



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

March 19, 1998

Mr. Larry Fisher
BRAC Environmental Coordinator
Environmental Management Division
Tooele Army Depot
Tooele, Utah 84074-5000

RE: Final RI/FS Report & RCRA Corrective Action Program Document,
Fort Wingate Depot Activity, New Mexico
EPA I.D. # NM6213820974

Dear Mr. Fisher:

We have reviewed this report, dated 15 November, 1997. Since this report was produced while there were a number of unresolved risk assessment issues, we have extensive risk-assessment-related comments on it. We provide the following comments and concerns on this report for your consideration and for further revision of the report:

Section 1.2, page 1-2: FWDA's Interim Status was verbally questioned by NMED in 1997. If this status is still in question, it should be resolved and plans for further work done accordingly.

Section 2: Fenced-Up Horse Valley is mentioned several times in this section. Please reference a report map showing the location of this valley and other areas mentioned in this report.

Section 2.1.4.6, page 2-9, 3rd ¶: Please identify the well mentioned in the text and refer to a map in the report where its location is shown.

Section 2.1.4.8, page 2-11: According to the presentation by Mr. Kneebone at the 3 December, 1997, RAB meeting, there is a final cultural resources report on Ft. Wingate Depot. That report should be described and referenced here.

Table 5-1: Nitrate and nitrite should be added to this table since they are constituents of concern.

Page 5-2, Section 5.0 Fate and Transport: Concentrations reported as dinitrotoluene mixture, a degradation product of trinitrotoluene, are expected to be more toxic than the parent chemical. Therefore, chemical and biological fate of the constituent cannot be automatically eliminated. Additionally, some pesticides (i.e., DDT) also have more toxic degradation products.

Table 5-1, footnote (2) and page 5-4: The least conservative value for soil f_{oc} (fraction of organic carbon), 2%, was used in the calculation of K_d , without justification. One of our comments on the previous version of this report asked for documentation to support use of this value. Either present site-specific data to support this value or use the most conservative value for f_{oc} , 0.5%, in the calculations.

Section 5.1, Figure 5-2: The pathway flowchart and related text should include potential off-site exposure to shallow ground water and livestock watering from shallow ground water.

Section 5.2.1, page 5-5: This text is unclear about aqueous systems as explosives pathways. Please clarify that aqueous systems are important pathways for explosives.

General Risk Assessment Comments: The objective of the investigation information provided in this report was not clear. For instance, the sampling efforts for most of these sites appear to be initial sampling efforts to determine if a release of hazardous waste has occurred. However, even after exceeding at times both background and risk-based screening levels, chemicals and/or sites were eliminated from further consideration based on areal extent. It appears that it would be more appropriate to first consider further delineation of the areas with elevated concentrations prior to eliminating chemicals and especially sites. Furthermore, it is not always feasible to force fit a risk assessment with initial investigation data when perhaps more sampling could better define a suspected release.

The results of both the screening assessment and the baseline risk assessment should be reevaluated based on comments made below.

The report repeatedly states that "realistic" future land uses were assumed in the risk assessment. It should be noted that reasonable future land uses should be assumed since the term "realistic" may become subjective. Typically, inputs from the Local Reuse Authority and/or Restoration Advisory Board are considered in the future land use assumptions with some of these assumptions being formally set in a Reuse Plan. If these sources of information are absent then the most reasonable future land use should be considered based on the opinions of the BCT members.

This report only considers the potential to impact human health from the soil media. Potential impacts to human health from groundwater remain to be evaluated. Additionally, potential impacts to ecological resources are planned to be evaluated in the future. The conclusions in this report can only be considered preliminary until such time that the cumulative potential impacts to human health from both soil and groundwater as well as ecological resources are evaluated.

Page 6-1: The report states that cumulative risk due to the presence of more than one chemical was not considered in the risk screening but rather was addressed in the risk assessment. It is

important to note that since sites and chemicals of concern were selected in the risk screening, cumulative risk should have been considered. This could have easily been done, as is general practice, by adjusting the noncarcinogenic chemical screening levels by dividing by a factor of ten. There would not have been a need to adjust the carcinogenic chemical screening levels since the screening levels were based on a 1×10^{-6} target risk level and there is an allowable excess lifetime cancer risk range of 1×10^{-6} to 1×10^{-4} .

Figure 6-1, Human Health Overall Screening Approach: The flowchart states that the "micronutrient" status would be evaluated. Would this be referring to macronutrient rather than micronutrient?

Page 6-5, Sections 6.2.2 and 6.2.3: The report states that "[w]here a promulgated media-specific standard was not available for a given constituent in a specific medium, a risk-based screening level . . . was derived based on a residential exposure scenario." It should be noted that a promulgated media-specific standard such as an MCL does not consider the RCRA allowable risk range nor does it account for multiple chemicals or all relevant potential routes of exposure (i.e., inhalation and dermal exposure to water). Therefore, it is not appropriate to use these values alone to eliminate sites, pathways, routes, and/or chemicals in a screening assessment or for a risk assessment.

A risk-based screening value that accounts for all potential routes of exposure and multiple chemicals should be used in the risk assessment process. An MCL, for example, can be used in the final ARAR comparison after a risk assessment in order to make a final risk management decision.

Section 6.2.4 Secondary Factors: Secondary factors such as frequency of detection were reportedly used to eliminate chemicals even when screening levels, including MCLs would have been exceeded. It is important to note that if a detected concentration exceeded a screening level, and especially an MCL, it is not prudent to eliminate that chemical from further consideration regardless of frequency. A weight of evidence of approach should be used to substantiate the elimination of that chemical. Factors such as frequency of chemical detection as a rationale for dropping chemicals from the chemical list should consider a frequency of 5 percent (a minimum sample size of 20). It is important to also consider the following prior to dropping a chemical as a COPC based on frequency of detection: 1) relative concentration and toxicity (i.e., detection may be indicative of a "hot spot" or source area), 2) number of samples, 3) presence/absence in other media, 4) associated degradation products, 5) exceedance of ARARs, 6) persistence, mobility, and bioaccumulation, 7) historical evidence and 8) concentration gradient or distance to nearest adjacent sample location (indicative of potential areal extent).

Figure 6-2, Human Health Screening Level Selection: The flowchart pertains to the selection of a screening level; however, since the screening level could be used for

determination of: 1) a release, 2) NFA of a site, and 3) selection of chemicals for the baseline risk assessment it presents some issues.

