

January 26, 2009

Alvin D. Jackson, M.D.
Director
Ohio Department of Health
246 North High Street
Columbus, OH 43215

Dear Dr. Jackson:

On January 14, 2009, the Management Review Board (MRB) met to consider the proposed final Integrated Materials Performance Evaluation Program (IMPEP) report on the Ohio Agreement State Program. The MRB found the Ohio Agreement State Program adequate to protect public health and safety and compatible with the U.S. Nuclear Regulatory Commission's (NRC) program.

Section 5.0, page 13, of the enclosed final report contains a summary of the IMPEP review team's findings and recommendation. Your letter dated December 30, 2008, adequately discusses the State's actions for resolving the review team's recommendation. No further response is requested at this time. Based on the results of the current IMPEP review, the next full review of the Ohio Agreement State Program will take place in approximately 4 years, with a periodic meeting tentatively scheduled for April 2010. During the periodic meeting and at the next IMPEP review, NRC will evaluate the effectiveness of your State's response to the review team's recommendation, as well as the overall implementation of your Agreement State program.

The MRB recognized that this review was Ohio's third IMPEP review since becoming an Agreement State in 1999 and that it was the third consecutive IMPEP review in which the Ohio Agreement State Program was found adequate to protect public health and safety, compatible with the NRC's program, and satisfactory for all performance indicators reviewed. These are the highest possible ratings for an IMPEP review. I applaud your staff for their dedication to excellence in radiation protection.

A. Jackson

- 2 -

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/

Martin J. Virgilio
Deputy Executive Director for Materials, Waste,
Research, State, Tribal, and Compliance Programs
Office of the Executive Director for Operations

Enclosure:
Ohio Final IMPEP Report

cc w/encl: Michele Shipp, M.D., DrPH,
Assistant Director
Ohio Department of Health

Robert E. Owen, Chief
Ohio Bureau of Radiation
Protection

Michael Snee, Administrator
Nuclear Material Safety Program
Ohio Bureau of Radiation
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Carol O'Claire,
State Liaison Officer
Ohio Emergency Management
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Alice Rogers, Texas
Organization of Agreement
States Liaison to the MRB

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INTEGRATED MATERIALS PERFORMANCE EVALUATION PROGRAM

REVIEW OF THE OHIO AGREEMENT STATE PROGRAM

October 27-31, 2008

FINAL REPORT

Enclosure

1.0 INTRODUCTION

This report presents the results of the review of the Ohio Agreement State Program. The review was conducted during the period of October 27-31, 2008, by a review team comprised of technical staff members from the U.S. Nuclear Regulatory Commission (NRC), the Commonwealth of Massachusetts, and the State of New York. 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 October 30, 2004, to October 31, 2008, were discussed with Ohio managers on the last day of the review.

A draft of this report was issued to Ohio for factual comment on December 2, 2008. The State responded by letter on December 30, 2008, from Dr. Alvin D. Jackson, Director, Department of Health (the Department). A copy of the State's response is included as the Attachment to this report. The Management Review Board (MRB) met on January 14, 2009, to consider the proposed final report. The MRB found the Ohio Agreement State Program to be adequate to protect public health and safety and compatible with NRC's program.

The Ohio Agreement State Program is administered by the Bureau of Radiation Protection (the Bureau). The Bureau is located within the Department. Organization charts for the Bureau are included in Appendix B.

At the time of the review, the Ohio Agreement State Program regulated 748 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 NRC and the State of Ohio.

In preparation for the review, a questionnaire addressing the common and applicable non-common performance indicators was sent to the Bureau on July 30, 2008. The Bureau provided its response to the questionnaire on October 6, 2008. A copy of the questionnaire response can be found in NRC's Agencywide Documents Access and Management System (ADAMS) using the Accession Number ML083080280.

The review team's general approach for conduct of this review consisted of: (1) examination of the Bureau's response to the questionnaire, (2) review of applicable Ohio statutes and regulations, (3) analysis of quantitative information from the Bureau's database, (4) technical review of selected regulatory actions, (5) field accompaniments of six inspectors, and (6) interviews with staff and managers. The review team evaluated the information gathered against the established criteria for each common and applicable non-common performance indicator and made a preliminary assessment of the Ohio Agreement State Program's performance.

Section 2.0 of this report covers the State's actions in response to recommendations made during previous reviews. Results of the current review of the common performance indicators are presented in Section 3.0. Section 4.0 details the results of the review of the applicable

non-common performance indicators, and Section 5.0 summarizes the review team's findings and recommendations. The review team's recommendations are comments that relate directly to program performance by the State. A response is requested from the State to all recommendations in the final report.

2.0 STATUS OF ITEMS IDENTIFIED IN PREVIOUS REVIEWS

During the previous IMPEP review, which concluded on October 30, 2004, the review team made no recommendations regarding program performance.

3.0 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.

3.1 Technical Staffing and Training

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

The Bureau is located in the Department offices in Columbus and is headed by the Bureau Chief. The Bureau is divided into three programs: the Nuclear Material Safety Program, the X-ray Program, and the Technical Support Program. Each program is managed by an administrator. The Agreement State program is implemented by the Nuclear Material Safety Program and a portion of the Technical Support Program. The Nuclear Material Safety Program functions as the licensing and inspection group for radioactive materials. The Technical Support Program is responsible for oversight of the training and quality assurance programs. The Bureau expends approximately 20.3 full time equivalents, including vacant positions, to implement the Agreement State program.

The Nuclear Material Safety Program consists of the Medical, the Industrial, and the Decommissioning Sections, all of which are managed by section supervisors. The Medical and Industrial Sections conduct the routine licensing and inspection of most of the materials facilities. The Decommissioning Section conducts license terminations and partial site releases and also is responsible for all low-level radioactive waste activities. Technical staff performs both inspection and licensing functions. Three staff members from the Industrial and the Decommissioning Sections conduct the sealed source and device (SS&D) evaluation program. Staffing and training for the SS&D evaluation program is further discussed in Section 4.2.1 of this report.

The technical staff positions are classified as Health Physicist II or III, with Health Physicist III being the senior-level technical position. At the time of the review, there were three vacant positions in the Agreement State program. Two of these vacant positions were for Health

Physicist II positions in the Medical Section, and the other was for a Health Physicist II in the Industrial Section. Bureau management indicated that a plan within the Bureau has been established to prioritize each of the vacant positions in order to deal with the challenges in receiving the Office of Budget and Management's approval for filling vacancies. With additional resource-intensive security initiatives on the horizon, Bureau management indicated that the Agreement State program could be adversely impacted if the vacancies cannot be filled in a timely manner.

