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December 21, 2009

VIA E-MAIL AND U.S. MAIL

Julie J. Riemenschneider
Remedial Projects Section, Manager
Arizona Department of Environmental Quality
ADEQ Central Office
1110 W Washington St.
Phoenix, AZ 85007

Re: West Van Buren WQARF Site
Roosevelt Irrigation District's Proposed Early Response Action and Groundwater
Response Action

Dear Ms. Riemenschneider:

Univar USA Inc. (Univar) has worked cooperatively and responsibly for many years with the Arizona Department of Environmental Quality (ADEQ) since identification of volatile organic compounds (VOCs) in groundwater in the West Van Buren (WVB) Water Quality Assurance Fund (WQARF) Site. As you know, Univar completed source control activities and ADEQ made a no further action determination for source area soils. ADEQ also terminated Consent Order W-109-96, noted that Univar's groundwater investigation was complete and granted approval to discontinue groundwater monitoring in 2002. ADEQ's actions and determinations support the conclusion that the Univar facility does not pose a continuing threat to groundwater. Univar will continue to be responsible and cooperative as ADEQ moves forward to finalize the Remedial Investigation (RI) Report and prepare Remedial Objectives (ROs) for the WVB Site.

In my November 5, 2009 letter to you, Univar requested that ADEQ reinstate the WVB technical working group to provide a mechanism to ensure adequate input from stakeholders on a range of complex technical issues within the WVB. We understand that other parties have separately supported Univar's request. Univar has received no response from ADEQ. While Univar continues to believe that a technical working group is the best mechanism for analyzing and commenting on the Roosevelt Irrigation District (RID) Groundwater Response Action Implementation Plan (GRA) and Early Response Action Work Plan (ERA), Univar provides the

following general comments based on its initial review of the GRA and ERA. More detailed comments may be provided in the future. Univar appreciates the opportunity to provide these comments to ADEQ.

General Comments

RID has proposed, as an ERA, a poorly documented, expensive, complex regional approach to address relatively minor amounts of VOCs solely in RID wells located within the WVB WQARF Site. Phase I of the ERA remedy proposes to pump and treat 20,000 gallons per minute (gpm) of groundwater containing relatively small amounts of VOCs extracted from the WVB Site. The remedy proposed by RID would result in one of the largest, if not the largest, groundwater remediation pumping systems in Arizona. The use of an ERA process to implement a regional groundwater remedy of this size that affects numerous parties, multiple water providers, several municipalities, other state agencies and the public is completely inappropriate. The ERA process was set up to allow relatively quick, short-term remedial actions to address contaminated source areas and to address current risk to public health, welfare and the environment. Despite 25 years of operations and the completion of the draft RI, no risk to the environment or the public health has been documented in the WVB Site. The very limited requirements of the ERA process provide no real comparison of remedial alternatives, no detailed evaluation of cost effectiveness and a very limited procedure for stakeholder and community input. Clearly, the ERA process was never intended to support very long-term regional remedies of this size and nature. The ERA process should not be used to approve implementation of the RID ERA.

The GRA and ERA lack numerous critical details necessary for a responsible evaluation of a proposal of this size, complexity and significance. Details that are lacking include, but are not limited to, a detailed site conceptual model, compound-specific water quality data, analysis of past and current water quality and contaminant concentration trends, analysis of contaminant distribution both vertically and laterally, evaluation of other alternatives including assessment/optimization of pumping regimens to maximize contaminant removal and containment, unbiased cost comparisons of other remedial options and technologies, evaluation of the cost effectiveness of the proposed remedy, documentation to support a drinking water end-use demand, and substantiation that RID has the legal authority to pump groundwater for a “non-irrigation” use.

The GRA and ERA repeatedly claim RID operations have been impacted by the presence of VOCs in groundwater withdrawn from some of their wells. RID has provided no demonstration of adverse impact to current or past operation of RID wells in the WVB Site. Based on information provided by RID in their land and water use questionnaire response dated November 12, 2007, *Land and Water Use Study Questionnaire for Municipalities/Utilities within the West Van Buren WQARF Registry Site* (RID Questionnaire), and the *ADEQ Draft Remedial Investigation Report, West Van Buren Area WQARF Registry Site, Phoenix, Arizona* (Draft RI

Report) (Terranext, 2008), all current and projected future RID water uses are non-potable irrigation uses. Data available in the Draft RI Report indicate that the water quality within the RID canals is suitable for its intended end use. Data regarding VOCs in some RID wells has been publicly available since at least 1984 and RID has operated these wells for at least 25 years under these conditions with the same end use, non-potable irrigation for non-edible crops. No documentation or discussion in the GRA or ERA describe or substantiate any past or future impacts to operations. The GRA and ERA claim threats and risks exist for RID wells that are not impacted. No specific at risk wells are noted and there is no analysis section which demonstrates even potential threats to such wells.

