

Docket

ROUTING AND TRANSMITTAL SLIP		ACTION	
1 TO (Name, office symbol or location) Henry J. McGurren Office of the Executive Legal Director	INITIALS	CIRCULATE	
	DATE	COORDINATION	
2 THRU: Frank J. Congel, Leader, <i>RIS</i>	INITIALS	FILE	
	DATE	INFORMATION	
3 <i>50-320</i>	INITIALS	NOTE AND RETURN	
	DATE	PER CONVERSATION	
4	INITIALS	SEE ME	
	DATE	SIGNATURE	

REMARKS

Re: Three Mile Island, U-2 Transcript Corrections

Attached are copies of the transcript pages with corrections indicated for your use. The corrected pages cover the significant corrections on contention 11 and 6 concerning my testimony for transcript pages 379-475 and 1058-1073.

Do NOT use this form as a RECORD of approvals, concurrences, disapprovals, clearances, and similar actions

FROM (Name, office symbol or location) J. H. Osloord, RIS, RAB <i>JHO</i>	DATE <i>5/20/77</i>
	PHONE <i>27955</i>

OPTIONAL FORM 47  
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1 . KEPPFORD: You did consider irrigation?

2 MR. OSLOOND: Yes.

3 DR. KEPPFORD: I would like to direct your attention  
4 to page 8, Section C1(D) where reference is made to irrigated  
5 foods.

6 MR. OSLOOND: Excuse me. You are referring to the  
7 FES?

8 DR. KEPPFORD: No, still Reg Guide 1.109, page 8.  
9 It is 1.109-3.

10 MR. OSLOOND: Yes.

11 DR. KEPPFORD: There are, of course, all manner of  
12 factors involved there. I have a question about a few of  
13 them. One is R, which is the first term inside the first set  
14 of brackets, or I guess both sets of brackets.

15 Could you give me a little greater description of  
16 what R is? It is defined on the next page but I really find  
17 that description somewhat less than satisfactory as to the  
18 physical significance of R.

19 MR. OSLOOND: Are you referring <sup>to</sup> the deposited  
20 activity remaining on the crops?

21 DR. KEPPFORD: Correct.

22 MR. OSLOOND: Which we assume is .25 for the  
23 sprinkler irrigation, ~~and~~ .2 for the particulates, <sup>and</sup> ~~in the~~ 1.0  
24 for airborne deposition of radionuclides.

1.109

1 ~~109~~. This is the formula expressing the concentration of  
2 radionuclides in food.

3 DR. KEPFORD: Right. The terms we are talking  
4 about here are essentially the same as the ones we are  
5 referring to previously, right, on Page 8? The terms inside  
6 the brackets? They look exactly the same, is that not correct?

7 MR. OSLOOND: Yes.

8 DR. KEPFORD: Okay.

9 MR. MCGURREN: Please speak up. We can hardly hear  
10 you.

11 CHAIRMAN LUTON: Mr. Osloond, we suggest that  
12 you use this box over here and that way, in order to talk to  
13 him you'll have to talk to us, too, and we'll hear you  
14 better, I think. If you don't mind, it would help us.

15 DR. KEPFORD: Now could you identify a parameter  
16 which refers to soil uptake or soil buildup of any radio-  
17 activity which would be -- which would have been removed or  
18 not accounted for by this factor R? Is the question clear?

19 MR. OSLOOND: In inserting or in using the models  
20 of the reg guide <sup>1.109</sup> ~~109~~, I have simply put the values in here  
21 to derive the doses and to -- and I completely maybe can  
22 explain the breakdown.

23 DR. KEPFORD: Well, I guess my fundamental question  
24 is we seem to be losing either 75 or 80 percent of this  
25 radioactivity which comes down and I assume it then goes to

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1 Appendix I situation, what would be the effect of combining  
2 the effects of this washout by drift with the situation of  
3 dry deposition on your calculations?

4 MR. MARKEE: It would be a little bit less than  
5 a factor of 1.5.

6 MR. MCGURREN: 1.5 times the original calculation?

7 MR. MARKEE: Yes.

8 MR. MCGURREN: I address this question to Mr.  
9 Osloond.

10 What was our original dose estimate for iodine  
11 and the critical cow location --- what is your original  
12 estimate for the dose estimate for iodine at the critical  
13 cow location?

14 MR. OSLOOND: At the critical cow location,  
15 southeast one and <sup>two tenths</sup> (1.2) miles, <sup>the infant</sup> ~~the infant~~ thyroid was 1.6  
16 millirem per year.

17 MR. MCGURREN: What effect would this factor  
18 of .5 have on this dose?

19 MR. OSLOOND: Change the dose to 2.4 millirem  
20 per year compared to the Appendix I value of 15, ~~millirem~~

21 MR. MCGURREN: So I take it it satisfied the  
22 Appendix I criteria?

23 MR. OSLOOND: Yes.

24 MR. MCGURREN: Can we have just a minute,  
25 Mr. Chairman?

of measuring the radiation dose resulting from normal operation of light-water-cooled nuclear power reactors. It was determined that such active, real-time detectors provide no advantage over the devices and techniques utilized in the Applicant's environmental monitoring program and are found to have several disadvantages. These disadvantages include the inability to respond to certain forms of radiation exposure, such as that attributable to iodine-131 in milk, and high installation, operation, and maintenance costs. Finally, actual radiation dose rates and radiation doses are expected to be below the sensitivity limits of active, real-time monitors and of the direct radiation dosimeters used in the Applicant's environmental monitoring program.

Conclusion

The staff concludes that the applicant's programs for the measurement and evaluation of radioactive effluent releases and for the measurement of radioactivity buildup in the plant environs meet the guidelines of Regulatory Guides 1.21, 4.1, and 4.8, and are capable of determining the radiological impact to the environmental during normal operations.