

IMPEP GOOD PRACTICES As of July 1, 2004

GENERAL

- **Self-audits.** NRC Region II, Alabama, and Arkansas conducted self-assessment programs. The self-assessment programs were very effective in providing a methodology for the State or Region to evaluate their current program against the IMPEP indicators. The self-assessments were used to develop strategies to address deficiencies identified in prior IMPEP reviews.

COMMON PERFORMANCE INDICATORS

Technical Staffing and Training

- **Monthly current issue meetings.** The New York State Department of Health used monthly TeleVideo conferences to discuss ongoing issues and to keep their staff current on health physics and program issues.
- **Job skill criteria.** NRC Region II developed Skills Lists (one for materials and one for fuel cycle positions). These lists allowed the Region to identify important attributes for recruitment and to help provide back-up staff to assure complete program coverage.
- **Video feedback for instructors.** The Florida staff assembled and presented a basic health physics training module that included the use of video recording the instructor practice sessions, for self-critique and improvement on the course presentation.
- **Emergency response outreach program.** Washington has an outreach program for providing emergency response training to first responders, hospital staff, and local government health agencies for response to radiological events including incidents resulting from terrorist activities. The training includes the use of actual radiation sources and realistic scenarios, and has proved to be an effective tool for augmenting the capability of first responders.

Status of Materials Inspection Program

- **Licensing and inspection database.** The Illinois Department of Nuclear Safety established an integrated user-friendly licensing and inspection database which tracked inspection due dates, along with a host of other information regarding specific licensees. This system allowed staff to readily retrieve inspection and licensing information in preparation for inspections or licensing actions.
- **Notification of temporary job sites.** North Carolina utilized a license condition that required all licensees authorized to use radioactive material at temporary locations to notify North Carolina of work being performed in the State and to provide information on when and where the work will take place. This information was posted on a bulletin board along with requests for reciprocity. Staff could select field inspections as needed and perform the inspections in an efficient manner.

- **GL Device tracking system.** Oregon instituted a program that tracks registered general license (GL) devices (i.e., gamma gauges and in-vitro test kits). Although other States track such devices, Oregon's implementation practices of the program were unique. In addition to requiring accountability of the devices, the State also performed onsite inspections and requested additional information (e.g., leak test results) from the general licensee.
- **Hand delivery of new licenses.** The Washington program had a policy of hand-delivering initial licenses which gave their staff an opportunity to discuss the ramifications of the license with the new licensee. Initial inspections were performed within six months of license delivery or material receipt, in accordance with NRC Inspection Manual Chapter 2800 requirements. Additionally, follow-up inspections were performed one year from the date of each initial inspection. South Carolina had a similar practice of hand-delivering new licenses.
- **Evaluation of inspection priority.** California initiated a process for evaluating, analyzing and supporting a change in the inspection frequency (extending the inspection period) for a class of licensees (high dose rate afterloaders) based on performance.
- **Change of ownership/controlling interest.** Chapter 404 of the Florida Statutes required that a new license be issued if a licensee undergoes a change in ownership or controlling interest. These licensees were also inspected as new licensees and included in the initial inspection data. It was noted that promptly inspecting a licensee whose license authority was transferred to a new owner or had a change in controlling interest, not only protected public health and safety, but also promoted the common defense and security of materials.
- **Notification of reciprocity.** Utah used a custom database management system programmed to provide the staff with a "pop-up" window, each day upon logging in, that indicates who is working in the State under reciprocity during the next 7-day period. If there are no licensees working under reciprocity during that time period, the "pop-up" window indicates this as well. The system also tracks who has been in the State, when, where, and for how long.

