

St. Croix Environmental Association

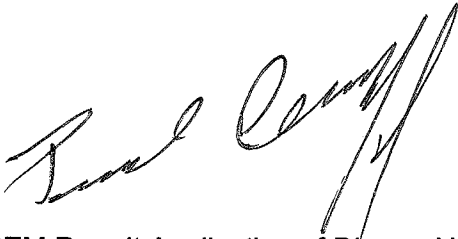
A Chapter of the Virgin Islands Conservation Society

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To: Janice D. Hodge
Director, CZM

From: Paul Chakroff
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Subject: Comments on the Major CZM Permit Application of Diageo USVI, Inc.
(No. CZX-10-09L)

Date: March 11, 2009

Thank you for the opportunity to comment on the Major CZM Permit Application of Diageo USVI, Inc. The St. Croix Environmental Association offers the following specific comments on the Environmental Assessment Report (EAR) submitted by the applicant.

1. (Ref. pp. 7, 58) The St. Croix Environmental Association (SEA) applauds Diageo for its commitment to developing a "green" facility with minimal impacts on the environment; including obtaining Leadership in Energy and Environmental Design (LEED) certification, recycling and reclaiming materials and reduction or elimination of waste to the extent practicable.
2. (Ref. p. 8) Diageo commits to assessment of the application of solar energy at the proposed site "in the future." SEA calls on the Coastal Zone Management Commission (CZM) to require Diageo to provide an alternatives analysis for application of solar and other renewable energy at the proposed site from the onset of the project, not at some undetermined time in the future.
3. (Ref. p. 13) Diageo claims that fermentation vats will be hermetically sealed and that CO₂ will be collected and passed through a gas scrubber before being released to the atmosphere. SEA calls upon CZM to require Diageo to identify how many tons of Carbon are projected to be released into the atmosphere per year from all sources of the operation. The same must be provided for SO₂, NO_x, CO, PM, PM-10, and VOCs.
4. (Ref. pp. 19, 24, 27, 45) According to Diageo "air quality requirements will be met by removing sulfur compounds from the biogas to limit SO₂ emissions when the gas is burned." And, "Scrubbing reduces the sulfur compounds to allowable levels for air quality." Diageo

asserts that the facility will be classified as a "minor source" of air pollution under Title V of the Clean Air Act (Ref. p. 24). If so designated, SEA requests CZM to identify how Diageo air emissions would be monitored to verify that it continues to qualify as a "minor source." Also, on p. 27 of the EAR it is stated that "back-up generators will be on-site..." The generating capacity, fuel or projected emissions for these generators is not indicated. SEA requests CZM to verify that DPNR/Division of Environmental Protection has accounted for emissions from these generators in their determination of whether Diageo falls below or above the threshold for a Clean Air Act Title V major source.

