Cross-Reference Table of NMED NOD Comments and Revisions to the Upper Sandia Canyon Aggregate Area Supplemental Investigation Report

NMED NOD Comment No.	Summary of NOD Comment	Section(s) in Original Report	Section(s) in Revised Report	Nature of Revision
General Comments				
1	If polycyclic aromatic hydrocarbon (PAH) concentrations in soil are related to Los Alamos National Laboratory (LANL) infrastructure, LANL may propose to develop site-specific background comparison values for PAHs in soil where sources of PAHs have not been identified. In lieu of establishing background levels, LANL must provide justification on a site-by-site basis to demonstrate PAHs are not present as a result of past activities. If sufficient lines of evidence are provided to demonstrate that the PAHs are not attributed to LANL, the risks from the PAHs must still be evaluated and included in the uncertainty section of the risk assessment. In addition, even if an off-site source of PAHs is identified, cleanup may still be necessary. Whether or not the source is LANL-related or a third party is responsible, it is the Permittees' responsibility to achieve applicable cleanup levels.	n/a*	Sections 6.7.4.4, 6.7.5, 6.9.3.5, 9.2.1, I-4.4.2, I-4.5.9, I-4.5.25, and I-6.1	Solid Waste Management Units (SWMUs) 03-045(a), 03-015, and 61-002 and Area of Concern (AOC) 03-053 are recommended for corrective action complete with controls, and the report does not discuss PAHs as not being site-related. AOCs 03-047(g) and 03-051(c) also pose no potential unacceptable risks under the industrial and construction worker scenarios and to ecological receptors. There are potential unacceptable risks under the residential scenario from PAHs but the PAHs are not site-related. Interviews with individuals who worked in building 03-141 when the vacuum pumps were in use indicate only basic light nonpetroleum mineral oil was used. LANL contends that the interview information is very reliable. As noted in a draft of the Resource Conservation and Recovery Act (RCRA) facility investigation (RFI) work plan for Operable Unit (OU) 1114, Addendum 1, the oil used in the vacuum pump is nonhazardous mineral oil. Site photographs document the presence of asphalt-paved areas at these sites. These lines of evidence support the conclusion that PAHs detected are not from the established uses of the sites. The PAHs at SWMUs 03-014(k,l,m,n) and 03-052(f) are also not site-related; their sources are a decaying 3-ft-high soil berm covered with 2 in. of weathered asphalt and runoff from the adjacent infrastructure, respectively. However, currently little to no exposure to receptors exists because the areas are not used for operational activities. Modified industrial soil screening levels

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				(SSLs) were calculated to reflect more actual or likely exposures. Industrial total excess cancer risks at these sites using the modified SSLs are less than or equivalent to the New Mexico Environment Department (NMED) target risk level. The Permittees cannot be required to cleanup constituents from non-site-related sources. Neither the New Mexico Hazardous Waste Act nor RCRA provides authority to order cleanup of constituents that were not treated, stored, or disposed of by a regulated entity. Further, neither act provides a mechanism for actions for contribution or cost recovery against a third party. Finally, as is often the case with naturally occurring and anthropogenic background constituents, the responsible-party approach does not apply.
2	For the vapor-intrusion risk and hazard calculations, it is not clear what criteria were used to determine whether a constituent was considered a volatile organic compound (VOC). Clarify the criteria used and revise the assessments to include additional constituents to the vapor-intrusion risk-assessment calculations in accordance with NMED guidance (2014).	n/a	Appendix I, Tables I-4.3-1, I-4.3-3, I-4.3-4, I-4.3-6, I-4.3-8, I-4.3-10, I-4.3-14, I-4.3-18, I-4.3-20, I-4.3-22, I-4.3-24, I-4.3-25, Attachment I-2, UpperSandia_SIR_ Vapor IntrusionModel spreadsheets	The criteria used to determine whether a constituent is considered a VOC are a Henry's Law Constant greater than $1E^{-5}$ atm-m^3/mole and an atomic mass of less than 200 g/mole. See response to Comment 3.
3	Update the vapor-intrusion calculations to use current toxicity criteria, where applicable.	n/a	Appendix I, Sections I-4.3.1 to I-4.3.17, Tables I-4.3-1 to I-4.3-29, Attachment I-2, UpperSandia_SIR_ Vapor IntrusionModel spreadsheets VLOOKUP page	The VLOOKUP page of the Johnson and Ettinger spreadsheets has been updated with current toxicity data, including those chemicals where unit risk factors and/or reference concentrations are no longer available. In addition, surrogate toxicity values are indicated in red text and a column has been added to include the surrogate chemical. All the vapor-intrusion calculations have been revised based on this and other revisions.