Technical Quality of Inspections

- **Customer satisfaction survey.** Utah employed a unique customer satisfaction survey approach to its inspections. At the conclusion of the inspection, the inspector would leave a copy of a brief questionnaire with the licensee. It identified the inspector by name and requested the licensee to rate both the inspection (scope, duration, clarity) and the inspector (knowledge, professionalism, responsiveness). The form also requested the licensee's views on how the Utah program might better serve their needs. The Utah Program showed a very strong commitment to Total Quality Management and this mechanism of getting customer feedback fit very well into that overall program. Utah has subsequently expanded this program to include customer satisfaction surveys for licensing actions as well as inspections.
- **Inspection photography.** North Dakota inspectors included photographs of licensee operations in the inspection files. The photographs helped supervisors and future inspectors have a visual indication of licensee facilities, equipment, and operations.

- **Internal communication.** California used a "License Review Alert Form," Form RH 2033, as a means to document in writing the communication between inspection staff and licensing staff. Using this form, information obtained by the inspection staff is communicated to the licensing staff responsible for license termination.
- **Cease and desist orders.** California used a "User's Declaration Form" to establish a legally binding agreement between California and a licensee. The form can be executed by an inspector in the field to cause a licensee to discontinue a serious non-complaint activity.
- **Inspection program self-audit.** NRC Region III conducted a "quarterly inspection self-assessment" program. Each quarter, a senior inspector and a GG-13 inspector from each Inspection Branch spent a day reviewing one area of inspections. Topics included documentation using the field notes, completion of Inspection Follow-up System (IFS) data, and inspection of misadministrations and events. The inspectors selected appropriate documents for review and presented their findings in writing to the inspection branch chiefs. Findings have resulted in development of additional written guidance in the form of memoranda to the staff, as well as additional in-house training.
- **Violation response checklist.** New Hampshire used a violation response review checklist to document staff reviews of how the licensee addressed their response to each Notice of Violation.
- **Peer reviewed notes and correspondence.** The New York State Department of Labor's inspection field notes and inspection correspondence are peer reviewed by one of the senior inspectors to assure consistency, thoroughness, and quality of reports.
- **Rule requirement checklist.** Oregon employed a unique method for educating the licensee of Oregon's regulations as they pertain to the licensee's operation. At the conclusion of the inspection, the inspector would provide a checklist to the licensee that specified the Oregon administrative rule requirements applicable to the licensee. The licensee may use this checklist to facilitate the annual review of their radiation safety program. Additionally, the inspectors routinely utilized a form to document the "vertical slice" approach to their inspections where several types of radioactive sources are tracked from their receipt to final disposal.
- **Inspection compliance history form.** The Utah program utilized an inspection compliance history form both for the materials program and the low-level radioactive waste disposal program. The compliance history form included all of the past inspection findings for the facility and was used not only to help the inspector prepare for the inspection, but also as a teaching tool during the inspection to help the licensee better understand the issues and past history of the licensee.
- **Field operations database.** NRC Region IV keeps a database of sites where licensees may conduct field operations. Inspectors use the database in conducting unannounced field inspections when they are in the vicinity for a routine inspection.

Technical Quality of Licensing Actions

- **Computerized license templates.** The Illinois Department of Nuclear Safety developed extensive licensing guidance for its staff, as well as an effective system of using

licensing templates for individual reviewers via personal computer. These templates are contained on the Department's computer network. Each reviewer had a personal computer tied into the network and was able to generate a completely new document each time the license is amended, which reflected the changes in the license in boldface type.

