



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
WASHINGTON, D.C. 20555-0001

August 27, 2019

**MEMORANDUM TO:**

K. Steven West  
Deputy Executive Director for Materials, Waste, Research,  
State, Tribal, Compliance, Administration,  
and Human Capital Programs  
Office of the Executive Director for Operations

Mary B. Spencer, Assistant General Counsel  
for Reactor and Materials Rulemaking  
Office of the General Counsel

John W. Lubinski, Director  
Office of Nuclear Material Safety  
and Safeguards

Raymond K. Lorson, Deputy Regional Administrator  
Region I

**FROM:**

Paul Michalak, Chief */RA/*  
State Agreement and Liaison Programs Branch  
Division of Materials Safety, Security, State,  
and Tribal Programs  
Office of Nuclear Material Safety  
and Safeguards

**SUBJECT:**

**INTEGRATED MATERIALS PERFORMANCE EVALUATION  
PROGRAM REVIEW OF NORTH DAKOTA**

This memorandum transmits to the Management Review Board (MRB) the proposed final report (Enclosure 1) documenting the Integrated Materials Performance Evaluation Program (IMPEP) review of the State of North Dakota. The review was conducted by a team of U.S. Nuclear Regulatory Commission (NRC) and Agreement State technical staff during the period of June 10-13, 2019. The team's preliminary findings were discussed with representatives of the State of North Dakota on the last day of the review. The team issued a draft report to North Dakota on July 11, 2019, for factual comment. North Dakota responded, with no comment, to the draft report by email dated July 29, 2019, from Dale P. Patrick, Program Manager, Radiation and Asbestos Control Program, Division of Air Quality, Environmental Health Section, North Dakota Department of Health.

**CONTACT:** Robert K. Johnson, NMSS/MSST  
(301) 415-7314

Overall, the team is recommending that North Dakota's performance be found satisfactory for all indicators reviewed. Accordingly, the team recommends that the North Dakota Agreement State Program be found adequate to protect public health and safety and compatible with the NRC's program. The team also recommends that the next IMPEP review take place in approximately 5 years with a periodic meeting in approximately 2.5 years.

The MRB meeting to consider the North Dakota's report is scheduled for Thursday, **September 5, 2019, from 1:00 p.m. to 4:00 p.m. ET, OWFN-03B04**. In accordance with Management Directive 5.6, the meeting is open to the public. The agenda for the meeting is enclosed (Enclosure 2).

Enclosures:

1. North Dakota Proposed Final Report
2. Agenda for MRB Meeting

cc: Augustinus Ong, Administrator  
New Hampshire Department of Health  
and Human Services  
Organization of Agreement States  
Liaison to the MRB

SUBJECT: INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM  
REVIEW OF NORTH DAKOTA PROPOSED FINAL REPORT DATED  
AUGUST, 27, 2019

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INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM  
REVIEW OF THE NORTH DAKOTA AGREEMENT STATE PROGRAM

June 10–13, 2019

**PROPOSED FINAL REPORT**

## **EXECUTIVE SUMMARY**

The results of the Integrated Materials Performance Evaluation Program (IMPEP) review of the North Dakota Agreement State Program (North Dakota) are discussed in this report. The review was conducted during the period of June 10–13, 2019. Based on the results of this review, North Dakota's performance was found satisfactory for all six performance indicators reviewed.

The team did not make any recommendations and there were no recommendations from the previous review for the team to consider.

Accordingly, the team recommends that the North Dakota be found adequate to protect public health and safety and compatible with the NRC's program. Since this is the second consecutive IMPEP review with all performance indicators being found satisfactory, the team recommends that the next IMPEP review take place in approximately 5 years with a periodic meeting in approximately 2.5 years.

