

J. Noggle

From: "Sandike, Steven Richard" <SSandik@entergy.com>
To: <jdn@nrc.gov>
Date: 12/21/2006 10:08:40 AM
Subject: Unit 3s reports

<<jan-sep-06-air3.pdf>> <<Dec05Air3.txt>> <<Nov05Air3.txt>>
<<Oct05Air3.txt>>
<<jan-sep-06-liq3.pdf>> <<Dec05Liq3.txt>> <<Nov05Liq3.txt>>
<<Oct05Liq3.txt>>

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B/S 2

*Beta's
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12/11/06*

LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERMIT BASIS) -----

Release ID.....: 15 All Liquid Releases
Period Start Date.....: 01/01/2006 00:00
Period End Date.....: 02/01/2006 00:00
Period Duration (mins): 4.464E+04

=== RELEASE DATA ===
Total Release Duration (minutes)..... 4.522E+04
Total Undiluted Volume Released (gallons)..... 1.803E+05
Average Undiluted Flowrate (gpm)..... 3.988E+00

Total Dilution Volume (gallons)..... 3.598E+10
Average Dilution Flowrate (gpm)..... 7.956E+05

Nuclide	uCi	----Undiluted----		-----Diluted-----	
		Average uCi/ml	Percent of 10*EC	Average uCi/ml	Percent of 10*EC
MN-54	1.26E+01	1.84E-08	6.14E-03	9.23E-14	3.08E-08
CO-58	2.37E+01	3.47E-08	1.73E-02	1.74E-13	8.69E-08
CO-60	2.25E+02	3.30E-07	1.10E+00	1.65E-12	5.51E-06
AG-110M	6.27E+01	9.19E-08	1.53E-01	4.61E-13	7.68E-07
SB-125	3.26E+02	4.78E-07	1.59E-01	2.40E-12	7.99E-07
CS-134	2.30E+01	3.36E-08	3.74E-01	1.69E-13	1.87E-06
CS-137	4.39E+01	6.43E-08	6.43E-01	3.22E-13	3.22E-06
Gamma	7.17E+02	1.05E-06	2.45E+00	5.27E-12	1.23E-05
H-3	1.90E+07	2.78E-02	2.78E+02	1.39E-07	1.39E-03
NI-63	9.37E+01	1.37E-07	1.37E-02	6.88E-13	6.88E-08
Beta	1.90E+07	2.78E-02	2.78E+02	1.39E-07	1.39E-03
Total	1.90E+07	2.78E-02	2.81E+02	1.39E-07	1.41E-03

Verified By: *Clark Hill*

Date: 9-22-06

LIQUID RELEASE AND DOSE SUMMARY REPORT
 ----- (PERMIT BASIS) -----

Release ID.....: 15 All Liquid Releases
 Period Start Date.....: 01/01/2006 00:00
 Period End Date.....: 02/01/2006 00:00
 Period Duration (mins): 4.464E+04
 Receptor.....: 0 Liquid Receptor

=== PERMIT ORGAN DOSE BY AGE GROUP AND PATHWAY (mrem) ===

Age/Path	Bone	Liver	Thyroid	Kidney	Lung	GI-Lli	Skin	TB
ASIFF	8.91E-06	1.28E-05	5.93E-06	8.01E-06	6.68E-06	2.68E-05	0.00E+00	1.13E-05
TSIFF	9.32E-06	1.16E-05	4.56E-06	6.69E-06	5.46E-06	1.89E-05	0.00E+00	8.11E-06
CSIFF	1.21E-05	1.00E-05	3.78E-06	5.60E-06	4.50E-06	8.94E-06	0.00E+00	5.98E-06

----- TOTALS -----

ADULT	8.91E-06	1.28E-05	5.93E-06	8.01E-06	6.68E-06	2.68E-05	0.00E+00	1.13E-05
TEEN	9.32E-06	1.16E-05	4.56E-06	6.69E-06	5.46E-06	1.89E-05	0.00E+00	8.11E-06
CHILD	1.21E-05	1.00E-05	3.78E-06	5.60E-06	4.50E-06	8.94E-06	0.00E+00	5.98E-06

=== AGE GROUP / PATHWAY DESCRIPTIONS ===

Abbreviation	Age Group	Pathway
ASIFF	ADULT	SW Invert & FW Fish (SIFF)
TSIFF	TEEN	SW Invert & FW Fish (SIFF)
CSIFF	CHILD	SW Invert & FW Fish (SIFF)

LIQUID RELEASE AND DOSE SUMMARY REPORT
 ----- (PERMIT BASIS) -----

Release ID.....: 15 All Liquid Releases
 Period Start Date.....: 02/01/2006 00:00
 Period End Date.....: 03/01/2006 00:00
 Period Duration (mins): 4.032E+04

=== RELEASE DATA ===
 Total Release Duration (minutes)..... 4.064E+04
 Total Undiluted Volume Released (gallons)..... 1.510E+05
 Average Undiluted Flowrate (gpm)..... 3.717E+00
 Total Dilution Volume (gallons)..... 3.239E+10
 Average Dilution Flowrate (gpm)..... 7.970E+05

=== NUCLIDE DATA ===

Nuclide	uCi	----Undiluted----		----Diluted----	
		Average uCi/ml	Percent of 10*EC	Average uCi/ml	Percent of 10*EC
CO-58	1.51E+01	2.64E-08	1.32E-02	1.23E-13	6.15E-08
CO-60	6.35E+01	1.11E-07	3.70E-01	5.18E-13	1.73E-06
AG-110M	2.45E+01	4.29E-08	7.15E-02	2.00E-13	3.33E-07
SB-125	7.50E+02	1.31E-06	4.37E-01	6.12E-12	2.04E-06
CS-134	6.62E+00	1.16E-08	1.29E-01	5.40E-14	6.00E-07
CS-137	2.07E+01	3.63E-08	3.63E-01	1.69E-13	1.69E-06
Gamma	8.80E+02	1.54E-06	1.38E+00	7.19E-12	6.45E-06
H-3	9.59E+06	1.68E-02	1.68E+02	7.83E-08	7.83E-04
NI-63	1.13E+02	1.98E-07	1.98E-02	9.25E-13	9.25E-08
Beta	9.59E+06	1.68E-02	1.68E+02	7.83E-08	7.83E-04
Total	9.59E+06	1.68E-02	1.69E+02	7.83E-08	7.89E-04

Verified By:  Date: 9/22/06

LIQUID RELEASE AND DOSE SUMMARY REPORT
 ----- (PERMIT BASIS) -----

Release ID.....: 15 All Liquid Releases
 Period Start Date.....: 02/01/2006 00:00
 Period End Date.....: 03/01/2006 00:00
 Period Duration (mins): 4.032E+04
 Receptor.....: 0 Liquid Receptor

=== PERMIT ORGAN DOSE BY AGE GROUP AND PATHWAY (mrem) ===

Age/Path	Bone	Liver	Thyroid	Kidney	Lung	GI-Lli	Skin	TB
ASIFF	8.00E-06	5.92E-06	2.99E-06	3.81E-06	3.45E-06	1.28E-05	0.00E+00	5.19E-06
TSIFF	8.34E-06	5.33E-06	2.30E-06	3.14E-06	2.85E-06	9.18E-06	0.00E+00	3.78E-06
CSIFF	1.10E-05	4.66E-06	1.91E-06	2.63E-06	2.36E-06	4.45E-06	0.00E+00	2.92E-06

----- TOTALS -----

ADULT	8.00E-06	5.92E-06	2.99E-06	3.81E-06	3.45E-06	1.28E-05	0.00E+00	5.19E-06
TEEN	8.34E-06	5.33E-06	2.30E-06	3.14E-06	2.85E-06	9.18E-06	0.00E+00	3.78E-06
CHILD	1.10E-05	4.66E-06	1.91E-06	2.63E-06	2.36E-06	4.45E-06	0.00E+00	2.92E-06

=== AGE GROUP / PATHWAY DESCRIPTIONS ===

Abbreviation	Age Group	Pathway
ASIFF	ADULT	SW Invert & FW Fish (SIFF)
TSIFF	TEEN	SW Invert & FW Fish (SIFF)
CSIFF	CHILD	SW Invert & FW Fish (SIFF)

