

BEFORE THE ADMINISTRATOR
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF)
SOLITE CORPORATION)
CASCADE FACILITY)
Permit No. VA-30297)
AIRS ID 51-0143-0005)
CASCADE, PITTSYLVANIA COUNTY)
_____)

July 2, 2002

THE BLUE RIDGE ENVIRONMENTAL DEFENSE LEAGUE'S AND
PIEDMONT RESIDENTS IN DEFENSE OF THE ENVIRONMENT'S PETITION
OF THE ENVIRONMENTAL PROTECTION AGENCY TO OBJECT TO THE
TITLE V AIR QUALITY OPERATION PERMIT ISSUED TO
SOLITE CORPORATION CASCADE FACILITY
BY THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

The Blue Ridge Environmental Defense League (BREDL) and Piedmont Residents In Defense of the Environment (PRIDE) hereby petition the Environmental Protection Agency to object to the final Title V Air Quality Operation Permit issued to Solite Corporation Cascade Facility (Solite Cascade) on May 5, 2002, by the Virginia Department of Environmental Quality (DEQ) which has been designated as Permit No. VA-30297 by DEQ. The grounds for this petition are set forth in the following: November 5, 2001 written comments submitted to DEQ by Louis Zeller; November 5, 2001 written comments submitted to DEQ by Mark Barker; November 5, 2001 written comments submitted to DEQ on January 10, 2002 by Mark Barker; January 10, 2002 oral testimony at DEQ's Title V public hearing; Solite Cascade's permit, application, and all supporting documentation; all DEQ reviews, orders, documentation or other records in this matter; and all other subsequent written or recorded comments of record. Attached to this petition is our brief outlining the problems we have identified with DEQ's issuance of the final Title V permit.

Respectfully submitted,

Dated: July 2, 2002

Wyndy Gilb, President
Piedmont Residents In Defense of the Environment
7940 Cascade Road
Axton, Virginia 24054
(434) 685-2781

Louis Zeller
Blue Ridge Environmental Defense League
PO Box 88
Glendale Springs, NC 28629
(336) 982-2691

OUTLINE OF PROBLEMS WITH DEQ's ISSUANCE
OF A FINAL TITLE V PERMIT FOR THE
SOLITE CORPORATION CASCADE FACILITY

Permit No. VA-30297
Solite Corporation Cascade Facility
AIRS ID No. 51-143-0005
SIC Codes: 3295, 4953
Cascade, Pittsylvania County, Virginia

Solite Cascade is a hazardous waste incinerator which produces lightweight aggregate clinker (SIC Codes 3295 and 4953). Fuel for the kilns is primarily hazardous industrial waste which the company has burned since 1973. Giant Resource Recovery, a hazardous waste fuel provider, is adjacent to Solite and, for permitting purposes, the two facilities are considered to be a single source.

Title V permits are meant to reduce confusion by including all applicable requirements that apply to a given source. The operating permit program is designed to define compliance, not just applicable standards. The permit must list all applicable requirements including monitoring, methods of testing, semi-annual reporting, and annual compliance certification. Compliance is determined by monitoring conditions with respect to an associated standard. If there is no federal standard for monitoring requirements, averaging times, or record keeping, Title V directs the state to determine them. This monitoring provision allows the public, the state, and the operator to know if the facility is in compliance with emission standards. According to the US EPA OAQP&S, "In effect, title V makes compliance a matter of corporate responsibility."

As set forth in detail below, DEQ did not respond to many of the comments offered by citizens on dioxin emission limits, benzene, particulates, hydrogen chloride, chlorine, visible emissions, and other matters regarding public health. Also, DEQ failed to close the boiler industrial furnace (BIF) loophole, failed to resolve problems with bag house dust, and failed to prevent misuse of the emergency vent stack bypass.

In our opinion, Virginia DEQ has not used its delegated powers to reduce the impact of toxic air pollution in the counties of Pittsylvania in Virginia and Rockingham in North Carolina. Practical enforceability is a Title V requirement and, notwithstanding extant or pending court actions, the permit must establish clear legal obligations which allow compliance to be verified and the permit to be enforced.