First of all, exceedance of an available naturally-occurring background level may indicate a release for inorganic chemicals. Therefore, the higher of a risk-based concentration versus a background level may not be appropriate for determining if a release has occurred. Once delineation of contamination has occurred, it may be appropriate to consider the background level as well as the risk-based concentration level for the risk management decision.

Secondly, the lowest of the PARAR (or promulgate standard) or the PRG (or risk-based value) should be used as the screening level to insure that the approach is protective.

Both of the above concerns can be addressed by selecting the lowest available value, (of the background, PARAR or PRG) as the screening value while considering the other two remaining values for the final risk management decision on a site-specific basis. The flowchart should be modified to reflect these comments.

Page 6-7, Safe Drinking Water Act Standards: It should be clear that drinking water standards apply to a potential drinking water source, which is defined by a water source with less than 10,000 mg/L total dissolved solids. Additionally, potential exposures to a potential drinking water resource should also consider state drinking water designations as well as actual and potential uses. Please clarify in the text the actual, specific regulatory standards that apply at this facility.

Page 6-9: The soil lead value presented in the EPAs Office of Solid Waste and Emergency Response Directive 9355.4-12 is not a cleanup level but rather a screening level. It is also not appropriate to assume that the 400 mg/Kg value will be used for removal action decisions in the FS. Site-specific conditions will rule whether this value is appropriate for removal action decisions.

Table 6-6: The lead treatment-based MCL of 15 $\mu\text{g/L}$ should be used as the PARAR.

Page 6-10, Section 6.4 Risk-based Screening Levels: Surface water should be evaluated not only on expected exposures but on state designated uses.

Pages 6-10 and 6-11, Section 6.4.1 Identification of Potential Exposure Pathways for the Screening Assessment: It should be clarified that the letter from the Army to the EPA cited in the report (dated November 20, 1996) was not intended or interpreted by the EPA to justify excluding potential routes of exposure from the screening levels. The letter provided an evaluation of whether: 1) chemicals with changed toxicity values based on current toxicity values presented a significant difference in the chemicals dropped before the baseline risk assessment, and 2) the exclusion of the potential inhalation and dermal exposure routes

significantly impacted the results of screening conducted in the draft RI/FS report. This is quite different from universally concluding or inferring that the inhalation and dermal exposure routes should have been omitted from the screening process in the first place. The EPA offered the Army the opportunity of this evaluation only as a means of expediting the corrective action process, not as carte blanche. All future risk-based screening should include ALL relevant exposure routes and pathways.

Do we agree whether the soil to a groundwater transport pathway is insignificant and whether it is reasonable to consider it in a subsequent evaluation?

Page 6-11, Section 6.4.2 Risk-Based Screening Level Calculations: How was the potential presence of multiple chemicals considered, especially for noncarcinogenic chemicals?

Pages 6-20 and 6-21, Section 6.4.3.1 Derivation of Screening Levels for delta-HCH: Delta-HCH is referred to in the text as delta-hexachlorocyclohexane, but is listed as delta-benzenehexachloride in Table 6-10. Please use consistent nomenclature to avoid confusion.

Since the relative toxicity of delta-HCH is less than gamma-HCH, it would have been reasonable to have used gamma-HCH as the surrogate to estimate the delta-HCH reference dose instead of deriving a new one. At this time, the EPA will not consider the derived reference dose a provisional reference dose since it would require internal EPA review, which may not be reasonable to consider at this time, especially in light of the fact that delta-HCH is not currently a major release issue at Fort Wingate.

Tables 6-11 through 6-13, Derivation of Drinking Water Screening Levels for Macronutrients: The EPA considered the information in this table qualitatively rather than quantitatively. In other words, the values appear so high based on relative toxicity that it is more technically defensible to consider them qualitatively since the values exceed saturation concentrations or other aesthetic considerations for drinking water.

Page 6-22, Section 6.4.3.4 Compounds Lacking Risk-Based Screening Levels: Compounds for which screening levels could not be derived should not have been automatically dropped from the risk assessment, even based on the frequency of detection. Instead, these compounds should have been qualitatively evaluated in the risk assessment using the following information: frequency of chemical detection based on a frequency of 5 percent (a minimum sample size of 20), relative concentration and toxicity (i.e., detection may be indicative of a "hot spot" or source area), number of samples, presence/absence in other media, associated parent/degradation products, persistence, mobility, and bioaccumulation, historical evidence and concentration gradient or distance to nearest adjacent sample location.

Page 6-22, Section 6.5 Secondary Factors: Factors mentioned on related comments to section 6.4.3.4 should be considered before dropping compounds from further evaluation. The report should

always contain a discussion of what factors applied and to what degree they applied to the evaluation.

Page 6-23, Section 6.6 Summary of Screening Approach: The conclusion statements in this section are misleading and are not appropriate for a human-health-only screening level assessment. It is important to note that the primary purpose of a screening level assessment, in the corrective action process, is to determine if a release of hazardous substances has occurred. This is of special concern since the screening assessment conducted in this report did not consider all potential exposure routes and pathways, chemicals, media, transport routes, qualitative factors and potential receptors. The conclusion statements should not add a level of certainty that is not present at the screening level type of assessment.

The statement that reads "[c]onstituents have concentrations that are unlikely to be the result of natural conditions at FWDA (i.e., greater than background)" would be more appropriately stated as "[c]onstituents have concentrations that may indicate a hazardous waste release."

The statement that reads "[c]onstituents that do not exceed screening would not require remediation to achieve regulatory clean-up levels"; would be more appropriately stated as "[c]onstituents have that do not exceed screening do not appear to indicate a significant hazardous waste release relative to human health risk-based values." It should be noted that: 1) just because a constituent concentration does not exceed a human health risk-based screening level it does not mean that remediation will not be required, especially considering that the screening conducted to date does not include the protection of ecological resources and groundwater from soil contaminant leaching, and 2) cleanup levels have not been established for the sites being evaluated.

The statement that reads "[c]onstituent with concentrations less than the risk-based screening levels would not pose any unacceptable risk, even under conservative residential use"; should be deleted. This statement cannot be substantiated, especially considering that the evaluation is a screening evaluation instead of a baseline risk assessment; and just as importantly it does not consider all potential exposure routes and pathways.

The statement that reads "[c]onstituents are not anomalous or located in an extremely isolated/small area (i.e., eliminated secondary factors) . . ." should be eliminated since it is confusing and this situation would be included in any of two recommended conclusion statements above.

Section 7.8 Installation-Wide Surface Water Discharge: Differing inorganic chemicals appear to be present at levels above both background and screening levels. The EPA cannot determine from the report whether these concentrations are indicative of low-level impacts or are attributable to differences in geology.

