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August 26, 2004

Mr. Charles Faultry (6EN-WT)
USEPA, Region VI
1445 Ross Avenue
Dallas, Texas 75202-2733

RE: Technical Comments on Draft Federal Facility Compliance Agreement (FFCA) Site-Specific Storm Water Monitoring Plan, July 1, 2004

Dear Mr. Faultry:

Enclosed are the technical comments of the New Mexico Environment Department (NMED) on the draft Site-Specific Storm Water Monitoring Plan prepared by Los Alamos National Laboratory (LANL) and dated July 1, 2004. Also enclosed are the NMED comments on the April 1, 2004 LANL draft Storm Water Monitoring Plan. These latter comments were transmitted by NMED to Mr. David Gregory, USDOE and Mr. G. Pete Nanos, LANL by letter dated June 4, 2004.

NMED anticipates that both sets of comments will be addressed to its satisfaction and that EPA will propose a final draft FFCA for review, in the near future.

If you have any questions on these comments, please contact Marcy Leavitt (505-827-2795) or James Bearzi (505-428-2512) of my staff.

Sincerely,

Charles Lundstrom
Director
Water and Waste Management Division

Enclosure



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Mr. Charles Faultry
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cc: with enclosure

David Gregory, Federal Project Director, MS A316
G. Pete Nanos, Director, LANL, MS A100
J. Bearzi, NMED HWB
M. Leavitt, NMED SWQB
C. Voorhees, NMED DOE OB
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B. Ramsey, LANL RRES-DO, MS J591
Taylor Sharpe, USEPA (6EN-WT)
Everett Spencer, USEPA (6EN-WT)

General comments:

All comments provided to Los Alamos National Laboratory (LANL) in New Mexico Environment Department (NMED's) June 4, 2004, letter to David Gregory and G. Pete Nanos "Technical Comments on Draft Storm Water Monitoring Plan, April 2004" (attached) apply to this Draft Site Specific Storm Water Monitoring Plan.

NMED was provided only Appendix 6 of the Solid Waste Management Unit (SWMU) Storm Water Pollution Prevention Plan (SWMU SWPPP), which addresses the assessment of constituents of concern (COCs) for each site and the determination of each site's sampling location. Appendix 6 does not discuss the purpose of the monitoring program, sampling methodology, sampling frequency, decision rules for assessing water quality data, or the corrective action decision process. NMED assumes these topics are covered in the main body of the document and reflect previously negotiated agreements and incorporate the technical comments previously submitted by NMED on the Draft Storm Water Monitoring Plan, April 2004.

The monitoring plan must include provisions to monitor storm water releases from any SWMU or AOC, which is undergoing any soil disturbance related to any remediation action (e.g., excavation, contaminated soil stockpiling, etc.). This monitoring is in addition to any other scheduled site monitoring pursuant to the FFCA. Prior to any remediation activities, all sites undergoing such disturbance shall have a site-specific SWPPP that outlines the storm water monitoring to be conducted immediately down gradient from the site.

We suggest co-locating rain gauges with sampling locations. This would provide invaluable information for the surface water assessment team (SWAT) in assessing the water quality data obtained at each AOC.

Specific Comments:

Introduction, page 1, paragraph 3

Comment # 1: In the first sentence, replace the phrase "...within the meaning of the Resource RCRA program..." with "...within the meaning of the NPDES/CWA and RCRA programs..." (Emphasis added).

Introduction; page 1; second paragraph

Comment # 2: The plan seems to indicate that sites having erosion scores greater than 40 have essentially identical outfalls. There are additional criteria used to evaluate sites besides the total site erosion score to determine if any group of outfalls are essentially identical. The criteria for essentially identical outfalls should, at a minimum, include the presence of similar constituents of concern and equivalent sub-scores (e.g., run-on potential, evidence of erosion) at each site. Sites with differing sub-scores could have very different contaminant transport characteristics and could not be considered essentially identical.

For example, the NMED DOE Oversight Bureau has found that run-on potential is a dominating factor in determining if a SWMU or area of concern (AOC) will discharge storm water in

response to rainfall. If monitoring data from a site with low run-on potential is used to represent a site with similar constituents but high run-on potential, contaminant transport could be grossly underestimated at the high run-on potential site.