I. DEQ's Permit Fails to Ensure Compliance With Emission Limits for Dioxin

Hazardous waste combustors are to comply with new maximum achievable control technology (MACT) standards in lieu of most current RCRA combustion emission standards. Under a September 30, 1999 final EPA rule, operators of lightweight aggregate kilns burning hazardous waste would have had to meet new MACT standards, codified at 40 CFR Part 63, Subpart EEE, by September 30, 2002. But a July 24, 2001 ruling by the U.S. Court of Appeals vacated the MACT standard and caused EPA to

extend the compliance deadline by one year to September 30, 2003. On February 13, 2002 the EPA published *Interim Standards for Hazardous Air Pollutants for Hazardous Waste Combustors*, an interim MACT.

The MACT emission standard for dioxins and furans which will apply to Solite Cascade is 0.20 nanograms TEQ/dscm. This maximum level is unchanged by the Interim Standards. An alternative method of limiting dioxin emissions is outlined in 40 CFR 63.1205 which requires the combustion unit to reduce exit gas temperature to 400 degrees-F or lower. This measure was advocated by ATSDR in a consultation with Solite Cascade. ATSDR said:

We support EPA's approach to reducing incineration emissions to the maximum achievable control technology (MACT) level, because of the uncertainties that exist on the potential public health effects of low level concentrations of chemical mixtures in the environment. ... We strongly support EPA requiring the facility to maintain the baghouses inlet temperatures below 400 degrees F, to minimize the formation of dioxins and furans. (Correspondence from Betty Willis, ATSDR to Luis Pizarro, EPA Region III, April 11, 2000) (emphasis added)

However, testing of Solite Cascade done in 1999 and published in the Hazardous Waste Management Facility Trial Burn Report dated March 2000 revealed actual dioxin and furan emissions from 60 to 120 times the maximum. ATSDR noted the excessive emissions as follows:

The average total PCDD/PCDF Toxic Equivalencies concentrations in the stack gases for Kilns 1, 2, 3, and 4 ranged from 12.8 to 24.3 nanograms per dry standard cubic meter (ng/DSCM) at 7% oxygen. Because these conditions are greater than the standard set in the EPA Hazardous Waste Combustor MACT rule (0.2 ng/dscm) which will be effective September 30, 2002, I consulted with ATSDR Senior Toxicologist, Dr. Allen Susten, regarding the potential public health implications. (Correspondence from Betty Willis, ATSDR to Luis Pizarro, EPA Region III, April 11, 2000) (emphasis added)

Tests for dioxins and furans and two volatile organic compounds were repeated in May 2000. In this second series of stack tests Solite Cascade was again found to emit dioxins and furans well in excess of the MACT limit of 0.2 ng/dscm. Kiln 2 was found to have PCDD/PCDF emissions in the range of 4.4 to 9.66 ng/dscm@7%O₂. These emissions are from 22 to 48 times the MACT of 0.2 ng/dscm. During this assessment the average dioxin emission level for the twelve tests done on kilns 1, 2, 3, & 4 was 2.26 ng/dscm, more than ten times the MACT standard. (see *Trial Burn Report: Kiln 1 DRE Condition Re-Test, Kilns 1-4 Dioxin/Furan Testing, Table 2-4, July 2000*)

Solite Cascade emits dioxins far in excess of the pending MACT. The future effective requirement to limit these emissions plainly cannot be met by this aggregate kiln. But the

DEQ Title V permit merely includes by reference the emission standards codified at 40 CFR 63.1205. Incorporation by reference is permissible only if the referenced material is clear and available to the public. The DEQ's permit incorporates no specific monitoring requirements which would allow interested persons or the state to determine if Solite Cascade is compliance with the emission standard or the exhaust temperature limit. The permit must describe applicable requirements in sufficient detail to ensure that they are unambiguous and enforceable. The question for EPA and DEQ is: How will Solite Cascade be brought into compliance with the dioxin limit?

