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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

August 1, 2008

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**RE: NOTICE OF DISAPPROVAL: TIJERAS ARROYO GROUNDWATER
INVESTIGATION REPORT, NOVEMBER 2005
SANDIA NATIONAL LABORATORIES EPA ID# NM5890110518
SNL-05-028**

Dear Ms. Wagner and Mr. Nimick:

The New Mexico Environment Department (NMED) has reviewed the subject Investigation Report, submitted to present an updated conceptual model and report results of groundwater investigations at the Tijeras Arroyo Groundwater (TAG) study area. Upon completion of the Investigation Report review, the NMED has determined that the Investigation Report cannot be approved at this time, as revisions are necessary. The U. S. Department of Energy and Sandia Corporation (the "Permittees") are required to address the following deficiencies before the NMED can make a final determination regarding approval.

GENERAL COMMENTS:

1. According to the Investigation Report, a total of 68 groundwater monitoring wells exist within the TAG groundwater monitoring well network. The Permittees shall provide contemporaneous, current groundwater elevation data for all 68 groundwater monitoring wells within the TAG network, in compliance with the Compliance Order on Consent (Consent Order), dated April 29, 2004. Section IV.C of the Consent Order states that the

Permittees (Respondants) shall determine the “[d]epth to water, water levels, water table, potentiometric surface, and any seasonal variations” to the satisfaction of the NMED. The data deliverable shall be submitted as a table and in electronic form. Reporting Requirements specified in the Consent Order in Section X.A state, “[a]ll work plans and reports shall be submitted to the Department in the form of one electronic copy and two paper copies. Where information cannot be reasonably converted to an electronic format, the Respondants shall notify the Department prior to the submittal date for the information and shall seek approval for submission of the information in an alternative format. Text documents submitted as an electronic file shall be compatible with Microsoft WordTM and ExcelTM, and shall be submitted on a compact disk, or in other file formats and devices approved by the Department.”

2. Groundwater monitoring wells with well screens completed in the regional aquifer are labeled as “regional wells” and those with well screens completed in the perched aquifer bear the “perched well” label.” A third type of well, “merging,” indicates a groundwater monitoring well with a well screen completed in an intermediate water-bearing unit associated with the merger of the perched system and the regional aquifer. The Investigation Report uses these labels inconsistently. For example, well completion data indicate groundwater monitoring well KAFB-0308 screen is completed in the regional aquifer; however, Figure 3.1.3-5 (page 3-15) includes this well among other wells completed in the perched aquifer. For clarity, the Permittees shall provide a table listing all 68 groundwater monitoring wells within the TAG network; the table shall include the following:
 - Well name
 - Well owner (e.g., Sandia National Laboratories [SNL], Kirtland Air Force Base [KAFB], or City of Albuquerque [COA])
 - Screened interval (e.g., regional, perched, or merging)
 - Well completion elevations, in feet above mean sea level (ft amsl)
 - Ground surface
 - Top of casing or measuring point (choose one only, if the measuring point is chosen, indicate via individual footnote for each pertinent well the relationship between the top of casing and the measuring point)
 - Screening interval(s)
 - Bottom of casing
 - Bottom of borehole
 - Whether the well was sampled for six quarters
3. The Permittees shall provide a figure showing all 68 TAG monitoring wells on a single figure. The figure will distinguish between “regional wells,” “perched wells”, and “merging wells.” Furthermore, the figure shall indicate from which wells sample collection occurred over six quarters from July 2003 through October 2004.

SPECIFIC COMMENTS:

4. Information regarding the number of wells in the TAG network is inconsistent and contradictory:

a) **Executive Summary, page i, 5th paragraph, 4th bullet**

The sentence states, “[c]urrently, SNL/NM has installed a network of 45 monitoring wells that consists of 35 groundwater and 10 soil vapor wells. KAFB and the COA have installed approximately 25 groundwater monitoring wells in the vicinity.”

b) **Executive Summary, page iii, 2nd paragraph, 2nd and 3rd sentences**

The sentence states, “[a]s of the January 2001 sampling event, SNL/NM had installed 23 monitoring wells. Eleven monitoring wells are completed in the perched system, while twelve monitoring wells are completed in the regional aquifer.”

c) **Section 1.2, pages 1-5 and 1-6, Table 1.1-1**

According to the table, SNL/NM operates a total of 25 groundwater monitoring wells, as of December 2004. This total is the same as that of January 2001 due to the addition and subsequent removal of two wells, leaving the total number of wells unchanged.

