

OYSTER CREEK LIQUID INDIVIDUAL EFFLUENT DOSES VERSION: 2001.01
 BASED ON RELEASE FILE :liqbobl.BA
 RECEPTOR 1 PRINTED : 05-19-2009

0901010101 to: 0905010101

Release of 66 curies of tritium.

RESULTS IN mrem						
TOTAL	AGE	ORGAN	SHELLFISH	FISH	SHORE	
0.00E+00	INFANT	BONE	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	INFANT	LIVER	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	INFANT	TOT BODY	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	INFANT	THYROID	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	INFANT	KIDNEY	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	INFANT	LUNG	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	INFANT	GI-LLI	0.00E+00	0.00E+00	0.00E+00	
0.00E+00	CHILD	BONE	0.00E+00	0.00E+00	0.00E+00	
04	CHILD	LIVER	7.86E-05	3.09E-04	0.00E+00	3.87E-
04	CHILD	TOT BODY	7.86E-05	3.09E-04	0.00E+00	3.87E-
04	CHILD	THYROID	7.86E-05	3.09E-04	0.00E+00	3.87E-
04	CHILD	KIDNEY	7.86E-05	3.09E-04	0.00E+00	3.87E-
04	CHILD	LUNG	7.86E-05	3.09E-04	0.00E+00	3.87E-
04	CHILD	GI-LLI	7.86E-05	3.09E-04	0.00E+00	3.87E-
0.00E+00	TEEN	BONE	0.00E+00	0.00E+00	0.00E+00	
04	TEEN	LIVER	9.18E-05	3.74E-04	0.00E+00	4.66E-
04	TEEN	TOT BODY	9.18E-05	3.74E-04	0.00E+00	4.66E-
04	TEEN	THYROID	9.18E-05	3.74E-04	0.00E+00	4.66E-
04	TEEN	KIDNEY	9.18E-05	3.74E-04	0.00E+00	4.66E-
04	TEEN	LUNG	9.18E-05	3.74E-04	0.00E+00	4.66E-
04	TEEN	GI-LLI	9.18E-05	3.74E-04	0.00E+00	4.66E-
0.00E+00	ADULT	BONE	0.00E+00	0.00E+00	0.00E+00	

Handwritten signature or initials

ADULT LIVER 1.20E-04 4.86E-04 0.00E+00 6.06E-
04
ADULT TOT BODY 1.20E-04 4.86E-04 0.00E+00 6.06E-
04
ADULT THYROID 1.20E-04 4.86E-04 0.00E+00 6.06E-
04
ADULT KIDNEY 1.20E-04 4.86E-04 0.00E+00 6.06E-
04
ADULT LUNG 1.20E-04 4.86E-04 0.00E+00 6.06E-
04
ADULT GI-LLI 1.20E-04 4.86E-04 0.00E+00 6.06E-

MAXIMUM ORGAN AND AGE GROUP
ADULT GI-LLI 6.06E-04 mrem
ADULT TOTAL BODY 6.06E-04 mrem

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RESULTS IN PERSON-rem
RECEPTOR: 1

