January 31, 2011

Maureen E. Dempsey, M.D., FAACP
Chief Deputy for Public Health
Virginia Department of Health
P.O. Box 2448
Richmond, VA 23218

Dear Dr. Dempsey:

On January 12, 2011, the Management Review Board (MRB) met to consider the proposed final Integrated Materials Performance Evaluation Program (IMPEP) report on the Virginia Agreement State Program. The MRB found the Virginia Agreement State Program adequate to protect public health and safety and compatible with the U.S. Nuclear Regulatory Commission's (NRC) program.

Section 4.0, page 9, of the enclosed final report contains a summary of the IMPEP review team's findings. Based on the results of the current IMPEP review, the next full review of the Virginia Agreement State Program will take place in approximately 4 years, with a periodic meeting tentatively scheduled for November 2012.

During the periodic meeting and at the next IMPEP review, NRC will evaluate the effectiveness of the Commonwealth's response to the review team's recommendation and the overall implementation of your Agreement State Program.

I appreciate the courtesy and cooperation extended to the IMPEP team during the review. I also wish to acknowledge your continued support for the Agreement State Program. I look forward to our agencies continuing to work cooperatively in the future.

Sincerely,

/RA/

Michael F. Weber
Deputy Executive Director for Materials, Waste,
Research, State, Tribal, and Compliance Programs
Office of the Executive Director for Operations

Enclosure:
Virginia Final IMPEP Report

cc: Leslie Foldesi, Director
Division of Radiological Health

Maureen E. Dempsey, M.D., FAACP
Chief Deputy for Public Health
Virginia Department of Health
P.O. Box 2448
Richmond, VA 23218

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Division of Radiological Health

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Letter to Maureen E. Dempsey from Michael F. Weber dated January 31, 2011

SUBJECT: VIRGINIA 2010 FINAL IMPEP REPORT

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Protecting People and the Environment

INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM

REVIEW OF THE VIRGINIA AGREEMENT STATE PROGRAM

NOVEMBER 1-5, 2010

FINAL REPORT

Enclosure

EXECUTIVE SUMMARY

This report presents the results of the initial IMPEP review of the Virginia Agreement State Program. The review was conducted during the period of November 1-5, 2010, by a review team composed of technical staff members from the U.S. Nuclear Regulatory Commission (NRC) and the State of Ohio.

Based on the results of this review, Virginia's performance was found satisfactory for all six performance indicators reviewed. The review team made one recommendation regarding the performance of the Virginia Agreement State Program. The review team recommends that the Commonwealth implement, use, and update the licensing and inspection qualification journals for each staff member.

Accordingly, the review team recommended, and the MRB agreed, that the Virginia Agreement State Program be found adequate to protect public health and safety and compatible with NRC's program.

The review team recommended, and the MRB agreed, that the next full IMPEP review take place in approximately 4 years.

1.0 INTRODUCTION

This report presents the results of the review of the Virginia Agreement State Program. The review was conducted during the period of November 1-5, 2010, by a review team composed of technical staff members from the U.S. Nuclear Regulatory Commission (NRC) and the State of Ohio. This was the initial review of the program since the Agreement was signed in March 2009. Team members are identified in Appendix A. The review was conducted in accordance with the "Implementation of the Integrated Materials Performance Evaluation Program and Rescission of Final General Statement of Policy," published in the *Federal Register* on October 16, 1997, and NRC Management Directive 5.6, "Integrated Materials Performance Evaluation Program (IMPEP)," dated February 26, 2004. Preliminary results of the review, which covered the period of March 31, 2009, to November 5, 2010, were discussed with Virginia managers on the last day of the review.

A draft of this report was issued to Virginia for factual comment on November 22, 2010. The State responded by letter dated December 21, 2010, from Maureen Dempsey, M.D., Chief Deputy for Public Health. A copy of the Commonwealth's response is included as the Attachment to this report. The Management Review Board (MRB) met on January 12, 2011, to consider the proposed final report. The MRB found the Virginia Agreement State Program adequate to protect public health and safety and compatible with NRC's program.

The Virginia Agreement State Program is administered by the Radioactive Materials Program (the Program), in the Division of Radiological Health (the Division). The Division is part of the Virginia Department of Health, Office of Epidemiology. Organization charts for the Commonwealth, the Division, and the Program are included as Appendix B.

At the time of the review, the Virginia Agreement State Program regulated 424 specific licenses authorizing byproduct, source, and certain special nuclear materials. The review focused on the radioactive materials program as it is carried out under the Section 274b. (of the Atomic Energy Act of 1954, as amended) Agreement between the NRC and the Commonwealth of Virginia.

In preparation for the review, a questionnaire addressing the common and applicable non-common performance indicators was sent to the Program on July 21, 2010. The Program provided its response to the questionnaire on October 19, 2010. A publicly available version of the questionnaire response can be found in NRC's Agencywide Documents Access and Management System (ADAMS) using the Accession Number ML102920712.