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4	The industrial screening levels LANL used for total petroleum hydrocarbons (TPH) underestimate risk to a construction worker, especially for the inhalation and dermal pathways. Revise the report to discuss uncertainties in the risk assessment.	Section I-4.4	Section I-4.4.2	Text regarding risk to a construction worker has been added.
5	An inconsistency in how the site attribution analyses were conducted was noted. Comparison to the range of background alone is not sufficient grounds to eliminate a chemical of potential concern (COPC) if the number of samples is insufficient or the data set is too small. Site history may be used as a line of evidence if sufficient information is available to justify why a constituent would not be present at a site. Per U.S. Environmental Protection Agency (EPA) guidance (1989), if historical evidence indicates the constituent may be present, then it must be retained as a COPC. The updated NMED risk-assessment guidance (NMED 2014) clarifies the background evaluation process. Refer to the updated guidance and revise the supplemental investigation report (SIR) accordingly.	n/a	Soil, rock, and sediment sampling analytical results, inorganic chemical COPC identifications, associated nature and extent inorganic chemical discussions, related box plots and statistical results in Appendix H, and related text and tables in Appendix I	The SIR has been revised. The number of samples per medium needed to conduct statistical comparisons to background has been modified to 8 or more samples. Additional lines of evidence have been added to support the elimination of inorganic chemicals as COPCs. Based on the additional statistical comparisons and the lines of evidence provided, COPCs have been eliminated or added and nature and extent discussions have been deleted or added. The risk assessments have also been revised accordingly.

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Specific Comments				
6	The text states that the extent of contamination is defined at SWMU 03-009(a). While the depth of contamination appears defined at SWMU 03-009(a), contamination appears uncharacterized from 2–9 ft below ground surface (bgs). Further sampling is required to characterize the extent of contamination and the risks and hazards associated with exposure to soil 2–9 ft bgs. The Permittees must propose to collect additional samples from 2–9 ft bgs at SWMU 03-009(a) in the Phase II work plan, which will be prepared after the SIR is approved.	Section 6.4.1.4, pp. 29–30	Section 6.4.1.4	Concentrations at locations 03-608182 and 03-608181did not change substantially with depth. The text has been revised to include this information. LANL could find no note or statement anywhere in the SIR that the only historical sample collected between 2 ft and 9 ft bgs (location 03-22537) may not be representative of current site conditions. The sample from 4.0–5.0 ft bgs at this location was collected in 2003, only 6 yr before the 2009 investigation, and the site has not been disturbed so the sample is representative of current site conditions. As described in the approved investigation work plan for Upper Sandia Canyon Aggregate Area, the objective of the sampling performed during the 2009 investigation was to define vertical extent at locations 03-608178, 03-608179, and 03-608180 and lateral extent at locations 03-608181 and 03-608182. Based on the results of the sampling at these locations, lateral and vertical extent have been defined. Based on the existing sample results, it is very unlikely that additional sampling results between 2 ft and 9 ft bgs would cause risk targets for the construction worker scenario or ecological receptors to be exceeded. Additional sampling at SWMU 03-009(a) is not warranted.

