

February 12, 2003

MEMORANDUM TO: Christopher I. Grimes, Program Director
Policy and Rulemaking Program
Division of Regulatory Improvement Programs, NRR

FROM: Joseph L. Birmingham, Project Manager */RA/*
Policy and Rulemaking Program
Division of Regulatory Improvement Programs, NRR

SUBJECT: SUMMARY OF FEBRUARY 4, 2003 MEETING WITH THE NUCLEAR
ENERGY INSTITUTE AND THE ELECTRIC POWER RESEARCH
INSTITUTE ON A METHOD FOR CALCULATING DOSE FROM HOT
PARTICLES

On February 4, 2003, Roger Pedersen and Sami Sherbini of the NRC met with Ralph Andersen of the Nuclear Energy Institute (NEI) and Sean Bushart of the Electric Power Research Institute (EPRI). Also attending were Dr. George Xu from Rensselaer Polytechnical Institute and John Kelly of Entergy Nuclear Operations. The purpose of the meeting was to discuss an EPRI initiative to develop a simple method for calculating the Effective Dose Equivalent (EDE), and Effective Dose (ED), from point sources (hot particles) on the surface of the body. Meeting attendees are listed in Attachment 1 of this memorandum. The slides used during the meeting are Attachment 2 to this memorandum (ADAMS Accession No. ML030410001).

EPRI solicited comments from the staff to ensure that the method would be applicable to demonstrating compliance with NRC regulations. The staff commented that the doses calculated by the method should reflect the maximum, or bounding, dose for the body region (or zone) of interest; and that, to minimize overestimation, the size of the calculational zones could be set based on the sensitivity of EDE to location, for that portion of the body.

The staff noted that the Commission has recently directed the staff to issue a Regulatory Information Summary (RIS) informing licensees that for cases where the dose of record is calculated as opposed to measured (i.e., dose from hot particle exposures), it is appropriate to use EDE from external sources when calculating TEDE. The staff also noted that a simple, "user friendly," method would support industry implementation of the recommendations in the RIS.

There were no comments from the public and having discussed all of the agenda items the meeting was adjourned.

Project No. 689
Attachments: As stated
cc w/att: See list

**List of Attendees for February 4, 2003, Meeting
on Method for Calculating Dose**

NAME	ORGANIZATION
Ralph Andersen	NEI
Sean Bushart	EPRI
Xie George Xu	RPI
John Kelly	Entergy
Roger Pedersen	NRC/NRR/IEHB
Sami Sherbini	NRC/NMSS

Distribution: Mtg. Notice w/NEI & EPRI on Dose Calculation 02/04/03
ADAMS/PUBLIC OGC ACRS

Email

BSheron	WBorchardt	DMatthews/FGillespie
BBoger	RPedersen	JBirmingham
CGrimes	SWest	KGibson SKlementowicz
SMorris, EDO		
AHsia, RES		

Nuclear Energy Institute

Project No. 689

cc: Via email

Mr. Ralph Andersen, Sr. Project Mgr.
Operations
Nuclear Energy Institute
rla@nei.org

Mr. Jim Davis, Director
Operations
Nuclear Energy Institute
jwd@nei.org

Dr. X. George Xu, Associate Prof.
Rensselaer Polytechnical Institute
xug2@rpi.edu

MEMORANDUM TO: Christopher I. Grimes, Program Director February 12, 2003
Policy and Rulemaking Program
Division of Regulatory Improvement Programs, NRR

FROM: Joseph L. Birmingham, Project Manager */RA/*
Policy and Rulemaking Program
Division of Regulatory Improvement Programs, NRR

SUBJECT: SUMMARY OF FEBRUARY 4, 2003 MEETING WITH THE NUCLEAR
ENERGY INSTITUTE AND THE ELECTRIC POWER RESEARCH
INSTITUTE ON A METHOD FOR CALCULATING DOSE FROM HOT
PARTICLES

On February 4, 2003, Roger Pedersen and Sami Sherbini of the NRC met with Ralph Andersen of the Nuclear Energy Institute (NEI) and Sean Bushart of the Electric Power Research Institute (EPRI). Also attending were Dr. George Xu from Rensselaer Polytechnical Institute and John Kelly of Entergy Nuclear Operations. The purpose of the meeting was to discuss an EPRI initiative to develop a simple method for calculating the Effective Dose Equivalent (EDE), and Effective Dose (ED), from point sources (hot particles) on the surface of the body. Meeting attendees are listed in Attachment 1 of this memorandum. The slides used during the meeting are Attachment 2 to this memorandum (ADAMS Accession No. ML030410001).

EPRI solicited comments from the staff to ensure that the method would be applicable to demonstrating compliance with NRC regulations. The staff commented that the doses calculated by the method should reflect the maximum, or bounding, dose for the body region (or zone) of interest; and that, to minimize overestimation, the size of the calculational zones could be set based on the sensitivity of EDE to location, for that portion of the body.

The staff noted that the Commission has recently directed the staff to issue a Regulatory Information Summary (RIS) informing licensees that for cases where the dose of record is calculated as opposed to measured (i.e., dose from hot particle exposures), it is appropriate to use EDE from external sources when calculating TEDE. The staff also noted that a simple, "user friendly," method would support industry implementation of the recommendations in the RIS.

There were no comments from the public and having discussed all of the agenda items the meeting was adjourned.

Project No. 689

Attachments: As stated

cc w/att: See list

Distribution: See list

*See previous concurrence

DOCUMENT: G:\RPRP\JBirmingham\Msum-new\NEI-EPRI SUM 2-4-03 Dose.WPD

OFFICE	RPRP	IEHB	RPRP
NAME	JBirmingham*	KGibson*	SWest
DATE	02/ 06 /2002	02/ 10 /2002	02/ 12 /2002

OFFICIAL RECORD COPY