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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

JUL 10 1979

Ms. Bebe Verdery
c/o Palmetto Alliance
2135 1/2 Devine Street
Columbia, South Carolina 29205

Dear Ms. Verdery:

In response to your telephone request, enclosed is a table summarizing information on shipments either originating from or destined to South Carolina. The information was extracted from data collected by Battelle Pacific Northwest Laboratories (BNWL) for NRC in 1975 (Reference Report #BNWL-1972, "Survey of Radioactive Material Shipments in the United States" available through the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22151.)

The table gives, for each radionuclide and each transportation mode, the number of packages, transport index, activity or quantity shipped in 1975, and the maximum activity or quantity in a single package. To avoid an unwieldy list, radionuclides with less than 1000 packages and 1000 curies (or grams) in the year were combined into "other".

Please contact me (301/443-5946) if you have any questions.

Sincerely,

Donald R. Hopkins
for Anthony N. Tse
Transportation and Product Standards Branch
Office of Standards Development

Enclosure:
As Stated

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Information on Radioactive Material Shipments Originated from or Received in the State of South Carolina (Based on 1975 Battelle Survey Data)

MAJOR TRANSPORTATION MODE	RADIO-NUCLIDE	PACKAGES/ YEAR	TI/YEAR	ACTIVITY/ YEAR G OR CI	MAXIMUM ACTIVITY/ PACKAGE
AUTOMOBILE	OTHER	3.0000E+00	3.0000E+00	3.0020E+00 CI	1.5000E+00
AUTOMOBILE	OTHER	4.0000E+00	0.	6.4000E-05 S	1.6000E-05
AUTOMOBILE	TOTALS	7.0000E+00	3.0000E+00		
AIR, FRT.	IR192	8.2186E+01	1.4242E+02	8.1869E+03 CI	1.1500E+02
AIR, FRT.	U 238	1.0000E+00	1.0000E+00	1.5000E+04 G	1.5000E+04
AIR, FRT.	OTHER	6.1119E+02	7.6413E+02	4.9545E+02 CI	1.0500E+01
AIR, FRT.	OTHER	2.0000E+00	1.1000E+00	1.0220E+02 S	7.1400E+01
AIR, FRT.	TOTALS	6.9637E+02	9.0665E+02		
AIR, GOVT.	OTHER	4.0000E+00	0.0000E+00	1.3400E+00 CI	6.3000E-01
AIR, GOVT.	OTHER	0.	0.	0.	0.
AIR, GOVT.	TOTALS	4.0000E+00	8.6000E+00		
AIR, PASS.	I 131	1.6120E+03	1.0920E+03	1.8800E+01 CI	2.2109E-01
AIR, PASS.	OTHER	1.0689E+03	2.7903E+02	1.4834E+03 CI	4.5500E-02
AIR, PASS.	OTHER	5.0000E+00	1.1000E-01	2.1300E+02 S	9.0000E+01
AIR, PASS.	TOTALS	2.6859E+03	1.3711E+03		
MAIL	OTHER	3.1093E+01	1.2093E+00	3.1002E-02 CI	3.0000E-03
MAIL	OTHER	1.6000E+01	0.	1.2838E+02 G	5.1000E+01
MAIL	TOTALS	4.7093E+01	1.2093E+00		
RAIL	U 235M	1.0000E+00	5.0000E-01	2.5116E+04 G	2.5116E+04
RAIL	U 235W	3.0000E+00	1.0000E+01	5.9467E+04 G	3.4276E+04
RAIL	OTHER	0.	0.	0.	0.
RAIL	OTHER	0.	0.	0.	0.
RAIL	TOTALS	4.0000E+00	1.0500E+01		

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South Carolina cont'd.

TK, CONTRI	MF	U 235G	1.1557E+04	1.0128E+04	3.7538E+03	CI	7.7600E+01
TK, CONTRI		U 235H	2.3000E+01	1.1150E+02	6.5740E+05	G	3.1528E+04
TK, CONTRI		U 235I	1.7000E+01	6.9500E+01	4.0431E+05	G	3.2780E+04
TK, CONTRI		U 235P	2.1000E+01	1.0150E+02	7.4644E+05	G	4.6882E+04
TK, CONTRI		U 235T	3.0000E+00	1.5000E+01	1.7835E+05	G	5.9450E+04
TK, CONTRI		U 235U	9.0000E+00	1.5500E+01	2.6600E+04	G	3.2000E+03
TK, CONTRI		W	1.0000E+00	0.	2.8800E+03	G	2.8800E+03
TK, CONTRI		XX004*	8.1786E+03	1.9822E+05	1.4427E+03	CI	1.3000E+02
TK, CONTRI		OTHER	3.3860E+02	2.7814E+03	3.9963E+03	CI	3.0170E+02
TK, CONTRI		OTHER	1.0000E+01	2.5000E+01	2.1401E+00	CI	5.0000E+01
TK, CONTRI		OTHER	3.0000E+00	0.	2.5230E+01	G	2.4000E+01
TK, CONTRI		TOTALS	2.0161E+04	2.1147E+05			

