



STATE OF WASHINGTON
DEPARTMENT OF HEALTH
DIVISION OF RADIATION PROTECTION

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December 10, 2003

Management Review Board
US Nuclear Regulatory Commission
Washington, D.C. 20555

RE: Integrated Materials Performance Evaluation Program Review for Washington State

To MRB Chair & Members:

Attached is the Washington State Office of Radiation Protection plan in response to the 2003 IMPEP team's recommendation concerning financial assurance for decommissioning as implemented in our radioactive material licenses.

The attached plan describes our understanding of the recommendation, provides the context leading to the current situation, identifies the steps to be taken, and establishes a timeline for completion.

We appreciate the efforts of the IMPEP team in bringing this issue to our attention and we assure you we will implement the attached plan to correct the few gaps in our existing surety agreements and to assure that all current and future licensing actions are adequate and consistent in addressing financial assurance for decommissioning of our licensees.

Respectfully submitted by:

Handwritten signature of Gary L. Robertson in black ink.

Gary L. Robertson, Director, Office of Radiation Protection

Handwritten signature of Terry C. Frazee in black ink.

Terry C. Frazee, Western Regional Director

Handwritten signature of Arden C. Scroggs in black ink.

Arden C. Scroggs, Supervisor, Radioactive Materials Section

Attachment

STP-006 Template
RIDS: SPD1



Washington State Office of Radiation Protection Plan to Improve Financial Assurance For Decommissioning

The issue: The 2003 IMPEP Team reviewed 26 license files and noted issues concerning implementation of the financial assurance for decommissioning requirements in nine files. In seven of the nine, there was no apparent decommissioning funding plan. The remaining two files were found to have inadequate or possibly invalid plans. The Office of Radiation Protection internal review indicates two basic causes: “open-ended” license possession limits, and inconsistent staff training.

The context: For most licensees, the quantity and type of radioactive materials in use is modest and consistent. Whether a gauge user needs one, or a dozen gauges, of a particular type, the basic health and safety concerns do not change. Similarly, a medical user may need to adjust the amount of material ordered to accommodate patient load but the type of material and its use do not change. In both cases, the economics of acquiring more material than is absolutely needed is believed to be the controlling factor. Since the 1980’s when the Office implemented license fees, the Office has used “open-ended” license conditions that limit many licensees to a particular type of material or specific device model. This allows the licensee to increase or decrease their actual possession amount as needed to accommodate their workload. This means that frequent license amendments are minimized. This saves both the licensee and the Office unnecessary work.

In general, the quantities of radioactive materials requiring financial assurance are very much larger than the typical amount in use. For portable gauge users, who on average possess 4 or 5 gauges, the number of gauges needed to invoke the financial surety requirement is 2000 (based on 50 mCi of Am-241 in a typical gauge which also contains 10 mCi of Cs-137). For industrial radiographers, the limiting radioactive material is Co-60. Washington state licensees possessing Co-60 have at most two sources which are typically around 200 curies each. A radiographer would have to possess 50 of these sources to require financial surety. For medical therapy, the gap is greater – most medical licensees would need 200,000 times their typical possession of Cs-137 sealed sources before financial surety would be required. Most Washington State licensees do not possess anywhere near the quantity requiring surety; however, the open-ended nature of the licenses technically would allow such a condition to exist.

The Office has subdivided its licensees into three licensing programs: medical, industrial, and laboratory. In the past, the majority of licensees truly needing

financial assurance provisions have been in the laboratory program. That program manager was trained and experienced in using NRC guidance in establishing adequate surety agreements and the majority of the existing (adequate) surety arrangements were set up under that manager. However, that manager is no longer with the program. The new laboratory program manager and the other program managers need training in applying the financial assurance requirements.

The plan: Following the IMPEP review the Office began an immediate review of its licenses, the need for surety, and the status of existing surety. Staff concluded that corrective action would require various degrees of implementation, including immediate action on certain licenses, detailed review of existing surety, development of new standard license conditions, closing of all open-ended license conditions for non-critical licensees, training, and procedure updates.