Section 9.0 Baseline Risk Assessment: There should be consideration of potential data gaps for sites with detected releases instead of automatically subjecting these sites into a baseline risk assessment.

Revisit screening results used in the baseline risk assessment based on concerns expressed in the comments above.

Section 9.1 Cumulative Risk Evaluation for Soil: The evaluation presented is neither clear nor the most technically defensible. This type of evaluation is confusing and misleading since it may give the appearance that an accurate representation of potential cumulative risks (which should take place in the baseline risk assessment) were calculated when indeed that is not the case.

Some of the technical concerns with this evaluation include:

- 1) Does not fully present the exposure concentration but rather makes a point by point comparison to individual data.
- 2) Does not appropriately present the potential risks since these are proportioned by ratios.
- 3) Does not appropriately account for intake dose in the calculating of ratios but rather uses individual concentrations which may underestimate the potential risks.
- 4) Potential risks should not be proportioned by data point but by site since that is the unit that is being evaluated for the risk management decision.

The EPA should not concur with this type of evaluation since it may not fully and adequately present the cumulative potential risks.

The reported objective for this evaluation is stated on page 9-4: "[t]his cumulative risk evaluation was performed to determine if there were any constituent that individually did not fail screening but that, when considered with other positively detected constituents in the same sample, could pose potentially unacceptable risk." If this was indeed the purpose of this evaluation than that evaluation could have been simply accomplished by dividing the noncarcinogenic endpoint screening levels by 10 (to account for the possibility of up to 10 noncarcinogenic compounds). The carcinogenic compounds would not have needed to be adjusted since the target risk level of 1×10^{-6} potential excess lifetime cancer risk. Furthermore, regulations allow for an acceptable potential excess lifetime cancer risk range of 1×10^{-6} to 1×10^{-4} .

It is reported that in several instances constituents that were less than screening levels were included in the forward risk calculations. Which constituents were these? Why were these constituents treated differently than other constituents?

Furthermore, it is reported that ". . . two areas that have cumulative carcinogenic risks that approach or exceed the EPA

upper bound for acceptable risk (i.e., 1×10^{-4}) . . . have been considered further in the baseline risk assessment." It should be clarified that sites with chemical concentrations above the screening levels should have been considered for either: 1) as a potential hazardous release site, 2) further delineation of contamination, or 3) if the data were of sufficient number and representativeness of the contamination then a baseline risk assessment should have been conducted. At no time should the upper bound of the risk range have been considered as a trigger but rather the 1×10^{-6} risk level should have been used as the point of departure.

Page 9-4, Section 9.1.3 Uncertainties: The report states repeatedly in this section that what was conducted in section 9.1 was a "cumulative risk assessment." It should be clarified that the EPA neither concurs with the results of the evaluation nor agrees that this was indeed a cumulative risk assessment. See related comments stated above.

It should be clear that for a chemical that has the potential of noncarcinogenic and carcinogenic endpoints, the baseline risk assessment should include an evaluation of both endpoints for that chemical. The conclusions on the comparison evaluation of the noncarcinogenic and carcinogenic endpoints were confusing. The EPA does not recommend this type of comparison since it may be misleading and confusing. See related comments above.

Section 9.1.4 Summary of Cumulative Risk Evaluation: The uncertainties with the evaluation presented in section 9.1 are numerous in the EPAs opinion. As commented above, this intricate and confusing evaluation could have been avoided by simply adjusting the noncarcinogenic endpoint screening levels.

Section 9.2 Human Health Soil Risk Assessment: There is concern that this risk assessment only evaluates the potential soil exposures. In order for a risk assessment to be considered representative and conclusive it should consider all potential exposures (i.e., soil and water media matrices). At this time, this risk assessment can only be considered a partial risk assessment. Basing risk management decisions on this partial assessment should be made with caution.

Page 9-9: The report states that there is lack of policy or guidance on selecting the target blood lead level. There is specific EPA policy and guidance on selecting the target blood lead level. Furthermore, an extensive evaluation to generate a screening level for lead in soils was conducted in this report. Both the EPAs policy and guidance on selecting the target blood lead level and the recommendation of a screening level of lead in soils is readily available in the EPAs Office of Solid Waste and Emergency Response Directive # 9355.4-12 titled: **Revised Interim Soil Lead Guidance for CERCLA and RCRA Corrective Action Facilities** (dated July 14, 1994). Incidentally, the screening level for lead in soils that the EPA recommends is 400 mg/Kg. This screening level should be evaluated for relevance for any site-specific circumstances since it may not be applicable universally.

Table 9-5, Exposure Pathway Assessment: The report states that areas outside of the administration area may serve as future range land or subsistence farming. However, the exposure pathway assessment listed in this table does not address list these potential exposure pathways associated with these potential future land use scenarios. The baseline risk assessment does estimate risks due to these potential exposures. Please resolve the discrepancy.

It is recommended that dermal exposure be evaluated in the risk assessment. The uncertainties associated with the dermal exposure to specific chemicals (based on chemical specific information of the risk level associated with it as well as the available literature toxicity information) may be dealt with in the uncertainty section of the risk assessment whereas, if the exposure route is excluded, the potential exposures to any chemical impacting dermal exposure may be overlooked. The EPA recommends the default dermal absorption factor of 1% for inorganic chemicals and 10% for organic compounds.

Page 9-12, Section 9.2.2.1 Exposure Point Concentration

Selection: The risk assessment presented in section 9.0 is titled baseline risk assessment. The EPA recommends using the maximum concentration in the screening level risk assessment, not in the baseline risk assessment. The baseline risk assessment exposure point concentration should be based on the 95% upper confidence limit (UCL) of the mean for data sets with 10 or more data points. Where the UCL is higher than the maximum detected concentration the maximum detected concentration is selected as the exposure point concentration. If there are less than 10 data points then the maximum detected concentration should be considered.

The recommendations for the baseline risk assessment exposure point concentration are based on the EPAs Office of Solid Waste and Emergency Response Publication No. 9285.7-081 (dated June 22, 1992). The maximum concentration may present an unreasonably high exposure concentration for a baseline risk assessment, whereas the arithmetic mean may present an exposure concentration that is too low.

Page 9-16: The average soil concentration was used for estimating the plant uptake and animal uptake concentrations. Please see related comment to page 9-12 for estimating the exposure point concentration.

