



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

September 26, 1996

MEMORANDUM TO: Michael F. Weber, Chief
Low-Level Waste and Decommissioning
Projects Branch, DWM/NMSS

THROUGH: Robert A. Nelson, Chief *RAM*
Low-Level Waste and Regulatory Issues Section
LLDP/DWM/NMSS

FROM: Robert B. Neel, Health Physicist *R.B. Neel*
Low-Level Waste and Regulatory Issues Section
LLDP/DWM/NMSS

SUBJECT: TRIP REPORT - FOURTH CONFERENCE OF RADIATION CONTROL
PROGRAM DIRECTORS (CRCPD) WORKSHOP FOR LOW-LEVEL WASTE
REGULATORS: DEVELOPMENT OF REGULATIONS AND GUIDANCE
GREELEY, COLORADO, SEPTEMBER 8-11, 1996

Purpose: To inform NRC management of possible new policy positions
by the CRCPD that would affect licensed low-level waste
(LLW) facilities.

Attendees: See Attachment #1

Agenda: See Attachment #2

Highlights:

---Tom Kerr, of the Department of Energy (DOE) Low-Level Radwaste Program, spoke briefly on "Testing New Waste Forms to meet the NRC's Branch Technical Position Requirements." He expects vendors to send waste containers to DOE for testing. If DOE tests, its procedures are expected to follow those proposed by NRC for testing waste forms. Kerr was not certain if the CRCPD E-5 Committee on Radioactive Waste Management would be interested in a review of the test results. In the future, DOE plans to request that the State of South Carolina review its potential protocols for testing metal containers, because it believes that SC has expertise in this area.

Kerr also indicated that the "Waste Acceptance Matrix," which is complete except for addition of disposal criteria used by the State of New York, and the "Treatment Technologies Catalog," which contains current practice, will both be ready for publication in several months. NRC is on the CRCPD mailing list for these documents.

---Paul Merges, Chairman of CRCPD E-5 Committee, reported that the Environmental Monitoring Report for Commercial Low-Level Radioactive Waste

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Disposal Sites (a ten-year effort) would be published in November 1996. He reported that a number of anti-nuclear groups have expressed interest in this publication.

--A. Wallo, DOE Environmental Safety and Health, said that DOE is moving towards a design basis as an alternative to a performance assessment basis. It was not clear to the participants if this alternative referred only to LLW facilities or to all DOE facilities in general, and no further discussion ensued.

--J. Simek, Texas LLRW Authority, indicated that long-term impacts of radionuclides released from LLW facilities in Texas were estimated with computer models for a period of 10,000 years into the future. When I asked him why this period was adopted, he said: "They saw it in the literature."

--Nancy D'Albегaria, CRCPD facilitator, instructed the workshop participants in the use of the Decision Support Center (I did not attend this session). On both Tuesday and Wednesday mornings, each participant in Group 1 (see column 5, Attachment #1) was seated in front of his individual monitor screen and was instructed how to interact via the computer with the other participants. Their discussion centered around the identification of additional Suggested State Regulations that might be necessary for the licensing of two types of radwaste management facilities: One operated only for DOE, and the other non-DOE facilities. No written documents or policies were generated from this exercise at this meeting, only exchanges of ideas and information during these sessions.

--Regina Wightman, another CRCPD facilitator, assisted Group 2 to prepare, "Criteria for Determination of Alternatives to Disposal," the topic uppermost in the minds of the Group 2 participants (see Attachment #3). The topic proposed in the agenda by T. Devine, the CRCPD coordinator, "suggest acceptable concentrations...for radionuclides in alternate disposal methods," was not addressed. Most of participants were convinced that all these criteria must be considered in order to properly regulate an alternative to disposal at a LLW facility. There was no further amplification of this one-page document.

--T. Devine, CRCPD, suggested that the Group 2 participants identify issues/concerns that they could agree upon, and that could be recommended in writing to the CRCPD Board of Directors for adoption as CRCPD policy statements. With the assistance of the facilitator, the participants formulated a number of these policy statements. Devine promised to prepare a "clean" draft of the exact text in the proposed policy statements and to fax it to all workshop participants (including the CRCPD Board) by the second week of October 1996. I have identified below only the main ideas in the proposed statements.

- Statement 1: CRCPD should request that national programs be expanded to allow Federal agencies to accept radioactive materials for which other disposal options are not practicable (such as radium-dial sources now under military authority, or greater than Class C waste).
- Statement 2: CRCPD should adopt the Draft Final NRC Staff Technical Position, "Disposition of Cesium-137 Contaminated Emission Control Dust and Other Material," which allows disposal at RCRA-Subtitle C disposal facilities. CRCPD should also recommend that state and federal governments adopt regulations to permit use of recycled materials.