5. (Ref. p. 19) The EAR states that the "small solids portion" of sulfur compounds removed from the scrubber will be mixed with the waste sludge. SEA calls upon CZM to require Diageo to identify the degree to which sulfur and other compounds proposed to be mixed into the waste sludge will contaminate the bio-sludge and reduce its value for alternative uses, such as application as an agricultural soil amendment (ref. p. 22).
6. (Ref. p. 21) The EAR claims that the composting filter will "prevent odors from exiting the site." SEA questions whether Diageo will truly *prevent* odors, or merely *minimize* or *reduce odors to the extent practicable*. SEA calls upon CZM to require Diageo to provide models that identify the predicted odors and concentrations of CO, SO₂, NO_x, PM and VOCs in air emissions, especially impacting residential neighborhoods downwind from the facility.
7. (Ref. pp. 22, 27) *Fresh water and Electricity* - SEA questions the advisability of relying upon WAPA for freshwater and/or electricity. Unfortunately, no matter how "green" Diageo's operation is, the applicant is ultimately responsible for the environmental impacts of their source of water and energy. With WAPA presently burning oil and seriously considering coal combustion as an "alternative" source of additional energy, SEA is quite concerned that Diageo's energy demand may result in negative impacts on the environment and public health, especially in people living downwind from the facility. SEA calls upon CZM to require Diageo to assess impacts of energy and water production required to meet demand of the Diageo facility. An alternatives analysis should consider environmental impacts of energy production by Diageo, vs. WAPA vs. St. Croix Renaissance Group (SCRG). Also to be considered in this analysis is the fact that WAPA has been known to periodically ration water to its customers, sometimes without prior notice.
8. (Ref. pp. 22, 66, Attachment K) The fate of solids produced at the refinery is not clear beyond a two year commitment from VIWMA to accept them at the landfill. First, CZM should incorporate into a CZM permit the VIWMA conditions for acceptance of biosolids/biomass for disposal at or capping of Anguilla landfill. Second, CZM should require Diageo to present a clear and detailed plan for disposal or use of solid waste beyond the 2-year VIWMA permit period.
9. (Ref. p. 23) SEA requests CZM to require Diageo to assess the impacts of discharging 29 million gallons per day (MGD) of seawater (at elevated salinity) on the salinity in the intake channel located approximately 1200 ft from the outfall. SEA is concerned that there may be

a gradual increase over time in salinity within the Krause Lagoon channel due to the 24/7 pumping out at the intake and dumping into the channel.

10. (Ref. p. 28) Figure 6-2 is NOT an earthquake probability map: it is a map showing the vulnerability of different areas of the island to damages due to the geology of the underlying formations. SEA calls upon CZM to require Diageo to address the high vulnerability rating shown for the area of the Diageo site in terms of the potential for impacts on the environment or public health as a result of earthquake damage.
11. (Ref. pp. 30-31, 36) SEA calls upon DPNR to require improvement of the runoff coefficient at the developed site by use of pervious surfaces in parking lots and/or other measures. With the likelihood of a greater frequency and intensity of storm events over the next decades, the "100-year storm event" of the 19th and 20th century may not be a 100-year storm event of the 21st century. SEA calls upon Diageo to clarify whether the National Hurricane Center's Storm Surge Group accounted for climate change and projected sea level rise in their 6.8 ft. maximum storm surge calculation.
12. (Ref. p. 34) A discussion of the groundwater under the SCRG property and the potential effect of the Diageo facility on it are absent. SEA calls upon CZM to require Diageo to assess how groundwater, including but not limited to the SCRG groundwater wells east of the Diageo site will be affected by the distillery. SEA further recommends that CZM require all sedimentation ponds to be lined, to prevent contamination of groundwater by pollutants in runoff from the Diageo facility and its associated parking lots.
13. (Ref. pp. 41, 50) There is no discussion or analysis of the noise levels associated with the around-the-clock operation of the distillery, and noise impacts on nearby human population (nearby neighborhoods) or wildlife (especially birds). SEA calls upon CZM to require Diageo to provide such an analysis.
14. (Ref. p. 41-45) SEA understands that Diageo will potentially impact the wetlands fringing the access road to the seawater outfall during the operation of excavating a trench and burying the pipeline there. SEA calls on CZM to specify measures that Diageo should take during this temporary construction activity to protect the wetland vegetation on both sides of the road. Diageo should identify the location of bird rookeries in the mangrove areas bordering the road and the effects that the construction will have on the birds there. SEA appreciates that the pipeline construction activity is not expected to impact the Least Tern nesting area located south of the cooling pond.

SEA appreciates that Diageo included the comprehensive list of bird species (MacGuire, Sladen, McNair & Yntema) from the southern portions of the Renaissance site and Ruth Island in their EAR. We accept their statement that "...none of the listed species identified by others at SCRG are expected to utilize the distillery site for breeding or foraging." However, the distillation tower lighting is another issue. Many migratory birds use the nearby wetlands. Migratory birds are more attracted to certain types of tower lighting. Such attraction increases their mortality rates due to crashing into the towers or guy wires. Most of the literature is on communication towers which are going up in great numbers, but there

have been significant bird mortality problems with other tall structures as well. No heights or lighting specifications are given for the distillation towers in Diageo's EAR.