Page 9-18, Item 3: The assumption of 20 grams per square meter appears unreasonably low, especially since it was generated for residential attics, not residential dwellings.

Typically, for wipe samples, a standard area size is used for sampling (e.g., 100 cm²). It is not clear how large of a surface area is represented by the resulting sample concentration. Please explain.

Section 9.2.4 Risk Characterization: It is crucial to note that cumulative risk (i.e., total estimated potential risk due to all

relevant chemicals, media matrices, exposure routes and exposure pathways) should be presented in the risk characterization. This was not done in the baseline risk assessment and, as such, the results present a segmented picture of the potential risk.

The risk estimates presented in this section should be reevaluated based on comments made above.

Page 9-37, Section 9.2.5 Discussion of Uncertainties: The statement that reads: "[a]ctual risks may be much less than those calculated in this assessment, and may, in fact, approach zero" is misleading. It is fair to say that the actual risks may be less than those calculated but it is more than subjective to say that they may approach zero. Please revise the statement to be more objective and technically defensible.

Table 9-65, Page 3 of 3: The current existence of a fence surrounding the installation may not play a large role in the future land uses once the property is transferred. The assumption of the igloos as potential residential dwellings may be reasonable considering population and area factors.

Pages 9-41 through 9-43, Summary of the Human Health Soil Risk Assessment Results and Conclusions of the Human Health Soil Risk Assessment: The summary and conclusions of the human health risk assessment should be reevaluated based on comments made above. Additionally, the human health risk assessment should not be considered complete until the groundwater potential exposure pathway is factored into the risk assessment estimates.

Section 6.4.3.2, page 6-21, last ¶: Please correct the typographical errors in the calculated screening levels: they should read "1 x 10⁻⁶," not "1 x 10⁻⁶."

Section 7.0, page 7-2, 3rd ¶: One of the COCs, arsenic, has a background level (2.5 mg/kg) that is higher than its PRG (0.427 mg/kg). Please add text to this paragraph explaining both this fact and that any detection of arsenic is higher than both the established background value and the screening level (PRG). This report paragraph should be also be included in Section 2.3 as explanatory text.

Section 7.1.1: This section on the Southern Property should note in the text that the samples were taken in an area with a different type of bedrock than that of the background data set, with apparently higher background values for many inorganics.

Section 7.4.2, page 7-89, last ¶: Sampling for solvents should also be done to evaluate potential releases from this unit. Note that the discovery of a significant release from this unit may result in further soil investigation and/or soil remedial action here.

Section 7.4.5, page 7-103: This text leaves the environmental situation at the Former Ammunition Maintenance Building unresolved. As such, it cannot be transferred. Please explain how determination of the environmental status of this site will

be completed.

Section 7.6, page 7-112, 3rd ¶: The phrase at the end of the paragraph, "...Interim Status Closure of the regulated unit was implemented," implies that the closure was accomplished. Please rephrase the sentence to clarify that the closure process was begun, not completed.

Sections 7.6.2 & 7.6.3, pages 7-113 to 116: These sections incorrectly state that the results to date justify no further evaluation for these areas. Investigation of these sites will not be complete until the ground water situation in this area is defined.

Section 7.9, page 7-140, 2nd ¶: Please specify the TSCA cleanup level for wipe samples and compare it to wipe sample results here.

Section 7.9, page 7-140, 3rd ¶: Please specify the actual areal extent of PCB in soil at Building 515.

Section 7.10, page 7-140: Please include in the report the results of the water sampling from the water supply well.

Table 7-85: Please add a footnote to this table explaining the significance of the various "0.0000" screening levels.

Figure 9-1: Please correct the location of the pistol range on this map.

Section 9.2.1, Identification of Potential Constituents of Concern: This report does not account for lead (Pb) releases to soil from buildings via lead-based paint. Please include a description of the February 1997 soil sampling for lead around buildings in the Administration Area, give the results, and discuss the results.

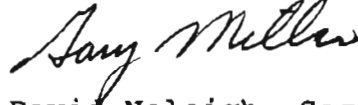
Section 9.2.2 and Table 9-6, Exposure Assessment: Please reference the Navajo Nation Economic Reuse Master Plan as the current source of future land use information. Make changes to Table 9-6 to reflect this planned future use.

Section 10.0: Please retitile this section; it is insufficient to constitute a Feasibility Study. Also retitile this document as an RI report, not as an RI/FS report, because it does not include an FS.

Western Landfill, Section 10.2.8.3, page 10-14: Has the potential to close this landfill as an arid/small landfill been considered? Such closure would be less costly than the proposed offsite disposal.

If you have any questions on these comments, please contact Mr. Chuck Hendrickson at (214) 665-2196.

Sincerely yours,



for David Neleigh, Section Chief
New Mexico and Federal
Facilities Section

cc: Chris Whitman, NMED
Phillip Solano, NMED
Chuck Lechner, USAEC

*Responses to USEPA Review Comments
Final RI/FS Report & RCRA Corrective Action Program Document
Fort Wingate Depot Activity, Gallup, NM
dated 15 November 1997*

Reviewer: Chuck Hendrickson, USEPA Region VI
Date: 19 March 1998

Comment 1: Section 1.2, page 1-2: FWDA's Interim Status was verbally questioned by NMED in 1997. If this status is still in question, it should be resolved and plans for further work done accordingly.

Response: The Army is currently implementing the *Final FWDA RCRA Interim Status Closure Plan* that was approved by NMED on 10 April 1997.

Comment 2: Section 2: Fenced-Up Horse Valley is mentioned several times in this section. Please reference a report map showing the location of this valley and other areas mentioned in this report.

Response: The requested map reference will be incorporated into future documents that mention Fenced-Up Horse Valley.

Comment 3: Section 2.1.4.6, page 2-9, 3rd ¶: Please identify the well mentioned in the text and refer to a map in the report where its location is shown.

Response: The referenced text was taken from a document entitled: *Water Resources of Fort Wingate Army Depot and Adjacent Areas, McKinley County, New Mexico* (Shoemaker, 1971). The exact location of the well could not be determined; however, it is within the same township, range, and section as one of the wells (well No. 54) identified in an updated well search performed in 1998. The requested edit will be incorporated into a document that implements the *Final Risk Assessment Work Plan (RAWP)* (PMC, 2000) for the areas of concern (AOCs) included in the *Final RI/FS Report & RCRA Corrective Action Program Document (RI/FS)*. It is anticipated that this document will follow the format of a RCRA Facility Investigation/Corrective Measures Study (RFI/CMS).