The Permittees shall provide the current number of wells within its TAG network, correct these discrepancies, and submit corrected pages.

5. **Section 1.1, page 1-2, 2nd paragraph, 4th through last sentences**

The excerpt states the following:

“[t]he SNL/NM CME [Corrective measures Evaluation] Work Plan identifies the specific area within the overall TAG boundary for which SNL/NM has responsibility and outlines a process for evaluating remedial alternatives within this area. The SNL/NM CME Work Plan was approved (with modifications) by the NMED in October 2004 (NMED October 2004). The boundary of the area addressed in the SNL/NM CME Work Plan is contained within the overall TAG boundaries. In order to clearly distinguish it from the overall TAG study area, the area that the SNL/NM CME Work Plan addresses is referred to as the SNL/NM Area of Responsibility (AOR). The SNL/NM AOR encompasses approximately 2 square miles in the north-central portion of KAFB, or approximately 26 percent of the entire TAG study area, as defined by the TAG Investigation Work Plan (SNL/NM June 2003) and this TAG Investigation Report. Within the SNL/NM AOR, composed of Technical Area (TA)-I, TA-II, and TA-IV, 13 potential release sites are managed by SNL/NM.”

The Permittees shall provide a new figure explicitly showing the boundaries of the SNL AOR, the overall TAG boundaries, and Technical Areas-I, -II, and -IV, as no figure within the Investigation Report specifically indicates the SNL AOR.

6. **Section 1.2, page 1-7, 5th paragraph, 3rd sentence; Section 4.2.3, page 4-13, 2nd paragraph, 5th sentence; and Annex F**

The sentence from Section 1.2 states, “[h]istorically, the concentrations of these VOCs are low, ranging from less than 1.0 (estimated values) to 9.6 µg/L [micrograms per liter], with only three [perched system] monitoring wells (TA2-W-19, TA2-W-26, and WYO-4) historically exhibiting concentrations above the EPA MCL [U.S. Environmental Protection Agency maximum contaminant level] for TCE of 5.0 µg/L.” In contrast, the sentence from Section 4.2.3 states, “TCE exceeded the MCL (5.0 µg/L) in only two perched system monitoring wells (TA2-W-19 and WYO-4).” These statements present inconsistent information regarding the number of wells exhibiting TCE concentrations greater than the EPA MCL. Furthermore, the groundwater data results from monitoring well TA2-W-26, as presented in Table 4.2.3.1 (page 4-14) and in Annex F, indicate that TCE concentrations in groundwater samples collected from monitoring well TA2-W-26 do not exceed the EPA MCL.

The Permittees shall determine which groundwater sample results, and from which monitoring wells, exhibit TCE concentrations greater than the EPA MCL. The Permittees shall correct these and any other pertinent sentences and submit the replacement pages.

7. **Section 2.1.2, pages 2-5 through 2-8, Table 2.1.2-1; Section 2.2.2, pages 2-10 through 2-14, Table 2.2.2-1; and Section 2.4.2, pages 2-16 through 2-21, Table 2.4.2-1**

Each table is a summary of investigations conducted at SNL/NM SWMUs located in TA-I, in TA-II, and along Tijeras Arroyo. Each table lists the SWMU number and name, potential contaminants, investigations and results, and regulatory status. According to the tables, the NMED accepted an NFA petition for each SWMU in the table. The Permittee shall modify the table to include references for each accepted NFA petition and submit the modified table.

8. **Section 2.2.2, page 2-9, 3rd paragraph, 1st sentence; Section 2.6, page 2-27, Table 2.6-2; and Section 2.6, page 2-28, 4th paragraph**

The sentence states, “[n]o SNL/NM testing or disposal activities involving HE [high-explosive] material are suspected of releasing nitrate to the environment in the TAG study area.” According to Table 2.6-2 (page 2-27), SNL identified HE as a possible contaminant in waste water at SWMUs 48, 136, 159, 167, 166, 167, 227, and 229 in TA-II. Furthermore, Section 2.6 (page 2-28) states, “[b]ecause some HE compounds can degrade to nitrate, the TA-II buildings in which HE materials were handled that were also connected to waste-water disposal systems were evaluated for anthropogenic nitrate. Using the rationale discussed for TCE, the concern level for HE-derived nitrate is based upon the type and scale of historical operations that were conducted at each building.” The Permittees shall explain this discrepancy and indicate the likely source for the nitrate that is contaminating groundwater within the AOR.

