



State of New Mexico

ENVIRONMENT DEPARTMENT

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March 25, 1992



Mr. R. F. Vachon, Project Manager
Walk, Haydel and Associates
600 Carondelet St.
New Orleans, LA 70130-3587

Dear Mr. Vachon:

I am in receipt of your letter of February 18th requesting clarification of the New Mexico Underground Storage Tank (UST) regulations. I will attempt to respond to your concerns in the same numerical format used in your letter; however, one key point should be made at the outset since it affects all the questions you have raised. The New Mexico Water Quality Control Commission Regulations (which contain the state groundwater regulations) make no use of the EPA class system; rather, all groundwater containing less than 10,000 mg/l total dissolved solids is to be protected from degradation beyond specified limits. Groundwater naturally containing more than 10,000 mg/l TDS is not so protected. NMED communication with you and with Holloman Air Force Base personnel has, to my knowledge, all been based on the assumption that groundwater beneath the base contained more than 10,000 mg/l TDS and thus was not protected. As you point out, this was apparently an erroneous assumption.

1.) The interpretation you mention, that absence of any free product for eight consecutive quarters would constitute evidence of adequate site remediation, was suggested assuming that no groundwater remediation would be required. In that case, the UST bureau has consistently stated that the site would be adequately remediated when no free product or "highly contaminated" soil remained. It is true that the regulatory definition of "highly contaminated" soil is qualitative and field-oriented rather than quantitative. If no floating product is found on the water table after eight quarters, it presumably could be argued that no product remains that is not sorbed onto the soil or retained by capillary forces, and therefore the highly contaminated soils would be remediated. There are other, perhaps preferable, options available for confirming the absence of highly contaminated soil, as discussed further under number 3 below.

If the groundwater beneath the site is protected and must be remediated, the definition of highly contaminated soil becomes a



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moot point since soil must be remediated sufficiently that it will not continue to contaminate the groundwater. In addition, the requirement in Section 1209(D)3(a) of the New Mexico UST regulations that the most highly contaminated soil remaining on the remediated site contain no more than 100 ppm total aromatic hydrocarbons as measured by an appropriate field procedure (or no more than 50 ppm TAH/10 ppm benzene in laboratory analysis) would apply. These numerical standards do not apply unless the groundwater is protected.

2.) As mentioned above, NMED does not use EPA's classification system, and state regulations are promulgated by the New Mexico Water Quality Control Commission (WQCC). The UST regulations as they relate to groundwater are derived from the WQCC regulations, and, in brief, require groundwater remediation if the water underlying any particular site is below the 10,000 mg/l TDS standard.

Recent information from on-site wells and wells on other parts of Holloman Air Force Base indicate that water quality varies greatly and that concentrations fall both above and below the standard. Under the UST regulations those sites underlain by groundwater of less than 10,000 mg/l TDS would require remediation of the groundwater and soils in accordance with Section 1219 of the UST regulations; groundwater of greater than 10,000 mg/l TDS requires the removal of all floating product and highly contaminated soil.

NMED understands the potential confusion associated with sites that may be in close proximity but fall on opposite sides of the standard; or where the plume at one site affects water that is both over and under the standard. To my knowledge, this is the only place in the state where this situation has occurred. The most conservative approach to the regulations would be to provide for groundwater remediation at any site where any water has been found containing less than 10,000 mg/l TDS, regardless of the source or extent of the "fresh" water.

A regulatory decision that otherwise protected groundwater need not be remediated (for instance, because it was only marginally below 10,000 mg/l and surrounded by water considerably over the standard) would have to be made at a high level within NMED, or by the Water Quality Control Commission. If the Base would like to pursue this option (or other alternatives), a necessary first step will a written request to Kathleen M. Sisneros, Director of the Water and Waste Management Division of NMED, suggesting an alternative remedial approach. A brief but thorough synopsis of all the hydrological information available concerning groundwater flow,

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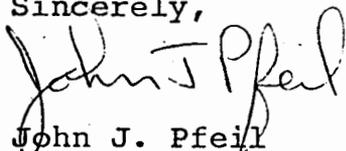
mounding, recharge, and of course TDS level, under Holloman Air Force Base will also be needed. If this is to be done, it should be done immediately.

3.) In the event that ground water remediation is not required at the site (i.e. groundwater is greater than 10,000 mg/l TDS) and remediation of highly contaminated soil is the yardstick for cleaning up the site, some site-specific, agreed-upon standard for highly contaminated soil can be developed in concert with UST Bureau personnel. It is true that there is no quantitative definition of "highly contaminated soil" in the UST regulations, but on-site guidance will be provided if needed.

4.) If a leaking underground storage tank had been found at Site SD-47, the POL Washrack Area, the remediation requirements would of course be exactly the same as those outlined above. Since no UST has been found, the site needs to be addressed as a RCRA Solid Waste Management Unit under corrective action. Although RCRA corrective action authority in New Mexico still resides with EPA, the Hazardous and Radioactive Materials Bureau of the Environment Department has received permission from EPA to take the regulatory lead at the POL washrack site. They will therefore have the lead role in making groundwater remediation decisions at the site.

I hope this letter is responsive to the questions you have posed. If you have further questions, please contact me at (505) 827-2776 or David Morgan at 827-2754.

Sincerely,



John J. Pfeil
Environmental Specialist, DSMOA program
Ground Water Protection and Remediation Bureau

c: Roger Wilkson, HAFB
Ron Stirling, COE Omaha
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