The review team noted that the Bureau had stable funding during the review period due to dedicated revenue from various fees. In an effort to avoid any future budget shortfalls that could result in the inability to fill vacancies, the Bureau considered a 20 percent across-the-board fee increase on various licensee fees, but ultimately submitted an 8 percent increase proposal for the Office of Budget and Management's consideration. The Bureau's last fee increase occurred in 2001.

Using information from the questionnaire, training records, and interviews of personnel, the review team determined that the staff is well qualified from an education and experience standpoint. All staff members have at least a Bachelor's degree in the science or equivalent training and experience.

At the previous review, the Bureau had a documented training and qualifications program for technical staff that was similar to NRC's Inspection Manual Chapter (IMC) 1246, "Formal Qualification Programs in the Nuclear Materials Safety and Safeguards Area." Since then, the Bureau has evolved its training and qualification program and tracking process to promote a more cohesive program across all three sections within the Nuclear Material Safety Program. Due to this, the staff training and qualification documentation and policy statement was only available for the more senior staff and was not being used for the newer staff. Instead, the Bureau relies on each section supervisor to handle the qualification process and determine the necessary training for a new employee. The review team recommends that the State document and implement a training and qualification program that, at a minimum, contains a statement of policy, minimum qualifications for staff training, and supervisory verification for ensuring this policy is implemented.

Following the on-site review, the Bureau developed and submitted a new training and qualification program to the review team. The implementation of the new training and qualification program should be discussed during the next scheduled periodic meeting and evaluated at the next IMPEP review.

The Bureau uses a combination of self-study; formal training, such as NRC courses; and on-the-job experience to qualify staff as both inspectors and license reviewers. New staff is trained in licensing and inspection by performing simple licensing and inspection activities and gradually working toward more technical activities. All new staff members perform licensing actions and inspections with a senior-level staff member providing support and guidance until they are approved by their supervisor to work independently. An individual is approved to perform independent actions after the supervisor has observed or reviewed the individual's performance on several licensing actions or inspections of a given license type. The State uses "Ohio Train," a new State-wide web-based system, to electronically track each staff member's training history. This system also assists staff in querying the availability of various in-State, out-of-State, NRC,

and out-of-country training courses. The Bureau is in the process of integrating this system into its training and qualification program. The review team noted that Bureau managers support training opportunities, based on program needs and funding.

Based on the IMPEP evaluation criteria, the review team recommended, and the MRB agreed, that Ohio's performance with respect to the indicator, Technical Staffing and Training, was satisfactory.

3.2 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 dispatch of inspection findings to licensees, and performance of reciprocity inspections. The review team's evaluation was based on the Bureau's questionnaire response relative to this indicator, data gathered from the Bureau's database, examination of completed inspection casework, and interviews with Bureau supervisors and staff.

The review team's evaluation of the Bureau's inspection priorities revealed that inspection frequencies for each type of radioactive material license are the same or more frequent than similar license types listed in NRC's IMC 2800, "Materials Inspection Program," with the following three exceptions: Gamma Stereotactic Radiosurgery; Source Material Possession Only - Permanent Shutdown; and Special Nuclear Material Possession Only (Non-Fuel) - Permanent Shutdown. These categories of license types have inspection priorities less frequent than those prescribed by IMC 2800; however, during the review period, the Bureau inspected these license types at intervals consistent to those in IMC 2800. The Bureau can only change these priority frequencies through rulemaking and plans to change them during the next revision to Section 3701:1-38-02 of the Ohio Administrative Code (OAC).

The Bureau conducted a total of 450 inspections of high priority (Priority 1, 2, and 3) licensees during the review period. The review team identified four of these inspections as performed overdue by more than 25 percent of the inspection frequency listed in IMC 2800. The review team calculated that the Bureau performed less than 1 percent of all Priority 1, 2, and 3 inspections overdue during the review period. The review team also evaluated the Bureau's timeliness for conducting initial inspections. The review team determined that the Bureau conducted 112 initial inspections of new radioactive materials licenses during the review period, all of which were inspected within 12 months of license issuance.

The review team evaluated the Bureau's timeliness of issuance of inspection findings to licensees using 24 inspection casework reviews. All inspection findings reviewed were issued within 30 days of the inspection date.

During the review period, the Bureau granted 143 reciprocity permits to candidate licensees based upon the criteria in NRC's IMC 1220, "Processing of NRC Form 241 and Inspection of Agreement State Licensees Operating Under 10 CFR 150.20." The review team determined that the Bureau inspected 30 percent of the candidate licensees which exceeds the criterion in IMC 1220 that requires on-site inspection of at least 20 percent of candidate licensees operating under reciprocity.

The review team determined that the Bureau adequately planned for the initial set of Increased Controls inspections of affected licensees. The Bureau identified 51 licensees met the criteria for the Increased Controls. The review team evaluated the Bureau's prioritization methodology and found it acceptable. During the review period, the Bureau performed 66 Increased Controls inspections. The Bureau is conducting subsequent Increased Controls inspections at the same time as routine health and safety inspections for affected licensees. The review team determined that the inspectors are reviewing the pertinent aspects of the security measures during the subsequent inspections.

Based on the IMPEP evaluation criteria, the review team recommended, and the MRB agreed, that Ohio's performance with respect to the indicator, Status of Materials Inspection Program, was satisfactory.

3.3 Technical Quality of Inspections

The review team evaluated the inspection reports, enforcement documentation, inspection field notes, and interviewed the responsible inspectors for 24 radioactive materials inspections conducted during the review period. The casework reviewed included inspections conducted by 10 of the Bureau's inspectors and covered inspections of various license types including: academic, manufacturing and distribution, medical, and research and development broadscopes; medical institutions; medical private practice; industrial radiography; irradiator; veterinary; high dose-rate remote afterloader; nuclear pharmacy; decommissioning; Increased Controls; and reciprocity. Appendix C lists the inspection casework files reviewed.

The review team found that inspection reports were generally thorough, complete, consistent, and of high quality, with sufficient documentation to ensure that a licensee's performance with respect to health, safety, and security was acceptable. The Bureau's inspection procedures are generally consistent with the inspection guidance outlined in IMC 2800 and other NRC inspection procedures.