9. **Section 2.6, pages 2-23 through 2-28; page 2-27, Table 2.6-2; and Section 2.10, page 2-49, Table 2.10-1**

This section describes the three criteria used to determine whether SNL considered a particular SWMU a potential source of TCE and/or nitrate that could potentially threaten groundwater. The 2nd paragraph, 1st and last sentences (page 2-23) state, “[t]he first criterion is based upon whether or not the NMED had approved an NFA proposal for a site. If the NMED has approved the respective NFA proposal, the site need not be considered as an ongoing potential source of groundwater contamination (Moats November 2001).” The 3rd paragraph, 1st two sentences (page 2-23) state, “[i]n order to make this report as current as possible, the second criterion addresses sampling results that may not have yet been fully reviewed by the NMED. Sites with soil samples that contained levels of COCs below background and/or risk-based levels were not considered to be potential sources.” On page 2-26, the 1st paragraph, 1st sentence, states, “[t]he third criterion addresses the volume of water (waste, septic, or storm) associated with each site.” Use of these criteria resulted in Table 2.6-2 (page 2-27) and the assignment of the identifier “potential release sites with a high level of concern for release of TCE and/or nitrate to groundwater” in Table 2.10-1 (page 2-49), as well as throughout the report text.

The Permittees shall provide information regarding the following:

- a) Explain whether one applies each criterion in successive order, beginning with criterion one.
- b) If application of the criteria does not occur successively, explain whether each criterion carries equal weight (importance) or if any possess greater favor than any other criterion.
- c) Explain the discrepancy between SWMUs listed as potential release sites in Table 2.6-2 (page 2-27) and the same SWMUs listed with accepted NFA proposals in Table 2.1.2-1 (pages 2-5 through 2-8), Table 2.2.2-1 (pages 2-10 through 2-14), and Table 2.4.2-1 (pages 2-16 through 2-21). The listing of these sites as potential release sites appears in contradiction to criterion two. Of particular note are SWMUs 46, 165, and 187; each of which bear the label “high concern level for potential release” in Table 2.6-2 (page 2-27), Table 2.10-1 (page 2-49), and in various parts of the Investigation Report text. The NMED approved the NFA petitions for SWMUs 165 and 187 in June 2006; the listing of these two SWMUs as potential release sites now also appears in contradiction to criterion one.

10. **Section 2.6, page 2-26, top of page, 1st complete sentence; Section 2.1.2, pages 2-5 through 2-8, Table 2.1.2-1; Section 2.2.2, pages 2-10 through 2-14, Table 2.2.2-1; and Section 2.4.2, pages 2-16 through 2-21, Table 2.4.2-1**

The sentence states, “NFA proposals for three sites are currently awaiting NMED approval.” The Permittees shall identify the three sites and indicate whether any of them are listed in Table 2.1.2-1 (pages 2-5 through 2-8), Table 2.2.2-1 (pages 2-10 through 2-

14), and Table 2.4.2-1 (pages 2-16 through 2-21). If one of the tables lists any, or all, of the sites, the Permittees shall correct the sentence and submit the modified page.

11. **Section 2.6, page 2-24, Table 2.6-1; Section 2.1.2, pages 2-5 through 2-8, Table 2.1.2-1; Section 2.2.2, pages 2-10 through 2-14, Table 2.2.2-1; and Section 2.4.2, pages 2-16 through 2-21, Table 2.4.2-1**

Table 2.6-1 (page 2-24) summarizes the field investigations conducted at SNL SWMUs and areas of concern (AOCs). This Table 2.6-1 (page 2-24) provides incorrect data based upon the descriptions listed in Table 2.1.2-1 (pages 2-5 through 2-8), Table 2.2.2-1 (pages 2-10 through 2-14), and Table 2.4.2-1 (pages 2-16 through 2-21). In particular, one of the columns (5th from the right end) bears the title, "NFA proposal approved." The Permittees shall correct all data in Table 2.6-1, ensuring consistency with other data presented and submit the modified table.