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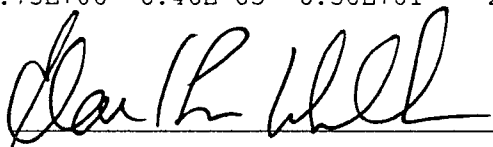
LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERMIT BASIS) -----

Release ID.....: 15 All Liquid Releases
Period Start Date.....: 03/01/2006 00:00
Period End Date.....: 04/01/2006 00:00
Period Duration (mins): 4.464E+04

=== RELEASE DATA ===
Total Release Duration (minutes)..... 4.476E+04
Total Undiluted Volume Released (gallons)..... 1.528E+05
Average Undiluted Flowrate (gpm)..... 3.413E+00

Total Dilution Volume (gallons)..... 3.576E+10
Average Dilution Flowrate (gpm)..... 7.989E+05

Nuclide	uCi	----Undiluted-----		-----Diluted-----	
		Average uCi/ml	Percent of 10*EC	Average uCi/ml	Percent of 10*EC
CO-60	6.41E+00	1.11E-08	3.69E-02	4.74E-14	1.58E-07
SB-125	4.81E+02	8.32E-07	2.77E-01	3.56E-12	1.19E-06
CS-137	6.64E+00	1.15E-08	1.15E-01	4.91E-14	4.91E-07
Gamma	4.94E+02	8.55E-07	4.29E-01	3.65E-12	1.83E-06
H-3	3.73E+06	6.46E-03	6.46E+01	2.76E-08	2.76E-04
NI-63	2.07E+01	3.59E-08	3.59E-03	1.53E-13	1.53E-08
Beta	3.73E+06	6.46E-03	6.46E+01	2.76E-08	2.76E-04
Total	3.73E+06	6.46E-03	6.50E+01	2.76E-08	2.78E-04

Verified By:  Date: 9/22/06

LIQUID RELEASE AND DOSE SUMMARY REPORT
 ----- (PERMIT BASIS) -----

Release ID.....: 15 All Liquid Releases
 Period Start Date.....: 03/01/2006 00:00
 Period End Date.....: 04/01/2006 00:00
 Period Duration (mins): 4.464E+04
 Receptor.....: 0 Liquid Receptor

=== PERMIT ORGAN DOSE BY AGE GROUP AND PATHWAY (mrem) =====

Age/Path	Bone	Liver	Thyroid	Kidney	Lung	GI-Lli	Skin	TB
ASIFF	1.69E-06	1.78E-06	1.16E-06	1.34E-06	1.35E-06	3.20E-06	0.00E+00	1.61E-06
TSIFF	1.77E-06	1.54E-06	8.93E-07	1.08E-06	1.12E-06	2.40E-06	0.00E+00	1.19E-06
CSIFF	2.31E-06	1.34E-06	7.41E-07	9.05E-07	9.24E-07	1.33E-06	0.00E+00	9.41E-07
----- TOTALS -----								
ADULT	1.69E-06	1.78E-06	1.16E-06	1.34E-06	1.35E-06	3.20E-06	0.00E+00	1.61E-06
TEEN	1.77E-06	1.54E-06	8.93E-07	1.08E-06	1.12E-06	2.40E-06	0.00E+00	1.19E-06
CHILD	2.31E-06	1.34E-06	7.41E-07	9.05E-07	9.24E-07	1.33E-06	0.00E+00	9.41E-07

=== AGE GROUP / PATHWAY DESCRIPTIONS =====

Abbreviation	Age Group	Pathway
ASIFF	ADULT	SW Invert & FW Fish (SIFF)
TSIFF	TEEN	SW Invert & FW Fish (SIFF)
CSIFF	CHILD	SW Invert & FW Fish (SIFF)

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LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERMIT BASIS) -----

Release ID.....: 15 All Liquid Releases
Period Start Date.....: 04/01/2006 00:00
Period End Date.....: 05/01/2006 00:00
Period Duration (mins): 4.320E+04

=== RELEASE DATA ===
Total Release Duration (minutes)..... 4.340E+04
Total Undiluted Volume Released (gallons)..... 1.533E+05
Average Undiluted Flowrate (gpm)..... 3.532E+00

Total Dilution Volume (gallons)..... 3.464E+10
Average Dilution Flowrate (gpm)..... 7.983E+05

Nuclide	uCi	----Undiluted----		----Diluted----	
		Average uCi/ml	Percent of 10*EC	Average uCi/ml	Percent of 10*EC
CO-58	3.54E+00	6.10E-09	3.05E-03	2.70E-14	1.35E-08
CO-60	6.10E+00	1.05E-08	3.51E-02	4.66E-14	1.55E-07
AG-110M	3.46E+00	5.96E-09	9.93E-03	2.63E-14	4.39E-08
SB-125	6.90E+02	1.19E-06	3.96E-01	5.26E-12	1.75E-06
CS-137	2.44E+00	4.20E-09	4.20E-02	1.86E-14	1.86E-07
Gamma	7.06E+02	1.22E-06	4.86E-01	5.38E-12	2.15E-06
H-3	4.95E+06	8.54E-03	8.54E+01	3.78E-08	3.78E-04
FE-55	1.03E+02	1.77E-07	1.77E-02	7.83E-13	7.83E-08
NI-63	2.96E+01	5.10E-08	5.10E-03	2.26E-13	2.26E-08
Beta	4.95E+06	8.54E-03	8.54E+01	3.78E-08	3.78E-04
Total	4.95E+06	8.54E-03	8.59E+01	3.78E-08	3.80E-04

Verified By: *Clayton Hill* Date: 9/22/06

LIQUID RELEASE AND DOSE SUMMARY REPORT
 ----- (PERMIT BASIS) -----

Release ID.....: 15 All Liquid Releases
 Period Start Date.....: 04/01/2006 00:00
 Period End Date.....: 05/01/2006 00:00
 Period Duration (mins): 4.320E+04
 Receptor.....: 0 Liquid Receptor

=== PERMIT ORGAN DOSE BY AGE GROUP AND PATHWAY (mrem) ===

Age/Path	Bone	Liver	Thyroid	Kidney	Lung	GI-Lli	Skin	TB
ASIFF	5.62E-06	4.37E-06	1.54E-06	1.61E-06	3.14E-06	6.49E-06	0.00E+00	2.39E-06
TSIFF	5.87E-06	4.21E-06	1.19E-06	1.26E-06	3.13E-06	4.91E-06	0.00E+00	2.03E-06
CSIFF	7.90E-06	4.03E-06	9.84E-07	1.05E-06	2.72E-06	2.48E-06	0.00E+00	2.03E-06

----- TOTALS -----

ADULT	5.62E-06	4.37E-06	1.54E-06	1.61E-06	3.14E-06	6.49E-06	0.00E+00	2.39E-06
TEEN	5.87E-06	4.21E-06	1.19E-06	1.26E-06	3.13E-06	4.91E-06	0.00E+00	2.03E-06
CHILD	7.90E-06	4.03E-06	9.84E-07	1.05E-06	2.72E-06	2.48E-06	0.00E+00	2.03E-06

=== AGE GROUP / PATHWAY DESCRIPTIONS ===

Abbreviation	Age Group	Pathway
ASIFF	ADULT	SW Invert & FW Fish (SIFF)
TSIFF	TEEN	SW Invert & FW Fish (SIFF)
CSIFF	CHILD	SW Invert & FW Fish (SIFF)

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LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERMIT BASIS) -----

Release ID.....: 15 All Liquid Releases
 Period Start Date.....: 05/01/2006 00:00
 Period End Date.....: 06/01/2006 00:00
 Period Duration (mins): 4.464E+04

=== RELEASE DATA ===
 Total Release Duration (minutes)..... 4.497E+04
 Total Undiluted Volume Released (gallons)..... 1.666E+05
 Average Undiluted Flowrate (gpm)..... 3.704E+00
 Total Dilution Volume (gallons)..... 2.256E+10
 Average Dilution Flowrate (gpm)..... 5.016E+05