## 1.0 INTRODUCTION

The North Dakota Agreement State Program (North Dakota) review was conducted during the period of June 10–13, 2019, by a team comprised of technical staff members from the U.S. Nuclear Regulatory Commission (NRC), the State of Minnesota, and the Commonwealth of Massachusetts. Team members are identified in Appendix A. The review was conducted in accordance with the “Agreement State Program Policy Statement,” published in the *Federal Register* on October 18, 2017 (82 FR 48535), and NRC Management Directive (MD) 5.6, “Integrated Materials Performance Evaluation Program (IMPEP),” dated February 26, 2004. Preliminary results of the review, which covered the period of June 26, 2015 to June 13, 2019, were discussed with North Dakota managers on the last day of the review.

In preparation for the review, a questionnaire addressing the common performance indicators and applicable non-common performance indicator was sent to North Dakota on October 16, 2018. North Dakota provided its response to the questionnaire on May 20, 2019. A copy of the questionnaire response is available in the NRC’s Agencywide Documents Access and Management System (ADAMS) using the Accession Number ML19142A275.

The North Dakota Radiation Control Program was part of the Division of Air Quality (the Division) which is part of the Department of Environmental Quality (the Department). Organization charts for North Dakota are available in ADAMS using Accession Number ML19142A265. The North Dakota Radiation Control Program was moved to the Division of Waste Management in July 2019.

At the time of the review, North Dakota regulated 84 specific licenses authorizing possession and use of radioactive materials. The review focused on the radioactive materials program as it is carried out under Section 274b. (of the Atomic Energy Act of 1954, as amended) Agreement between the NRC and the State of North Dakota.

The team evaluated the information gathered against the established criteria for each common and the applicable non-common performance indicator and made a preliminary assessment of North Dakota’s performance.

## 2.0 PREVIOUS IMPEP REVIEW AND STATUS OF RECOMMENDATIONS

The previous IMPEP review concluded on June 25, 2015. The final report is available in ADAMS using Accession Number ML15266A068. The results of the review are as follows:

Technical Staffing and Training: Satisfactory  
Recommendation: None

Status of Materials Inspection Program: Satisfactory  
Recommendation: None

Technical Quality of Inspections: Satisfactory  
Recommendation: None

Technical Quality of Licensing Actions: Satisfactory  
Recommendation: None

Technical Quality of Incident and Allegation Activities: Satisfactory  
Recommendation: None

Compatibility Requirements: Satisfactory  
Recommendation: None

Overall finding: Adequate to protect public health and safety and compatible with the NRC's program.

### 3.0 COMMON PERFORMANCE INDICATORS

Five common performance indicators are used to review the NRC regional and Agreement State radioactive materials programs. These indicators are: (1) Technical Staffing and Training, (2) Status of Materials Inspection Program, (3) Technical Quality of Inspections, (4) Technical Quality of Licensing Actions, and (5) Technical Quality of Incident and Allegation Activities.

#### 3.1 Technical Staffing and Training

The ability to conduct effective licensing and inspection programs is largely dependent on having a sufficient number of experienced, knowledgeable, well-trained technical personnel. Under certain conditions, staff turnover could have an adverse effect on the implementation of these programs and could affect public health and safety. Apparent trends in staffing must be explored. Review of staffing also requires consideration and evaluation of the levels of training and qualification. The evaluation standard measures the overall quality of training available to, and taken by, materials program personnel.

##### a. Scope

The team used the guidance in State Agreements procedure SA-103, "Reviewing the Common Performance Indicator: Technical Staffing and Training," and evaluated North Dakota's performance with respect to the following performance indicator objectives:

- A well-conceived and balanced staffing strategy has been implemented throughout the review period.
- Agreement State training and qualification program is equivalent to NRC Inspection Manual Chapter (IMC) 1248, "Formal Qualifications Program for Federal and State Material and Environmental Management Programs
- Qualification criteria for new technical staff are established and are followed, or qualification criteria will be established if new staff members are hired.
- Any vacancies, especially senior-level positions, are filled in a timely manner.

- There is a balance in staffing of the licensing and inspection programs.
- Management is committed to training and staff qualification.
- Individuals performing materials licensing and inspection activities are adequately qualified and trained to perform their duties.
- License reviewers and inspectors are trained and qualified in a reasonable period of time.

b. Discussion

North Dakota is comprised of six staff members which equals 5.35 FTE for the radioactive materials program when fully staffed. At the time of the review, there was one vacancy. An offer to fill that position was made at the end of April 2019 and accepted in May 2019. That individual started in July 2019.