Comment 4: Section 2.1.4.8, page 2-11: According to the presentation by Mr. Kneebone at the 3 December, 1997, RAB meeting, there is a final cultural resources report on Ft. Wingate Depot. That report should be described and referenced here.

Response: The requested report reference will be incorporated into future documents that mention the cultural resources of FWDA.

Comment 5: Table 5-1: Nitrate and nitrite should be added to this table since they are constituents of concern.

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Response: The requested edit will be incorporated into a document that implements the RAWP for the AOCs included in the RI/FS. It is anticipated that this document will follow the format of an RFI/CMS.

Comment 6: Page 5-2, Section 5.0 Fate and Transport: Concentrations reported as dinitrotoluene mixture, a degradation product of trinitrotoluene, are expected to be more toxic than the parent chemical. Therefore, chemical and biological fate of the constituent cannot be automatically eliminated. Additionally, some pesticides (i.e., DDT) also have more toxic degradation products.

Response: See response to Comment 5.

Comment 7: Table 5-1, footnote (2) and page 5-4: The least conservative value for soil f_{oc} (fraction of organic carbon), 2%, was used in the calculation of K_d , without justification. One of our comments on the previous version of this report asked for documentation to support use of this value. Either present site-specific data to support this value or use the most conservative value for f_{oc} , 0.5%, in the calculations.

Response: Site-specific total organic carbon (TOC) data were collected in 1996 associated with investigations conducted at the TNT Leaching Beds. The average TOC value of 0.00576 ug/g (0.576%) was used in the TNT Leaching Beds RFI Report (PMC, 2001). This TOC value will be used in the future for all portions of FWDA, except the OB/OD Areas, where site-specific TOC data has also been collected.

Comment 8: Section 5.1, Figure 5-2: The pathway flowchart and related text should include potential off-site exposure to shallow ground water and livestock watering from shallow ground water.

Response: See response to Comment 5.

Comment 9: Section 5.2.1, page 5-5: This text is unclear about aqueous systems as explosives pathways. Please clarify that aqueous systems are important pathways for explosives.

Response: See response to Comment 5.

Comment 10: General Risk Assessment Comments: The objective of the investigation information provided in this report was not clear. For instance, the sampling efforts for most of these sites appear to be initial sampling efforts to determine if a release of hazardous waste has occurred. However, even after exceeding at times both background and risk-based screening levels, chemicals and/or sites were eliminated

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from further consideration based on areal extent. It appears that it would be more appropriate to first consider further delineation of the areas with elevated concentrations prior to eliminating chemicals and especially sites. Furthermore, it is not always feasible to force fit a risk assessment with initial investigation data when perhaps more sampling could better define a suspected release.

Response: Additional data have been collected at selected AOCs. These data will be incorporated into a document that implements the RAWP for the AOCs included in the RI/FS. It is anticipated that this document will follow the format of an RFI/CMS.

Comment 11: The results of both the screening assessment and the baseline risk assessment should be reevaluated based on comments made below.

Response to Comments 11 through 55: The human health screening assessment and baseline risk assessment, and ecological risk assessment will be revised, for the AOCs included in the RI/FS, following the approach presented in the RAWP. It is anticipated that the results of this effort will be presented in a document that follows the format of an RFI/CMS.

Comment 12: The report repeatedly states that "realistic" future land uses were assumed in the risk assessment. It should be noted that reasonable future land uses should be assumed since the term "realistic" may become subjective. Typically, inputs from the Local Reuse Authority and/or Restoration Advisory Board are considered in the future land use assumptions with some of these assumptions being formally set in a Reuse Plan. If these sources of information are absent then the most reasonable future land use should be considered based on the opinions of the BCT members.

Comment 13: This report only considers the potential to impact human health from the soil media. Potential impacts to human health from groundwater remain to be evaluated. Additionally, potential impacts to ecological resources are planned to be evaluated in the future. The conclusions in this report can only be considered preliminary until such time that the cumulative potential impacts to human health from both soil and groundwater as well as ecological resources are evaluated.

Comment 14: Page 6-1: The report states that cumulative risk due to the presence of more than one chemical was not considered in the risk screening but rather was addressed in the risk assessment. It is important to note that since sites and chemicals of concern were selected in the risk screening, cumulative risk should have been considered. This could have easily been done, as is general practice, by adjusting the noncarcinogenic chemical screening levels by dividing by a factor of ten. There would

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not have been a need to adjust the carcinogenic chemical screening levels since the screening levels were based on a 1×10^{-6} target risk level and there is an allowable excess lifetime cancer risk range of 1×10^{-6} to 1×10^{-4} .

Comment 15: Figure 6-1, Human Health Overall Screening Approach: The flowchart states that the "micronutrient" status would be evaluated. Would this be referring to macronutrient rather than micronutrient?

Comment 16: Page 6-5, Sections 6.2.2 and 6.2.3: The report states that "[w]here a promulgated media-specific standard was not available for a given constituent in a specific medium, a risk-based screening level . . . was derived based on a residential exposure scenario." It should be noted that a promulgated media-specific standard such as an MCL does not consider the RCRA allowable risk range nor does it account for multiple chemicals or all relevant potential routes of exposure (i.e., inhalation and dermal exposure to water). Therefore, it is not appropriate to use these values alone to eliminate sites, pathways, routes, and/or chemicals in a screening assessment or for a risk assessment.

Comment 17: A risk-based screening value that accounts for all potential routes of exposure and multiple chemicals should be used in the risk assessment process. An MCL, for example, can be used in the final ARAR comparison after a risk assessment in order to make a final risk management decision.

Comment 18: Section 6.2.4 Secondary Factors: Secondary factors such as frequency of detection were reportedly used to eliminate chemicals even when screening levels, including MCLs would have been exceeded. It is important to note that if a detected concentration exceeded a screening level, and especially an MCL, it is not prudent to eliminate that chemical from further consideration regardless of frequency. A weight of evidence of approach should be used to substantiate the elimination of that chemical. Factors such as frequency of chemical detection as a rationale for dropping chemicals from the chemical list should consider a frequency of 5 percent (a minimum sample size of 20). It is important to also consider the following prior to dropping a chemical as a COPC based on frequency of detection: 1) relative concentration and toxicity (i.e., detection may be indicative of a "hot spot" or source area), 2) number of samples, 3) presence/absence in other media, 4) associated degradation products, 5) exceedance of ARARs, 6) persistence, mobility, and bioaccumulation, 7) historical evidence and 8) concentration gradient or distance to nearest adjacent sample location (indicative of potential areal extent).