AGE	ORGAN	SHELLFISH	FISH	SHORE
INFANT	BONE	0.00E+00	0.00E+00	0.00E+00
INFANT	LIVER	0.00E+00	0.00E+00	0.00E+00
INFANT	TOT BODY	0.00E+00	0.00E+00	0.00E+00
INFANT	THYROID	0.00E+00	0.00E+00	0.00E+00
INFANT	KIDNEY	0.00E+00	0.00E+00	0.00E+00
INFANT	LUNG	0.00E+00	0.00E+00	0.00E+00
INFANT	GI-LLI	0.00E+00	0.00E+00	0.00E+00
CHILD	BONE	0.00E+00	0.00E+00	0.00E+00
CHILD	LIVER	0.00E+00	9.09E-06	0.00E+00
CHILD	TOT BODY	0.00E+00	9.09E-06	0.00E+00
CHILD	THYROID	0.00E+00	9.09E-06	0.00E+00
CHILD	KIDNEY	0.00E+00	9.09E-06	0.00E+00
CHILD	LUNG	0.00E+00	9.09E-06	0.00E+00
CHILD	GI-LLI	0.00E+00	9.09E-06	0.00E+00
TEEN	BONE	0.00E+00	0.00E+00	0.00E+00
TEEN	LIVER	0.00E+00	6.86E-06	0.00E+00
TEEN	TOT BODY	0.00E+00	6.86E-06	0.00E+00
TEEN	THYROID	0.00E+00	6.86E-06	0.00E+00
TEEN	KIDNEY	0.00E+00	6.86E-06	0.00E+00
TEEN	LUNG	0.00E+00	6.86E-06	0.00E+00
TEEN	GI-LLI	0.00E+00	6.86E-06	0.00E+00
ADULT	BONE	0.00E+00	0.00E+00	0.00E+00
ADULT	LIVER	0.00E+00	5.82E-05	0.00E+00
ADULT	TOT BODY	0.00E+00	5.82E-05	0.00E+00
ADULT	THYROID	0.00E+00	5.82E-05	0.00E+00
ADULT	KIDNEY	0.00E+00	5.82E-05	0.00E+00
ADULT	LUNG	0.00E+00	5.82E-05	0.00E+00
ADULT	GI-LLI	0.00E+00	5.82E-05	0.00E+00

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 RECEPTOR 2 PRINTED : 05-19-2009

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RESULTS IN mrem					
TOTAL	AGE	ORGAN	SHELLFISH	FISH	SHORE
0.00E+00	INFANT	BONE	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	LIVER	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	TOT BODY	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	THYROID	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	KIDNEY	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	LUNG	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	GI-LLI	0.00E+00	0.00E+00	0.00E+00
0.00E+00	CHILD	BONE	0.00E+00	0.00E+00	0.00E+00
06	CHILD	LIVER	1.77E-06	6.93E-06	8.70E-06
06	CHILD	TOT BODY	1.77E-06	6.93E-06	8.70E-06
06	CHILD	THYROID	1.77E-06	6.93E-06	8.70E-06
06	CHILD	KIDNEY	1.77E-06	6.93E-06	8.70E-06
06	CHILD	LUNG	1.77E-06	6.93E-06	8.70E-06
06	CHILD	GI-LLI	1.77E-06	6.93E-06	8.70E-06
0.00E+00	TEEN	BONE	0.00E+00	0.00E+00	0.00E+00
05	TEEN	LIVER	2.06E-06	8.40E-06	1.05E-06
05	TEEN	TOT BODY	2.06E-06	8.40E-06	1.05E-06
05	TEEN	THYROID	2.06E-06	8.40E-06	1.05E-06
05	TEEN	KIDNEY	2.06E-06	8.40E-06	1.05E-06
05	TEEN	LUNG	2.06E-06	8.40E-06	1.05E-06
05	TEEN	GI-LLI	2.06E-06	8.40E-06	1.05E-06
0.00E+00	ADULT	BONE	0.00E+00	0.00E+00	0.00E+00
05	ADULT	LIVER	2.69E-06	1.09E-05	1.36E-06

05	ADULT	TOT BODY	2.69E-06	1.09E-05	0.00E+00	1.36E-
05	ADULT	THYROID	2.69E-06	1.09E-05	0.00E+00	1.36E-
05	ADULT	KIDNEY	2.69E-06	1.09E-05	0.00E+00	1.36E-
05	ADULT	LUNG	2.69E-06	1.09E-05	0.00E+00	1.36E-
05	ADULT	GI-LLI	2.69E-06	1.09E-05	0.00E+00	1.36E-

MAXIMUM ORGAN AND AGE GROUP
ADULT GI-LLI 1.36E-05 mrem
ADULT TOTAL BODY 1.36E-05 mrem

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RESULTS IN PERSON-rem
RECEPTOR: 2

