



AUG 30 1985

ZION STATION

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1985
GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES

A. Gaseous Effluents Released - Summary Sheet

	Units	January	February	March	First Quarter
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1. Gross Radioactivity Releases

a. Total Release	Ci	3.8 E+2	1.0 E+3	5.5 E+1	1.4 E+3
b. Max. Release Rate ¹	μCi/sec	1.7 E+3	8.7 E+3	6.2 E+2	8.7 E+3
c. % of Quarterly Limit (9600 μCi/sec)	%	5.0 E-1	1.3 E0	7.3 E-2	1.9 E0

2. Iodine Releases

a. Total I-131	Ci	6.1 E-4	4.0 E-4	1.9 E-4	1.2 E-3
b. % of I-131 Limit ²	%	--	--	--	--

3. Particulate Releases

a. Gross Radioactivity	Ci	2.0 E-3	9.7 E-4	1.8 E-4	3.2 E-3
b. Gross Alpha Radioactivity	Ci	8.7 E-6	6.9 E-4	4.9 E-5	7.5 E-4
c. % of Particulate with Half Lives > 8 Days ²	%	--	--	--	--

4. Sum of I-131 & Particulate With Half Lives Greater Than 8 Days

a. Sum of above	Ci	2.5 E-3	5.2 E-4	3.7 E-4	3.4 E-3
b. % of Limit (2 μCi/sec)	%	4.7 E-2	1.1 E-2	6.9 E-3	6.5 E-2
c. % of Quarterly Limit (0.16 μCi/sec)	%	2.0 E-1	4.1 E-2	2.9 E-2	2.7 E-1

5. Tritium Releases

a. Total Release	Ci	1.1 E0	6.9 E0	3.0 E0	1.1 E+1
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1 - Gross Gaseous Radioactivity Maximum Release Rate = 60,000 μCi/sec

2 - Iodine & Particulate Limits are expressed as total limit - See Item A4 above.

<LLD - No detectable activity above background

ZION STATION

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1985
GASEOUS EFFLUENTS - ELEVATED RELEASE

A. Gaseous Effluents Released - Isotopes

Isotopes Released	Units	January	February	March	First Quarter
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1. Gross Radioactivity Releases

AR-41	C1	7.8 E-3	2.2 E-1	2.5 E-3	2.3 E-1
Kr-85		<LLD	4.0 E-1	1.4 E0	1.8 E0
Kr-85M		<LLD	<LLD	<LLD	<LLD

Kr-87	C1	<LLD	4.2 E-3	<LLD	4.2 E-3
Kr-88		3.2 E-1	6.7 E-3	4.4 E-2	3.7 E-1

Xe-131	C1	<LLD	<LLD	<LLD	<LLD
Xe-131M		3.4 E-1	2.7 E0	2.4 E-1	3.3 E0
Xe-133 ¹		3.2 E+2	1.0 E+3	5.1 E+1	1.4 E+3
Xe-133M		9.0 E-1	1.7 E-1	1.8 E-2	1.1 E0

Xe-135 ¹	C1	6.0 E+1	8.2 E0	2.0 E0	7.0 E+1
Xe-135M		<LLD	<LLD	<LLD	<LLD
Xe-138		<LLD	<LLD	<LLD	<LLD

	C1				

	C1				

<LLD - No detectable activity above background

1 - Includes R14 data

ZION STATION

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1985
GASEOUS EFFLUENTS - ELEVATED RELEASE

B. Gaseous Effluents Released - Isotopes (continued)

Isotopes Released	Units	January	February	March	First Quarter
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2. Iodine Releases

Na-24	Ci	6.7 E-7	6.2 E-7	<LLD	1.3 E-6
Mn-54		<LLD	<LLD	1.1 E-5	1.1 E-5

Co-58	Ci	1.5 E-8	1.4 E-6	4.2 E-7	1.8 E-6
Co-60		1.0 E-6	1.9 E-6	1.7 E-4	1.7 E-4

	Ci				
Br-82		3.1 E-6	8.6 E-7	1.0 E-6	5.0 E-6
Rb-88		<LLD	<LLD	<LLD	<LLD

	Ci				

I-131	Ci	6.1 E-4	4.0 E-4	1.9 E-4	1.2 E-3
I-132		1.5 E-5	9.4 E-5	<LLD	1.1 E-4
I-133		1.6 E-4	1.8 E-5	1.9 E-5	2.0 E-4
I-134		1.4 E-6	<LLD	<LLD	1.4 E-6
Cs-134		3.5 E-6	3.9 E-7	1.5 E-7	4.0 E-6

I-135	Ci	1.1 E-4	2.0 E-7	<LLD	1.1 E-4
Cs-136		7.3 E-8	<LLD	<LLD	7.3 E-8
Cs-137		2.2 E-6	1.0 E-6	1.5 E-9	3.2 E-6
Cs-138		3.5 E-6	4.6 E-6	<LLD	8.1 E-6

<LLD - No detectable activity above background

ZION STATION

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1985
GASEOUS EFFLUENTS - ELEVATED RELEASE

B. Gaseous Effluents Released - Isotopes (continued)

Isotopes Released	Units	January	February	March	First Quarter
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3. Particulate Releases

Na-24	C1	8.7 E-6	1.8 E-6	1.5 E-7	1.1 E-5
Mn-54		<LLD	<LLD	<LLD	<LLD
Mn-56		1.8 E-7	<LLD	<LLD	1.8 E-7

Co-58	C1	3.1 E-8	1.1 E-7	2.4 E-7	3.8 E-8
Co-60		1.4 E-6	1.7 E-7	5.9 E-7	2.2 E-6

	C1				
Br-82		9.1 E-8	<LLD	<LLD	9.1 E-8

Rb-88	C1	1.8 E-3	7.0 E-5	1.8 E-4	2.1 E-3
Sr-89 ¹		--	--	--	--
Sr-90 ¹		--	--	--	--

Sr-91	C1	1.2 E-7	<LLD	<LLD	1.2 E-7
Sr-92		<LLD	<LLD	<LLD	<LLD
Nb-95		<LLD	<LLD	<LLD	<LLD

	C1				
Mo-99		3.3 E-7	<LLD	<LLD	3.3 E-7
Tc-99M		8.5 E-7	<LLD	<LLD	8.5 E-7

<LLD - No detectable activity above background

1 - Waiting for analysis results - Data will be presented in an errata to the Semi-Annual Report

ZION STATION

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1985
GASEOUS EFFLUENTS - ELEVATED RELEASE

B. Gaseous Effluents Released - Isotopes (continued)

Isotopes Released	Units	January	February	March	First Quarter
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3. Particulate Releases (continued)

