

EXHIBIT A

SCOPE OF SERVICES FOR CONTRACTOR

General Requirements Applicable to the Contractor's Services:

- A. **Independent Peer Review.** The Contractor shall perform and present the results of its independent peer review that will describe, for technical and non-technical audiences, a critiqued synthesis of existing data, information, studies, and published risk assessment analyses regarding exposure and risk to residents of the Santa Fe region from environmental radionuclide, toxic, and hazardous contaminants known to be of LANL-origin and other origins of these contaminants. The Contractor shall emphasize the tap water pathway, including the contaminants in Rio Grande water diverted into the BDD and removed by water treatment processes, as previously addressed by Kerry Howe for the BDD Board. The Contractor will illustrate the tap water pathway risk by comparison to other pathways and risks. The Contractor will quantify, from existing data, information, and studies, and compare, the tap water pathway exposure risk to other pathways of public exposure to LANL-origin contaminants and other natural and man-made radiation exposures.

The Contractor will provide an efficient, effective, and transparent independent peer review. A peer review is defined as in-depth critique of assumptions, calculations, extrapolations, alternate interpretations, methodology, and acceptance criteria employed, and of conclusions drawn in the original work.¹ Peer review will confirm or possibly call into question the adequacy of work that has been performed in the past. An effective peer review is expert, independent, external, and technical.

- B. **Multi-Disciplinary Approach and Team.** The Contractor will utilize its multi-disciplinary expertise in radiological and non-radiological risk assessments, public health assessments, risk communication, and the medical and scientific disciplines that pertain to pathways of exposure, absorbed biological doses, biological/medical risk, and public health. The Contractor will review pertinent existing studies and bodies of evidence, including evaluating strengths and weaknesses. This review will be followed by the Contractor's synthesis and description of the meta-level risk perspective.
- C. **Acquisition of Information.** The Contractor shall identify and obtain the information that the Contractor will analyze, critique, and utilize to prepare the meta-level synthesis that is the purpose of this Contract. The Contractor shall provide the meta-level tap water risk description with public risk communication deliverables based on existing information. The meta-level description must be both conceptual and quantitative. For the purposes of this Contract, meta means an overarching analysis and syntheses of existing discrete studies

¹ Peer Review in Environmental Technology Development Programs, The Department of Energy's Office of Science and Technology Committee on the Department of Energy – Office of Science and Technology's Peer Review Program, Board on Radioactive Waste Management, Commission on Geosciences, Environment, and Resources, National Research Council. National Academy Press. Washington, D.C. 1998.

or bodies of information, which will add content and perspective above that provided by the discrete studies and bodies of information.

- D. **Deliverable Products.** The Contractor shall provide written and graphic risk communication deliverables that meet potential readers' needs and interests at four levels: summary for a lay audience, Spanish translation of the summary, description for the BDD Board, and documentation for the Board and a technical audience. The Contractor will provide preliminary draft and public review draft sets of risk communication deliverables, formally respond to draft comments, and produce the final set of deliverables. These deliverable products shall employ accepted risk communication principles and techniques.

Specific Requirements:

- A. **Prepare detailed work plan.** The Contractor shall produce and submit to the BDD Project Manager for review a detailed work plan and schedule for the Contractor's fulfillment of this Contract within two weeks of the Contract execution. The Contractor shall work with the BDD Project manager to resolve all Project Manager questions and comments.
- B. **Review of BDD Project Public Communications re LANL-Contaminants.** Provide review and advice of existing BDD Project public communications related to LANL-origin environmental contamination. The Contractor initially shall review pertinent BDD Project public communications that relate to the topic of LANL-origin contaminants and identify any recommendations for correction or improvement. The Contractor shall meet with the BDD Project Manager and staff to discuss these recommendations.
- C. **Cooperation with BDD Project Public Communications Program.** The Contractor shall work initially and at appropriate intervals during the Contract with the BDD project management and public communications staff so that the BDD Project can correctly describe and publicize the Contract, and the work products and conclusions.
- D. **Acquisition of information.** Acquire data and information that is basis for the independent peer review. The Contractor shall request in writing and obtain pertinent studies, reports, and data to serve as the basis of the independent peer review. DOE/LANL has agreed to timely provide relevant studies, reports, and data. The New Mexico Environment Department may prefer to provide information pursuant to a public records request from the Contractor. The Contractor shall obtain other pertinent information from its owners.
- E. **Communications with BDD Project representatives.** The Contractor's work plan shall describe the number and purpose of meetings and telephone conferences with BDD Project staff/consultants in coordination with work plan milestones. The Contractor will provide protocols for those meetings, including an agenda, materials related to the agenda and need for discussion, and summary meeting notes listing decisions and action items.
- F. **Public meetings.** The Contractor shall host three public meetings and provide the arrangements and logistics for them. The first meeting is to introduce the Contractor's work