All inspection findings were clearly stated and documented in the inspection report and reviewed by the appropriate section supervisor and the Program Administrator before being sent to the licensee. Inspection findings led to appropriate and prompt regulatory action, when necessary. Escalated enforcement actions were reviewed and sent from either the Bureau Chief or the Department Director, depending upon the situation.

The review team determined that documents involving Increased Controls inspections were protected and maintained in a locked file cabinet with limited access. The review team determined that documents were sufficiently marked as sensitive information to be withheld from public disclosure.

Supervisory accompaniments were generally conducted annually for all inspectors. The supervisors made a total of 68 documented accompaniments during the review period. One inspector had only one documented supervisory accompaniment during the review period. The Decommissioning Section Supervisor confirmed that the annual accompaniments were performed for this inspector, but were not documented. The review team found that inspectors received verbal feedback from the supervisor at the time of the accompaniments.

The review team observed that the Bureau maintains an adequate supply of radiation survey instruments to support their inspection and incident response programs. A staff member in the Technical Support Program is responsible for sending the survey instruments to the Ohio Emergency Management Agency for calibration and/or repair, as needed; however, certain instruments are sent to the manufacturer for calibration. The Department's laboratories perform sample radioanalysis for the Bureau, as needed.

The review team accompanied six Bureau inspectors during the week of September 29, 2008, at a medical institution, a nuclear pharmacy, an irradiator, a gamma knife, a high dose-rate remote afterloader, and industrial radiography. Appendix C lists the accompaniments. During the accompaniments, all of the inspectors demonstrated appropriate performance-based inspection techniques and knowledge of the regulations. The inspectors were trained, well-prepared, 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 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 recommended, and the MRB agreed, that Ohio's performance with respect to the indicator, Technical Quality of Inspections, was satisfactory.

3.4 Technical Quality of Licensing Actions

The review team evaluated the licensing process, examined licensing casework for 22 specific licenses, and interviewed staff. Licensing actions were reviewed for completeness, consistency, proper possession authorizations, 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 quality. The casework files were also reviewed for timeliness, use of appropriate correspondence, reference to appropriate regulations, supporting documentation, consideration of enforcement history, pre-licensing screening, peer/supervisory review, and proper signatures.

The licensing casework selected provided a representative sample of licensing actions completed during the review period, as well as one case of an on-going license decommissioning and termination. Files reviewed included a cross-section of license types, including: medical broadscope (with gamma knife), medical institution, medical private practice, nuclear pharmacy, veterinary, industrial radiography, portable and fixed gauge, self-shielded irradiator, mobile therapy, academic, broad manufacturing and distribution, and a new and emerging technology. Licensing actions selected for evaluation included 4 renewals, 2 new licenses, 12 amendments, 1 amendment/renewal, 1 waiver, 1 termination, and 1 pending termination. A listing of the licensing casework reviewed can be found in Appendix D.

The Bureau's licensing responsibilities are split between the three sections. The Medical Section is responsible for all medical use licenses. The Industrial Section is responsible for the remaining license types, including those that permit the supply of medical isotopes. The Decommissioning Section handles all license terminations as well as closeout of rooms/areas,

and reviews of financial assurance requirements. Incoming licensing actions are directed to the appropriate section. The status of all licensing actions is tracked in the Bureau's interactive web-based database.

The review team determined that the Bureau's licensing guidance is based on NRC's NUREG-1556 series guides. Reviewers utilize checklists to ensure thorough reviews; however, the completed checklists are not required to be retained after the licensing action has been completed.

Each Section generates licenses and correspondence with standardized license templates and cover letters. Licensing actions are reviewed by the applicable section supervisor prior to signature. Licensing actions for broadscope, industrial radiography, irradiators, Increased Controls, complex actions, new technologies, and non-routine items are also reviewed by the Nuclear Material Safety Program Administrator. All licensing actions are signed by the Bureau Chief.

The review team evaluated the Bureau's application of the State's financial assurance requirements. The review team found that the Bureau appropriately requires certain licensees to maintain financial assurance for decommissioning. Surety instruments were appropriately maintained in a locked cabinet in the secure license file room. The Industrial Section Supervisor is responsible for control of the documents.

Overall, the review team found that, in general, the licensing actions were thorough, complete, consistent, and of high quality with health and safety issues addressed. License tie-down conditions were clearly stated, backed by information in the file, and inspectable. Deficiency letters clearly stated regulatory positions, were used at the proper time, and identified deficiencies appropriately. A complete renewal is due every 5 years. There were no renewal actions pending for greater than 1 year.

The review team examined the Bureau's licensing practices regarding the Increased Controls and Fingerprinting requirements. The review team noted that the Bureau added legally binding license conditions to the licenses that met the criteria for implementing the Increased Controls, including fingerprinting, as appropriate. The review team analyzed the Bureau's methodology for identifying those licenses and found the rationale was thorough and accurate. The Bureau uses NRC's license screening checklist to identify new applicants that should be subject to the Increased Controls. Increased Controls license documents were complete and are maintained in separate files in a secured location.

The Bureau performs pre-licensing checks of all new applicants to verify their identity and need for radioactive materials. The Bureau's method incorporates the essential elements of NRC's pre-licensing guidance. The review team found that, not only did the Bureau apply the pre-license screening guidance for new applicants, the Bureau also applied the pre-license screening guidance when an existing licensee applied for an amendment or renewal.

Based on the IMPEP evaluation criteria, the review team recommended, and the MRB agreed, that Ohio's performance with respect to the indicator, Technical Quality of Licensing Actions, was satisfactory.

3.5 Technical Quality of Incident and Allegation Activities

In evaluating the effectiveness of the Bureau's actions in responding to incidents, the review team examined the Bureau's response to the questionnaire relative to this indicator, evaluated selected incidents reported for Ohio in the Nuclear Material Events Database (NMED) against those contained in the Bureau's files, and evaluated the casework for 16 of 33 reported radioactive materials incidents. A listing of the casework examined, with case-specific comments, can be found in Appendix E. The review team also reviewed the Bureau's incident files to determine if there were any other reportable incidents that were not appropriately reported. The review team also evaluated the Bureau's response to 5 allegations involving radioactive materials reported directly to the State during the review period and 10 allegations that NRC referred to the State during the review period.

When notified of an incident, the Bureau managers and staff discuss the initial response and the need for an on-site investigation. The Bureau maintains a database for tracking the status of all incidents. If the incident meets the reporting thresholds, as established in NRC's Office of Federal and State Materials and Environmental Management Programs (FSME) Procedure SA-300, "Reporting Material Events," the Nuclear Material Safety Program promptly notifies the NRC Headquarters Operations Center, typically by e-mail, using the information template established for entering events into NMED. If the investigation is complex and extends over a period of time, NMED is appropriately updated, using the established template. Of the incidents evaluated by the review team, three were reported late, all of which were self identified oversights by the Bureau.