The SWAT has developed a set of criteria for determining essentially identical outfalls. This set of criteria must be included in the draft plan.

Introduction, page 1, third paragraph

Comment # 3: In the first sentence, remove the phrase "...into surface water sufficient to cause an applicable water quality standard to be exceeded..." NMED believes that LANL has agreed that water screening action levels (wSALs) will be used to evaluate storm water quality and best management practices (BMP) performance at the Sites. These will be developed using applicable water quality standards and could possibly utilize acute aquatic life criteria or multi-sector general permit (MSGP) benchmarks if no applicable water quality standard exists for a constituent. All water quality data will be assessed against these wSALs, not the standards as the SWMU SWPP states.

Introduction; page 1; third paragraph

Comment # 4: The applicable standards include the human health standards for persistent toxic pollutants in addition to the livestock watering and wildlife habitat standards.

Introduction; page 1; third paragraph

Comment # 5: Besides voluntarily sharing radionuclide water quality data from these Sites, DOE/LANL must commit to the assessment of that data against radiological wSALs. Radiological wSAL exceedences must trigger BMP performance evaluation with upgrades if necessary.

Sample Collection; page 1; first sentence

Comment # 6: Discussions with WWRES WQH staff indicate that one of the 62 sites was eliminated from the monitoring requirements due to the site being granted a No Further Action status. NMED believes that PRS 73-002 (Incinerator Ash Pile) in Pueblo Canyon should be substituted for this eliminated site. Please update Table 1 and Table 2-1, with this site and provide a SWMU and sampling location map for PRS 73-002.

Table 2; page 6; footnote 4

Comment # 7: "Laboratory will filter a portion of the TAL Metals sample for total recoverable analysis." The footnote should read, "Laboratory will filter a portion of the TAL Metals sample for dissolved metals analysis."

Table 3; page 8; footnote 4

Comment # 8: See comment # 7.

Table 4; page 10; footnote 4

Comment # 9: See comment # 7.

Table 6; page 13; PCB Analytical Method

Comment # 10: The EQL listed for analytical method EPA: 608 for PCBs is seven times the wildlife habitat standard and nearly 60 times greater than the human health standard. This method is far too imprecise of a method to assess against any wSAL for PCBs. The EPA method 1668A (HRC/HRMS) has been demonstrated by both LANL and NMED to have the resolution required to assess PCBs at the level of applicable standards and wSALS, and should be used for total PCB analysis.

Table 7; page 15; Detection Limit

Comment # 11: The appropriate terminology for this column should be Minimum Detectable Activity (MDA) rather than detection limit. The average MDA for 70 alpha spectroscopy analyses for uranium (DOE OB 2001 & 2002) in storm water for U-234, U-235/236, and U-238 are 0.39, 0.35, 0.29 pCi/L respectively compared to those listed (1.0, 1.0, and 0.5).

Attachment 2; page 2-1, COPC Evaluation, second bullet

Comment # 12: QA/QC problems with data are not considered in this evaluation; therefore, LANL may be biasing sample data sets (samples that missed hold times are not always rejected).

Attachment 2; page 2-1, COPC Evaluation, fourth bullet

Comment # 13: The second sentence states, "If less than five surface samples were collected at a PRS for an analytical suite, there is insufficient data to identify constituents of potential concern (COPCs)." Add to this sentence "unless a contaminant is expected" to account for process knowledge of COPCs released at SWMUs. If process knowledge indicates that a chemical was used at a site, then that constituent must be analyzed for and may not be removed from further consideration.

The next sentence "If five or more surface samples were collected for a given analytical suite and if the frequency of detection is greater than 25% the analyte is identified as a COPC at the site". The Environmental Restoration project uses a 5% cut off for 20 or more samples. EPA's Risk Assessment Guidance for Superfund (RAGS) - Part D also suggests that a 5% cut-off be used. For simplicity, the detection of a constituent in one sample in sample sets up to 20 would require inclusion as a COPC. For sample sets > 20, use 5 % of detects to identify COPCs for analysis.