The review team's general approach for conduct of this review consisted of: (1) examination of the Program's response to the questionnaire; (2) review of applicable Virginia statutes and regulations; (3) analysis of quantitative information from the Program's databases; (4) technical review of selected regulatory actions; (5) field accompaniments of three inspectors; and (6) interviews with staff and managers. The review 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 the Virginia Agreement State Program's performance.

Results of the review for the common performance indicators are presented in Section 2.0. Section 3.0 details the results of the review of the applicable non-common performance

indicators, and Section 4.0 summarizes the review team's findings and recommendations. The review team's recommendations are comments that relate directly to program performance by the Commonwealth. A response is requested from the Commonwealth to all recommendations in the final report.

2.0 COMMON PERFORMANCE INDICATORS

Five common performance indicators are used to review 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.

2.1 Technical Staffing and Training

Issues central to the evaluation of this indicator include the Program's staffing level and staff turnover, as well as the technical qualifications and training histories of the staff. To evaluate these issues, the review team examined the Program's questionnaire response relative to this indicator, interviewed managers and staff, reviewed job descriptions and training records, and considered any workload backlogs.

The Virginia Agreement State Program is composed of the Program Manager, four Radiation Safety Specialists, and one Program Assistant. Two Radiation Safety Specialists are located in the main office in Richmond, and the other two are located out of their homes in Bristol and Yorktown. Having two of the Radiation Safety Specialists work remotely allows program coverage of the entire Commonwealth on short notice, if required. Each Radiation Safety Specialist has at least a bachelor's degree in a physical or life science and has several years of professional experience in radiation protection. Technical staff conducts inspections, performs licensing actions, and responds to incidents and allegations based on individual qualifications. Technical staff also performs emergency response duties as necessary. Based on information provided by the Program, the review team estimated that the Program expends approximately 4.25 full-time equivalents (FTE) to administer the Agreement State program.

During the review period, one Radiation Safety Specialist and one Program Assistant left the Agreement State program and one Radiation Safety Specialist joined the Program. At the time of the review, the Program had one vacancy in the Agreement State program: the Program Assistant position. The position became vacant in August 2010 after the former Program Assistant left the Program. The review team noted that the Program Assistant's duties have been temporarily absorbed by the Program Manager and various technical staff members. At the time of the review, the Program had received permission to fill the vacancy and had plans to post the position the following week. The review team concluded that the vacancy does not have a major impact on the day-to-day operations of the Agreement State program, as licensing and inspection backlogs have not developed since the position became vacant.

The Program has a documented training plan for technical staff that is consistent with the requirements in the NRC/Organization of Agreement States Training Working Group Report and NRC's Inspection Manual Chapter (IMC) 1246, "Formal Qualification Programs in the Nuclear Material Safety and Safeguards Program Area." The Program uses on-the-job training, such as inspector accompaniments, to supplement formal coursework. Staff members are typically

assigned increasingly complex duties as they progress through the qualification process. Staff members are authorized to perform regulatory duties independently after demonstrating competency. In the Commonwealth's application to become an Agreement State, the Commonwealth submitted and committed to using qualification journals for each of its staff members. The review team found that while qualification journals were started when the Commonwealth became an Agreement State, their continued use for current staff and implementation for new staff has not been sustained. The review team recommends that the Commonwealth implement, use, and update the licensing and inspection qualification journals for each staff member. At the time of the MRB meeting, the Commonwealth reported that they have updated and are now implementing licensing and inspection qualification journals for every staff member.

The review team noted that the Program managers encourage and support training opportunities, based on program needs. The review team concluded that the Program's staffing and training is adequate to carry out its regulatory duties.

Based on the IMPEP evaluation criteria, the review team recommends, and the MRB agreed, that Virginia's performance with respect to the indicator, Technical Staffing and Training, be found satisfactory.

2.2 Status of Materials Inspection Program

The review team focused on five factors while reviewing this indicator: inspection frequency, overdue inspections, initial inspections of new licenses, timely issuance of inspection findings to licensees, and performance of reciprocity inspections. The review team's evaluation was based on the Program's questionnaire response relative to this indicator, data gathered from the Program's database, examination of completed inspection casework, and interviews with Program managers and staff members.

The review team verified that Virginia's inspection frequencies for all types of radioactive material licenses are at least the same frequency as NRC's inspection frequencies, listed in IMC 2800, "Materials Inspection Program." The Virginia program inspects small medical facilities, where written directives are not required, at three year intervals, rather than the five-year interval in IMC 2800.

The Program conducted a total of 63 inspections of high priority (Priority 1, 2, and 3) licensees and 7 initial inspections during the review period. Of the 63 high priority inspections, the review team determined that two inspections were completed overdue by more than 25 percent of the inspection frequency prescribed in IMC 2800. The review team also verified that no high priority inspections were overdue at the time of the review. As required by IMC 2800, initial inspections should be conducted within 12 months of license issuance. The review team verified that there were no overdue initial inspections at the time of the review and that the 7 initial inspections were conducted within 12 months of license issuance. Overall, the review team calculated that the Program performed 2.8 percent of its inspections overdue during the review period.