During the review period, two of the staff members left the program and one staff member was hired in September 2017. One staff member left the program in May 2017 for a job opportunity outside the state government. Another staff member who was working 60 percent of the time in the radioactive material program and 40 percent in the x-ray program moved to work in the x-ray program full time in April 2019. Vacated positions take approximately 3 months to fill.

North Dakota has a training and qualification program compatible with the NRC's IMC 1248. Staff are maintaining their inspector qualification by attending 24 hours of refresher training every 24 months in accordance with IMC 1248.

c. Evaluation

The team determined that, during the review period, North Dakota met the performance indicator objectives listed in Section 3.1.a. Based on the criteria in MD 5.6, the team recommends that North Dakota's performance with respect to the indicator, Technical Staffing and Training, be found satisfactory.

d. MRB Decision

The final report will present the MRB's conclusion regarding this indicator.

3.2 Status of Materials Inspection Program

Periodic inspections of licensed operations are essential to ensure that activities are being conducted in compliance with regulatory requirements and consistent with good safety practices. The frequency of inspections is specified in IMC 2800, "Materials Inspection Program," and is dependent on the amount and kind of material, the type of operation licensed, and the results of previous inspections. There must be a capability for maintaining and retrieving statistical data on the status of the inspection program.



a. Scope

The team used the guidance in State Agreements procedure SA-101, "Reviewing the Common Performance Indicator: Status of the Materials Inspection Program," and evaluated North Dakota's performance with respect to the following performance indicator objectives:

- Initial inspections and inspections of Priority 1, 2, and 3 licensees are performed at the frequency prescribed in IMC 2800.
- Candidate licensees working under reciprocity are inspected in accordance with the criteria prescribed in IMC 1220, "Processing of NRC Form 241, Report of Proposed Activities in Non-Agreement States, Areas of Exclusive Federal Jurisdiction, and Offshore Waters, and Inspection of Agreement State Licensees Operating Under 10 CFR 150.20."
- Deviations from inspection schedules are normally coordinated between technical staff and management.
- There is a plan to perform any overdue inspections and reschedule any missed or deferred inspections, or a basis has been established for not performing any overdue inspections or rescheduling any missed or deferred inspections.
- Inspection findings are communicated to licensees in a timely manner (30 calendar days, or 45 days for a team inspection, as specified in IMC 0610, "Nuclear Material Safety and Safeguards Inspection Reports").

b. Discussion

North Dakota performed 95 Priority 1, 2, 3, and initial inspections during review period. No Priority 1, 2, 3 or initial inspections were conducted overdue during the review period. North Dakota's inspection frequencies are the same or more frequent for similar license types in IMC 2800. A sampling of 20 inspection reports indicated that no inspection findings were communicated to the licensees beyond North Dakota's goal of 30 days after the inspection exit.

Each year of the review period, North Dakota performed greater than 20 percent of candidate reciprocity inspections. North Dakota performed 23 percent reciprocity inspections in 2015; 36 percent in 2016; 50 percent in 2017; 20 percent in 2018 and 25 percent as of June 11, 2019. Since the last IMPEP, North Dakota created an access database for reciprocity. This database allows inspectors to perform a query and get a list of reciprocity licensees for a given date.

c. Evaluation

The team determined that, during the review period, North Dakota met the performance indicator objectives listed in Section 3.2.a. Based on the criteria in MD 5.6, the team recommends that North Dakota's performance with respect to the indicator, Status of Materials Inspection Program, be found satisfactory.

d. MRB Decision

The final report will present the MRB's conclusion regarding this indicator.