Attachment 2; page 2-1, COPC Evaluation, fifth bullet

Comment # 14: See comment # 13 as it applies to polynuclear aromatic hydrocarbons (PAHs) frequency of detections. PAHs need to be included as COPCs if they meet the frequency of detections regardless whether there is an applicable water quality standard. If no standard or benchmark exists, then the procedure outlined in the wSAL development process shall be used to develop a wSAL for the PAH COPC.

Attachment 2; page 2-1, COPC Evaluation, sixth bullet

Comment # 15: See comment # 14 as it also applies to detected semi volatile and volatile organic compounds also.

Attachment 2; page 2-1, COPC Evaluation, seventh bullet

Comment # 16: See comment # 14 as it also applies to detected pesticide compounds also.

Attachment 2; page 2-1, Sampling Suite Assignment

Comment # 17: Please refer to the NMED order as the draft Consent Order.

Attachment 2; page 2-2, Sampling Suite Assignment, Case 3

Comment # 18: The draft Consent Order covers all AOCs regardless if UC/DOE determines them to be non-HSWA Sites. COPCs must be determined for all Potential Release Sites in a similar manner regardless of HSWA/non-HSWA determination.

FFCA Monitoring Location Maps:

Comment # 19: Monitoring locations in some cases appear too far removed from the SWMU/AOC boundary to obtain representative storm water samples (i.e., there may be increased dilution at the sampling stations from storm water run-off not associated with the SWMU). All sampling locations must be located as close as possible to the downstream edge of the SWMU/AOC boundary. NMED understands that some SWMU/AOC boundaries extend to (and in some cases over) the edge of steep slopes and, in these cases, recognizes that the proposed locations may be more appropriate for safety reasons. However, NMED also believes that, in many cases, these boundaries are far enough removed from slope edges and other hazardous features that appropriate sampling locations can (and must) be established immediately adjacent to the SWMU/AOC boundary. Where there is no distinct discharge location adjacent to the boundary, LANL must make every effort to establish an appropriate sampling point in these areas. If there are certain limitations (other than safety) to establishing a sampling point adjacent to the SWMU/AOC boundary (e.g., a surrounding chain link fence impedes access), LANL must install a locked security gate or take equivalent measures necessary to secure access to the sampling site.

FFCA Monitoring Location Map at Site 03-014(c2)

Comment # 20: The sample stations shown appear situated up gradient from a portion of the AOC. Placing all monitoring stations down gradient from AOCs would allow more representative storm water samples to be obtained.

In anticipation of drafting of an individual NPDES permit for SWMUs/AOCs, for the 2005 – 2006 field season, the SWAT prior to the rainy season (June – October) should evaluate all sampling locations.

NMED Comments on LANL Draft Storm Water Monitoring Plan

General Comments:

The problem statement discusses the Federal Facilities Compliance Agreement (FFCA) as if it is already in effect. At this time no such agreement exists. Any reference to an FFCA should be denoted as "draft." NMED has consistently stated its view that such an agreement would be unenforceable as EPA is prohibited from enforcing against a sister agency.

The Plan should state that the New Mexico Environment Department (NMED) would be the primary administrative authority (AA) for any action related to remediation of a solid waste management unit (SWMU) or contaminated package of sediment. NMED will determine the appropriate corrective action in response to repeated water screening action level (wSAL) exceedances.

The Plan discusses corrective actions to be taken at individual sites and implementation of associated best management practices (BMPs); however, it does not mention corrective actions to address contamination found in the canyon systems. The source of much of the contamination observed at the gage stations may be from erosion of sediment packages already located in the canyon bottoms and not from poorly performing stabilization measures at upstream SWMUs. Corrective actions to be considered should not be limited to SWMUs but should also include potential remediation or stabilization of contaminated sediment packages located in the canyons.

The Plan must address continued monitoring of contaminant migration from sites and canyon areas where corrective action(s) have been implemented. The Plan must identify whether the same stabilization processes will be used to address contaminant migration or if corrective action(s) will include remediation of the site and/or canyon area to reduce contaminant migration. If remediation is required at a site and/or canyon source area, the NMED must approve the work plan prior to implementation of any corrective measures.