Ru-103	C1	<LLD	<LLD	<LLD	<LLD
Ag-110M		<LLD	<LLD	7.1 E-9	7.1 E-9

Sb-122	C1	<LLD	4.9 E-7	<LLD	4.9 E-7
I-131		1.7 E-5	1.5 E-6	3.8 E-8	1.9 E-5
I-132		1.1 E-5	<LLD	<LLD	1.1 E-5
Te-132		1.3 E-7	<LLD	<LLD	1.3 E-7

I-133	C1	2.0 E-5	<LLD	2.7 E-7	2.0 E-5
Cs-134		2.6 E-5	2.6 E-5	7.2 E-8	5.2 E-5
I-135		1.9 E-5	<LLD	<LLD	1.9 E-5

Cs-136	C1	1.5 E-6	<LLD	<LLD	1.5 E-6
Cs-137		2.8 E-5	2.6 E-5	6.5 E-7	5.5 E-5
Cs-138		4.3 E-5	<LLD	7.0 E-7	4.4 E-5
Ba-139		<LLD	<LLD	<LLD	<LLD

Ba-140	C1	2.4 E-7	<LLD	<LLD	2.4 E-7
La-140		5.9 E-8	<LLD	<LLD	5.9 E-8

W-187	C1	2.8 E-8	<LLD	<LLD	2.8 E-8
B1-214		<LLD	<LLD	<LLD	<LLD
Pb-214		<LLD	<LLD	<LLD	<LLD

<LLD - No detectable activity above background

ZION STATION

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1985 GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES

A. Gaseous Effluents Released - Summary Sheet

	Units	April	May	June	Second Quarter
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1. Gross Radioactivity Releases

a. Total Release	Ci	5.7 E+1	1.2 E+2	9.0 E+2	1.1 E+3
b. Max. Release Rate ¹	μCi/sec	3.3 E+2	5.0 E+2	1.0 E+3	1.0 E+3
c. % of Quarterly Limit (9600 μCi/sec)	%	7.6 E-2	1.6 E-1	1.2 E0	1.4 E0

2. Iodine Releases

a. Total I-131	Ci	2.8 E-5	7.1 E-6	1.8 E-5	5.3 E-5
b. % of I-131 Limit ²	%	--	--	--	--

3. Particulate Releases

a. Gross Radioactivity	Ci	3.2 E-4	5.1 E-4	7.6 E-3	8.4 E-3
b. Gross Alpha Radioactivity	Ci	1.9 E-4	2.4 E-4	1.5 E-4	5.8 E-4
c. % of Particulate With Half Lives > 8 Days ²	%	--	--	--	--

4. Sum of I-131 & Particulate With Half Lives Greater Than 8 Days

a. Sum of above	Ci	8.6 E-5	1.7 E-4	7.4 E-3	7.7 E-3
b. % of Limit (2 μCi/sec)	%	1.7 E-3	3.2 E-3	1.4 E-1	1.4 E-1
c. % of Quarterly Limit (0.16 μCi/sec)	%	6.9 E-3	1.4 E-2	5.9 E-1	6.2 E-1

5. Tritium Releases

a. Total Release	Ci	6.7 E-1	3.2 E-1	4.2 E-1	1.4 E0
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1 - Gross Gaseous Radioactivity Maximum Release Rate = 60,000 μCi/sec

2 - Iodine & Particulate Limits are expressed as total limit - See Item A4 above.

<LLD - No detectable activity above background

ZION STATION

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1985 GASEOUS EFFLUENTS - ELEVATED RELEASE

B. Gaseous Effluents Released - Isotopes

Isotopes Released	Units	April	May	June	Second Quarter
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1. Gross Radioactivity Releases

Ar-41	C1	<LLD	8.3 E-1	3.2 E-1	1.2 E0
Kr-85		4.7 E0	1.6 E-4	<LLD	4.7 E0
Kr-85M		<LLD	<LLD	9.7 E-3	9.7 E-3

Kr-87	C1	5.5 E-1	1.3 E-1	2.8 E-2	7.1 E-1
Kr-88		1.7 E0	<LLD	7.1 E-0	8.8 E0
Xe-127		<LLD	6.0 E-8	<LLD	6.0 E-8

Xe-131	C1	<LLD	<LLD	<LLD	<LLD
Xe-131M		8.4 E-2	<LLD	<LLD	8.4 E-2
Xe-133 ¹		4.9 E+1	1.2 E+2	8.6 E+2	1.0 E+3
Xe-133M		3.8 E-3	<LLD	6.9 E-2	7.3 E-2

Xe-135 ¹	C1	1.2 E+0	3.2 E0	3.1 E+1	3.5 E+1
Xe-135M		<LLD	<LLD	<LLD	<LLD
Xe-138		<LLD	<LLD	<LLD	<LLD

	C1				

	C1				

<LLD - No detectable activity above background

ZION STATION

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1985
GASEOUS EFFLUENTS - ELEVATED RELEASE

B. Gaseous Effluents Released - Isotopes (continued)

Isotopes Released	Units	April	May	June	Second Quarter
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2. Iodine Releases

Na-24	Ci	<LLD	<LLD	<LLD	<LLD

Co-58	Ci	1.3 E-7	<LLD	8.8 E-9	1.4 E-7
Co-60		1.6 E-7	3.8 E-6	7.7 E-6	1.2 E-5

	Ci				
Br-82		7.2 E-7	1.2 E-6	1.6 E-6	3.5 E-6
Rb-88		<LLD	<LLD	<LLD	<LLD

	Ci				

I-131	Ci	2.8 E-5	7.1 E-6	1.8 E-5	5.3 E-5
I-132		<LLD	<LLD	<LLD	<LLD
I-133		2.4 E-6	2.5 E-6	1.6 E-5	2.1 E-5
I-134		<LLD	<LLD	<LLD	<LLD
Cs-134		<LLD	<LLD	<LLD	<LLD

I-135	Ci	3.9 E-7	8.0 E-7	1.2 E-6	2.4 E-6
Cs-136		<LLD	<LLD	<LLD	<LLD
Cs-137		1.3 E-8	1.9 E-7	1.2 E-8	2.2 E-7
Cs-138		<LLD	<LLD	<LLD	<LLD
Ce-144		<LLD	<LLD	8.3 E-7	8.3 E-7

<LLD - No detectable activity above background

ZION STATION

EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT 1985
GASEOUS EFFLUENTS - ELEVATED RELEASE

B. Gaseous Effluents Released - Isotopes (continued)

Isotopes Released	Units	April	May	June	Second Quarter
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3. Particulate Releases

