

TO: LOUIS MIKOLAJCZYK, DEP
FROM: OLGA POMAR, SOUTH JERSEY LEGAL SERVICES
RE: ST. LAWRENCE CEMENT COMPANY AIR PERMIT
DATE: JULY 7, 2007

I. INTRODUCTION

As the DEP is certainly aware, and as demonstrated in the DEP's Air Toxics Study (ATS) and The New Jersey Environmental Justice Task Force Camden Waterfront South Report Jan. 2002-Dec. 2005 and Action Plan, the Waterfront South community where the St. Lawrence Cement (SLC) facility is situated is overburdened with polluting facilities and over 20 known contaminated sites, including a Superfund site that emitted radioactivity at levels far exceeding the health standards for decades. Camden County has long been a non-attainment area for ozone, with some of the higher ozone levels in the state, and more recently been declared in non-attainment for PM 2.5. The DEP's ATS showed that there were likely exceedences of health-based standards in certain sections of the neighborhood of PM 10 and PM 2.5, arsenic, cadmium, dioxin, hydrogen sulfide, lead, manganese, and nickel. The community has opposed the siting of this facility from the start, because a large polluting facility that generates PM emissions and massive amounts of diesel emissions from truck traffic should never have been allowed to locate here. DEP has never conducted a thorough analysis which takes into account the cumulative and synergistic effects of all the toxins in the neighborhood and all the impacts of the facility, such as truck and ship traffic, and therefore the permit does not reflect the true impacts on the community and does not adequately address all of the public health risks.

II. PARTICULATE MATTER EMISSIONS (TSP, PM 10 AND PM 2.5)

I. DEP MUST ADDRESS PM 2.5 EMISSIONS IN THIS PERMIT TO PROTECT PUBLIC HEALTH

The PM 2.5 levels in Waterfront South exceed the NAAQS.

Camden County has been declared in non-compliance for the annual PM 2.5 NAAQS of 15 μ g/m³. The US EPA has recently promulgated a new PM 2.5 24-hour standard of 35 μ g/m³. The most recent data shows that Camden Lab ambient air levels exceed that 24-hour standard (see attached chart). There is no doubt that the local ambient levels in Waterfront South are even higher, and PM 2.5 therefore poses a health risk.¹

DEP did not evaluate the permit with regard to the new PM 2.5 24-hour standard

DEP fails to mention and discuss this significant issue of non-attainment of the new 24-hour PM 2.5 standard in its fact sheet and notice. The modeling report shows evaluation of PM 2.5 relative

¹ The PM 2.5 monitor at the CCMUA in Waterfront South shows higher levels than the Camden Lab monitor, as do the 2 PM 10 monitors in Waterfront South, at the Camden incinerator and the SLC fence line. The ATS modeling results further corroborates that fact.

to the annual standard but makes no mention of the PM 2.5 standard. This analysis should be performed before the permit is issued.

DEP is failing to regulate and reduce PM 2.5 emissions as needed to protect public health.

The proposed permit does not propose any mechanism for reducing PM 2.5 emissions to reduce the exceedences of the NAAQS. This permit in fact contains no emission limitations and no controls specifically to regulate PM 2.5.

The DEP's fact sheet merely states that the modifications requested through this permit do not result in significant emissions. Whether that is accurate or not, there is no question that the facility operations as a whole do generate significant levels of PM 2.5 emissions. DEP never evaluated the facility for PM 2.5 emissions when it first granted the permit in 2000, so it should conduct that evaluation and impose pollution controls now.

The fact sheet also states that SLC causes reductions in PM2.5 24 hour impacts, without mentioning that the PM 2.5 24 hour standard is being exceeded, and without explaining how these purported reductions will affect the exceedences.

The fact sheet further states that SLC contributes less than 2% of annual PM 2.5, without further explanation. Assuming this calculation is accurate², DEP does not explain what it considers the threshold for regulating the emissions, and why 2% from a single source is not considered to meet such a threshold. Considering how close levels at the Camden Lab monitor are to the annual standard, even a slight increase in PM 2.5 poses harm to public health.

It is very troubling that this permit does not regulate PM 2.5 emissions, even though the new PM 2.5 NAAQS have now been put in effect, and therefore DEP now has regulatory authority it did not have when the permit was initially issued. Now that the new standards have been established, DEP should not be granting permits that worsen the situation and lead to higher exceedences of the standards. DEP should not allow SLC, therefore, to contribute to the exceedence of this health-based standard by failing to regulate SLC's PM 2.5 emissions.

II. DEP IS RELYING ON INACCURATE ESTIMATES OF EMISSIONS AND MAJOR DEFICIENCIES IN AIR MODELING

SLC has not properly evaluated its PM 2.5 stack emissions

Although DEP did require PM 2.5 emissions to be modeled during permit review, DEP failed to require accurate data regarding the PM 2.5 emissions. The air modeling data report does not demonstrate that PM 2.5 emissions are so insignificant as to not create a health problem, as the permit assumes. The data shows that SLC has not properly evaluated the amount of its PM 2.5 stack emissions and their impacts. Rather than conducting stack testing that would show actual PM 2.5 emissions, SLC has used emission factors which assume PM 2.5 at 35% of PM 10. Even then, it has applied these emission factors inaccurately, as the emission factors relied upon are

² As discussed below, SLC's emission estimates appear highly inaccurate.

for uncontrolled emissions, but the actual controlled emissions from the primary emission source, the roller mill stack, will undoubtedly contain a higher portion of PM 2.5.³ This calculation of PM 2.5 as 35% of PM 10 is especially suspect since SLC's own representatives at one time stated that approximately 50% of the PM 10 stack emissions are PM 2.5.