The Plan must state that the AAs will determine whether contamination results from LANL activities, and shall base such a determination on information and assessments furnished by the Environmental Protection Agency (EPA), University of California (UC), Department of Energy (DOE), NMED, or other sources, not just from UC or DOE.

NMED believes that the UC and DOE are out of compliance with their Multi-Sector General Storm Water Permit (MSGP). EPA has stated that it will issue a FFCA and Schedule Order to bring them into compliance. Notwithstanding NMED's fundamental concerns regarding the enforceability of a FFCA for LANL permittees, the UC and DOE must demonstrate to the AA(s) that they are in compliance with the applicable permit(s) and order(s). NMED believes UC and DOE need to report more frequently (quarterly) to allow more timely review of compliance.

DOE must commit to taking appropriate action when concentrations of radionuclides in storm water runoff exceed the wSALs for radionuclides. An assessment of the radiological and non-radiological results in comparison to the wSALs and any resulting actions taken should also be provided in accordance with FFCA and EPA Schedule Order reporting schedules. A discussion

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is needed on the process for determining wSALs for radionuclides. NMED has provided rationales for appropriate wSALs for radionuclides and has included them in Table 1 in the specific comments.

Specific Comments:

Section 1. Problem Statement; Page 4, First sentence

Comment: While the MSGP requires quarterly grab samples, the draft FFCA and EPA Schedule Order requires four grab samples per year to accommodate the seasonality of the monsoon storm season in New Mexico. One of these four samples in 2004 may be snowmelt. To clarify this intent, insert the following after the first sentence: "This monitoring plan was developed to conform to specific FFCA and EPA Schedule Order requirements that four samples be collected each year when precipitation causes sufficient flow for sampling to occur using automatic sampling devices. One of the four samples collected during 2004 may be collected during snowmelt runoff."

Section 1. Problem Statement; Page 4, Second sentence

Comment: Replace sentence with: "The purpose of this monitoring is to determine if the concentration of a constituent is greater than an established water screening action level (wSAL). The wSAL may be based upon an applicable State water quality criterion (Livestock Watering, Wildlife Habitat, or Human Health for toxics), an acute aquatic life criterion, or a MSGP Benchmark."

Section 1. Problem Statement; Page 4, Third Sentence

Comment: Replace sentence with: "At this time, the applicable criteria are the livestock watering, wildlife habitat, and human health criteria for toxics as adopted by the New Mexico Water Quality Control Commission (WQCC)." This does not include the Acute Aquatic Life (Fisheries) or the appropriate MSGP Sector Benchmarks as stated.

Section 1. Problem Statement continued; Page 5

Comment: A wSAL is not a standard. A standard is a combination of a use and the criteria designed to be protective of that use. The terms standards, criteria, wSALs, and benchmarks should not be used interchangeably because each term has a specific meaning.

The discussion of the "step-wise process" is not an accurate description of the process negotiated by NMED, LANL and DOE the week of March 15, 2004. NMED believes the distinction between chronic and acute wSALs is not necessary. The wSALs are water quality screening tools only. When the concentration reaches the wSAL, further action is required and the criterion used to develop the wSAL is not relevant. The exceedance requires assessment of BMP performance.

Replace "They will be used...through...(d)...Administrative Authority(s)" with the following:

"They will be used to assess best management practices (BMPs) performance.

These wSALs shall be determined in a step-wise process.

1. The applicable State of New Mexico Water Quality Standards for Interstate and Intrastate Surface Waters (20.6.4 NMAC) will be used as the first criteria for setting wSALs. The criterion for Wildlife Habitat, Human Health for Persistent Toxics, or Livestock Watering (whichever is lowest), measured as total concentration in water, will be used as the initial wSAL.
2. The acute aquatic life (fisheries) criterion for any compound found in the water quality standards, measured as total recoverable concentration in water, will be listed as the next choice for a wSAL.
3. NPDES Storm Water Multi-Sector General Permit benchmark values (MSGP, 65 FR 64767-64768) will be used as the next source of available wSALs.
4. If any constituents of concern (COCs) are not included in the above, or the wSALs are considered inappropriate, wSALs may be developed using procedures for developing acute criteria in the Standards for Interstate and Intrastate Surface Waters (20.6.4.12 F NMAC) and the National Recommended Water Quality Criteria 2002 (EPA-822-R-02-047), 40 CFR 131. Where information is unavailable to develop acute criteria, procedures used by EPA to develop NPDES effluent limitations and storm water benchmarks should be used.
5. Where no appropriate criterion is available, an acceptable wSAL can be developed in consultation with the AA(s).

