continue. Is there a lack of such capacity planned at Greenport? Why isn't SLC planning on dismantling the kiln at Catskill? Will Catskill be used for other grinding operations independent of Greenport, possibly to support other SLC/Holnam operations, such as the such as its new slag grinding facility in Camden, New Jersey?

These questions must be answered as the impacts from Catskill need to be further considered and the alternative of rebuilding the Catskill facility instead of Greenport must be addressed more fully. In light of the fact that the draft air permit and the other draft

DEC permits do not contain a specific requirement of the shut down of the Catskill kiln, including the fact that Emission Reduction Credits have not been identified, one is left with the distinct possibility that SLC is keeping its options open and plans to operate both the Greenport and Catskill facilities.

XII. IMPACTS TO WATER QUALITY/SPDES PERMITS

The SPDES application covers outfall 001 for discharges from the detention pond at the dock area to the Hudson River and outfall 002 for discharges from the detention pond in the main plant area to the mine impoundment. The SPDES application contains substantial errors and omissions concerning both the quantity and the quality of the discharges to be included in the permit. These errors and omissions should cause the permit application to be denied.

Specific comments on the SPDES application are presented below under Discharge Quantities, Discharge Quality, and Other Comments.

A. Discharge Quantities

SLC fails to provide an estimate of the daily average flow of stormwater into the detention ponds, as required by item 9 of Section I of the SPDES application form.

SLC's SPDES application states that the daily maximum flow and the maximum design flow rate at both outfalls are 0.01 million gallons per day, or 10,000 gallons per day. The *Conceptual Storm Water Pollution Prevention Plan--Operations*, attached to the application, states that "the detention pond for the manufacturing plant area will have sufficient capacity to handle the 10-year, 24-hour storm event" (Section 2.2.1(b), page 6). The plan also states that "storm water from the entire dock area including the stockpiled raw materials will be collected and conveyed to a storm water detention pond, which will be designed to handle a 10-year, 24-hour storm event" (Section 2.2.2(b), page 7). These statements contradict Chapter 1 of the DEIS, which states that both the detention pond for the plant area and the detention pond for the dock area would have sufficient capacity to handle the 25-year, 24-hour storm event (pages 1-21 and 1-30).

The "Cement Plant Drainage Plan" provided in the SPDES application gives the capacity of the detention pond in the plant area as 120,000 gallons. The drawing indicates that the impervious surfaces (pavement and buildings) that drain to the detention pond total approximately 8.6 acres. The 10-year, 24-hour storm at the site brings approximately 4.8 inches of rain. Based on 90-percent runoff, a conservative estimate for impervious

surfaces in a storm of that magnitude, the total runoff from the impervious surfaces that drain to the detention pond would be approximately 1.0 million gallons in the 24 hours of the storm. This estimate does not include any runoff from the landscaped portions of the site.

If the stormwater detention pond were entirely empty when the storm began, the 1-day discharge to the mine impoundment would be approximately 1.0 millions gallons minus 120,000 gallons, or approximately 880,000 gallons. This is almost two orders of magnitude greater than the maximum daily discharge of 10,000 gallons listed in the SPDES permit. Under such circumstances, or even under less severe conditions, the detention pond could not be effective as a settling basin for solids or as an oil-water separator, as claimed by SLC (see Discharge Quality below).

The Greenport Dock Grading Layout Plan provided in the SPDES application does not indicate the capacity of the detention pond proposed for the dock area. To handle the 10-year, 24-hour storm event, a detention pond with the length and width indicated on the layout plan would need more than 6 feet of available depth just to handle the runoff from the concrete portion of the dock area.

It should be noted that the scale of 1 to 750 given on the Cement Plant Drainage Plan and the scale of 1 to 1,000 given on the Greenport Dock Grading Layout Plan are inaccurate. The actual drainage areas, which must be calculated based on the scales provided on other drawings, are approximately 4.5 times as large as is indicated by the scales listed on the drawings in the SPDES permit.