Na-24	Ci	7.3 E-7	4.2 E-7	3.1 E-7	1.5 E-6
Mn-54		7.2 E-7	3.2 E-6	2.9 E-9	3.9 E-6

Co-58	Ci	2.3 E-6	4.5 E-6	8.2 E-8	6.9 E-6
Co-60		1.5 E-5	1.6 E-5	4.4 E-7	3.1 E-5

	Ci				
Br-82		6.4 E-7	<LLD	<LLD	6.4 E-7

Rb-88	Ci	3.5 E-5	1.4 E-4	7.3 E-3	7.5 E-3
Sr-89 ¹	--	--	--	--	--
Sr-90 ¹	--	--	--	--	--

Sr-91	Ci	<LLD	<LLD	<LLD	<LLD
Sr-92		<LLD	<LLD	2.5 E-7	2.5 E-7
Nb-95		<LLD	<LLD	<LLD	<LLD

	Ci				
Mo-99		<LLD	<LLD	<LLD	<LLD
Tc-99M		<LLD	<LLD	<LLD	<LLD

<LLD - No detectable activity above background

1 - Waiting for analysis results - Data will be presented in an errata to the Semi-Annual Report

ZION STATION

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1985
GASEOUS EFFLUENTS - ELEVATED RELEASE

B. Gaseous Effluents Released - Isotopes (continued)

Isotopes Released	Units	April	May	June	Second Quarter
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3. Particulate Releases (continued)

Ru-103	Ci	<LLD	1.9 E-8	<LLD	1.9 E-8
Ag-110M		<LLD	<LLD	<LLD	<LLD

Sb-122	Ci	<LLD	<LLD	3.6 E-8	3.6 E-8
I-131		1.5 E-8	1.3 E-8	1.5 E-8	4.3 E-8
I-132		5.0 E-9	<LLD	<LLD	5.0 E-9
Te-132		<LLD	<LLD	1.5 E-8	1.5 E-8

I-133	Ci	1.8 E-8	6.7 E-8	6.6 E-8	1.5 E-7
Cs-134		2.7 E-7	3.3 E-7	5.2 E-6	5.8 E-6
I-135		<LLD	6.4 E-8	<LLD	6.4 E-8

Cs-136	Ci	<LLD	<LLD	<LLD	<LLD
Cs-137		3.5 E-6	8.9 E-7	5.0 E-6	9.4 E-6
Cs-138		7.7 E-7	<LLD	1.2 E-4	1.2 E-4
Ba-139		<LLD	<LLD	<LLD	<LLD

Ba-140	Ci	<LLD	<LLD	<LLD	<LLD
La-140		<LLD	<LLD	1.2 E-7	1.2 E-7

W-187	Ci	<LLD	<LLD	7.5 E-8	7.5 E-8
Bi-214		<LLD	<LLD	<LLD	<LLD
Pb-214		<LLD	<LLD	<LLD	<LLD

<LLD - No detectable activity above background

ZION STATION

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1985
GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES

UNIT 1

C. Liquid Effluents Released - Summary Sheet

	Units	January	February	March	First Quarter
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1. Gross Radioactivity¹

a. Total Release	Ci	4.2 E-3	No	No	4.2 E-3
b. Avg. Concentration Released	µCi/ml	1.2 E-9	Releases	Releases	1.2 E-9
c. Max. Concentration Released	µCi/ml	6.0 E-9	This	This	6.0 E-9
d. % of Tech. Spec. Qtr. Limit (10 Ci)	%	4.2 E-2	Month	Month	4.2 E-2

2. Tritium

a. Total Release	Ci	4.7 E0			4.7 E0
b. Avg. Concentration Released	µCi/ml	1.4 E-6			1.4 E-6
c. % of Tech. Spec. Limit (3 E-3 µCi/ml)	%	4.7 E-2			4.7 E-2

3. Dissolved Noble Gases

a. Total Release	Ci	5.3 E-2			5.3 E-2
b. Avg. Concentration Released	µCi/ml	1.6 E-8			1.6 E-8

4. Gross Alpha Radioactivity

a. Total Release	Ci	5.3 E-6			5.3 E-6
b. Avg. Concentration Released	µCi/ml	1.6 E-12			1.6 E-12

5. Volume of Liquid Waste to Discharge

	Liters	1.6 E+5			1.6 E+5
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6. Volume of Dilution Water

	Liters	3.4 E+9			3.4 E+9
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1 - Excludes Tritium, Alpha, and Dissolved Noble Gases

<LLD - No detectable activity above background

ZION STATION
EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT 1985
LIQUID EFFLUENTS
UNIT 1

D. Liquid Effluents Released - Isotopes

Isotopes Released	Units	January	February	March	First Quarter
Na-24	C1	<LLD	No Releases This Month	No Releases This Month	<LLD
Cr-51	C1	<LLD			<LLD
Mn-54		<LLD			<LLD
Co-57		<LLD			<LLD
Co-58		1.0 E-4			1.0 E-4
Fe-59		<LLD			<LLD
Co-60	C1	2.2 E-3			2.2 E-3
Kr-85	C1	<LLD			<LLD
Kr-88		<LLD			<LLD
Sr-89 ¹		--			--
Sr-90 ¹					--
Sr-92		<LLD			<LLD
Nb-95	C1	<LLD			<LLD
Zr-95		<LLD			<LLD

<LLD - No detectable activity above background

1 - Waiting for analysis results - Data will be presented in an errata to the Semi-Annual Report

ZION STATION
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1985
LIQUID EFFLUENTS
UNIT 1

D. Liquid Effluents Released - Isotopes (continued)

Isotopes Released	Units	January	February	March	First Quarter
Ru-105	C1	<LLD	No Releases This Month	No Releases This Month	<LLD
Ag-110M		5.6 E-5			5.6 E-5
Sb-122	C1	<LLD			<LLD
Sb-124		8.0 E-5			8.0 E-5
Sb-125		2.7 E-4			2.7 E-4
I-131	C1	2.7 E-4			2.7 E-4
I-133		<LLD			<LLD
Xe-133		5.3 E-2			5.3 E-2
Xe-133M	C1	<LLD			<LLD
Cs-134		6.1 E-4			6.1 E-4
I-134		<LLD			<LLD
Xe-135		<LLD			<LLD
Cs-136	C1	<LLD			<LLD
Cs-137		6.6 E-4			6.6 E-4
Cs-138		<LLD			<LLD
La-140	C1	<LLD			<LLD
W-187		<LLD			<LLD

<LLD - No detectable activity above background

ZION STATION

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1985
LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