=== NUCLIDE DATA ===

Nuclide	uCi	----Undiluted----		----Diluted----	
		Average uCi/ml	Percent of 10*EC	Average uCi/ml	Percent of 10*EC
CO-58	2.81E+00	4.45E-09	2.23E-03	3.29E-14	1.64E-08
CO-60	6.44E+00	1.02E-08	3.40E-02	7.54E-14	2.51E-07
SB-125	3.08E+02	4.88E-07	1.63E-01	3.61E-12	1.20E-06
CS-137	1.18E+00	1.88E-09	1.88E-02	1.39E-14	1.39E-07
Gamma	3.18E+02	5.05E-07	2.18E-01	3.73E-12	1.61E-06
H-3	4.44E+07	7.05E-02	7.05E+02	5.21E-07	5.21E-03
Beta	4.44E+07	7.05E-02	7.05E+02	5.21E-07	5.21E-03
Total	4.44E+07	7.05E-02	7.05E+02	5.21E-07	5.21E-03

Verified By: *[Signature]* Date: 12-11-06

LIQUID RELEASE AND DOSE SUMMARY REPORT
 ----- (PERMIT BASIS) -----

Release ID.....: 15 All Liquid Releases
 Period Start Date.....: 05/01/2006 00:00
 Period End Date.....: 06/01/2006 00:00
 Period Duration (mins): 4.464E+04
 Receptor.....: 0 Liquid Receptor

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=== PERMIT ORGAN DOSE BY AGE GROUP AND PATHWAY (mrem) =====
Age/Path Bone      Liver      Thyroid  Kidney   Lung      GI-Lli   Skin     TB
-----
ASIFF      2.78E-07 2.22E-05 2.20E-05 2.21E-05 2.22E-05 2.42E-05 0.00E+00 2.22E-05
TSIFF      2.94E-07 1.71E-05 1.69E-05 1.70E-05 1.71E-05 1.86E-05 0.00E+00 1.71E-05
CSIFF      3.77E-07 1.42E-05 1.40E-05 1.41E-05 1.42E-05 1.47E-05 0.00E+00 1.42E-05
  
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----- TOTALS -----
ADULT      2.78E-07 2.22E-05 2.20E-05 2.21E-05 2.22E-05 2.42E-05 0.00E+00 2.22E-05
TEEN       2.94E-07 1.71E-05 1.69E-05 1.70E-05 1.71E-05 1.86E-05 0.00E+00 1.71E-05
CHILD      3.77E-07 1.42E-05 1.40E-05 1.41E-05 1.42E-05 1.47E-05 0.00E+00 1.42E-05
  