B. Discharge Quality

Item 19 of Section I of the SPDES application (form NY-2C) requires information on substances, chemicals and chemical elements that are present at the facility in significant quantity and are listed in tables 6 through 10 of the instructions to form NY-2C. SLC fails to list settleable solids, included in Table 7 of the instructions, and total calcium, included in Table 8 of the instructions. All of the solid materials SLC uses, including coal and gypsum stored in open piles at the dock and the limestone from the existing Greenport mine, contain substantial quantities of settleable solids. The limestone (calcium carbonate) and the lime (calcium oxide) SLC derives from the limestone both contain a large percentage of total calcium. SLC also uses calcium in the form of gypsum, whose chemical name is hydrous calcium sulfate.

SLC's list of substances in item 19 of Section I includes sulfate, total sodium, chloride,

total aluminum, total magnesium, total manganese, and total titanium. The only substance indicated as being present in the discharge is chloride. Sodium must also be present in the discharge, because its source is rock salt, or sodium chloride. Every chloride ion in dissolving rock salt is accompanied by a sodium ion. More important is the likelihood that any substance stored or handled outdoors in significant quantity is or will be present in the discharge. If SLC claims that a substance it stores or handles outdoors will not be present in the discharge, it should provide a detailed and specific explanation of how the substance will be kept out of the discharge. It is not sufficient to say that a substance will be removed in the detention ponds, especially in light of SLC's failure to provide any technical information on the functioning of the detention ponds.

The instructions for item 19 of Section I of the SPDES application directs the applicant to provide sampling results for any substances that are listed in tables 6 through 8 of the instructions and that may be present in the discharge. Each of the seven substances SLC lists in item 19 (see paragraph above) is listed in Table 7 of the instructions, and total calcium is listed in Table 8. Of the total of eight substances, SLC only provides sampling results for chloride.

Item 11 of Section II of the SPDES application asks if the discharge from the outfall is treated to remove pollutants. SLC answers "no" to this question for both outfalls, and therefore provides none of the information requested in the application form concerning the treatment process, the pollutants the treatment is intended to remove, and the design flow rate. In Chapter 1 of the DEIS and in the *Conceptual Storm Water Pollution Prevention Plan--Operations* attached to the SPDES application, however, SLC states that the stormwater detention ponds will be used to remove solids and oil and grease from the stormwater prior to discharge (DEIS 1-21 and 1-30; SPDES divider 4, pages 6 and 7). If this is true, the treatment should be addressed in the permitting process.

Item 12 of Section II of the SPDES application asks if the facility has "planned changes in production, which will materially alter the quantity or quality of the discharge from this outfall." SLC answers "no" to this question for outfall 001 (dock area), despite the fact that its response to item 10 of Section I of the application indicates that the current storage of road salt at the dock will be replaced by storage of coal, petroleum coke, gypsum, bauxite, and granulated blast furnace slag. It is probable that this change in material storage, which is a direct result of the planned changes in production at the plant site, will materially alter the quality of the discharge from outfall 001.

SLC answers "no" to the same question for outfall 002 (plant area), despite the fact that it proposes to build a major manufacturing facility on the site that will drain to outfall

002. Because the outfall will be created as an element of the proposed facility, the “planned changes in production” that the proposed facility represents will materially alter the quantity and quality of the discharge from the outfall.

SLC should answer “yes” to item 12 of Section II for both outfalls and should provide the information requested under item 12.

XIII. TRAFFIC AND TRANSPORTATION

While the fundamental methodology of the traffic section of the DEIS appears acceptable, it is based upon an assumption that is not embodied in any operating condition in the draft permits. The traffic analysis assumes that 80% of the finished product will be shipped from the site via conveyor to the dock. If that ratio changes, there will be significant traffic problems that will result.

Even though the LOS analyses may be accurate the DEIS fails to include important and relevant information, including:

No discussion is provided on the traffic accident history for the local roads and intersections.