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7	The discussion of nature and extent of chromium appears to be based on incorrect reporting of sampling media. Resolve the discrepancy and revise the SIR accordingly.	Section 6.4.2.4, p. 32 Table 6.4-5	Tables 6.4-4, 6.4-5, and 6.4-6	The text is correct. Chromium was detected above background values (BVs) in one soil sample and two tuff samples. The media columns in the tables were incorrect for four samples. The tables have been revised to indicate "Soil" as the medium for samples RE03-09-13443, RE03-09-13444, RE03-09-13446, and RE03-09-13447. The chromium data for samples RE03-09-13443, RE03-09-13446, and RE03-09-13447 are below the soil BV and are indicated with a "—" to signify not detected above BV. The nature and extent discussion of chromium is correct.
8	While evaluating the nature and extent, the Permittees repeatedly make statements that concentrations were similar across the site and provide a range of concentrations of detected contaminants. Either remove references to concentrations being similar across the sites and revise the text accordingly or provide an explanation of why the Permittees believe the concentrations are similar.	Section 6.5.4.4, p. 46	Sections 6.4.2.4; 6.5.4.4; 6.9.7.4; 6.9.8.4; and 7.2.4.4	Text has been revised to state that "Concentrations did not change markedly across the site."
9	SWMU 03-012(b) is not shown either on Plate 8 or in Figure 6.6-1, making it difficult to evaluate whether lateral extent is defined. In addition, data for samples collected at location 03-608199 are not included in Table 6.6-2. Revise the SIR accordingly.	Section 6.6.1.4, p. 51 Also Figure 6.6-1 Table 6.6-2 Plate 8	Figure 6.6-1, Plates 8 and 9, and Section 6.6.1.4	The figure and plates have been revised to label SWMU 03-014(q) and to include locations 03-608198, 03-608199, and 03-608200 with inorganic chemical concentrations above BVs and detected organic chemicals. The nature and extent discussion has been revised to reference the plates, where appropriate. Table 6.6-2 was not revised.

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10	The Permittees state, "[B]ased on the risk-screening assessment results, no potential unacceptable risks exist for the industrial, construction worker, and residential scenarios at SWMU 03-045(b)." The statement is inaccurate since the extent of contamination is not defined at the site as stated in section 6.6.2.4 (Site Contamination) of the SIR. Revise the text either to remove the statement no potential risks exist for all scenarios or to clarify the risk assessment was based on insufficient data. This comment also applies to SWMU 03-013(i), Area of Concern (AOC) 03-014(c2), SWMU 03-045(c), SWMU 03-045(e), AOC C-03-022, and SWMU 60-007(a).	Section 6.6.2.5, p. 57	Sections 6.6.2.5, 6.6.3.5, 6.8.5, 6.9.2.5, 6.14.5, 6.23.5, and 7.5.5	The text has been revised to state, "[B]ased on the risk-screening assessment results *and the available data*, no potential unacceptable risks exist.…"
11	The lateral and vertical extent of contamination are not defined because samples were collected only from one location. The Phase II work plan must propose sampling to define the vertical and lateral extent of contamination at SWMU 03-045(c).	Section 6.6.3.4, p. 59	Sections 6.6.3.4 and 9.1.1	The SIR acknowledges that lateral extent at SWMU 03-045(c) is not defined. The report has been revised to conclude that the vertical extent of polychlorinated biphenyls and some PAHs is not defined. The Phase II work plan will propose sampling to define the vertical and lateral extent of contamination at SWMU 03-045(c).

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12	The vertical extent of contamination is not defined at location 03-608219 at SWMU 03-052(f), and the Permittees must propose additional sampling in the Phase II work plan. The risk-screening assessment presented in the SIR also indicates that the site poses unacceptable carcinogenic risk under both the residential and industrial land use scenarios (see also Comment 1).	Section 6.7.4.4, p. 65	Sections 6.7.4.4 and 6.7.5	Of the 20 organic chemicals detected at location 03-608219, 15 were PAHs. The other 5 organic chemicals either decreased or did not change substantially with depth. PAH concentration changes ranged from 0.0014 mg/kg to 3.23 mg/kg. The largest changes were 0.696 mg/kg, 0.87 mg/kg, 1.88 mg/kg, 2.38 mg/kg, and 3.23 mg/kg for anthracene, chrysene, fluoranthene, phenanthrene, and pyrene, respectively, which are 48 to 12,800 times the residential SSLs and 760 to 18,400 times the industrial SSLs. The concentration changes for benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene were 0.62 mg/kg, 0.52 mg/kg, and 0.59 mg/kg, respectively. Concentrations of benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene exceeded the residential SSLs and were equivalent to [benzo(a)pyrene] or an order of magnitude less than the industrial SSLs. TPH diesel range organics (DRO) concentrations did not change substantially with depth (2 mg/kg) at this location. In addition, evaluating potential risk using the generic industrial exposure parameters is not representative of hypothetical or actual exposure at this site. The activity patterns that might be somewhat representative (other than no exposure) entail much less exposure time and frequency than is currently used for the industrial scenario. Modified industrial SSLs were calculated and are 172 and 86 times [benzo(a)anthracene], 17 and 8 times [benzo(a)pyrene], and 138 and 69 times [benzo(b)fluoranthene] the maximum concentrations of these PAHs at location 03-608219. Therefore, additional sampling for vertical extent is not warranted. See also response to Comment 1.