SLC appears to have greatly underestimated its fugitive emissions

SLC has also not calculated its fugitive emissions accurately, presenting a very misleading picture of the impacts from the facility. There is no doubt that SLC operations are dusty and produce fugitive emissions. Local residents and others who have observed the facility operations have repeatedly complained to DEP and SLC that the uncovered slag piles, the operations that are conducted in the open without any enclosures or barriers, such as the unloading of materials, and the trucks moving both the raw material and the finished product, all generate dust. DEP has ignored the input from the affected community, accepted the very low fugitive emission estimates supplied by the company, and consequently failed to impose stricter controls.

One glaring error in the calculation of fugitive emissions is in the evaluation of the emissions resulting from on-site truck traffic. According to the data in the air modeling report, SLC used a silt loading factor of .06. This is a factor appropriate for public paved roads with relatively little traffic. SLC is using that factor to evaluate emissions caused by truck traffic on industrial roads. AP-42 lists silt loading factors for industrial roads, and as shown on table 13.2.1-4, attached, the range for industrial operations similar to SLC is from 7.4 to as high as 120. Recalculation of the emissions using appropriate silt loading factors is likely to show significantly higher impacts from SLC operations, possibly enough to classify SLC as a major facility. In addition to requiring recalculation of those emissions using a more accurate formula before issuing a permit, DEP should require regular silt road testing of all roads at the site.

SLC further underestimates these fugitive emissions by assuming a very high control rate of 91%, which is unrealistic and unsupported.

Other issues regarding air modeling

Some technical comments were raised at the time the draft interim permit was issued in September 2005 regarding the air modeling protocol. The public information provided by DEP regarding this permit does not explain whether these technical issues were addressed.

III. MONITORING REQUIREMENTS

DEP has not provided any information regarding SLC's PM 10 monitor, and there is no mention of it in the new permit. The readings from that monitor, and a comparison to other monitors in

³ This is evident from Table B-2-3 from the EPA AP-42, showing collection efficiencies for various types of emission controls, attached. Baghouses control 99% of PM 2.5 but 99.5% of PM 10. Since most of the total stack emissions will consist of particles 10 microns or smaller, there will close to 2 times as much PM 2.5 as PM 10.

the area, should be made available to the public as part of this permit process. Most importantly, DEP should require SLC to continue to maintain the monitor.

Given the exceedence of the PM 2.5 NAAQ and the fact that SLC is expanding its operations, the community again requests, as it has repeatedly throughout this process, that DEP add a federal reference PM 2.5 monitor that can measure impacts from the facility in combination with other local sources.

IV. STRICTER EMISSION CONTROLS NEEDED

DEP must require SLC to take all feasible measures to reduce emissions, including but not limited to the specific proposals set out below.

Material loading and unloading.

SLC should be required to eliminate the process of using a front end loader to create slag piles that are then moved to a conveyor. This process, which is combined with use of a lump breaker, is a very dusty operation, and the estimated fugitive emissions appear grossly inaccurate. There are alternatives such as using underpile reclamation that would reduce fugitive dust. In the interim, SLC should be required to enclose the hopper and create windscreens.

Covering slag piles

Residents continue to ask that SLC cover the slag piles to prevent fugitive emissions, and enclose its open air operations to the greatest extent feasible.

Stricter control on visible emissions

The proposed permit allows for up to 3 minutes of visible emissions in any consecutive 30 minute period. Given that the facility operates 24 hours per day, even if this permit condition were met, this could result in almost 2 ½ hours a day where dust is blowing through the neighborhood and generating a nuisance and health hazard.

Furthermore, for most sources, the permit only requires that the facility self-inspect for visible emissions and self-report violations. The permit conditions also require, for some sources, that additional controls be imposed ONLY if the facility self-inspections reveal that there is a problem with visible emissions. Considering that there have been numerous complaints of visible emissions, the permit should address these problems by requiring more inspections, more reporting, and stricter emission controls without waiting for a problem to surface.

Truck and ship traffic

The fact that trucking from Beckett Terminal has been eliminated is positive, but the truck emissions are being replaced by diesel emissions from ships docking at the new pier.

In addition, the new permit also does not impose any new restrictions on truck traffic, but instead allows SLC to use the same number of trucks to make deliveries of raw materials as under the original permit. The permit should provide that SLC cannot continue to use trucks to transport materials from Beckett absent special circumstances.

DEP should not allow increased throughput

The permit data does not demonstrate that SLC's emissions are not increasing with added throughput, as the company claims. Greater volume of throughput will result in more fugitive emissions and greater volume of stack emissions, as will the increased size of the slag piles. Given that ambient level of PM 2.5 and possibly PM 10 already pose a health risk, SLC should not be allowed to make any modifications in operations that increase its emissions. If in fact SLC has found ways to reduce its emissions with added pollution control equipment, it should not be allowed to offset those benefits by increasing throughput and production levels.⁴

V. CONCLUSION

Given that Waterfront South is a predominately low income, African-American and Hispanic community, with high rates of asthma, cancer, and other health conditions related to environmental contamination, and that this community is already so discriminatorily burdened with environmental hazards, the DEP must take special measures to remedy this disparity and protect public health. For that reason, DEP must impose the strictest emission controls and monitoring requirements to limit PM 2.5 and other dangerous pollutants through this permitting process.

Thank you for your consideration of these comments.

⁴ Nor should SLC be given any credit for increasing its stack height as a justification for allowing increase in volume, as the raising of the main emission source stack presumably being done to correct an earlier error, and if any of the proposed stack heights exceed best engineering practice, it is not appropriate to give any credit for the height increase.