



St. Croix Environmental Association

A Chapter of the Virgin Islands Conservation Society

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Division of Environmental Protection
Department of Planning and Natural Resources
45 Estate Mars Hill, Frederiksted, VI 00840

Ref: Application for a Clean Air Act Title V Operating Permit for a Major Source from St. Croix Renaissance Group LLLP, One Estate Anguilla, St. Croix, VI 00850 (Permit No. STX-TV-005-08)

Dear Dr. Noorhasan,

Thank you for the opportunity to comment on application from St. Croix Renaissance Group, LLLP (SCRG) for a Major Source Permit under Title V (Part 70) of the federal Clean Air Act (42 U.S.C. 7401, *et seq.*). After reviewing the SCRG application and intended Department of Planning and Natural Resources (DPNR) Part 70 Permit, St. Croix Environmental Association (SEA) has seven principal concerns with the issuance of a Title V Permit, as intended:

1. SEA questions whether Units 20 and 71 should be allowed to operate under SCRG's July 19, 2002 PSD Permit, and recommends that a new PSD permit application be required for these units;
2. Potential impacts on the environment and the public health of HAP emissions are not addressed;
3. Potential environmental and public health impacts from cumulative emissions from the St. Croix Southern Industrial Complex are not addressed;
4. No limits are placed on CO₂ or other *greenhouse gases*;
5. Emission and ambient air quality monitoring and reporting are entirely the responsibility of the applicant, with no independent monitoring required by DPNR;
6. There needs to be an explicit statement re. revision of Title V Permit to reflect new Clean Air Act standards; and
7. It is not clear how the environment or public health may be protected by this DPNR action.

According to the DPNR intended permit (Page 5), "[t]he St. Croix Renaissance Group LLLP proposes to operate a coal-fired boiler and/or a combination of two oil-fired boilers to produce electricity and steam in the Southern, Industrial Complex in St. Croix." The primary power and steam generating sources at the site include one (1) 775 MMTBU/hr coal boiler, two (2) 280 MMBTU/hr oil boilers and a small 250kW propane boiler that is used to start up the desalinization plant."

1. SCRG PSD Permit

According to the DPNR intended permit (Page 5) the SCRG facility "has been issued an amended administrative PSD permit, which limits its operational requirements to 775 MMBTU per hour for the combined fuel burning equipment in operation at any one time. The facility can normally burn 30.5 tons

of coal per hour of operation depending on the heat capacity of the coal used.” In reviewing the SCGR Title V Permit Application, SEA’s first question is whether the 775 MMBTU/hr coal boiler (Unit 71) and two 280 MMBTU/hr oil boilers (Unit 20) for which the Title V Permit is requested should in fact be allowed to operate under SCRG’s July 19, 2002 Prevention of Significant Deterioration of Air Quality (PSD) Permit.

It is our understanding that the combustion of coal in the coal-fired boiler was ceased in early 2000 and that operations of the alumina refinery were suspended entirely, January 31, 2001 - prior to SCRG purchase of the facility. According to a September 2006 letter from USEPA to SCRG, “It has been long-standing EPA policy to presume that any source shut down for two years or more has permanently ceased operation.” The unit has not been operated using coal combustion for nine years, and the decision to shut it down it was made not by SCRG, but by the previous owner, Alcoa World Alumina and Chemicals (AWAC). SEA calls upon DPNR and USEPA to revisit the now over 2 ½ year old Amendment to the 2002 PSD Permit, and require a new PSD Permit application for Units 20 and 71.

2. Impacts on Natural Environment and Public Health

According to the DPNR intended Title V Permit, “SCRG has the potential to emit particulate matter, sulfur dioxide, nitrogen oxides, carbon monoxide in quantities greater than one hundred tons per year each, which are greater than the applicable major source threshold. Therefore this facility is subject to Title V Regulations (40 CFR Part 70) as a major source. In addition this facility is also subject to Title V Regulations as a major source for hazardous air pollutants (HAP) because it has the potential to emit hydrogen chloride and hydrogen fluoride in quantities greater than ten tons per year for each and greater than twenty five (25) tons per year for total HAPs.”

According to USEPA maximum achievable control technology (MACT) Rules ^{1/},^{2/}, boilers and process heaters can emit a wide variety of HAP, depending on the material burned. These can include:

Arsenic	Hydrogen chloride
Benzene	Hydrogen fluoride
Beryllium	Lead
Cadmium	Manganese
Chlorine	Mercury
Chromium	Nickel
Formaldehyde	Selenium

The US EPA has classified three of the HAP as human carcinogens and five as probable human carcinogens. SEA calls upon DPNR to make public as part of the Title V Permit review process the potential public health hazards and risks to the natural environment that would result from emission of 25 tons per year of Hazardous Air Pollutants (HAP) by SCRG.

3. Impacts from Cumulative Emissions from the St. Croix Southern Industrial Complex

As a result of prevailing easterly trade winds, people living in Southcentral, Southwest and Frederiksted US Bureau of Census Subdistricts are downwind from the emissions from St. Croix Southern Industrial

^{1/} <http://epamact.utk.edu/boilers/boiler3.shtml>

^{2/} Federal Register / Vol. 70, No. 248 / Wednesday, December 28, 2005 / Rules and Regulations

Complex ten months of the year. These Subdistricts also happen to be home to the most economically disadvantaged populations on St. Croix, with 36.1%, 37.5% and 53.3% of families living below poverty level in these Subdistricts, respectively (2000 Census).