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13	At a number of sites, the Permittees have used available data from surrounding SWMUs to define the extent of contamination. However, the data used to define the extent are not included in the report. Review the entire report and provide all associated data used to define the nature and extent of contamination at a site.	Section 6.9.9.4, p. 114	Section 6.6.1.4, Figure 6.6-1, Plates 8 and 9 for SWMU 03-012(b); Section 6.9.9.4, Figure 6.9-1, Plates 12 and 13 for SWMU 03-056(d)	All sampling locations and data associated with other sites and used to define the nature and extent of contamination of a site have been added to the appropriate figures and plates. Callouts to plates for other sites have been added to the nature and extent discussions, where appropriate.
14	The discussion of the analytical results for AOC 03-051(c) is inconsistent with the information presented in Table 6.18-3. The table is also incomplete: the results for only a few contaminants are reported although the text discusses several organic compounds not included in the table. Resolve the discrepancy and revise the table accordingly.	Section 6.18.4.3, p. 154 Also Table 6.18-3	Table 6.18-3	The table has been revised to reflect the correct number of samples with detected organic chemicals from two locations, and it includes all organic chemicals detected. The column headings for dibenz(a,h)anthracene through TPH-DRO have been added to the table.
15	Concentrations of TPH increased with depth at two sampling locations at SWMU 03-056(a). Provide further justification to substantiate how the vertical extent of TPH is defined at SWMU 03-056(a). Otherwise, propose to collect additional samples to define the vertical extent of TPH contamination.	Section 6.20.4.4, p. 165	Section 6.20.4.4	As noted in previous and current NMED guidance, the TPH screening guidelines must be used in conjunction with the screening levels for petroleum-related contaminants. For the samples at location 03-608347, no TPH constituents were detected and the residential and industrial ratios to the screening guidelines were 0.1 and 0.06. It should be noted that NMED's current guidance, issued in 2015, has an industrial screening value of 3000 mg/kg, which is an order of magnitude (10 times) above the maximum TPH-DRO concentration at this SWMU. Therefore, no additional sampling for the extent of TPH-DRO is warranted. Text has been incorporated in the extent discussion for TPH-DRO at SWMU 03-056(a) to substantiate that vertical extent is defined at the site.

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16	The discussion on the nature and extent of selenium contamination for SWMU 60-002 (east) incorrectly states the analyte was not detected above the Qbt 2,3,4 background value. Revise the text accordingly.	Section 7.2.2.4, p. 190	Sections 7.2.4.3 and 7.2.4.4	The text has been revised to indicate selenium was detected in one sample above the Qbt 2,3,4 BV and seven samples had detection limits above the BV.
17	The text states samples were collected from the 0.0–1.0-ft depth interval at AOC 60-004(f). Review of section 7.3.5 and Table 7.3-1 indicates samples were not collected from the 0.0–1.0-ft depth interval. Resolve the discrepancy and revise the text accordingly.	Section 7.3.4.1, p. 194 Also Table 7.3-1	Section 7.3.4.1	Text has been revised to indicate samples were collected from depth intervals of 1.0–2.0 ft, 2.0–3.0 ft, 4.0–5.0 ft, and 9.0–10.0 ft bgs.
18	Table 8.3-3 does not report butylbenzene[n-] at 9.4 mg/kg as stated in the text. Table 8.3-3 reports only one detection at location 61-24310 at SWMU 61-002. Resolve the discrepancy and revise accordingly.	Section 8.3.4.4, p. 230 Also Table 8.3-3	n/a	No revisions to text are necessary. There is no discrepancy between the text in section 8.3.4.4 and Table 8.3-3.
19	The Permittees were directed to remove contaminated soil containing concentrations above the risk-based screening levels and to collect confirmatory samples at SWMU 61-002. NMED cannot make a corrective action complete determination until additional remediation activities are conducted.	Section 8.3.5	n/a	No revisions to text are necessary. As demonstrated by the risk-screening assessments presented in the SIR, no removal of contaminated soil is warranted. There are no potential unacceptable risks under the industrial and construction worker scenarios, which are the current and reasonably foreseeable future land uses at this site. No concentrations of COPCs are above the industrial and construction worker risk-based screening levels in the 0.0–1.0 ft bgs and 0.0–10.0 ft bgs depth intervals for these scenarios; exceedances of construction worker SSLs occurred below 10 ft bgs. In addition, a Tier One evaluation based on New Mexico Petroleum Storage Tank Bureau corrective action guidelines indicated that the residual subsurface petroleum hydrocarbon concentrations did not exceed risk-based screening levels for any current or reasonably

