STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

In the Matter of
ST. LAWRENCE CEMENT. LLC.

for the Application for a State facility permit for air pollution control pursuant to Article 19 of the Environmental Conservation Law ("ECL") and 6 NYCRR Parts 201 *et. seq.*; a State Pollutant Discharge Elimination System ("SPDES") permit pursuant to ECL Article 17 and 6 NYCRR Parts 750-758; an ECL Article 15 Protection of Waters permit; a Sec. 401 Water Quality Certification pursuant to 6 NYCRR Part 608; a Mined Land Reclamation Law permit modification pursuant to ECL Article 23 and 6 NYCRR Parts 420 to 426; and a Freshwater Wetlands permit pursuant to ECL Article 24 and 6 NYCRR Part 663.

Permit Application No.:
4-1040-00011/00001

FRIENDS OF HUDSON

PRE-FILED DIRECT TESTIMONY
OF
HENRY R. BOUCHER, P.E., DEE, AICP
AND
KEVIN W. JOHNSON, P.E.

TRAFFIC IMPACTS

Examining Attorney for
Friends of Hudson

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Q. Would you each please state your name, title, the company you work for, its address and whom you are representing in this proceeding.

Henry Boucher: Henry R. Boucher, Principal Engineer, Camp Dresser & McKee, Edison, New Jersey. I am testifying on behalf of Friends of Hudson.

Kevin Johnson: Kevin W. Johnson, Transportation Engineer, Camp Dresser & McKee, 56 Exchange Terrace, Providence, RI. I am also testifying on behalf of Friends of Hudson.

Q. Would you each please describe your education background and professional certifications.

Boucher: I received a Bachelor's of Science Degree in materials engineering from Brown University in 1970 and a Masters of Science in Environmental Engineering from Stanford University in 1972. I am a registered Professional Engineer in New Jersey and Delaware and a registered Professional Planner in New Jersey. I have also received a certificate from the American Institute of Certified Planners.

Johnson: I received a B.S. in Civil Engineering from Roger Williams College in 1992. I am a registered Professional Engineer in Massachusetts and I have qualified as a Level II Traffic Signal Electrician; an IMSA Traffic Signal Inspector and as a Work Zone Safety Specialist.

Q. Would you each please briefly describe your professional experience.

Boucher: I have over 30 years experience as an environmental engineer and planner and I am a Principal Engineer at CDM's Edison, NJ office. I have been employed by CDM since 1979 and have been involved and overseen numerous projects many of which involved traffic issues and the consideration of traffic impacts in the broader analysis of environmental impacts. A copy of my curriculum vitae is attached as Exhibit 1 and incorporated into my testimony.

Johnson: I have 12 years of experience in civil and traffic engineering with extensive experience in assessing and designing a variety of transportation projects and the traffic impact assessments. I am a member of the Institute of Traffic Engineers and a member of the ITE Technical Committee. A copy of my curriculum vitae is attached as Exhibit 2 and incorporated into my testimony.

Q. Both of you are appearing here as a panel of witnesses, can you explain what role you both played in the review of this project and preparation of this testimony.

Boucher: At CDM we work as a team employing multiple levels of expertise in the review of the project. In some areas, Mr. Johnson has more technical expertise on traffic impact assessment and I have broader experience in the multi-faceted environmental impacts associated with increases in traffic from a particular project. This testimony reflects our collaborative effort and both Mr. Johnson and myself will be present at the adjudicatory hearing.

Q. Would you please briefly explain what the purpose of traffic impact analysis is in an environmental review?

A. Traffic impact analysis involves more than just the geometric and capacity assessment of the impacts of traffic generated from a project upon the key intersections in the existing roadway network. It also involves the assessment of impacts on the roadway network and assessment and mitigation of the secondary impacts from traffic including noise and air pollution. A comprehensive environmental review of a major project obviously involves those and other issues and traffic generation affects those areas as well as direct roadway issues. Therefore it is important to look at reducing traffic generation and mitigating its impacts even if the traffic generated does not produce significant intersection traffic congestion and safety issues

Q. In preparation for your testimony in this proceeding what documents have you reviewed?

A. We have reviewed the DEIS for the St. Lawrence Cement Greenport Project dated April 27, 2001; the Updated Traffic Study for St. Lawrence Cement prepared by Vollmer Associates dated October 10, 2003 and the Traffic Contingency Plan for St. Lawrence Cement dated October 2003.

Q. In your professional opinion do those documents provide a reliable assessment of the likely traffic impacts of the proposed SLC project?