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Comment 19: Figure 6-2, Human Health Screening Level Selection: The flowchart pertains to the selection of a screening level; however, since the screening level could be used for determination of: 1) a release, 2) NFA of a site, and 3) selection of chemicals for the baseline risk assessment it presents some issues.

First of all, exceedance of an available naturally-occurring background level may indicate a release for inorganic chemicals. Therefore, the higher of a risk-based concentration versus a background level may not be appropriate for determining if a release has occurred. Once delineation of contamination has occurred, it may be appropriate to consider the background level as well as the risk-based concentration level for the risk management decision.

Secondly, the lowest of the PARAR (or promulgate standard) or the PRG (or risk-based value) should be used as the screening level to insure that the approach is protective.

Both of the above concerns can be addressed by selecting the lowest available value, (of the background, PARAR or PRG) as the screening value while considering the other two remaining values for the final risk management decision on a site-specific basis. The flowchart should be modified to reflect these comments.

Comment 20: Page 6-7, Safe Drinking Water Act Standards: It should be clear that drinking water standards apply to a potential drinking water source, which is defined by a water source with less than 10,000 mg/L total dissolved solids. Additionally, potential exposures to a potential drinking water resource should also consider state drinking water designations as well as actual and potential uses. Please clarify in the text the actual, specific regulatory standards that apply at this facility.

Comment 21: Page 6-9: The soil lead value presented in the EPA's Office of Solid Waste and Emergency Response Directive 9355.4-12 is not a cleanup level but rather a screening level. It is also not appropriate to assume that the 400 mg/Kg value will be used for removal action decisions in the FS. Site-specific conditions will rule whether this value is appropriate for removal action decisions.

Comment 22: Table 6-6: The lead treatment-based MCL of 15 µg/L should be used as the PARAR.

Comment 23: Page 6-10, Section 6.4 Risk-based Screening Levels: Surface water should be evaluated not only on expected exposures but on state designated uses.

Comment 24: Pages 6-10 and 6-11, Section 6.4.1 Identification of Potential Exposure Pathways for the Screening Assessment: It should be clarified that the letter from the

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Army to the EPA cited in the report (dated November 20, 1996) was not intended or interpreted by the EPA to justify excluding potential routes of exposure from the screening levels. The letter provided an evaluation of whether: 1) chemicals with changed toxicity values based on current toxicity values presented a significant difference in the chemicals dropped before the baseline risk assessment, and 2) the exclusion of the potential inhalation and dermal exposure routes significantly impacted the results of screening conducted in the draft RI/FS report. This is quite different from universally concluding or inferring that the inhalation and dermal exposure routes should have been omitted from the screening process in the first place. The EPA offered the Army the opportunity of this evaluation only as a means of expediting the corrective action process, not as carte blanche. All future risk-based screening should include ALL relevant exposure routes and pathways.

Do we agree whether the soil to a groundwater transport pathway is insignificant and whether it is reasonable to consider it in a subsequent evaluation?

Comment 25: Page 6-11, Section 6.4.2 Risk-Based Screening Level Calculations: How was the potential presence of multiple chemicals considered, especially for noncarcinogenic chemicals?

Comment 26: Pages 6-20 and 6-21, Section 6.4.3.1 Derivation of Screening Levels for delta-HCH: Delta-HCH is referred to in the text as delta-hexachlorocyclohexane, but is listed as delta-benzenehexachloride in Table 6-10. Please use consistent nomenclature to avoid confusion.

Comment 27: Since the relative toxicity of delta-HCH is less than gamma-HCH, it would have been reasonable to have used gamma-HCH as the surrogate to estimate the delta-HCH reference dose instead of deriving a new one. At this time, the EPA will not consider the derived reference dose a provisional reference dose since it would require internal EPA review, which may not be reasonable to consider at this time, especially in light of the fact that delta-HCH is not currently a major release issue at Fort Wingate.

Comment 28: Tables 6-11 through 6-13, Derivation of Drinking Water Screening Levels for Macronutrients: The EPA considered the information in this table qualitatively rather than quantitatively. In other words, the values appear so high based on relative toxicity that it is more technically defensible to consider them qualitatively since the values exceed saturation concentrations or other aesthetic considerations for drinking water.

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Comment 29: Page 6-22, Section 6.4.3.4 Compounds Lacking Risk-Based Screening Levels: Compounds for which screening levels could not be derived should not have been automatically dropped from the risk assessment, even based on the frequency of detection. Instead, these compounds should have been qualitatively evaluated in the risk assessment using the following information: frequency of chemical detection based on a frequency of 5 percent (a minimum sample size of 20), relative concentration and toxicity (i.e., detection may be indicative of a "hot spot" or source area), number of samples, presence/absence in other media, associated parent/degradation products, persistence, mobility, and bioaccumulation, historical evidence and concentration gradient or distance to nearest adjacent sample location.

Comment 30: Page 6-22, Section 6.5 Secondary Factors: Factors mentioned on related comments to section 6.4.3.4 should be considered before dropping compounds from further evaluation. The report should always contain a discussion of what factors applied and to what degree they applied to the evaluation.

Comment 31: Page 6-23, Section 6.6 Summary of Screening Approach: The conclusion statements in this section are misleading and are not appropriate for a human-health-only screening level assessment. It is important to note that the primary purpose of a screening level assessment, in the corrective action process, is to determine if a release of hazardous substances has occurred. This is of special concern since the screening assessment conducted in this report did not consider all potential exposure routes and pathways, chemicals, media, transport routes, qualitative factors and potential receptors. The conclusion statements should not add a level of certainty that is not present at the screening level type of assessment.

Comment 32: The statement that reads "[c]onstituents have concentrations that are unlikely to be the result of natural conditions at FWDA (i.e., greater than background)" would be more appropriately stated as "[c]onstituents have concentrations that may indicate a hazardous waste release."

Comment 33: The statement that reads "[c]onstituents that do not exceed screening would not require remediation to achieve regulatory clean-up levels"; would be more appropriately stated as "[c]onstituents have that do not exceed screening do not appear to indicate a significant hazardous waste release relative to human health risk-based values." It should be noted that: 1) just because a constituent concentration does not exceed a human health risk-based screening level it does not mean that remediation will not be required, especially considering that the screening conducted to date does not include the protection of ecological resources and groundwater from soil contaminant leaching, and 2) cleanup levels have not been established for the sites being evaluated.