UNIT 2

C. Liquid Effluents Released - Summary Sheet

	Units	January	February	March	First Quarter
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1. Gross Radioactivity¹

a. Total Release	Ci	1.1 E-1	1.5 E-1	1.2 E-1	3.8 E-1
b. Avg. Concentration Released	µCi/ml	1.1 E-9	1.5 E-9	1.2 E-9	1.3 E0
c. Max. Concentration Released	µCi/ml	1.1 E-8	9.5 E-9	9.1 E-9	9.5 E-9
d. % of Tech. Spec. Qtr. Limit (10 Ci)	%	-	-	-	3.8 E0

2. Tritium

a. Total Release	Ci	7.9 E+1	4.3 E+1	7.5 E+1	2.0 E+2
b. Avg. Concentration Released	µCi/ml	8.2 E-7	4.4 E-7	7.4 E-7	6.7 E-7
c. % of Tech. Spec. Limit (3 E-3 µCi/ml)	%	2.7 E-2	1.5 E-2	2.5 E-2	2.2 E-2

3. Dissolved Noble Gases

a. Total Release	Ci	7.5 E-1	3.2 E-1	2.2 E-1	1.3 E0
b. Avg. Concentration Released	µCi/ml	7.8 E-9	3.3 E-9	2.2 E-9	4.4 E-9

4. Gross Alpha Radioactivity

a. Total Release	Ci	7.7 E-5	1.3 E-4	9.4 E-5	3.0 E-4
b. Avg. Concentration Released	µCi/ml	8.0 E-13	1.3 E-12	9.3 E-13	1.0 E-12

5. Volume of Liquid Waste to Discharge

	Liters	1.9 E+7	1.7 E+7	2.0 E+7	5.6 E+7
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6. Volume of Dilution Water

	Liters	9.6 E+10	9.7 E+10	1.0 E+11	2.9 E+11
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1 - Excludes Tritium, Alpha, and Dissolved Noble Gases

<LLD - No detectable activity above background

ZION STATION
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1985
LIQUID EFFLUENTS
UNIT 2

D. Liquid Effluents Released - Isotopes

Isotopes Released	Units	January	February	March	First Quarter
Na-24	C1	<LLD	<LLD	2.1 E-4	2.1 E-4
Ar-41		<LLD	3.8 E-5	<LLD	3.8 E-5
Cr-51	C1	<LLD	5.1 E-3	8.4 E-3	1.4 E-2
Mn-54		3.1 E-5	6.8 E-5	3.2 E-4	4.2 E-4
Co-57		<LLD	<LLD	<LLD	<LLD
Co-58		9.6 E-3	3.7 E-2	3.4 E-2	8.1 E-2
Fe-59		<LLD	<LLD	4.0 E-5	4.0 E-5
Co-60	C1	1.6 E-2	3.6 E-2	3.8 E-2	9.0 E-2
Kr-85	C1	<LLD	<LLD	<LLD	<LLD
Kr-88		<LLD	<LLD	<LLD	<LLD
Sr-89 ¹		--	--	--	--
Sr-90 ¹	C1	--	--	--	--
Sr-92		<LLD	1.5 E-5	<LLD	1.5 E-5
Nb-95	C1	<LLD	<LLD	<LLD	<LLD
Zr-95		<LLD	<LLD	2.1 E-6	2.1 E-6

<LLD - No detectable activity above background

1 - Waiting for analysis results - Data will be presented in an errata to the Semi-Annual Report

ZION STATION
EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT 1985
LIQUID EFFLUENTS
UNIT 2

D. Liquid Effluents Released - Isotopes (continued)

Isotopes Released	Units	January	February	March	First Quarter
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	C1				
Ru-105		<LLD	<LLD	<LLD	<LLD
Ag-110M		4.9 E-4	2.2 E-3	1.6 E-3	4.3 E-3

Sb-122	C1	1.1 E-4	1.1 E-3	<LLD	1.2 E-3
Sb-124		1.6 E-3	6.4 E-3	1.3 E-2	2.1 E-2
Sb-125		5.7 E-3	5.6 E-3	9.0 E-3	2.0 E-2
Xe-131M		8.5 E-3	<LLD	<LLD	8.5 E-3

I-131	C1	2.1 E-2	9.4 E-3	4.4 E-3	3.5 E-2
I-133		8.7 E-4	5.9 E-5	<LLD	9.3 E-4
Xe-133		7.4 E-1	3.2 E-1	2.2 E-1	1.3 E0

Xe-133M	C1	2.5 E-3	<LLD	1.7 E-3	4.2 E-3
Cs-134		2.3 E-2	2.3 E-2	4.4 E-3	5.0 E-2
I-134		<LLD	<LLD	<LLD	<LLD
Xe-135		5.1 E-5	<LLD	1.8 E-4	2.3 E-4

Cs-136	C1	<LLD	2.8 E-5	<LLD	2.8 E-5
Cs-137		2.3 E-2	2.4 E-2	4.1 E-3	5.1 E-2
Cs-138		2.3 E-4	<LLD	3.3 E-3	3.5 E-3

La-140	C1	2.0 E-4	2.4 E-4	<LLD	4.4 E-4
W-187		<LLD	<LLD	<LLD	<LLD

<LLD - No detectable activity above background

ZION STATION

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1985
LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

UNIT 1

C. Liquid Effluents Released - Summary Sheet

	Units	April	May	June	Second Quarter
--	-------	-------	-----	------	-------------------

1. Gross Radioactivity¹

a. Total Release	Ci	No	No	No	No
b. Avg. Concentration Released	µCi/ml	Releases	Releases	Releases	Releases
c. Max. Concentration Released	µCi/ml	This	This	This	This
d. % of Tech. Spec. Qtr. Limit (10 Ci)	%	Month	Month	Month	Quarter

2. Tritium

a. Total Release	Ci				
b. Avg. Concentration Released	µCi/ml				
c. % of Tech. Spec. Limit (3 E-3 µCi/ml)	%				

3. Dissolved Noble Gases

a. Total Release	Ci				
b. Avg. Concentration Released	µCi/ml				

4. Gross Alpha Radioactivity

a. Total Release	Ci				
b. Avg. Concentration Released	µCi/ml				

5. Volume of Liquid Waste to Discharge

Liters					
--------	--	--	--	--	--

6. Volume of Dilution Water

Liters					
--------	--	--	--	--	--

¹ - Excludes Tritium, Alpha, and Dissolved Noble Gases

<LLD - No detectable activity above background

ZION STATION
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1985
LIQUID EFFLUENTS
UNIT 1