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=== AGE GROUP / PATHWAY DESCRIPTIONS =====
Abbreviation Age Group Pathway
-----
ASIFF         ADULT      SW Invert & FW Fish (SIFF)
TSIFF         TEEN       SW Invert & FW Fish (SIFF)
CSIFF         CHILD      SW Invert & FW Fish (SIFF)
  
```

*Behr
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LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERMIT BASIS) -----

Release ID.....: 15 All Liquid Releases
Period Start Date.....: 06/01/2006 00:00
Period End Date.....: 07/01/2006 00:00
Period Duration (mins): 4.320E+04

=== RELEASE DATA ===
Total Release Duration (minutes)..... 4.353E+04
Total Undiluted Volume Released (gallons)..... 1.619E+05
Average Undiluted Flowrate (gpm)..... 3.718E+00

Total Dilution Volume (gallons)..... 4.345E+10
Average Dilution Flowrate (gpm)..... 9.981E+05

=== NUCLIDE DATA ===

Nuclide	uCi	----Undiluted-----		-----Diluted-----	
		Average uCi/ml	Percent of 10*EC	Average uCi/ml	Percent of 10*EC
CO-58	2.25E+00	3.67E-09	1.84E-03	1.37E-14	6.84E-09
CO-60	2.79E+01	4.55E-08	1.52E-01	1.69E-13	5.65E-07
AG-110M	9.03E+00	1.47E-08	2.46E-02	5.49E-14	9.16E-08
SB-125	1.52E+02	2.48E-07	8.27E-02	9.24E-13	3.08E-07
CS-137	7.89E+00	1.29E-08	1.29E-01	4.80E-14	4.80E-07
Gamma	1.99E+02	3.25E-07	3.89E-01	1.21E-12	1.45E-06
H-3	3.70E+07	6.05E-02	6.05E+02	2.25E-07	2.25E-03
NI-63	2.16E+01	3.53E-08	3.53E-03	1.31E-13	1.31E-08
Beta	3.70E+07	6.05E-02	6.05E+02	2.25E-07	2.25E-03
Total	3.70E+07	6.05E-02	6.05E+02	2.25E-07	2.25E-03

Verified By: *[Signature]* Date: 12-11-06

LIQUID RELEASE AND DOSE SUMMARY REPORT
 ----- (PERMIT BASIS) -----

Release ID.....: 15 All Liquid Releases
 Period Start Date.....: 06/01/2006 00:00
 Period End Date.....: 07/01/2006 00:00
 Period Duration (mins): 4.320E+04
 Receptor.....: 0 Liquid Receptor

=== PERMIT ORGAN DOSE BY AGE GROUP AND PATHWAY (mrem) =====

Age/Path	Bone	Liver	Thyroid	Kidney	Lung	GI-Lli	Skin	TB
ASIFF	1.36E-06	9.83E-06	9.22E-06	9.39E-06	9.31E-06	1.18E-05	0.00E+00	9.67E-06
TSIFF	1.42E-06	7.73E-06	7.09E-06	7.28E-06	7.20E-06	8.88E-06	0.00E+00	7.40E-06
CSIFF	1.86E-06	6.46E-06	5.88E-06	6.04E-06	5.97E-06	6.53E-06	0.00E+00	6.10E-06
----- TOTALS -----								
ADULT	1.36E-06	9.83E-06	9.22E-06	9.39E-06	9.31E-06	1.18E-05	0.00E+00	9.67E-06
TEEN	1.42E-06	7.73E-06	7.09E-06	7.28E-06	7.20E-06	8.88E-06	0.00E+00	7.40E-06
CHILD	1.86E-06	6.46E-06	5.88E-06	6.04E-06	5.97E-06	6.53E-06	0.00E+00	6.10E-06

=== AGE GROUP / PATHWAY DESCRIPTIONS =====

Abbreviation	Age Group	Pathway
ASIFF	ADULT	SW Invert & FW Fish (SIFF)
TSIFF	TEEN	SW Invert & FW Fish (SIFF)
CSIFF	CHILD	SW Invert & FW Fish (SIFF)

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LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERMIT BASIS) -----

Release ID.....: 15 All Liquid Releases
Period Start Date.....: 07/01/2006 00:00
Period End Date.....: 08/01/2006 00:00
Period Duration (mins): 4.464E+04

=== RELEASE DATA ===

Total Release Duration (minutes)..... 4.486E+04
Total Undiluted Volume Released (gallons)..... 1.170E+06
Average Undiluted Flowrate (gpm)..... 2.608E+01

Total Dilution Volume (gallons)..... 5.197E+10
Average Dilution Flowrate (gpm)..... 1.158E+06

=== NUCLIDE DATA ===

Nuclide	uCi	----Undiluted-----		-----Diluted-----	
		Average uCi/ml	Percent of 10*EC	Average uCi/ml	Percent of 10*EC
CO-58	6.22E+00	1.40E-09	7.02E-04	3.16E-14	1.58E-08
CO-60	1.96E+01	4.42E-09	1.47E-02	9.95E-14	3.32E-07
SB-125	4.31E+01	9.74E-09	3.25E-03	2.19E-13	7.31E-08
CS-137	1.01E+01	2.29E-09	2.29E-02	5.15E-14	5.15E-07
Gamma	7.90E+01	1.79E-08	4.15E-02	4.02E-13	9.35E-07
H-3	7.27E+06	1.64E-03	1.64E+01	3.70E-08	3.70E-04
NI-63	7.16E+00	1.62E-09	1.62E-04	3.64E-14	3.64E-09
Beta	7.27E+06	1.64E-03	1.64E+01	3.70E-08	3.70E-04
Total	7.27E+06	1.64E-03	1.65E+01	3.70E-08	3.71E-04

Verified By: *[Signature]* Date: 12-11-06

LIQUID RELEASE AND DOSE SUMMARY REPORT
 ----- (PERMIT BASIS) -----

Release ID.....: 15 All Liquid Releases
 Period Start Date.....: 07/01/2006 00:00
 Period End Date.....: 08/01/2006 00:00
 Period Duration (mins): 4.464E+04
 Receptor.....: 0 Liquid Receptor

=== PERMIT ORGAN DOSE BY AGE GROUP AND PATHWAY (mrem) =====

Age/Path	Bone	Liver	Thyroid	Kidney	Lung	GI-Lli	Skin	TB
ASIFF	6.87E-07	2.16E-06	1.56E-06	1.75E-06	1.63E-06	2.15E-06	0.00E+00	1.99E-06
TSIFF	7.27E-07	1.82E-06	1.20E-06	1.40E-06	1.29E-06	1.61E-06	0.00E+00	1.47E-06
CSIFF	9.39E-07	1.56E-06	9.95E-07	1.17E-06	1.06E-06	1.15E-06	0.00E+00	1.15E-06

----- TOTALS -----

ADULT	6.87E-07	2.16E-06	1.56E-06	1.75E-06	1.63E-06	2.15E-06	0.00E+00	1.99E-06
TEEN	7.27E-07	1.82E-06	1.20E-06	1.40E-06	1.29E-06	1.61E-06	0.00E+00	1.47E-06
CHILD	9.39E-07	1.56E-06	9.95E-07	1.17E-06	1.06E-06	1.15E-06	0.00E+00	1.15E-06

=== AGE GROUP / PATHWAY DESCRIPTIONS =====

Abbreviation	Age Group	Pathway
ASIFF	ADULT	SW Invrt & FW Fish (SIFF)
TSIFF	TEEN	SW Invrt & FW Fish (SIFF)
CSIFF	CHILD	SW Invrt & FW Fish (SIFF)

*Beta's Good
12-11-06*

LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERMIT BASIS) -----

Release ID.....: 15 All Liquid Releases
 Period Start Date.....: 08/01/2006 00:00
 Period End Date.....: 09/01/2006 00:00
 Period Duration (mins): 4.464E+04

=== RELEASE DATA ===
 Total Release Duration (minutes)..... 4.595E+04
 Total Undiluted Volume Released (gallons)..... 2.291E+05
 Average Undiluted Flowrate (gpm)..... 4.986E+00

 Total Dilution Volume (gallons)..... 7.621E+09
 Average Dilution Flowrate (gpm)..... 1.658E+05

=== NUCLIDE DATA ===

Nuclide	uCi	----Undiluted-----		-----Diluted-----	
		Average uCi/ml	Percent of 10*EC	Average uCi/ml	Percent of 10*EC
CO-58	4.33E+01	4.99E-08	2.50E-02	1.50E-12	7.50E-07
CO-60	3.15E+02	3.64E-07	1.21E+00	1.09E-11	3.65E-05
AG-110M	2.54E+00	2.92E-09	4.87E-03	8.79E-14	1.47E-07
SB-125	2.85E+02	3.28E-07	1.09E-01	9.87E-12	3.29E-06
CS-137	2.69E+01	3.10E-08	3.10E-01	9.32E-13	9.32E-06
Gamma	6.73E+02	7.76E-07	1.66E+00	2.33E-11	5.00E-05
H-3	1.72E+08	1.98E-01	1.98E+03	5.95E-06	5.95E-02
NI-63	1.54E+02	1.78E-07	1.78E-02	5.35E-12	5.35E-07
Beta	1.72E+08	1.98E-01	1.98E+03	5.95E-06	5.95E-02
Total	1.72E+08	1.98E-01	1.98E+03	5.95E-06	5.95E-02

Verified By: *[Signature]* Date: 12-11-06