- **License database automation.** NRC Region IV made advances in license automation using Word Perfect macros and search techniques, which allow the Region to search its database to respond more promptly to queries about specific or generic licensing problems.
- **License information tracking system.** The Illinois Department of Nuclear Safety used an administrative control technique referred to as "Blue Sheets." These blue sheets were prepared by an administrative assistant who also enters critical license application data onto the Department's computer network. The blue sheets were found to be effective for tracking the progress of licensing actions for fees, technical evaluations, telephone calls, deficiency letters, responses, acknowledgment letters, mailing dates, and supervisory reviews. This same blue sheet information was used to generate periodic internal reports via the network. These reports were used to identify licensing actions by type, program code, date, licensee name and reviewer name.
- **Annual expiration of licenses to ensure fee collection.** New Hampshire used a different approach to fee collection that also provided a mechanism to assure that basic administrative information about the licensee was up to date. The approach was referred to as a simple license renewal, which differed from New Hampshire's standard 5-year technical license renewal. Under this system, licenses expired on an annual basis. Each year, the licensee received a letter informing them of the pending expiration of the license. To renew the license, the licensee was required to return the annual fee along with a form, which updates key information about the facility. This enabled the State to keep its records about licensee operations current at least on an annual basis. It was noted that all proposed changes to the licensed program had to be submitted by a separate letter requesting amendment of the license.
- **Licensing action quality control team.** NRC Region III used a unique quality control approach in its materials licensing program. In this approach, a quality control team of license reviewers would meet on a monthly basis to review 1-5 percent of the completed casework before it was dispatched. This helped to assure uniform quality and provided timely feedback on appropriate licensing procedures to licensing staff.
- **Licensee responsibility cover letter.** Nevada tied every new or renewed license through license condition to an attached cover letter, which clearly explained the licensee's responsibilities when the licensee receives the license.
- **Financial assurance spreadsheet.** The Massachusetts Program developed a spreadsheet to assist in determining the amount of financial assurance required based on the possession limit of radioactive material on the license. The review team found the method to be efficient and effective for managing these licenses.
- **Allowed devices on license.** NRC Region III had written material licenses that list allowed devices by manufacturer and model number rather than listing sources by manufacturer and model number. Because multiple sources can often be used in a

single device, this approach provided increased flexibility to licensees and reduced the burden associated with license amendments to NRC staff.

- **Portable gauge model numbers.** Iowa identified a potential problem associated with model number designations involving Troxler 3400 Series and other Troxler Model 34XX portable gauges. To avoid the potential problem, Iowa revised all portable gauge licenses that authorized Troxler 3400 Series by removing the 3400 series authorization and specifying each portable gauge in the Series by its own model number. This licensing practice can be extended to other portable gauges distributed by manufacturers that use model numbers.
- **Decommissioning information request.** NRC Region III developed a document entitled "Information that Should be Submitted to the NRC Staff for Decommissioning and Termination of Licensed Facilities". The document was provided to licensees intending to request authorization for release of a room or building for unrestricted use or for termination of licensed activities.
- **Decommissioning forms and checklists.** NRC Region II developed forms and checklists, which were used to verify that all information on decommissioning licensing actions had been incorporated into license files.
- **Pre-screening of licensing actions.** NRC Region IV pre-screens licensing actions prior to assigning them to the license reviewers. The process involves the Branch Chief and the Senior Staff of the Material Licensing Branch meeting weekly to pre-screen every licensing action to determine if the licensee and/or applicant has provided adequate information for license reviewers to review the application. Applications with insufficient information (i.e., no signature, missing referenced information, no supporting documentation, etc.) are provided to the staff for follow-up. After the licensee has responded with the additional information, the review can be completed. This pre-screening approach to the licensing process has greatly increased the timeliness of licensing actions and reduced the need for lengthy deficiency correspondence and has, overall, increased the effectiveness and efficiency of reviewing licensing actions. A pre-screening approach appropriate for the resources available to the licensing agency may increase the effectiveness and efficiency for that agency.

Technical Quality of Incident and Allegation Activities

- **Team review of incidents and allegations.** In Maryland, all complex events and allegations, as well as those with the potential for impacting public safety, are evaluated by the radioactive materials supervisor, management, and staff, in order to determine an appropriate response. The response varied based on the safety significance of the event, from resolution through telephone discussion, to immediate response by a team of two health physicists, and, in some cases, included issuance of a press release to the media.
- **Audits of allegations.** NRC Region I conducted bi-monthly staff and semiannual management audits of selected materials allegations. These audits verified such items as the completeness and clarity of allegation information, the timeliness of correspondence and Allegation Panels, and the appropriateness of panel actions and closure letter.