NMED provides one deviation from the negotiated wSAL development process. NMED assessment protocol currently uses a multiplication factor of 1.5 for all criteria that are listed as chronic in 20.6.4 NMAC. This protocol may be modified over time as better assessment methods are developed to specifically address storm water. The NMED protocol compares all water quality to this value ($1.5 \times$ chronic criteria) to determine if an exceedance of a criterion is high enough to warrant further action. NMED believes it is appropriate to include the 1.5 multiplier in the wSAL development process for those criteria derived from long-term exposure parameters or those that are listed as chronic in 20.6.4 NMAC. We have provided a column in Table 1 to incorporate this process into the wSAL development process.

Table 1 lists wSALs derived using steps 1-3 of the above procedure. To account for the source of the criterion, the NMED radiological effluent concentrations, wildlife habitat, and human health criteria were multiplied by 1.5. The wSAL chosen was the lowest of the applicable chronic water quality criterion ($\times 1.5$), the livestock watering criterion, the acute aquatic life criterion, or the MSGP Benchmark as total concentration in water. Using the steps 1 through 3, wSALs were developed for thirty-nine constituents. The calculated values for acute aquatic life criterion should be checked for accuracy. The median hardness value from historic storm water data should be used as a background value. Additional benchmarks (for other constituents not included on Table 1) may be found in the MSGP (MSGP, 65 FR 64767-64768) and the New Mexico Radiation Protection Regulations.

Table 1. Applicable Water Quality Standards Criteria and corresponding wSALs

Constituent	State of New Mexico Radiation Protection Regulations (Effluent Concentrations)	DOE DCG for water ingestion in uncontrolled areas	Wildlife Habitat Criterion	Livestock Watering Criterion	Human Health Criterion	Lowest Chronic Criterion multiplied by 1.5	Aquatic Life Acute Criterion (100 mg/L hardness)	MSGP Benchmark	wSAL
	(pCi/L)	(pCi/L)	µg/L	µg/L	µg/L	µg/L or pCi/L	µg/L	µg/L	µg/L or pCi/L
Am-241	20	30				30			30
Cs-137	1,000	3,000				1500			1,500
Pu-238	20	30				30			30
Pu-239	20	30				30			30
Pu-240	20	30				30			30
Sr-90	50	1000				75			75
U-234	300	500				450			450
U-235	300	600				450			450
U-238	300	600				450			450
H-3 (Tritium)	1,000,000	2,000,000		20,000					20,000
Ra-226 & Ra-228	120	500		30					30
Adjusted Gross Alpha		15		15					15
Al							750	750	750
As					24.2	36.3	340	168.54	36.3
B				5,000					5,000
Cd							4.3	15.9	4.3
Cn			5.2		220,000	8	22	63.6	8
Cr				1,000			570		570
Cu				500			13	63.6	13
Co				1,000					1,000