The review team evaluated the Program's timeliness of issuance of inspection findings. The Program has a goal of issuing inspection correspondence within 30 days of the final date of the inspection. The program issued the results of 96 inspections during the review period and

28 were issued greater than 30 days after the final inspection date. The review team determined that the majority of inspection findings were issued within the 30-day goal.

During the review period, the Program received requests for reciprocity from 64 candidate licensees, and performed inspections of 28 percent of those licensees. The Program exceeded the criterion in IMC 1220 “Processing of NRC Form 241 and Inspection of Agreement State Licensees Operating Under 10 CFR 150.20,” that requires on-site inspection of 20 percent of candidate licensees operating under reciprocity.

The Program had 34 licensees that were subject to the Increased Controls at the time of the review. Initial Increased Control inspections were completed by the NRC prior to this review period. The review team noted that follow-up Increased Controls and National Source Tracking System inspections were being conducted during the routine inspections of these licensees.

Based on the IMPEP evaluation criteria, the review team recommends, and the MRB agreed, that Virginia's performance with respect to the indicator, Status of Materials Inspection Program, be found satisfactory.

2.3 Technical Quality of Inspections

The review team evaluated 27 inspection reports that included enforcement documentation and letters to licensees, and interviewed a number of inspectors who were responsible for radioactive materials inspections conducted during the review period. The casework examined included a cross-section of inspections conducted by six current and former inspectors and covered a wide variety of inspection types involving initial, routine, and special inspections. The casework included inspection of various types of programs including: academic, medical private practice, medical institution, mobile nuclear medicine service, high dose-rate remote afterloaders, nuclear pharmacies, industrial radiography, and manufacturing and distribution. Appendix C lists the inspection casework files reviewed.

Based on the evaluation of casework, the review team determined that inspection reports were thorough, complete, consistent, and of high quality with sufficient documentation to ensure that licensees’ performances with respect to health, safety, and security were acceptable. Inspection report documentation supported violations, recommendations made to licensees, unresolved safety issues, and discussions held with licensees during exit interviews. The review team also evaluated the Program’s handling and storing of sensitive documents. The review team determined that documents containing sensitive and security-related information were appropriately protected, and maintained in a manner to limit access. The review team found that outgoing correspondence was marked, as appropriate.

The Program has a policy to accompany all staff performing radioactive materials inspections on an annual basis. The review team verified that all qualified inspectors were accompanied in 2009 by the Program Manager. The review team verified that two of the three qualified inspectors were accompanied in 2010. The Program Manager indicated that the remaining qualified inspector will be accompanied before the end of 2010. At the time of the MRB meeting, the Commonwealth reported that the remaining inspector was accompanied in December 2010.

The review team noted that the Program maintains an adequate supply of appropriately calibrated survey instruments to support the inspection program, as well as to respond to radioactive materials incidents and emergency conditions. The Program has contracts with two separate entities to perform instrument calibration and repair. All survey instruments observed at the time of the review were within their calibration dates. The Division maintains a mobile laboratory with the capability of analyzing wipes and other samples as necessary. This mobile lab is the primary resource for the Division. The Division uses another Commonwealth agency to analyze wipes and other samples whenever the workload exceeds its laboratory's capacity. The review team accompanied three of the Program's inspectors in October 2010. The inspectors conducted inspections at a medical brachytherapy licensee, an industrial radiography licensee, and a gamma stereotactic radiosurgery licensee. The inspector accompaniments are listed in Appendix C. The inspectors demonstrated performance-based inspection techniques and knowledge of the regulations. The inspectors were well trained, prepared for the inspections, and thorough in their audits of the licensees' radiation safety and security programs. The inspectors conducted interviews with appropriate personnel, observed licensed operations, conducted confirmatory measurements, and utilized good health physics practices. The inspectors held entrance and exit meetings with the appropriate level of licensee management. The review team determined that the inspections were adequate to assess radiological health, safety, and security at the licensed facilities.

Based on the IMPEP evaluation criteria, the review team recommends, and the MRB agreed, that Virginia's performance with respect to the indicator, Technical Quality of Inspections, be found satisfactory.

2.4 Technical Quality of Licensing Actions

The review team examined completed licensing casework and interviewed license reviewers for 27 specific licensing actions. Licensing actions were reviewed for completeness, consistency, proper radioisotopes and quantities, qualifications of authorized users, adequacy of facilities and equipment, adherence to good health physics practices, financial assurance, operating and emergency procedures, appropriateness of license conditions, and overall technical quality. The casework was also reviewed for timeliness, use of appropriate deficiency letters and cover letters, reference to appropriate regulations, supporting documentation, consideration of enforcement history, pre-licensing visits, peer/supervisory review, and proper signatures. The licenses are also clearly marked to document *Official Use Only-Security Related Information* as appropriate.

The licensing casework was selected to provide a representative sample of licensing actions completed during the initial review period. Licensing actions selected for evaluation included 3 new licenses, 5 renewals, 4 decommissioning or termination actions, and 15 amendments. Files reviewed included a cross-section of license types, including: medical diagnostic and therapy, brachytherapy, industrial radiography, research and development, nuclear pharmacy, gauges, and manufacturers. The casework sample represented work from each of the license reviewers. A listing of the licensing casework reviewed is provided in Appendix D.