It is fair to point out that Solite's parent company, Giant Cement, is a member of the Cement Kiln Recycling Coalition which initiated the action resulted in the DC Circuit's July 24, 2001 ruling that vacated the standard and bought the delay in the hazardous waste combustor MACT. Will further litigation result in additional delays? The omission by Virginia DEQ of a clear method of ensuring compliance at Solite Cascade must be addressed and corrected by EPA.

II. DEQ's Permit Fails to Require Data Collection Sufficient to Assess Health Hazards

The Solite Cascade Title V permit issued by DEQ does not sufficiently address public health concerns nor does it allow concerned citizens to assess important air emissions limitations and data. Even agencies charged with determining the effects of toxic pollutants on public health have found the data lacking for Solite Cascade. For example, on September 30, 1999 an assessment by the Agency for Toxic Substances and Disease Registry stated that the agency "was unable to fully evaluate the public health hazard associated air emissions from the Virginia Solite facility." The report further concluded that, "Available environmental data are insufficient to determine if health concerns have a plausible link to site-related activities. No ambient air quality data or emission data exist." Virginia DEQ's Title V permit fails to require the collection of data which would allow an interested citizen or ATSDR to do an adequate assessment of the health hazards from Solite Cascade's air emissions.

In 1995 & 1997, Pittsylvania Co., VA and nearby Caswell Co., NC were ranked number one in the nation for asthma mortality rates, according to information based on Health Service Area mortality data from 1994 to 1996 provided by the National Institutes of Health. Solite Cascade is located within Pittsylvania County and is only ten miles from Caswell County. Virginia DEQ has failed to monitor criteria pollutants in the Virginia southside area. This issue is relevant to this permit because without proper monitoring, DEQ and the public may cannot adequately gauge public health impact. For example, during the 2001 ozone season the closest ozone monitors had exceedences of the EPA's 8-hour ozone health standard. Roanoke, Virginia had 5 exceedences and the North Carolina Triad area (Winston-Salem, Greensboro, and High Point) had 22 exceedences. It is highly probable that Pittsylvania and Henry Counties, located between Roanoke and the Triad, also exceeded these health standards.

III. DEQ's Solite Cascade Permit Fails to Adequately Control Emissions

A. Particulate Matter and Benzene

Particulate Matter and Benzene the only pollutants with hourly or annual limitations listed in the permit. Without emission limitations for other toxics, the DEQ's permit allows Solite Cascade to emit an unlimited release of criteria and hazardous pollutants. Neither regulatory agencies nor interested citizens would have recourse when ambient pollution levels or monitored emissions are excessive. This is especially a concern considering that the Solite plant in North Carolina has recently been prohibited from burning RCRA hazardous waste in its kilns.

There are other major air emissions that meet the 40 CFR Part 70.6 Permit content requirements. NO_x and SO₂, which could exceed 100 tons per year, and HCl and CL₂ should be listed in the permit with appropriate emission limitations per unit and averaging times. Since the facility meets the combined 25 ton per year threshold for hazardous air pollutants, all toxins (including VOCs, HCl, CL₂, antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, thallium, dioxins and furans, and all toxins reported on the Toxics Release Inventory) and applicable limitations need to be provided. If there are no applicable limitations for these major emissions, it needs to be noted why.

B. Chlorine Emissions

Chlorine is a hazardous air pollutant (CAS #7782505). As stated in the permit application, Solite is designated as a major source for chlorine (Cl₂) emissions, having the potential to emit more than 10 tons/year. However, the DEQ permit for Solite Cascade omits an emission standard for chlorine. Further, the permit requires no monitoring, testing, or record keeping for chlorine and its derivatives. Sufficient authority exists for DEQ to establish compliance monitoring and testing independent of the referenced MACT and to set emission limits which are protective of public health.