No evaluation is provided on whether problem locations or traffic hazards currently exist. Nor is there a discussion of affected roadway load bearing capacity and ability to withstand long-term heavy traffic.

- No discussion is provided on other potential safety issues associated with the road network. For example, are there any school bus stops on the roads in the study area that could be affected by project-related traffic? Do school children walk on any of the roads affected by project traffic? Is the sight distance from and to the new access driveway adequate?
- No discussion is provided on construction phase traffic. How many construction workers will travel to the site during the peak construction period and on average? What impact will construction traffic have on the local road network and intersection?
- No discussion is provided on planned transportation improvements that might affect future traffic patterns in the area.
- No discussion is provided on whether these are periods during the year when traffic is at a maximum on the local road network and conditions are substantially different than when

the traffic measurements were made?

• **XIV. ALTERNATIVES**

The Alternatives section should be the heart of the DEIS. That is the information to allow the Lead Agency to make the determination that the approved action is one that minimizes or avoids the adverse environmental impacts from amongst the reasonable alternatives, to the maximum extent practicable. With a project as complex as this, the alternatives analysis is critically important. It is not only important in the context of SEQRA, but most of the other regulatory programs require a consideration of alternatives, especially in the context of the Clean Air Act, and the permit for dredging and filling for the Hudson Dock.

Rather than meet that requirement, the Alternatives in the DEIS lack any substantive analysis and rely on unsupported conclusions to portray SLC's proposed project as the only reasonable alternative, despite the fact that it will result in myriad unmitigated adverse impacts.

There are essentially three alternatives that have not been considered which will clearly result in significantly less adverse impacts. The alternatives that clearly need further consideration are (1) using coal instead of gas as the primary fuel source; (2) building a plant with a smaller annual capacity; and (3) locating a new facility on the Catskill site.

A. Gas instead of Coal

In the discussion on air impacts above, we commented on SLC's failure to consider gas as a reasonable alternative to coal. As shown in that discussion, to meet the requirements of LAER, gas is clearly a reasonable alternative which will have as low NOx emissions as coal, with the appropriate control technologies and without any emissions of SO₂ and would significantly reduce emissions of VOCs and CO. Separate and apart from the beneficial air emissions from a gas alternative, by eliminating coal, SLC would eliminate much of the other impacts associated with its operations. Even assuming that the facility would be built in Greenport,²³ eliminating coal would eliminate the need for expansion of the Hudson dock, since HudsonMax ships would not be required to deliver coal. Eliminating coal will reduce noise impacts associated with the material handling, will reduce fugitive emissions from the coal stockpile and the conveyor baghouse since less materials will need to be transported to the plant. Elimination of coal also protects water quality, by

²³ FOH does not concede that Greenport is the proper site in any instance, however from an alternatives analysis standpoint it presents a useful starting point, for once coal is eliminated as a fuel source, other alternatives also become available.

reducing stormwater runoff from the coal piles.

B. A Smaller Alternative

The DEIS completely fails to reasonably consider a smaller sized alternative. While the DEIS ostensibly considers a 1 million mty plant, it skews the analysis by assuming that such a plant would have to be located in Greenport and the Catskill facility would have to keep operating. That is an absurd construct which acts as a slap in the face to a SEQRA analysis and is contrary to the final scoping document that required the consideration of a smaller alternative but did not condition that alternative on maintaining Catskill in operation.

The first fatal flaw in SLC's analysis is that there is some magical need or vested right in a 2 million mty plant. Once again, there is no explanation for such a need. By contrast, in the early 1990's SLC initially announced plans, later withdrawn due to a change in the cement market, to construct a 1 million mty plant in Greenport to replace the Catskill facility. Obviously, such that was a viable option then, and the presumption is that it continues to be viable option until SLC is able to prove otherwise. Since Catskill continues to be profitable, and a 1 million mty plant would nearly double the output of Catskill, it would seem that the smaller plant with less impacts would be viable.

