Carolina

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

January 27, 2000

Mr. Perry Katz
McLaren Hart, Inc.
25 Independence Boulevard
Warren, New Jersey 07058

RE: **Virgin Island Chemical Site**
St. Croix, United States Virgin Islands

Dear Mr. Katz:

The U.S. Environmental Protection Agency has completed the technical review of the McLaren/Hart Proposal for the Replacement of P1 and the Calculation of Site Specific Dilution Attenuation Factor Virgin Island Chemical Site in St. Croix, United States Virgin Islands.

Below are comments on you above-referenced submittal:

PRODUCTION WELL P-1 ABANDONMENT/REPLACEMENT-

1. McLaren/Hart's proposal for the replacement/abandonment of P1 is acceptable. However, it should be noted that if mud rotary is used as a contingency drilling method, the monitoring well must be thoroughly developed to remove any residual drilling mud.

2. All Investigation Derived Waste (IDW) composite samples must be analyzed for RCRA characteristics by McLaren/Hart's off site laboratory. During the course of the RI, IDW drums were found to contain RCRA hazardous waste. Therefore, all composite samples must be submitted for the RCRA characteristics analyses.

CALCULATION OF SITE-SPECIFIC DILUTION ATTENUATION FACTOR-

1. It should be noted that the approach used by McLaren/Hart to calculate the site-specific dilution attenuation factor (DAF) accounts for impermeable surface cover. For SSL calculations, it is typically assumed that an impermeable cover does not exist, based upon the future potential for the building/paved area to be demolished and re-developed with more green space. It should also be noted that the Tank Area is not covered by pavement. The McLaren/Hart calculations begin with the most conservative, published infiltration rate [(6% of annual rainfall (44 in/yr)] and reduce it, by accounting for impermeable cover, to a lower value [4% of annual rainfall], which is still within the published range for infiltration. The DAF would be 7.5, if the impermeable space is not considered in the calculation and the most conservative infiltration value (6%) is used. McLaren/Hart

should redo the calculation with the consideration for impermeable space removed from the equation.

2. It is noted that the groundwater elevation maps prepared by McLaren/Hart are subject to interpretation; there are still some odd groundwater elevations measurements (e.g. MW10). However, for the purpose of calculating the DAF, it is sufficient to agree with McLaren/Hart that the predominant groundwater flow direction is south to southeast. This is supported by most of the groundwater data and the regional topography.

3. It should be noted that the most recent groundwater elevation maps presented in this submittal indicate a groundwater flow direction (to the south) that differs from what is presented in the Draft Final RI Report, which indicates that shallow groundwater flow is to the southeast. These latest contour maps, which indicate flow to the south, should be included in the Final RI and incorporated into the Feasibility Study.

Please call me if you have any questions.

Sincerely,

Caroline Kwan
Project Manager
Sediments/Caribbean Team

cc: Terry Grimmer-Berlex
Pam Philip-CDM-FPC