Check List for IC Long Term Assessment
For
Air Products & Chemicals Inc. – Tamaqua, PA
RCRA ID# PAD 069778967
May 29, 2014

A. Pre-Site Visit Checklist for Site Project Manager—In-office review of:

1. IC documents: Air Products & Chemicals Inc. (APCI) discovered that PCE tanks and a cooling unit containing PCE had leaked and, in 1994, removed contaminated soil. They also discovered that some of the PCE had entered the groundwater.

EPA issued a RCRA Corrective Action Permit (CAP) to APCI in December 1997. The CAP allowed APCI to sample the groundwater for 2 years to show whether or not the contaminants in the groundwater are naturally degrading. Between January 1998 and January 2000, APCI conducted 8 quarters of groundwater sampling and showed that groundwater contamination is decomposing due to natural attenuation. Due to this, EPA approved a revised monitoring plan on October 22, 2003 that reduced the groundwater sampling from the semi-annual schedule to a once-per five quarter schedule. APCI monitors the groundwater for chloroethane (CE), 1, 1-dichloroethene (1,1-DCE), tetrachloroethene (PCE), TCE), 1,1,1-trichloroethane (TCA), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), and vinyl chloride (VC). The CAP expired on December 1, 2007 and APCI is fulfilling its Corrective Action requirements under the Facility Lead Agreement.

APCI and EPA are currently finalizing the language of a draft Environmental Covenant which will place land and groundwater use restrictions on parcels of the property to assure that there are no exposures to the contamination during the natural attenuation.

2. Location maps: Verified the following on 5/29/14: Check EPA Facility website map links—they still work; check aerial maps available on Google Earth showing previous year satellite maps to look for evidence of changes, disturbances to and around IC areas – none noted; ensure map of IC and Facility boundaries according to Tech Support requirements, survey data/maps from Facility uploaded to EPA Facility website - complete.

3. Facility Contact: arranged a site visit with Facility for 5/29/14, discussed the purpose of the visit and any files they need to have available for EPA review.

B. Facility visit:

1. Facility in-office review: (a) compare IC maps for accuracy/consistency; (b) discuss any IC and/or remediation units regarding updates or info not conveyed in reports to EPA, any plans for land use, construction or sale of restricted use land; (c) discuss how restricted areas and restrictions are communicated to staff, contractors, upper management, local planners/govt as applicable; (d) discuss any issues identified under **A**., above; (e) discuss any recommendations with Facility, if they arise.

2. View IC and on-going remediation areas including photo documentation, if applicable. Note activities on and around IC/remedy areas. Note any remedy difficulties, like equipment malfunctions, timely responses and notifications to EPA.

C. Document the Review in Memo/Report to Files: Document what was reviewed, photos, findings and recommendations. Once approved by management, send Report to Facility and upload to EPA Facility website and update RCRA Info with applicable code(s).

D. IC Review and Inspection Questions:

- Have the ICs specified in the CA remedy been fully implemented in accordance with any applicable schedule? ☐ Yes ☒ No *Currently finalizing covenant

- Do the ICs provide control for the entire extent of contamination (entire site or a specific portion)? ☐ Yes ☒ No *They will once covenant is implemented

- Are the ICs eliminating or reducing exposure of all potential receptors to known contamination? ☐ Yes ☒ No *They will once covenant is implemented

- Are the ICs sufficiently meeting the risk goals and applicable standards specified in the CA remedy? ☐ Yes ☒ No *They will once covenant is implemented

- Are the ICs effective and reliable for the activities (current and future) at the property to which the controls are applied? ☐ Yes ☒ No *They will once covenant is implemented

- Are the ICs suitable for the period/length of time which the controls are intended to be used as specified in the CA remedy? ☐ Yes ☒ No *They will once covenant is implemented

- Are the ICs being maintained as required by the CA remedy in order to ensure that the controls remain effective? ☐ Yes ☒ No *They will once covenant is implemented

- Are additional ICs necessary to achieve the goals of the CA remedy? ☐ Yes ☒ No

- Are modifications to the ICs needed? ☐ Yes ☒ No

Comments: Prior to leaving office – printed IC map from R3 Mid-Atlantic CA webpage. Map is not clear (see attached copy) – need to check if printer is the issue, was clear online.

Facility response to B.1.c – Staff meetings held 1/month where all relevant staff and upper management discuss environmental items. Covenant was discussed previously and will be brought back up after final covenant is executed. Contractors informed as necessary.

Section D responses were "no" primarily because the covenant has not yet been signed. It is expected to be completed in the near future.