A plant at half the capacity will have, in general, half the impacts associated with the larger facility. A 1 million mty plant will require less limestone and rock from the Greenport mine, thus not requiring a modification of its mining permit and the three-fold increase in the extraction rate, thus reducing the impacts from blasting, noise and dust. A smaller plant would reduce air emissions by at least 50% and some emissions, assuming the alternative fuel would be gas, would be eliminated, such as SO₂.

A smaller capacity plant would have reduced stormwater impacts since the stockpiles of gypsum and GBFS would be reduced by half. By also eliminating coal, the quantity of material stored on the Hudson dock would be reduced by 80 % and the surface area exposed to precipitation would be reduced by approximately 66 %.

A smaller capacity plant would also have benefits on the visual impacts from the plant. While SLC claims, without substantiation that the height of the preheater tower would not be lowered, it does admit that the bulk of the tower would be narrowed by 35 feet, a considerable amount that should be compared in the visual analysis. Moreover, a smaller capacity plant will cause less of a vapor plume, further reducing the visual impacts.

C. The Catskill Alternative

The foregoing lead to the most realistic alternative. The construction of a new gas-fired 1 million mty or smaller plant on the site of the existing Catskill plant. SLC never considers this obvious alternative and instead only discounts its ability to build a 2 million mty plant on the site. Even that analysis is internally inconsistent.

SLC discounts the ability to rebuild at Catskill on a variety of grounds. First it claims, without any supporting information, that its mine in Catskill does not have a sufficient supply of limestone. However there is no evidence supporting that claim. SLC also claims that it would be too expensive to transport by barge or otherwise limestone from Greenport to Catskill, claiming that “it would result in significant additional costs that would measurably add to the cost of the finished cement product, making this alternative less economically attractive in a marketplace already flooded with highly competitive overseas cement products” DEIS p. 17-16.

That is a curious statement, since it questions the need for the project in the first place if imported cement is so available and so price competitive with domestic supplies. It also raises questions how importing cement thousands of miles remains cheaper than conveying the rock to the dock and transshipping by barge across the river. That assumes in the first place that Greenport is a necessary source of the limestone and that the existing Catskill mine or the adjacent Lehigh mine are not viable options.

SLC also argues against Catskill on the grounds that it would require greater dredging to expand the dock than would be required at Hudson. Once again, no dimensions are provided by which that statement can be assessed. It also flies in the face of the facts. First, Catskill currently operates as a coal-fired plant with the necessary dock. It does so by accepting coal deliveries by train and shipping cement by barge and truck.²⁴ Secondly, at the smaller alternative of 1 million mty, there is insufficient information to assess whether the current dock would not be sufficient for those needs.

Finally, SLC claims that rebuilding Catskill would force it to cease production there for at least two years causing a disruption that “would result in inadequate supply of cement for existing customers and is not a feasible business strategy for SLC” DEIS p. 17-16. Given the world-wide capacity of Holcim and its current practice of importing cement in a cost-effective manner to compete in the marketplace, it is hard to imagine that a temporary loss of 600,000 tons of production will cause an unbearable harm. It is not uncommon in an industrial context for a large corporation to have to shut down a facility for two years or more to rebuild when the old facility is obsolete. The enormous

²⁴ Presumably finished product could also be shipped out by rail, but no information on that option is provided.

environmental benefits of reconstruction at Catskill clearly outweigh the short term economic cost to SLC and Holcim.

