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March 28, 2023

Mr. Michael Mikolanis, Manager
Environmental Management Los Alamos Field Office
1200 Trinity Drive, Suite 400
Los Alamos, NM 87544

Dear Mr. Mikolanis,

I am pleased to enclose Recommendation 2023-01 "Clean Up Milestones, Targets and Goals Under the Consent Order," which was unanimously approved by the Northern New Mexico Citizens' Advisory Board during its meeting on March 15, 2023.

Please contact me if you have questions regarding this recommendation. We look forward to the response from the Department of Energy.

Sincerely,

Cherylin Atcitty
Chair, NNMCAB

Enclosure: a/s

Cc w/encl:

U. S. Senator Ben R. Lujan

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Kelly Snyder DFO

M. Lee Bishop, DDFO

Gil L. Vigil, Executive Director Eight Northern Indian Pueblos

Menice B. Santistevan, NNMCAB Executive Director

NNMCAB File

Emla.docs@em.doe.gov

Northern New Mexico Citizens' Advisory Board

94 Cities of Gold Road

Santa Fe, NM 87506

Phone: 505-989-1662

1-800-218-5942

www.energy.gov/em/nmncab

NORTHERN NEW MEXICO CITIZENS' ADVISORY BOARD
Recommendation to the Department of Energy
No. 2023-01

Title: Clean Up Milestones, Targets and Goals Under the Consent Order
Drafted by: Mark Hayden

Background

This Recommendation suggests steps to use the “Los Alamos National Laboratory (LANL) Compliance Order on Consent” (Consent Order) and its annual work planning process to increase public understanding and support of LANL Environmental Management; advance completion of cleanup goals; and promote greater public funding for cleanup. In the alternative, in light of the recent New Mexico Environment Department (NMED) lawsuit and many deficiencies in the cleanup actions, now may be a good time to redraft the Consent Order in its entirety. In designing these steps, the Northern New Mexico Citizens’ Advisory Board (NNMCAB) believes it is consistent with the format and structure of the Consent Order and with policy objectives endorsed by the Department of Energy (DOE) Headquarters leadership. The Recommendation is intended to be a timely contribution to the annual Department of Energy Environmental Management Los Alamos Field Office (EM-LA) and NMED Consent Order update, with supplementary information provided.

In June 2016, NMED and DOE approved the Consent Order setting forth a plan and a process for cleaning up dangerous and contaminated areas at LANL. A principal purpose of the Consent Order is to establish the basic framework and structure “for accomplishing work on a priority basis through clean-up campaigns with achievable milestones and targets.” The Consent Order has two important Appendices to fulfill this purpose. Appendix C, “Future Campaigns,” enumerates the 17 major projects listed in current priority order that will be accomplished along the road to the comprehensive cleanup of LANL in the future. Each Campaign aggregates many related areas; they represent the “strategic” cleanup challenges. Appendix B, “Milestones and Targets,” charts the annual goals and deliverables for each Campaign (plus two years into the future). Both Appendices are subject to annual updates. Campaign priorities (Appendix C) were established in the 2016 Consent Order and have not changed although the risk assessments have. Appendix B is more responsive to changing budgets, conditions, and accomplishments.

Comments and Observations

Packaging for public understanding: In the EM-LA annual report to the NNMCAB regarding cleanup progress and accomplishments, the communication is often written in technical terms that are difficult for the general public to understand and without an explanation of how this impacts the environment or human exposure. Moreover, such references to the Electronic Public Reading Room are provided as a response rather than a more thoughtful public oriented explanation that summarizes referenced information and/or answers to questions.

43 For example, see June 17, 2021, EM-LA letter:

EM-LA Response:

Accomplishments made under the Consent Order, including fiscal year 2020 accomplishments, are detailed in documents available on the Electronic Public Reading Room (<https://epr.lanl.gov/>). The enclosed provides EM-LA Letter EMLA-2021-0184-02-001, Subject: *Fiscal Year 2020 Consent Order Deliverable Accomplishments*, dated March 26, 2021.

