EBASCO SERVICES INCORPORATED

Two World Trade Center, New York, N.Y. 10048

39700

Mr. E G Kaup, Site Manager
Hazardous Site Mitigation Administration
Bureau of Site Management
Division of Waste Management
New Jersey Department of Environmental Protection
CN 028
8 East Hanover Street
Trenton, New Jersey 08625

RE: COMBE FILL NORTH LANDFILL FEASIBILITY STUDY
MOUNT OLIVE TOWNSHIP, MORRIS COUNTY, N.J.
DRAFT QUALITY ASSURANCE PROJECT MANAGEMENT PLAN

Dear Mr. Kaup:

Enclosed are clarifications to the Quality Assurance Project Management Plan (QAPMP) which are considered necessary as a result of discussions on November 16, 1984 with Eric Schwartz, EPA Project Manager for the Combe Fill North Landfill Feasibility Study.

Section 5 "Quality Assurance Objectives for Measurement Data in Terms of Precision, Accuracy, Completeness, Representativeness, and Comparability" has been revised to include modifications to the definitions for Representativeness, Comparability and Completeness.

The revised pages are attached for incorporation into the QAPMP as submitted to you earlier on October 16, 1984.

If you have any questions, please feel free to call me at (201) 460-6434. Thank you for your cooperation.

Very truly yours,

Dev R Sachdev Project Manager

DRS/JMG/ma

cc: E Schwartz G Cusack

5. QUALITY ASSURANCE OBJECTIVES FOR MEASUREMENT DATA IN TERMS OF PRECISION, ACCURACY, COMPLETENESS, REPRESENTATIVENESS, AND COMPARABILITY

The quality assurance objective for measurement data is to ensure that environmental monitoring data of known and acceptable quality are provided. Field and laboratory data will be used for site assessments and hazard determinations, remedial investigations, engineering feasibility studies, community relations programs, and support of enforcement and cost recovery proceedings.

The quality assurance objective for requested data on the analytical results of the environmental samples collected will include:

<u>Precision</u>: The laboratory objective for precision is to equal or exceed the precision demonstrated for these analytical methods on similar samples, and shall be within the established control limits for the methods, as published by the Environmental Protection Agency (EPA).

Accuracy: The laboratory objective for accuracy is to equal or exceed the accuracy demonstrated for these analytical methods on similar samples, and shall be within the established control limits for the methods as published by EPA.

Representativeness: Representativeness is a quality characteristic which is attributable to the type and number of samples to be taken of the medium and the analysis to be performed on the sample so as to be representative of the medium/environment (e.g. air, water, soil) at the site of interest. The Combe Fill North Field Sampling Plan provides the number and types of samples to be taken, method of sampling and analysis to be performed on each sample in respect of soil samples, ground water samples, surface water samples and their monitoring

Revision No. 5

Revision No. 0

Date Oct. 29, 1984

Page 2 of 3

samples, such that the samples of each medium would adequately represent the site conditions.

The representativeness of the data from the sampling sites depends on the sampling procedures. The representativeness of the analytical data is a function of the procedures used in processing the samples. The objective for representativeness is to provide data of the same high quality as other analyses of similar samples using the same methods during the same time period within the laboratory. Representativeness can be determined for this objective by a comparison of the quality control data for these samples against other data for samples analyzed at the same times. Differences within 10 percent are acceptable.

Comparability: The sampling methods employed in the site program, the chain-of-custody methods responsible for the transfer of the sampled items to the analytical laboratory and the analytical techniques implemented at the laboratory are performed in a uniform manner as prescribed in procedures incorporated in the QAPMP. The application of these procedures will generate comparable data on a consistent basis.

The results of these analyses can be compared with other analyses by other laboratories, because the objectives of the laboratory for comparability are: to demonstrate traceability of standards to National Bureau of Standards (NBS) or EPA sources; to use standard methodology; to apply appropriate levels of quality control within the context of the Laboratory Quality Assurance Program; and to participate in interlaboratory studies to document laboratory performance. By using traceable standards and standard methods, the analytical results can be compared to other laboratories operating similarly. The QA Program document internal performance, and the interlaboratory studies document performance compared to other analysis at other locations.

Section No. 5
Revision No. 0
Date Oct. 29, 1984
Page 3 of 3

<u>Completeness</u>: The completeness of the data reflects that all the required samples of the air, water and soil media have been taken and requisite analysis performed so as to generate an adequate data base to successfully perform the intended study (feasible study).

The completeness of an analysis is documented by including in the report sufficient information to allow the data user to assess the quality of the results. The information delivered will conform to current NJDEP data reporting requirements.