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Comment 34: The statement that reads "[c]onstituent with concentrations less than the risk-based screening levels would not pose any unacceptable risk, even under conservative residential use"; should be deleted. This statement cannot be substantiated, especially considering that the evaluation is a screening evaluation instead of a baseline risk assessment; and just as importantly it does not consider all potential exposure routes and pathways.

Comment 35: The statement that reads "[c]onstituents are not anomalous or located in an extremely isolated/small area (i.e., eliminated secondary factors) . . ." should be eliminated since it is confusing and this situation would be included in any of two recommended conclusion statements above.

Comment 36: Section 7.8 Installation-Wide Surface Water Discharge: Differing inorganic chemicals appear to be present at levels above both background and screening levels. The EPA cannot determine from the report whether these concentrations are indicative of low-level impacts or are attributable to differences in geology.

Comment 37: Section 9.0 Baseline Risk Assessment: There should be consideration of potential data gaps for sites with detected releases instead of automatically subjecting these sites into a baseline risk assessment.

Revisit screening results used in the baseline risk assessment based on concerns expressed in the comments above.

Comment 38: Section 9.1 Cumulative Risk Evaluation for Soil: The evaluation presented is neither clear nor the most technically defensible. This type of evaluation is confusing and misleading since it may give the appearance that an accurate representation of potential cumulative risks (which should take place in the baseline risk assessment) were calculated when indeed that is not the case.

Some of the technical concerns with this evaluation include:

- 1) Does not fully present the exposure concentration but rather makes a point by point comparison to individual data.
- 2) Does not appropriately present the potential risks since these are proportioned by ratios.

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- 3) Does not appropriately account for intake dose in the calculating of ratios but rather uses individual concentrations which may underestimate the potential risks.
- 4) Potential risks should not be proportioned by data point but by site since that is the unit that is being evaluated for the risk management decision.

The EPA should not concur with this type of evaluation since it may not fully and adequately present the cumulative potential risks.

The reported objective for this evaluation is stated on page 9-4: "[t]his cumulative risk evaluation was performed to determine if there were any constituent that individually did not fail screening but that, when considered with other positively detected constituents in the same sample, could pose potentially unacceptable risk." If this was indeed the purpose of this evaluation than that evaluation could have been simply accomplished by dividing the noncarcinogenic endpoint screening levels by 10 (to account for the possibility of up to 10 noncarcinogenic compounds). The carcinogenic compounds would not have needed to be adjusted since the target risk level of 1×10^{-6} potential excess lifetime cancer risk. Furthermore, regulations allow for an acceptable potential excess lifetime cancer risk range of 1×10^{-6} to 1×10^{-4} .

It is reported that in several instances constituents that were less than screening levels were included in the forward risk calculations. Which constituents were these? Why were these constituents treated differently than other constituents?

Furthermore, it is reported that "... two areas that have cumulative carcinogenic risks that approach or exceed the EPA upper bound for acceptable risk (i.e., 1×10^{-4}) ... have been considered further in the baseline risk assessment." It should be clarified that sites with chemical concentrations above the screening levels should have been considered for either: 1) as a potential hazardous release site, 2) further delineation of contamination, or 3) if the data were of sufficient number and representativeness of the contamination then a baseline risk assessment should have been conducted. At no time should the upper bound of the risk range have been considered as a trigger but rather the 1×10^{-6} risk level should have been used as the point of departure.

Comment 39: Page 9-4, Section 9.1.3 Uncertainties: The report states repeatedly in this section that what was conducted in section 9.1 was a "cumulative risk assessment." It should be clarified that the EPA neither concurs with the results of the evaluation nor agrees that this was indeed a cumulative risk assessment. See related comments stated above.

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It should be clear that for a chemical that has the potential of noncarcinogenic and carcinogenic endpoints, the baseline risk assessment should include an evaluation of both endpoints for that chemical. The conclusions on the comparison evaluation of the noncarcinogenic and carcinogenic endpoints were confusing. The EPA does not recommend this type of comparison since it may be misleading and confusing. See related comments above.

Comment 40: Section 9.1.4 Summary of Cumulative Risk Evaluation: The uncertainties with the evaluation presented in section 9.1 are numerous in the EPA's opinion. As commented above, this intricate and confusing evaluation could have been avoided by simply adjusting the noncarcinogenic endpoint screening levels.

Comment 41: Section 9.2 Human Health Soil Risk Assessment: There is concern that this risk assessment only evaluates the potential soil exposures. In order for a risk assessment to be considered representative and conclusive it should consider all potential exposures (i.e., soil and water media matrices). At this time, this risk assessment can only be considered a partial risk assessment. Basing risk management decisions on this partial assessment should be made with caution.

Comment 42: Page 9-9: The report states that there is lack of policy or guidance on selecting the target blood lead level.

There is specific EPA policy and guidance on selecting the target blood lead level. Furthermore, an extensive evaluation to generate a screening level for lead in soils was conducted in this report. Both the EPA's policy and guidance on selecting the target blood lead level and the recommendation of a screening level of lead in soils is readily available in the EPA's Office of Solid Waste and Emergency Response Directive # 9355.4-12 titled: Revised Interim Soil Lead Guidance for CERCLA and RCRA Corrective Action Facilities (dated July 14, 1994). Incidentally, the screening level for lead in soils that the EPA recommends is 400 mg/Kg. This screening level should be evaluated for relevance for any site-specific circumstances since it may not be applicable universally.

Comment 43: Table 9-5, Exposure Pathway Assessment: The report states that areas outside of the administration area may serve as future range land or subsistence farming. However, the exposure pathway assessment listed in this table does not address list these potential exposure pathways associated with these potential future land use scenarios. The baseline risk assessment does estimate risks due to these potential exposures. Please resolve the discrepancy.

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Comment 44: It is recommended that dermal exposure be evaluated in the risk assessment. The uncertainties associated with the dermal exposure to specific chemicals (based on chemical specific information of the risk level associated with it as well as the available literature toxicity information) may be dealt with in the uncertainty section of the risk assessment whereas, if the exposure route is excluded, the potential exposures to any chemical impacting dermal exposure may be overlooked. The EPA recommends the default dermal absorption factor of 1% for inorganic chemicals and 10% for organic compounds.

Comment 45: Page 9-12, Section 9.2.2.1 Exposure Point Concentration Selection: The risk assessment presented in section 9.0 is titled baseline risk assessment. The EPA recommends using the maximum concentration in the screening level risk assessment, not in the baseline risk assessment. The baseline risk assessment exposure point concentration should be based on the 95% upper confidence limit (UCL) of the mean for data sets with 10 or more data points. Where the UCL is higher than the maximum detected concentration the maximum detected concentration is selected as the exposure point concentration. If there are less than 10 data points then the maximum detected concentration should be considered.

