

**NMED Response to Public Comment
Order Modification Request for Changes to LANL's Groundwater Notification Requirements
May 19, 2008**

| CATEGORY | COMMENT AND PAGE NUMBER | COMMENT | NMED REPOSENSE |
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| Groundwater | Comment 1, Page 1 | Had LANL reported the Chromium in January 2004 to NMED as required, at the time the Consent Order was being negotiated, CCNS believes that the Consent Order would have been more protective of groundwater. | The March 1, 2005 Order on Consent (Order) groundwater cleanup requirements in Section VIII were developed for the purpose of protecting groundwater and human health and the environment. For purposes of establishing groundwater cleanup levels, the Order utilizes an extremely protective approach by selecting the lower of two values, Water Quality Control Commission (WQCCs) standards or maximum contaminant levels (MCLs), when both have been established for an individual contaminant. In the event that neither a WQCC standard nor a MCL has been established for a contaminant, NMED will use the most recent version of the EPA Region VI Human Health Medium-Specific Screening Level (HHMSSL) for tap water as a cleanup level. |
| Fines | Comment 2, Page 1 | The fines and penalties were reduced from well over \$900,000 to \$251,870. | The fines and penalties are not a part of the proposed modification of the Order. |
| Groundwater | Comment 3, Page 1 | Including funding for the "RACER" electronic database project as part of the settlement was a mistake. There are many questions about the reliability of the LANL groundwater data and including that data in a public database to calculate risk may allow someone who is at risk to calculate that they are not at risk from LANL radioactive, hazardous and toxic contaminants. In order to correct that error, we strongly urge NMED to require that the RACER electronic database include the disclaimer that the LANL data may be incorrect, questionable and subject | The United States Department of Energy (DOE) and the Los Alamos National Security, LLC (LANS) (collectively, the Respondents) are required to comply with the cleanup requirements included in Section VIII of the Order. RACER risk calculations do not apply to environmental cleanup conducted under the Order. RACER, including the funding of it, is not a part of this proposed Order modification. |

NMED Response to Public Comment
 Order Modification Request for Changes to LANL's Groundwater Notification Requirements
 May 19, 2008
 Page 2

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| | | to error. | |
| Groundwater and Drinking Water | Comment 4, Page 2 | <p>Almost four years after LANL first discovered the elevated chromium in the regional aquifer, we still do not know the nature and extent and direction of the plume. LANL's computer modeling demonstrates that once a contaminant source reaches the water table below Mortandad Canyon, that the direction of the plume is to the Buckman Wellfield, where the City of Santa Fe pumps over 40% of its drinking water. Figure 4-33, <i>Hydrogeologic Synthesis Report, LA-14263 MS</i>.</p> <p>Given the fact that plutonium-238 was reported in the Buckman Well No. 1 in the City of Santa Fe Water Division 2006 Water Quality Report, as required by the Environmental Protection Agency, our constituency is questioning the safety of their drinking water. More needs to be done to protect our precious water resources.</p> | Investigation of the chromium contamination was initiated under the Interim Measure (IM) and is ongoing under the investigation of Sandia Canyon. Like all water systems, the City of Santa Fe's must comply with the Safe Drinking Water Act, which is assured through sampling for chemical and radioactive contaminants. The proposed Order modification concerns reporting protocols, not ongoing investigations and sampling requirements. |
| Groundwater and Wells | Comment 5, Page 2 | The National Academy of Sciences (NAS) stated that "many if not all of the wells drilled into the regional aquifer under the Hydrogeologic Work Plan appear to be compromised in their ability to produce water | NMED agrees with the Commenter's' concerns regarding the ability of some regional wells to produce representative water samples. However, drilling methods and the representativeness of samples are not a part of this proposed Order modification. |

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NMED Response to Public Comment
 Order Modification Request for Changes to LANL's Groundwater Notification Requirements
 May 19, 2008
 Page 3