On March 31, 2009, NRC transferred approximately 400 specific licenses to Virginia's jurisdiction. The Program merged the NRC licenses with existing Program licenses for naturally occurring and accelerator-produced radioactive materials. As a result, the Program had

approximately 424 licenses at the time of the review. The majority of the license amendments completed by the Program during the review period consisted of merging NRC licenses into Virginia licenses and reformatting all of the NRC licenses into the Program's license template. The Program completed 39 license renewals, 20 new licenses, and 16 decommissioning licensing actions during the review period. All licensing actions are initially entered into the Program's computer tracking system called RAM 2000 (a Microsoft Access based program). The licensing actions are uploaded to the RAM 2000 system so that information is readily available to the license reviewers. License reviewers use checklists and boilerplate licenses specific to the type of licensing actions to ensure consistency in licenses. The Program enters information into RAM 2000 which documents license number, staff assignment, type of license action, the date received, and final quality assurance review date. The final quality assurance review is performed by the Program Manager, who signs each licensing action.

Based on the casework evaluated, the review team concluded that the licensing actions were of high quality and consistent with the NUREG-1556 guidance documents, the Commonwealth's regulations, and good health physics practices. The review team attributed the consistent use of templates and quality assurance reviews to the overall quality noted in the casework reviews.

The Program performs pre-licensing checks of all new applicants. The Program's methods incorporate the essential elements of NRC's revised pre-licensing guidance to verify that the applicant will use requested radioactive materials as intended. The Program checks applicants without a known radioactive materials license from another agency against records with the State of Virginia Corporation Office for proper business registration. In addition, the Program uses various on-line search mechanisms and interagency communications to verify the identity of individuals. If a pre-licensing visit is necessary, each applicant is subject to an on-site evaluation of their radiation safety and security programs prior to receipt of the initial license.

The review team examined the Program's licensing practices regarding the Increased Controls and Fingerprinting Orders. The review team noted that the Commonwealth has adopted regulations that meet the criteria for implementing the Increased Controls, including fingerprinting, as appropriate. The review team analyzed the Program's methodology for identifying those licenses and found the rationale was thorough and accurate. The review team confirmed that license reviewers evaluated new license applications and license amendments using the same criteria. The Program requires full implementation of the Increased Controls prior to issuance of a new license or license amendment that meets the established criteria.

Based on the IMPEP evaluation criteria, the review team recommends, and the MRB agreed, that Virginia's performance with respect to the indicator, Technical Quality of Licensing Actions, be found satisfactory.

2.5 Technical Quality of Incident and Allegation Activities

In evaluating the effectiveness of the Program's actions in responding to incidents and allegations, the review team examined the Program's response to the questionnaire relative to this indicator, evaluated selected incidents reported for Virginia in the Nuclear Material Events Database (NMED) against those contained in the Program's files, and evaluated the casework for 11 reported radioactive materials incidents. A listing of the casework examined, with case-specific comments, can be found in Appendix E. The review team also evaluated the Program's

response to one allegation involving radioactive materials. The NRC did not refer any allegations to the Commonwealth during the review period.

When notified of an incident or an allegation, the Program Manager and staff discuss the initial response and the need for an on-site investigation, based on the safety significance. If the incident meets the reportability thresholds, as established in the Office of Federal and State Materials and Environmental Management Programs (FSME) Procedure SA-300 “Reporting Material Events,” the Program notifies the NRC Headquarters Operations Center and enters the information into NMED, in a prompt manner.

The incidents selected for review included a medical event, lost and stolen radioactive material, and damaged equipment. The review team determined that the Program’s responses to incidents were thorough, complete, and comprehensive in all instances. In all 11 cases, the Program immediately dispatched inspectors to the site when the possibility of an immediate threat to public health and safety existed. Although the investigations were adequate, the review team noted inconsistent documentation of the investigations. The Program Manager stated that more attention would be given to the documentation aspect.

In evaluating the effectiveness of the Program's response to allegations, the review team evaluated the casework for one allegation. The review team concluded that the Program took prompt and appropriate action in response to concerns raised. The review team noted that the Program thoroughly documented the investigation and retained all necessary documentation to appropriately close the allegation. The Program notified the alleger of the conclusion of the investigation. The review team determined that the Program adequately protected the identity of allegers.

Based on the IMPEP evaluation criteria, the review team recommends, and the MRB agreed, that Virginia’s performance with respect to the indicator, Technical Quality of Incident and Allegation Activities, be found satisfactory.

3.0 NON-COMMON PERFORMANCE INDICATORS

Four non-common performance indicators are used to review Agreement State Programs: (1) Compatibility Requirements, (2) Sealed Source and Device Evaluation Program, (3) Low-level Radioactive Waste Disposal Program, and (4) Uranium Recovery Program. The NRC’s Agreement with the Commonwealth of Virginia does not relinquish authority to regulate a sealed source and device evaluation program, a low-level radioactive waste disposal program, or a uranium recovery program, so only the first non-common performance indicator was applicable to this review.

