

Table B-15. Annual dose to maximally exposed individual resulting from atmospheric releases from L-Reactor support facilities in first year<sup>a</sup> (In millirems per year)

Pathway	Total body	GI-tract	Bone	Liver	Kidney	Thyroid	Lung	Skin
ADULT								
Plume immersion	$9.99 \times 10^{-4}$	$2.66 \times 10^{-3}$	$1.20 \times 10^{-1}$					
Ground plane	$1.28 \times 10^{-4}$	$1.84 \times 10^{-4}$						
Vegetation ingestion	$2.13 \times 10^{-2}$	$2.27 \times 10^{-2}$	$9.54 \times 10^{-3}$	$2.10 \times 10^{-2}$	$2.12 \times 10^{-2}$	$4.44 \times 10^{-1}$	$2.06 \times 10^{-2}$	$2.06 \times 10^{-2}$
Meat ingestion	$3.24 \times 10^{-3}$	$1.03 \times 10^{-2}$	$1.33 \times 10^{-3}$	$3.22 \times 10^{-3}$	$3.43 \times 10^{-3}$	$1.73 \times 10^{-2}$	$3.21 \times 10^{-3}$	$3.21 \times 10^{-3}$
Milk ingestion	$7.34 \times 10^{-3}$	$7.26 \times 10^{-3}$	$1.45 \times 10^{-3}$	$7.29 \times 10^{-3}$	$7.31 \times 10^{-3}$	$7.81 \times 10^{-2}$	$7.24 \times 10^{-3}$	$7.24 \times 10^{-3}$
Inhalation	$1.74 \times 10^{-2}$	$1.68 \times 10^{-2}$	$2.02 \times 10^{-2}$	$2.08 \times 10^{-2}$	$1.97 \times 10^{-2}$	$1.82 \times 10^{-2}$	$1.86 \times 10^{-2}$	$1.68 \times 10^{-2}$
Total	$5.04 \times 10^{-2}$	$5.82 \times 10^{-2}$	$3.37 \times 10^{-2}$	$5.34 \times 10^{-2}$	$5.28 \times 10^{-2}$	$5.58 \times 10^{-1}$	$5.24 \times 10^{-2}$	$1.68 \times 10^{-1}$
TEENAGER								
Plume immersion	$9.99 \times 10^{-4}$	$2.66 \times 10^{-3}$	$1.20 \times 10^{-1}$					
Ground plane	$1.28 \times 10^{-4}$	$1.84 \times 10^{-4}$						
Vegetation ingestion	$2.49 \times 10^{-2}$	$2.68 \times 10^{-2}$	$1.39 \times 10^{-2}$	$2.48 \times 10^{-2}$	$2.51 \times 10^{-2}$	$3.46 \times 10^{-1}$	$2.42 \times 10^{-2}$	$2.42 \times 10^{-2}$
Meat ingestion	$1.99 \times 10^{-3}$	$6.37 \times 10^{-3}$	$1.12 \times 10^{-3}$	$1.98 \times 10^{-3}$	$2.16 \times 10^{-3}$	$7.48 \times 10^{-3}$	$1.97 \times 10^{-3}$	$1.97 \times 10^{-3}$
Milk ingestion	$9.67 \times 10^{-3}$	$9.59 \times 10^{-3}$	$2.64 \times 10^{-3}$	$9.65 \times 10^{-3}$	$9.68 \times 10^{-3}$	$7.03 \times 10^{-2}$	$9.57 \times 10^{-3}$	$9.57 \times 10^{-3}$
Inhalation	$1.75 \times 10^{-2}$	$1.69 \times 10^{-2}$	$2.13 \times 10^{-2}$	$2.12 \times 10^{-2}$	$2.00 \times 10^{-2}$	$1.78 \times 10^{-2}$	$2.00 \times 10^{-2}$	$1.69 \times 10^{-2}$
Total	$5.52 \times 10^{-2}$	$6.08 \times 10^{-2}$	$4.01 \times 10^{-2}$	$5.87 \times 10^{-2}$	$5.81 \times 10^{-2}$	$4.42 \times 10^{-1}$	$5.86 \times 10^{-2}$	$1.73 \times 10^{-1}$
CHILD								
Plume immersion	$9.99 \times 10^{-4}$	$2.66 \times 10^{-3}$	$1.20 \times 10^{-1}$					
Ground plane	$1.28 \times 10^{-4}$	$1.84 \times 10^{-4}$						
Vegetation ingestion	$3.94 \times 10^{-2}$	$4.06 \times 10^{-2}$	$3.03 \times 10^{-2}$	$3.95 \times 10^{-2}$	$4.00 \times 10^{-2}$	$3.45 \times 10^{-1}$	$3.86 \times 10^{-2}$	$3.86 \times 10^{-2}$
Meat ingestion	$2.55 \times 10^{-3}$	$5.20 \times 10^{-3}$	$2.10 \times 10^{-3}$	$2.53 \times 10^{-3}$	$2.76 \times 10^{-3}$	$6.61 \times 10^{-3}$	$2.52 \times 10^{-3}$	$2.52 \times 10^{-3}$
Milk ingestion	$1.56 \times 10^{-2}$	$1.56 \times 10^{-2}$	$6.43 \times 10^{-3}$	$1.57 \times 10^{-2}$	$1.57 \times 10^{-2}$	$7.51 \times 10^{-2}$	$1.55 \times 10^{-2}$	$1.55 \times 10^{-2}$
Inhalation	$1.54 \times 10^{-2}$	$1.49 \times 10^{-2}$	$1.68 \times 10^{-2}$	$1.81 \times 10^{-2}$	$1.70 \times 10^{-2}$	$1.55 \times 10^{-2}$	$1.78 \times 10^{-2}$	$1.49 \times 10^{-2}$
Total	$7.42 \times 10^{-2}$	$7.74 \times 10^{-2}$	$5.68 \times 10^{-2}$	$7.69 \times 10^{-2}$	$7.66 \times 10^{-2}$	$4.43 \times 10^{-1}$	$7.72 \times 10^{-2}$	$1.92 \times 10^{-1}$

