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June 8, 2021

The Honorable Frank Pallone
Chairman
Committee on Energy and Commerce
House of Representatives

Department of Energy: Environmental Liability Continues to Grow, but Opportunities May Exist to Reduce Costs and Risks

Dear Mr. Chairman:

The Department of Energy (DOE) has the difficult task of cleaning up hazardous and radioactive waste at sites across the country. The waste was created by nuclear weapons research and production dating back to World War II and the Cold War. DOE's cleanup mission includes addressing contaminated soil and groundwater; deactivating and decommissioning contaminated facilities; and designing, constructing, and operating facilities to treat millions of gallons of radioactive waste.

DOE's Office of Environmental Management (EM) is responsible for most of the department's cleanup activities. EM's estimate of the probable costs for the future cleanup of this waste is known as its environmental and disposal liability (or environmental liability). EM's environmental liability is a major driver of overall federal environmental liabilities. In February 2017, we added the federal government's environmental liabilities to our list of agencies and program areas that are at high risk for fraud, waste, abuse, and mismanagement or that are most in need of transformation.

We prepared this report under the authority of the Comptroller General to assist Congress with its oversight responsibilities. This report describes the status of DOE's environmental liability and challenges and opportunities GAO has identified that DOE faces in managing its cleanup responsibilities. To conduct this work, we reviewed prior GAO reports and synthesized key findings and recommendations related to DOE's environmental liability, challenges, and opportunities. We updated data using publicly available reports, including DOE's Agency Financial Report for Fiscal Year 2020 and the Financial Report of the United States Government for Fiscal Year 2020.[1]

In summary, we found that DOE's environmental liability is large and growing. In managing cleanup responsibilities related to this liability, DOE faces challenges in contract and project management. DOE has opportunities to reduce costs and risks, including using alternative treatment approaches and reprioritizing the cleanup of higher-risk facilities. Enclosure I provides

[1]Department of Energy, *Agency Financial Report: Fiscal Year 2020*, DOE/CF-0170 (Washington, D.C.: Nov. 16, 2020); and Department of the Treasury, *Financial Report of the United States Government: Fiscal Year 2020* (Washington, D.C.: Mar. 25, 2021).

further information on EM's environmental liability. Enclosure II provides a list of related GAO products.

We conducted our work from April 2021 to June 2021 in accordance with all sections of GAO's Quality Assurance Framework that are relevant to our objectives. The framework requires that we plan and perform the engagement to obtain sufficient and appropriate evidence to meet our stated objectives and to discuss any limitations in our work. We believe that the information and data obtained, and the analysis conducted, provide a reasonable basis for any findings and conclusions in this product.

We are sending copies of this report to the appropriate congressional committees, the Secretary of Energy, and other interested parties. In addition, the report will be available at no charge on the GAO website at http://www.gao.gov.

If you or your staff members have any questions about this report, please contact me at (202) 512-3841 or andersonn@gao.gov. Contact points for our offices of Congressional Relations and Public Affairs may be found on the last page of this report. Key contributors to this report were Amanda Kolling (Assistant Director) and Katherine Killebrew (Analyst in Charge). Other contributors to this report include Antoinette Capaccio, Cynthia Norris, and Dan Royer.

Sincerely yours,

Nathan Anderson
Director, Natural Resources and Environment

Enclosure(s) – 2

Enclosure I

See attached PDF in PDF Portfolio

ENCLOSURE II - Related GAO Products

High-Risk Series: Dedicated Leadership Needed to Address Limited Progress in Most High-Risk Areas. GAO-21-119SP. Washington, D.C.: March 2, 2021.

Hanford Cleanup: DOE's Efforts to Close Tank Farms Would Benefit from Clearer Legal Authorities and Communication. GAO-21-73. Washington, D.C.: January 7, 2021.

Nuclear Waste Disposal: Better Planning Needed to Avoid Potential Disruptions at Waste Isolation Pilot Plant. GAO-21-48. Washington, D.C.: November 19, 2020.

Hanford Waste Treatment Plant: DOE Is Pursuing Pretreatment Alternatives, but Its Strategy Is Unclear While Costs Continue to Rise. GAO-20-363. Washington, D.C.: May 12, 2020.

Nuclear Cleanup: Actions Needed to Improve Cleanup Efforts at DOE's Three Former Gaseous Diffusion Plants. GAO-20-63. Washington, D.C.: December 17, 2019.

Environmental Liabilities: DOE Would Benefit from Incorporating Risk-Informed Decision-Making into Its Cleanup Policy. GAO-19-339. Washington, D.C.: September 18, 2019.

Nuclear Waste Cleanup: DOE Faces Project Management and Disposal Challenges with High-Level Waste at Idaho National Laboratory. GAO-19-494. Washington, D.C.: September 9, 2019.

Department of Energy: Environmental Liability Continues to Grow, and Significant Management Challenges Remain for Cleanup Efforts. GAO-19-460T. Washington, D.C.: May 1, 2019.

Nuclear Waste Cleanup: DOE Could Improve Program and Project Management by Better Classifying Work and Following Leading Practices. GAO-19-223. Washington, D.C.: February 19, 2019.

Nuclear Waste: DOE Should Take Actions to Improve Oversight of Cleanup Milestones. GAO-19-207. Washington, D.C.: February 14, 2019.

Department of Energy: Program-Wide Strategy and Better Reporting Needed to Address Growing Environmental Cleanup Liability. GAO-19-28. Washington, D.C.: January 29, 2019.

High-Risk Series: Progress on Many High-Risk Areas, While Substantial Efforts Needed on Others. GAO-17-317. Washington, D.C.: February 15, 2017.

Nuclear Waste: Opportunities Exist to Reduce Risks and Costs by Evaluating Different Waste Treatment Approaches at Hanford. GAO-17-306. Washington, D.C.: May 3, 2017.

DOE Facilities: Better Prioritization and Life Cycle Cost Analysis Would Improve Disposition Planning. GAO-15-272. Washington, D.C.: March 19, 2015.

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