3.3 Technical Quality of Inspections

Inspections, both routine and reactive, provide assurance that licensee activities are carried out in a safe and secure manner. Accompaniments of inspectors performing inspections, and the critical evaluation of inspection records, are used to assess the technical quality of an Agreement State's inspection program.

a. Scope

The team used the guidance in State Agreements procedure SA-102, "Reviewing the Common Performance Indicator: Technical Quality of Inspections," and evaluated North Dakota's performance with respect to the following performance indicator objectives:

- Inspections of licensed activities focus on health, safety, and security.
- Inspection findings are well-founded and properly documented in reports.
- Management promptly reviews inspection results.
- Procedures are in place and used to help identify root causes and poor licensee performance.
- Inspections address previously identified open items and violations.
- Inspection findings lead to appropriate and prompt regulatory action.
- Supervisors, or senior staff as appropriate, conduct annual accompaniments of each inspector to assess performance and assure consistent application of inspection policies.
- For programs with separate licensing and inspection staffs, procedures are established and followed to provide feedback information to license reviewers.
- Inspection guides are consistent with NRC guidance.
- An adequate supply of calibrated survey instruments is available to support the inspection program.

b. Discussion

The team evaluated inspection reports and enforcement documentation, and interviewed inspectors involved in the materials inspections conducted during the review period. The casework reviewed included 20 inspections conducted by 7 of North Dakota's inspectors and covered medical, academic, research, nuclear pharmacy, accelerator, self-shielded irradiator, industrial radiography, gauges, and well logging licensees.

Supervisory accompaniments performed by North Dakota were conducted more frequently than annually for all inspectors. A team member accompanied three North Dakota inspectors during April 29 – May 2, 2019. No performance issues were noted during the inspector accompaniments. The inspectors were well-prepared and thorough,

and assessed the impact of licensed activities on health, safety, and security. The inspector accompaniments are identified in Appendix B.

The team verified that North Dakota maintains a suitable number and variety of appropriately calibrated survey instruments to support the materials inspection program. Detection instruments were available for gamma, beta, and alpha contamination, as well as exposure and dose rates. North Dakota maintained instrument calibration records.

Except as noted below, the team found that for the casework reviewed, inspection documents were thorough, complete, consistent, and of acceptable technical quality with health, safety, and security issues properly addressed. Inspection findings were clearly communicated to the licensee, violations were written with a direct link to a regulation or license condition, and previously identified open items and violations were appropriately closed.

North Dakota's inspection manual is equivalent to NRC's Inspection Manual Chapter 2800, "Materials Inspection Program," and North Dakota also uses Inspection Procedure (IP) 87121 "Industrial Radiography Inspections." Both procedures emphasize the importance of performing temporary job site inspections and note that if a temporary job site inspection is not performed, the inspector will write a brief note in the inspection records explaining the missed temporary job site inspection; and in certain cases, may indicate a reduced inspection interval. However, North Dakota used an IP which was not consistent with the current IP 87121. IP 87121 was last revised by the NRC on December 17, 2014.

The team noted that for 11 out of the 20 casework files reviewed (5 industrial radiography, 3 well logging, and 3 portable gauge licensees), there was a lack of temporary job site inspections and associated documentation detailing why these inspections were not performed. The team identified that for two of the five industrial radiography casework files reviewed, there were no temporary job sites inspections conducted for four consecutive years for licensees whose primary licensed activities occur at temporary job sites. The team discussed the lack of temporary job site inspections with North Dakota's management and staff. The team was informed that North Dakota applies specific criteria in evaluating the need to inspect temporary job sites: (1) whether licensed activities are being performed at the temporary job site on the day of the inspection, (2) whether the temporary job site is a significant distance from the North Dakota office, or (3) whether there is sufficient time to conduct an inspection of the temporary job site. The team noted that North Dakota's inspectors typically planned one or two-day inspections at the licensee's office location and included a security inspection of the radioactive material storage location, when applicable. The team also noted that except for the temporary job site inspections, North Dakota was performing satisfactory inspections at the licensee's offices that focused on health, safety and security of licensed activities.

c. Evaluation

The team determined that, except as noted below, during the review period North Dakota met the performance indicator objectives listed in Section 3.3.a.

- Inspection guides were not always consistent with NRC guidance.