LIQUID RELEASE AND DOSE SUMMARY REPORT
 ----- (PERMIT BASIS) -----

Release ID.....: 15 All Liquid Releases
 Period Start Date.....: 08/01/2006 00:00
 Period End Date.....: 09/01/2006 00:00
 Period Duration (mins): 4.464E+04
 Receptor.....: 0 Liquid Receptor

=== PERMIT ORGAN DOSE BY AGE GROUP AND PATHWAY (mrem) ===

Age/Path	Bone	Liver	Thyroid	Kidney	Lung	GI-Lli	Skin	TB
ASIFF	4.86E-05	2.73E-04	2.57E-04	2.60E-04	2.58E-04	3.14E-04	0.00E+00	2.71E-04
TSIFF	5.08E-05	2.14E-04	1.98E-04	2.01E-04	1.99E-04	2.37E-04	0.00E+00	2.09E-04
CSIFF	6.69E-05	1.79E-04	1.64E-04	1.67E-04	1.65E-04	1.78E-04	0.00E+00	1.74E-04
----- TOTALS -----								
ADULT	4.86E-05	2.73E-04	2.57E-04	2.60E-04	2.58E-04	3.14E-04	0.00E+00	2.71E-04
TEEN	5.08E-05	2.14E-04	1.98E-04	2.01E-04	1.99E-04	2.37E-04	0.00E+00	2.09E-04
CHILD	6.69E-05	1.79E-04	1.64E-04	1.67E-04	1.65E-04	1.78E-04	0.00E+00	1.74E-04

=== AGE GROUP / PATHWAY DESCRIPTIONS ===

Abbreviation	Age Group	Pathway
ASIFF	ADULT	SW Invert & FW Fish (SIFF)
TSIFF	TEEN	SW Invert & FW Fish (SIFF)
CSIFF	CHILD	SW Invert & FW Fish (SIFF)

LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERMIT BASIS) -----

Release ID.....: 15 All Liquid Releases
Period Start Date.....: 09/01/2006 00:00
Period End Date.....: 10/01/2006 00:00
Period Duration (mins): 4.320E+04

=== RELEASE DATA ===
Total Release Duration (minutes)..... 4.387E+04
Total Undiluted Volume Released (gallons)..... 1.828E+05
Average Undiluted Flowrate (gpm)..... 4.166E+00

Total Dilution Volume (gallons)..... 6.532E+10
Average Dilution Flowrate (gpm)..... 1.489E+06 ✓

=== NUCLIDE DATA ===

Nuclide	uCi	----Undiluted-----		-----Diluted-----	
		Average uCi/ml	Percent of 10*EC	Average uCi/ml	Percent of 10*EC
CO-58	2.96E+01	4.28E-08	2.14E-02	1.20E-13	5.99E-08
CO-60	2.24E+02	3.24E-07	1.08E+00	9.06E-13	3.02E-06
AG-110M	5.46E+00	7.89E-09	1.31E-02	2.21E-14	3.68E-08
SB-125	1.20E+02	1.74E-07	5.79E-02	4.86E-13	1.62E-07
CS-137	1.27E+01	1.84E-08	1.84E-01	5.15E-14	5.15E-07
Gamma	3.92E+02	5.67E-07	1.36E+00	1.59E-12	3.79E-06
XE-133	3.80E+02	5.50E-07	5.50E-02	1.54E-12	1.54E-07
D&EG	3.80E+02	5.50E-07	5.50E-02	1.54E-12	1.54E-07
H-3	1.86E+08	2.68E-01 ✓	2.68E+03	7.51E-07	7.51E-03
FE-55	6.03E+02	8.72E-07	8.72E-02	2.44E-12	2.44E-07
NI-63	2.31E+02	3.34E-07	3.34E-02	9.34E-13	9.34E-08
Beta	1.86E+08	2.68E-01	2.68E+03	7.51E-07	7.51E-03
Total	1.86E+08	2.68E-01	2.68E+03	7.51E-07	7.51E-03

392
603
231
1.226E-3 Ci

18.6 Ci H3

H3
Co 60
Fe 55

=== PERMIT ORGAN DOSE BY AGE GROUP AND PATHWAY (mrem) ===

Age/Path	Bone	Liver	Thyroid	Kidney	Lung	GI-Lli	Skin	TB
ADULT	1.86E-05	4.01E-05	3.10E-05	3.12E-05	3.54E-05	4.03E-05	0.00E+00	3.38E-05
TEEN	1.94E-05	3.35E-05	2.38E-05	2.40E-05	2.93E-05	3.08E-05	0.00E+00	2.67E-05
CHILD	2.61E-05	2.96E-05	1.98E-05	1.99E-05	2.47E-05	2.26E-05	0.00E+00	2.33E-05

Verified By: [Signature] Date: 10-6-6

RETDAS v3.6.0 <IP3>

VSSI

LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERMIT BASIS) -----

Release ID.....: 15 All Liquid Releases
Period Start Date.....: 12/01/2005 00:00
Period End Date.....: 01/01/2006 00:00
Period Duration (mins): 4.464E+04

=== RELEASE DATA =====

Total Release Duration (minutes)..... 4.511E+04
Total Undiluted Volume Released (gallons)..... 1.738E+05
Average Undiluted Flowrate (gpm)..... 3.852E+00

Total Dilution Volume (gallons)..... 6.851E+09
Average Dilution Flowrate (gpm)..... 1.519E+05

=== NUCLIDE DATA =====

Nuclide	----Undiluted----		----Diluted----	
	uCi	uCi/ml of 10*EC	Average Percent	Average Percent
CO-58	8.93E+01	1.36E-07	6.79E-02	3.44E-12
CO-60	2.53E+02	3.85E-07	1.28E+00	9.76E-12
AG-110M	9.77E+01	1.49E-07	2.48E-01	3.77E-12
SB-125	1.01E+02	1.54E-07	5.14E-02	3.91E-12
CS-134	5.32E+01	8.09E-08	8.99E-01	2.05E-12
CS-137	6.47E+01	9.84E-08	9.84E-01	2.50E-12
Gamma	6.59E+02	1.00E-06	3.53E+00	2.54E-11
XE-133	2.48E+01	3.76E-08	3.76E-03	9.55E-13
D&EG	2.48E+01	3.76E-08	3.76E-03	9.55E-13
H-3	3.70E+07	5.63E-02	5.63E+02	1.43E-06
FE-55	4.04E+02	6.14E-07	6.14E-02	1.56E-11
NI-63	1.55E+02	2.35E-07	2.35E-02	5.96E-12
Beta	3.70E+07	5.63E-02	5.63E+02	1.43E-06
Total	3.70E+07	5.63E-02	5.67E+02	1.43E-06

Verified By: _____ Date: _____

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LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERMIT BASIS) -----

Release ID.....: 15 All Liquid Releases
 Period Start Date.....: 12/01/2005 00:00
 Period End Date.....: 01/01/2006 00:00
 Period Duration (mins): 4.464E+04
 Receptor.....: 0 Liquid Receptor

=== PERMIT ORGAN DOSE BY AGE GROUP AND PATHWAY (mrem)

Age/Path	Bone	Liver	Thyroid	Kidney	Lung	GI-Lli	Skin	TB
ASIFF	1.53E-04	1.76E-04	6.06E-05	8.01E-05	9.59E-05	2.38E-04	0.00E+00	1.22E-04
TSIFF	1.59E-04	1.67E-04	4.66E-05	6.65E-05	8.94E-05	1.72E-04	0.00E+00	9.09E-05
CSIFF	2.11E-04	1.52E-04	3.87E-05	5.55E-05	7.66E-05	8.54E-05	0.00E+00	7.38E-05

----- TOTALS -----

ADULT	1.53E-04	1.76E-04	6.06E-05	8.01E-05	9.59E-05	2.38E-04	0.00E+00	1.22E-04
TEEN	1.59E-04	1.67E-04	4.66E-05	6.65E-05	8.94E-05	1.72E-04	0.00E+00	9.09E-05
CHILD	2.11E-04	1.52E-04	3.87E-05	5.55E-05	7.66E-05	8.54E-05	0.00E+00	7.38E-05

=== AGE GROUP / PATHWAY DESCRIPTIONS =====

Abbreviation Age Group Pathway

ASIFF	ADULT	SW Invrt & FW Fish (SIFF)
TSIFF	TEEN	SW Invrt & FW Fish (SIFF)
CSIFF	CHILD	SW Invrt & FW Fish (SIFF)

Date/Time: 12/21/2006 07:13 retdas3

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LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERMIT BASIS) -----

Release ID.....: 15 All Liquid Releases
Period Start Date.....: 12/01/2005 00:00
Period End Date.....: 01/01/2006 00:00
Period Duration (mins): 4.464E+04
Receptor.....: 0 Liquid Receptor

=== PERMIT ORGAN DOSE BY AGE GROUP AND NUCLIDE (mrem) =====

Agegroup Bone Liver Thyroid Kidney Lung GI-Lli Skin TB

ADULT

H-3 0.00E+00 6.06E-05 6.06E-05 6.06E-05 6.06E-05 6.06E-05 0.00E+00 6.06E-05
FE-55 7.50E-05 5.18E-05 0.00E+00 0.00E+00 2.88E-05 2.98E-05 0.00E+00 1.21E-05
CO-58 0.00E+00 2.66E-07 0.00E+00 0.00E+00 0.00E+00 5.38E-06 0.00E+00 5.95E-07
CO-60 0.00E+00 2.17E-06 0.00E+00 0.00E+00 0.00E+00 4.07E-05 0.00E+00 4.78E-06
NI-63 4.45E-05 3.09E-06 0.00E+00 0.00E+00 0.00E+00 6.44E-07 0.00E+00 1.50E-06
AG-110M 2.60E-07 2.40E-07 0.00E+00 4.71E-07 0.00E+00 9.80E-05 0.00E+00 1.42E-07
