

December 8, 2011

MEMORANDUM TO: Gregory Suber, Chief
Low-Level Waste Branch
Environmental Protection
and Performance Assessment Directorate
Division of Waste Management
and Environmental Protection
Office of Federal and State Materials
and Environmental Management Programs

FROM: Maurice Heath, Project Manager */RA/*
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SUBJECT: OCTOBER 20, 2011, MEETING SUMMARY: PUBLIC WORKSHOP
TO DISCUSS THE DRAFT BRANCH TECHNICAL POSITION ON
CONCENTRATION AVERAGING AND ENCAPSULATION

On October 20, 2011, the U.S. Nuclear Regulatory Commission (NRC) held a public workshop to discuss the draft Branch Technical Position on Concentration Averaging and Encapsulation (CA BTP), and receive public comments on the revised CA BTP. This Category 3 meeting was held at the Crown Plaza Hotel in Albuquerque, New Mexico.

The public meeting included presentations describing the major changes in the draft CA BTP, a comparison from 1995 to current draft and the additions to the document. The NRC staff made a brief presentation on the background of the CA BTP revisions along with addressing how the BTP fits in the regulatory infrastructure. These presentations were followed by questions, concerns and comments from public stakeholders, industry, Agreement State Regulators and other federal agencies both on the phone and in attendance.

A brief summary of the presentations, the discussions, and a list of attendees can be found in the enclosure and attachments, respectively.

Enclosure:
Meeting Summary

CONTACT: Maurice Heath, FSME/DWMEP
(301) 415-3137

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Meeting Summary

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NAME	MHeath	TMoon	MHeath
DATE	11/30/11	11/30/11	12/8/11

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Public Workshop To Discuss the Draft Potential Revisions of the Branch Technical Position on
Concentration Averaging and Encapsulation
October 20, 2011

The meeting was transcribed by a Court Reporter. Since a transcript of this meeting is available (see Attachment 2) this summary is only intended to include information on the background of the meeting and on its purpose; any additional information can be found in the transcript for the meeting. References in this document are provided as document accession numbers to the U.S. Nuclear Regulatory Commission's (NRC's) Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Background

To protect individuals that might inadvertently intrude into a waste disposal facility (a requirement in 10 CFR 61.42), radioactive waste proposed for near-surface disposal must meet waste classified criteria that were developed to ensure protection of the inadvertent human intruder. NRC's regulation, "Licensing Requirements for Land Disposal of Radioactive Waste," 10 CFR Part 61, establishes a waste classification system based on the concentration of specific radionuclides contained in the waste. The regulation also states, in 10 CFR 61.55(a)(8), that "The concentration of a radionuclide [in waste] may be averaged over the volume of the waste, or weight of the waste if the units [on the values tabulated in the concentration tables] are expressed as nanocuries per gram".

A technical position on radioactive waste classification was initially developed in May 1983 (ADAMS ML033630755). That technical position paper described overall procedures acceptable to NRC staff which could be used by licensees to determine the presence and concentrations of the radionuclides listed in 10 CFR 61.55, and thereby classify waste for near-surface disposal.

In 1995 the NRC staff published the Branch Technical Position on Concentration Averaging and Encapsulation (CA BTP). The 1995 version expanded and further defined Section C.3 of the 1983 Technical Position on concentration averaging. In 2007 the NRC staff completed a Strategic Assessment of the NRC Low-Level Waste Regulatory Program. The staff informed the Commission, in SECY-07-0180, that updating CA BTP was a high priority task. The staff stated that the revised would make the CA BTP risk-informed and performance-based.

In 2010 the NRC staff responded to the Commission's request to provide options for the NRC's policy on the blending of low-level waste (SECY-10-0043). Low-Level Radioactive Waste (LLRW) blending is one of eight topic areas in the CA BTP. The Commission, in SRM for SECY-10-0043, supported the staff in its position to revise the blending position contained in the CA BTP. The Commission agreed with the staff's approach to risk-inform, performance-base the blending guidance which supports the agency's regulatory goals. With this direction from the Commission, the staff is initiating revisions to the entire CA BTP to include the Commission's new position on blending, as well as to consider risk-informed, performance-based approaches for the remainder of the CA BTP.

Enclosure

On September 6, 2011, the CA BTP revision one was made publicly available. On October 4, 2011, the NRC staff presented the draft CA BTP, in a public meeting, to the Advisory Committee on Reactor Safeguards (ACRS). The ACRS provides the NRC Commission with independent and timely technical advice on issues of public safety related to nuclear reactors, reactor safeguards, and nuclear waste and materials management issues.