The Interim Standards argument used by DEQ in favor of a performance-based standard (DEQ Public Hearing Report, March 20, 2002) lacks the power to convince as the Interim Standards were brought about by an industry association which has used the courts to delay or eliminate the implementation of the self-same tool, the MACT hammer, which could have provided reductions in chlorine emissions.

C. Opacity Violations

DEQ fails to require prompt corrective action for opacity violations. The DEQ permit states that, if visible emissions are observed, the permittee shall either (a) take "timely corrective action" or (b) "perform a visible emission evaluation." This is vague and unenforceable as a practical matter. A definite timeframe must be included in the permit. (Permit page 7 2a. & 2b, III.B.2)

IV. DEQ's Permit Fails to Prohibit Burning of PCBs

The DEQ's inclusion "waste fuel" as an approved fuel is impermissibly vague. PCB contaminated sites and materials still exist. A statement that prohibits the burning of PCB-contaminated waste as a fuel, which is currently prohibited by Solite Cascade's RCRA permit, needs to be included in the permit as well. (Page 6 III. Kiln Requirements A. Limitations 2)

V. DEQ's Permit Fails to Specify Only Three Kilns May Operate Simultaneously

The May 22, 1995 Compliance Certification Summary of Test Emissions contains a notation that "only three (3) kilns can operate at a given time." This limit should be stated in the Title V permit as part of the operational limitations. (Permit Page 6 III, Kiln Requirements A. Limitations).

VI. DEQ's Permit Fails to Close BIF Loophole

In February 1991, the EPA promulgated a rule on the burning of hazardous waste in boilers and industrial furnaces (BIFs). The BIF rule set emission controls for toxic organic compounds, toxic metals, HCl, chlorine gas and particulate matter. However, for cement and aggregate kilns there was a loophole. The BIF rule allowed hazardous waste burning facilities which were in existence before August 27, 1991 to apply for interim status. Interim status facilities could burn hazardous waste without a permit so long as they filed a RCRA Subpart B permit application and certified compliance with applicable BIF performance standards. Solite Cascade has been regulated under this rule.

The EPA decision to include existing facilities in the interim status category effectively eliminated public participation in the decision to burn hazardous waste in these facilities. Virginia DEQ failed to close this loophole and reduce emissions of toxic organic compounds, toxic metals, HCl, chlorine gas and particulate matter.

The status of the RCRA permit notwithstanding, Title V permits must include all applicable requirements. Evaluating multiple, overlapping requirements and developing a single set of requirements is necessary to ensure compliance. The permit must include all subsumed regulatory requirements with proper citations.

VII. DEQ's Permit Fails to Resolve Classification of Air Pollution Control Device Dust

Virginia Solite's Bag House Dust (BHD) is subject to Virginia Department of Environmental Quality's dust and emission controls and warrants further review in the Title V permit. DEQ has admitted that it must make a formal determination about the use of BHD by Solite in its product. In the absence of such a determination by DEQ, state and federal hazardous waste regulations clearly require that this material be considered a hazardous waste. EPA should reject the permit until such a time as DEQ resolves the BHD issues associated with the Title V permit.

VIII. DEQ's Permit Fails to Prevent Misuse of Malfunction and Emergency Safety Vent

DEQ's permit allows the owner-operator a blanket use of the start-up, shut-down, and malfunction provisions and impermissibly limit's the public's use of credible evidence. The permit states:

O. Startup, Shutdown, and Malfunction

At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. (emphasis added)

The assessment of operation and maintenance cannot be confined to information available only to the DEQ.

The DEQ's expansive use of the permit shield for all permit conditions under any alternative operating scenario gives a blank check to the owner-operator to use emergency safety vents, stack bypass, or other means of circumventing pollution control devices with impunity. This is a misapplication of the permit shield. Again, the permit states:

P. Alternative Operating Scenarios

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1. (9 VAC 5-80-110 J) (emphasis added)

Louis Zeller
Blue Ridge Environmental Defense League

Wyndy Gilb
Piedmont Residents In Defense of the Environment