

EDO Principal Correspondence Control

FROM: DUE: 01/10/08

EDO CONTROL: G20070902
DOC DT: 12/20/07
FINAL REPLY:

Debbie Bray Gilley
CRCPD, Inc. (Conference of Radiation Control
Program Directors, Inc.)

TO:

Chairman Klein

FOR SIGNATURE OF :

** PRI **

CRC NO: 07-0832

Chairman Klein

DESC:

Control and Disposal of Tritium Exit Signs
(EDATS: OEDO-2007-0806)

ROUTING:

Reyes
Virgilio
Mallett
Ash
Ordaz
Cyr/Burns
Hagan, ADM
Diaz-Toro, OEDO

DATE: 12/28/07

ASSIGNED TO:

CONTACT:

FSME

Miller

SPECIAL INSTRUCTIONS OR REMARKS:

Clarify CRCPD's interest in rulemaking.

EDATS

Electronic Document and Action Tracking System

EDATS Number: OEDO-2007-0806

Source: OEDO

General Information

Assigned To: FSME

OEDO Due Date: 1/10/2008 5:00 PM

Other Assignees:

SECY Due Date: 1/14/2008 5:00 PM

Subject: Control and Disposal of Tritium Exit Signs

Description:

CC Routing: ADM

ADAMS Accession Numbers - Incoming: NONE

Response/Package: NONE

Other Information

Cross Reference Number: G20070902, LTR-07-0832

Staff Initiated: NO

Related Task:

Recurring Item: NO

File Routing: EDATS

Agency Lesson Learned: NO

Roadmap Item: NO

Process Information

Action Type: Letter

Priority: Medium

Signature Level: Chairman Klein

Sensitivity: None

Urgency: NO

OEDO Concurrence: YES

OCM Concurrence: NO

OCA Concurrence: NO

Special Instructions: Clarify CRCPD's interest in rulemaking.

Document Information

Originator Name: Debbie Bray Gilley

Date of Incoming: 12/20/2007

Originating Organization: CRCPD (Conf. of Rad. Control
Prog. Dir., Inc.)

Document Received by OEDO Date: 12/20/2007

Addressee: Chairman Klein

Date Response Requested by Originator: NONE

Incoming Task Received: Letter

OFFICE OF THE SECRETARY
CORRESPONDENCE CONTROL TICKET

Date Printed: Dec 28, 2007 07:55

PAPER NUMBER: LTR-07-0832 **LOGGING DATE:** 12/27/2007
ACTION OFFICE: EDO

AUTHOR: Debbie Bray Gilley (Chairperson)
AFFILIATION: CRCPD
ADDRESSEE: CHRM Dale Klein
SUBJECT: Resolution passed by the Conference of Radiation Control Directors, Inc, (CRCPD), relating to the control and disposal of tritium EXIT signs.

ACTION: Signature of Chairman
DISTRIBUTION: RF, SECY to Ack

LETTER DATE: 12/20/2007
ACKNOWLEDGED No
SPECIAL HANDLING: Immediate release to the public via SECY/EDO/DPC
NOTES: Commission Correspondence
FILE LOCATION: ADAMS
DATE DUE: 01/14/2008 **DATE SIGNED:**

EDO --G20070902



Conference of Radiation Control Program Directors, Inc.

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December 20, 2007

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The Honorable Dale Klein, Chairman
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Chairman Klein:

On behalf of the Board of Directors of the Conference of Radiation Control Program Directors, Inc. (CRCPD), please find enclosed a resolution passed by the CRCPD membership on November 14, 2007, relating to the control and disposal of tritium EXIT signs. As stated in the resolution, studies of active landfills in various states and countries show several of the landfills to have tritium concentrations above the Environmental Protection Agency's drinking water standard, indicating inappropriate disposal of tritium EXIT signs. In addition, improper control of the signs has resulted in many being lost or stolen.

Although the Nuclear Regulatory Commission (NRC) has issued a regulatory information summary (RIS 2006-25) to distributors and general licensees possessing tritium EXIT signs to remind them of their responsibilities for proper control, reporting, transfer and disposal, the CRCPD believes this to be a serious issue that requires additional attention. The state radiation control programs would like to work with NRC on a national effort to make improvements in the control and disposition of the EXIT signs through alert notices to general licensees, distributors, the building and construction industry, and solid waste facilities.

The enclosed resolution also requests NRC to:

- Perform formal evaluations of generally licensed tritium EXIT signs with respect to potential onsite and offsite tritium exposures for all possible disposal scenarios in solid waste landfills, transfer facilities, and incinerators; and
- Evaluate and amend its regulations pertaining to generally licensed tritium EXIT signs with respect to labels and source management systems.

Received SECY/C&R

Date: 12/27/07

Time: 11:32am

Page Two
Chairman Klein
December 20, 2007

On behalf of the Board of Directors of CRCPD, we appreciate your consideration of this resolution and the information that has been provided. We would be happy to discuss ways in which CRCPD and NRC can work together to effect the recommended actions.