Step one was a review of all licenses to identify which licensees had “open-ended” possession limits (e.g. “no single source to exceed” a particular source strength, or maximum possession “as needed”, etc.) or potentially exceeded the limit for financial assurance (without any surety in place). This step was completed September 12, 2003.

Licensees with “open-ended” limits

Category	# of licensees
Portable Gauges	145
Medical Therapy	75
Laboratory	54
Fixed Gauges	27
Radiographers	10
Gas Chromatographs	8
Nuclear Pharmacy	5
Service	4
Gamma Knife	3
Irradiator	2
Broad scope medical	2
Broad scope laboratory	1
Total	336

Step two was identifying the licensees with existing surety arrangements that appeared most in need of review. Priority will be given to completing review and updating of these licensee first. This step was completed September 16, 2003.

Licensees Requiring Surety Review

Category	# of licensees
Broad scope laboratory	3
Manufacturer	1

Step three will be development of new standard license conditions and reviewer checklists. Standard license conditions will be based on NRC standard license conditions. Reviewer checklists will be developed by the Section Supervisor for use by the Program Managers to assure that all licensees are consistently and adequately reviewed for financial assurance consideration. This step will be completed by January 30, 2004.

Step four will be the detailed review of existing surety, based initially on training provided by the IMPEP team and the subsequent review of NRC guidance materials. Staff will review each license and will consult with each licensee about potential license modifications that are determined to be necessary so that each is in compliance with surety requirements. Surety agreements will be established, amended or determined to be unnecessary depending upon the outcome of staff review. Staff is reviewing current surety standards prior to determining what degree of implementation is needed. Use of standard license conditions and reviewer checklists will be incorporated as these are developed. Training will be provided as soon as practicable. Detailed reviews are expected to begin in January 2004.

Step five will be closing of all open-ended license conditions for non-critical licensees. The majority of these licenses has very little potential for needing surety and will be amended over the next 2 years. These will be amended as other licensing is needed or as regular work allows. This has already begun with an anticipated completion date of December 30, 2005.

All Licensees Requiring Review and Update

(as of December 8, 2003)

Category	# affected	# completed	Percentage
Portable Gauges	145		
Medical Therapy	75	5	7%
Laboratory	54		
Fixed Gauges	27		
Radiographers	10		
Gas Chromatographs	8		
Nuclear Pharmacy	5	5	100%
Service	4		
Gamma Knife	3	3	100%
Irradiator	2		
Broad scope medical	2	2	100%
Broad scope laboratory	4		
Manufacturer	1		
Total	340	15	4%

Step six will be the development of an ongoing training routine for reviewing and implementing financial assurance requirements for Radioactive Materials licensees. The Section Supervisor will contact NRC for information on available training resources, will seek other training opportunities, will identify reference materials and guidance, and will write and implement a training procedure to assure consistent and adequate preparation of all staff charged with performing license reviews. This step will be completed by May 28, 2004.

Step seven will be finalizing a procedure update to incorporate any and all guidance, standard license conditions, checklists, and training improvements identified during the on-going review process. This step will be completed by June 30, 2004.

The timeline: Staff began the review process during the week of the IMPEP review. All steps and completion dates are subject to revision as staff gains experience in implementing this plan. It is the intention of management to achieve full compliance with the financial surety requirements for all licensees by December 30, 2005. Any variance from this deadline will be specifically approved

by the Office Director. Any variance from the other due dates shown will be discussed and approved in advance by the Western Regional Director.

Timeline

Action	Responsible	Due	Completed
Identify "open-ended" licenses	Program Managers		September 12, 2003
Identify licensee sureties most in need of review	Program Managers		September 16, 2003
Development of new standard license conditions and reviewer checklists	Supervisor	January 30, 2004	
Detailed review of existing surety	Program Managers	April 30, 2004	
Closing of all open-ended license conditions for non-critical licensees	Program Managers	December 31, 2005	
Complete training implementation	Supervisor	May 28, 2004	
Procedure update	Supervisor	June 30, 2004	

Submitted December 10, 2003