SB-125 1.82E-07 2.04E-09 1.86E-10 0.00E+00 1.41E-07 2.01E-06 0.00E+00 4.34E-08
CS-134 1.27E-05 3.03E-05 0.00E+00 9.81E-06 3.27E-06 5.31E-07 0.00E+00 2.48E-05
CS-137 1.99E-05 2.72E-05 0.00E+00 9.23E-06 3.07E-06 5.25E-07 0.00E+00 1.78E-05
XE-133 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

TEEN

H-3 0.00E+00 4.66E-05 4.66E-05 4.66E-05 4.66E-05 4.66E-05 0.00E+00 4.66E-05
FE-55 7.83E-05 5.55E-05 0.00E+00 0.00E+00 3.51E-05 2.41E-05 0.00E+00 1.30E-05
CO-58 0.00E+00 2.64E-07 0.00E+00 0.00E+00 0.00E+00 3.64E-06 0.00E+00 6.06E-07
CO-60 0.00E+00 2.16E-06 0.00E+00 0.00E+00 0.00E+00 2.82E-05 0.00E+00 4.87E-06
NI-63 4.62E-05 3.26E-06 0.00E+00 0.00E+00 0.00E+00 5.18E-07 0.00E+00 1.56E-06
AG-110M 2.52E-07 2.39E-07 0.00E+00 4.56E-07 0.00E+00 6.69E-05 0.00E+00 1.45E-07
SB-125 1.92E-07 2.10E-09 1.83E-10 0.00E+00 1.69E-07 1.49E-06 0.00E+00 4.49E-08
CS-134 1.31E-05 3.07E-05 0.00E+00 9.78E-06 3.73E-06 3.83E-07 0.00E+00 1.43E-05
CS-137 2.12E-05 2.83E-05 0.00E+00 9.61E-06 3.74E-06 4.02E-07 0.00E+00 9.83E-06
XE-133 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

CHILD

H-3 0.00E+00 3.87E-05 3.87E-05 3.87E-05 3.87E-05 3.87E-05 0.00E+00 3.87E-05
FE-55 1.07E-04 5.65E-05 0.00E+00 0.00E+00 3.19E-05 1.05E-05 0.00E+00 1.75E-05
CO-58 0.00E+00 2.17E-07 0.00E+00 0.00E+00 0.00E+00 1.27E-06 0.00E+00 6.63E-07
CO-60 0.00E+00 1.81E-06 0.00E+00 0.00E+00 0.00E+00 1.00E-05 0.00E+00 5.34E-06
NI-63 6.14E-05 3.28E-06 0.00E+00 0.00E+00 0.00E+00 2.22E-07 0.00E+00 2.09E-06
AG-110M 2.97E-07 2.01E-07 0.00E+00 3.73E-07 0.00E+00 2.39E-05 0.00E+00 1.60E-07
SB-125 2.48E-07 1.91E-09 2.30E-10 0.00E+00 1.38E-07 5.94E-07 0.00E+00 5.20E-08
CS-134 1.59E-05 2.60E-05 0.00E+00 8.05E-06 2.89E-06 1.40E-07 0.00E+00 5.49E-06
CS-137 2.69E-05 2.58E-05 0.00E+00 8.41E-06 3.02E-06 1.61E-07 0.00E+00 3.79E-06
XE-133 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

INFANT

H-3 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
FE-55 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

Date/Time: 12/21/2006 07:13 retdas3

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VSSI

LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERMIT BASIS) -----

Release ID.....: 15 All Liquid Releases
 Period Start Date.....: 12/01/2005 00:00
 Period End Date.....: 01/01/2006 00:00
 Period Duration (mins): 4.464E+04
 Receptor.....: 0 Liquid Receptor

==== MAXIMUM DOSE FOR PERIOD =====

Limit Type	Organ Type	Age Group	Dose Organ	Limit (mrem)	Limit Period	Percent of Limit
Admin	Any Organ	ADULT	GILLI	2.38E-04	31-day	1.50E-01 1.59E-01
			Quarter	3.75E+00		6.35E-03
			Annual	7.50E+00		3.17E-03
Admin	Tot Body	ADULT	TBODY	1.22E-04	31-day	4.50E-02 2.72E-01
			Quarter	1.13E+00		1.09E-02
			Annual	2.25E+00		5.43E-03
T.Spec	Any Organ	ADULT	GILLI	2.38E-04	31-day	2.00E-01 1.19E-01
			Quarter	5.00E+00		4.76E-03
			Annual	1.00E+01		2.38E-03

Critical Pathway.....: 1 SW Invert & FW Fish (SIFF)

Major Contributors.....: 5.0 % or greater to total

Nuclide Percentage

H-3 2.54E+01
 FE-55 1.25E+01
 CO-60 1.71E+01
 AG-110M 4.12E+01

T.Spec	Tot Body	ADULT	TBODY	1.22E-04	31-day	6.00E-02 2.04E-01
			Quarter	1.50E+00		8.15E-03
			Annual	3.00E+00		4.08E-03

Critical Pathway.....: 1 SW Invert & FW Fish (SIFF)

Major Contributors.....: 5.0 % or greater to total

Nuclide Percentage

H-3 4.95E+01
 FE-55 9.89E+00
 CS-134 2.03E+01
 CS-137 1.45E+01

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VSSI

LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERMIT BASIS) -----

Release ID.....: 15 All Liquid Releases
Period Start Date.....: 11/01/2005 00:00
Period End Date.....: 12/01/2005 00:00
Period Duration (mins): 4.320E+04

=== RELEASE DATA =====
Total Release Duration (minutes)..... 4.432E+04
Total Undiluted Volume Released (gallons)..... 2.090E+05
Average Undiluted Flowrate (gpm)..... 4.715E+00

Total Dilution Volume (gallons)..... 6.708E+09
Average Dilution Flowrate (gpm)..... 1.513E+05

=== NUCLIDE DATA =====

Nuclide	----Undiluted----		----Diluted----	
	uCi	uCi/ml of 10*EC	Average Percent	Average Percent
CO-58	5.07E+02	6.41E-07	3.21E-01	2.00E-11
CO-60	6.15E+02	7.77E-07	2.59E+00	2.42E-11
AG-110M	2.46E+02	3.10E-07	5.17E-01	9.67E-12
SB-125	4.45E+02	5.63E-07	1.88E-01	1.75E-11
CS-134	5.01E+02	6.33E-07	7.04E+00	1.97E-11
CS-137	5.77E+02	7.29E-07	7.29E+00	2.27E-11
Gamma	2.89E+03	3.65E-06	1.79E+01	1.14E-10
KR-85	1.69E+03	2.14E-06	1.07E-01	6.67E-11
XE-133	2.11E+02	2.67E-07	2.67E-02	8.32E-12
D&EG	1.90E+03	2.41E-06	1.34E-01	7.50E-11
H-3	1.89E+08	2.39E-01	2.39E+03	7.45E-06
NI-63	1.25E+02	1.57E-07	1.57E-02	4.90E-12
SR-85	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Beta	1.89E+08	2.39E-01	2.39E+03	7.45E-06
Total	1.89E+08	2.39E-01	2.41E+03	7.45E-06

Verified By: _____ Date: _____

RETDAS v3.6.0 <IP3>

VSSI

LIQUID RELEASE AND DOSE SUMMARY REPORT
 ----- (PERMIT BASIS) -----

Release ID.....: 15 All Liquid Releases
 Period Start Date.....: 11/01/2005 00:00
 Period End Date.....: 12/01/2005 00:00
 Period Duration (mins): 4.320E+04
 Receptor.....: 0 Liquid Receptor

=== PERMIT ORGAN DOSE BY AGE GROUP AND PATHWAY (mrem)
 =====

Age/Path Bone Liver Thyroid Kidney Lung GI-Lli Skin TB

ASIFF 3.35E-04 8.50E-04 3.10E-04 4.87E-04 3.69E-04 7.06E-04 0.00E+00 7.20E-04
 TSIFF 3.52E-04 7.92E-04 2.39E-04 4.18E-04 3.08E-04 5.11E-04 0.00E+00 4.79E-04
 CSIFF 4.42E-04 6.83E-04 1.98E-04 3.50E-04 2.53E-04 2.95E-04 0.00E+00 3.03E-04

----- TOTALS -----

ADULT 3.35E-04 8.50E-04 3.10E-04 4.87E-04 3.69E-04 7.06E-04 0.00E+00 7.20E-04
 TEEN 3.52E-04 7.92E-04 2.39E-04 4.18E-04 3.08E-04 5.11E-04 0.00E+00 4.79E-04
 CHILD 4.42E-04 6.83E-04 1.98E-04 3.50E-04 2.53E-04 2.95E-04 0.00E+00 3.03E-04

=== AGE GROUP / PATHWAY DESCRIPTIONS =====

Abbreviation Age Group Pathway

ASIFF ADULT SW Invert & FW Fish (SIFF)
 TSIFF TEEN SW Invert & FW Fish (SIFF)
 CSIFF CHILD SW Invert & FW Fish (SIFF)

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LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERMIT BASIS) -----

Release ID.....: 15 All Liquid Releases
Period Start Date.....: 11/01/2005 00:00
Period End Date.....: 12/01/2005 00:00
Period Duration (mins): 4.320E+04