The incidents selected for review included both medical and industrial events involving lost or stolen radioactive material, overexposures, damaged equipment, contamination events, a release of radioactive material, and equipment failures. The review team determined that the Bureau's responses to incidents were thorough, complete, and comprehensive. Initial responses were prompt and well coordinated, and the level of effort was commensurate with the health and safety significance. The Bureau immediately dispatched inspectors to the site when the possibility of an immediate threat to public health and safety existed. When no immediate threat was present and the Bureau determined that the licensee had qualified, competent individuals investigating the incident, the Bureau generally responded telephonically with an on-site followup at a later date.

In evaluating the effectiveness of the Bureau's response to allegations, the review team evaluated the casework for 15 allegations, 10 of which NRC referred to the State. The review team concluded that the Bureau consistently took prompt and appropriate action in response to the concerns raised. The review team noted that the Bureau thoroughly documented the investigations and retained all necessary documentation to appropriately close the allegations. The Bureau notified the allegers of the conclusion of their investigations when the allegers' identities were known. The review team determined that the Bureau adequately protected the identity of allegers.

Based on the IMPEP evaluation criteria, the review team recommended, and the MRB agreed, that Ohio's performance with respect to the indicator, Technical Quality of Incident and Allegation Activities, was satisfactory.

4.0 NON-COMMON PERFORMANCE INDICATORS

IMPEP identifies four non-common performance indicators to be used in reviewing 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.

4.1 Compatibility Requirements

4.1.1 Legislation

Ohio became the 31st Agreement State in 1999. Legislative authority to create an agency and enter into an Agreement with the NRC is granted in Ohio Revised Code, Section 3748.03. The Department is designated as the State's radiation control agency. The Department Director has designated the Bureau Chief to administer the Agreement State program for the Department. The review team noted that no new legislation affecting the Agreement State program or its authority was passed since the last review, which would affect the Agreement State program or its authority.

4.1.2 Program Elements Required for Compatibility

The Ohio Regulations for Control of Radiation are found in various chapters of Section 3701 of the OAC. These rules apply to all ionizing radiation, whether emitted from radionuclides or machine sources. Ohio requires a license for possession and use of all radioactive material. These rules are subject to review every 5 years to decide whether to continue the rule as it exists or modify it.

The review team examined the procedures used in the Department's regulatory process and found that regulations are drafted by staff and presented to the Radiation Advisory Council (the Council). The regulations are posted on the Department's web site and electronically sent to interested stakeholders for a 30- to 45-day comment period. Concurrently, the proposed rules are sent to NRC for a compatibility review. Any comments received from NRC, stakeholders, or the public are evaluated, and the regulations are revised, as necessary. The revised regulations are submitted to the Council for a recommendation for adoption. The formal rule adoption process begins with submittal to the Public Health Council, which places the review of the proposed rules on their calendar, holds a public hearing, and then submits the proposed rules to the Joint Committee on Agency Rules Review (JCARR). JCARR is composed of State legislators and senators. After JCARR completes its review of the proposed rules and if it takes no action against the rule, the Public Health Council enacts the rule. The rule becomes final after it is filed with several State rule codification agencies. The minimum amount of time for a rule to become final is approximately 7-10 days after such filing.

The review team evaluated the Bureau's response to the questionnaire relative to this indicator, reviewed the status of regulations required to be adopted by the State 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 they become effective. The following two amendments are overdue, both significantly longer than 3 years from their effective date. The current status for each amendment is included:

- “Medical Administration of Radiation and Radioactive Materials,” 10 CFR Parts 20 and 35 amendment (60 FR 48623), that was due for Agreement State implementation on October 20, 1998.

Status: The State’s adoption of the overdue amendment “Medical Use of Byproduct Material – Recognition of Specialty Boards – Part 35,” will supercede this amendment.

- “Medical Use of Byproduct Materials - Recognition of Specialty Boards - Part 35,” 10 CFR Part 35 amendment (70 FR 16336 and 71 FR 1926), that was due for Agreement State implementation on April 29, 2008.

Status: Amendment was approved by the Public Health Council during its December 11, 2008 meeting. The rule became effective on December 22, 2008, and the final amendment will be submitted for NRC review.

The review team identified the following NRC amendments that the State will need to address in the future. The Nuclear Material Safety Program Administrator noted that the amendments would be addressed in upcoming rulemakings or through the adoption of legally binding requirements:

- “Minor Amendments,” 10 CFR Parts 20, 30, 32, 35, 40, and 70 amendment (71 FR 15005), that is due for Agreement State adoption by March 27, 2009.

Status: Amendment was approved by the Public Health Council during its December 11, 2008 meeting. The rule became effective on December 22, 2008, and the final amendment will be submitted for NRC review.

- “Medical Use of Byproduct Material – Minor Corrections and Clarifications,” 10 CFR Parts 32 and 35 amendment (72 FR 45147 and 72 FR 54207), that is due for Agreement State adoption by October 29, 2010.

Status: Amendment was approved by the Public Health Council during its December 11, 2008 meeting. The rule became effective on December 22, 2008, and the final amendment will be submitted for NRC review.

- “Requirements for Expanded Definition of Byproduct Material,” 10 CFR Parts 20, 30, 31, 32, 33, 35, 61, and 150 amendment (72 FR 55864), that is due for Agreement State adoption by November 30, 2010.

Status: Amendment has not been drafted yet.

- “Exemptions from Licensing, General Licenses, and Distribution of Byproduct Material: Licensing and Reporting Requirements,” 10 CFR Parts 30, 31, 32, and 150 amendment (72 FR 58473), that is due for Agreement State adoption by December 17, 2010.

Status: Amendment was drafted and sent for public and NRC comment. The amendment will be submitted to the Council at its next meeting.

- “Occupational Dose Records, Labeling Containers, and Total Effective Dose Equivalent,” 10 CFR Parts 19 and 20 amendment (72 FR 68043), that is due for Agreement State adoption by February 15, 2011.

Status: Amendment was drafted and sent for public and NRC comment. The amendment will be submitted to the Council at its next meeting.

Based on the IMPEP evaluation criteria, the review team recommended, and the MRB agreed, that Ohio’s performance with respect to the indicator, Compatibility Requirements, was satisfactory.