D. Liquid Effluents Released - Isotopes

Isotopes Released	Units	April	May	June	Second Quarter
Na-24	Ci	No Releases This Month	No Releases This Month	No Releases This Month	No Releases This Quarter
Cr-51	Ci				
Mn-54					
Co-57					
Co-58					
Fe-59					
Co-60	Ci				
Kr-85	Ci				
Kr-88					
Sr-89 ¹		--	--	--	--
Sr-90 ¹	Ci	--	--	--	--
Sr-92					
Nb-95	Ci				
Zr-95					

<LLD - No detectable activity above background

1 - Waiting for analysis results - Data will be presented in an errata to the Semi-Annual Report

ZION STATION
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1985
LIQUID EFFLUENTS
UNIT 1

D. Liquid Effluents Released - Isotopes (continued)

Isotopes Released	Units	April	May	June	Second Quarter
Ru-105	C1	No Releases This Month	No Releases This Month	No Releases This Month	No Releases This Quarter
Ag-110M					
Sb-122	C1				
Sb-124					
Sb-125					
I-131	C1				
I-133					
Xe-133					
Xe-133M	C1				
Cs-134					
I-134					
Xe-135					
Cs-136	C1				
Cs-137					
Cs-138					
La-140	C1				
W-187					

<LLD - No detectable activity above background

ZION STATION

EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1985
LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

UNIT 2

C. Liquid Effluents Released - Summary Sheet

	Units	April	May	June	Second Quarter
--	-------	-------	-----	------	----------------

1. Gross Radioactivity¹

a. Total Release	Ci	1.6 E-1	2.7 E-1	1.9 E-1	6.2 E-1
b. Avg. Concentration Released	µCi/ml	1.7 E-9	2.5 E-9	1.6 E-9	1.9 E-9
c. Max. Concentration Released	µCi/ml	1.1 E-8	1.1 E-8	1.2 E-8	1.2 E-8
d. % of Tech. Spec. Qtr. Limit (10 Ci)	%	--	--	--	6.2 E0

2. Tritium

a. Total Release	Ci	3.5 E+1	7.3 E+1	3.4 E+1	1.4 E+2
b. Avg. Concentration Released	µCi/ml	3.8 E-7	6.7 E-7	2.8 E-7	4.4 E-7
c. % of Tech. Spec. Limit (3 E-3 µCi/ml)	%	1.3 E-2	2.2 E-2	9.3 E-3	1.5 E-2

3. Dissolved Noble Gases

a. Total Release	Ci	4.6 E-2	2.1 E-1	4.8 E-1	7.4 E-1
b. Avg. Concentration Released	µCi/ml	5.0 E-10	1.9 E-9	4.0 E-9	2.1 E-9

4. Gross Alpha Radioactivity

a. Total Release	Ci	9.9 E-5	8.4 E-5	1.7 E-4	3.5 E-4
b. Avg. Concentration Released	µCi/ml	1.1 E-12	7.7 E-13	1.4 E-12	1.1 E-12

5.	Volume of Liquid Waste to Discharge	Liters	2.7 E+7	2.9 E+7	1.9 E+7	7.5 E+7
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6.	Volume of Dilution Water	Liters	9.3 E+10	1.1 E+11	1.2 E+11	3.2 E+11
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1 - Excludes Tritium, Alpha, and Dissolved Noble Gases

<LLD - No detectable activity above background

ZION STATION
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1985
LIQUID EFFLUENTS
UNIT 2

D. Liquid Effluents Released - Isotopes

Isotopes Released	Units	April	May	June	Second Quarter
-------------------	-------	-------	-----	------	----------------

Na-24	C1	4.7 E-4	1.2 E-4	6.4 E-4	1.2 E-3

Cr-51	C1	1.1 E-2	1.6 E-2	6.8 E-3	3.4 E-2
Mn-54		8.5 E-5	7.3 E-4	8.7 E-4	1.7 E-3
Co-57		<LLD	<LLD	<LLD	<LLD
Co-58		5.3 E-2	3.9 E-2	3.5 E-2	1.3 E-1
Fe-59		<LLD	<LLD	<LLD	<LLD

Co-60	C1	3.2 E-2	7.6 E-2	4.8 E-2	1.6 E-1

Kr-85	C1	<LLD	<LLD	<LLD	<LLD
Kr-88		<LLD	<LLD	<LLD	<LLD
Sr-89 ¹		--	--	--	--

Sr-90 ¹	C1	--	--	--	--
Sr-92		<LLD	<LLD	<LLD	<LLD

Nb-95	C1	2.0 E-4	7.0 E-5	6.2 E-5	3.3 E-4
Zr-95		<LLD	1.2 E-3	3.8 E-4	1.6 E-3

<LLD - No detectable activity above background

1 - Waiting for analysis results - Data will be presented in an errata to the Semi-Annual Report

ZION STATION
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1985
LIQUID EFFLUENTS
UNIT 2

D. Liquid Effluents Released - Isotopes (continued)

Isotopes Released	Units	April	May	June	Second Quarter
-------------------	-------	-------	-----	------	----------------

	C1				
Ru-105		<LLD	<LLD	<LLD	<LLD
Ag-110M		3.9 E-3	4.9 E-3	3.4 E-3	1.2 E-2

Sb-122	C1	<LLD	<LLD	1.0 E-4	1.0 E-4
Sb-124		2.2 E-2	1.8 E-2	1.1 E-2	5.1 E-2
Sb-125		1.3 E-2	1.6 E-2	1.5 E-2	4.4 E-2

I-131	C1	1.1 E-2	7.6 E-3	1.8 E-3	2.0 E-2
I-133		<LLD	<LLD	<LLD	<LLD
Xe-133		4.6 E-2	2.1 E-1	4.7 E-1	7.3 E-1

Xe-133M	C1	<LLD	1.4 E-3	5.1 E-3	6.5 E-3
Cs-134		2.3 E-3	4.2 E-2	3.1 E-2	7.5 E-2
I-134		<LLD	<LLD	<LLD	<LLD
Xe-135		<LLD	4.7 E-5	3.9 E-3	3.9 E-3

Cs-136	C1	<LLD	2.4 E-4	<LLD	2.7 E-4
Cs-137		2.7 E-3	4.1 E-2	3.5 E-2	7.9 E-2
Cs-138		4.0 E-3	3.8 E-3	3.4 E-3	1.1 E-2

La-140	C1	<LLD	<LLD	<LLD	<LLD
W-187		<LLD	<LLD	<LLD	<LLD

<LLD - No detectable activity above background

Month January Year 1985

(Tech Spec 6.6A3g)

