

Docket

ROUTING AND TRANSMITTAL SLIP		ACTION	
1 TO (Name, office symbol or location) J. Collins, Chief, ETSB, P-932	INITIALS	CIRCULATE	
	DATE	COORDINATION	
2 THRU: F. Congel, Leader, RIS, RAB, DSE <i>File</i>	INITIALS	FILE	
	DATE	INFORMATION	
3 cc: F. Cardile	INITIALS	NOTE AND RETURN	
	DATE	PER CONVERSATION	
4 CALCULATED DOSES COMPARISON FOR DAVIS-BESSE UNITS 1-3	INITIALS	SEE ME	
	DATE	SIGNATURE	

REMARKS

Attached are the calculated doses for Davis-Besse Units 1, 2, and 3. These doses are based on the final source terms received from F. Cardile on 9/9/76. The doses are presented in comparison with Appendix I and RM 50-2 design objectives.

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

FROM (Name, office symbol or location) <i>R. Emch</i> R. Emch, RIS, RAB, P-214	DATE	9/13/76
	PHONE	27955

8002050669

COMPARISON OF CALCULATED DOSES TO A MAXIMUM INDIVIDUAL FROM Davis Best
 OPERATION WITH GUIDES FOR DESIGN OBJECTIVES PROPOSED BY THE STAFF^a

CRITERION	RM-50-2 DESIGN OBJECTIVE	CALCULATED DOSE
Liquid Effluents		
Dose to total body or any organ from all pathways	5 mrem/yr	2.3 mrem/yr
Noble Gas Effluents (at site boundary)		
Gamma dose in air	10 mrad/yr	6.6 mrad/yr
Beta dose in air	20 mrad/yr	20. mrad/yr
Dose to total body of an individual	5 mrem/yr	3.9 mrem/yr
Dose to skin of an individual	15 mrem/yr	12. mrem/yr
Radioiodine and Particulates ^b		
Dose to any organ from all pathways (at a <u>Res/Gar</u>)	15 mrem/yr	13. mrem/yr

^aGuides on Design Objectives proposed by the NRC staff on February 20, 1974; considers doses to individuals from all units on site. From "Concluding Statement of Position of the Regulatory Staff," Docket No. RM-50-2, Feb. 20, 1974, pp. 25-30, U.S. Atomic Energy Commission, Washington, D. C.

^bCarbon-14 and tritium have been added to this category.

COMPARISON OF CALCULATED DOSES TO A MAXIMUM INDIVIDUAL FROM
Davis-Besse 1 OPERATION WITH APPENDIX I DESIGN OBJECTIVES^a

CRITERION	APPENDIX I DESIGN OBJECTIVE	CALCULATED DOSES
Liquid Effluents		
Dose to total body from all pathways	3 mrem/yr	2.1 mrem/yr
Dose to any organ from all pathways	10 mrem/yr	2.8 mrem/yr
Soluble Gas Effluents (at site boundary)		
Gamma dose in air	10 mrad/yr	2.2 mrad/yr
Beta dose in air	20 mrad/yr	6.4 mrad/yr
Dose to total body of an individual	5 mrem/yr	1.3 mrem/yr
Dose to skin of an individual	15 mrem/yr	4.0 mrem/yr
Radioiodines and Particulates ^b		
Dose to any organ from all pathways (at a <u>Res./Gar.</u>)	15 mrem/yr	6.4 mrem/yr

Appendix I Design Objectives from Sections II.A, II.B, II.C of Appendix I,
10 CFR Part 50; considers doses to maximum individual per reactor unit.
From Federal Register V. 40, p. 19442, May 5, 1975.

Carbon-14 and tritium have been added to this category.

COMPARISON OF CALCULATED DOSES TO A MAXIMUM INDIVIDUAL FROM
Davis-Besse 2003 OPERATION WITH APPENDIX I DESIGN OBJECTIVES^a

CRITERION	APPENDIX I DESIGN OBJECTIVE	CALCULATED DOSES
Liquid Effluents		
Dose to total body from all pathways	3 mrem/yr	1.6 mrem/yr
Dose to any organ from all pathways	10 mrem/yr	2.1 mrem/yr
Soluble Gas Effluents (at site boundary)		
Gamma dose in air	10 mrad/yr	2.2 mrad/yr
Beta dose in air	20 mrad/yr	6.7 mrad/yr
Dose to total body of an individual	5 mrem/yr	1.3 mrem/yr
Dose to skin of an individual	15 mrem/yr	4.1 mrem/yr
Radioiodines and Particulates ^b		
Dose to any organ from all pathways (at a <u>Res/Gas</u>)	15 mrem/yr	3.4 mrem/yr

^aAppendix I Design Objectives from Sections II.A, II.B, II.C of Appendix I, 10 CFR Part 50; considers doses to maximum individual per reactor unit. From Federal Register V. 40, p. 19442, May 5, 1975.

Carbon-14 and tritium have been added to this category.