3.1 Compatibility Requirements

3.1.1 Legislation

Virginia became an Agreement State on March 31, 2009. Legislative authority to create the program and enter into an Agreement with NRC is granted in the Code of Virginia 32.1-228.1 and 32.1-235. The Department of Health is designated as the state radiation control agency.

In addition to its response to the questionnaire, the Commonwealth provided the review team with a copy of the legislation that affects the radiation control program. There have been no changes since the effective date of the Agreement. Virginia regulations are not subject to sunset laws.

3.1.2 Program Elements Required for Compatibility

Virginia's regulations for control of radiation are located in the Virginia Administrative Code, Title 12, Agency 5, Chapter 481, and apply to all persons who receive, possess, use, transfer, own, or acquire any source of radiation. Virginia requires a license for the receipt, possession, use, transfer, ownership, or acquisition, of radioactive material. Virginia also requires the registration of ionizing radiation machine facilities.

The review team evaluated the Program's response to the questionnaire, reviewed the status of regulations required to be adopted by the Commonwealth under the Commission's adequacy and compatibility policy, and verified the adoption of regulations with data obtained from the State Regulation Status Sheet that FSME maintains.

Current NRC policy requires that Agreement States adopt certain equivalent regulations or legally binding requirements no later than 3 years after the effective date of NRC's regulations. At the time of this review, Virginia had no overdue regulations and has completed all outstanding regulation changes through the last NRC final rulemaking which was issued in 2009.

The Commonwealth adopts some NRC regulations by reference and uses legally binding requirements such as license conditions as appropriate. Virginia regulations that are adopted by reference "point" to NRC regulations, so that if the NRC modifies a regulation, the change is automatic for the Commonwealth's regulations. If the NRC develops a new regulation section, such as the upcoming 10 CFR Part 37 security requirements rule, or updates regulations that the Commonwealth does not adopt by reference, the Commonwealth must create a new section in their regulations or update their regulations accordingly. The Commonwealth's regulatory process typically takes approximately two years to complete, which includes time for public comment.

Based on the IMPEP evaluation criteria, the review team recommends, and the MRB agreed, that Virginia's performance with respect to the indicator, Compatibility Requirements, be found satisfactory.

4.0 SUMMARY

As noted in Sections 2.0 and 3.0 above, the review team found Virginia's performance to be satisfactory for all performance indicators reviewed. The review team made one recommendation regarding the performance of the Commonwealth. Overall, the review team recommends, and the MRB agreed, that the Virginia Agreement State Program be found adequate to protect public health and safety and compatible with NRC's program. Based on the results of the current IMPEP review, the review team recommends, and the MRB agreed, that the next full IMPEP review take place in approximately 4 years.

Below is the review team's recommendation, as mentioned in an earlier section of the report, for evaluation and implementation by the Commonwealth:

> The review team recommends that the Commonwealth implement, use, and update the licensing and inspection qualification journals for each staff member. (Section 2.1)

LIST OF APPENDICES

Appendix A	IMPEP Review Team Members
Appendix B	Virginia Organization Charts
Appendix C	Inspection Casework Reviews
Appendix D	License Casework Reviews
Appendix E	Incident Casework Reviews

APPENDIX A

IMPEP REVIEW TEAM MEMBERS

Name	**Area of Responsibility**
James Lynch, Region III	Team Leader Technical Quality of Incident and Allegation Activities Inspector Accompaniments
Monica Orendi, FSME	Technical Staffing and Training Compatibility Requirements
Kenneth Lambert, Region III	Status of Materials Inspection Program Technical Quality of Inspections
Mark Light, Ohio	Technical Quality of Licensing Actions
Donna Janda, Region I	Inspector Accompaniments

APPENDIX B

VIRGINIA ORGANIZATION CHARTS

ADAMS ACCESSION NO.: ML102920715

APPENDIX C

INSPECTION CASEWORK REVIEWS

NOTE: CASEWORK LISTED WITHOUT COMMENT IS INCLUDED FOR COMPLETENESS ONLY.

File No.: 1
Licensee: G. E. Inspection Services License No.: 760-327-1
Inspection Type: Routine, Unannounced Priority: 1
Inspection Date: 1/29/10 Inspectors: LM, MW

Comment:
Inspection was performed 1 month overdue.

File No.: 2
Licensee: M. Rafiq Zaheer, M.D. License No.: 013-132-1
Inspection Type: Routine, Unannounced Priority: 3
Inspection Date: 10/1/10 Inspector: BS

Comment:
Inspection was performed 2 months overdue.

File No.: 3
Licensee: Best Medical International, Inc. License No.: 059-018-1
Inspection Type: Special, Unannounced Priority: 5
Inspection Date: 11/5/09 Inspectors: CC, MW

File No.: 4
Licensee: Clinch Valley Physicians License No.: 185-491-1
Inspection Type: Initial, Announced Priority: 3
Inspection Date: 7/14/09 Inspector: KG

File No.: 5
Licensee: Riverside Physicians Associates, Inc. License No.: 830-050-2
Inspection Type: Routine, Unannounced Priority: 3
Inspection Date: 7/21/09 Inspector: BS

Comment:
Inspection letter to licensee issued in 36 days.