4.2 Sealed Source and Device Evaluation Program

In reviewing this indicator, the review team used three subelements to evaluate the Bureau’s performance regarding the SS&D Evaluation Program. These subelements were: (1) Technical Staffing and Training, (2) Technical Quality of the Product Evaluation Program, and (3) Evaluation of Defects and Incidents Regarding SS&Ds.

In assessing the Bureau’s SS&D evaluation activities, the review team examined information contained in the Bureau’s response to the questionnaire for this indicator, performed a search of the national SS&D Registry for registrations issued by the Bureau, and performed NMED searches of manufacturers and distributors identified on SS&D registrations issued by the Bureau. The review team examined inactivated, new, and amended SS&D evaluations and supporting documents covering the review period. The review team noted the staff’s use of guidance documents and procedures, interviewed managers and staff, and verified the use of regulations, license conditions, and inspections to enforce commitments made in the applications.

4.2.1 Technical Staffing and Training

The Bureau has three qualified SS&D reviewers with full signature authority. There were no newly qualified SS&D reviewers nor did any qualified SS&D reviewers leave the Bureau during the review period.

The Bureau’s three qualified reviewers each have a degree in engineering, science, or equivalent training and experience and have attended NRC’s SS&D workshop. The Bureau maintains reviewer qualifications in SS&D Qualification Journals. The review team interviewed staff members involved in the reviews and determined that they were familiar with the procedures used in the evaluation of devices and sources and had access to applicable reference documents.

4.2.2 Technical Quality of the Product Evaluation Program

The review team evaluated 11 of the 30 SS&D actions that the Bureau processed during the review period. The actions reviewed were for five new, five amended, and one inactivated SS&D registrations. The casework reviewed represented the efforts of all three SS&D reviewers. The casework review included all supporting documentation, licenses, and inspections associated with the distributors of the SS&Ds. A list of SS&D casework examined can be found in Appendix F.

Analysis of the casework and interviews with the managers and staff confirmed that the Bureau's policy is to follow the recommended guidance from the NRC's SS&D Workshop and the Bureau's SS&D Evaluation and Registration procedure, NMS-LIC-03, which is equivalent to NRC's NUREG-1556, Volume 3, Revision 1, "Consolidated Guidance About Materials Licenses – Applications for Sealed Source and Device Evaluation and Registration." Appropriate review checklists were used to ensure that all relevant materials were submitted and evaluated. The checklists were retained in the SS&D files along with other documents that identified the responsible reviewers. The review team confirmed that pertinent American National Standards Institute standards, NRC Regulatory Guides, and applicable references were available and used appropriately in performing the SS&D reviews.

The registration files contained all correspondence, engineering drawings, photographs, radiation profiles, and details of the licensees' quality assurance and quality control programs. The registrations clearly summarized the product evaluations to provide license reviewers with adequate information to license the possession and use of the products. Deficiency letters clearly stated regulatory positions. The review team determined that the evaluations were of high quality with health and safety issues properly addressed. The Bureau enforces the requirements of SS&D registrations through conditions made part of specific licenses issued to the distributors of SS&D products.

4.2.3 Evaluation of Defects and Incidents Regarding SS&Ds

Based upon the Bureau's response to the questionnaire, interviews with the Bureau's managers and staff, and the review team's searches of NMED, the review team determined that there was one incident or defect that the Bureau reported during the review period that involved an SS&D product registered in Ohio. The report was made for a leaking sealed source. The review team determined that the Bureau analyzed the event, reviewed the issues, and followed up on the incident adequately and in accordance with procedures established by the Bureau in NMS-LIC-03, which includes generic fault considerations when evaluating SS&D incidents. The Bureau concluded that the leaking source was not a generic defect. The review team concluded that the Bureau is routinely evaluating the root causes of defects and incidents involving SS&D evaluations and is taking appropriate actions.

In addition to the one incident of a leaking sealed source reported by the Bureau, the review team discovered 21 equipment failures reported in NMED from other States and NRC that involved SS&D products registered in Ohio. The review team compared these reports with any action taken by the Bureau. One report involved another leaking sealed source registered in Ohio attributed to the same licensee of the Bureau as that for the leaking source reported by the Bureau. The other 20 reports involved fixed gauge devices registered in Ohio attributed to a

different licensee of the Bureau. The Bureau made a site visit to its licensee associated with the reported equipment failures of fixed gauge devices to identify and document possible root causes of the failures and any appropriate actions. The Bureau determined that additional information was necessary and scheduled another site visit.

The review team noted that the Bureau routinely monitors incidents reported to NRC and to NMED and identified incidents or defects associated with SS&D products registered in Ohio for further investigation and review. One State provided information directly to the Bureau about three fixed gauge device failures that occurred in the subject State and the review team noted that these incidents were being addressed by the Bureau. The review team shared with the Bureau all 21 NMED reports of equipment failures discovered by the review team and noted that most of the reports had also been identified by the Bureau. The review team concluded that the Bureau is routinely evaluating the root causes of defects and incidents involving SS&D evaluations and is taking appropriate actions.

The review team did not identify any allegations received by the Bureau related to defects or failures of SS&D products registered in Ohio during the review period.

Based on the IMPEP evaluation criteria, the review team recommended, and the MRB agreed, that Ohio's performance with respect to the indicator, Sealed Source and Device Evaluation Program, was satisfactory.

4.3 Low-Level Radioactive Waste (LLRW) Disposal Program

Although Ohio has LLRW disposal authority, NRC has not required States to have a program for licensing a LLRW 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 a regulatory program in place that meets the criteria for an adequate and compatible LLRW disposal program. There are no plans for a LLRW disposal facility in Ohio. Accordingly, the review team did not review this indicator.

4.4 Uranium Recovery Program

Although Ohio has authority to regulate uranium recovery activities, NRC has not required States to have a program for licensing a uranium recovery facility until such time as the State has such a facility. When an Agreement State has been notified or becomes aware of the need to regulate a uranium recovery facility, it is expected to put a regulatory program in place that meets the criteria for an adequate and compatible uranium recovery program. There are no plans for a uranium recovery facility in Ohio. Accordingly, the review team did not review this indicator.

5.0 SUMMARY

As noted in Sections 3.0 and 4.0, Ohio's performance was found satisfactory for all performance indicators reviewed. Accordingly, the review team recommended, and the MRB agreed, that the Ohio Agreement State Program was 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 recommended, and the MRB agreed, that the next full IMPEP review take place in approximately 4 years.