(I repeat here several significant comments on recycling by participants. R. Turner, David J. Joseph Co., a member of CRCPD Committee E-23, Resource Recovery, commented that until a "safe" level for use is established, no mills will melt down metals that contain radionuclides. J. MacKinney, EPA Office of Radiation Programs, indicated that by December, 1996, EPA is expected to publish a proposed rule on recycling that will apply to all licensees and to Federal facilities.

- Statement 3: CRCPD should request that states prepare regulations that would permit both burial and decay of those radionuclides with half-lives less than 300 days in a landfill. Regulations should be initiated to allow these kinds of radionuclides to undergo decay while stored at the site of their use.

---T. Devine, CRCPD, at the conclusion of the meeting, requested that participants identify topics of interest and a location and a time for the next meeting. It was decided that the next meeting of this group would be in March or April 1997.

NRC publications distributed to the participants:

- SECY-96-103 - Regulatory Issues in Low-Level Radioactive Waste Performance Assessment, May 17, 1996.
- Information Notice 96-47: Recordkeeping, Decommissioning Notifications for Disposals of Radioactive Waste by Land Burial Authorized Under Former 10 CFR 20.304, 20.302, and current 20.2002, dated August 19, 1996.
- Draft Final Staff Position: "Disposition of Cesium-137 Contaminated Emission Control Dust and Other Incident-Related Material."
- Information on MARSSIM.

4th CRCPD Workshop on Low-Level Rad Waste Licensing and Regulation
Greeley Colorado, September 7-11, 1996

Participants		Info of September 5		Disc. Group	Tue. Game	Wed. Tour
	Organization	Voice Phone	Telefax			
<u>State Regulators</u>						
Darice Bailey	California Rad. Control Program	916/324-2209	916/323-9869	2	Yes	No
Salifu Dakubu	Mass. Radiation Control Program	617/727-6214	617/727-2098	1	Yes	Yes
Wes Dunn	Texas Radiation Control Program	512/834-6688	512/834-6708	2	No	No
Denny Galloway	Conn. Radiation Control Program	203/424-3029	203/424-4065	2	No	Yes
Marsha Howard	Ohio Radiation Control Program	614/644-2777	614/644-1909	2	Yes	No
Rich Janati	Penn. Radiation Control Program	717/787-2163	717/783-8965	2	No	No
Joe Klinger	Ill. Radiation Control Program	217/785-3930	217/782-1328	2	Yes	No
Paul Merges	N.Y. Envir. Rad. Control Program	518/457-2223	518/485-8390	1	Yes	Yes
David Minnaar	Mich. Radiation Control Program	517/335-8104	517/335-8706	2	No	No
Ray Nelson	Utah Radiation Control Program	801/536-4272	801/533-4097	1	No	Yes
Robert Owen	Ohio Radiation Control Program	614/644-2727	614/644-1909	1	Yes	No
Henry Porter	S.C. Radiation Control Program	803/896-4245	803/896-4242	1	Yes	Yes
Howard Schuman	Neb. Radiation Control Program	402/471-2168	402/471-0169	1	No	Yes
John Simak	Texas LLRW Authority	409/776-1295	409/776-2325	1	No	Yes
Nancy Stanley	N.J. Radiation Control Program	609/984-5452	609/633-2210	1	Yes	No
Ken Weaver	Colorado Rad. Control Program	303/692-3068	303/782-5083	1	Yes	Yes
<u>Others</u>						
Ken Alkema	Envirocare of Utah	801/532-1330	801/537-7345	1	No	No
Robert Baird	Rogers & Assoc. (assured Stor.)	801/263-1600	801/262-1527	1	No	Yes
Chris Bedell	David J. Joseph Co.	513/621-8770	513/345-4396	2	Yes	Yes
Ted Borst	Public Service of Col., Ft. St. Vrain	303/620-1000	303/620-1707	2	Yes	No
Don Charlesworth	A.E.C.L. Waste Mgt. Systems	613/584-3311	613/584-4443	1	No	No
Dennis Floyd	Manufacturing Sciences Corp.	303/966-4454	303/966-5713	2		
Doug Jamieson	S.E.G. Corp, metal melt facility	423/220-1358	423/483-4706	2		
Tom Kerr	DOE LLRW Program	208/526-8465	208/526-9165	1	Yes	Yes
John MacKinney	EPA Office of Radiation Programs	202/233-9487	202/233-9651	2	Yes	Yes
Robert Neal	NRC Div. of Waste Management	301/415-6696	301/415-5399	2	No	Yes
George Powers	NRC Office of Research	301/415-6212	301/415-5389	2	No	?
Jim Reed	National Conf. of State Legislators	303/830-2200	303/863-8009	1	No	No
Ed Regnier	DOE Envir., Safety & Health	202/586-5027	202/586-3915	1	No	No
Ray Turner	David J. Joseph Co.	513/621-8770	513/345-4396	2	Yes	Yes
Andy Wallis	DOE Envir., Safety & Health	202/586-4996	202/586-3915	2	No	No
<u>Staff</u>						
Nancy D'Albergaria	Decision Support Center facilitator	970/351-2053	970/351-2500	1	No	No
Terry Devine	CRCPD	502/227-4543	502/223-7026	2	No	No
Curt Hopkins	CRCPD	502/227-4543	502/227-7862		Yes	No
Ragina Wightman	Facilitator for guidance documents	804/868-7769	804/868-7835	2	No	No