*(Co-60/Cs-134/Mn-54)

TK, COMM.		IR192	3.6000E+01	5.6000E+01	2.4840E+03	CI	1.1000E+02
TK, COMM.		MF	1.1273E+03	1.0000E+00	3.6404E+01	CI	7.0800E+01
TK, COMM.		PU238	2.2000E+02	6.0000E+00	2.4412E+07	G	6.8750E+05
TK, COMM.		PU239	1.2000E+01	3.1000E+00	9.4990E+03	G	1.7320E+03
TK, COMM.		SF	2.0000E+00	1.0000E+02	7.4000E+03	G	3.7640E+03
TK, COMM.		TH232	8.0000E+00	4.0000E+01	2.7039E+05	G	4.5065E+04
TK, COMM.		U 235A	1.0000E+00	5.0000E+02	1.7000E+04	G	1.7000E+04
TK, COMM.		U 235B	1.5000E+01	7.5000E+01	6.0000E+04	G	4.0000E+03
TK, COMM.		U 235G	9.5800E+02	4.7850E+01	3.2936E+05	G	5.4200E+02
TK, COMM.		U 235H	1.2280E+03	5.3150E+01	9.1500E+06	G	5.3542E+04
TK, COMM.		U 235Z	1.2000E+01	1.1100E+01	3.8800E+05	G	5.0000E+04
TK, COMM.		U 23W	4.2300E+02	1.3691E+03	1.5815E+07	G	2.7000E+05
TK, COMM.		W	6.4080E+03	6.0185E+03	3.3963E+03	CI	4.4960E+02
TK, COMM.		OTHER	1.6927E+03	2.1260E+02	1.2245E+03	CI	4.6000E+01
TK, COMM.		OTHER	2.0000E+01	1.1300E+01	1.3151E+03	G	7.5300E+02
TK, COMM.		TOTALS	1.2163E+04	7.8909E+03			

TK, PRVT		U 235E	5.0000E+00	2.5000E+01	1.1528E+05	G	2.3056E+04
TK, PRVT		U 235G	2.4415E+03	2.1174E+02	7.8352E+05	G	3.6901E+04
TK, PRVT		U 235H	1.0000E+01	5.0000E+01	3.3890E+05	G	3.5607E+04
TK, PRVT		U 235I	1.3000E+01	6.5000E+01	5.5757E+05	G	4.6576E+04
TK, PRVT		U 235J	1.0000E+01	5.0000E+01	5.8698E+05	G	5.9336E+04
TK, PRVT		OTHER	9.9400E+02	8.4420E+02	3.1273E+02	CI	2.0000E+00
TK, PRVT		OTHER	0.	0.	0.	G	0.
TOTAL			3.9242E+04	2.2291E+05			
TOTALS			3.4736E+03	1.2459E+03			

4.2 COMPUTER REPORTS

There are several conventions used for identifying various package contents commonly encountered in the survey. Most of these terms used in the computer reports are defined in the instructions for the questionnaire (Appendix C). Some of these terms are defined more explicitly in the "Explanation for Reports X.H, XIII.H and XIV.H" included in the pocket in the back cover and in Appendix A, Page A-8 (Column 7a). Other symbols are discussed below.

Throughout the computer reports, the ^{235}U enrichments of uranium mixtures are indicated by alphabetic characters A through Z following the isotope designation as is listed in Table 4.4. These enrichment values were a compromise between a need to cover the range of possible enrichments and an attempt to select values that were close to the most common enrichment. The enrichments were encountered that were between the values listed in Table 4.4, the letter corresponding to the closest value to the reported enrichment is used. For example, 16% ^{235}U would be entered as "U235M". If the reported value is exactly half-way between two from Table 4.4, the next higher enrichment is used. For example, 15% ^{235}U would be entered as U235M also. The amount listed for such uranium mixtures is the mass of ^{235}U in the mixture. For example, 100 g of "U235P" indicates a mixture of 40 mass % ^{235}U (100 g) and 60 mass % ^{238}U (150 g) with a total uranium mass of 250 g. When the package contents or an inventory is listed in curies, it is curies of ^{235}U .

TABLE 4.4. Alpha Symbols Representing ^{235}U Enrichments

Symbol	Indicated Mass % ^{235}U	Symbol	Indicated Mass % ^{235}U
A (depleted)	0.25	N	30
B (depleted)	0.50	O	35
C (natural)	0.72	P	40
D	1.0	Q	50
E	1.5	R	65
F	1.8	-	75
G	2.0	T	80
H	2.5	U	90
I	3.0	V	92
J	5.0	W	94
K	8.0	X	96
L	10	Y	98
M	20	Z	Unknown
		Blank	100

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