AGE	ORGAN	SHELLFISH	FISH	SHORE
INFANT	BONE	0.00E+00	0.00E+00	0.00E+00
INFANT	LIVER	0.00E+00	0.00E+00	0.00E+00
INFANT	TOT BODY	0.00E+00	0.00E+00	0.00E+00
INFANT	THYROID	0.00E+00	0.00E+00	0.00E+00
INFANT	KIDNEY	0.00E+00	0.00E+00	0.00E+00
INFANT	LUNG	0.00E+00	0.00E+00	0.00E+00
INFANT	GI-LLI	0.00E+00	0.00E+00	0.00E+00
CHILD	BONE	0.00E+00	0.00E+00	0.00E+00
CHILD	LIVER	5.30E-06	3.02E-05	0.00E+00
CHILD	TOT BODY	5.30E-06	3.02E-05	0.00E+00
CHILD	THYROID	5.30E-06	3.02E-05	0.00E+00
CHILD	KIDNEY	5.30E-06	3.02E-05	0.00E+00
CHILD	LUNG	5.30E-06	3.02E-05	0.00E+00
CHILD	GI-LLI	5.30E-06	3.02E-05	0.00E+00
TEEN	BONE	0.00E+00	0.00E+00	0.00E+00
TEEN	LIVER	3.85E-06	2.28E-05	0.00E+00
TEEN	TOT BODY	3.85E-06	2.28E-05	0.00E+00
TEEN	THYROID	3.85E-06	2.28E-05	0.00E+00
TEEN	KIDNEY	3.85E-06	2.28E-05	0.00E+00
TEEN	LUNG	3.85E-06	2.28E-05	0.00E+00
TEEN	GI-LLI	3.85E-06	2.28E-05	0.00E+00
ADULT	BONE	0.00E+00	0.00E+00	0.00E+00
ADULT	LIVER	3.28E-05	1.94E-04	0.00E+00
ADULT	TOT BODY	3.28E-05	1.94E-04	0.00E+00
ADULT	THYROID	3.28E-05	1.94E-04	0.00E+00
ADULT	KIDNEY	3.28E-05	1.94E-04	0.00E+00
ADULT	LUNG	3.28E-05	1.94E-04	0.00E+00
ADULT	GI-LLI	3.28E-05	1.94E-04	0.00E+00

OYSTER CREEK LIQUID INDIVIDUAL EFFLUENT DOSES VERSION: 2001.01
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RESULTS IN mrem					
TOTAL	AGE	ORGAN	SHELLFISH	FISH	SHORE
0.00E+00	INFANT	BONE	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	LIVER	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	TOT BODY	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	THYROID	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	KIDNEY	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	LUNG	0.00E+00	0.00E+00	0.00E+00
0.00E+00	INFANT	GI-LLI	0.00E+00	0.00E+00	0.00E+00
0.00E+00	CHILD	BONE	0.00E+00	0.00E+00	0.00E+00
06	CHILD	LIVER	4.38E-07	1.72E-06	2.16E-
06	CHILD	TOT BODY	4.38E-07	1.72E-06	2.16E-
06	CHILD	THYROID	4.38E-07	1.72E-06	2.16E-
06	CHILD	KIDNEY	4.38E-07	1.72E-06	2.16E-
06	CHILD	LUNG	4.38E-07	1.72E-06	2.16E-
06	CHILD	GI-LLI	4.38E-07	1.72E-06	2.16E-
0.00E+00	TEEN	BONE	0.00E+00	0.00E+00	0.00E+00
06	TEEN	LIVER	5.11E-07	2.08E-06	2.59E-
06	TEEN	TOT BODY	5.11E-07	2.08E-06	2.59E-
06	TEEN	THYROID	5.11E-07	2.08E-06	2.59E-
06	TEEN	KIDNEY	5.11E-07	2.08E-06	2.59E-
06	TEEN	LUNG	5.11E-07	2.08E-06	2.59E-
06	TEEN	GI-LLI	5.11E-07	2.08E-06	2.59E-
0.00E+00	ADULT	BONE	0.00E+00	0.00E+00	0.00E+00
06	ADULT	LIVER	6.66E-07	2.71E-06	3.37E-

06	ADULT	TOT BODY	6.66E-07	2.71E-06	0.00E+00	3.37E-
06	ADULT	THYROID	6.66E-07	2.71E-06	0.00E+00	3.37E-
06	ADULT	KIDNEY	6.66E-07	2.71E-06	0.00E+00	3.37E-
06	ADULT	LUNG	6.66E-07	2.71E-06	0.00E+00	3.37E-
06	ADULT	GI-LLI	6.66E-07	2.71E-06	0.00E+00	3.37E-

