Honeywell

Honeywell 301 Plainfield Road Suite 330 Syracuse, NY 13212 315-552-9700 315-552-9780 Fax

April 29, 2014

To:	" Harry Warner, NYSDEC, Region 7 (1 bound)
i.	Holly Sammon, Onondaga County Public Library (1 bound)
1)	Samuel Sage, Atlantic States Legal Foundation (1 bound)
	Cara Burton, Solvay Public Library (1 bound)
	Mary Ann Coogan, Camillus Town Hall (1 bound)
	Moon Library, SUNY ESF (1 bound)
	Diane Carlton, NYSDEC, Region 7 (1 PDF)
	Joseph J. Heath, Esq., Onondaga Nation (1 bound)
	Chris Fitch, Communications (cov ltr - email)

Re: Letter of Transmittal – Onondaga Lake Remediation Repository Addition

The below document has been approved by the New York State Department of Environmental Conservation (NYSDEC) and is enclosed for your document holdings:

• Finalized Procedure - TVOC Investigate Level Exceedances - April 4, 2014

Sincerely, John P. McAuliffe, P.E. John P. McAuliffe, P.E. MCLC Program Director, Syracuse

Enc.

cc: Tim Larson, P.E. (O'Brien & Gere Engineers, Inc.)

New York State Department of Environmental Conservation Division of Environmental Remediation Remedial Bureau D, 12th Floor 625 Broadway, Albany, New York 12233-7013 Phone: (518) 402-9676 • Fax: (518) 402-9020 Website: www.dec.ny.gov



April 25, 2014

Mr. John P. McAuliffe, P.E. Program Director, Syracuse Honeywell 301 Plainfield Road, Suite 330 Syracuse, NY 13212

Re: Finalized Procedure for Response to TVOC Investigate Level Exceedances, Dated April 4, 2014

Dear Mr. McAuliffe:

We have received and reviewed the above-referenced document, which was transmitted by your April 4, 2014 letter addressed to my attention, and find that the revised document has addressed our previous comments. Therefore, the revised "Procedure for Response to TVOC Investigate Level Exceedances" is hereby approved. Please see that copies of the approved document, along with this approval letter, are distributed to the document repositories selected for this site.

Sincerely,

MA

Timothy J. Larson, P.E. Project Manager

- ec: B. Israel, Esq, Arnold & Porter R. Nunes - USEPA, NYC M. Sergott - NYSDOH, Albany J. Heath, Esq. C. Waterman A. Lowry M. McDonald – Honeywell
- J. Gregg NYSDEC J. Davis - NYSDOL, Albany M. Schuck - NYSDOH, Albany T. Joyal, Esq. J. Shenandoah M. Distler - O'B&G

Honeywell 301 Plainfield Road Suite 330 Syracuse, NY 13212 315-552-9700 315-552-9780 Fax

April 4, 2014

Mr. Tim Larson, P.E. New York Stäte Department of Environmental Conservation Division of Environmental Remediation Remedial Bureau D, 12th Floor 625 Broadway Albany, NY 12233-7013

RE: **Finalized Procedure Response to TVOC Investigate Level Exceedances Onondaga Lake Remediation**

Dear Mr. Larson:

Enclosed is a final procedure for responding to exceedances of TVOC Investigate Levels. The document includes changes made to the draft procedure (January 29, 2014) as requested by the Department in your March 4 email.

Please respond with the Department's approval or contact Mark Distler at O'Brien & Gere (315) 956-6536 or me should you have any questions or additional comments.

Sincerely,

John P. Matulife John P. Matulife My CCC

Program Director, Syracuse

Enclosure

William Daigle - NYSDEC, Albany cc: Donald Hesler - NYSDEC, Albany Reggie Parker - NYSDEC, Syracuse Mary Jane Peachey - NYSDEC, Syracuse Robert Edwards - NYSDEC, Albany William Hague – Honeywell Christopher Calkins - O'Brien & Gere Mark Distler - O'Brien & Gere

RESPONSE TO TVOC INVESTIGATE LEVEL EXCEEDANCES

PROGRAM SPECIFIC PROCEDURE HONEYWELL AIR QUALITY MONITORING PROGRAM

This procedure outlines the air quality monitoring (AQM) response to exceedances of the Investigate Level of total volatile organic compound (TVOC) concentrations measured at the work perimeter of the Honeywell Onondaga Lake Remediation Project (Project) Sediment Consolidation Area (SCA). This procedure involves:

- Immediate response to real-time TVOC concentrations that are at or above the Project's Investigate Level to assess if the real-time measurements are attributable to site activities
- 2) Real-time TVOC monitoring of elevated site-related TVOC at the work perimeter to assess if the Investigate Level is exceeded
- 3) Real-time benzene screening after Investigate Level exceedances to evaluate the potential benzene levels
- 4) Canister sampling when benzene screening indicates elevated benzene levels at the work perimeter

Benzene has been found to be a major constituent in Project sediment and is a primary compound of concern. The purpose of this procedure is to: (1) quantify benzene concentrations when TVOC at the SCA work perimeter attributable to the Project exceed the Investigate Level of 2.0 ppm as a 1-hour average, and (2) confirm benzene work perimeter concentrations, do not exceed the NYSDEC short-term guideline concentration (SGC) of 0.4 parts per million (ppm) as a 1-hour average.