MONTH TOTAL

30847.777

Month February Year 1985

Month February Year 1985

(Tech Spec 6.6A3g)

MONTH TOTAL

5002.0744

Month April Year 1985

Month April Year 1985

(Tech Spec 6.6A3g)

[illegible]

38238.929

ZION UNIT ONE AND TWO

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES
PERIOD OF RELEASE - 1/ 1/85 TO 3/31/85 CALCULATED 08/13/85

TYPE	CURRENT PERIOD	CURRENT QUARTER	1ST PREV QUARTER	2ND PREV QUARTER	3RD PREV QUARTER	ANNUAL
		1/85- 3/85	10/84-12/84	7/84- 9/84	4/84- 6/84	
GAMMA AIR (MRAD)	5.01E-02 (N)	5.01E-02 (N)	4.83E-02 (N)	1.30E-01 (N)	2.61E-02 (N)	2.55E-01 (N)
BETA AIR (MRAD)	3.24E-01 (N)	3.24E-01 (N)	1.72E-01 (N)	4.11E-01 (N)	1.34E-01 (N)	1.04E+00 (N)
TOT. BODY (MREM)	1.25E-02 (N)	1.25E-02 (N)	2.06E-02 (N)	5.86E-02 (N)	8.75E-03 (N)	1.00E-01 (N)
SKIN (MREM)	1.50E-01 (N)	1.50E-01 (N)	1.05E-01 (N)	2.62E-01 (N)	7.35E-02 (N)	5.91E-01 (N)
ORGAN (MREM)	3.73E-03 (N)	3.73E-03 (N)	4.17E-03 (N)	1.99E-02 (N)	3.55E-03 (N)	3.13E-02 (N)
	THYROID	THYROID	THYROID	THYROID	THYROID	THYROID

LAST PERIOD OF RELEASE - 10/ 1/84 TO 12/31/84 CALCULATED 03/19/85
THIS REPORT CONTAINS RELEASES FOR THE CURRENT QUARTER ONLY

COMPLIANCE STATUS - 10 CFR 50 APP. I

	----- % OF APP I, -----						
	QTRLY OBJ	CURR QTR	1ST PREV	2ND PREV	3RD PREV	YRLY OBJ	% OF APP. I
		1/85- 3/85	10/84- 12/84	7/84- 9/84	4/84- 6/84		
GAMMA AIR (MRAD)	5.0	1.00	0.97	2.60	0.52	10.0	2.55
BETA AIR (MRAD)	10.0	3.24	1.72	4.11	1.34	20.0	5.21
TOT. BODY (MREM)	2.5	0.50	0.82	2.34	0.35	5.0	2.01
SKIN (MREM)	7.5	2.00	1.40	3.50	0.98	15.0	3.94
ORGAN (MREM)	7.5	0.05	0.06	0.27	0.05	15.0	0.21
		THYROID	THYROID	THYROID	THYROID		THYROID

RESULTS BASED UPON
ODCM REVISION 10
UPDATE DM000
MARCH 1985

ZION UNIT ONE AND TWO

MAXIMUM DOSES RESULTING FROM AIRBORNE RELEASES
PERIOD OF RELEASE - 1/ 1/85 TO 6/30/85 CALCULATED 08/13/85

TYPE	CURRENT PERIOD	CURRENT QUARTER	1ST PREV QUARTER	2ND PREV QUARTER	3RD PREV QUARTER	ANNUAL
		4/85- 6/85	1/85- 3/85	10/84-12/84	7/84- 9/84	
GAMMA AIR	4.03E-02	4.03E-02	5.01E-02	4.83E-02	1.30E-01	2.69E-01
(MRAD)	(N)	(N)	(N)	(N)	(N)	(N)
BETA AIR	2.32E-01	2.32E-01	3.24E-01	1.72E-01	4.11E-01	1.14E+00
(MRAD)	(N)	(N)	(N)	(N)	(N)	(N)
TOT. BODY	1.19E-02	1.19E-02	1.25E-02	2.06E-02	5.86E-02	1.04E-01
(MREM)	(N)	(N)	(N)	(N)	(N)	(N)
SKIN	1.11E-01	1.11E-01	1.50E-01	1.05E-01	2.62E-01	6.29E-01
(MREM)	(N)	(N)	(N)	(N)	(N)	(N)
ORGAN	3.28E-04	3.28E-04	3.73E-03	4.17E-03	1.99E-02	2.81E-02
(MREM)	(N)	(N)	(N)	(N)	(N)	(N)
THYROID	THYROID	THYROID	THYROID	THYROID	THYROID	THYROID

LAST PERIOD OF RELEASE - 1/ 1/85 TO 3/31/85 CALCULATED 08/13/85
THIS REPORT CONTAINS RELEASES FOR THE CURRENT QUARTER ONLY

COMPLIANCE STATUS - 10 CFR 50 APP. I

	----- % OF APP I. -----						
	QTRLY OBJ	CURR QTR	1ST PREV	2ND PREV	3RD PREV	YRLY OBJ	% OF APP. I
		4/85- 6/85	1/85- 3/85	10/84- 12/84	7/84- 9/84		
GAMMA AIR (MRAD)	5.0	0.81	1.00	0.97	2.60	10.0	2.69
BETA AIR (MRAD)	10.0	2.32	3.24	1.72	4.11	20.0	5.70
TOT. BODY (MREM)	2.5	0.48	0.50	0.82	2.34	5.0	2.07
SKIN (MREM)	7.5	1.49	2.00	1.40	3.50	15.0	4.19
ORGAN (MREM)	7.5	0.00	0.05	0.06	0.27	15.0	0.19
THYROID	THYROID	THYROID	THYROID	THYROID	THYROID	THYROID	THYROID

RESULTS BASED UPON
ODCM REVISION 10
UPDATE DM000
MARCH 1985

ZION UNIT ONE

MAXIMUM DOSES (MREM) RESULTING FROM LIQUID EFFLUENTS

PERIOD OF RELEASE - 1/ 1/85 TO 3/31/85 CALCULATED 08/13/85 *

DOSE TYPE	CURRENT PERIOD	CURRENT QUARTER	1ST PREV QUARTER	2ND PREV QUARTER	3RD PREV QUARTER	ANNUAL
		1/85- 3/85	10/84-12/84	7/84- 9/84	4/84- 6/84	
TOTAL BODY	7.19E-05	7.19E-05	0.00E-01	0.00E-01	0.00E-01	7.19E-05
INTERNAL ORGAN	2.26E-04	2.26E-04	0.00E-01	0.00E-01	0.00E-01	2.26E-04
	THYROID	THYROID				THYROID

