



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I  
2100 RENAISSANCE BLVD.  
KING OF PRUSSIA, PA 19406-2713**

July 29, 2019

Li Huang, Assistant Commissioner  
Bureau of Environmental Science and  
Engineering  
Office of Radiological Health  
New York City Health Department and  
Mental Hygiene  
4209 28th Street, CN#56  
Long Island City, NY 11101

Roger Sokol, Ph.D., Director  
New York State Health Department  
Division of Environmental Health Protection  
ESP, Corning Tower, Room 1619  
Albany, NY 12237

Daniel Evans, P.E., Director  
New York State Department of Environmental  
Conservation  
Division of Materials Management  
Bureau of Hazardous Waste and Radiation  
Management  
625 Broadway  
Albany, NY 12233

Dear Ms. Huang, Dr. Sokol, and Mr. Evans:

A periodic meeting was held with the New York City Health Department and Mental Hygiene on June 3, 2019 and with the State Health Department and the State Department of Environmental Conservation on June 5, 2019. The purpose of these meetings was to review and discuss the status of the New York Agreement State Program. The U.S. Nuclear Regulatory Commission (NRC) was represented by James Trapp and myself.

I have completed and enclosed a general meeting summary. If you feel that our conclusions do not accurately summarize the meeting discussion, or have any additional remarks about the

meeting in general, please contact me at (610) 337-5089 or via e-mail at [John.Miller@nrc.gov](mailto:John.Miller@nrc.gov) to discuss your concerns.

Sincerely,

*/RA/*

John J. Miller  
Regional State Agreements Officer  
Division of Nuclear Materials Safety

Enclosure:  
Periodic Meetings Summary for New York

cc w/encl.: Mark Horburg, Acting Director - NYC Office of Radiological Health  
Alexander Damiani, Director – Bureau of Environmental Radiation Protection DOH  
Timothy Rice, Chief – Radiological Sites Section DEC  
Ann Marie Gray, Chief – Radiological Control Permits Section

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**SUNSI Review Complete:** JJM (Reviewer's Initials)

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| OFFICE | DNMS/RI     | E | DNMS/RI    |  |  |
| NAME   | JMiller/jjm |   | JTrapp/jmt |  |  |
| DATE   | 07/29/19    |   | 07/13/19   |  |  |

AGREEMENT STATE PERIODIC MEETINGS SUMMARY FOR  
NEW YORK CITY HEALTH DEPARTMENT AND MENTAL HYGIENE, NEW YORK STATE  
HEALTH DEPARTMENT, AND NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL  
CONSERVATION

DATE OF MEETINGS: June 3 & 5, 2019

|   |  |
|---|--|
| <b>U.S. Nuclear Regulatory Commission (NRC) Attendees</b>             | <b>New York City Health Department and Mental Hygiene Attendees (June 3)</b>     |
| John Miller, State Agreements Officer, Region I                       | Li Huang, Assistant Commissioner, Environmental Science and Engineering          |
| James Trapp, Director, Division of Nuclear Materials Safety, Region I | Rejina Alam, Director, Office of Radiological Health                             |
|   | Erik Finkelstein, Chief, Radioactive Materials Unit                              |
|   | Jose Lorenzo, Supervisor, Radioactive Materials Inspection                       |
|   | <b>New York State Health Department (June 5)</b>                                 |
|   | Alexander Damiani, Director, Bureau of Environmental Radiation Protection        |
|   | Daniel Samson, Chief, Radioactive Materials Section                              |
|   | Roger Sokol, Ph.D., Director, Division of Environmental Health Protection        |
|   | Daniel Lang, PHG, Deputy Director, Division of Environmental Health Protection   |
|   | <b>New York State Department of Environmental Conservation (June 5)</b>          |
|   | Daniel Evans, P.E., Director, Bureau of Hazardous Waste and Radiation Management |
|   | Timothy Rice, Chief, Radiological Sites Section                                  |
|   | Ann Marie Gray, Chief, Radiological Control Permits Section                      |

DISCUSSION:

The agencies which comprise the New York Agreement State program (Program) are the New York State Department of Health (DOH), which has jurisdiction over industrial uses of radioactive material throughout the State as well as medical, academic, and research uses outside the five boroughs of New York City; New York State Department of Environmental Conservation (DEC), which has jurisdiction throughout the State over discharges of radioactive material to the environment, including releases to the air and water, and the disposal of radioactive waste in the ground; and New York City Department of Health and Mental Hygiene (NYC), which has jurisdiction over medical, academic, and research uses of radioactive material within the five boroughs of New York City. The Integrated Materials Performance Evaluation Program (IMPEP) review of the New York Agreement State Program conducted during the period of March 12 – 23, 2018, resulted in the team recommending that New York be found satisfactory for six of the eight performance indicators reviewed: Status of Materials Inspection Program; Technical Quality of Inspections; Technical Quality of Licensing Actions; Technical Quality of Incident and Allegation Activities; Sealed Source and Device Evaluation Program; and

Low-Level Radioactive Waste Disposal Program. The team recommended that the common indicator, Technical Staffing and Training was found satisfactory, but needs improvement. The non-common indicator, Compatibility Requirements was found unsatisfactory. These ratings remain unchanged from the previous IMPEP review, which concluded on March 28, 2014.

The team made one new recommendation regarding program performance in Technical Quality of Inspections for the NYC. The team recommended, and the MRB agreed, that inspectors obtain additional training regarding the application of DOT regulations to material license inspections. The team determined that the recommendation to make appropriate regulatory changes to resolve NRC-generated comments as noted in regulation review letters, and adopt NRC regulations in accordance with the current NRC policy on adequacy and compatibility should remain open.

Accordingly, the team recommended, and the MRB agreed, that the New York Agreement State Program is adequate to protect public health and safety and not compatible with the NRC's program. Based on the results of the 2018 IMPEP review, the team recommended, and the MRB agreed, that the next full IMPEP review will take place in 4 years, with a periodic meeting in 1 year.

This report is a summary of the Periodic Meeting held with NYC on June 3, 2019 and with the DOH and DEC on June 5, 2019.

#### TOPICS COVERED DURING THE MEETING INCLUDED:

##### Organization

The NYC Program is administered by the Office of Radiological Health which is part of the Bureau of Environmental Sciences and Engineering within the Department of Health and Mental Hygiene. The Program is managed by the Program Director and the Unit Chief. The Program also has one inspection supervisor.

The DOH Program is administered by the Bureau of Environmental Radiation Protection (the Bureau) which is located in the Division of Environmental Health Investigation (the Division). The Division is part of the Center for Environmental Health (the Center) within the DOH. Since the 2018 IMPEP, the Bureau Director and the Assistant Director have both retired. The Director position has been filled by an internal promotion and the Bureau intends to fill the Assistant Director position next year.

There have been no reorganizations affecting the DEC program since the 2018 IMPEP review. The Program is administered by the Radiation Control Permit Section (the Permit Section) and the Radioactive Materials Management Section (the Sites Section) in the Bureau of Hazardous Waste and Radiation Management in the Division of Materials Management (the Division), within the DEC. The Program is managed by a Section Chief in both the Permit Section and the Sites Section. Shortly after the 2018 IMPEP review, the Section Chief of the Permit Section retired and the position has been backfilled.

##### Program Budget/Funding

The NYC fees do not cover the operating budget. Program funds generated by fees are placed into the NYC general fund, and the NYC program is provided an operating budget. The

Assistant Commissioner – Environmental Science and Engineering stated that the organization receives the funding necessary to effectively implement the radiation safety program.

The DOH has not increased their fees since 2000-2001. There has not been any significant changes to the budget since 2018 IMPEP review and the 75% cost recovery goal is still being met, mostly with fees from x-ray registrations, x-ray technician certifications and MSQA. The Director indicated that he was receiving adequate funding to manage the radiation safety program.

The DEC Program funding has been consistent since the 2018 IMPEP review and the Section Chiefs stated that the organization receives the funding necessary to effectively implement their programs.

#### Technical Staffing and Training (2018 IMPEP: Satisfactory, but Needs Improvement)

At the time of the periodic meeting, NYC had approximately 300 licensees. 6.5 full-time equivalents supported the radioactive materials program. No other staff have left the Program since the 2018 IMPEP review and one additional license reviewer has been hired. The new employee has begun to receive training and her progress is being tracked in a qualification journal consistent with IMC 1248.

The 2018 IMPEP review team made one recommendation for NYC in this indicator:

**Recommendation:** The review team recommended that the NYC inspectors obtain additional training regarding the application of DOT regulations to material license inspections.

**Status:** The Program reported that four employees have taken additional training regarding DOT regulations. Two employees have completed the recently released NRC on-line DOT training. Two other employees completed consultant DOT training and plan to also complete the NRC on-line training. Additional staff are progressing through the NRC on-line training as workload permits.