File No.: 6
Licensee: Lewis Gale Medical Center License No.: 161-126-1
Inspection Type: Routine, Unannounced Priority: 2
Inspection Date: 1/13/10 Inspector: KG

File No.: 7
Licensee: Lewis Gale Physicians License No.: 161-127-1
Inspection Type: Routine, Unannounced Priority: 3
Inspection Date: 8/19/09 Inspector: KG

Comment:
Inspection report could not be found in the license file.

File No.: 8
Licensee: Froehling & Robertson, Inc. License No.: 760-096-1
Inspection Type: Routine, Unannounced Priority: 1
Inspection Date: 9/1/09 Inspectors: KG, LM

Comment:
Licensee's response to notice of violation could not be found in the license file.

File No.: 9
Licensee: Blue Ridge Isotopes, LLC License No.: 161-449-1
Inspection Type: Routine, Unannounced Priority: 2
Inspection Date: 9/14/10 Inspector: KG

Comments:
a) Inspection report and letter to the licensee could not be found in the license file.
b) Inspection letter to licensee issued in 45 days.

File No.: 10
Licensee: Advex Corporation License No.: 650-254-1
Inspection Type: Routine, Unannounced Priority: 1
Inspection Date: 6/16/09 Inspector: BS

File No.: 11
Licensee: Pole Brothers Imaging Company License No.: 069-451-1
Inspection Type: Routine, Unannounced Priority: 1
Inspection Date: 6/25/10 Inspectors: LM, MW

File No.: 12
Licensee: Eastern Virginia Medical School License No.: 710-080-1
Inspection Type: Routine, Unannounced Priority: 2
Inspection Date: 4/27/10 Inspector: BS

File No.: 13
Licensee: Virginia Polytechnic Institute and State University License No.: 121-225-1
Inspection Type: Routine, Announced Priority: 2
Inspection Dates: 11/9-12/09 Inspectors: MW, CC, KG

File No.: 14
Licensee: Martin Industrial Testing, Inc. License No.: 087-366-1
Inspection Type: Routine, Unannounced Priority: 1
Inspection Date: 9/10/09 Inspectors: CC, LM

File No.: 15
Licensee: J. Core Drilling, Inc. License No.: 059-354-1
Inspection Type: Routine, Announced Priority: 1
Inspection Date: 10/22/09 Inspectors: CC, LM

Comment:
Inspection letter to licensee issued in 33 days.

File No.: 16
Licensee: Positron Emission Tomography Institute of Hampton Road License No.: 710-163-1
Inspection Type: Special, Unannounced Priority: 3
Inspection Date: 11/10/09 Inspector: BS

File No.: 17
Licensee: Fairfax Radiological Consultants, P.C. License No.: 600-091-1
Inspection Type: Routine, Unannounced Priority: 3
Inspection Date: 10/22/09 Inspectors: CC, LM

Comment:
Inspection letter to licensee issued in 39 days.

File No.: 18
Licensee: Rogan and O'Brien Cardiovascular License No.: 059-183-1
Inspection Type: Routine, Unannounced Priority: 3
Inspection Date: 3/10/10 Inspector: MW

File No.: 19
Licensee: Cardiac and Vascular Care of Virginia, P.C. License No.: 059-030-1
Inspection Type: Routine, Unannounced Priority: 3
Inspection Date: 3/19/10 Inspector: MW

File No.: 20
Licensee: MISTRAS Group, Inc. License No.: 760-498-1
Inspection Type: Routine, Unannounced Priority: 1
Inspection Date: 2/17/10 Inspector: CC

Comment:
Inspection report could not be found in the license file.

File No.: 21
Licensee: Martha Jefferson Hospital License No.: 540-137-1
Inspection Type: Special, Unannounced Priority: 3
Inspection Date: 11/18/09 Inspectors: LM, CC

File No.: 22
Licensee: Lewis Gale Medical Center License No.: 161-126-1
Inspection Type: Routine, Unannounced Priority: 2
Inspection Date: 6/16/10 Inspector: KG

File No.: 23
Licensee: Riverside and University of Virginia Radiosurgery Center License No.: 700-521-1
Inspection Type: Initial, Special, Announced Priority: 2
Inspection Date: 10/14/10 Inspector: BS

File No.: 24
Licensee: Waggoner and Associates License No.: Reciprocity
Inspection Type: Special, Unannounced Priority: 1
Inspection Date: 10/29/09 Inspector: KG

File No.: 25
Licensee: JANX Integrity Group License No.: Reciprocity
Inspection Type: Special, Unannounced Priority: 1
Inspection Date: 9/1/09 Inspector: BS

File No.: 26
Licensee: Thermo Process Instruments License No.: Reciprocity
Inspection Type: Special, Unannounced Priority: 3
Inspection Date: 4/19/10 Inspector: BS

File No.: 27
Licensee: Terracon Consultants, Inc. License No.: Reciprocity
Inspection Type: Special, Announced Priority: 1
Inspection Date: 5/3/10 Inspector: KG

INSPECTOR ACCOMPANIMENTS

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

Accompaniment No.: 1
Licensee: Chippenham and Johnston-Willis Hospitals, Inc. License No.: 041-058-1
Inspection Type: Routine, Unannounced Priority: 3
Inspection Date: 10/13/10 Inspector: KG
Comment:
The inspector reviewed only one patient therapy file.