Sincerely,



Debbie Bray Gilley
Chairperson

Enclosure

cc: Board of Directors
Janet R. Schlueter, FSME/NRC
Charles L. Miller, FSME/NRC
Martin J. Virgilio, Deputy Executive Director, NRC



CONFERENCE OF RADIATION CONTROL PROGRAM DIRECTORS, INC.

RESOLUTION

Relating to: Control and Disposal of Tritium EXIT Signs

- WHEREAS:** Tritium (H-3) is a radioactive isotope of hydrogen (H), emits a low energy beta particle, decays with an approximate 12 year half-life, is often used in the gaseous form, but once released to the environment, readily oxidizes to form tritiated water,
- WHEREAS:** The background levels of tritium in the environment from natural atmospheric cosmic ray production, past above-ground nuclear weapons testing, and routine nuclear power plant emissions are approximately 50 to 150 picocuries per liter (pCi/L) in surface waters,
- WHEREAS:** Tritium is not an external hazard, but may cause radiation dose to humans when ingested or absorbed through the skin, and based on the 4 mrem/yr dose limit in 40 CFR 141, the EPA has set a tritium maximum contaminate level (MCL) of 20,000 pCi/L for public drinking water supplies,
- WHEREAS:** Studies of active landfills in various states and countries show leachate with tritium considerably above background, many above the EPA's drinking water MCL of 20,000 pCi/L, and several landfills with tritium concentrations in the 100,000 to 200,000 pCi/L range, which indicates inappropriate disposal of tritium EXIT signs,
- WHEREAS:** States routinely document lost or stolen tritium EXIT signs and report these events to NRC through the NMED reporting system,
- WHEREAS:** A tritium EXIT sign distributed as a generally licensed (GL) device may contain up to 25 curies (or 25,000,000,000,000 pCi) of tritium sealed in small glass tubes, but will have a finite useful life due to decay, that will decrease in luminosity and eventually fail to meet fire safety criteria,
- WHEREAS:** The NRC issued a regulatory information summary in late 2006 (RIS 2006-25) to the distributors and general licensees possessing tritium EXIT signs, to remind the regulated community of their responsibilities for proper control, reporting, transfer and disposal,

WHEREAS: An expired tritium EXIT sign has life safety implications in the event of a facility fire or loss of power, and numerous tritium EXIT signs have been found that exceeded their manufacturer-stated expiration date indicating a problem of national scope,

WHEREAS: The general licensee who receives a self-luminous tritium EXIT sign must appoint a 'responsible individual' who is knowledgeable with the regulations and requirements for reporting events, transfer and disposal of the device per NRC regulations in 10 CFR 31.5(c)(12) or equivalent Agreement State regulations,

WHEREAS: There are a few million tritium EXIT signs in the United States, many with inadequate regulatory accountability,

WHEREAS: A general licensee who is in possession of a tritium EXIT sign may only legally transfer it back to the manufacturer or an entity for licensed disposal as low-level radioactive waste (LLRW),

WHEREAS: The Pennsylvania Senate Environmental Resources and Energy Committee convened a hearing in June 2006 to review the extent and implications of tritium in landfill leachate, because such concentrations have the potential to contaminate ground water, and to render a down-stream drinking water supply vulnerable to tritium,

WHEREAS: The EPA has developed a training CD for the building industry, alerting contractors to search and remove GL devices, such as tritium EXIT signs, prior to building demolition or renovation, and the EPA is developing additional web-based user training information including disposal options,

WHEREAS: By passage of this resolution, the CRCPD membership hereby express their growing concern with the ineffective regulatory control, inadequate labeling and improper disposal of tritium EXIT signs;

NOW, BE IT RESOLVED:

The NRC and states should begin a national effort to actively alert tritium EXIT sign licensees as to their regulatory obligations for control and disposal, and to inventory and check sign expiration dates, and

BE IT FURTHER RESOLVED:

That CRCPD members and NRC should continue to actively alert solid waste facilities, and the fire safety and building construction industries, as to the concerns related to tritium EXIT signs, and

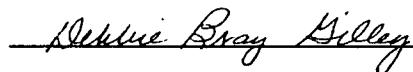
BE IT FURTHER RESOLVED:

That NRC should perform formal evaluations of GL tritium EXIT signs with respect to onsite and offsite tritium exposure scenarios for all possible disposal scenarios in solid waste transfer facilities, landfills, and incinerators, and

BE IT FURTHER RESOLVED:

That CRCPD members strongly recommend NRC evaluate and amend its regulations pertaining to generally licensed tritium EXIT signs, with respect to the size of labels alerting a user to the replacement date and their transfer or disposal obligations, and, evaluate the need for a modified source management system for generally licensed tritium EXIT signs.

Approved by the CRCPD Membership November 14, 2007.

A handwritten signature in cursive script, reading "Debbie Bray Gilley", is written over a horizontal line.

Debbie Gilley
CRCPD Chairperson