12. **Section 2.6, page 2-26, last paragraph, 1st sentence and Section 2.6, page 2-27, Table 2.6-2**

The sentence states "[e]ight of the SNL/NM SWMUs listed in Table 2.6-2 are considered to be potential nitrate sources resulting from septic water." According to Table 2.6-2 (page 2-27), nine SWMUs may be potential nitrate sources. The Permittees shall correct this sentence and submit the corrected page.

13. **Section 2.6, page 2-26, last paragraph, 4th sentence; Executive Summary, page iv, 1st paragraph, 2nd and 3rd sentences; Section 4.3.1, page 4-18, last paragraph, last two sentences; Section 5.2, page 5-3, 5th paragraph, 1st sentence; Section 2.4.2, pages 2-16 through 2-21, Table 2.4.2-1; Section 2.6, page 2-24, Table 2.6-1; and Section 2.6, page 2-27, Table 2.6-2**

The sentence states "[t]he disposal of TA-I waste water containing nitrate at the Acid Waste Line Outfall (SWMU 46) is possible but not highly probable." This sentence is problematic because it contradicts information presented in the Executive Summary, Section 4.3.1, Section 5.2, and two tables of Section 2.6.

- The Executive Summary (page iv) states, "[b]ased upon current understanding, three SNL/NM SWMUs are assigned a high concern level for being nitrate-release sites that may have impacted groundwater. These three SWMUs are SWMU 46 (Old Acid Waste Line Outfall), SWMU 165 (the Building 901 Septic System in TA-II), and SWMU 187 (the TA-I Sanitary Sewer System)."
- Section 4.3.1 (page 4-18) states, "[a] possible sixth [nitrate] plume includes well TJA-7, which exhibited concentrations almost three times the MCL for nitrate. This plume is located near the southwestern corner of TA-IV and is most likely associated with SWMU 46."
- Section 5.2 (page 5-3) states, "[a]t SNL/NM, nitrate may have reached groundwater due to the disposal of septic water at six TA-II septic-system leachfields (SWMUs 48, 136, 159, 166, and 167), leakage from the TA-I

Sanitary Sewer System (SWMU 187), and possibly the inadvertent discharge of septic water along with waste water at SWMU 46.”

- Both Table 2.6-1 (page 2-24) and Table 2.6-2 (page 2-27) indicate SWMU 46 is a potential source of nitrate for groundwater.

However, Table 2.4.2-1 (pages 2-16 through 2-21) does not list nitrate as a potential contaminant and the descriptions within the table give no indication of nitrate data collection. The Permittees shall explain and correct these discrepancies, corrected tables and sections, and explain the absence of nitrate from Table 2.4.2-1 (pages 2-16 through 2-21) for SWMU 46.

Finally, although the summary table (Table 2.4.2-1, page 2-16 through 2-21) provides no statement indicating an evaluation of HE in connection with SWMU 46, the Permittees shall indicate whether they have evaluated if HE-contaminated water may have been disposed of through this outfall.

14. **Section 2.6, page 2-27, Table 2.6-2**

The Permittees shall modify the table with the inclusion of the month and year of the maximum measured concentration in the Summary of Process Knowledge descriptions for each potential source, as applicable. For example, at SWMU 46, the 3rd line of the description states, “[w]ell 46-VW-01 located near waste-line outfall; sampling ports set at 50-ft intervals from 15 to 265 ft bgs [below ground surface]; maximum TCE concentration to date of 46,000 ppb (v/v) [parts per billion on a volume to volume basis] from 115 ft bgs.” In this example, the underlined phrase shall be modified to include March 2002. The Permittees shall submit the modified table.

15. **Section 2.9.3, page 2-36, 1st paragraph, 1st sentence**

The sentence states, “SNL performed TAG soil-vapor sampling in December 2004 and January 2005.” The Permittees shall submit to the NMED the analytical and quality assurance data for this sampling.

16. **Section 2.9.3, page 2-40, 2nd paragraph, 2nd sentence and Section 2.9.3, pages 2-41 and 2-42, Table 2.9.3-1**

The sentence states, “TCE was the most commonly detected analyte and accounted for 0 to 100 percent of the total VOCs.” To support this discussion, the Permittees shall modify Table 2.9.3-1 and add a column to show the percent of total VOC for TCE. The Permittees shall submit the modified table.