Table B-15. Annual dose to maximally exposed individual resulting from atmospheric releases from L-Reactor support facilities in first year<sup>a</sup> (In millirems per year) (continued)

| TC

Pathway	Total body	GI-tract	Bone	Liver	Kidney	Thyroid	Lung	Skin
INFANT								
Plume immersion	$9.99 \times 10^{-4}$	$2.66 \times 10^{-3}$	$1.20 \times 10^{-1}$					
Ground plane	$1.28 \times 10^{-4}$	$1.84 \times 10^{-4}$						
Vegetation ingestion	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Meat ingestion	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Milk ingestion	$2.44 \times 10^{-2}$	$2.43 \times 10^{-2}$	$1.23 \times 10^{-2}$	$2.46 \times 10^{-2}$	$2.46 \times 10^{-2}$	$1.69 \times 10^{-1}$	$2.43 \times 10^{-2}$	$2.42 \times 10^{-2}$
Inhalation	$8.79 \times 10^{-3}$	$8.58 \times 10^{-3}$	$6.72 \times 10^{-3}$	$9.84 \times 10^{-3}$	$9.42 \times 10^{-3}$	$9.12 \times 10^{-3}$	$1.04 \times 10^{-2}$	$8.58 \times 10^{-3}$
Total	$3.43 \times 10^{-2}$	$3.40 \times 10^{-2}$	$2.01 \times 10^{-2}$	$3.55 \times 10^{-2}$	$3.51 \times 10^{-2}$	$1.80 \times 10^{-1}$	$3.74 \times 10^{-2}$	$1.53 \times 10^{-1}$

<sup>a</sup>In the support facilities, only the doses resulting from L-Reactor operation are included.

| TC

Table B-16. Annual dose to maximally exposed individual resulting from atmospheric releases from L-Reactor support facilities in tenth year<sup>a</sup> (In millirems per year)