Accompaniment No.: 2
Licensee: Martin Industrial Testing, Inc. License No.: 087-366-1
Inspection Type: Special, Announced Priority: 1
Inspection Date: 10/14/10 Inspector: CC

Accompaniment No.: 3
Licensee: Riverside & University of Virginia Radiosurgery Center License No.: 700-521-1
Inspection Type: Special, Unannounced Priority: 2
Inspection Date: 10/14/10 Inspector: BS

APPENDIX D

LICENSE CASEWORK REVIEWS

NOTE: CASEWORK LISTED WITHOUT COMMENT IS INCLUDED FOR COMPLETENESS ONLY.

File No.: 1
Licensee: MISTRAS Group, Inc. License No.: 760-498-1
Type of Action: Amendment Amendment No.: 2
Date Issued: 9/23/10 License Reviewer: CC

File No.: 2
Licensee: Virginia Polytechnic Institute & State University License No: 121-225-1
Type of Action: Amendment Amendment No.: 2
Date Issued: 10/28/10 License Reviewer: CC

File No.: 3
Licensee: Best Medical International, Inc. License No.: 059-018-1
Type of Action: Amendment Amendment No.: 2
Date Issued: 2/26/10 License Reviewer: CC

File No.: 4
Licensee: Best Medical International, Inc. License No.: 059-018-2
Type of Action: Amendment Amendment No.: 1
Date Issued: 2/26/10 License Reviewer: CC

File No.: 5
Licensee: Spurlock Equine Associates License No.: 107-416-1
Type of Action: Amendment Amendment No.: Initial Conversion
Date Issued: 5/4/10 License Reviewer: MW

File No.: 6
Licensee: Carolina NDT, Inc. License No.: 191-502-1
Type of Action: Amendment Amendment No.: Initial Conversion
Date Issued: 3/30/10 License Reviewer: MW

File No.: 7
Licensee: Nydree Flooring, LLC License No.: 019-326-1
Type of Action: Amendment Amendment No.: Initial Conversion
Date Issued: 2/17/10 License Reviewer: MW

File No.: 8
Licensee: Babcock & Wilcox, Nuclear Operations Group License No.: 680-028-1
Type of Action: Amendment Amendment No.: Initial Conversion
Date Issued: 7/12/10 License Reviewer: MW

File No.: 9
Licensee: Pole Brothers Imaging Company License No.: 069-451-1
Type of Action: Amendment Amendment No.: Initial Conversion
Date Issued: 3/9/10 License Reviewer: MW

File No.: 10
Licensee: Dominion NDT Services, Inc. License No.: 041-527-1
Type of Action: New Amendment No.: 0
Date Issued: 4/1/10 License Reviewer: CC

File No.: 11
Licensee: Well Data Services License No.: 027-444-1
Types of Action: Amendment Amendment Nos.: Initial Conversion
Date Issued: 2/17/10 License Reviewer: MW

File No.: 12
Licensee: Eastern Virginia Medical School License No.: 710-080-1
Types of Action: Amendment Amendment No.: Initial Conversion
Date Issued: 8/16/10 License Reviewer: MW

File No.: 13
Licensee: Riverside Shore Memorial Hospital License No.: 131-194-1
Type of Action: Renewal Amendment No.: 1
Date Issued: 2/10/10 License Reviewer: LM

File No.: 14
Licensee: All Pro Services, Inc. License No.: 600-008-1
Type of Action: Termination Amendment No.: N/A
Date Issued: 5/24/10 License Reviewer: LM

File No.: 15
Licensee: Bassett Furniture Industries, Inc. License No.: 089-269-1
Type of Action: Termination Amendment No.: N/A
Date Issued: 1/28/10 License Reviewer: LM

File No.: 16
Licensee: Patton, Harris, Rust & Associates License No.: 107-392-1
Type of Action: Termination Amendment No.: N/A
Date Issued: 11/19/09 License Reviewer: LM

File No.: 17
Licensee: Hampton University Proton Therapy Institute License No.: 650-538-1
Type of Action: New Amendment No.: 0
Date Issued: 6/25/10 License Reviewer: CC

File No.: 18
Licensee: Mary Immaculate Hospital, Inc.
Type of Action: Renewal
Date Issued: 10/27/10
License No.: 700-138-1
Amendment No.: 2
License Reviewer: BS

File No.: 19
Licensee: Augusta Health
Type of Action: Renewal
Date Issued: 10/28/10
License No.: 015-015-1
Amendment No.: 3
License Reviewer: AF