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Constituent	State of New Mexico Radiation Protection Regulations (Effluent Concentrations)	DOE DCG for water ingestion in uncontrolled areas	Wildlife Habitat Criterion	Livestock Watering Criterion	Human Health Criterion	Lowest Chronic Criterion multiplied by 1.5	Aquatic Life Acute Criterion (100 mg/L hardness)	MSGP Benchmark	wSAL
	(pCi/L)	(pCi/L)	µg/L	µg/L	µg/L	µg/L or pCi/L	µg/L	µg/L	µg/L or pCi/L
Hg			0.77			1.16	2.4	2.4	1.16
Ni					4,600	6900	470	1,417	470
Pb				100			65	81.6	65
Ag							3.45	31.8	3.45
Se			5	50	11,000	7.5	20	238.5	7.5
Th					6.3	9.5			9.5
V				100					100
Zn					69,000	103500	120	117	117
Sb					4,300	6450		636	636
PCBs			0.014		0.0017	0.0026		0.20 - 100	0.0026
4,4'-DDT and derivatives			0.001		0.059	0.0015	1.1		0.0015
Chlorine			11			16.5	19		16.5
Aldrin,					110,000	165000	3		3
Benzo(a)pyrene,					0.49	0.74			0.74
Chlordane					0.022	0.033	2.4		0.033
Dieldrin					0.0014	0.0021	0.24		0.0021
2,3,7,8-TCDD Dioxin					1.40E-07	0.00000021			0.00000021
Hexachlorobenzene					0.0077	0.0116			0.0116
Tetrachloroethylene					88.5	132.8			132.8

Note: The rest of the existing table numbers in the document should be changed accordingly.

Section 1. Problem Statement continued; Page 5, Last paragraph

Comment: A discussion is needed on the process for determining wSALs for radionuclides. The radionuclide wSALs should be either the DOE derived concentration guidelines (DCGs) from DOE order 5400.5 or the annual limits for effluent concentrations in water found in the State of New Mexico Radiation Protection Regulations 20.3.4.461 NMAC (Table II, Column 2). The NMED preferred option is the use of the state regulatory effluent limits as they are based on a 50-mrem dose whereas the DOE DCGs are based on a 100-mrem dose. State effluent limits are therefore generally more protective. The requirement for DOE to take appropriate action when concentrations of radionuclides in storm water runoff exceed the wSALs for radionuclides must be discussed. An assessment of the radiological and non-radiological results against the wSALs and any resulting actions taken should also be provided in accordance with draft reporting schedules. DOE should insert: "Radionuclide wSALs shall be developed from the limits for effluent concentrations in water found in the State of New Mexico Radiation Protection Regulations 20.3.4.461 NMAC (Table II, Column 2)." Table 1 includes selected wSALs for radionuclides.

Section 3. Identify inputs to the Decisions; page 6, last sentence

Comment: Insert at the end of the paragraph: "... although they will be comparable to previously collected NMED DOE Oversight Bureau results."

Section 5. Decision Rules; Page 6

Comment: This section discusses actions to be taken at individual sites and associated BMPs. It does not mention corrective actions for contamination found in the canyon system. Much of the contamination observed at the gage stations may be from eroding sediment packages already located in the canyon bottom, and not represent breakthrough from poorly performing BMPs at upstream SWMUs. Actions to be considered should not be limited to the SWMUs, but should also include potential remediation or stabilization of contaminated sediment packages located in the canyons. Insert the following sentence: "If it is determined that erosion of contaminated canyon sediment packages are contributing to repeated wSAL exceedences, a corrective action plan will be developed within 30 days of detection of the second exceedance to stabilize or remove the contaminated sediment packages."

Section 5. Decision Rules; page 6, third sentence

Comment: Although conducting a "focused investigation of additional sampling, including background sampling where appropriate" may be appropriate, LANL must consider alternative BMPs at all sites that exceed wSALs. For example, where runoff controls are deemed to be performing as expected but wSALs are exceeded, enhanced run-on controls (e.g., re-grading to divert run-on from entering a SWMU) may be necessary. Alternatively, a rock check dam may need to be replaced with a silt fence that is more appropriate for reducing suspended sediment concentrations and, therefore, contaminant transport. Insert the following after the third sentence: "In the interim, enhanced run-on controls (e.g., re-grading to divert surface flow elsewhere, or installment of detention basins) will be installed if determined to be appropriate."

