

March 30, 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/**
Low-Level Waste Branch
Environmental Protection
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Division of Waste Management
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Office of Federal and State Materials
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SUBJECT: FEBRUARY 24, 2011 MEETING SUMMARY: PUBLIC MEETING TO
SOLICIT COMMENTS ON POTENTIAL REVISIONS OF THE
BRANCH TECHNICAL POSITION ON CONCENTRATION
AVERAGING AND ENCAPSULATION

On February 24, 2011, the U.S. Nuclear Regulatory Commission (NRC) held a public meeting to provide background information on the Branch Technical Position on Concentration Averaging and Encapsulation (CA BTP), and to solicit public comments on potential revisions to the CA BTP. This Category 3 meeting was held at the Legacy Hotel and Meeting Centre in Rockville, MD.

The public meeting included presentations and discussions by a 12 member panel with representatives from federal and state regulatory agencies, industry stakeholders and public interest groups. The NRC made brief presentations on the CA BTP that addressed purpose, background and regulatory infrastructure. These presentations were followed by panelists' discussions of potential revisions to the CA BTP, and input from industry and the public.

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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ML110880417

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DATE	03/30/11	03/29/11	03/30/11

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Public Meeting to Solicit Public Comments on Potential Revisions of the Branch Technical
Position on Concentration Averaging and Encapsulation
February 24, 2011

The meeting was transcribed by a Court Reporter. Since a transcript of this meeting is available (see Attachment) 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 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). 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

The NRC staff issued a *Federal Register Notice* (FRN) in January 2011 to provide notice of the NRC's intended to revise the CA BTP, to solicit comments on potential revisions to CA BTP and to notify the public of the February 24, 2011, public meeting.

Discussion

Mr. Bret Leslie and Ms. Patricia Adelstein, NRC facilitators, opened the meeting by introducing the participants of the panel and briefly explained the format of the meeting. That format included presentations by NRC staff and an NRC contractor, followed by panel discussions, then 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; Regulatory Infrastructure; Technical Overview of Current CA BTP, and Overview of the Federal Register Notice Questions. All presentations are attached as part of this meeting summary.

The meeting continued with Mr. Larry Camper's presentation titled NRC Welcome and Overview. His presentation focused on three main topics: (1) the purpose of meeting; (2) scope of meeting; and (3) why are we here. The purpose of the meeting was to gather public input on key issues related to possible revisions to the CA BTP. Mr. Camper's presentation provided background information on NRC's 2007 Strategic Assessment of the regulatory program for Low Level Radioactive Waste (LLRW) and how staff identified updating the CA BTP as a high priority. The presentation also identified how the blending issue put the CA BTP revision on hold until the Commission provided direction in SRM-SECY 10-0043.

In the next presentation, Mr. Maurice Heath discussed the Regulatory Infrastructure. Mr. Heath discussed two topics, the regulations and guidance that relates to the CA BTP and the Commission direction from SRM SECY-10-0043. 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 (GTCC) 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.

The third presentation discussed the eight categories of guidance in the CA BTP. The CA BTP guidance addresses: (1) homogenous waste types; (2) solidified and absorbed liquids; (3) activated metals; (4) contaminated materials; (5) cartridge filters; (6) waste in high-integrity containers; (7) the encapsulation of sealed sources and other LLRW, and (8) the mixing of different waste types in single container. Alternative Provisions are provided for circumstances not identified in the eight elements of guidance. In general, the guidance in the BTP is provided to help insure protection of the inadvertent human intruder as required by 10 CFR 61.42. The eight categories of guidance help protect the inadvertent human intruder in two ways: first, by requiring radiological uniformity in each waste package (to ensure actual disposal conditions are consistent with Part 61 Environmental Impact Statement intruder scenarios, which assumed homogenous source terms) and second, by setting boundaries on encapsulating sealed radioactive sources and other LLRW.

In the final presentation, Dr. Christianne Ridge gave a presentation titled “Overview of Federal Register Notice Questions.” The nine questions in Federal Register Notice were provided to help shape the conversation in the public meeting. Dr. Ridge organized the FRN questions into four categories, Averaging Provisions, Intruder Analyses, Limits to Averaging and Limits to Blending. The categories Dr. Ridge present organized the discussion topics and allowed the conversation to focus on each area separately. This approach allowed for focused discussions on the specific topic in the Branch Technical Position on Concentration Averaging and Encapsulation. This summary includes three attachments, which include the Meeting Attendee List, NRC Presentations (ML110560286) and Meeting Transcript (ML110600395), as discussed above.

Attachments:

1. Meeting Attendees
2. NRC Presentations
3. Meeting Transcript

Meeting Attendees

Steve Garry	U.S. Nuclear Regulatory Commission (NRC)
James Shaffner	NRC
James Kennedy	NRC
Christianne Ridge	NRC
Larry Camper	NRC
Gregory Suber	NRC
Maurice Heath	NRC
Harry Felsher	NRC
John Flack	NRC/ACRS
Christopher Grossman	NRC
Boby Abu-Eid	NRC
Tison Campbell	NRC
Kathryn Brock	NRC
Zachary Gran	NRC
Ronald LaVera	NRC
John Cochran	Sandia National Laboratories
Bret Leslie	NRC Facilitator
Patricia Adelstein	NRC Facilitator
Abigail Cuthbertson	U.S. Department of Energy (DOE)
Marty Letourneau	DOE
Earl Fordham	State of Washington, Department of Health
David James	Electric Power Research Institute
Lisa Edwards	Electric Power Research Institute/(representing NEI interest)
John LePere	WMG, Inc.
Graham Johnson	Duke Energy
Diane D'Arrigo	Nuclear Information & Resource Service
Mark Lewis	EnergySolutions
Michael Ryan	Advisory Committee on Reactor Safeguards (ACRS)
Scott Kirk	Waste Control Specialists
John Greeves	Talisman

Jim Lieberman	Talisman
Joseph DiCamillo	Studsvik
Brian Hearty	US Army Corps of Engineers
Jaret Schlueter	Nuclear Energy Institute (NEI)
Andrew Mauer	NEI
Denis Koutsandreas	Department of Energy
Thomas Kalinowski	DW James Consulting
John Zarling	Los Alamos National Lab
Carol Berger	IEM
Martin Schneider	EM Pubs
Thomas Magette	EnergySolutions
George Simmons	Dominion (VA Power)
Mahmoud Haleem	The Catholic University
Sarah Anderson	Radwaste Monitor
Mark Carver	Entergy
Stan Hampton	Eli Lilly & Company
Linda Suttora	DOE
Lucy Knowles	DOE
Eugene Gleason	Nuclear Management Associates
Don Safer	Member of the Public