

NRK



University of Missouri-Columbia

Research Reactor Center
Research Park
Columbia, MO 65211
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Date: 4-18-00

Number of Pages, including this coversheet: 6

To: Al Adams USNRC/NRC

Fax Number: 301-415-¹⁰³²3162

From: John Ernst, U. of Missouri

Faxed From: (573) 882-6360

If you have trouble receiving, call: (573) 882-5226

NOTES:

Information in this record was deleted
in accordance with the Freedom of Information
Act, exemptions 6
FOIA-2001-0248

E/2

UNIVERSITY OF MISSOURI-COLUMBIA

DATE: April 18, 2000

TO: Al Adams, NRR
USNRC

FROM: John Ernst *John Ernst* U. of Missouri

SUBJECT: Dose Estimates

A preliminary estimate of the dose rate at the face of the biological shield is 312 rem/hr. The calculation is based on the following:

Area film badge reading: 1260 mrem

Normal film badge reading: 90 mrem/month (badge changed on 4-3-00)

Net badge reading from event: 1233 mrem

Event duration: 187 seconds

Distances: as shown on attached diagram

Ext 6

[redacted] average ring badge exposure is 236 mrem/month. Please give me a call at 573-882-5226 if you have any questions about the information in this FAX. If you can't reach me at that number call the front desk at 573-882-4211 and have me paged.

LANDAUER

05934-U3

MINIMAL

Participant No. [REDACTED]

Wear Date: "

Exposure Reported (misc):

MINIMAL

30 SHL

MINIMAL

MINIMAL

550 SHL

Ring Badge [REDACTED]

Project Not associated with events of 4-12-88
Ex. 6

Ex 6

Your original report will follow in the mail.

Sincerely,

LANDAUER, INC.

Thomas C. Meind

Customer Service Records

LANDAUER

April 18, 2000

Univ of Missouri
Attn Andra Shipp
Res Reactor Facility
Research Park/ Rm #288
Columbia MO 65211

Reference Account 70238

Dear Ms. Shipp:

Listed below are the results for the badges that were received for emergency processing on 4/17/00.

<u>Participant No.</u>	<u>Wear Date:</u>	<u>Exposure Reported(mrem):</u>	
	4/01/00-4/30/00	MINIMAL	} whole body film badges for researchers and students
	"	MINIMAL	
	"	1260 DP/ 1260 EYE/ 1270 SHL	East beam port floor wall
	"	MINIMAL	} whole body badges for researchers and students
	"	MINIMAL	
	"	MINIMAL	
	"	MINIMAL	transport control
	"	MINIMAL	project not associated with events of 4-12-00

Ex 6

DRAFT (4/17/00)
John Ernst

Event Time Line 4/12/00

Time estimated from re-enactment during stand down day of event

Total: 3 minutes

Sequence re-enacted and timed 4/17/00

- Fuel element is inserted and North Beam Port Floor Area Radiation Monitor sounds. Operator looks through glass and proceeds to control room, first removing shoe covers, and verifies that alarm read out: 23 seconds
- Operator and Health Physicist confer on alarm and decide that HP should go to the beam port floor to take dose measurements: 13 seconds
- HP runs down stairs picking up meter at lobby level, measures dose rate at bottom of steps and runs back up stairs to alert Operators: 40 seconds
- Fuel element is moved to another position (element out of Z basket ~ 10 seconds). Operators and HP have discussion and Hp goes to make a second measurement: 16 seconds
- HP runs to BP Floor to take dose rate in front of gamma irradiation facility comes back up stairs pausing to take measurement in lobby and office area: 80 seconds
- Prepared to move fuel element out of the Z basket: 10 seconds

Total time element was in basket: 187 seconds or 3 minutes 7 seconds

