NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau A
625 Broadway, 12th Floor, Albany, NY 12233-7015
P: (518) 402-9625 I F: (518) 402-9627
www.dec.ny.gov

Memorandum

To: United States Department of Energy

From: Brian Jankauskas, P.E.

Subject: **Closeout of Department of Energy Grant – DE-FG02-91CH10493**

Site Name: Brookhaven National Laboratory **Site Code:** 152009

City: Brookhaven **County:** Suffolk

Date: March 19, 2021

Purpose

A Federal Facility Interagency Agreement (IAG), dated February 28,1992, was executed by the State of New York, U.S. Environmental Protection Agency (EPA), and the U.S. Department of Energy (DOE) to address contamination of operations at the Brookhaven National Laboratory (BNL) National Priorities List (NPL) site (site). Section XXXII of the IAG permits New York State to recover expenses for providing administrative and technical services pertaining to the site. The initial mechanism for recovery of State expenses was a DOE grant, identified as DE-FG02-91CH10493, which was established on September 30, 1991. Due to administrative requirements at DOE, the grant was no longer extended and was terminated on May 31, 2020. A Memorandum of Agreement (MOA) was executed on June 1, 2020, to facilitate reimbursement of State expenses moving forward.

The grant contained closeout requirements, which included the submission of a report summarizing activities performed by the State of New York. The following sections present the site history and activities performed by New York State as well as the findings and conclusions.

Site History

BNL is a federally-owned research facility located in Suffolk County, Long Island, at Upton, New York, comprising approximately 5265 acres of land on which there have been constructed over 300 buildings and other structures. Lying near the geographic center of Suffolk County, in the Town of Brookhaven, BNL is approximately 50 miles from New York City.

BNL was established in 1947, after World War II, on the property formerly known as Camp Upton. Camp Upton was an Army training base from 1917 to 1920, during the First World War, and an induction center from 1940 to 1946, during World War II. Between the World Wars, the property was designated as Upton National Forest and was reforested by the Civilian Conservation Corp. After World War II, the property was used as a convalescent and rehabilitation facility for returning veterans.

Between 1947 and 1998, Associated Universities, Inc., a not-for-profit corporation chartered under the Education Law of the State of New York, operated BNL under a prime cost-type management and operating contract with DOE and its predecessor agencies, the Energy Research and Development Administration and the Atomic Energy Commission. BNL is now managed and operated by Brookhaven Science Associates, a not-for-profit collaboration representing the State University of New York at Stony Brook and the Battelle Memorial Research Institute of Columbus, Ohio.

A number of substances defined as hazardous under Federal and New York State regulations have been and are acquired, used, stored, and disposed of in the course of research activities at BNL or may have been disposed of by the United States Army prior to the transfer of the BNL property to DOE. The hazardous substances at the site include radioactive and non-radioactive substances. Some of the hazardous substances, pollutants, and constituents that have been used, stored, or disposed of have been released into soil and underlying groundwater at BNL. Several such releases have been documented in BNL and DOE reports.

BNL was proposed for inclusion on the NPL on July 14, 1989 and was included on the NPL on November 21,1989.

New York State Activities & Personnel

New York State activities performed during the grant included:

- Ensured that the impacts to public health and/or the environment associated with past and present activities at the site were thoroughly investigated. Appropriate Remedial Action(s) were taken as necessary to protect public health and/or the environment.

- Established a procedural framework and schedule for developing, implementing and monitoring appropriate response actions at the site in accordance with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the National Contingency Plan, Superfund guidance and policy, and Resource Conservation and Recovery Act guidance and policy.

- Facilitated cooperation, exchange of information, and participation of the parties in such actions.

- Ensured that Removal and Remedial Actions at the site were performed in compliance with federal and state applicable or relevant and appropriate requirements (ARARs).

- Evaluated and discussed Operable Unit alternatives for the site prior to the implementation of final Remedial Action(s). This process promoted cooperation among the parties in identifying Operable Unit alternatives prior to final Remedial Action at the site.

- Established requirements for completing remedial investigations to determine the nature and extent of the threat to public health and/or the environment caused by the release or threatened release of hazardous substances, pollutants, or contaminants at the site.

- Established requirements for completing feasibility studies for the site that identified, evaluated, and proposed alternatives for the appropriate Remedial Action(s) to prevent, mitigate, or abate the release or threatened release of hazardous substances, pollutants or contaminants at the site and protect public health and/or the environment in accordance with CERCLA.