North Dakota used an industrial radiography IP which was not consistent with the current IP 87121, which was revised by the NRC on December 17, 2014 and emphasized performance of temporary job site inspections. Based on the review, North Dakota committed to revising the procedure. In addition, North Dakota was not following its equivalent IMC 2800 procedure for temporary job site inspections. Although North Dakota did not consistently conduct temporary job site inspections for its licensees or reduce the inspection interval, North Dakota management was committed to performing temporary job site inspections for its licensees and informed the team that they are supportive of overnight stays, in lieu of day trips, and recently required its inspectors to stay at least one overnight in certain situations.

Based on the IMPEP evaluation criteria in MD 5.6, the team recommends that North Dakota's performance with respect to the indicator, Technical Quality of Inspections, be found satisfactory.

d. MRB Decision

The final report will present the MRB's conclusion regarding this indicator.

3.4 Technical Quality of Licensing Actions

The quality, thoroughness, and timeliness of licensing actions can have a direct bearing on public health and safety, as well as security. An assessment of licensing procedures, actual implementation of those procedures, and documentation of communications and associated actions between North Dakota licensing staff and regulated community is a significant indicator of the overall quality of the licensing program.

a. Scope

The team used the guidance in State Agreements procedure SA-104, "Reviewing the Common Performance Indicator: Technical Quality of Licensing Actions," and evaluated North Dakota's performance with respect to the following performance indicator objectives:

- Licensing action reviews are thorough, complete, consistent, and of acceptable technical quality with health, safety, and security issues properly addressed.
- Essential elements of license applications have been submitted and elements are consistent with current regulatory guidance (e.g., financial assurance, increased controls, pre-licensing guidance).

- License reviewers, if applicable, have the proper signature authority for the cases they review independently.
- License conditions are stated clearly and can be inspected.
- Deficiency letters clearly state regulatory positions and are used at the proper time.
- Reviews of renewal applications demonstrate a thorough analysis of a licensee's inspection and enforcement history.
- Applicable guidance documents are available to reviewers and are followed (e.g., NUREG-1556 series, pre-licensing guidance, regulatory guides, etc.).
- Licensing practices for risk-significant radioactive materials are appropriately implemented including increased controls and fingerprinting orders (Part 37 equivalent).
- Documents containing sensitive security information are properly marked, handled, controlled, and secured.

b. Discussion

During the review period, North Dakota performed 220 radioactive materials licensing actions. The team evaluated 16 of those licensing actions. The actions selected for review included three new applications, eight amendments, three renewals, one termination, and one indirect transfer of control. The team evaluated casework which included the following license types and actions: broad scope academic, medical diagnostic and therapy, cyclotron/accelerator, industrial radiography, nuclear pharmacy, and gauges. The casework sample represented work from six license reviewers.

License reviewers used up-to-date guidance documents. Requests for additional information clearly stated deficiencies and adequately addressed health and safety concerns. License conditions were stated clearly and could be inspected. The team confirmed that North Dakota was using the correct Risk Significant Radioactive Material checklist in addition to the August 2018 Pre-Licensing Guidance.

The team determined that licensees requiring financial assurance had adequate funding plans and remained in compliance with financial assurance requirements throughout the review period. Financial assurance instruments were appropriately protected from loss or theft.

c. Evaluation

The team determined that, during the review period, North Dakota met the performance indicator objectives listed in Section 3.4.a. Based on the criteria in MD 5.6, the team recommends that North Dakota's performance with respect to the indicator, Technical Quality of Licensing Actions, be found satisfactory.

d. MRB Decision

The final report will present the MRB's conclusion regarding this indicator.

### 3.5 Technical Quality of Incident and Allegation Activities

The quality, thoroughness, and timeliness of response to incidents and allegations of safety concerns can have a direct bearing on public health and safety. An assessment of incident response and allegation investigation procedures, actual implementation of these procedures, internal and external coordination, and investigative and follow-up actions, are a significant indicator of the overall quality of the incident response and allegation programs.

