Department of Energy
Washington, DC 20585

February 18, 2011

MEMORANDUM FOR DISTRIBUTION

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OFFICE OF HEALTH, SAFETY AND SECURITY

SUBJECT: Radiological Control Technical Positions Regarding *Use of Personal Nuclear Accident Dosimeters* and *Internal Audits*

The Office of Worker Safety and Health Policy issues Radiological Control Technical Positions in response to questions or issues associated with Department of Energy (DOE) occupational radiation protection programs.

The first technical position, *Use of Personal Nuclear Accident Dosimeters*, addresses provisions regarding who must wear a personnel nuclear accident dosimeter and the areas in which personnel nuclear accident dosimeters must be worn (attachment 1). It is acceptable to identify those discrete locations with sufficient quantities of fissile material where excessive exposure to individuals from a nuclear accident is possible and issue personal nuclear accident dosimeters only to individuals entering those locations.

The second technical position, *Internal Audits*, addresses the conduct of internal audits of a contractor's radiation protection program (attachment 2). It is acceptable for audits of all or part of a contractor's radiation protection plan to be performed by individuals and organizations that do not work for the contractor, if those individuals and organizations have the requisite knowledge to evaluate the radiological control functional area being audited.

These technical positions do not represent new policy or direction to the field. Rather, they provide clarification regarding use of personnel nuclear accident dosimeters and internal audits of radiation protection plans.

Please disseminate the attached documents to the applicable radiation protection organizations at your facilities.

Attachments

Printed with soy ink on recycled paper

Department of Energy
Office of Worker Safety and Health Policy
Radiological Control Technical Position
RCTP 2011-02

Internal Audits

Issue:

Title 10, Code of Federal Regulations, part 835 (10 C.F.R. 835), *Occupational Radiation Protection*, section102, requires internal audits of the Radiation Protection Program (RPP) at Department of Energy (DOE) sites. These audits must be completed at least every 36 months and address all of the functional elements of RPP. However, this provision does not state who performs these audits. Periodically, questions arise related to whether audits of part of a contractor's RPP performed by other noncontractor organizations can be used by that contractor in demonstrating compliance with §835.102.

Applicable Provisions/Requirements/Guidance:

10 C.F.R. 835

§835.102 Internal Audits

Internal audits of RPP, including examination of program content and implementation, shall be conducted through a process that ensures that all functional elements are reviewed no less frequently than every 36 months.

DOE Guide (G) 441.1-1C

Section 3.2.3: Internal Audit and Self-Assessment

Internal audits and self-assessments are two of the numerous checks and balances needed in an effective RPP. Internal audits of RPP, including examination of program content and implementation, shall be conducted through a process that ensures that all functional elements of the program are reviewed no less frequently than every 36 months (10 C.F.R. 835.102). The Radiological Control Standard discusses how assessments, including internal audits, provide independent feedback to senior line managers concerning the implementation of RPP.

An audit plan or mechanism should be developed that identifies the functional elements of RPP and the schedule for review to ensure that over a 36-month period, all of the functional elements are reviewed. Internal audits should be conducted on a continuing basis. DOE cautions against conducting a single, comprehensive internal audit of the entire RPP once every 3years. DOE does not believe that such an approach is effective in assuring that a DOE activity will be conducted in conformance with its approved RPP. DOE recommends that, at a minimum, an annual, broad scope audit of the program be conducted. Under this approach, the audit plan would identify each functional element to be reviewed during the annual audit and ensure that all

functional elements would be reviewed during a 36-month cycle. Thus, RPP is under continuing review and deficiencies can be identified and corrected in a timely manner.

The functional elements of a comprehensive RPP are discussed in this Guide. Not all of these functional elements may be applicable to a specific DOE activity, but should be selected based upon the type of radiological work being performed and the radiological hazards encountered. *Internal audits should be conducted by individuals who are organizationally independent from the organizations responsible for developing and implementing RPP.*

DOE STD 1098-2008

Article 134: Assessments

Assessment, as used in this Standard, refers to the process of providing independent feedback to senior line managers to indicate the adequacy of the radiological control program.