MAXIMUM ORGAN AND AGE GROUP

ADULT GI-LLI 3.37E-06 mrem
 ADULT TOTAL BODY 3.37E-06 mrem

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RESULTS IN PERSON-rem
 RECEPTOR: 3

AGE	ORGAN	SHELLFISH	FISH	SHORE
INFANT	BONE	0.00E+00	0.00E+00	0.00E+00
INFANT	LIVER	0.00E+00	0.00E+00	0.00E+00
INFANT	TOT BODY	0.00E+00	0.00E+00	0.00E+00
INFANT	THYROID	0.00E+00	0.00E+00	0.00E+00
INFANT	KIDNEY	0.00E+00	0.00E+00	0.00E+00
INFANT	LUNG	0.00E+00	0.00E+00	0.00E+00
INFANT	GI-LLI	0.00E+00	0.00E+00	0.00E+00
CHILD	BONE	0.00E+00	0.00E+00	0.00E+00
CHILD	LIVER	8.88E-05	5.63E-04	0.00E+00
CHILD	TOT BODY	8.88E-05	5.63E-04	0.00E+00
CHILD	THYROID	8.88E-05	5.63E-04	0.00E+00
CHILD	KIDNEY	8.88E-05	5.63E-04	0.00E+00
CHILD	LUNG	8.88E-05	5.63E-04	0.00E+00
CHILD	GI-LLI	8.88E-05	5.63E-04	0.00E+00
TEEN	BONE	0.00E+00	0.00E+00	0.00E+00
TEEN	LIVER	6.44E-05	4.24E-04	0.00E+00
TEEN	TOT BODY	6.44E-05	4.24E-04	0.00E+00
TEEN	THYROID	6.44E-05	4.24E-04	0.00E+00
TEEN	KIDNEY	6.44E-05	4.24E-04	0.00E+00
TEEN	LUNG	6.44E-05	4.24E-04	0.00E+00
TEEN	GI-LLI	6.44E-05	4.24E-04	0.00E+00
ADULT	BONE	0.00E+00	0.00E+00	0.00E+00
ADULT	LIVER	5.49E-04	3.60E-03	0.00E+00
ADULT	TOT BODY	5.49E-04	3.60E-03	0.00E+00
ADULT	THYROID	5.49E-04	3.60E-03	0.00E+00
ADULT	KIDNEY	5.49E-04	3.60E-03	0.00E+00
ADULT	LUNG	5.49E-04	3.60E-03	0.00E+00
ADULT	GI-LLI	5.49E-04	3.60E-03	0.00E+00

POPULATION TOTALS

BONE	0.00E+00	PERSON-rem
LIVER	5.65E-03	PERSON-rem
TOT BODY	5.65E-03	PERSON-rem
THYROID	5.65E-03	PERSON-rem
KIDNEY	5.65E-03	PERSON-rem
LUNG	5.65E-03	PERSON-rem
GI-LLI	5.65E-03	PERSON-rem

OYSTER CREEK LIQUID ODCM SUMMARY

BASED ON RELEASE FILE :liqbob1.BA PRINTED : 05-19-2009 VERSION:
2001.01
0901010101 TO 0905010101

Section	Requirement (mrem)	Result (mrem)
3.11.1.2	<5 per quarter <10 per year	6.06E-04 GI-LLI
3.11.1.2	<1.5 per quarter <3 per year	6.06E-04 WHOLE BODY
3.11.4.1	<25 per year	6.06E-04 GI-LLI
3.11.4.1	<75 per year	6.06E-04 THYROID

The 3.11.4.1 requirement must ALSO be compared to and include the results from the air dose calculations for this same time period

Assumptions used in the calculation:

1. The 66 curies of tritium was released from January 01, 2009 until May 01, 2009. However the dose consequences are the same if the tritium was released over a 1-year period or over one hour.
2. The discharge flow is 500,000 gallons per minute. This is a more conservative flow compared to the usual one-million gallons per minute and therefore the dose consequences are somewhat higher.
3. The dose calculation was reviewed by a Rad Engineer.

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