- **Quality Assurance Health Physicist.** The California program utilized a Quality Assurance Health Physicist and found it helpful for a large radiation control program. The position strengthened the California Program's performance and ensures that health and safety issues are properly addressed.
- **Incident initial responder list.** North Dakota compiled a list of trained personnel in the State who would be willing to respond to a radiation incident, such as a transportation incident, and provide initial assessment of the incident or assist during the incident until State radiological emergency response personnel can arrive. The list includes the names of volunteers, their location within the State, the types of equipment they have available, and contact telephone numbers.

NON-COMMON PERFORMANCE INDICATORS

Compatibility Requirements

- **Reading proposed regulations aloud.** The California program reviewed draft regulations by reading the regulations out loud to available staff. This practice provided the technical and administrative staffs, the individuals responsible for implementing the regulations, and those most often in contact with the licensees the opportunity to identify potential problems before the regulations were finalized.
- **Adoption by reference.** Adopting regulations by reference allowed the State of Oklahoma to implement regulations quickly and avoid potential compatibility conflicts. Also, it reduced confusion for reciprocity licensees and multi-State licensees.

Sealed Source and Device Evaluation Program

- **Screening of applications.** The NRC SS&D evaluation program instituted a screening process for all SS&D applications in 1999. The initial screening of an application saved time and effort. An application was initially reviewed to determine if there was enough information to perform the review. If incomplete, or if information was lacking, the application was returned to the applicant without further review.
- **QA/QC of registrants.** Georgia conducted quality assurance and quality control inspections on all SS&D registrants to ensure accuracy and consistency in the production of sources and devices.

Low-Level Radioactive Waste Disposal Program

- **Site and shipment photography.** South Carolina made efficient use of digital images to document site and shipment conditions. Variations are photographed for future use or to send to the shipper in the case of a violation. It was noted that this practice efficiently documented violation information and the exact details of the violation to the shipper. The practice could be extended to other inspection processes such as radiography field inspections or gauge inspections.
- **Modular inspections.** Utah implemented modular inspections, as compared to annual inspections, of low-level waste disposal facilities to enable the Division to utilize technical staff more efficiently, provide for more timely inspections, and provide better oversight of waste facility operations and performance.

- **Security plan as license condition.** Utah incorporated the Envirocare security plan into the license as a specific license condition, and thus made the licensee more accountable for incoming/outgoing material at the site. The State was in a better position to monitor, inspect, and enforce safety and security aspects regarding release of contaminated tools, containers, and materials from the site. Overall, this practice enhanced the site safety and security aspects.

Uranium Recovery Program

- **Construction photography.** Colorado utilized photographic documentation of decommissioning construction activities.
- **Notification of change in business structure.** The State of Washington puts conditions in licenses that the licensee must notify the Department in writing 30 days prior to any change in their business structure. This license condition provides the Department with the opportunity to evaluate if changes in the licensee's business structure could adversely affect the licensee's ability to continue to provide adequate decommissioning funding. This license condition gives the Office the enhanced ability to monitor changes in business structure for potential adverse impacts on its financial and regulatory responsibilities.

Regional Fuel Cycle Inspection Program

- **Trends and patterns database.** NRC Region II maintained a Facility Integration Matrix for each fuel cycle facility to help identify trends and patterns of licensee performance with regard to violations and reported incidents. This information was also used in managing and planning fuel facility inspections.
- **Detailed, written inspection guidance.** NRC Region II had detailed, written guidance targeting specific fuel cycle plant operations and functional areas for emphasis during inspections.
- **Cross-training.** NRC Region III used cross training and qualification of staff from the materials and reactors programs to effectively manage an unexpectedly high workload and very high turn-over in the fuel cycle inspection program. The inter-program approach was highly beneficial both to the individuals involved and to the Region and Agency.

Site Decommissioning Plan

[See last two entries of Technical Quality of Licensing Actions]