The recommendations for the baseline risk assessment exposure point concentration are based on the EPA's Office of Solid Waste and Emergency Response Publication No. 9285.7-081 (dated June 22, 1992). The maximum concentration may present an unreasonably high exposure concentration for a baseline risk assessment, whereas the arithmetic mean may present an exposure concentration that is too low.

Comment 46: Page 9-16: The average soil concentration was used for estimating the plant uptake and animal uptake concentrations. Please see related comment to page 9-12 for estimating the exposure point concentration.

Comment 47: Page 9-18, Item 3: The assumption of 20 grams per square meter appears unreasonably low, especially since it was generated for residential attics, not residential dwellings.

Comment 48: Typically, for wipe samples, a standard area size is used for sampling (e.g., 100 cm²). It is not clear how large of a surface area is represented by the resulting sample concentration. Please explain.

Comment 49: Section 9.2.4 Risk Characterization: It is crucial to note that cumulative risk (i.e., total estimated potential risk due to all relevant chemicals, media matrices, exposure routes and exposure pathways) should be presented in the risk

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characterization. This was not done in the baseline risk assessment and, as such, the results present a segmented picture of the potential risk.

The risk estimates presented in this section should be reevaluated based on comments made above.

Comment 50: Page 9-37, Section 9.2.5 Discussion of Uncertainties: The statement that reads: "[a]ctual risks may be much less than those calculated in this assessment, and may, in fact, approach zero" is misleading. It is fair to say that the actual risks may be less than those calculated but it is more than subjective to say that they may approach zero. Please revise the statement to be more objective and technically defensible.

Comment 51: Table 9-65, Page 3 of 3: The current existence of a fence surrounding the installation may not play a large role in the future land uses once the property is transferred. The assumption of the igloos as potential residential dwellings may be reasonable considering population and area factors.

Comment 52: Pages 9-41 through 9-43, Summary of the Human Health Soil Risk Assessment Results and Conclusions of the Human Health Soil Risk Assessment: The summary and conclusions of the human health risk assessment should be reevaluated based on comments made above. Additionally, the human health risk assessment should not be considered complete until the groundwater potential exposure pathway is factored into the risk assessment estimates.

Comment 53: Section 6.4.3.2, page 6-21, last ¶: Please correct the typographical errors in the calculated screening levels: they should read " $1 \times 10^{+6}$," not " 1×10^{-6} ."

Comment 54: Section 7.0, page 7-2, 3rd ¶: One of the COCs, arsenic, has a background level (2.5 mg/kg) that is higher than its PRG (0.427 mg/kg). Please add text to this paragraph explaining both this fact and that any detection of arsenic is higher than both the established background value and the screening level (PRG). This report paragraph should be also be included in Section 2.3 as explanatory text.

Comment 55: Section 7.1.1: This section on the Southern Property should note in the text that the samples were taken in an area with a different type of bedrock than that of the background data set, with apparently higher background values for many inorganics.

Comment 56: Section 7.4.2, page 7-89, last ¶: Sampling for solvents should also be done to evaluate potential releases from this unit. Note that the discovery of a significant

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release from this unit may result in further soil investigation and/or soil remedial action here.

Response: See response to Comment 10.

Comment 57: Section 7.4.5, page 7-103: This text leaves the environmental situation at the Former Ammunition Maintenance Building unresolved. As such, it cannot be transferred. Please explain how determination of the environmental status of this site will be completed.

Response: The samples collected in 1992 and 1993 document the conditions of the site prior to initiation of tenant activities. These data do not represent current conditions because of the tenant activities being conducted on the site. Upon the cessation of tenant activities, the tenant will be required to determine the environmental status of the site. These data will be used to determine the environmental status of the site and transfer the property.

Comment 58: Section 7.6, page 7-112, 3rd ¶: The phrase at the end of the paragraph, ..."Interim Status Closure of the regulated unit was implemented," implies that the closure was accomplished. Please rephrase the sentence to clarify that the closure process was begun, not completed.

Response: The requested edit will be incorporated into future documents that discuss the Interim Status Closure of the OB/OD Areas.

Comment 59: Sections 7.6.2 & 7.6.3, pages 7-113 to 116: These sections incorrectly state that the results to date justify no further evaluation for these areas. Investigation of these sites will not be complete until the ground water situation in this area is defined.

Response: Separate documents have been submitted presenting the results and interpretation of data collected in association with the OB/OD Areas at FWDA. The OB/OD Areas will not be included in future submittals regarding the AOCs included in the RI/FS.

Comment 60: Section 7.9, page 7-140, 2nd ¶: Please specify the TSCA cleanup level for wipe samples and compare it to wipe sample results here.

Response: See response to Comment 11.

Comment 61: Section 7.9, page 7-140, 3rd ¶: Please specify the actual areal extent of PCB in soil at Building 515.

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Response: See response to Comment 5.

Comment 62: Section 7.10, page 7-140: Please include in the report the results of the water sampling from the water supply well.

Response: See response to Comment 5.

Comment 63: Table 7-85: Please add a footnote to this table explaining the significance of the various "0.0000" screening levels.

Response: See response to Comment 11.

Comment 64: Figure 9-1: Please correct the location of the pistol range on this map.

Response: See response to Comment 5.

Comment 65: Section 9.2.1, Identification of Potential Constituents of Concern: This report does not account for lead (Pb) releases to soil from buildings via lead-based paint. Please include a description of the February 1997 soil sampling for lead around buildings in the Administration Area, give the results, and discuss the results.

Response: See response to Comment 5.

Comment 66: Section 9.2.2 and Table 9-6, Exposure Assessment: Please reference the Navajo Nation Economic Reuse Master Plan as the current source of future land use information. Make changes to Table 9-6 to reflect this planned future use.

Response: See response to Comment 11.

Comment 67: Section 10.0: Please retitle this section; it is insufficient to constitute a Feasibility Study. Also retitle this document as an RI report, not as an RI/FS report, because it does not include an FS.

Response: See response to Comment 11.

Comment 68: Western Landfill, Section 10.2.8.3, page 10-14: Has the potential to close this landfill as an arid/small landfill been considered? Such closure would be less costly than the proposed offsite disposal.

Response: The Western Landfill was removed in 2001. Documentation of this removal will be prepared by the removal contractor. The Western Landfill will not be included in future submittals for the AOCs included in the RI/FS.

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