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				foreseeable future exposure pathway and poses no threat to groundwater. LANL's conclusion that corrective actions complete with controls is appropriate, with the controls being the continuation of the current land use, which precludes any exposure and risk to receptors. The information presented in the report is sufficient for NMED to make a corrective action complete determination for this site, and no revision to the report is necessary.
20	The exposure evaluation states that actual activity patterns are not represented by those activities assumed by the industrial scenario, and that risks are overestimated. Given that each site was evaluated separately in the risk assessments as separate exposure areas (with a few exceptions where sites were combined), that receptors would likely be exposed, and that many of the sites are adjacent to or close to each other, receptors' exposure areas may overlap more than one site. The activity patterns of human and ecological receptors at the sites evaluated in this report may encompass more than one site and may lead to subsequent exposure of contaminants at more than one site. Discuss activity patterns for each type of receptor and exposure area in the uncertainties section and provide a qualitative evaluation of receptors possible exposure to more than one site. Also discuss whether the presently calculated risks are still overestimated and if exposure to multiple sites would increase risk and hazard estimates.	Section I-4.4.2, pp. I-45–I-51	Section I-4.4.2	Activity at sites is infrequent at best and more likely nonexistent. Workers are not continually present at the storage areas and disposal sites, and they most likely would be present only when material is delivered or picked up. There is probably no activity at outfalls unless there is a need to maintain access, maintain the grounds, or clean up debris, all of which are short-term, infrequent activities. The former wastewater treatment plant structures are not used, except possibly for temporary storage but are not occupied by workers. The most common activity across the area might be site landscaping/groundskeeping (mowing grass, cutting weeds, repairing roads) and walking to and between buildings where operations do occur. None of these activities result in the type of exposure time, frequency, and duration set forth in calculating SSLs, even if the activity brought a receptor in contact with more than one site. Therefore, the calculated risks are overestimated and exposure to multiple sites would not increase risk, hazard, and dose estimates.

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21	The text concludes the elevated levels of PAHs at AOC 03-051(c) are the result of asphalt paving and LANL infrastructure and not the result of site activities. However, TPH was detected in the same samples at AOC 03-051(c) and the data do not preclude the PAHs are related to the TPH at the site. NMED believes that workers interviewed regarding use of oils would not remember all oils used, given this site could date back to the 1960s. Clarify the dates of operations and provide sufficient evidence to exclude PAHs as being site-related. AOC 03-051(c) would be eligible only for corrective action complete with controls. Revise the text accordingly.	Section I-4.4.2, pp. I-45–I-51	Section I-4.4.2	AOC 03-051(c) consists of two former areas of stained asphalt at Technical Area 03 attributed to operational leaks of vacuum pump oil; AOC 03-047(g) is a paved area where drums of acetone, vacuum pump oil, and ethylene glycol were stored. Interviews with current and former workers are the main, if not often the only, sources of site information used in the site descriptions and operational histories presented in reports as well as historic operable unit work plans, historical investigation reports, and investigation work plans. The information provided in these interviews is very reliable and often replaces or clarifies available written documentation found in other sources, (e.g., the SWMU report). As noted in a draft of the RFI work plan for OU 1114, Addendum 1, the oil used in the vacuum pump is nonhazardous mineral oil. This supports the worker's statement in the recent interview.
22	The text states the elevated levels of PAHs at SWMUs 03-014(k,l,m,n) are related to asphalt paving and LANL infrastructure and not the result of site activities. However, other PAHs were detected along with TPH at the same locations and therefore could be the result of site activities. The industrial and residential risks from exposure to soil at SWMUs 03-014(k,l,m,n) are above NMED target levels, and additional corrective action must be conducted. It was noted that text in section I-4.5.9 states that further sampling for TPH will be conducted at SWMUs 03-014(k,l,m,n). Additional sampling must be proposed to calculate a statistically based exposure point concentration (EPC) for PAHs. Revise the text accordingly (see Comment 1).	Section I-4.4.2, pp. I-45–I-51	Section I-4.5.9	The text has been revised. Additional sampling will not be conducted at SWMUs 03-014(k,l,m,n). The extent of contamination is defined and/or further sampling for extent is not warranted. The exposure point concentrations used to evaluate risk at SWMU 03-014(k,l,m,n) are statistically based (i.e., based on 95% upper confidence limits) for the PAHs. See response to Comment 1.