File No.: 20
Licensee: Inova Reston MRI Center, LLC
Type of Action: New
Date Issued: 1/22/10
License No.: 600-526-1
Amendment No.: 0
License Reviewer: LM

File No.: 21
Licensee: Reston Hospital Center
Type of Action: Amendment
Date Issued: 10/15/10
License No.: 059-173-1
Amendment No.: 3
License Reviewer: BS

File No.: 22
Licensee: Sentara Hospitals
Type of Action: Amendment
Date Issued: 10/26/10
License No.: 650-187-1
Amendment No.: 7
License Reviewer: BS

File No.: 23
Licensee: Wilbur Smith Associates
Type of Action: Termination
Date Issued: 9/30/10
License No.: 740-446-1
Amendment No.: 1
License Reviewer: BS

File No.: 24
Licensee: Washington & Lee University
Type of Action: Renewal
Date Issued: 10/28/10
License No.: 678-228-1
Amendment No.: 1
License Reviewer: BS

File No.: 25
Licensee: Selma Medical Associates, Inc.
Type of Action: Renewal
Date Issued: 10/26/10
License No.: 840-186-1
Amendment No.: 1
License Reviewer: BS

File No.: 26
Licensee: Cardinal Health Nuclear Pharmacy Services
Type of Action: Amendment
Date Issued: 5/4/10
License No.: 740-034-1
Amendment No.: Initial Conversion
License Reviewer: BS

File No.: 27
Licensee: Martha Jefferson Hospital
License No.: 540-137-1
Type of Action: Amendment
Amendment No.: 1
Date Issued: 12/7/09
License Reviewer: BS

APPENDIX E

INCIDENT CASEWORK REVIEWS

NOTE: CASEWORK LISTED WITHOUT COMMENT IS INCLUDED FOR COMPLETENESS ONLY.

File No.: 1
Licensee: Virginia Commonwealth University
Date of Incident: 2/27/09
Investigation Date: 4/23/09
License No.: General License
NMED Log No.: 090472
Type of Incident: Lost Source
Type of Investigation: Telephone

File No.: 2
Licensee: Best Medical International
Date of Incident: 5/22/09
Investigation Date: 6/1/09
License No.: 059-018-1
NMED Log No.: 090526
Type of Incident: Lost Sources
Type of Investigation: Telephone

File No.: 3
Licensee: MACTEC Engineering & Consulting, Inc.
Date of Incident: 8/14/09
Investigation Date: 8/17/09
License No.: 107-133-1
NMED Log No.: 090675
Type of Incident: Damaged Equipment
Type of Investigation: Site

File No.: 4
Licensee: Martha Jefferson Hospital
Date of Incident: 9/30/09
Investigation Date: 9/30/09
License No.: 540-137-1
NMED Log No.: 090754
Type of Incident: Medical Event
Type of Investigation: Telephone

Comment:
A site investigation was done during a routine inspection, one month later.

File No.: 5
Licensee: Virginia Department of Transportation
Date of Incident: 3/30/10
Investigation Date: 3/30/10
License No.: 760-437-1
NMED Log No.: 100153
Type of Incident: Damaged Equipment
Type of Investigation: Telephone

File No.: 6
Licensee: ECS Mid-Atlantic
Date of Incident: 4/1/10
Investigation Date: 4/2/10
License No.: 170-314-1
NMED Log No.: 100166
Type of Incident: Damaged Equipment
Type of Investigation: Telephone

File No.: 7
Licensee: Geotechnical Consulting and Testing
License No.: 153-332-1
Date of Incident: 4/23/10
NMED Log No.: 100239
Investigation Date: 5/7/10
Type of Incident: Lost Sources
Type of Investigation: Site

File No.: 8
Licensee: Froehling & Robertson, Inc.
License No.: 760-096-2
Date of Incident: 2/27/10
NMED Log No.: 100267
Investigation Date: 3/1/10
Type of Incident: Damaged Equipment
Type of Investigation: Telephone

File No.: 9
Licensee: Polymer Group, Inc.
License No.: General License
Date of Incident: 7/8/10
NMED Log No.: 100348
Investigation Date: 7/9/10
Type of Incident: Lost Source
Type of Investigation: Site

Comment:
The investigation file was missing the Program's response actions.

File No.: 10
Licensee: Polymer Group, Inc.
License No.: General License
Date of Incident: 7/9/10
NMED Log No.: 100349
Investigation Date: 7/9/10
Type of Incident: Damaged Equipment
Type of Investigation: Site

Comment:
The investigation file was missing the Program's response actions.

File No.: 11
Licensee: AMC Hoffman Center 22
License No.: General License
Date of Incident: 7/2/10
NMED Log No.: 100364
Investigation Date: 7/16/10
Type of Incident: Stolen Source
Type of Investigation: Telephone

ATTACHMENT

December 21, 2010 Letter from Maureen Dempsey, MD, FAAP
Virginia's Response to the Draft Report
ADAMS Accession No.: ML103550430