| | | | |
|--------------|-------------------|--|--|
| | | <p>samples that are representative of ambient groundwater for the purpose of monitoring.” <i>Plans and practices for Groundwater Protection at the LANL, Final</i>, p. 49.</p> <p>Granted that the regional wells, R-35 (a) and (b), were drilled with only air rotary casing advance in the regional aquifer, CCNS is adamant that all future wells drilled into the perched zones above the regional aquifer and the regional aquifer must be drilled using air rotary, casing advance drilling method with only air and limited use of water as drilling fluids.</p> <p>Further, at the June 8, 2007 release of the NAS report, Committee Chair, Larry Lake basically stated that the only cleanup decisions that can be made, based on the current understanding of groundwater beneath LANL, is excavation of the wastes.</p> | <p>Comment noted. No response necessary.</p> <p>NMED does not agree that the NAS Committee Chair advocates excavation of all wastes at LANL.</p> |
| Notification | Comment 6, Page 2 | The notification requirements should consistently apply to all contaminated media at LANL which is regulated by the Consent Order and Permit, be it water, soils or sediments. If the notification requirements for all contaminated media cannot be | The proposed Order modification addresses notification requirements for repeated, periodic monitoring for groundwater. Such reporting under this modification is not appropriate for soil, sediment, and pore-gas because the sampling is not repeated at the same location on a periodic basis. Reporting requirements for media other than groundwater, such as that sampled during site investigation activities, are covered under the approved Work Plans and the reporting |

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NMED Response to Public Comment
 Order Modification Request for Changes to LANL's Groundwater Notification Requirements
 May 19, 2008
 Page 4

| | | | |
|---------------------------------------|------------------------|--|---|
| | | included in the [Consent Order] modification, then it must be incorporated into the draft LANL HWA/RCRA permit that is currently out for public comment. | requirements outlined in the Order, Section XI. Surface water monitoring is currently covered under the Federal Facilities Compliance Act (FFCA). |
| Notification and Public Participation | Comment 7, Page(s) 2-3 | At the August 27, 2007 public information meeting, participants discussed the need to duplicate the public notification requirements that are found in the HWA permit for the Waste Isolation Pilot Plant (WIPP), another DOE site in New Mexico, for the Permits and Consent Orders for LANL and Sandia National Laboratories. Through the notification process, the public is kept informed about developments in the permitting process, and in the case the Consent Order process, the public is kept informed about the correspondence between the Regulator and the Permittees. EPA also provides an electronic public notification process regarding WIPP submittals. The public notification requirements mandate that the Permittees provide an electronic public notification system for the release of documents that are required by the Permit (and would include the Consent Order for LANL and SNL) to those who sign up. The HWA | <p>The proposed Order modification addresses the notification requirements for groundwater monitoring only.</p> <p>Public notification of documents under LANL's permit or corrective action documents or of documents for other facilities not related to groundwater monitoring is not a part of this proposed Order modification. NMED nevertheless agrees that email notifications to interested persons of reports under the proposed Order modification would facilitate public participation in LANL corrective action. The Order will be modified to require such notification.</p> |

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NMED Response to Public Comment
 Order Modification Request for Changes to LANL's Groundwater Notification Requirements
 May 19, 2008
 Page 5

| | | | |
|--------------------|-------------------|---|--|
| | | <p>permits and Consent Orders for both LANL and SNL must include the same electronic public notification requirements in them as for the HWA permit for WIPP. The public notification requirements must include notification of decisions made by NMED, either approval, approval with modification, or denial of the submittals by the Permittees.</p> <p>As an additional method to provide public participation and to improve the quality of any permit modification requests (PMRs), before any PMR is submitted to NMED, the Permittees provide paper and electronic copies of the draft PMR to those who request it prior to a pre-submittal meeting that the Permittees host. The pre-submittal documents are sent and posted on the WIPP website in enough time to allow the public to review them prior to the meeting.</p> | |
| Analytical Methods | Comment 8, Page 3 | Section IV.A.3.g. With regard to the Permittees' review of the analytical data as required in the proposed Section IV.A.3.g, the Permittees must be required to use the most sensitive analytical methods first. In several | Methods are proposed in the Interim Facility Wide Groundwater Monitoring Plan (IFWGMP). The Respondents are required to use the methods in this approved plan. |

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NMED Response to Public Comment
 Order Modification Request for Changes to LANL's Groundwater Notification Requirements
 May 19, 2008
 Page 6

