

(1) FISSION AND ACTIVATION GASES

Tr\_tium Released (gaseous)  
 None Measurable

Argon-41 Released

	Total Release (Ci)	Avg Release Rate (uCi/cc)	Max. Instan- taneous Release (uCi/sec)	% Tech* Specs
1st QTR	5.369	$3.84 \times 10^{-6}$	190	32%
2nd QTR	11.043	$7.89 \times 10^{-6}$	106	18%
3rd QTR	17.497	$1.25 \times 10^{-7}$	171	29%
4th QTR	25.304	$1.81 \times 10^{-7}$	285	49%

\*Computation based on the Maximum Instantaneous Release Rate as evaluated against a 'IS release limit of 585 uCi/sec.

(2) IODINES RELEASED

None Measurable  
 Lower Limit of Detection  $<2.5 \times 10^{-14}$

(3) PARTICULATES

None Measurable  
 Lower Limit of Detection gross  
 beta/gamma  $6.46 \times 10^{-5}$ uCi  
 Lower Limit of Detection gross alpha  
 $6.85 \times 10^{-6}$ uCi

b. Technical Specification 6.7(6)(b) - Liquid Effluent -  
 Summation of all Reactors (R-97)

1. FISSION AND ACTIVATION PRODUCTS

Cobalt-60 is the only activation product released via the liquid pathway from the reactor facility. The Co-60 does not result from reactor operations, but is attributable to material stored in the spent fuel storage pool that is part of the State of Georgia Radioactive Materials License No. 147-1. No fission products are released via the liquid effluent pathway.

	Total Release(Ci)	Avg Release* Rate (uCi/cc)	% Tech Specs	Est.Total Error (%)
1st QTR	0.000015	$7.50 \times 10^{-11}$	< 1%	7.07%
2nd QTR	0.000066	$3.37 \times 10^{-11}$	< 1%	10.25%
3rd QTR	0.000100	$5.00 \times 10^{-11}$	< 1%	12.52%
4th QTR	0.000014	$7.00 \times 10^{-11}$	< 1%	21.01%

\*Average release rate values are based on a Georgia Tech campus water discharge rate of  $2.0 \times 10^{11}$  ml/quarter

## 2. TOTAL GROSS RADIOACTIVITY ( $\beta$ /gamma)

	Total Release (Ci)	Avg Release* Rate (uCi/cc)	% Tech Spec
1st QTR	$7.30 \times 10^{-07}$	$3.65 \times 10^{-12}$	< 2%
2nd QTR	$1.04 \times 10^{-05}$	$5.20 \times 10^{-11}$	< 2%
3rd QTR	$3.01 \times 10^{-05}$	$1.51 \times 10^{-10}$	< 2%
4th QTR	$7.55 \times 10^{-06}$	$3.78 \times 10^{-11}$	< 2%

\*Average release rate values are based on a Georgia Tech campus water discharge rate of  $2.0 \times 10^{11}$  ml/quarter.

## 3. TRITIUM

	Total Release (Ci)	Avg Release* Rate (uCi/cc)	% Tech Spec
1st QTR	0.00831	$4.16 \times 10^{-6}$	< 1%
2nd QTR	0.00515	$2.58 \times 10^{-6}$	< 1%
3rd QTR	0.00804	$4.02 \times 10^{-6}$	< 1%
4th QTR	0.01617	$8.09 \times 10^{-6}$	< 1%

\*Average release rate values are based on a Georgia Tech campus water discharge rate of  $2.0 \times 10^{11}$  ml/quarter.

## 4. GROSS ALPHA RADIOACTIVITY RELEASED

None Measurable

Lower Limit of Detection -  
 $< 8.7 \times 10^{-6}$  uCi/ml