At the time of the periodic meeting, DOH had approximately 965 licensees. Since the 2018 IMPEP review, the Director of the program retired, the Assistant Director of the program left, the Section Chief of the regional staff took another position in the organization, and four clerical staff have left. The DOH has backfilled the Director position and has a waiver granted for a replacement for the vacant Section Chief position. The Director intends to replace the Assistant Director during the next year. During the 2018 IMPEP review, the program had two vacancies. Therefore, the program presently has 6 vacancies, two of which are clerical. When fully staffed, the program has 16 staff members which equates to 12 FTE to implement the radioactive materials program.

At the time of the periodic meeting, the DEC had 26 active air permits and 2 inactive radioactive waste sites. The Radiation Control Permit section had a supervisor and three staff members plus one vacancy which equals 5 FTE when fully staffed. Since the IMPEP, the Section Chief has retired and was replaced by a senior member of the staff. One new, full-time staff member has been hired for the Permits section so one vacancy remains. The Radioactive Materials Management section has two vacancies and anticipates a retirement in the near future. A seasonal (temporary part-time) employee has been hired but that does not qualify as having filled a vacancy. The DEC received a variance to hire three people, one for the Radiation Control Permit section and two for the Radioactive Materials Management section.

#### Status of Materials Inspection Program (2018 IMPEP: Satisfactory)

NYC reported that since the 2018 IMPEP, it completed all of its routine Priority 1, 2 & 3 inspections in a timely manner according to the priorities established in NRC Inspection Manual Chapter 2800. At the time of the Periodic Meeting there were no overdue Priority 1, 2 & 3 inspections. No initial inspections were completed overdue since the 2018 IMPEP review. The program also performed 100% of the candidate reciprocity inspections in 2018 and had performed two out of two candidate reciprocity inspections in 2019. All inspection documentation was issued within 30 days to the licensees.

DOH reported that since the 2018 IMPEP, it completed 3 of 282 inspections late according to the priorities established in NRC Inspection Manual Chapter 2800. This statistic included the Priority 5 inspections. At the time of the Periodic Meeting there were no overdue Priority 1, 2 & 3 inspections. None of the 21 initial inspections were completed overdue since the 2018 IMPEP review. The program reported that a large majority of the inspection documentation was issued within 30 days to the licensees with a few exceptions. The program did not have statistics to present for reciprocity inspections at the time of the Periodic Meeting.

Since the focus of the inspections conducted by the DEC is solely on environmental discharges, the inspection frequencies are not based NRC's IMC 2800. Instead, the inspection frequencies are based on the magnitude of the environmental discharges. DEC reported that no inspections were completed overdue. No inspections were overdue at the time of the Periodic Meeting based on their inspection schedule which appeared appropriate and commensurate with the potential radiological hazards.

#### Technical Quality of Inspections (2018 IMPEP: Satisfactory)

NYC has revised inspection checklists to conform with their new health code for the most common inspections that are being performed including HDR & Brachytherapy, Nuclear Medicine, Laboratory Inspection, and Broad Scope inspections. All inspector correspondence that is issued to licensees receives supervisory review. NYC reported that all their inspectors, including the inspection supervisor, received a supervisory accompaniment in 2018.

The DOH is presently using fairly generic inspection procedures but is developing modality/licensee type specific inspection procedures to augment their current inspection checklists. All inspection correspondence is reviewed by a supervisor prior to issuance. DOH reported that all their inspectors received a supervisory accompaniment in 2018.

The DEC has written inspection procedures that have currently been revised. Waste site inspection checklist are tailored to the specific site. All inspection correspondence is reviewed by a supervisor prior to issuance. DEC reported that all their inspectors received a supervisory accompaniment in 2018.

#### Technical Quality of Licensing Actions (2018 IMPEP: Satisfactory)

NYC has implemented a peer review process for all licensing actions to ensure that the actions are complete and well-documented. NYC uses NUREG-1556 licensing guidance and the NRC pre-licensing guidance on applicable licensing actions. Pre-licensing visits are performed prior to issuing a new license.

In the DOH the supervisor performs peer reviews and signs out all licenses. On average 880 licensing actions are completed each year. DOH uses NUREG-1556 licensing guidance and the NRC pre-licensing guidance on applicable licensing actions. DOH still has a significant licensing backlog. As of June 1<sup>st</sup>, there are 334 actions in house to be processed. There are 116 renewals and amendments that are older than 1 year. The licensing backlog identified during the 2018 IMPEP was 124 renewals and amendments older than 1 year. The backlog has decreased since the IMPEP but not significantly.