1. Inspections, audits, reviews, investigations, and self-assessments are part of the numerous checks and balances needed in a good radiological control program. Internal audits of the radiation protection program shall be conducted such that over a 36-month period, all functional elements are assessed [see 835.102]. The audits should address program performance, applicability, content, and implementation. *These audits should be performed by the radiological control organization, the quality assurance organization, or other organizations having the requisite knowledge to adequately assess radiological control activities*.

Discussion:

10 C.F.R. 835, section102, requires internal audits of the radiation protection program at DOE sites. These audits must be completed at least every 36-months and address all of the functional elements of RPP. Guidance in DOE G 441.1-1C emphasizes that these audits should take place on a continuing basis over the 36-month audit period rather than a single comprehensive audit once every 36 months.

10 C.F.R. 835 used the term "internal audit." However, the term is not defined. For purposes of this technical position, it is acceptable to define an internal audit as one performed by the contractor, or for the contractor, by other individuals and organizations for which the contractor can be held accountable.

The guidance emphasizes this approach because the purpose of internal audits is to provide a site's line management with continuing, candid, unbiased and technically reliable information on the adequacy of radiological control programs to enable timely correction of deficiencies. Although a contractor's employees might perform audits on a continuing basis more easily than noncontractor personnel, neither the provision nor the guidance state who may or should perform these audits.

As a result, questions periodically arise related to whether audits of a part of a contractor's RPP performed by other noncontractor organizations can be used by that contractor in demonstrating compliance with §835.102.

Although the guidance contained in DOE G 441.1-1C and DOE STD 1098-2008 does not address who should perform internal audits, to meet the objective of the internal audits, these documents do recommend that the organizations and individuals performing these audits:

- Have the requisite knowledge to adequately assess radiological control activities; and
- Be organizationally independent from the organizations responsible for developing and implementing RPP.

Accordingly**, it is acceptable for audits of all or part of a contractor's RPP performed by individuals and organizations <u>that do not work</u> for the contractor to be used by that contractor to demonstrate compliance with §835.102, if those individuals and organizations have the requisite knowledge to evaluate the radiological control functional area being audited**. It is the responsibility of the contractor to determine the qualifications of the outside auditors. (*Note that organizations and individuals who do not work for a contractor are presumed to be independent of that contractor.*)

When using this approach, factors to consider include:

- How does the scope match up with the planned triennial review scope and schedule?
- What can we take credit for and what do we need to assess to ensure the scope is covered as planned?
- What facilities and programs did the assessment cover and which ones do we still need to look at?
- Do we need to follow up on issues and corrective actions to see if the issues have been effectively resolved?
- Are the results of the assessment consistent with expectations (i.e., consistent with previous assessments) if not, what can we learn from it and does it indicate previous assessments were weak or inadequate?

A related question has been raised (by DOE contactors) at DOE sites where more than one DOE contractor conducts radiological activities. At such DOE sites, one of the DOE contractors may provide radiological protection services to some or all of the other DOE contractors on the site – such as providing, collecting, and reading personnel dosimeters. In this situation, the quality of a portion of the radiological protection program (and possibly compliance with certain provisions of 10 C.F.R. 835) for all of the DOE contractors on a DOE site will depend on the performance of one contractor. The question is, do all of the contractors have to perform an audit of the DOE contractor that provides radiological services to them?

As noted previously, audits by organizations that do not work for a contractor may be used to demonstrate compliance with §835.102. Therefore, audits of the contractor providing radiological protection services may be used to demonstrate compliance with §835.102, as long as these audits address the specific services received from the service provider.

Technical Position:

It is acceptable for audits of all or part of a contractor's RPP performed by individuals and organizations that do not work for the contractor to be used by that contractor to demonstrate compliance with §835.102, if those individuals and organizations have the requisite knowledge to evaluate the radiological control functional area being audited.

Audits of a contractor that provides radiological protection services to other contractors may be used by any customer of the service provider to demonstrate compliance with §835.102. These audits must address the specific services received from the service provider.

References:

10 C.F.R. 835, *Occupational Radiation Protection*, U.S. Department of Energy

Radiation Protection Programs Guide, DOE G 441.1-1C, May 19, 2008

Radiological Control Standard, DOE-STD-1098-2008, October 2008