Below is the recommendation, as mentioned earlier in the report, for evaluation and implementation, as appropriate, by the State:

The review team recommends that the State document and implement a training and qualification program that, at a minimum, contains a statement of policy, minimum qualifications for staff training, and supervisory verification for ensuring this policy is implemented. (Section 3.1)

LIST OF APPENDIXES AND ATTACHMENT

Appendix A	IMPEP Review Team Members
Appendix B	Ohio Organization Charts
Appendix C	Inspection Casework Reviews
Appendix D	License Casework Reviews
Appendix E	Incident Casework Reviews
Appendix F	Sealed Source & Device Casework Reviews
Attachment	December 30, 2008 Letter from Alvin D. Jackson Ohio's Response to Draft IMPEP Report

APPENDIX A

IMPEP REVIEW TEAM MEMBERS

Name	Area of Responsibility
Kim Lukes, FSME	Team Leader Technical Staffing and Training Compatibility Requirements
Stephen Hammann, Region I	Status of Materials Inspection Program Technical Quality of Inspections Inspector Accompaniments
Robert Dansereau, NY	Technical Quality of Licensing Actions
Dennis Sollenberger, FSME	Technical Quality of Incident and Allegation Activities
Joshua Daehler, MA	Sealed Source and Device Evaluation Program

APPENDIX B

OHIO ORGANIZATION CHARTS

ADAMS ACCESSION NO.: ML083220013

APPENDIX C

INSPECTION CASEWORK REVIEWS

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

File No.: 1 Licensee: Battelle Memorial Institute Inspection Type: Special, Announced Inspection Date: 11/6/07	License No.: 03610250000 Priority: 2 Inspector: SD
File No.: 2 Licensee: Proctor & Gamble Inspection Type: Routine, Unannounced Inspection Date: 10/19/05	License No.: 03610090000 Priority: 2 Inspector: KV
File No.: 3 Licensee: MetroHealth Medical Center Inspection Type: Special, Unannounced Inspection Date: 9/3/08	License No.: 02110180045 Priority: 1 Inspector: MB
File No.: 4 Licensee: St. Elizabeth Boardman Health Center Inspection Type: Initial, Unannounced Inspection Date: 10/1/07	License No.: 02120510001 Priority: 3 Inspector: LS
File No.: 5 Licensee: The Bellevue Hospital Inspection Type: Routine, Announced Inspection Date: 7/22/08	License No.: 02120040000 Priority: 3 Inspector: DC
File No.: 6 Licensee: BWX Technologies, Inc. Inspection Type: Routine, Unannounced Inspection Date: 10/12/07	License No.: 03310780006 Priority: 1 Inspectors: JR, MR
File No.: 7 Licensee: JANX Integrity Group Inspection Type: Routine, Unannounced Inspection Date: 5/12/08	License No.: 03320990002 Priority: 1 Inspector: MR
File No.: 8 Licensee: Case Western Reserve University Inspection Type: Routine, Announced Inspection Dates: 9/27-28/07	License No.: 01100180011 Priority: 2 Inspector: SD

File No.: 9

Licensee: University of Cincinnati
Inspection Type: Routine, Announced
Inspection Dates: 8/1-3/06

License No.: 02110310010
Priority: 1
Inspectors: DC, LS, MB

File No.: 10

Licensee: Grandview Hospital and Medical Center
Inspection Type: Routine, Unannounced
Inspection Date: 2/20/08

License No.: 02200290002
Priority: 3
Inspector: SK

File No.: 11

Licensee: First Dayton Cancer Care, LLC
Inspection Type: Routine, Unannounced
Inspection Date: 7/31/07

License No.: 02230580000
Priority: 1
Inspectors: LS, SK

File No.: 12

Licensee: Isomedix Operations
Inspection Type: Routine, Unannounced
Inspection Date: 10/10/07

License No.: 03521250028
Priority: 1
Inspector: KB

File No.: 13

Licensee: Heartlight Pharmacy Services
Inspection Type: Routine, Unannounced
Inspection Date: 12/31/07

License No.: 02500020000
Priority: 1
Inspector: AC

File No.: 14

Licensee: National Veterinary Imaging, Inc.
Inspection Type: Routine, Unannounced
Inspection Date: 8/11/05

License No.: 02400440000
Priority: 5
Inspector: KB

File No.: 15

Licensee: Wright State University
Inspection Type: Routine, Unannounced
Inspection Date: 5/17/06

License No.: 01110580000
Priority: 3
Inspector: SD

File No.: 16

Licensee: Gamma Med
Inspection Type: Routine, Unannounced
Inspection Date: 10/29/07

License No.: 02500510004
Priority: 1
Inspector: MB

File No.: 17

Licensee: Girindus America, Inc.
Inspection Type: Special, Unannounced
Inspection Date: 6/16/05

License No.: 03611310034
Priority: 3
Inspector: KV

File No.: 18

Licensee: Gamma Irradiator Service
Inspection Type: Special, Unannounced
Inspection Date: 7/18/07

License No.: 00004NR0749
Priority: 3
Inspector: SD

File No.: 19

Licensee: Weatherford International Inc.
Inspection Type: Special, Unannounced
Inspection Date: 10/8/08

License No.: 00004NR0801
Priority: 3
Inspector: KB

File No.: 20

Licensee: Cleveland State University
Inspection Type: Routine, Unannounced
Inspection Dates: 9/7/06

License No.: 202-099-26
Priority: 3
Inspector: SD

File No.: 21

Licensee: Fairfield Medical Center
Inspection Type: Routine, Unannounced
Inspection Dates: 9/29-30/08

License No.: 02120230001
Priority: 3
Inspector: MB

File No.: 22

Licensee: Lake/University Ireland Cancer Center
Inspection Type: Special, Announced
Inspection Date: 8/2/07

License No.: 02230440000
Priority: 1
Inspector: AC

File No.: 23

Licensee: The Cleveland Clinic Foundation
Inspection Type: Special, Announced
Inspection Date: 3/1/07

License No.: 02110180013
Priority: 1
Inspectors: AC, KV

File No.: 24

Licensee: Fluke Biomedical LLC
Inspection Type: Special, Announced
Inspection Date: 10/20/06

License No.: 03211180000
Priority: 1
Inspector: KV

INSPECTOR ACCOMPANIMENTS

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

Accompaniment No.: 1

Licensee: Fairfield Medical Center
Inspection Type: Routine, Unannounced
Inspection Date: 10/2/08