* LAST PERIOD OF RELEASE - 0/ 0/ 0 TO 0/ 0/ 0 CALCULATED
THIS REPORT IS BASED ON CURRENT QUARTER RELEASES

COMPLIANCE STATUS - 10 CFR 50 APP. I

----- % OF APP I. -----						
QTRLY OBJ	CURR QTR	1ST PREV	2ND PREV	3RD PREV	YRLY OBJ	% OF APP.I
	1/85- 3/85	10/84- 12/84	7/84- 9/84	4/84- 6/84		
TOTAL BODY (MREM)	1.5	0.00	00.00	00.00	00.00 3.0	0.00
CRIT. ORGAN(MREM)	5.0	0.00	00.00	00.00	00.00 10.0	0.00
	THYROID					THYROID

RESULTS BASED UPON
ODCM REVISION 10
UPDATE DM000
MARCH 1985

ZION UNIT ONE

PROJECTED DOSE AT NEAREST COMMUNITY WATER SYSTEM *

PERIOD OF RELEASE - 1/ 1/85 TO 3/31/85 CALCULATED 08/13/85

DOSE TYPE	CURRENT PERIOD	CURRENT QUARTER	1ST PREV QUARTER	2ND PREV QUARTER	3RD PREV QUARTER	ANNUAL
		1/85- 3/85	10/84-12/84	7/84- 9/84	4/84- 6/84	
TOTAL	5.79E-03	5.79E-03	0.00E-01	0.00E-01	0.00E-01	5.79E-03
BODY						
INTERNAL	2.26E-02	2.26E-02	0.00E-01	0.00E-01	0.00E-01	2.26E-02
ORGAN						
	THYROID	THYROID				THYROID

* LAST PERIOD OF RELEASE - 0/ 0/ 0 TO 0/ 0/ 0 CALCULATED
THIS REPORT IS BASED ON CURRENT QUARTER RELEASES

COMPLIANCE STATUS - 40 CFR 141

TYPE	ANNUAL LIMIT	% OF LIMIT
TOTAL	4.0 (MREM)	0.145
BODY		
INTERNAL	4.0 (MREM)	0.564
ORGAN		
	THYROID	

* THIS CALCULATION OF DOSE IS BASED ON TECHNIQUES DESCRIBED IN THE COMMONWEALTH EDISON OFFSITE DOSE CALCULATION MANUAL. THESE TECHNIQUES DIFFER FROM THOSE DESCRIBED IN 40 CFR 141. A PROJECTED DOSE OF 2 MREM USING CECO TECHNIQUES IS APPROXIMATELY 4 MREM USING EPA METHODS.

RESULTS BASED UPON
ODCM REVISION 10
UPDATE DM000
MARCH 1985

ZION UNIT ONE

MAXIMUM DOSES (MREM) RESULTING FROM LIQUID EFFLUENTS

PERIOD OF RELEASE - 4/ 1/85 TO 6/30/85

CALCULATED 08/13/85 *

DOSE TYPE	CURRENT PERIOD	CURRENT QUARTER	1ST PREV QUARTER	2ND PREV QUARTER	3RD PREV QUARTER	ANNUAL
		4/85- 6/85	1/85- 3/85	10/84-12/84	7/84- 9/84	
TOTAL	0.00E-01	0.00E-01	7.19E-05	0.00E-01	0.00E-01	7.19E-05
BODY						
INTERNAL	0.00E-01	0.00E-01	2.26E-04	0.00E-01	0.00E-01	2.26E-04
ORGAN						

THYROID

THYROID

* LAST PERIOD OF RELEASE - 1/ 1/85 TO 3/31/85

CALCULATED 08/13/85

THIS REPORT IS BASED ON CURRENT QUARTER RELEASES

COMPLIANCE STATUS - 10 CFR 50 APP. I

	QTRLY		----- % OF APP I. -----					
	OBJ	CURR QTR	1ST PREV	2ND PREV	3RD PREV	YRLY	OBJ	% OF
		4/85- 6/85	1/85- 3/85	10/84- 12/84	7/84- 9/84			APP.I
TOTAL BODY (MREM)	1.5	00.00	0.00	00.00	00.00	3.0		0.00
CRIT. ORGAN(MREM)	5.0	00.00	0.00	00.00	00.00	10.0		0.00

THYROID

THYROID

RESULTS BASED UPON
ODCM REVISION 10
UPDATE DM000
MARCH 1985

ZION UNIT ONE

PROJECTED DOSE AT NEAREST COMMUNITY WATER SYSTEM *

PERIOD OF RELEASE - 4/ 1/85 TO 6/30/85 CALCULATED 08/13/85

DOSE TYPE	CURRENT PERIOD	CURRENT QUARTER 4/85- 6/85	1ST PREV QUARTER 1/85- 3/85	2ND PREV QUARTER 10/84-12/84	3RD PREV QUARTER 7/84- 9/84	ANNUAL
TOTAL	0.00E-01	0.00E-01	5.79E-03	0.00E-01	0.00E-01	5.79E-03
BODY						
INTERNAL	0.00E-01	0.00E-01	2.26E-02	0.00E-01	0.00E-01	2.26E-02
ORGAN						
			THYROID			THYROID

* LAST PERIOD OF RELEASE - 1/ 1/85 TO 3/31/85 CALCULATED 08/13/85
THIS REPORT IS BASED ON CURRENT QUARTER RELEASES

COMPLIANCE STATUS - 40 CFR 141

TYPE	ANNUAL LIMIT	% OF LIMIT
TOTAL	4.0 (MREM)	0.145
BODY		
INTERNAL	4.0 (MREM)	0.564
ORGAN		
	THYROID	

* THIS CALCULATION OF DOSE IS BASED ON TECHNIQUES DESCRIBED IN THE COMMONWEALTH EDISON OFFSITE DOSE CALCULATION MANUAL. THESE TECHNIQUES DIFFER FROM THOSE DESCRIBED IN 40 CFR 141. A PROJECTED DOSE OF 2 MREM USING CECO TECHNIQUES IS APPROXIMATELY 4 MREM USING EPA METHODS.