#### a. Scope

The team used the guidance in State Agreements procedure SA-105, "Reviewing the Common Performance Indicator: Technical Quality of Incident and Allegation Activities," and evaluated North Dakota's performance with respect to the following performance indicator objectives:

- Incident response, investigation, and allegation procedures are in place and followed.
- Response actions are appropriate, well-coordinated, and timely.
- On-site responses are performed when incidents have potential health, safety, or security significance.
- Appropriate follow-up actions are taken to ensure prompt compliance by licensees.
- Follow-up inspections are scheduled and completed, as necessary.
- Notifications are made to the NRC Headquarters Operations Center for incidents requiring a 24-hour or immediate notification to the Agreement State or NRC.
- Incidents are reported to the Nuclear Material Events Database (NMED).
- Allegations are investigated in a prompt, appropriate manner.
- Concerned individuals are notified of investigation conclusions.
- Concerned individuals' identities are protected, as allowed by law.

#### b. Discussion

During the review period, eight radioactive material incidents were reported to North Dakota. The incidents included one stolen and not recovered portable gauge, one potential overexposure to a member of the public, one medical event, four damaged equipment, and one leaking source. All eight incidents were properly reported to NMED and to the NRC's Headquarters Operation Officer within the required timeframe. North Dakota immediately dispatched inspectors for on-site follow-up for the potential overexposure and medical event.

When an incident is reported to North Dakota, staff and management review the details of the incidents and management decides if an immediate on-site investigation is necessary. The team found that incidents were reviewed promptly and thoroughly with a focus on health and safety. Responses vary from immediately reviewing the incident with an in-house review, on-site investigation, or follow-up at the next scheduled inspection. Incidents determined to have potential health and safety significance were responded to immediately.

At the time of the review, North Dakota had a procedure manual for incidents and a procedure manual for allegations. However, during interviews with inspectors, the team came across two slightly different versions of the incident procedure manual. By June 13, 2019, North Dakota had removed the outdated version and was in the process of modifying the current version to implement fully documenting incident responses and placing this information in the license file. The allegation procedure manual was available to staff and being followed.

During the review period, five allegations were received by North Dakota. The team evaluated all five allegations, including one allegation that the NRC referred to the State, during the review period. The team found that North Dakota took prompt and appropriate action in response to the concerns raised. All the allegations reviewed were properly closed, concerned individuals were notified of the actions taken in all but one instance, and alleged identities were protected in accordance with State law. For the one case where the alleged was not notified of the results, the alleged's contact information was no longer valid and therefore, the alleged could not be reached.

c. Evaluation

The team determined that, during the review period, North Dakota met the performance indicator objectives listed in Section 3.5.a. Based on the criteria in MD 5.6, recommends that North Dakota's performance with respect to the indicator, Technical Quality of Incident and Allegation Activities, be found satisfactory.

d. MRB Decision

The final report will present the MRB's conclusion regarding this indicator.

#### 4.0 NON-COMMON PERFORMANCE INDICATORS

Four non-common performance indicators are used to review Agreement State programs: (1) Compatibility Requirements; (2) Sealed Source and Device (SS&D) Evaluation Program; (3) Low-Level Radioactive Waste (LLRW) Disposal Program; and (4) Uranium Recovery Program. The NRC's Agreement with North Dakota transfers regulatory authority for LLRW disposal program to the State; therefore, the first and third non-common performance indicators applied to this review.

##### 4.1 Compatibility Requirements

State statutes should authorize the State to establish a program for the regulation of agreement material and provide authority for the assumption of regulatory responsibility under the agreement. The statutes must authorize the State to promulgate regulatory requirements necessary to provide reasonable assurance of protection of public health, safety, and security. The State must be authorized through its legal authority to license, inspect, and enforce legally binding requirements, such as regulations and licenses. NRC regulations that should be adopted by an Agreement State for purposes of compatibility or health and safety should be adopted in a time frame so that the effective date of the State requirement is not later than 3 years after the effective date of the

NRC's final rule. Other program elements, as defined in Appendix A of State Agreements procedure SA-200, "Compatibility Categories and Health and Safety Identification for NRC Regulations and Other Program Elements," that have been designated as necessary for maintenance of an adequate and compatible program, should be adopted and implemented by an Agreement State within 6 months following NRC designation.

a. Scope

The team used the guidance in State Agreements procedure SA-107, "Reviewing the Non-Common Performance Indicator: Compatibility Requirements," and evaluated North Dakota's performance with respect to the following performance indicator objectives. A complete list of regulation amendments can be found on the NRC website at the following address: <https://scp.nrc.gov/regtoolbox.html>.