and its purpose to the Santa Fe community in order to elicit, understand, and respond to public questions and concerns regarding LANL-origin environmental contamination and the Buckman tap water pathway. The second meeting is to provide an overview of peer reviewer's work and draft reports. The third is to present the final reports and the Contractor's responses to comments received on the drafts.

- G. **Formal communication processes appropriate to an independent peer review of a sensitive public topic.** The Contractor shall conduct the independent peer review and control all contacts with BDD Board Representatives, DOE and LANL, NMED, and the public, including the engaged public, in order to protect and maintain the independence, credibility, and integrity of the independent peer review process. The Contractor's work shall emulate accepted and appropriate procedures, such as those of the National Academy of Sciences, in order to do so. Contractor shall not allow selective or private access by individuals or organizations.
- H. **Quality Control review of preliminary draft of deliverable products in advance of public drafts.** As a quality control measure, the BDD Project Manager will review the Contractor's preliminary draft deliverables and will submit them to DOE/LANL for its review and comment. The Contractor will include responses to each DOE/LANL and BDD Board comment in the subsequent public draft deliverables that are distributed for public review and comment. Draft deliverables shall clearly identify all changes to the preliminary drafts that LANL and the BDD Board reviewed and shall explain them.
- I. **Communication with DOE/LANL representatives.** All communication from the peer reviewer to DOE/LANL shall be in writing, and shall be submitted through the BDD Project Manager.
- J. **Presentations to the BDD Board.** The Contractor shall present a summary of the public review drafts of deliverables and the final deliverables and responses to comments to the BDD Board at one of its regularly scheduled public meetings. The Contractor shall provide a letter responding to the BDD Board's comments regarding the final deliverables and responses to comments.
- K. **Presentation graphics.** The Contractor shall prepare presentation graphics and illustrations to help convey the facts and conclusions of the independent peer review. These graphics and illustrations shall be used in public meetings and in deliverable products.
- L. **Specific Topics.** The following specific topics shall be addressed as an integral part of the Contractor's deliverable products:
 - 1. Describe applicable standards for control of radionuclides and other toxic and hazardous contaminants in the environment in all pathways that may be applicable in the Santa Fe region. Emphasize the tap water pathway, and compare to other pathways and public exposures. Describe the regulatory environment and agencies and roles.

2. Analyze available information and data and synthesize the peer reviewer's best estimate of the total amounts and the distribution over time of contaminants of LANL-origin in the Rio Grande, compare to amounts of those same contaminants in the Rio Grande upstream from LANL influences, and compare to applicable exposure standards and other pathways of public exposure in the Santa Fe region.
3. Calculate the risk to public health from exposure to hypothetical amounts of radionuclides in tap water using the methodology of Federal Guidance Report No. 13 (EPA 402-R-99-001 (1999 and Suppl. 2002)) for the hypothetical life-long, age-adjusted drinking water exposures listed below. Compare these to other sources of public exposure to ionizing radiation in the Santa Fe region, including other pathways of exposure to contaminants of LANL-origin.
 - a. Drinking water with contaminant concentrations equal to current federal safe drinking water act MCLs and rules;
 - b. Drinking water with contaminant concentrations equivalent to actual recent water quality in the Rio Grande;
 - c. Drinking water with average exposures to the water contaminants of hypothetical exposure b, above, but with water treatment that removes 95% of plutonium, americium, uranium, and gross alpha; and
 - d. Drinking water that contains mean values of gross alpha and dissolved uranium produced by the Buckman well field as measured by the City of Santa Fe at the point-of-entry to the public water distribution system and reported for federal safe drinking water act compliance purposes.
4. Describe how exposure to LANL-origin contaminants in the drinking water pathway, within the context of other exposure pathways, may affect developing fetuses, pregnant women, and children, and other sensitive populations. Address what is known and unknown with regard to synergistic effects of exposure to multiple contaminants.