| TC

Pathway	Total body	GI-tract	Bone	Liver	Kidney	Thyroid	Lung	Skin
ADULT								
Plume immersion	$7.11 \times 10^{-4}$	$1.89 \times 10^{-3}$	$8.54 \times 10^{-2}$					
Ground plane	$1.52 \times 10^{-4}$	$2.19 \times 10^{-4}$						
Vegetation ingestion	$6.21 \times 10^{-3}$	$7.90 \times 10^{-3}$	$9.86 \times 10^{-3}$	$5.83 \times 10^{-3}$	$6.11 \times 10^{-3}$	$5.07 \times 10^{-1}$	$5.35 \times 10^{-3}$	$5.34 \times 10^{-3}$
Meat ingestion	$9.39 \times 10^{-4}$	$9.28 \times 10^{-3}$	$1.02 \times 10^{-3}$	$9.08 \times 10^{-4}$	$1.16 \times 10^{-3}$	$1.76 \times 10^{-2}$	$8.99 \times 10^{-4}$	$8.99 \times 10^{-4}$
Milk ingestion	$2.02 \times 10^{-3}$	$1.92 \times 10^{-3}$	$1.11 \times 10^{-3}$	$1.95 \times 10^{-3}$	$1.98 \times 10^{-3}$	$8.60 \times 10^{-2}$	$1.90 \times 10^{-3}$	$1.90 \times 10^{-3}$
Inhalation	$4.54 \times 10^{-3}$	$4.13 \times 10^{-3}$	$1.36 \times 10^{-2}$	$6.82 \times 10^{-3}$	$6.11 \times 10^{-3}$	$5.09 \times 10^{-3}$	$5.36 \times 10^{-3}$	$4.12 \times 10^{-3}$
Total	$1.46 \times 10^{-2}$	$2.41 \times 10^{-2}$	$2.64 \times 10^{-2}$	$1.64 \times 10^{-2}$	$1.62 \times 10^{-2}$	$6.17 \times 10^{-1}$	$1.55 \times 10^{-2}$	$9.79 \times 10^{-2}$
TEENAGER								
Plume immersion	$7.11 \times 10^{-4}$	$1.89 \times 10^{-4}$	$8.54 \times 10^{-2}$					
Ground plane	$1.52 \times 10^{-4}$	$2.19 \times 10^{-4}$						
Vegetation ingestion	$7.24 \times 10^{-3}$	$9.51 \times 10^{-3}$	$1.41 \times 10^{-2}$	$7.12 \times 10^{-3}$	$7.48 \times 10^{-3}$	$3.88 \times 10^{-1}$	$6.43 \times 10^{-3}$	$6.42 \times 10^{-3}$
Meat ingestion	$6.02 \times 10^{-4}$	$5.80 \times 10^{-3}$	$8.56 \times 10^{-4}$	$5.86 \times 10^{-4}$	$7.95 \times 10^{-4}$	$7.12 \times 10^{-3}$	$5.78 \times 10^{-4}$	$5.78 \times 10^{-4}$
Milk ingestion	$2.69 \times 10^{-3}$	$2.60 \times 10^{-3}$	$2.01 \times 10^{-3}$	$2.67 \times 10^{-3}$	$2.70 \times 10^{-3}$	$7.47 \times 10^{-2}$	$2.58 \times 10^{-3}$	$2.57 \times 10^{-3}$
Inhalation	$4.59 \times 10^{-3}$	$4.16 \times 10^{-3}$	$1.43 \times 10^{-2}$	$7.03 \times 10^{-3}$	$6.25 \times 10^{-3}$	$4.82 \times 10^{-3}$	$6.27 \times 10^{-3}$	$4.15 \times 10^{-3}$
Total	$1.60 \times 10^{-2}$	$2.29 \times 10^{-2}$	$3.21 \times 10^{-2}$	$1.83 \times 10^{-2}$	$1.81 \times 10^{-2}$	$4.75 \times 10^{-1}$	$1.79 \times 10^{-2}$	$9.93 \times 10^{-2}$
CHILD								
Plume immersion	$7.11 \times 10^{-4}$	$1.89 \times 10^{-4}$	$8.54 \times 10^{-2}$					
Ground plane	$1.52 \times 10^{-4}$	$2.19 \times 10^{-4}$						
Vegetation ingestion	$1.17 \times 10^{-2}$	$1.30 \times 10^{-2}$	$3.01 \times 10^{-2}$	$1.17 \times 10^{-2}$	$1.23 \times 10^{-2}$	$3.74 \times 10^{-1}$	$1.06 \times 10^{-2}$	$1.06 \times 10^{-2}$
Meat ingestion	$8.27 \times 10^{-4}$	$3.97 \times 10^{-3}$	$1.60 \times 10^{-3}$	$8.04 \times 10^{-4}$	$1.08 \times 10^{-3}$	$5.65 \times 10^{-3}$	$7.94 \times 10^{-4}$	$7.93 \times 10^{-4}$
Milk ingestion	$4.84 \times 10^{-3}$	$4.38 \times 10^{-3}$	$4.85 \times 10^{-3}$	$4.53 \times 10^{-3}$	$4.57 \times 10^{-3}$	$7.51 \times 10^{-2}$	$4.37 \times 10^{-3}$	$4.36 \times 10^{-3}$
Inhalation	$4.02 \times 10^{-3}$	$3.67 \times 10^{-3}$	$1.13 \times 10^{-2}$	$5.78 \times 10^{-3}$	$5.08 \times 10^{-3}$	$4.07 \times 10^{-3}$	$5.57 \times 10^{-3}$	$3.67 \times 10^{-3}$
Total	$2.19 \times 10^{-2}$	$2.59 \times 10^{-2}$	$4.87 \times 10^{-2}$	$2.37 \times 10^{-2}$	$2.39 \times 10^{-2}$	$4.60 \times 10^{-1}$	$2.34 \times 10^{-2}$	$1.05 \times 10^{-1}$