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23	Text in section I-4.5.9 states further sampling will be conducted at SWMUs 03-014(k,l,m,n) to determine the vertical extent of TPH contamination. However, sections 9.0 and 10.2 indicate the nature and extent of contamination at SWMUs 03-014(k,l,m,n) are defined and no further sampling for extent is warranted. The sites are recommended for corrective action complete without controls. Clarify whether additional sampling will be conducted at SWMUs 03-014(k,l,m,n).	Section I-4.5.9, pp. I-60–I-62	Section I-4.5.9	The text has been revised. Additional sampling will not be conducted at SWMUs 03-014(k,l,m,n). The extent of contamination is defined and/or further sampling for extent is not warranted.
24	Upper confidence limits (UCLs) were calculated for many constituents that had less than six detections. UCLs should only be calculated for data sets that meet the minimum requirements, per EPA ProUCL guidance (2010). Revise these tables accordingly and any subsequent risk and hazard calculations that would be affected.	Tables I-2.3-8, I-2.3-14, I-2.3-15, I-2.3-18, I-2.3-19, I-2.3-20, I-2.3-21, I-2.3-22, I-2.3-24, I-2.3-25, I-2.3-26, I-2.3-30, I-2.3-32, I-2.3-33, I-2.3-35, I-2.3-36, I-2.3-38, I-2.3-48, I-2.3-55, I-2.3-56, I-2-3-66, I-2.3-67, I-2.3-69, I-2.3-74, I-2.3-75, I-2.3-78, I-2.3-79, I-2.3-82, and I-2.3-84, pp. I-134–I-224 (sic)	n/a	No revisions to text and tables are necessary. UCLs were calculated only for data sets that met the minimum requirements previously set forth by NMED and have been used for several years in calculating 95% UCLs for risk assessments. NMED's rationale was to be consistent with other statistical computations such as comparisons to background data. LANL's standard operating procedure reflects this direction. EPA's ProUCL 4.1.00 User's Guide notes "Statistics (e.g., UCL95) computed based upon only a few detected values (e.g., < 4 to 6) cannot be considered reliable enough to estimate the EPC terms having potential impact on the human health and the environment." This guidance does not indicate less than six detected observations but rather gives a range of fewer than four to six detections. EPA recommends that the maximum observed value not be used as an estimate of the EPC term representing average exposure. LANL maintains that calculating a UCL from eight or more samples and five detects is more "reliable and representative" than using a maximum detected concentration as long as the UCL does not exceed the maximum and is consistent with