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45 Ultimately, the NNM CAB requests a packet of information summarizing for the public how we are
46 moving forward to achieve our end state goals, written in high level layman’s terms, explaining the
47 long-term goals, identifying the benchmarks, and specifying progress in terms of percent complete. We
48 ask that each cleanup campaign be Gantt charted in 2-, 5- and 10-year prospective goals through end
49 state completion of each campaign. **Therefore, the NNM CAB recommends creating a general public
50 presentation, written in layman’s terms and Gantt charted to illustrate progress on 1. Clean up
51 end state time period chart; 2. Clean up effort to date timeline chart; 3. cost to date chart with
52 Total cost target. If Electronic Public Reading Room references are provided as supporting
53 material, the NNM CAB recommends including a summary of that material and attaching links
54 directly to the reading room materials.**

55

56 **The NNM CAB recommends all milestones and targets should be tied to achieving the end state
57 completion for each campaign.** Milestones and targets are included in updates, but they do not clearly
58 outline the long term clean up approach strategy through the end state completion. The charge from the
59 DFO at DOE HQ is to understand what the end state should look like at each site. For example, if a
60 campaign has an overall goal of completing 4 wells, the question raised is when the end state is actually
61 achieved, how this milestone/target will contribute to achieving that result, what percentage of the end
62 state will be completed on what date, and what cost was spent to date (annually and total) on the
63 campaign as compared to the overall campaign budget. Other examples include, if the EM-LA campaign
64 includes the removal of 8 building slabs at TA-21, when will completion actually be achieved? If the
65 EM-LA campaign includes the removing 2-miles of industrial waste lines, what portion of the campaign
66 will be completed in FY23 and when is the overall project scheduled for end state completion? The
67 NNM CAB would like to tie progress to a measurable performance metric (such as wells completed,
68 linear or cubic feet of waste lines removed with an estimated X more in process scheduled for removal
69 by end of FY23, etc.). The NNM CAB understands the EM-LA argument that the farther you look
70 forward essentially the less certainty and precision can be projected. However, the NNM CAB
71 recommends that milestones should be fixed. The Consent Order establishes that targets are intended to
72 become milestones, and when looking past a 2-year window we understand the accuracy of projections
73 becomes less certain.

74

75 Accordingly, the NNM CAB recommends adding new categories for the unaddressed three to ten-year
76 period to make projected goals for at least a 10-year look ahead, with an end state completion for each
77 campaign as the ultimate goal. We can call them something other than “targets and milestones” to avoid
78 the definitional traps of the current traps of the Consent Order, perhaps "Prospective Long-Term
79 Targets" or “Long Term End State Completion Goals” can be used to avoid confusing them with other
80 limiting language of the Consent Order’s defined terms. This 2-year limit is extrapolated a long term
81 under the Consent Order. The concept is to create more transparency for the public to actually see
82 projections beyond 2 years. The NNM CAB also reinforces its prior recommendation that all milestones
83 should be action-based and focused on achievements wherever possible rather than merely reporting
84 statistical data or only number of wells drilled or water well test results. In reporting to the public, the

85 results should be in a format for general understanding using charts to pictorially illustrate progress. To
86 that end, we recommend EM-LA draft a 10-year strategic plan for each campaign along with estimated
87 costs including measurable metrics, dollars spent and a completion timeline for the project in Gantt chart
88 format. The strategic plan should include the level of total and annualized resources needed to achieve
89 the comprehensive end-state goal and communicate this to the public in non-technical terms while
90 explaining the impact on humans and the environment. The EM-LA report will show the estimated
91 duration for each campaign at the current and 10-year funding levels with significant benchmarks along
92 the way, ideally in PERT form (risk based).

93
94 In contrast, by example, see the EM-LA June 17, 2021, letter report response:
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EM-LA Response:

EM-LA has a baseline that is several years old. It includes campaign overviews, costs, and expected durations. EM-LA is working with N3B to maintain a baseline within their current contract period, which is a five-year period. As of May 2021, N3B is three years into their contract. They have been working with the EM Consolidated Business Center in Ohio and are in the process of revising their baseline. EM-LA expects the revised baseline to be formalized late summer or early fall 2021. The baseline will have costs and it will be risk based.

96
97 **The NNM CAB recommends EM-LA review Appendices B and to reformat them as recommended**
98 **above, providing supplementary information regarding additional out-years through end state**
99 **completion beyond the two currently shown.**

100
101 **The NNM CAB recommends EM-LA create a supplementary document to complement the annual**
102 **progress report of achievement of campaign milestones listed in Appendix C, as well as**
103 **information about how EM-LA has conducted its risk prioritization, ensuring they will be**
104 **recorded and summarized in a supplementary document maintained on the N3B and NNM CAB**
105 **websites and updated annually to provide a public overview of accomplishments and strengthen**
106 **the sense of progress toward cleanup completion including Gantt charts for all metrics.**
107