Attachment 1

4th CRCPD Workshop for LLRW Regulators: Development of Regulations and Guidance

Sept. 8 - 11, 1996, Greeley Colorado, Ramada Inn, 970/356-3000, Fax 970/352-2549

Sunday, Sept. 8

- 11:30 Depart to College of Business Administration
- 12:00 Welcome, opening remarks, introductions; Terry Devine
- 12:15 Testing New Waste Forms to Meet BTP Requirements; Tom Kerr
- 12:30 Response to previous workshop recommendations; Paul Merges
- 1:00 Discussion; Regina Wightman, facilitator
- 1:30 Update on DOE release limits; DOE Envir., Safety & Health
- 1:45 Update of the Waste Acceptance Matrix, and
Introduction of the 'Treatment Technologies Catalog'; Tom Kerr
- 2:00 Refreshments
- 2:20 The Texas experience in LLW management; Gen. John Simek, Texas LLRW Authority Board
- 2:45 Report on the Ramp facility cleanup; Ken Weaver, Richard Graham (EPA Region 8)
- 3:30 Demonstration of the Decision Support Center; Nancy D'Albегaria
- 5:30 Return to Ramada Inn
- 7:30 Informal discussion: Group 1) steel recycling, Group 2) status of regs and guides

Monday, Sept. 9 College of Business Administration

- 8:00 Group 1 Decision Support Center, Nancy D'Albегaria, facilitator
Practical problem involving licensing a rad waste management facility: identification of issues, questions, information needs, regulations, and Suggested State Regulations to fill regulatory gaps.
 - Group 2 Conference room, Regina Wightman, facilitator
Suggest acceptable concentrations and rates for radionuclides in disposal methods other than burial;
review incineration and land farming; address Cs, Co and pipe scale in steel recycling.
 - 12:00 Travel to Platteville for lunch
 - 1:30 Fort St. Vrain decommissioning history, issues, challenges and lessons learned; Ted Borst
 - 2:30 Tour Fort St. Vrain power plant (photo ID required); led by Ted Borst
 - 3:45 Break
 - 4:00 Waste management at Fort St. Vrain
 - 5:30 Return to hotel
- Those interested in steel recycling may,
if they wish, convene instead of the tour

Tuesday, Sept. 10 College of Business Administration

- 8:00 Group 1 Nancy D'Albегaria, facilitator
Practical problem involving licensing, overseeing and regulating a rad waste management facility for DOE-only LLRW and mixed waste within a state. Identification of applicable rules, regulatory gaps and Suggested State Regulations.
- Group 2 Regina Wightman, facilitator
Outline performance assessment parameters and model standards for LLRW sites,
noting any differences for burial, 'assured storage' or metal recycling.
- 12:00 Lunch; diverse restaurants in neighborhood
- 1:00 Resume work, breaks when timely
- 4:00 Concluding remarks and planning for subsequent workshops; led by Regina Wightman
- 4:30 Those who wish to do so may depart
- 5:45 Van to baseball game, Atlanta vs Rockies, (optional, pre-register with Ken Weaver, \$12)
- 10:00 Return to hotel

Wednesday, Sept. 11

Optional tour, aspects of Rocky Flats, arrange with Ken Weaver, 303/692-3068.



Attachment 2

Criteria for Determination of Alternative to Disposal

Material Characteristics

- Chemical and physical form
- Radionuclide concentration
- Quantity or volume
- Non-radiological hazard
- Radionuclide bio-hazard
- Radionuclide
- Half-life
- Fixed or removable concentration
- Total activity

Disposition

- Expected future use
- Accessibility
- Ecosystem mobility
- Period of storage
- Local climate and geology
- Pathways of contamination

Constraints

- Public perception and acceptance of risk
- Dose or risk limit
- Cost (\$)
- Sources or frequency of generation
- Existence of supporting recommendations
- Other regulatory constraints
- Political constraints
- ALARA
- Relative risk

CRCPD publications brought back from the meeting:

- Radioactive Waste Broker and Processor Services, CRCPD notes, Sept. 1996.
- Radioactive Materials and Devices Accepted, CRCPD notes, Sept. 1996.
- Services for Aerial Measurement of Ionizing Radiation and Collection of Radionuclides, CRCPD notes, January 1996.

Attachments: As stated

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Attachments: As stated

cc: M. Federline
T. C. Johnson
L. Bell
J. J. Holonich
M. J. Bell
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