- The Agreement State program does not create conflicts, duplications, gaps, or other conditions that jeopardize an orderly pattern in the regulation of radioactive materials under the Atomic Energy Act, as amended.
- Regulations adopted by the Agreement State for purposes of compatibility or health and safety were adopted no later than 3 years after the effective date of the NRC regulation.
- Other program elements, as defined in SA-200 that have been designated as necessary for maintenance of an adequate and compatible program, have been adopted and implemented within 6 months of NRC designation.
- The State statutes authorize the State to establish a program for the regulation of agreement material and provide authority for the assumption of regulatory responsibility under the agreement.
- The State is authorized through its legal authority to license, inspect, and enforce legally binding requirements such as regulations and licenses.
- Sunset requirements, if any, do not negatively impact the effectiveness of the State's regulations.

b. Discussion

The State of North Dakota became an Agreement State on September 1, 1969. North Dakota's current effective statutory authority is contained in North Dakota Century Code Chapter 23.1-01. The North Dakota Century Code designates that the radiation control program is administered by the North Dakota Department of Environmental Quality. The North Dakota Century Code is sufficiently broad to provide authority for the regulation of source, byproduct, special nuclear material, and other radioactive materials. During the review period, there were three pieces of legislation passed and signed by the Governor that affected North Dakota. One piece of legislation transferred the North Dakota Agreement State Program from the Department of Health to the newly created Department of Environmental Quality. There was no change to the authorities granted under the North Dakota Agreement State Program as a result of this legislation.



The other two pieces of legislation were related to the disposal and storage of high-level radioactive waste (HLRW). The legislation was in reaction to the U.S. Department of Energy's (DOE) announcement in January 2016 to conduct deep borehole field tests in the State's crystalline rock formations to evaluate the feasibility of HLRW disposal and geothermal energy development. The DOE later cancelled the borehole project in May 2017. As a result of the 2017 legislation, the Office of General Counsel notified the Commission of the potential pre-emption issue that the North Dakota legislation may create. In 2019, the North Dakota Legislature amended the 2017 legislation to provide requirements for additional county permits, a high-level waste fund, and a high-level waste advisory council. In response to the review of the legislation, the NRC staff sent a May 22, 2019, letter to North Dakota indicating that the regulation of HLRW is outside the scope of the Section 274b. Agreement between the State and the NRC (ADAMS Accession No. ML19057A486). During the on-site review, the Manager stated that the Governor's Office was provided a copy of the NRC's letter.

North Dakota's administrative rulemaking process takes approximately 6 months from drafting to finalizing a rule. The public, NRC, other agencies, and potentially impacted licensees and registrants are offered an opportunity to comment during the process. Comments are considered and incorporated, as appropriate, before the regulations are finalized and approved by the Legislative Rules Committee. The team noted that the State's rules and regulations are not subject to "sunset" laws.

During the review period, there were 10 NRC amendments due for State adoption. North Dakota adopted 7 of the 10 amendments prior to the due date. The three amendments that were adopted overdue occurred at the beginning of the review period and were 3 to 5 months overdue. At the time of this review, there were no overdue amendments.

The team also reviewed other program elements, such as recently updated guidance documents (e.g., NUREG-1556 series, the Risk Significant Radioactive Materials Checklist, and the Pre-Licensing Guidance) that are necessary for maintenance of an adequate and compatible program. The team determined that all guidance documents were adopted and implemented within 6 months of NRC designation.

c. Evaluation

The team determined that, during the review period, North Dakota met the performance indicator objectives listed in Section 4.1.a. Based on the criteria in MD 5.6, the team recommends that North Dakota's performance with respect to the indicator, Compatibility Requirements, be found satisfactory.

d. MRB Decision

The final report will present the MRB's conclusion regarding this indicator.