17. **Section 2.9.3, page 2-43, Figure 2.9.3-1 and Section 2.9.8, page 2-44, Figure 2.9.3-2**

The Permittees shall superimpose the perched aquifer potentiometric surface on the referenced figures to facilitate understanding of the discussion presented in Section 2.9.8. The Permittees shall submit the modified figures.

18. **Section 2.9.5, page 2-45, 2nd paragraph, 5th, 6th, 2nd to last sentence, and last sentence; Section 2.9.5, page 2-46, Table 2.9.5-1; Figure 7 of Annex A; and References**

The 5th and 6th sentences of Section 2.9.5, 2nd paragraph state, “[o]nly a few of the trend lines exhibit good correlation with the linear models, as demonstrated by R² coefficient values near one (for example TA2-VW-21). The other graphs had R² coefficient values near zero, indicating a poor correlation to a linear model.” Moreover, the 2nd to last sentence of the paragraph states, “[w]ith these extremely low R² coefficient values, it is not reasonable to use the trend lines to project future data values.” In contrast, the paragraph concludes, in contradiction to the preceding sentences, “[h]owever, TCE and total VOC concentrations qualitatively appear to be decreasing over time as illustrated in Annex A and Table 2.9.5-1.”

Data presented in Annex A do not support this conclusion. For example, in Annex A, Figure 7, the TCE concentration values of five of eight soil vapor samples (collected in 2001 through 2002) ranged from 45,000 to 46,000 ppbv. The TCE concentration values of the three remaining samples ranged from 34,000 to 37,000 ppbv. It is not possible to establish a definitive trend among all of these analytical results. The next soil vapor sample was collected two years later (in 2004) and the TCE concentration value was 30,000 ppbv. However, this single result, alone, cannot yield a reliable decreasing soil vapor concentration trend, as indicated in Table 2.9.5-1 (page 2-46), without conducting additional subsequent sampling. Therefore, the Permittees shall modify Table 2.9.5-1 (page 2-46), to include a column containing the uncertainty for each measured value (e.g, ± 8%). The Permittees shall submit the revised table. Furthermore, the Permittees shall provide additional information regarding the specific equipment configuration employed by the contracted analytical laboratory for the soil vapor analyses. The Permittees shall indicate whether the gas chromatograph had non-specific detector(s) (including but not limited to, the nitrogen-phosphorus detector, flame ionization detector, electron capture detector, and/or photo-ionization detector) or a specific detector (such as, the linear quadrupole mass spectrometer operating in either the select ion monitoring mode or the SCAN mode). Finally, the References list Method TO-14 as follows:

U.S. Environmental Protection Agency (EPA), January, 1999. “Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air,” 2nd ed., EPA/625/R-96/010b U.S. Environmental Protection Agency, Washington, D.C.

However, as stated in the 2nd paragraph of the Acknowledgements of the above-listed method, “Method TO-14 was originally published in March of 1989 as one of a series of peer reviewed methods in the second supplement to “Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air,” EPA 600/4-89-018. Method TO-14 has been revised and updated as Method TO-14A in this Compendium to eliminate time sensitivity material and correct a small number of errors.” The Permittees shall state whether the analytical laboratory employed Method TO-14 or TO-14a for the soil vapor analyses.

19. **Section 2.9.8, page 2-47, 5th paragraph, 4th sentence**

The sentence states, “[h]owever, since waste-water disposal has ceased, no recharge mechanism currently exists (the estimates of evapotranspiration in the study area range from 90 to 95 percent of precipitation), and it is unlikely that additional TCE mass will be transported to the perched system[.]” The Permittees shall submit a reference for the estimate of evapotranspiration.

20. **Section 3.1.3.2 , page 3-3, Figure 3.1.3-1**

The Permittees shall modify the figure to include a legend with abbreviations and any other features (e.g., hatching) explained. The Permittees shall remove the abbreviation “SGWS” (shallow groundwater system), as it is inconsistent with Investigation Report terminology. The current descriptor “Perched System” shall replace the old abbreviation “SGWS.” The Permittees shall submit the modified figure.