This procedure supplements the procedures approved by NYSDEC for the Project and contained in the *Community Health & Safety Plan* (May 2012) and *Quality Assurance Project Plan* (June 2012). This is a new procedural requirement and does not replace any of the other procedures specified in those documents, including the responses to exceedances of Control Levels and Work Perimeter Limits. These responses consist of applying controls and/or countermeasures to the source(s) causing the exceedances, as well as restricting/stopping said source(s) and reassessing the work.



Immediate Response

TVOC concentrations are continuously monitored at eight fixed stations at the SCA work perimeter using MiniRAE 3000 photo ionization detectors (PIDs). Fixed stations use automated alarms (early warning alarms) to notify AQM personnel of elevated PID readings. The automated alarms include an "early warning level" alarm when the 1-minute average TVOC level reaches or exceeds 2.0 ppm.¹ This early warning level is a direct measure of TVOC in ambient air, that is, it is without background correction and prior to evaluating source of the TVOC.

Upon receiving a TVOC early warning alarm, the AQM operator will immediately proceed to the alarming fixed station and follow the excursion alarm response following Section 4.0 of SOP 200.100 in the Project's Quality Assurance Project Plan (QAPP), which step the AQM operator through checks to determine if the alarm is due to system malfunction.

The operator will immediately confirm elevated PID readings at the work perimeter and determine if they are related to site activities. Nearby sources of odors and TVOCs, such as the Camillus C&D landfill, may cause elevated TVOC concentrations at the SCA work perimeter. Wind conditions will be evaluated to determine if site activities are upwind of the station. If readings are clearly determined based on wind direction or other observations to be from an off-site source, the elevated TVOC event and observations will be documented in the site log, and no further action will be required (though further investigation may be conducted to determine the source of off-site TVOC).

As identified in Section 3.2 of SOP 300.200, elevated PID readings may be instrument related (calibration drift or malfunction) or due to high humidity. Therefore, a second PID (handheld, not fixed), herein referred to as the primary backup, with a RAE humidity filtering tube installed (if necessary), will be collocated alongside the primary PID at the fixed station for direct comparison. If the difference between PIDs is within the calibration tolerance limit of 10% of the primary PID reading, then the primary PID will be considered to be operating properly and the next step in this procedure will be followed. If the primary PID readings are found to be instrument related, the AQM operator will either re-calibrate or replace the primary PID, and document the instrument-related cause in the site log, and no further action will be required.

Real-time Elevated TVOC Monitoring

If elevated TVOC concentrations at the alarming fixed station are confirmed to be site-related (as described above), real-time TVOC monitoring at the alarming fixed station will be conducted for a period of least 1 hour from the time of the ≥2.0 ppm 1-minute alarm to determine if the conditions exceed the TVOC Investigate Level. During the 1-hour monitoring period, the AQM operator will survey, using a hand-held PID, work perimeter concentrations adjacent to the fixed station and downwind of the suspected site activities to identify other work perimeter locations



¹ A 1-hour average TVOC concentration of 2.0 ppm above background is also the Project's Investigate Level.

where TVOC concentrations are observed to be elevated above the fixed station location. If 1minute TVOC concentrations at a different location are higher than the fixed station, the handheld PID will be operated at the second location for a period of 1 hour.

Real-time Benzene Screening

If the Investigate Level (1-hour average TVOC concentration above background is \geq 2.0 ppm) is exceeded at a fixed station and/or the second location, real-time measurements of benzene will be performed, and continued for as long as TVOC 1-hour background-corrected averages remain \geq 2.0 ppm. The measurements will be performed using UltraRAE 3000 benzene specific PIDs (BPIDs). BPIDs will be configured to log 5-minute time weighted averages, and calibrated with 0.5 ppm benzene span gas immediately prior to use and every two hours thereafter. New benzene separation tubes will be installed on each BPID prior to use (once each day of use).

Canister Sampling

If benzene 5-minute average concentrations are at 0.4 ppm or above, a 6-liter Summa canister air sample will be collected over a 1-hour period. If after the sample collection is complete, benzene concentrations increase above their previous levels, then additional air samples will be collected over 1-hour periods. The canister sample is the definitive and only measurement in this procedure for comparison to the benzene SGC. The BPID is a good screening tool but the canister method is far superior with respect to accuracy and specificity to benzene.

Each air sample will be analyzed according to US EPA Method TO-15 for the Project's list of speciated VOCs (includes benzene). Speciated VOC samples will be prepared, operated, and collected following the Project-specific SOP: *TO-15 Ambient Air Sample Collection Procedures for Speciated Volatile Organic Compounds*, SOP 100.600, except 1-hour flow controllers will be used. A portable stand or equivalent will be used to elevate the canisters off the ground to a height of at least 3 feet.

During speciated VOC sample collection, real-time measurements will continue to be performed to document TVOC and benzene concentrations during the sampling event. After collection, speciated VOC samples will be shipped overnight, under routine chain-of-custody, to Air Toxics, Ltd. in Folsom, CA for analysis. Samples will be analyzed using a rush turnaround time of three days. The results of the sample analyses will be compared to the respective SGCs.