Section 5. Decision Rules; page 6, second paragraph

Comment: Since the uses of acute and chronic wSALs are not necessary, replace the decision rules section from the top of Page 7 through the bottom of page 8 with the following:

“Decision Rules for assessing data against wSALs

1. If only one unfiltered grab sample is collected in a season and the analytical result is greater than the wSAL, and it is determined that the cause represents a Laboratory impact, then the Laboratory will identify the source and implement corrective actions.
2. If more than one sample is collected in a season, the analytical result of two unfiltered grab samples is greater than the wSAL, and it is determined that the cause represents a Laboratory impact, then the Laboratory will identify the source and implement corrective actions.
3. If corrective actions are warranted according to Decision Rule 1 or 2, LANL will continue to monitor the station until three consecutive results are less than the wSAL. When this occurs, LANL may recommend that the sampling frequency be reduced and submit a proposal to modify the Plan, to EPA and NMED for review and approval. Revised monitoring plans must be submitted to EPA and NMED by March 31st following a monitoring period.
4. If four samples have been collected at a station not covered by the MSGP, and no analytical result is greater than the wSAL, then LANL may recommend that the sampling frequency be reduced, propose a modification of the Plan, and will submit it to EPA and NMED for review and approval. Monitoring plans must be submitted to EPA and NMED by March 31st following a monitoring period.”

Section 5, Decision Rules: page 6

Comment: The Plan indicates that baseline or upstream sampling will be conducted in all major watersheds. In addition, baseline or upstream water quality data (e.g., WQH data or NMED DOE Oversight Bureau data) is available for many canyon systems. If LANL determines that additional background data is needed, the Plan must include a description of proposed background sampling. Insert the following: “If UC and DOE determines that additional background sampling is necessary, UC and DOE will submit a background sampling and analysis plan to the AAs for comment prior to conducting additional background sampling.”

Section 5, Decision Rule for Acute wSALs: Page 7, Bullet 1

Comment: The AA determines whether the contamination results from LANL facility activities, not UC or DOE. Insert the following sentence: “The AA(s) will determine whether the contamination results from LANL facility activities based on information furnished to them by EPA, UC, DOE, NMED, or other sources.”

Section 5, Decision Rule for Acute wSALs: Page 7, Bullet 1

Comment: The Plan must include the requirement for notification within 24 hours and written notification within five working days of detection of exceedences of wSALs to the AAs. Insert the following sentence “ Based on the results of the assessment of the cause of wSAL exceedences, the need for and scope of corrective actions will be evaluated. UC and DOE will provide proposed corrective actions to the AAs for approval and oversight within 30 days of

discovery. Once the corrective action is implemented, the UC and DOE will submit a report summarizing the corrective actions taken to the AAs for review.”

Section 5, Decision Rule for Acute wSALs: Page 7, Bullet 2

Comment: The Plan must address continued contaminant migration from sites and canyon areas where corrective action(s) have been implemented. The Plan must identify if the same process will be followed or if the necessary corrective action(s) will be escalated to potential remediation of the site and/or canyon area. If remediation is required at a site and/or canyon area, the NMED HWB must approve the work plan describing the remediation. Insert the following sentence. “If remediation is determined to be necessary at a SWMU or canyon area, UC and DOE will submit a work plan describing the proposed remediation to the HWB for approval within 60 days or as otherwise required by HWB.”

Section 5, Decision Rule for Flow: page 8

Comment: Replace with: “If flow is observed at a station during one year and no sample is collected, the sample trip settings and/or the sample suction line height above the streambed shall be reevaluated and adjusted to allow for sample collection whenever the stream flows. If no flow is observed at a station for two calendar years, and the lack of documented flow is not due to a mechanical error or lack of local precipitation, then LANL can recommend that the sampling frequency be reduced. LANL may propose to modify the Plan, and submit the modified plan to EPA and NMED for review and approval. Revised monitoring plans must be submitted to EPA and NMED by March 31st following a monitoring period.”

Figure 1 Decision Logic Flow Chart; page 9

Comment: This chart needs to be modified based on the revised decision rule logic described above to remove the distinction between chronic and acute wSALs.

Section 6. Limits on Uncertainty; page 10

Comment: Replace “the calculated concentration is” with “two or more sample concentrations are” in both bullets.