Table B-16. Annual dose to maximally exposed individual resulting from atmospheric releases from L-Reactor support facilities in tenth year<sup>a</sup> (In millirems per year) (continued)

| TC

Pathway	Total body	GI-tract	Bone	Liver	Kidney	Thyroid	Lung	Skin
INFANT								
Plume immersion	$7.11 \times 10^{-4}$	$1.89 \times 10^{-3}$	$8.54 \times 10^{-2}$					
Ground plane	$1.52 \times 10^{-4}$	$2.19 \times 10^{-4}$						
Vegetation ingestion	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Meat ingestion	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Milk ingestion	$7.31 \times 10^{-3}$	$7.12 \times 10^{-3}$	$9.12 \times 10^{-3}$	$7.49 \times 10^{-3}$	$7.46 \times 10^{-3}$	$1.79 \times 10^{-1}$	$7.11 \times 10^{-3}$	$7.10 \times 10^{-3}$
Inhalation	$2.25 \times 10^{-3}$	$2.11 \times 10^{-3}$	$4.50 \times 10^{-3}$	$2.95 \times 10^{-3}$	$2.67 \times 10^{-3}$	$2.48 \times 10^{-3}$	$3.30 \times 10^{-3}$	$2.11 \times 10^{-3}$
Total	$1.04 \times 10^{-2}$	$1.01 \times 10^{-2}$	$1.45 \times 10^{-2}$	$1.13 \times 10^{-2}$	$1.10 \times 10^{-2}$	$1.83 \times 10^{-1}$	$1.25 \times 10^{-2}$	$9.48 \times 10^{-2}$

<sup>a</sup>In the support facilities, only the doses resulting from L-Reactor operation are included.

| TC

Table B-17. Eighty-kilometer population dose resulting from atmospheric releases from operation of L-Reactor support facilities in first or tenth year<sup>a</sup> (In person-rems per year)

| TC

Pathway	Total body	GI-tract	Bone	Liver	Kidney	Thyroid	Lung	Skin
Plume immersion	$1.48 \times 10^{-1}$	$4.89 \times 10^{-1}$	$2.46 \times 10^1$					
Ground plane	$1.85 \times 10^{-1}$	$2.91 \times 10^{-1}$						
Vegetation ingestion	$8.90 \times 10^{-1}$	$9.91 \times 10^{-1}$	1.49	$8.40 \times 10^{-1}$	$8.98 \times 10^{-1}$	$8.18 \times 10^1$	$7.58 \times 10^{-1}$	$7.56 \times 10^{-1}$
Meat ingestion	$1.59 \times 10^{-1}$	1.00	$2.03 \times 10^{-1}$	$1.54 \times 10^{-1}$	$1.86 \times 10^{-1}$	3.64	$1.51 \times 10^{-1}$	$1.51 \times 10^{-1}$
Milk ingestion	$2.11 \times 10^{-1}$	$2.00 \times 10^{-1}$	$1.73 \times 10^{-1}$	$2.08 \times 10^{-1}$	$2.11 \times 10^{-1}$	8.40	$2.00 \times 10^{-1}$	$1.99 \times 10^{-1}$
Inhalation	1.21	1.10	3.74	1.84	1.64	1.31	1.51	1.10
Total	2.80	3.63	5.94	3.38	3.26	$9.55 \times 10^1$	3.30	$2.71 \times 10^1$

<sup>a</sup>In the support facilities, only the doses resulting from L-Reactor operation are included.

| TC