Discussion

Mr. Richard Barkley, NRC facilitator, opened the meeting by opening the meeting, discussing format and providing ground rules for the meeting. That format included presentations by NRC staff, an NRC contractor followed by input from the general public, including the public in the audience and the public participating by conference phone. NRC and contractor presentations included: NRC Welcome and Overview; Introduction; Technical Bases for Homogeneity Guidance, Technical Basis for Alternative Approaches, Encapsulation and Classifying Mixture of Items. All presentations are attached as part of this meeting summary.

The meeting continued with Mr. Larry Camper's opening remarks. His remarks focused on the purpose of the public workshop, scope of the meeting and the reason for being there. The purpose of the meeting was to gather public input on key issues related to the draft CA BTP. The public was encouraged to review and provide comments on the draft CA BTP. Mr. Camper also stressed that NRC practices an openness and transparency method to regulation and an important aspect is public involvement.

In the next presentation, Mr. Maurice Heath discussed the introduction to CA BTP. The main focus of his presentation was to describe what is the CA BTP, background, how it fits in the regulatory framework, and the difference between the Site-Specific Analysis and the CABTP. The presentation provided background information on NRC's 2007 Strategic Assessment of the regulatory program for LLRW and how staff identified updating the CA BTP, by risk-informing and performance-based the positions, as a high priority. Mr. Heath also discussed that in SRM SECY-10-0043 the Commission: (1) agreed with Option 2 in SECY-10-0043; (2) asked staff to obtain an Advisory Committee on Reactor Safeguards review of potential revisions to the CA BTP; (3) directed that Greater-Than-Class-C wastes not be blended and (4) asked staff to develop a standard for homogeneity. The regulations that are related to the CA BTP are found in 10 CFR 61.42 "Protection of individuals from inadvertent intrusion", 61.55 "Waste Classification" and Part 20 Appendix G, waste manifest rule. Each of these regulations either allows for concentration averaging or provides some type of limits.

In the third presentation, Dr. Christianne Ridge discussed the technical basis for homogeneity guidance in the draft CA BTP. The Commission directed the staff to develop guidance regarding the circumstances under which large scale blending in SECY-10-0043 is acceptable. Dr. Ridge discussed the reasons for the homogeneity guidance which were elimination of the blending constraint, increased consideration of site-specific scenarios, stakeholder concern and Commission direction. The scenario discussed was a hypothetical blending scenario where waste packages near the class limit are disposed of contiguously. Dr. Ridge discussed the homogeneity guidance topics specifically addressing homogeneous waste types, intentional blending during waste processing and the classification of homogeneous waste. The specific homogeneous waste types in the 1995 CA BTP remain the same in the revised draft CA BTP and no homogeneity test is proposed for these homogeneous waste types.

In the final presentation, Mr. John Cochran, from Sandia National Laboratory, discussed the technical basis for alternative approaches, encapsulation and classifying mixture of individual items in the CA BTP. The presentation discussed the 1995 BTP position and the new positions in the draft CA BTP. The new positions are more risk-informed and performance based. The sealed source limits were developed using a new reasonable foreseeable, yet conservative intruder scenario. The scenario considered many factors in developing the sealed source exposure scenario. Realizing the scenario is not real but a stylized scenario used to ensure an intruder does not receive an inordinately high dose, should intrusion occur. The new sealed source position has been increased in the draft CA BTP. The classifying of mixture of individual items is another position that changed in the draft CA BTP. The new positions have a better basis, risk-informed and the limits are tied to the 61.55 waste classification limits. The new positions are based on a new exposure scenario that is similar to sealed-source carry-away scenario.

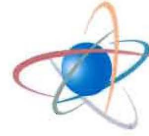
The final discussion topic was the new section added to the draft CA BTP, alternative approaches. The alternative approaches are a new philosophy that provides broadly applicable look up guidance and also setting uniform safety for implementing Agreement State Regulators. This additional section in the CA BTP provides flexibility and alternative means to dispose of waste safely. The added flexibility aligns with a more risk-informed performance-based regulatory approach. The NRC presentations concluded by summarizing the changes (as stated above) in the draft CA BTP. Following the presentations the NRC staff provided opportunity for public comment and questions. All the questions and responses are in the public meeting transcript located in ADAMS or attached to this meeting summary. The comments from the public meeting will be addressed in the revision two of the draft CA BTP scheduled to be published in April 2012.

Attachments:

1. Attendee List
2. Meeting Transcript
3. Presentation



U.S. Nuclear Regulatory Commission



Public Workshop to Discuss the
Draft Branch Technical Position on
Concentration Averaging and Encapsulation
October 20, 2011

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