License No.: 02120230001
Priority: 3
Inspector: MB

Accompaniment No.: 2

Licensee: American Red Cross Blood Services
Inspection Type: Special, Unannounced
Inspection Date: 9/29/08

License No.: 03510250004
Priority: 5
Inspector: CL

Accompaniment No.: 3

Licensee: Isomedix Operations, Inc.
Inspection Type: Routine, Unannounced
Inspection Date: 9/30/08

License No.: 03521250028
Priority: 2
Inspector: KB

Accompaniment No.: 4

Licensee: Cardinal Health
Inspection Type: Routine, Unannounced
Inspection Date: 10/1/08

License No.: 02500310000
Priority: 2
Inspector: DC

Accompaniment No.: 5

Licensee: Kettering Medical Center
Inspection Type: Routine, Unannounced
Inspection Date: 10/1/08

License No.: 02120580021
Priority: 2
Inspector: LS

Accompaniment No.: 6

Licensee: Babcock & Wilcox
Inspection Type: Routine, Unannounced
Inspection Date: 10/2/08

License No.: 03310780006
Priority: 2
Inspector: SD

APPENDIX D

LICENSE CASEWORK REVIEWS

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

File No.: 1 Licensee: Summa Health System Type of Action: Renewal Date Issued: 7/18/08	License No.: 02120780022 Amendment No.: 29 License Reviewer: MB
File No.: 2 Licensee: Lima Memorial Hospital Type of Action: Amendment Date Issued: 7/15/08	License No.: 02120002003 Amendment No.: 26 License Reviewer: ET
File No.: 3 Licensee: Mount Carmel Health System Type of Action: Amendment Date Issued: 7/17/08	License No.: 02120250034 Amendment No.: 26 License Reviewer: SK
File No.: 4 Licensee: Jonathan Shiroma, DVM Type of Action: Amendment Date Issued: 6/24/08	License No.: 02400250049 Amendment No.: 7 License Reviewer: KB
File No.: 5 Licensee: Jonathan Shiroma, DVM Type of Action: Amendment Date Issued: 6/24/08	License No.: 02400250049 Amendment No.: 8 License Reviewer: KB
File No.: 6 Licensee: Reuter Stokes, INC Type of Action: Renewal Date Issued: 10/10/08	License No.: 11300780011 Amendment No.: 6 License Reviewer: CL
File No.: 7 Licensee: Ohio Medical Physics Consulting, LLC Type of Action: New Date Issued: 1/28/08	License No.: 02240250000 Amendment No.: 0 License Reviewer: AC
File No.: 8 Licensee: Philips Medical Type of Action: Amendment Date Issued: 10/27/07	License No.: 03214180003 Amendment No.: 29 License Reviewer: SD

File No.: 9
Licensee: Cardiovascular Care Unlimited
Type of Action: Amendment
Date Issued: 12/4/07

License No.: 02201250075
Amendment No.: 7
License Reviewer: SD

File No.: 10
Licensee: Ford Motor Company
Type of Action: Amendment
Date Issued: 12/7/07

License No.: 31200990001
Amendment No.: 7
License Reviewer: CS

File No.: 11
Licensee: Cincinnati Eye Institute
Type of Action: New
Date Issued: 9/17/08

License No.: 02140310000
Amendment No.: 0
License Reviewer: SK

File No.: 12
Licensee: GE Reuter Stokes
Type of Action: Amendment
Date Issued: 2/19/08

License No.: 03214780011
Amendment No.: 10
License Reviewer: KB

File No.: 13
Licensee: The Cleveland Clinic Foundation
Type of Action: Amendment
Date Issued: 3/27/07

License No.: 02110180013
Amendment No.: 22
License Reviewer: AC

File No.: 14
Licensee: Radiation Oncology Services LLC
Type of Action: Amendment
Date Issued: 2/19/08

License No.: 02230580001
Amendment No.: 1
License Reviewer: DC

File No.: 15
Licensee: Scott Process Systems, Inc.
Type of Action: Renewal
Date Issued: 7/16/07

License No.: 03320770000
Amendment No.: 3
License Reviewer: CL

File No.: 16
Licensee: IRM Group, Inc.
Type of Action: Amendment
Date Issued: 9/13/06

License No.: 03214250000
Amendment No.: 6
License Reviewer: SJ

File No.: 17
Licensee: CBC Engineers & Associates, LTD
Type of Action: Amendment
Date Issued: 9/20/07

License No.: 31210580000
Amendment No.: 6
License Reviewer: CS

File No.: 18

Licensee: Miami University

Type of Action: Renewal

Date Issued: 10/5/05

License No.: 01110090002

Amendment No.: 7

License Reviewer: SD

File No.: 19

Licensee: American Red Cross

Type of Action: Amendment/Renewal

Date Issued: 11/23/05

License No.: 03510250004

Amendment No.: 2

License Reviewer: KV

File No.: 20

Licensee: RMI Environmental Services

Type of Action: Termination

Date Issued: 2/27/07

License No.: 11900040004

Amendment No.: 25

License Reviewers: SD, CM

File No.: 21

Licensee: The Cleveland Clinic Foundation

Type of Action: Waiver

Date Issued: 10/26/07

License No.: 02110180013

Amendment No.: N/A

License Reviewers: RO and staff

File No.: 22

Licensee: Advanced Medical Systems

Type of Action: Termination in progress

Date Issued: Pending

License No.: 03900180000

Amendment No.: N/A

License Reviewers: CM and staff

APPENDIX E

INCIDENT CASEWORK REVIEWS

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

File No.: 1
Licensee: Riverside Methodist Hospital
Date of Incident: 11/16/04
Investigation Dates: 1/25-28/05
License No.: 02210250070
NMED Log No.: 050066
Type of Incident: Overexposure to embryo/fetus
Type of Investigation: Site visit

File No.: 2
Licensee: Marietta Memorial Hospital
Date of Incident: 3/11/05
Investigation Date: 3/21/05
License No.: 02120850007
NMED Log No.: 050176
Type of Incident: Medical Event
Type of Investigation: Telephone

File No.: 3
Licensee: Geotechnical Consultants
Date of Incident: 6/1/05
Investigation Date: 6/3/05
License No.: 31210250023
NMED Log No.: 050379
Type of Incident: Lost/Stolen Material
Type of Investigation: Site Visit

File No.: 4
Licensee: Patriot Engineering
Date of Incident: 8/1/05
Investigation Date: 8/5/05
License No.: 31210580004
NMED Log No.: 050773
Type of Incident: Lost/Stolen Material
Type of Investigation: Site Visit