Receptor.....: 0 Liquid Receptor

=== PERMIT ORGAN DOSE BY AGE GROUP AND NUCLIDE (mrem) =====

Agegroup Bone Liver Thyroid Kidney Lung GI-Lli Skin TB

ADULT

H-3 0.00E+00 3.10E-04 3.10E-04 3.10E-04 3.10E-04 3.10E-04 0.00E+00 3.10E-04
CO-58 0.00E+00 1.52E-06 0.00E+00 0.00E+00 0.00E+00 3.07E-05 0.00E+00 3.39E-06
CO-60 0.00E+00 5.29E-06 0.00E+00 0.00E+00 0.00E+00 9.91E-05 0.00E+00 1.17E-05
NI-63 3.59E-05 2.49E-06 0.00E+00 0.00E+00 0.00E+00 5.20E-07 0.00E+00 1.21E-06
SR-85 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
AG-110M 6.54E-07 6.04E-07 0.00E+00 1.19E-06 0.00E+00 2.47E-04 0.00E+00 3.59E-07
SB-125 8.03E-07 8.99E-09 8.18E-10 0.00E+00 6.19E-07 8.86E-06 0.00E+00 1.91E-07
CS-134 1.20E-04 2.87E-04 0.00E+00 9.27E-05 3.09E-05 5.01E-06 0.00E+00 2.34E-04
CS-137 1.78E-04 2.43E-04 0.00E+00 8.25E-05 2.74E-05 4.70E-06 0.00E+00 1.59E-04
KR-85 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
XE-133 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

TEEN

H-3 0.00E+00 2.39E-04 2.39E-04 2.39E-04 2.39E-04 2.39E-04 0.00E+00 2.39E-04
CO-58 0.00E+00 1.50E-06 0.00E+00 0.00E+00 0.00E+00 2.07E-05 0.00E+00 3.45E-06
CO-60 0.00E+00 5.26E-06 0.00E+00 0.00E+00 0.00E+00 6.87E-05 0.00E+00 1.19E-05
NI-63 3.73E-05 2.63E-06 0.00E+00 0.00E+00 0.00E+00 4.19E-07 0.00E+00 1.26E-06
SR-85 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
AG-110M 6.36E-07 6.03E-07 0.00E+00 1.15E-06 0.00E+00 1.69E-04 0.00E+00 3.66E-07
SB-125 8.47E-07 9.24E-09 8.08E-10 0.00E+00 7.43E-07 6.58E-06 0.00E+00 1.98E-07
CS-134 1.23E-04 2.90E-04 0.00E+00 9.24E-05 3.53E-05 3.61E-06 0.00E+00 1.35E-04
CS-137 1.90E-04 2.53E-04 0.00E+00 8.59E-05 3.34E-05 3.59E-06 0.00E+00 8.79E-05
KR-85 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
XE-133 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

CHILD

H-3 0.00E+00 1.98E-04 1.98E-04 1.98E-04 1.98E-04 1.98E-04 0.00E+00 1.98E-04
CO-58 0.00E+00 1.24E-06 0.00E+00 0.00E+00 0.00E+00 7.23E-06 0.00E+00 3.78E-06
CO-60 0.00E+00 4.40E-06 0.00E+00 0.00E+00 0.00E+00 2.44E-05 0.00E+00 1.30E-05
NI-63 4.96E-05 2.65E-06 0.00E+00 0.00E+00 0.00E+00 1.79E-07 0.00E+00 1.69E-06
SR-85 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
AG-110M 7.49E-07 5.06E-07 0.00E+00 9.41E-07 0.00E+00 6.01E-05 0.00E+00 4.04E-07
SB-125 1.09E-06 8.42E-09 1.01E-09 0.00E+00 6.09E-07 2.62E-06 0.00E+00 2.29E-07
CS-134 1.50E-04 2.46E-04 0.00E+00 7.61E-05 2.73E-05 1.33E-06 0.00E+00 5.19E-05
CS-137 2.41E-04 2.31E-04 0.00E+00 7.52E-05 2.70E-05 1.44E-06 0.00E+00 3.39E-05
KR-85 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
XE-133 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

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LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERMIT BASIS) -----

Release ID.....: 15 All Liquid Releases
 Period Start Date.....: 11/01/2005 00:00
 Period End Date.....: 12/01/2005 00:00
 Period Duration (mins): 4.320E+04
 Receptor.....: 0 Liquid Receptor

==== MAXIMUM DOSE FOR PERIOD =====

Limit Type	Organ Type	Age Group	Dose Organ	Limit (mrem)	Limit Period	Percent of Limit
Admin	Any Organ	ADULT	LIVER	8.50E-04	31-day	1.50E-01 5.66E-01
			Quarter	3.75E+00		2.27E-02
			Annual	7.50E+00		1.13E-02
Admin	Tot Body	ADULT	TBODY	7.20E-04	31-day	4.50E-02 1.60E+00
			Quarter	1.13E+00		6.40E-02
			Annual	2.25E+00		3.20E-02
T.Spec	Any Organ	ADULT	LIVER	8.50E-04	31-day	2.00E-01 4.25E-01
			Quarter	5.00E+00		1.70E-02
			Annual	1.00E+01		8.50E-03

Critical Pathway.....: 1 SW Invert & FW Fish (SIFF)

Major Contributors.....: 5.0 % or greater to total

Nuclide Percentage

H-3	3.65E+01
CS-134	3.37E+01
CS-137	2.86E+01

T.Spec	Tot Body	ADULT	TBODY	7.20E-04	31-day	6.00E-02 1.20E+00
			Quarter	1.50E+00		4.80E-02
			Annual	3.00E+00		2.40E-02

Critical Pathway.....: 1 SW Invert & FW Fish (SIFF)

Major Contributors.....: 5.0 % or greater to total

Nuclide Percentage

H-3	4.31E+01
CS-134	3.25E+01
CS-137	2.21E+01

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LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERMIT BASIS) -----

Release ID.....: 15 All Liquid Releases
Period Start Date.....: 10/01/2005 00:00
Period End Date.....: 11/01/2005 00:00
Period Duration (mins): 4.464E+04

=== RELEASE DATA =====

Total Release Duration (minutes)..... 4.487E+04
Total Undiluted Volume Released (gallons)..... 1.174E+06
Average Undiluted Flowrate (gpm)..... 2.617E+01

Total Dilution Volume (gallons)..... 5.196E+10
Average Dilution Flowrate (gpm)..... 1.158E+06

=== NUCLIDE DATA =====

Nuclide	----Undiluted----		----Diluted----	
	uCi	uCi/ml of 10*EC	Average Percent	Average Percent
BE-7	9.78E+01	2.20E-08	3.67E-04	4.97E-13
CR-51	2.45E+01	5.52E-09	1.10E-04	1.25E-13
CO-57	3.07E+00	6.90E-10	1.15E-04	1.56E-14
CO-58	1.49E+02	3.35E-08	1.68E-02	7.58E-13
CO-60	1.89E+01	4.25E-09	1.42E-02	9.60E-14
AG-110M	5.30E+00	1.19E-09	1.99E-03	2.70E-14
SB-125	1.46E+02	3.29E-08	1.10E-02	7.44E-13
CS-134	1.15E+01	2.59E-09	2.88E-02	5.85E-14
CS-137	2.52E+01	5.67E-09	5.67E-02	1.28E-13

Gamma 4.81E+02 1.08E-07 1.30E-01 2.45E-12 2.94E-06

XE-133 9.89E+00 2.23E-09 2.23E-04 5.03E-14 5.03E-09

D&EG 9.89E+00 2.23E-09 2.23E-04 5.03E-14 5.03E-09

H-3 7.11E+06 1.60E-03 1.60E+01 3.61E-08 3.61E-04

NI-63 4.11E+01 9.25E-09 9.25E-04 2.09E-13 2.09E-08

Beta 7.11E+06 1.60E-03 1.60E+01 3.61E-08 3.61E-04

Total 7.11E+06 1.60E-03 1.61E+01 3.61E-08 3.64E-04

Verified By: _____ Date: _____

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LIQUID RELEASE AND DOSE SUMMARY REPORT
 ----- (PERMIT BASIS) -----

Release ID.....: 15 All Liquid Releases
 Period Start Date.....: 10/01/2005 00:00
 Period End Date.....: 11/01/2005 00:00
 Period Duration (mins): 4.464E+04
 Receptor.....: 0 Liquid Receptor

=== PERMIT ORGAN DOSE BY AGE GROUP AND PATHWAY (mrem)
 =====

Age/Path Bone Liver Thyroid Kidney Lung GI-Lli Skin TB

ASIFF 2.96E-06 3.96E-06 1.52E-06 2.28E-06 1.80E-06 4.28E-06 0.00E+00 3.37E-06
 TSIFF 3.10E-06 3.68E-06 1.17E-06 1.94E-06 1.50E-06 3.08E-06 0.00E+00 2.32E-06
 CSIFF 4.01E-06 3.21E-06 9.73E-07 1.63E-06 1.24E-06 1.66E-06 0.00E+00 1.60E-06

----- TOTALS -----

ADULT 2.96E-06 3.96E-06 1.52E-06 2.28E-06 1.80E-06 4.28E-06 0.00E+00 3.37E-06