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				previous calculations approved by NMED. It should be noted that the current ProUCL 5.0 User Guide indicates fewer than four detected values are not considered reliable and representative.
25	The vapor-intrusion risk-based concentrations presented in Tables I-4.3-1 through I-4.3-28 are incorrect because the risk-based concentrations were not converted from µg/kg to mg/kg, thereby underestimating risk and hazard calculations. Revise the tables to include the correct risk-based concentrations and risk and hazard calculations and update the cumulative risks and hazards.	Tables I-4.3-1 through I-4.3-28, pp. I-354–I-362	Tables I-4.3-1 through I-4.3-29	The subject tables have been revised to present the vapor-intrusion risk-based concentration in units of mg/kg and the hazard quotients, cancer risks, and hazard indexes have been recalculated.
26	Table note "c" indicates that a surrogate was used for 2-hexanone. A reference concentration is available for 2-hexanone in EPA's Integrated Risk Information System. Update the hazard quotient for 2-hexanone in Tables I-4.3-3, I-4.3-8, and I-4.3-24 to use the original toxicity criteria for 2-hexanone rather than a surrogate. The chemical and physical properties for 2-hexanone should have been used in the modeling. Revise the physical and chemical property tables to reflect those for 2-hexanone.	Tables I-4.3-3, I-4.3-8, and I-4.3-24, pp. I-355, I-357, and I-361	Tables I-4.3-3, I-4.3-6, I-4.3-8, and I-4.3-24, Attachment I-2 UpperSandia_SIR_ Vapor IntrusionModel spreadsheets VLOOKUP page	The physical and chemical properties table (Table I-3.3-2) does not need to be revised. The values in this table are for 2-hexanone. The Johnson and Ettinger spreadsheets have been modified to include the chemical and physical information for 2-hexanone, the tables have been revised to present the vapor-intrusion risk-based concentration generated for 2-hexanone rather than for a surrogate, and the hazard quotients have been recalculated for 2-hexanone.
27	Methylnaphthalene[2-] is a VOC retained as a COPC at SWMU 03-013(i) because of its noncarcinogenic endpoint. The toxicity data in the Johnson and Ettinger model are outdated and since the last update of the model in 1994, the inhalation data for 2-methylnaphthalene has been rescinded. Either use surrogate toxicity data or address the exclusion of 2-methylnaphthalene in the uncertainty section of the risk assessment.	Table I-4.3-4, p. I-355	Tables I-4.3-1, I-4.3-4, I-4.3-6, I-4.3-10, I-4.3-14, I-4.3-18, I-4.3-20, I-4.3-22, and I-4.3-25, Attachment I-2 UpperSandia_SIR_ Vapor IntrusionModel spreadsheets VLOOKUP page	The toxicity value used for 2-methylnaphthalene is the reference concentration for naphthalene. Methylnaphthalene[2-] has been included with this information added to notes in tables, as appropriate.

NMED NOD Comment No.	Summary of NOD Comment	Section(s) in Original Report	Section(s) in Revised Report	Nature of Revision
28	The toxicity equivalent EPC for 1,2,3,4,6,7,8-heptachlorodibenzodioxin (4.59E-8 mg/kg) at location CAMO-09-6010 is incorrect. Update the table and all subsequent risk and hazard calculations for SWMU 03-045(h).	Table I-3.3-1, p. I-228	Tables I-3.3-1, I-4.2-179, I-4.2-182, I-4.2-183, I-5.3-42, I-5.3-43, and I-5.4-43	The toxicity equivalent EPC for 1,2,3,4,6,7,8-heptachlorodibenzodioxin at location CAMO-09-6010 and all subsequent risk and hazard calculations for SWMU 03-045(h) have been revised.
29	Several inorganic ecological COPCs were not included in the minimum ecological screening level comparison for SWMU 03-045(h). Revise Table I-5.3-42 to include these COPCs and any subsequent ecological risk-assessment calculations that may be affected.	Table I-5.3-42, p. I-398	Table I-2.3-49	The inorganic chemicals including those listed in NMED's comment were below BVs at the surface but were detected above BV at 6.0−7.0 ft. Therefore, the inorganic chemicals are not COPCs for the industrial scenario and for ecological risk and are not included in Tables I-4.2-180 (industrial) and I-5.3-42 (ecological). Table I-2.3-49, which presents the EPCs for SWMU 03-045(h) for ecological risk and/or for the industrial scenario, has been revised to eliminate aluminum, barium, chromium, cobalt, copper, nickel, selenium, and vanadium as COPCs.
n/a	n/a	Throughout	Throughout	Minor editorial changes were made throughout the document for the sake of correctness and clarity.

*n/a = Not applicable.