21. **Section 3.1.3.3, page 3-6, 4th paragraph, 1st sentence and Section 3.1.3.2 , page 3-3, Figure 3.1.3-1**

The sentence states, “[a]s shown in Figures 3.1.3-5 and 3.1.3-6, groundwater in the perched system appears to merge with that of the regional aquifer.” The Permittees shall indicate whether the apparent merging of the two-aquifer systems relates to the presence of the West Sandia Fault or other structural or hydrostratigraphic feature shown on the above-referenced figure. Furthermore, the Permittees shall provide any available supporting evidence.

22. **Section 3.1.3.3, page 3-7, Figure 3.1.3-3 and Section 3.3.4.1, page 3-20, 1st paragraph, last two sentences**

On March 10, 2008, the Permittees provided groundwater elevation data in electronic format for 25 SNL TAG monitoring wells. The water levels published in Figure 3.1.3-3 (page 3-7) appear inconsistent with the water levels in the Excel file; the values published in the figure generally did not match any of the values in the electronic data file for the designated sampling period of September 2004 through January 2005. The Permittees shall explain this discrepancy.

In Section 3.3.4.1 (1st paragraph), the last two sentences state, “[s]everal wells in the southeastern portion of the study area have anomalous groundwater elevations and were excluded from contouring the potentiometric surface of the regional aquifer shown in Figure 3.1.3-3. These wells with anomalous groundwater elevations most likely represent intermediate water-bearing intervals in the zone of merging.” These “anomalous” groundwater monitoring wells include TA2-W-25, TJA-4, KAFB-0310, KAFB-0312, KAFB-0602, KAFB-0615, and KAFB-0616. Only three groundwater monitoring wells (TJA-4, KAFB-0310, and KAFB-0602) were previously identified as having well screens in the merging or intermediate zone.

In consideration of General Comments 1 and 2, the Permittees shall submit a new potentiometric surface map for the regional aquifer. The Permittees shall use data from

each one of the 68 TAG monitoring wells to construct the figure. Any data excluded as “anomalous” shall require a detailed explanation with references.

23. Section 3.1.3.3, page 3-8, Figure 3.1.3-4

The Permittees provided groundwater elevation data in electronic format for 25 SNL TAG monitoring wells on March 10, 2008. Upon comparison with newly provided electronic data, the water levels published in Figure 3.1.3-4 (page 3-8) generally did not match any of the values in the electronic data file for the designated sampling period of September 2004 through January 2005. The Permittees shall explain this discrepancy.

In consideration of General Comments 1 and 2, the Permittees shall submit a new potentiometric surface map for the regional aquifer. The Permittees shall use data from each one of the 68 TAG monitoring wells to construct the figure. Any data excluded as “anomalous” shall require a detailed explanation with references.

24. Section 3.1.3.3, page 3-7, Figure 3.1.3-3; page 3-8, Figure 3.1.3-4; and page 3-9, Figure 3.1.3-5

The Permittees shall modify Figures 3.1.3-3 (page 3-7) and 3.1.3-4 (page 3-8) to include the cross-section line of Figure 3.1.3-5 (page 3-9). The Permittees shall submit the modified figures.

25. Section 3.3.4.3, page 3-22, Figure 3.3.4-1 and Section 3.3.4.3, page 3-21, 3rd paragraph, last sentence

The sentence states, “[t]he line of demarcation between increasing water levels and decreasing water levels approximates the eastern extent of the ARG [Ancestral Rio Grande] facies in the subsurface.” The Permittees shall indicate the eastern extent of the ARG facies on Figure 3.3.4-1 to illustrate this statement. The Permittees shall submit the modified figure.

26. Section 3.3.5.7, pages 3-32 through 3-37, all text and page 3-34, Figure 3.3.5-2

The Permittees shall submit to the NMED a sensitivity analysis of the groundwater modeling input parameters to illustrate under what conditions, if any, contaminants might be expected to reach production wells at concentrations that would not be protective of human health and the environment.

The figure contains an inconsistent fault configuration, compared with Figure 3.1.3-1 (page 3-3). Hidden contour interval labels make it difficult to understand the groundwater flow direction near the West Sandia Fault. The Permittees shall modify and submit Figure 3.3.5-2 to correct the location of the fault and to make clear the contour interval labels.

27. Section 4.2.1, page 4-7, Table 4.2.1-1

The Permittees shall show the standard deviation and the upper confidence level of the mean at a 95% confidence level for each analyte. The Permittees shall modify the table and submit it to the NMED.