The DEC issues permits not licenses. They implement a peer review process to assure technical quality. All permits received a primary review, secondary review, and a supervisory review. They have timeliness milestones for issuance of permits that were consistently met.

#### Technical Quality of Incidents and Allegation Activities (2018 IMPEP: Satisfactory)

NYC, DOH, and DEC have processes in place to maintain effective responses to incidents and allegations. The programs consistently reported events to the NRC in a timely manner and continued to close out events in NMED as appropriate.

#### Compatibility Requirements (2018 IMPEP: Unsatisfactory)

The 2014 IMPEP review team made one recommendation in this indicator and the 2018 IMPEP team recommended, and the MRB agreed, to hold the following recommendation open.

**Recommendation:** Make appropriate regulatory changes to resolve NRC-generated comments as noted in regulation review letters, and adopt NRC regulations in accordance with the current NRC policy on adequacy and compatibility.

**Status:** On April 17, the NYC Board of Health voted to repeal and reenact a new Article 175 of NYC Health code concerning radiation control. The new Article 175 will adopt NRC regulations by reference.

During the 2018 IMPEP review, 10 regulation amendments were due for adoption by the DOH. The DOH was in the process of developing rules to incorporate NRC regulations by reference. The DOH had implemented some license conditions to prevent significant health and safety gaps in the regulations to maintain compatibility (e.g., license conditions for 10 CFR Parts 35, 37, and 71).

In a letter dated May 11, 2018, the DOH submitted updates to regulations in RATS IDs 1995-1, 1995-7, 1998-1, 1998-4, 1998-5, 2002-1, 2006-1, 2007-1, 2007-2, 2012-3, 2012-4, 2013-1, 2013-2, 2015-3, 2015-4, and 2015-5. The NRC reviewed the updates and in a letter dated September 13, 2018, communicated 21 comments related to compatibility and one comment not related to compatibility concerning the May 11, 2018 submittal. The NRC requested the DOH to incorporate the comments into the proposed regulations. The primary personnel at the DOH for regulation development and compatibility were the Director and the Assistant Director. The Director retired immediately following the 2018 MRB and the Assistant Director left the DOH later that year. Progress on regulation development has been delayed since the last major effort in May of 2018. However, the new Director indicated that regulation development and improved compatibility is a priority for the remainder of 2019 into the beginning of 2020 with a goal of publishing the updated regulations in the spring of 2020.



The DEC submitted final revisions to the New York State Department of Environmental Conservation regulations 6 NYCRR Part 380 to the NRC on April 13, 2018. The regulations were reviewed by comparison to the equivalent U.S. Nuclear Regulatory Commission (NRC) rules and Regulation Amendment Tracking System Identification Numbers (RATS IDs) 1991-4, 1995-5, 1997-1, 1998-1, and 1998-5 and there were no comments concerning compatibility.

Sealed Source and Device Evaluation (SS&D) Program (2018 IMPEP: Satisfactory)

The DOH has not performed an SS&D action since the 2018 IMPEP. The Program has two trained staff members who perform SS&D reviews.

Low-Level Radioactive Waste (LLRW) Disposal Program (2018 IMPEP: Satisfactory)

New York has two former radioactive waste disposal sites: the State-licensed Disposal Area (SDA) on the Western New York Nuclear Service Center at West Valley (West Valley Site) and the University of Cornell Radiation Disposal Site (RDS) in Lansing. The Sites Section inspects the Cornell site annually and the West Valley site twice per year. In addition, each site is issued a permit from the Permit Section for monitoring and maintenance activities. The Program noted that the LLRW Disposal Program has not had any changes since the 2018 IMPEP review.

Conclusion

The New York Agreement State Program continues to be an effective, well maintained program. Significant advances have been made at NYC and DEC in the area of compatibility regarding regulations. DOH has made minimal progress regarding compatibility with their regulations, however the circumstances of losing the program Director and Assistant Director has contributed to limited progress.

DOH also has a significant backlog on licensing actions. This was identified during the 2018 IMPEP and significant improvement has not been made in this area. The program appears to be understaffed when compared to similar programs of this size. The understaffing contributes significantly to the licensing backlog

NRC staff recommends that the next IMPEP be performed in March 2022.