Taken a whole, Catskill is clearly a better alternative. Rather than expanding industrial uses onto Bercraft Mountain where no cement kiln ever existed or into Greenport where the cement industry ceased to exist a quarter of a century ago, rebuilding Catskill would represent a true brownfield redevelopment. The most striking difference between Catskill and Greenport/Hudson is the difference in the nature of the surrounding neighborhood. The lands surrounding SLC's Catskill operation are surrounded by two other cement plants. One, Alsen Cement has not been in operation for decades. The other, Lehigh/Glens Falls operates a mine and a recently permitted slag dryer and grinding facility, although its kiln has not operated for sometime. There are few if any residences in close proximity to the Catskill plant. Within a 1 mile radius of Catskill there lives a population of approximately 454 persons. Within a 1 mile radius of the Greenport facility, approximately 14,000 people reside. Catskill already represents a buffered area which protects the populace from the worst effects of cement operations.

Catskill also represents a striking improvement in visual impacts. While FOH cannot specifically accept a particular plant for Catskill without a visual impact assessment, the fact remains that the western shore of the Hudson is already degraded by the presence of industrial activity. Redevelopment of that site would be consistent with existing land use patterns and would not add a new industrial element in the visual landscape. By contrast, Greenport will dramatically change the eastern shore of the Hudson, an area that has largely been unaffected by industrial visual impacts. It is the stated policy of this State, as embodied in Coastal Zone policies, the Hudson River Heritage Program and the Governor's Smart Growth Task Force, to limit the sprawl of development and concentrate future industrial growth in existing industrial areas. The Cementon area of Catskill is an existing industrial area. Greenport is not and the fact that SLC left the carcasses of its past operations to decay, does not preserve Greenport as an industrial area.

D. Coordination with Lehigh/Glens Falls

Another viable alternative is the redevelopment of Catskill in conjunction with the redevelopment of the Lehigh/Glens Falls facility. In the first instance, SLC has not stated why it could not lease the Lehigh/Glens Falls mine for limestone, assuming that the Catskill mine truly lacks sufficient capacity. As revealed in the Lehigh/Glens Falls application for a slag dryer, Lehigh and SLC already cooperate on the use of dock storage areas and thus may be willing to enter into a lease agreement for the mine.

There is another reason why Lehigh/Glens Falls is an option. That facility is a joint venture between Glens Falls Cement and Lehigh Cement. Glens Falls Cement is owned by

a German company, Dyckerhoff, AG. Lehigh is owned by Heidelberger Zement. Holcim, SLC's parent corporation, owns approximately 10% of the stock of Dyckerhoff.²⁵ Under the rules of the Securities and Exchange Commission, a 10% ownership of a corporation is considered a controlling ownership and as Joint Venture, each party to the venture is considered to be a controlling party. As a result, it appears that SLC through its parent may have the means to control and or negotiate a reasonable deal not only for access to the Glens Falls/Lehigh mine, but to the whole site thus facilitating its redevelopment.

This scenario presents a unique situation for the Department. Consistent with State policy there is a recognition that the cement industry has a role in the Hudson Valley. Presently all the existing plants are reaching the end of their useful lives and are making plans for significant reinvestments.²⁶ Given the close relationship of the cement companies and in this case the existence of joint venture involving most of the cement industry in the valley (with the exception of Blue Circle in Ravena), the Department has an obligation to look at all the reasonable alternatives that may involve a comprehensive redevelopment plan which meets the reasonable needs of the marketplace while conserving and protecting the unique character of the Hudson Valley. To do otherwise is to abdicate responsibility and to allow the cement industry to dictate the future development of the area in a piecemeal fashion. Since these are decisions that the region will have to live with for up to a 100 years, there must be a thorough alternatives analysis which explores the possibility of such a sharing of resources, before any particular project is approved.

IX. CONCLUSION

The foregoing comments, while seemingly comprehensive, only touch on some of the deficiencies of the project, without a supplemental DEIS. The Department does not have a sufficient legal basis to make SEQRA Findings approving the project or to issue permits.

²⁵ A May 17, 2001 European Wire Report states that the family owners of Dyckerhoff are looking to sell their 38 % stake in the company to Holcim.

²⁶ Reportedly, Lehigh/Glens Falls has approached DEC about obtaining a permit to renew operations of its cement kiln.