RESULTS BASED UPON
ODCM REVISION 10
UPDATE DM000
MARCH 1985

ZION UNIT TWO
 MAXIMUM DOSES (MREM) RESULTING FROM LIQUID EFFLUENTS
 PERIOD OF RELEASE - 1/ 1/85 TO 3/31/85 CALCULATED 08/13/85 *

DOSE TYPE	CURRENT PERIOD	CURRENT QUARTER	1ST PREV QUARTER	2ND PREV QUARTER	3RD PREV QUARTER	ANNUAL
		1/85- 3/85	10/84-12/84	7/84- 9/84	4/84- 6/84	
TOTAL BODY	1.17E-03	1.17E-03	0.00E-01	0.00E-01	0.00E-01	1.17E-03
INTERNAL ORGAN	1.57E-03	1.57E-03	0.00E-01	0.00E-01	0.00E-01	1.57E-03
	LIVER	LIVER				LIVER

* LAST PERIOD OF RELEASE - 0/ 0/ 0 TO 0/ 0/ 0 CALCULATED
 THIS REPORT IS BASED ON CURRENT QUARTER RELEASES

COMPLIANCE STATUS - 10 CFR 50 APP. I

----- % OF APP I. -----							
QTRLY OBJ	CURR QTR	1ST PREV	2ND PREV	3RD PREV	YRLY OBJ	% OF APP. I	
	1/85- 3/85	10/84- 12/84	7/84- 9/84	4/84- 6/84			
TOTAL BODY (MREM)	1.5	0.08	00.00	00.00	00.00	3.0	0.04
CRIT. ORGAN (MREM)	5.0	0.03	00.00	00.00	00.00	10.0	0.02
	LIVER					LIVER	

RESULTS BASED UPON
 ODCM REVISION 10
 UPDATE DM000
 MARCH 1985

ZION UNIT TWO

PROJECTED DOSE AT NEAREST COMMUNITY WATER SYSTEM *

PERIOD OF RELEASE - 1/ 1/85 TO 3/31/85 CALCULATED 08/13/85

DOSE TYPE	CURRENT PERIOD	CURRENT QUARTER	1ST PREV QUARTER	2ND PREV QUARTER	3RD PREV QUARTER	ANNUAL
		1/85- 3/85	10/84-12/84	7/84- 9/84	4/84- 6/84	
TOTAL	5.31E-03	5.31E-03	0.00E-01	0.00E-01	0.00E-01	5.31E-03
BODY						
INTERNAL	3.44E-02	3.44E-02	0.00E-01	0.00E-01	0.00E-01	3.44E-02
ORGAN						
	THYROID	THYROID				THYROID

* LAST PERIOD OF RELEASE - 0/ 0/ 0 TO 0/ 0/ 0 CALCULATED
THIS REPORT IS BASED ON CURRENT QUARTER RELEASES

COMPLIANCE STATUS - 40 CFR 141

TYPE	ANNUAL LIMIT	% OF LIMIT
TOTAL	4.0 (MREM)	0.133
BODY		
INTERNAL	4.0 (MREM)	0.861
ORGAN		
	THYROID	

* THIS CALCULATION OF DOSE IS BASED ON TECHNIQUES DESCRIBED IN THE COMMONWEALTH EDISON OFFSITE DOSE CALCULATION MANUAL. THESE TECHNIQUES DIFFER FROM THOSE DESCRIBED IN 40 CFR 141. A PROJECTED DOSE OF 2 MREM USING CECO TECHNIQUES IS APPROXIMATELY 4 MREM USING EPA METHODS.

RESULTS BASED UPON
ODCM REVISION 10
UPDATE DM000
MARCH 1985

ZION UNIT TWO

MAXIMUM DOSES (MREM) RESULTING FROM LIQUID EFFLUENTS

PERIOD OF RELEASE - 4/ 1/85 TO 6/30/85 CALCULATED 08/13/85 *

DOSE TYPE	CURRENT PERIOD	CURRENT QUARTER 4/85- 6/85	1ST PREV QUARTER 1/85- 3/85	2ND PREV QUARTER 10/84-12/84	3RD PREV QUARTER 7/84- 9/84	ANNUAL
TOTAL	1.78E-03	1.78E-03	1.17E-03	0.00E-01	0.00E-01	2.95E-03
BODY						
INTERNAL	2.38E-03	2.38E-03	1.57E-03	0.00E-01	0.00E-01	3.94E-03
ORGAN						
	LIVER	LIVER	LIVER			LIVER

* LAST PERIOD OF RELEASE - 1/ 1/85 TO 3/31/85 CALCULATED 08/13/85
THIS REPORT IS BASED ON CURRENT QUARTER RELEASES

COMPLIANCE STATUS - 10 CFR 50 APP. I

	QTRLY OBJ	CURR QTR 4/85- 6/85	1ST PREV 1/85- 3/85	2ND PREV 10/84- 12/84	3RD PREV 7/84- 9/84	YRLY OBJ	% OF APP. I
TOTAL BODY (MREM)	1.5	0.12	0.08	00.00	00.00	3.0	0.10
CRIT. ORGAN(MREM)	5.0	0.05	0.03	00.00	00.00	10.0	0.04
		LIVER	LIVER				LIVER

RESULTS BASED UPON
ODCM REVISION 10
UPDATE DM000
MARCH 1985

ZION UNIT TWO

PROJECTED DOSE AT NEAREST COMMUNITY WATER SYSTEM *

PERIOD OF RELEASE - 4/ 1/85 TO 6/30/85 CALCULATED 08/13/85

DOSE TYPE	CURRENT PERIOD	CURRENT QUARTER 4/85- 6/85	1ST PREV QUARTER 1/85- 3/85	2ND PREV QUARTER 10/84-12/84	3RD PREV QUARTER 7/84- 9/84	ANNUAL
TOTAL		7.39E-03	7.39E-03	5.31E-03	0.00E-01	0.00E-01
BODY						1.27E-02
INTERNAL		1.79E-02	1.79E-02	3.44E-02	0.00E-01	0.00E-01
ORGAN						5.24E-02
	THYROID	THYROID	THYROID			THYROID

* LAST PERIOD OF RELEASE - 1/ 1/85 TO 3/31/85 CALCULATED 08/13/85
THIS REPORT IS BASED ON CURRENT QUARTER RELEASES

COMPLIANCE STATUS - 40 CFR 141

TYPE	ANNUAL LIMIT	% OF LIMIT
TOTAL	4.0 (MREM)	0.318
BODY		
INTERNAL	4.0 (MREM)	1.309
ORGAN		
	THYROID	

* THIS CALCULATION OF DOSE IS BASED ON TECHNIQUES DESCRIBED IN THE COMMONWEALTH EDISON OFFSITE DOSE CALCULATION MANUAL. THESE TECHNIQUES DIFFER FROM THOSE DESCRIBED IN 40 CFR 141. A PROJECTED DOSE OF 2 MREM USING CECO TECHNIQUES IS APPROXIMATELY 4 MREM USING EPA METHODS.

RESULTS BASED UPON
ODCM REVISION 10
UPDATE DM000
MARCH 1985