File No.: 5
Licensee: Hockaden and Associates
Date of Incident: 7/11/06
Investigation Date: 7/14/06
License No.: 31210250010
NMED Log No.: 06504
Type of Incident: Damage to Equipment
Type of Investigation: Telephone

File No.: 6
Licensee: H.C. Nutting Company
Date of Incident: 7/30/06
Investigation Date: 7/31/06
License No.: 31210310024
NMED Log No.: 060490
Type of Incident: Lost/Stolen Material
Type of Investigation: Telephone

File No.: 7
Licensee: Ohmart/Vega
Date of Incident: 10/20/06
Investigation Date: 10/25/06
License No.: 03214310020
NMED Log No.: 060654
Type of Incident: Release of Radioactive Material
Type of Investigation: Site Visit

File No.: 8

Licensee: Akron General Medical Center
Date of Incident: 9/27/06
Investigation Date: 3/5/07

License No.: 02120780000
NMED Log No.: 070121
Type of Incident: Medical Event
Type of Investigation: Site Visit

File No.: 9

Licensee: Clinton Memorial Hospital
Date of Incident: 12/1/06
Investigation Date: 1/2/07

License No.: 02300140000
NMED Log No.: 070026
Type of Incident: Equipment Failure
Type of Investigation: Telephone

File No.: 10

Licensee: Ohmart/Vega Corporation
Date of Incident: 2/22/08
Investigation Date: 2/25/08

License No.: 03214310002
NMED Log No.: 080123
Type of Incident: Release of Radioactive Material
Type of Investigation: Site Visit

File No.: 11

Licensee: Wright State University
Date of Incident: 8/1/08
Investigation Date: 8/20/08

License No.: 01110580000
NMED Log No.: 080634
Type of Incident: Leaking Source
Type of Investigation: Telephone

File No.: 12

Licensee: Cleveland Clinic Foundation
Date of Incident: 8/7/08
Investigation Date: 8/11/08

License No.: 02110180013
NMED Log No.: 080460
Type of Incident: Equipment Failure
Type of Investigation: Site Visit

File No.: 13

Licensee: Team Industrial Services, Inc.
Date of Incident: 7/18/07
Investigation Dates: 7/19/07

License No.: 03320990000
NMED Log No.: 070460
Type of Incident: Defective Equipment
Type of Investigation: Site Visit

File No.: 14

Licensee: Ohmart/Vega
Date of Incident: 8/14/07
Investigation Date: 8/14/07

License No.: 03214310020
NMED Log No.: 080670
Type of Incident: Leaking Source
Type of Investigation: Telephone

Comment:

State did not report this event to NRC or enter it into NMED until October 2008.

File No.: 15

Licensee: Glatfelter Paper

Date of Incident: 4/12/06

Investigation Date: 4/12/06

License No.: 31201720002

NMED Log No.: 080671

Type of Incident: Equipment Failure

Type of Investigation: Telephone

Comment:

State did not report this event to NRC or enter it into NMED until October 2008.

File No.: 16

Licensee: ABB Inc.

Date of Incident: 2/23/07

Investigation Date: 10/28/08

License No.: 03214250003

NMED Log No.: 080669

Type of Incident: Leaking Source

Type of Investigation: Telephone

Comment:

State did not report this event to NRC or enter it into NMED until October 2008.

APPENDIX F

SEALED SOURCE & DEVICE CASEWORK REVIEWS

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

File No.: 1
Registry No.: OH-0522-D-102-B
Applicant Name: Ohmart/VEGA
Date Issued: 11/10/05
SS&D Type: (D) Gamma Gauge
Type of Action: Amendment
Reviewers: KV, KB

File No.: 2
Registry No.: OH-0522-D-120-B
Applicant Name: Ohmart/VEGA
Date Issued: 6/22/07
SS&D Type: (D) Gamma Gauge
Type of Action: New
Reviewers: KV, KB

File No.: 3
Registry No.: OH-0522-D-112-S
Applicant Name: Ohmart/VEGA
Date Issued: 7/17/06
SS&D Type: (D) Gamma Gauge
Type of Action: Amendment
Reviewers: KV, SD

File No.: 4
Registry No.: OH-0298-S-102-S
Applicant Name: Frontier Technology Corporation
Date Issued: 5/25/05
SS&D Types: (H) General Neutron Source Applications, (F) Well Logging
Type of Action: Amendment
Reviewers: KV, SD

File No.: 5
Registry No.: OH-1272-D-101-B
Applicant Name: Kanawha Scales & Systems
Date Issued: 2/26/07
SS&D Type: (D) Gamma Gauge
Type of Action: New
Reviewers: KB, KV

Comment:
The header of each attachment incorrectly identifies each attachment as "Draft" instead of the issue date.

File No.: 6
Registry No.: OH-1064-D-101-G
Applicant Name: Advance Gauging Technology
Date Issued: 4/4/05
SS&D Type: (D) Gamma Gauge
Type of Action: Amendment
Reviewers: KV, KB

File No.: 7
Registry No.: OH-1219-D-103-S
Applicant Name: Thermo Eberline, LLC
Date Issued: 12/16/04
SS&D Type: (J) Gamma Irradiation, Category I
Type of Action: Amendment
SS&D Reviewers: KV, KB

File No.: 8

Registry No.: OH-0104-D-801-S

Applicant Name: Philips Medical Systems

Date Issued: 12/14/04

SS&D Types: (B) Medical Radiography

(X) Medical Reference Sources

Type of Action: Inactivation

SS&D Reviewers: KV, KB

File No.: 9

Registry No.: OH-0104-D-105-S

Applicant Name: Philips Medical Systems

Date Issued: 12/29/04

SS&D Type: (X) Medical Reference Sources

Type of Action: New

SS&D Reviewers: KB, SD

File No.: 10

Registry No.: OH-0522-S-119-S

Applicant Name: Ohmart/VEGA

Date Issued: 11/1/05

SS&D Type: (D) Gamma Gauge

Type of Action: New

SS&D Reviewers: KV, KB

File No.: 11

Registry No.: OH-1219-D-101-G

Applicant Name: Thermo Eberline, LLC

Date Issued: 12/16/04

SS&D Type: (W) Self-Luminous Light Source

Type of Action: New

SS&D Reviewers: KV, KB

ATTACHMENT

December 30, 2008 Letter from Alvin D. Jackson
Ohio's Response to Draft IMPEP Report

ADAMS Accession No.: ML083650309