A. No.

Q. Why is that?

A. There are several reasons, beginning with the lack of complete data on existing daily traffic volumes and extending to the lack of objective evidence to assess various assumptions and conclusions included in the report.

Let's start with the lack of complete existing traffic data. An industrial project of this type which will generate 10 or more large trucks, entering plus leaving, in a one-hour period is considered by the Institute of Traffic Engineers as a Type 4 - Large Scale Development warranting a Regional Traffic Analyses. This is specified in Transportation and Land Development, 2d. Edition, Institute of Transportation Engineers, p. 3-8. (A copy of Chapter 3 is attached as Exhibit 3). Standard practice with any major development, especially a Type 4 project, is to collect data on existing traffic conditions and it is standard practice to do so by using Automatic Traffic Recorders (ATR's) to collect the data on existing daily traffic volumes.

SLC's traffic engineers did not do that and it leaves a significant gap in the necessary data upon which any subsequent traffic assessment is based.

Q. But I thought the traffic study does include data on existing traffic levels.

A. What the DEIS contains, and it was not updated in the 2003 study, are manual Turning Movement Counts (TMC's) at selected intersections. That is not the same or an adequate substitute for ATRs.

Q. Why?

A. TMC's are necessary for assessing intersection impacts, but they do not provide a complete picture of the existing conditions. TAC's only focus on intersection capacity analysis as to the expected delays at a particular intersection. While that is an important element of any traffic analysis it does not provide a complete analysis. Especially for a project like this which will significantly increase the amount of heavy trucks on a regional road network and will operate 24 hours a day, 7 days a week, year-round, it is important to conduct the analysis with an understanding of what the roadway traffic conditions are throughout the day and on weekends, not just the intersections. By their nature as automatic 24-hour recorders, ATRs give a professional traffic engineer that necessary data.

ATRs placed in the proper locations will give data on what the traffic levels are on various segments of the road network at all times of the day. ATRs not only reveal the level of traffic throughout the day and night but also the type of traffic; passenger cars or heavy trucks. The equipment can be set to measure the type of vehicle traffic on the road. Besides the volume and vehicle characteristics of the traffic, the ATR data allows a comparison of the background traffic to the traffic produced by the project and verifies the peak hour assumptions.

The studies prepared by Vollmer did not include a complete data set for the traffic volumes at all times. There are only selected measurements of traffic at intersections at specific times and days. Without the ATRs the data is by definition incomplete.

Q. But the Vollmer data did not show much of a change in the Level of Service ("LOS") at the various intersections. Isn't that sufficient?

A. No, there is much more to traffic impact analysis than just determining the capacity and LOS at intersections with and without the project. Traffic analysis includes the impact of the project on local roads and how it affects not only the traffic using those roads but the people and businesses along the roads. For instance in this area, especially to the east along Routes 9 and 23 and where Route 23 turns north and joins Route 9H, the area is rural and goes through hamlets. Increases in heavy truck traffic along those roads could change the character of those roads and the effect on neighboring properties. If current levels of truck traffic on those roads is light, increases of 5 or 10 heavy trucks an hour may be a significant impact to people who use and live along those roads. Increased heavy truck traffic on 2-lane roads can increase congestion and frustration to drivers caught behind slow moving trucks climbing hills or negotiating curvy roads.

This problem also is compounded by industrial trucking operations that operate 24 hours a day when loud truck traffic travels at night on roads that are otherwise very lightly traveled by such vehicles and disrupts the lives of persons living close to the roads. This has a heightened impact in areas with large numbers of historical homes that are located close to the roads.

Q. Are there any other problems inherent in the study due to the lack of ATRs?

A. Yes. Both the original traffic study in the DEIS and the updated study assumed that the peak traffic hours are between 7:30 am to 8:30 am and 4:00 pm to 5:00 pm. However, that determination was based upon manual traffic counts taken only between 7:00 am to 9:00 am and 3:00 pm to 6:00 pm. That is a questionable assumption where there is no data verifying that there is not a midday peak. A traffic analysis should consider the peak hours for the proposed action, the peak hours for existing background traffic and which combinations may generate significant impacts. ATRs enable doing this.

Let me give you an example of why this is a problem in this situation. Tables 4 and 5 of the Updated Study show that the Greenport facility's peak hour for truck traffic is 10 am to 11 am. However there is no existing traffic data for that hour. A complete traffic impact study must consider not only the network morning and afternoon peak hours, but the network peak if different than AM or PM and the facility peak hours. The objective is to find the correct peak hour to be analyzed. It is possible that analysis of the facility peak hour would show a LOS deterioration. It is most certainly professionally impossible to categorically claim that there will not be any impact associated with facility peak hour when the background data is not collected and the analysis is not undertaken for that hour.