Specific Comments

1. The proposed RID remedy, with no regard for cost, appears to have been designed to maximize the benefit to RID by providing new delivery systems and infrastructure for an undocumented future possible end use, involving the transport of potable water to the west valley, rather than evaluating and identifying the most cost effective remedy to address groundwater contamination in the WVB Site. Neither the GRA nor ERA provides a substantive comparison of remedial technologies and remedial alternatives. In addition there is no evaluation of the costs of other remedial technologies and alternatives in either document to support the requirement of A.A.C. R18-16-405.B that the ERA be selected based on the best professional judgment of whether the technologies or methods could increase the scope or costs of possible remedies for the Site. There is no meaningful comparison of remedial alternatives or associated costs in the RID documents. It is professionally obvious that other alternatives, approaches and technologies are available to effectively address the affected RID wells with substantially lower costs, especially given that time is not of the essence in this particular case.

2. There are no compound-specific water quality data in the GRA and ERA. In addition there are no data identifying water quality trends over time. Instead, only one total VOC concentration from varying undocumented data sources is provided for each well. Reporting and using data as total VOCs versus compound-specific data for VOCs above regulatory standards is unusual and not standard in documents of this type that attempt to describe the extent of contamination to support a cost effective remedial approach. The unusual use of total VOCs could be considered misleading since drinking water standards and Aquifer Water Quality Standards for VOCs are all compound-specific values. As an example, based on data available in the draft RI Report, one well proposed for treatment in Phase 1A, RID-105, does not exceed drinking water standards or Aquifer Water Quality Standards for tetrachloroethene (PCE) or trichloroethene (TCE), the primary VOCs of concern in the WVB Site. Other wells have low and/or declining concentrations of PCE and TCE. Based on simple data projections, if treatment is necessary for a potable water end use at some future point based on demonstrated actual need, these wells may not require extensive treatment to bring them to applicable end use standards.

3. The RID Questionnaire and Draft RI Report notes that all current and envisioned future RID water uses (up to a hundred years) are non-potable irrigation uses. RID doesn't need any treated water based on their responses in the land and water use study. In contrast, the ERA implies an immediate need for pumping and treating 20,000 gpm for the highest end use as a potable water supply, yet there are no known users or authorized distributors for this significant amount of water.

4. The Land and Water Use Report also notes the COP and RID have applied for approval of a water banking agreement. In exchange for reduced groundwater pumpage by RID, the City will give RID treated effluent from the 23rd Avenue treatment plant. The agreement, when implemented, effectively reduces groundwater use by 20,000 acre-feet/year or 12,000 gpm. No mention of that agreement or its potential affect on the proposed remedy is found in the GRA or ERA.

5. Neither the GRA nor the ERA discuss the legal authority that would give RID (an irrigation district) the right to pump groundwater for a "non-irrigation" use. Univar questions whether such authority exists under Arizona law.

6. The ERA puts forth an "abbreviated" Site Conceptual Model (SCM) that does not meet ASTM or CERLCA standards. ASTM and EPA guidance requires "*...identification and characterization of potential environmental receptors (human and ecological).*" The ERA SCM doesn't contain any risk analysis describing current or possible future sources, pathways and receptors. The plan postulates risk exists through various possible pathways (groundwater, surface water, off gassing to atmosphere) but no data or analyses are presented to sustain the simplest part of the risk analysis, that of defining any completed pathway and/or naming a single viable receptor suffering any adverse affects.

An appropriate SCM would note that: 1) ADEQ driven individual source control efforts have been successful; 2) historical pumping has and continues to significantly reduce VOC concentrations over large parts of the WVB area while creating no additional risk; 3) many areas that remain slightly above standards are now localized and well understood; 4) most historical VOC concentrations from within the WVB area are rapidly declining; and 5) risk has not been documented. The RI notes there is "*...no threat to flora/fauna, species or habitats...*" i.e., the environment. There are no known human receptors of water above current standards for human contact and/or drinking water standards. While risk is mentioned in the plan, a case is never made for using risk as a basis for a remedy. Based on available data and 25 plus years of successful operation by RID, including pumping and distributing water containing much higher concentrations in the 80s and 90s, no actual harm or completed risk pathway has been documented.

Summary

In summary, the ERA and GRA should be rejected for the following reasons:

- The implementation plan is not a technical support document which justifies the proposed remedy.
- There is no indication any other remedy was even technically considered from a realistic, detailed, unbiased, state-of-the-practice standpoint.
- There is a significant lack of original data and a significant lack of any typical industry standard analysis of the data.
- Data appear to be selectively used and data analysis which may call portions of the plan into question are not used or even acknowledged.
- No demonstration of actual exposure risk is ever presented.
- There is no demonstrated adverse impact to RID wells or operations over the last 25 years, or any discussion of how future operations would be impaired.
- The alleged future water needs are not supported nor explained in any detail.
- Future water needs, and the rights to use the water, may be seriously overstated and/or unaddressed.

Univar appreciates the opportunity to provide these comments to ADEQ and looks forward to continuing to work with ADEQ and other interested stakeholders to identify a suitable and effective remedy for the WVB Site.

Sincerely,



Michael Gaudette
Senior Project Manager

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