Table 1 Stations and Suites to be sampled; page 11 - 13

Comment:

1. E110, Los Alamos above Rio Grande, must be included in the monitoring table along with a suite for radiological, metals, PCBs and Dioxin/Furan. This location is needed to characterize Los Alamos Canyon water before it enters the Rio Grande. Sampling this station also would measure the effects on water quality from discharges from Pueblo and Bayo Canyons to Los Alamos Canyon, which flows onto San Ildefonso Pueblo tribal land. Data from this location would also provide pertinent information for the determination of the effects of Los Alamos Canyon water quality on the Rio Grande.
2. The station located in South Fork Acid Canyon (no designation) needs to include the Radiological suite. It appears that the suite “X’s” have shifted to the right in the chart.
3. The Stations at TA-33 (E338 & E340) need the suite of PCBs due to the presence of four upstream SWMUs with PCB concentrations greater than 1 ppm.

4. The Station E056, Acid above Pueblo, is located too close to the confluence of Acid and Pueblo Canyons and is therefore influenced by flow from Pueblo Canyon. In its present location, flow readings may be inaccurate and samples collected there may not be representative of flow in Acid canyon and may actually be Pueblo Canyon storm flow. This gage station should be moved 50 to 100 feet further upstream in Acid Canyon to minimize Pueblo Canyon's influence.
5. Due to fires that occurred and MDAs B, C, G, and AA, sampling suites for gage stations down gradient of these sites must include dioxins and furans.

Conventional Industrial Sites; page 13

Comment: "In some instances, SWMUs are co-located within Conventional Industrial Site drainage areas." When this occurs, SWMU specific contaminants, not Sector K Benchmarks, are added to the analytical suite for monitoring, as stated.

Table 2 Priorities and Volumes; page 15

Comment: Footnote 3 outlines a process for sub sampling for filtered or non-filtered metal analyses. The method outlined may not produce representative samples. A sample splitter must be used to obtain a representative sample split.

Retrieving Samples from ISCOs; page 15

Comment: In those cases where insufficient water is collected to satisfy all the analytical requirements, the extra bottles (collected for insurance against analytical error, breakage etc.) should be used rather than not analyzing for certain parameters. For those events where insufficient water is collected, submit the absolute minimum needed for analyses to the lab for each analysis so any additional water can be used for the other analytes.

Retrieving Samples from ISCO Samplers; page 16, second paragraph

Comment: The method outlined may not produce representative samples. A sample splitter must be used to obtain a representative sample split.

Flow reporting; page 24

Comment: In 2002 the monitoring gage station clocks were not re-set when daylight savings time went into effect. This causes problems for data users when trying to correlate sample collection times and flows. All gages and samplers should be set for daylight savings time as appropriate.

Flow reporting; Table 8 Example of format for reporting flow, page 24

Comment: In addition to the reporting format in Table 8, the 5-minute discharge readings (in cubic feet per second) for all locations and flow events where samples were collected should be reported. This provides the data users with needed information for data assessment, for mass transport calculations, and contaminant transport trend assessment. Collection of instantaneous flow measurements for each sample time is extremely important data and must be provided in the flow reporting section.

Appendix A, Analytes, Analytical methods, and Detection Limits; page A-2

Comment: 1) The correct method for Dioxin/Furan is EPA 1613 B. 2). The detection limit for EPA Method 608, listed for PCB analysis, is too high to detect PCBs at the applicable PCB criteria and wSAL. Method 1668A should be used to determine attainment of the wSAL for PCBs.

Field Quality Control Samples; Page 20

The frequency of collection of quality control samples under each subsection (e.g., performance evaluation blanks, field blanks, field duplicates, etc.) must be specified. The minimum frequency/rate of quality control sample collection should be no less than 10%.

Quarterly Reporting; Page 21

Quarterly status reports must also be submitted to NMED.

Annual Reporting for Multi-Sector General Permit; Page 22

Discharge monitoring reports must be submitted to the AAs on a quarterly basis. NMED believes UC and DOE must report more frequently (quarterly) to allow the AAs to conduct more timely reviews of compliance submittals.

Annual Reporting for the Watershed Monitoring for FFCA; Page 22

Discharge monitoring reports must be submitted to the AAs on a quarterly basis. Any exceedance of the appropriate wSALs must be reported verbally to the AAs within 24 hours of discovery and in writing within five days of discovery. Corrective action(s) may be proposed by LANL; however, proposed corrective actions are subject to approval by the AAs.