Cumulative Emissions from HOVENSA and SCRG (Tons per year)

Pollutant	HOVENSA	SCRG	Total
PM	2,796	339	3,135
SO ₂	22,026	3,858	25,884
NO _x	26,931	2,378	29,309
CO	10,445	133	10,578
VOC	27,332	?	
Hydrogen fluoride		10	
Hydrogen chloride		10	
Total HAPs		25	

SEA calls upon DPNR to make public as part of the Title V Permit review process the potential public health hazards and risks to the natural environment resulting from the cumulative emission load to which people and the environment downwind from the St. Croix Southern Industrial Complex are exposed.

4. Limits on Greenhouse Gases, Including CO₂

Release of greenhouse gas, CO₂, is a concern, especially for a population living on a tropical island susceptible increased hurricane frequency and intensity, sea level change and storm surge associated with global climate change. According to an article in the U.S. Energy Information Administration ^{3/}

“Carbon dioxide (CO₂) forms during coal combustion [A]ssuming complete combustion, 1 pound of carbon combines with 2.667 pounds of oxygen to produce 3.667 pounds of carbon dioxide. [C]oal with a carbon content of 78 percent and a heating value of 14,000 Btu per pound emits about 204.3 pounds of carbon dioxide per million Btu when completely burned. Complete combustion of 1 short ton (2,000 pounds) of this coal will generate about 5,720 pounds (2.86 short tons) of carbon dioxide.”

SEA calls upon DPNR to consider CO₂ emissions from SCRG and cumulative CO₂ emissions from the St. Croix Southern Industrial Complex as part of the Title V Permit review process.

5. Emission AND Ambient Air Quality Monitoring and Reporting

The intended Title V Permit (Page 7) provides lists three monitoring and recordkeeping conditions – all of which require self monitoring by the permittee. SEA requests DPNR to report how Division of Environmental Protection and/or Division of Environmental Enforcement staff will verify that emissions are compliant with the Title V Permit if all monitoring is undertaken by the applicant.

^{3/} Carbon Dioxide Emission Factors for Coal, B.D. Hong and E. R. Slatick, Energy Information Administration, *Quarterly Coal Report, January-April 1994*, DOE/EIA-0121(94/Q1) (Washington, DC, August 1994), pp. 1-8.)

6. Revision of Title V Permits to Reflect New Clean Air Act Standards

Pursuant to Facility Wide Condition No. 7, “[w]here an applicable requirement of the Clear Air Act, as amended 42 USC 7401 (Act) is more stringent than an applicable requirement of regulations promulgated under Title V of the Act, the permit incorporates both provisions into the permit and the Commissioner or the Administrator can enforce both provisions.”

SEA calls for this condition to read that “... the Commissioner of Administrator **will** enforce the more stringent provision.” SEA further calls for DPNR to make it explicitly clear that this condition applies in cases where the Clean Air Act may be amended to included new or more stringent standards during the life of the permit.

SEA notes for the record that pursuant to General Provision No. 7, “this permit may be revised, reopened or reissued by the Director. The permit must be reopened before the expiration date and revised accordingly under the following circumstances:

- f. If new/additional requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. [Title 12, Ch 9, Sec. 206-83(a)(1)(A)]”

7. Protection of Environment and Public Health Pursuant to VI Code Title 12, Chapter 12 § 201

Pursuant to VI Code Title 12, Chapter 12 § 201. Declaration of Policy:

“Whereas the pollution of the atmosphere about the United States Virgin Islands constitutes a menace to public health and welfare, creates public nuisances, and is harmful to plant and animal life and to property, it is hereby declared to be the policy of the United States Virgin Islands to preserve, protect, maintain and improve the air resources of the United States Virgin Islands so as **to promote health, safety and welfare, prevent injury to human health, plant and animal life and property, foster the convenience and comfort of its inhabitants and to the greatest degree practicable, facilitate the enjoyment of the natural attractions and resources of the United States Virgin Islands. It is the express objective of this law to provide for the prevention, abatement and control of new or existing air pollution;** to authorize the Virgin Islands Department of Planning and Natural Resources to implement the provisions of the federal Clean Air Act, and acts amendatory thereof, or supplementary thereto, and federal regulations and guidelines issued pursuant thereto so that permits may be issued by the Virgin Islands Department of Planning and Natural Resources under the provisions of such Acts; and to cooperate with other agencies of the United States Virgin Islands and the Federal Government in carrying out these objectives.”

Nowhere in the DPNR intended Title V Permit are the potential hazards to the environment or to public health identified, much less assessed. SEA requests information on the potential hazards to the environment and people from PM, NO_x, CO, SO₂, hydrogen chloride, hydrogen fluoride, PAHs and other HAPs in the quantities proposed to be permitted, and a discussion of how the DPNR intended Title V Permit will **promote health, safety and welfare, prevent injury to human health, plant and animal life and property... and ... provide for the prevention, abatement and control of new or existing air pollution.**

Beyond mere compliance with promulgated 40 CFR 63 emission standards, SEA is concerned that information is not available about both permitted and unpermitted emissions from the SCRG facility, and whether those emissions have been sampled and found to be safe for the environment and people of St. Croix. SEA requests DPNR to make public as part of the Title V Permit review process the names and quantities of Volatile Organic Compounds (VOCs) and other potentially carcinogenic or otherwise toxic emissions from SCRG. In addition, SEA calls upon DPNR to identify what studies have been made by DPNR, SCRG or other party to determine the atmospheric concentration of VOCs downwind from the facility.

Please contact me at pchakroff.atSEA@gmail.com or 340/773-1989 with any questions you may have about SEA's position on the St. Croix Renaissance Group application for a Clean Air Act Title V Permit.

Respectfully submitted,



Paul Chakroff
Managing Director

Cc: Robert S. Mathes, Commissioner, Department of Planning and Natural Resources
Jehangir Zakaria, VP Engineering and Energy, SCRG