| | | | |
|----------------------|-------------------|---|--|
| | | <p>cases, the Permittees have not used the most sensitive methods, thus reporting "not-detects" for groundwater contaminants. NMED must use its enforcement powers to ensure that the Permittees are using the most sensitive analytical methods.</p> <p>For example, the Permittees report that a deep perched zone below Mortandad Canyon is contaminated with the very mobile contaminant 1,4-dioxane but that the contamination is "not detected" in the regional aquifer.</p> <p>The analytical method used to investigate contamination in the regional aquifer has a limit of detection for 1,4-dioxane of 50 parts per billion (ppb), whereas there are analytical methods with a limit of detection of lower than 5 ppb for this contaminant. Early detection of contamination requires the most sensitive analytical methods, and this is not the practice at LANL.</p> | <p>Section IX.C.3.c of the Order requires the Respondents to use the lowest reporting limits for each analytical method, which shall not exceed background, screening, or cleanup levels.</p> |
| Reporting Exceedance | Comment 9, Page 4 | The Permittees must be required to report to NMED in writing within seven business days if the contaminant concentration exceeds | The requirements of 40 CFR §264.98(g) apply to the regulated units as stated in 40 CFR §264.90(a)(2). The fifteen (15) day reporting requirement is based on practical concerns for data management. Immediate threats to human health or the environment, identified by |

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NMED Response to Public Comment
 Order Modification Request for Changes to LANL's Groundwater Notification Requirements
 May 19, 2008
 Page 7

| | | | |
|------------------------|--------------------|--|---|
| | | the federal maximum contaminant level, not after the fifteenth of the month. 40 CFR §264.98(g). The permit modification must be changed to reflect the seven business day requirement. | the Respondents, are addressed in accordance with the Order, Section VII.B.5 (Emergency Interim Measures), which obviates any other longer reporting timeframes. |
| Notification and Wells | Comment 10, Page 4 | Section IV.A.3.g.2. What is the current process for determining background levels in springs or screened interval of a well? How is the public notified about the availability of the <i>Groundwater Background Investigation Report</i> ? | The Respondents document titled <i>Groundwater Background Investigation Report-Revision 3, LAUR 07-2853, EP 2007-0250</i> (May 2007) contains the approved background reference levels. The <i>Groundwater Background Investigation Report-Revision 3</i> is available on NMED's website: http://www.nmenv.state.nm.us/hwb/lanlperm.html |
| Reporting Exceedance | Comment 11, Page 4 | Section IV.A.3.g.5. Permittees must be required to report any detections "of a contaminant that is a metal or other inorganic compound in a spring or screened interval of a well at a concentration that exceeds two times the background level." We cannot wait for the contaminant to be detected "for the third consecutive sampling of the spring or screened interval. We must know the first time it is detected at two times the background level. | The proposed language for Section IV.A.3.g.5, Item 2 discusses the notification requirements for the <i>initial</i> inorganic compound detection concentrations greater than background. Therefore, information regarding exceedance of background will already have been reported. In addition, the watershed specific Periodic Monitoring Reports must include all the data from the three previous monitoring events for a specific watershed. |
| Reporting Exceedance | Comment 12, Page 4 | Section IV.A.3.g.6. Again, we can't wait for the third consecutive increase of a contaminant being detected "in a spring or screened interval of a well at a concentration that exceeds either | The proposed language for Section IV.A.3.g.6, Item 1 discusses the notification requirements for the <i>initial</i> detection of organic compounds at concentrations greater than background. Therefore, information regarding exceedance of background will already have been reported. In addition, the watershed specific Periodic |

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NMED Response to Public Comment
 Order Modification Request for Changes to LANL's Groundwater Notification Requirements
 May 19, 2008
 Page 8

| | | | |
|--------------------|--------------------|--|---|
| | | <p>one-half the New Mexico water quality standard or one-half the federal maximum contaminant level.” The Permittees must report to NMED the first time it is put on the alert that the contaminant is present.</p> | <p>Monitoring Reports include all the data from the three previous monitoring events for a specific watershed. Also see Comment # 11.</p> |
| Analytical Methods | Comment 13, Page 4 | <p>Permittees must be required to also report in their written notification the analytical method that was used to detect the contaminant.</p> | <p>Analytical methods used are those required in the Interim Facility Wide Groundwater Monitoring Plan (IFWGMP). Repeating this information is unnecessarily duplicative.</p> |
| Trending Analysis | Comment 14, Page 4 | <p>The trending analysis should begin in April 2004 the date when LANL should have reported the elevated levels of chromium in the regional aquifer. There is a great need to protect groundwater supplies.</p> <p>Allowing the Permittees to begin their trending analysis after June 14, 2007 does not provide adequate protection given that fast moving groundwater contaminants, such as tritium, perchlorate and hexavalent chromium, have been found in the regional aquifer.</p> | <p>The summary of the most recent monitoring events and results of the three previous monitoring events are included in the watershed specific Periodic Monitoring Reports submitted in 2006 and 2007. There is sufficient data available in the Administrative Record to determine trends.</p> |

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