

Table IV

Sum of transport indexes of the packages	Minimum distance in feet from living accommodation or regularly occupied working space		Minimum distance in feet from undeveloped film and plates																							
			1 day voyage		2 day voyage		4 day voyage		10 day voyage		20 day voyage		30 day voyage		40 day voyage		50 day voyage									
	Cargo thickness in feet (unit density)																									
	Nil	3	Nil	3	6	Nil	3	6	Nil	3	6	Nil	3	6	Nil	3	6	Nil	3	6	Nil	3	6	Nil	3	6
0.1 to 0.5	5	X	6	X	X	8	X	X	11	X	X	17	4	X	25	6	X	30	7	X	35	8	X	39	9	X
0.6 to 1	6	X	8	X	X	11	X	X	16	4	X	25	6	X	35	8	X	42	10	X	50	12	X	55	13	X
1.1 to 2	9	X	11	X	X	16	4	X	22	5	X	35	8	X	50	12	X	61	14	X	70	17	X	78	19	X
2.1 to 3	10	X	14	X	X	19	5	X	27	6	X	42	10	X	61	14	X	74	18	X	86	20	X	96	23	X
3.1 to 5	13	X	17	4	X	25	6	X	35	8	X	55	13	X	78	19	X	96	23	X	110	26	X	124	29	7
5.1 to 10	19	4	25	6	X	35	8	X	50	12	X	78	19	X	110	26	X	135	33	8	155	37	9	175	42	10
10.1 to 20	26	6	35	8	X	50	12	X	69	17	X	110	26	X	155	37	9	190	46	11	220	53	13	250	59	14
20.1 to 30	32	8	43	10	X	61	14	X	85	20	X	135	32	8	190	45	11	235	56	13	270	65	16	305	72	17
30.1 to 50	42	10	55	13	X	78	19	X	110	26	X	175	42	10	245	58	14	300	73	17	350	84	20	390	94	22
50.1 to 100	59	14	78	19	X	110	26	X	155	37	9	245	59	14	350	82	20	430	105	24	515	118	28	550	130	32
100.1 to 150	72	17	96	23	X	135	32	8	190	46	11	300	72	17	425	100	24	525	125	30	600	145	35	(7)	165	39
150.1 to 200	84	20	110	26	X	155	37	9	200	53	13	350	84	20	490	115	28	600	140	35	(7)	165	40	(7)	190	45
200.1 to 300	105	24	135	32	X	190	46	11	270	64	15	425	105	25	600	145	35	(7)	180	42	(7)	205	49	(7)	230	55
300.1 to 400	120	28	160	37	9	220	53	13	310	75	18	500	120	28	(7)	165	40	(7)	205	49	(7)	235	57	(7)	265	63

NOTE:

- (1) X — indicates that thickness of screening cargo is sufficient without any additional segregation distance.
- (2) By using 6 feet of intervening unit density cargo for persons and 10 feet for film and plates, no distance shielding is necessary for any length of voyage specified.
- (3) Using 1 steel bulkhead or steel deck — multiply segregation distance by 0.8. Using 2 steel bulkheads or steel decks — multiply segregation distance by 0.64.
- (4) "Cargo of Unit Density" means cargo stowed at a density of 1 ton (long) per 36 cubic feet; where the density is less than this the depth of cargo specified must be increased in proportion.
- (5) "Minimum distance" means the least in any direction whether vertical or horizontal from the outer surface of the nearest package.
- (6) The total consignment on board at any time must not exceed transport indexes totalling 200 except if carried under the provisions of §176.704(f). The figures below the double line of the table should be used in such a contingency.
- (7) Not to be carried unless screening by other cargo and bulkheads can be arranged in accordance with the other columns.

**§176.710 Care following leakage or sifting of radioactive materials.**

- (a) **In case of fire, collision, or breakage** involving any shipment of radioactive materials, other than materials of low specific activity, the radioactive materials must be segregated from unnecessary contact with personnel. In case of obvious leakage, or if the inside container appears to be damaged, the stowage area (hold, compartment, or deck area) containing this cargo must be isolated as much as possible to prevent radioactive material from entering any person's body through contact, inhalation, or ingestion. No person may handle the material or remain in the vicinity unless supervised by a qualified person.
- (b) **A hold or compartment in which leakage** of radioactive materials has occurred may not be used for other cargo until it is decontaminated in accordance with the requirements of §176.715.
- (c) **For reporting requirements, see §171.15 of this subchapter.**

**§176.715 Contamination control.**

Each hold, compartment, or deck area used for the transportation of low specific activity or surface contaminated object Class 7 (radioactive) materials under exclusive use conditions must be surveyed with appropriate radiation detection instruments after each use. Such holds, compartments, and deck areas may not be used again until the radiation dose rate at every accessible surface is less than 5 micro-Sieverts per hour (0.5 mrem per hour), and the removable (non-fixed) radioactive surface contamination is not greater than the limits prescribed in §173.443 of this subchapter.

**§176.720 Requirements for carriage of INF cargo in international transportation.**

A vessel carrying INF cargo (see §176.2, under INF cargo definition) in international transportation must meet the requirements of the INF Code (contained in IMDG Code, 2000 edition, see §171.7 of this subchapter) in addition to all other applicable requirements of this subchapter.

**Subpart N - Detailed Requirements for Class 8 (Corrosive Materials) Materials**

**§176.800 General stowage requirements.**

- (a) **Each package required to have a Class 8 (corrosive) label** thereon being transported on a vessel must be stowed clear of living quarters, and away from foodstuffs and cargo of an organic nature.
- (b) **A package of Class 8 (corrosive material) material** may not be stowed over any readily combustible material.
- (c) **Glass carboys containing Class 8 (corrosive material) material** may not be stowed on board any vessel, other than a barge, more than two tiers high unless each carboy is boxed or crated with neck protection extending to the sides of the carboy box. This protective construction must be strong enough to permit stacking one on top of the other.
- (d) **A Class 8 (corrosive material) material** may not be stowed over a hold or compartment containing cotton unless the deck is of steel and the hatch is fitted with a tight coaming. In addition, the deck must be tight against leakage and the Class 8 (corrosive material) material may not be stowed over the square of the hatch.
- (e) **Each package of Class 8 (corrosive material)** which also bears a FLAMMABLE LIQUID label must be stowed away from all sources of heat and ignition.

**§176.805 On deck stowage.**

When break bulk Class 8 (corrosive materials) materials being transported on a vessel are stowed on deck:

- (a) **Provisions must be made for leakage** from any package to drain away from other cargo into an overboard scupper or freeing port. The drainage may not enter an enclosed drainage system other than a direct overboard scupper. If this stowage is not practical, sufficient clean dry sand must be placed under and around the lower tier of packages to absorb any leakage.
- (b) **Dunnage must be provided on the deck** and arranged so that any leakage will be apparent.
- (c) **Any leakage that occurs must be washed down**, using liberal quantities of water.