SEA calls upon CZM to require Diageo to provide a plan for mitigating bird mortality. Following is a sample language from the US Fish and Wildlife Service that may serve as a guide:

Lighting and design – Birds collide with towers and/or their guyed wires and die. However, when designing towers, many steps can be taken to minimize the chance of bird-tower collisions. Many migratory birds travel at night and are attracted to tower lights, especially red lights. Therefore, efforts to decrease the likelihood of bird-tower collisions should include steps to minimize the amount of tower lighting and use lighting that is the least attractive to the birds. We recommend:

- Building the structure less than 200 feet above ground level, thus avoiding requirements for tower lighting
- Building the structure without guy wires
- Using red or white (preferable) strobe lights instead of flashing lights.
- Avoid the use of solid red or pulsating red warning lights at night
- Using the minimum amount of lighting, the minimum intensity of lighting, and the minimum number of strobe flashes allowed with the minimum strobe flash duration under Federal Communications Commission/Federal Aviation Administration regulations
- Minimizing security lighting for on-ground facilities and ensure that such lighting points downward or is down-shielded
- Illuminating the tower with additional daytime white strobes (in addition to the tower top) to increase daytime visibility

15. (Ref. p. 47) There is a statement that sewage treatment and disposal has been contracted with "WAPA." We suspect that this should read VIWMA, not WAPA. SEA calls upon CZM to require Diageo to provide a discussion of how reagents, other chemicals wasted in the laboratory, and/or other hazardous wastes will be disposed of.
16. (Ref. p. 48) The traffic study is deficient in that it does not describe the existing traffic patterns and intensity at the Melvin Evans Highway and the entry road to Renaissance Park, nor how the additional traffic associated with the project will affect the intersection and neighborhoods. SEA calls upon CZM to require Diageo to provide an analysis of noise and vehicular air pollution emissions from additional trucks and other vehicles moving on their site and through the intersection and along Melvin Evans Highway.
17. (Ref. p. 57) SEA calls for CZM to require Diageo to commit to planting only indigenous plants as part of landscaping and re-vegetation efforts.
18. (Ref. p. 58) As little as 60% (range of 60-98%) of the alcohol vapors are proposed to be scrubbed. The efficiency of the scrubbing system should be increased to >95%. Also, SEA calls CZM to require greater specificity in the discussion of reduction of volatile organic compounds (VOCs). Some VOCs are carcinogenic and the proximity of the facility to downwind residential neighborhoods raises public health issues with regard to VOCs and other air pollution emissions.

19. (Ref. p. 63) In the discussions of alternate sites for the distillery, Site B was reported to have identified petroleum product in the soil and groundwater. SEA calls upon CZM to make public the sample location and the nature of the petroleum products found there.

20. (Ref. pp. 64-65) Off-shore wind, solar or other renewable energy alternatives were not considered among power source alternatives. SEA calls upon CZM to require Diageo to make renewable energy (especially solar) a significant part of their energy generation package. Also, use of turbines to harness the kinetic energy in the discharged seawater stream should be given high priority before the discharge system is installed as planned. We reiterate that if Diageo's preferred energy source is WAPA, CZM must require the applicant to address the environmental and public health "costs" of that energy source in an alternatives analysis for energy supply.

21. (Ref. Attachment G) There is no discussion of downwind effects of air emissions on residential areas to the North and West of the proposed site of the distillery. No list of air pollutant emissions is given in the EAR, though it is stated that the air pollutants have been estimated and provided separately to DPNR. SEA calls upon CZM to make public air emission information with an assessment of air emission impacts on residential areas downwind. No information is provided about prevailing wind directions in the area of the distillery.