Q. Besides the lack of ATRs, are there any other elements of the traffic study that raise concerns?

A. Yes. Even the traffic counts that were conducted raise concerns in my mind. The DEIS states that manual traffic counts were taken on June 10, 1999 and November 8, 2000 [DEIS p. 13-5]. The updated study only references the November 8, 2000 counts. [Updated Study, p. 4] No mention is made in the Updated Study as to what happened with the 1999 data.

Presumably Vollmer realized that the 1999 data was no longer valid. As a general rule traffic data 3 years or more older is not considered appropriate to use unless it is demonstrated that very little change in land use or traffic activity has occurred. However, even the November 2000 data is now 3 years old and becomes suspect since the projections of the future no-build traffic volumes are based on the 2000 data, therefore the future traffic volumes with and without the project may be underreported leading to erroneous capacity analysis results and underestimated intersection impact conclusions.

There is another problem with the use only of the November 2000 data. There is no documentation of why a seasonal adjustment factor was not applied. Typically, November is a "less than average" month for travel and an adjustment factor is applied to the counts. No such factor was applied and no reason given for failing to do so. This can also negatively affect the capacity and intersection impact analysis.

Q. Are there other elements missing in the traffic analysis?

A. Yes. Another significant missing element is the potential traffic impact on the Rip Van Winkle Bridge. Traffic over that bridge will include not only OPC traffic headed west to the New York State Thruway, but clinker, CKD and fly ash traffic to the Catskill facility. There is no analysis whatsoever of the traffic capacity on the bridge, especially considering its narrow 2-lane nature and the toll plaza on the western approach. Related to this issue is the lack of any assessment of the likely wear and tear of the increased heavy truck traffic on the bridge and its ability to sustain the great increase in the loads. That is also true for the surrounding road network east of the Hudson River which will experience a great increase in the volume and weight of large trucks.

Q. Looking at SLC's projected truck traffic generation figures, do they provide a reliable basis for evaluating impacts?

A. No. They are suspect, because the underlying calculations do not add up. SLC assumes 109 truck trips per day in 2005 shipping Ordinary Portland Cement (OPC). At 25 tons per load that equals 2,725 tons per day. Even at 300 days per year that equals 817,500 tpy, which is almost double the "approximately 400,000 mtpy" (440,000 tpy) that SLC expects to ship by truck. The result is that SLC is seeking to gain permission to maintain and grow truck traffic on a regular basis which appears to be far in excess of its stated market. While some flexibility for the company is to be expected, obtaining permission for such a high level of truck activity will burden the community. Heavy truck traffic not only increases road congestion, it increases noise and air pollution and if it can be limited will reduce adverse environmental impacts. A reasonable permit condition can be drafted which permits SLC to operate for limited times at facility peak of 109 OPC trucks, however at other times there may be a limit at a lower number to reflect average operations. In the DEIS, SLC estimated that number at 90 trucks per day.

Some sort of permit condition would be reasonable as SLC does not propose any limit upon its trucking operations. SLC claims that loading operations are limited to a maximum of 10 OPC trucks per hour based upon two loading stations each capable of filling a truck in 12 minutes. SLC however has not committed to limiting the number of loading facilities to two and SLC 's site plan provides for future silos to store OPC. Should local markets expand, SLC could construct the silos with loading facilities and dramatically increase the loading rates for trucks. Obviously, such an increase would alter the roadway capacity and intersection analysis.

In summary, SLC's entire traffic analysis is constructed upon a set of assumptions for which there are no regulatory limits and virtually no structural limits. SLC can decide to load trucks at the capacity of its terminal amounting to 240 trucks per day and/or it could increase the number of loading points thus increasing the daily or hourly total of trucks generated for local roadways. The only limitation is the size of the local market to be served by truck and its ability to acquire market share from its competitors. Where there is inadequate data on the existing roadway conditions and no limits upon project generated traffic we cannot conclude that SLC has done a professionally acceptable traffic impact analysis.

Q. Do you have any opinion of the Contingency Plan?

A. Yes, it also is inadequate. For the reasons set forth above regarding the faulty methodologies and lack of limits on shipments from the project, but most importantly for a lack of a time limit on the duration of the Contingency Plan. It is not even clear that SLC is willing to accept a permit condition limiting truck trips during that period or providing for a limited duration of moving coal and other materials from the dock to the plant.

Q. Does that conclude your testimony?

A. Yes.

End of testimony of Henry Boucher and Kevin Johnson.

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