 TEEN 3.10E-06 3.68E-06 1.17E-06 1.94E-06 1.50E-06 3.08E-06 0.00E+00 2.32E-06
 CHILD 4.01E-06 3.21E-06 9.73E-07 1.63E-06 1.24E-06 1.66E-06 0.00E+00 1.60E-06

=== AGE GROUP / PATHWAY DESCRIPTIONS =====

Abbreviation Age Group Pathway

ASIFF ADULT SW Invert & FW Fish (SIFF)
 TSIFF TEEN SW Invert & FW Fish (SIFF)
 CSIFF CHILD SW Invert & FW Fish (SIFF)

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LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERMIT BASIS) -----

Release ID.....: 15 All Liquid Releases

Period Start Date.....: 10/01/2005 00:00

Period End Date.....: 11/01/2005 00:00

Period Duration (mins): 4.464E+04

Receptor.....: 0 Liquid Receptor

=== PERMIT ORGAN DOSE BY AGE GROUP AND NUCLIDE (mrem) =====

Agegroup Bone Liver Thyroid Kidney Lung GI-Lli Skin TB

ADULT

H-3 0.00E+00 1.52E-06 1.52E-06 1.52E-06 1.52E-06 1.52E-06 0.00E+00 1.52E-06
 BE-7 2.45E-11 5.53E-11 0.00E+00 5.81E-11 0.00E+00 9.52E-09 0.00E+00 2.74E-11
 CR-51 0.00E+00 0.00E+00 4.80E-11 1.77E-11 1.07E-10 2.02E-08 0.00E+00 8.05E-11
 CO-57 0.00E+00 2.82E-10 0.00E+00 0.00E+00 0.00E+00 7.14E-09 0.00E+00 4.69E-10
 CO-58 0.00E+00 5.83E-08 0.00E+00 0.00E+00 0.00E+00 1.18E-06 0.00E+00 1.30E-07
 CO-60 0.00E+00 2.13E-08 0.00E+00 0.00E+00 0.00E+00 3.98E-07 0.00E+00 4.68E-08
 NI-63 1.55E-06 1.08E-07 0.00E+00 0.00E+00 0.00E+00 2.25E-08 0.00E+00 5.22E-08
 AG-110M 1.85E-09 1.71E-09 0.00E+00 3.35E-09 0.00E+00 6.97E-07 0.00E+00 1.01E-09
 SB-125 3.45E-08 3.86E-10 3.52E-11 0.00E+00 2.66E-08 3.81E-07 0.00E+00 8.23E-09
 CS-134 3.62E-07 8.61E-07 0.00E+00 2.78E-07 9.28E-08 1.51E-08 0.00E+00 7.03E-07
 CS-137 1.01E-06 1.39E-06 0.00E+00 4.71E-07 1.57E-07 2.68E-08 0.00E+00 9.08E-07
 XE-133 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

TEEN

H-3 0.00E+00 1.17E-06 1.17E-06 1.17E-06 1.17E-06 1.17E-06 0.00E+00 1.17E-06
 BE-7 2.66E-11 5.96E-11 0.00E+00 6.31E-11 0.00E+00 7.25E-09 0.00E+00 2.97E-11
 CR-51 0.00E+00 0.00E+00 4.59E-11 1.81E-11 1.18E-10 1.39E-08 0.00E+00 8.27E-11
 CO-57 0.00E+00 2.92E-10 0.00E+00 0.00E+00 0.00E+00 5.44E-09 0.00E+00 4.88E-10
 CO-58 0.00E+00 5.78E-08 0.00E+00 0.00E+00 0.00E+00 7.97E-07 0.00E+00 1.33E-07
 CO-60 0.00E+00 2.11E-08 0.00E+00 0.00E+00 0.00E+00 2.76E-07 0.00E+00 4.77E-08
 NI-63 1.61E-06 1.14E-07 0.00E+00 0.00E+00 0.00E+00 1.81E-08 0.00E+00 5.44E-08
 AG-110M 1.79E-09 1.70E-09 0.00E+00 3.24E-09 0.00E+00 4.76E-07 0.00E+00 1.03E-09
 SB-125 3.64E-08 3.97E-10 3.47E-11 0.00E+00 3.19E-08 2.83E-07 0.00E+00 8.50E-09
 CS-134 3.70E-07 8.72E-07 0.00E+00 2.78E-07 1.06E-07 1.09E-08 0.00E+00 4.04E-07
 CS-137 1.08E-06 1.44E-06 0.00E+00 4.91E-07 1.91E-07 2.05E-08 0.00E+00 5.02E-07
 XE-133 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

CHILD

H-3 0.00E+00 9.73E-07 9.73E-07 9.73E-07 9.73E-07 9.73E-07 0.00E+00 9.73E-07
 BE-7 3.54E-11 6.00E-11 0.00E+00 5.91E-11 0.00E+00 3.36E-09 0.00E+00 3.96E-11
 CR-51 0.00E+00 0.00E+00 5.02E-11 1.37E-11 9.19E-11 4.80E-09 0.00E+00 9.05E-11
 CO-57 0.00E+00 2.68E-10 0.00E+00 0.00E+00 0.00E+00 2.20E-09 0.00E+00 5.44E-10
 CO-58 0.00E+00 4.76E-08 0.00E+00 0.00E+00 0.00E+00 2.78E-07 0.00E+00 1.45E-07
 CO-60 0.00E+00 1.77E-08 0.00E+00 0.00E+00 0.00E+00 9.81E-08 0.00E+00 5.23E-08
 NI-63 2.14E-06 1.14E-07 0.00E+00 0.00E+00 0.00E+00 7.72E-09 0.00E+00 7.29E-08
 AG-110M 2.11E-09 1.43E-09 0.00E+00 2.66E-09 0.00E+00 1.70E-07 0.00E+00 1.14E-09
 SB-125 4.70E-08 3.62E-10 4.35E-11 0.00E+00 2.62E-08 1.12E-07 0.00E+00 9.84E-09
 CS-134 4.50E-07 7.38E-07 0.00E+00 2.28E-07 8.21E-08 3.98E-09 0.00E+00 1.56E-07

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VSSI

LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERMIT BASIS) -----

Release ID.....: 15 All Liquid Releases
Period Start Date.....: 10/01/2005 00:00
Period End Date.....: 11/01/2005 00:00
Period Duration (mins): 4.464E+04

=== PERMIT ORGAN DOSE BY AGE GROUP AND NUCLIDE (mrem) =====

Agegroup Bone Liver Thyroid Kidney Lung GI-Lli Skin TB

CS-137 1.38E-06 1.32E-06 0.00E+00 4.29E-07 1.54E-07 8.24E-09 0.00E+00 1.94E-07
XE-133 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

INFANT

H-3 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
BE-7 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
CR-51 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
CO-57 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
CO-58 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
CO-60 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
NI-63 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
AG-110M 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
SB-125 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
CS-134 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
CS-137 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00
XE-133 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

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VSSI

LIQUID RELEASE AND DOSE SUMMARY REPORT
----- (PERMIT BASIS) -----

Release ID.....: 15 All Liquid Releases
 Period Start Date.....: 10/01/2005 00:00
 Period End Date.....: 11/01/2005 00:00
 Period Duration (mins): 4.464E+04
 Receptor.....: 0 Liquid Receptor

==== MAXIMUM DOSE FOR PERIOD =====

Limit Type	Organ Type	Age Group	Dose Organ	Limit (mrem)	Limit Period	Percent of Limit
Admin	Any Organ	ADULT	GILLI	4.28E-06	31-day	1.50E-01 2.85E-03
			Quarter	3.75E+00		1.14E-04
			Annual	7.50E+00		5.71E-05
Admin	Tot Body	ADULT	TBODY	3.37E-06	31-day	4.50E-02 7.50E-03
			Quarter	1.13E+00		3.00E-04
			Annual	2.25E+00		1.50E-04
T.Spec	Any Organ	ADULT	GILLI	4.28E-06	31-day	2.00E-01 2.14E-03
			Quarter	5.00E+00		8.56E-05
			Annual	1.00E+01		4.28E-05

Critical Pathway.....: 1 SW Invert & FW Fish (SIFF)

Major Contributors.....: 5.0 % or greater to total

Nuclide Percentage

H-3	3.56E+01
CO-58	2.75E+01
CO-60	9.30E+00
AG-110M	1.63E+01
SB-125	8.89E+00

T.Spec	Tot Body	ADULT	TBODY	3.37E-06	31-day	6.00E-02 5.62E-03
			Quarter	1.50E+00		2.25E-04
			Annual	3.00E+00		1.12E-04

Critical Pathway.....: 1 SW Invert & FW Fish (SIFF)

Major Contributors.....: 5.0 % or greater to total

Nuclide Percentage

H-3	4.52E+01
CS-134	2.08E+01
CS-137	2.69E+01

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