28. Section 4.2.3, page 4-14, Table 4.2.3-1; Section 4.3.2, page 4-22, Figure 4.3.2-1; Section 4.3.2, page 4-23, Figure 4.3.2-2; Annex F, Table F-1; and Annex G, Table G-1

A number of discrepancies between these tables and figures are visible. The following are most noticeable:

Perched Wells

- KAFB-0313: Figure 4.3.2-1 (page 4-22) lists the monitoring well's maximum TCE concentration as $<0.5 \mu\text{g/L}$. According to the data in Annex G (Table G-1) and Table 4.2.3-1 (page 4-14), the measured maximum TCE concentration is $0.7 \mu\text{g/L}$.
- TA2-W-26: Table 4.2.3-1 (page 4-14) lists the monitoring well's TCE concentration as "ND" in Quarter 4. The data in Annex F (Table F-1) indicate the measured TCE concentrations are $3.1\text{BJ} \mu\text{g/L}$ and $3.0\text{BJ} \mu\text{g/L}$. Figure 4.3.2-1 (page 4-22) lists the highest value from Annex F (Table F-1), which is $3.1\text{JB} \mu\text{g/L}$.
- TA2-W-27: Table 4.2.3-1 (page 4-14) indicates "ND" as the TCE concentration in Quarter 4. According to the data in Annex F (Table F-1), the measured TCE concentration is $1.3\text{J} \mu\text{g/L}$, which is the value listed in Figure 4.3.2-1 (page 4-22).

Regional Wells

- KAFB-0307: Figure 4.3.2-2 (page 4-23) indicates the maximum TCE concentration is $<0.5 \mu\text{g/L}$. According to the data in Annex G (Table G-1) and Table 4.2.3-1 (page 4-14), the measured maximum TCE concentration is $0.7 \mu\text{g/L}$.
- TA1-W-01: Figure 4.3.2-2 (page 4-23) lists the maximum TCE concentration as $0.03\text{J} \mu\text{g/L}$. According to Annex F (Table F-1) and Table 4.2.3-1 (page 4-14), the measured maximum TCE concentration is $0.30\text{J} \mu\text{g/L}$.
- TJA-6: Table 4.2.3-1 (page 4-14) lists the Quarter 4 TCE concentration as "ND." Figure 4.3.2-2 (page 4-23) states that the TCE concentration is $<5.0 \mu\text{g/L}$. According to Annex F (Table F-1), the measured TCE concentration is $1.2\text{BJ} \mu\text{g/L}$.

The Permittees shall correct Section 4.3.2, Table 4.3.2-1, Figures 4.3.2-1 and 4.3.2-2, and any other data errors. The Permittees shall provide a new table containing the undetected values for each sample. The table shall contain the method detection limit, practical quantitation limit, data and laboratory qualifiers, and test methods. Submit new table and all modified figures and tables to the NMED.

29. Section 4.3.2, page 4-21, 2nd paragraph, first two sentences; Annex F; and Annex G

The sentences state, "[s]ix wells within the regional aquifer exhibited concentrations above detection limits (Figure 4.3.2-2). One well, KAFB-0615, located near the eastern edge of the TAG study area, exhibited consistent increase in TCE with a maximum concentration of $1.2 \mu\text{g/L}$ (Figure 4.2.3-2). The other six wells within the regional

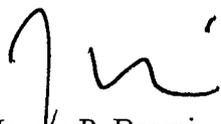
Ms. Wagner and Mr. Nimick
August 1, 2008
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aquifer exhibited general low and sporadic TCE detections.” Based upon the data in the Annexes, the number of wells exhibiting concentration above detection limits seems higher. The sentence seems disconnected from the data. The Permittees shall explain the apparent discrepancy.

The Permittees shall respond to this Notice of Disapproval by October 1, 2008. The NMED reserves the right to require additional information submittals on this matter.

If you have any questions on this Notice of Disapproval or if you would like to discuss the comments prior to your response, please contact Dezbah Tso of my staff at (505) 222-9528, or at the above letterhead address.

Sincerely,



James P. Bearzi
Chief
Hazardous Waste Bureau

JPB:dat

cc: J. Kieling, NMED HWB
W. Moats, NMED, HWB
D. Tso, NMED, HWB
T. Skibitski, NMED DOE OB
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File: SNL 2008 and Reading