



ENVIRONMENTAL STRATEGIES CONSULTING LLC

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June 16, 2006

Mr. James E. Burke, P.E.
Environmental Engineer
New York State Department of Environmental Conservation
Region 7
615 Erie Boulevard West
Syracuse, NY 13204-2400

Re: May 8, 2006 NYSDEC Correspondence - Response to NYSDEC Comments
March 10, 2006 Proposed Supplemental Geophysical Survey –
Emerson Power Transmission Facility, Ithaca, New York

Dear Mr. Burke:

This letter responds to the comments raised in the May 8, 2006, correspondence from the New York State Department of Environmental Conservation (NYSDEC) on the proposed supplemental geophysical survey work plan for the Emerson Power Transmission facility in Ithaca, New York (March 10, 2006). The comments are listed below, followed by our responses.

NYSDEC Comment 1

The plan outlines work that will further evaluate the conductive zones in eight areas identified by ESC as “having signatures and shapes consistent with water bearing zones.” While the Department agrees that these may be water bearing zones, it does not rule out the possibility that the other zones identified by the July and September 2005 survey are being more conductive than the surrounding subsurface may also be hydraulically conductive. The Department reserves the right to ask further definition around these zones if it is deemed necessary.

Response

No response necessary.

NYSDEC Comment 2

Azimuthal Square Array Direct Resistivity (USGS WRIR 01-4183, pg. 14 of 61) should be considered as a method to further define the three dimensional nature of the conductive subsurface features. Contact Christopher Magee (518-402-9549) of our Albany office for more details.

Response

This approach is addressed in the March 10, 2006, work plan; we assume it was overlooked by the Department. Specifically, the work plan states: "The major conductive zones, which exhibited resistivity signatures and shapes consistent with potential water-bearing fractures onsite (7A, 2A, and 12A/2D) and offsite (6F, 10A, 9C, 11B, and 11E), will be further evaluated using closely spaced ER survey lines oriented in a grid around the area where each major conductive zone was identified." In these areas, Emerson will use multiple electrode arrays including the dipole-dipole, Wenner, as well as the *Square-Array Direct-Current Resistivity Method* to detect and orient water-bearing fractures in bedrock. The results from the combined arrays will be used to develop 3-dimensional profiles of each fracture-like conductive zone. The 3-D profiles will add in determining the trend (strike) of the fractures and the potential interconnectivity with other identified conductive zones.

NYSDEC Comment 3

The work plan should state a report shall be prepared with the results of the survey along with a time frame for the report preparation and submittal.

Response

A report will be prepared detailing that the survey findings. The report will be submitted to the Department 12 weeks following completion of the survey.

NYSDEC Comment 4

The work plan should state that included within the report will be recommendations for additional monitoring wells and how the data will be analyzed to evaluate the best locations for these monitor wells.

Response

This comment was addressed in our previous response dated March 20, 2006, which states:

Following the completion of the supplemental geophysical survey, Emerson will develop a work plan, which will include 1 to 3 exploratory bedrock borings to confirm the supplemental ER image results. Rock cores will be collected and logged in accordance with Environmental Strategies SOPs and will include a description of the rock core, a characterization of the observed fractures, the percent of core recovery, and the calculated rock quality designation. The final location and number of exploratory borings required to confirm the ER image results will be determined in the field. The fracture-like anomalies will be the focus of the confirmation borings.

In addition, based on the results of the supplemental ER survey, Emerson will propose installing additional bedrock groundwater monitoring wells within the

confirmed water-bearing fractures. These monitoring wells will serve to evaluate groundwater quality within the identified migration pathways and will be used to determine if affected groundwater is migrating in these areas. The number and location of the proposed additional monitoring wells will be detailed in a work plan that will be submitted to NYSDEC.

The location of each proposed well will be based on resistivity measurements, profile signatures, and projected trends of the identified anomalies. Proposed locations will be plotted on the transect figures and x and y coordinates provided to a surveyor for locating and marking in the field.

NYSDEC Comment 5

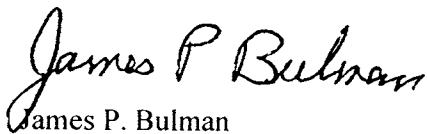
The work plan should state that the Department will be notified before the commencement of field work so a Department representative could be scheduled to observe the work.

Response

Emerson will notify the Department prior the commencement of the field work.

We look forward to receiving approval to conduct the supplemental geophysical survey. Please contact us, if you have any questions.

Sincerely yours,



James P. Bulman
Executive Partner

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cc: Mr. Derek Chase, Emerson
Henriette Hamel, NYSDOH