#### 4.2 Low-Level Radioactive Waste (LLRW) Disposal Program

In 1981, the NRC amended its Policy Statement, "Criteria for Guidance of States and NRC in Discontinuance of NRC Regulatory Authority and Assumption Thereof by States Through Agreement," to allow a State to seek an amendment for the regulation of Low-Level Radioactive Waste as a separate category. Although, North Dakota has authority to regulate a LLRW disposal, the NRC has not required States to have a program for licensing a disposal facility until such time as the State has been designated as a host State for a LLRW disposal facility. When an Agreement State has been notified or becomes aware of the need to regulate a LLRW disposal facility, it is expected to put in place a regulatory program that will meet the criteria for an adequate and compatible LLRW disposal program. There are no plans for a LLRW disposal facility in North Dakota. Accordingly, the review team did not review this indicator.

#### 5.0 SUMMARY

As noted in Sections 3.0 and 4.0 above, North Dakota's performance was found to be satisfactory for all performance indicators reviewed. The team did not make any recommendations and there were no recommendations from the previous review for the team to consider.

Accordingly, the team recommends that the North Dakota Agreement State Program be found adequate to protect public health and safety, and compatible with the NRC's program. Since this is the second consecutive IMPEP review with all performance indicators being found satisfactory, the team recommends that the next full IMPEP review take place in approximately 5 years, with a periodic meeting in approximately 2.5 years.

## LIST OF APPENDICES

Appendix A      IMPEP Review Team Members

Appendix B      Inspection Accompaniments

## APPENDIX A

### IMPEP REVIEW TEAM MEMBERS

<b>Name</b>	<b>Areas of Responsibility</b>
Kathy Modes, NMSS	Team Lead Technical Staffing and Training Status of Materials Inspection Program Inspection Accompaniments
Joshua Daehler, Massachusetts	Technical Quality of Inspections
Jacqueline Cook, RIV RSAO	Technical Quality of Licensing Actions
Sherrie Flaherty, Minnesota	Technical Quality of Incident and Allegation Activities
Duncan White, NMSS	Compatibility Requirements

## APPENDIX B

### INSPECTION ACCOMPANIMENTS

The following inspection accompaniments were performed prior to the on-site IMPEP review:

Accompaniment No.: 1	License No.: 33-48303-01
License Type: Industrial Radiography	Priority: 1
Inspection Date: 4/29/2019	Inspector: KD

Accompaniment No.: 2	License No.: 33-09128-01
License Type: Fixed Gauge	Priority: 5
Inspection Date: 4/30/2019	Inspector: WP

Accompaniment No.: 3	License No.: 33-10227-02
License Type: Medical Institution – Written Directives Required (includes HDR)	Priority: 2
Inspection Date: 5/1-2/2019	Inspector: BO

**Agenda for Management Review Board Meeting**  
**September 5, 2019, 1:00 p.m. – 4:00 p.m. (ET), OWFN-03B04**

1. Meeting Convened.
  - a. Announcement of public meeting.
  - b. Request for members of the public to indicate they are participating and their affiliation.
  - c. Introduction of MRB members, review team members, State representatives, and other participants.
2. MRB Chair Convenes the Business Portion of the Meeting.
  - a. Consideration of the North Dakota Agreement State's IMPEP Report.
  - b. Presentation of Findings Regarding North Dakota's Program and Discussion.
    - i. Technical Staffing and Training
    - ii. Status of Materials Inspection Program
    - iii. Technical Quality of Inspections
    - iv. Technical Quality of Licensing Actions
    - v. Technical Quality of Incident and Allegation Activities
    - vi. Compatibility Requirements
  - c. IMPEP Team Recommendations.
  - d. MRB Consultation/Comments on Issuance of Report.
  - e. Request for comments from North Dakota representatives, OAS Liaison, and State IMPEP team members.
  - f. Overall MRB Determination.
3. MRB Chair Closes the Business Portion of the Meeting
4. Questions or comments from members of the public.
5. Meeting adjournment.