- Identified the nature, objective and schedule of response actions taken at the site to clean up hazardous substances, pollutants, or contaminants mandated by CERCLA.

- Approved Work Plans, Reports, Designs, Proposed Remedial Action Plans, Records of Decisions, and implementation of Removal Actions and Remedial Actions.

- Verified that operation and maintenance of the selected Remedial Actions were performed to obtain remedial action objectives.

- Confirmed compliance with applicable federal and state hazardous waste laws and regulations.

- Supported the initiation, development, selection, and enforcement of Remedial Actions to be undertaken at BNL, including the review of all applicable data as they became available and the development of studies, reports, and action plans; and to incorporate State ARARs into the Remedial Action process.

- Participated at public engagements that discussed site conditions and required State involvement.

The site is very complex due to the history of the site and site conditions. This has required New York State to dedicate staff (e.g. engineers, scientists, attorneys, and administrative support) to the site over a long period to facilitate investigations and remedial activities. A summary of the primary New York State Department of

Environmental Conservation (DEC) and Department of Health (DOH) titles that worked on this project during the grant period and their primary duties is presented below.

DEC Professional Engineer 1

- Performed project management activities for the BNL site that included tracking projects through various phases of the remediation process.
- Acted as the New York State point-of contact person for DEC Central Office, DEC Region 1, DOH, BNL, EPA, and Suffolk County Department of Health Services.
- Developed and maintained in-depth knowledge of the non-radioactive environmental contamination at the site, the history of the site, the current status of the various research facilities at the site, and the likely future uses of the site.
- Reviewed and commented on the non-radiological reports and plans to ensure DEC's regulations and guidance were appropriately addressed.
- Represented DEC's non-radiation program at hearings and meetings with DOE, other involved agencies, and the public; and informed DEC's Executive Office of major developments, issues and problems at BNL and the progress of remedial activities.
- Recommended DEC positions on significant issues involving non-radioactive contamination at BNL.
- Conducted field oversight at the site.
- Acted as official State record keeper for the site.

DEC Environmental Radiation Specialist 1 or 2

- Developed and maintained in-depth knowledge of the radioactive environmental contamination at the site, the history of the site, the current status of the various research facilities at the site, and the likely future uses of the site.
- Reviewed and commented on the radiological aspects reports and plans to ensure DEC's regulations and guidance are appropriately addressed.
- Planned confirmatory sampling and analysis by DEC radiation program staff. Directed DEC radiation program staff in performing confirmatory surveys at the site using conventional radiation survey equipment and the USRADs survey system. Compiled and analyzed all radiological data regarding the site

(including DOE data and results of DEC confirmatory sampling and surveying) to assess appropriateness and effectiveness of the remedial actions and conformance to DEC regulations and guidance.

- Represented the Department's radiation program at hearings and meetings with DOE, other involved agencies, and the public; and informed DEC's Executive Office of major developments, issues and problems at BNL and the progress of remedial activities.

- Recommended Department positions on significant issues involving radioactive contamination at BNL.

DEC Professional Engineer 2/DEC Environmental Radiation Specialist 3

- Supervised staff, including review of work products for accuracy.

- Assisted in the resolution of any technical and administrative problems.

DOH Public Health Specialist 3/DOH Associate Radiological Health Specialist

- Ensured that comprehensive exposure assessments and evaluations were conducted for the site and other environmental contamination problems and that public health implications of exposure were addressed.

- Reviewed plans to minimize or eliminate public health impacts.

- Collected samples, prepared technical reports and analyzed data for use in making decisions on appropriate actions.

- Provided assistance to the Agency for Toxic Substances and Disease Registry in completing the Public Health Implications Section (Toxicological Evaluation, Health Outcome Data Evaluation, and Community Health Concerns Evaluation) of the public health assessment for BNL.

Findings and Conclusions

This document presents the activities performed by New York State to comply with the IAG and the grant. Research activities were not conducted as part of this grant and no publications were issued. The cooperation by all the parties has resulted in significant remediation of on-site and off-site contamination from historical activities at the site in accordance with state and federal regulations and guidance, which has improved public health and the environment. This cooperation is expected to continue under the IAG and the MOA as additional work is necessary to remediate the site.