108 **The NNM CAB recommends scheduling public outreach meetings and provide the projected**
109 **year's meeting schedule at the start of the fiscal year. The NNM CAB also recommends reporting**
110 **on EM-LA communications (how many newsletters, how frequent publication dates are**
111 **scheduled, and how often the website will be updated. We intend these meetings and**
112 **communications will become separate public outreach targets and milestone metrics for the campaigns**
113 **going forward.**
114

115 **The NNM CAB recommends a re-prioritization of all campaigns on the basis of risk, as the**
116 **campaigns have not changed over time in coordination with the Risk Committee**
117 **recommendations. The identified risk-based assessment tool should be consistently used for**
118 **reevaluation on all campaigns.**
119

120 **The NNM CAB recommends identifying what campaigns and specific clean up actions within the**
121 **long-term goals have been or will be accelerated as a result of an increase in the annual budget**
122 **and the savings due to Covid-19 related clean up spending reductions or down time because of**
123 **failed well drilling and related investigations.**
124

125 **NNMCAB Recommendations**

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- 127 1. Creating a general public presentation, written in layman’s terms and Gantt charted to illustrate
128 progress of clean ups, end state completion timeline, costs, total cost, and identify challenges or
129 speed ups from increased funding. If Electronic Public Reading Room references are provided as
130 supporting material, the NNM CAB recommends including a summary of that material and attaching
131 links directly to the reading room materials.
 - 132 2. The NNM CAB recommends all milestones and targets should be tied to achieving the end state
133 completion for each campaign.
 - 134 3. The NNM CAB recommends EM-LA review Appendices B and to reformat them as recommended
135 above, providing supplementary information regarding all out-years beyond the two currently
136 shown.
 - 137 4. The NNM CAB recommends EM-LA create a supplementary document to complement the annual
138 progress report of achievement of campaign milestones listed in Appendix C, as well as information
139 about how EM-LA has conducted its risk prioritization based on the agreed upon risk analysis tool,
140 ensuring they will be recorded and summarized in a supplementary document maintained on the
141 N3B and NNM CAB websites and updated annually to provide a public overview of
142 accomplishments and strengthen the sense of progress toward cleanup completion including Gantt
143 charts.
 - 144 5. The NNM CAB recommends scheduling public outreach meetings and provide the projected year’s
145 meeting schedule at the start of the fiscal year. The NNM CAB also recommends reporting on EM-
146 LA communications (how many newsletters, how frequent publication dates are scheduled, and how
147 often the website will be updated. We intend these meetings and communications will become
148 public outreach targets and milestone metrics for the campaigns going forward.
 - 149 6. The NNM CAB recommends a re-prioritization of all campaigns on the basis of risk analysis, as the
150 campaigns have not changed over time in coordination with the Risk Committee recommendations.
 - 151 7. The NNM CAB recommends identifying what campaigns and specific clean up actions within the
152 long-term goals have been or will be accelerated as a result of an increase in the FY21 annual budget
153 and the savings due to Covid-19 related clean up spending reductions.

154 **Intent**

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156 It is the intent of the NNM CAB to promote meaningful reporting for the public, tying all milestones and
157 targets to achieving the end state completion for each campaign, updating Appendices B & C along with
158 provide supplementary information regarding additional out-years beyond the two currently shown,
159 provide information about how EM-LA has conducted its risk prioritization, ensuring they will be
160 recorded and summarized in a supplementary document maintained on the N3B and NNM CAB websites
161 and updated annually to provide a public overview of accomplishments and strengthen the sense of
162 progress toward cleanup completion. To enhance public outreach, the NNM CAB is recommending the
163 formal scheduling of public outreach meetings and providing the projected year’s meeting schedule at
164 the start of each fiscal year. The NNM CAB also recommends reporting on EM-LA communications,
165 prioritizing campaigns on the basis of risk in coordination with the risk committee recommendations and
166 identifying what campaigns and specific clean up actions within the long-term goals have been or will
167 be accelerated as a result of an increase in the FY21 annual budget and the savings due to Covid-19
168 related spending reduction or other events. Our recommendation to EM-LA is intended to focus on

169 longer term projections of the campaign cleanup work activity as the priority and make EM-LA
170 reporting to the public regarding progress on the cleanup campaigns more meaningful.

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172

173 **References**

174

- 175 1. N3B September 23, 2020, Presentation to the Northern New Mexico Citizens' Advisory Board 2016
176 Compliance Order on Consent –Appendix B Milestones (proposed)
- 177 2. M. Lee Bishop EM-LA June 17, 2021, letter to Robert Hull and Mark Hayden in response to M.
178 Hayden April 13, 2021 email requests.