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(4) Measures to be taken in the event of an escalating threat level for materials stored in transit.

(5) Procedures for notifying the consignee in the event of a significant delay during transportation; such notification must be completed within 48 hours after the carrier has identified the delay and must include a revised delivery schedule. A significant delay is one that compromises the safety or security of the hazardous material or delays the shipment beyond its normal expected or planned shipping time. Notification should be made by a method acceptable to both the rail carrier and consignee.

(i) *Recordkeeping.* (1) Each rail carrier must maintain a copy of the information specified in paragraphs (b), (c), (d), (e), and (f) of this section (or an electronic image thereof) that is accessible at, or through, its principal place of business and must make the record available upon request, at a reasonable time and location, to an authorized official of the Department of Transportation or the Department of Homeland Security. Records must be retained for a minimum of two years.

(2) Each rail carrier must restrict the distribution, disclosure, and availability of information collected or developed in accordance with paragraphs (c), (d), (e), and (f) of this section to covered persons with a need-to-know, as described in parts 15 and 1520 of this title.

(j) *Compliance and enforcement.* If the carrier's route selection documentation and underlying analyses are found to be deficient, the carrier may be required to revise the analyses or make changes in route selection. If DOT finds that a chosen route is not the safest and most secure practicable route available, the FRA Associate Administrator for Safety, in consultation with TSA, may require the use of an alternative route. Prior to making such a determination, FRA and TSA will consult with the Surface Transportation Board (STB) regarding whether the contemplated alternative route(s) would be economically practicable.

[73 FR 20771, April 16, 2008, as amended at 73 FR 72193, Dec. 26, 2008; 76 FR 56314, Sept. 13, 2011]

§ 172.822 Limitation on actions by states, local governments, and Indian tribes.

A law, order, or other directive of a state, political subdivision of a state, or an Indian tribe that designates, limits, or prohibits the use of a rail line (other than a rail line owned by a state, political subdivision of a state, or an Indian tribe) for the transportation of hazardous materials, including, but not limited to, the materials specified in §172.820(a), is preempted. 49 U.S.C. 5125, 20106.

[73 FR 20772, April 16, 2008]

APPENDIX A TO PART 172—OFFICE OF HAZARDOUS MATERIALS TRANSPORTATION COLOR TOLERANCE CHARTS AND TABLES

The following are Munsell notations and Commission Internationale de L'Eclairage (CIE) coordinates which describe the Office of Hazardous Materials Transportation Label and Placard Color Tolerance Charts in tables 1 and 2, and the CIE coordinates for the color tolerances specified in table 3. Central colors and tolerances described in table 2 approximate those described in table 1 while allowing for differences in production methods and materials used to manufacture labels and placards surfaced with printing inks. Primarily, the color charts based on table 1 are for label or placard colors applied as opaque coatings such as paint, enamel or plastic, whereas color charts based on table 2 are intended for use with labels and placards surfaced only with inks.

For labels printed directly on packaging surfaces, table 3 may be used, although compliance with either table 1 or table 2 is sufficient. However, if visual reference indicates that the colors of labels printed directly on package surfaces are outside the table 1 or 2 tolerances, a spectrophotometer or other instrumentation may be required to insure compliance with table 3.

TABLE 1—SPECIFICATIONS FOR COLOR TOLERANCE CHARTS FOR USE WITH LABELS AND PLACARDS SURFACED WITH PAINT, LACQUER, ENAMEL, PLASTIC, OTHER OPAQUE COATINGS, OR INK [1]

Color	Munsell notations	CIE data for source C		
		Y	x	y
Red:				
Central color	7.5R 4.0/14	12.00	.5959	.3269
Orange	8.5R 4.0/14	12.00	.6037	.3389
Purple and vivid	6.5R 4.0/14	12.00	.5869	.3184
Grayish	7.5R 4.0/12	12.00	.5603	.3321
Vivid	7.5R 4.0/16	12.00	.6260	.3192
Light	7.5R 4.5/14	15.57	.5775	.3320
Dark	7. 5R 3.5/14	09.00	.6226	.3141
Orange:				
Central color	5.OYR 6.0/15	30.05	.5510	.4214
Yellow and Grayish	6.25YR 6.0/15	30.05	.5452	.4329
Red and vivid	3.75YR 6.0/15	30.05	.5552	.4091
Grayish	5.OYR 6.0/13	30.05	.5311	.4154
Vivid	5.OYR 6.0/16	30.05	.5597	.4239
Light	5.OYR 6.5/15	36.20	.5427	.4206
Dark	5.OYR 5.5/15	24.58	.5606	.4218
Yellow:				
Central color	5.OY 8.0/12	59.10	.4562	.4788
Green	6.5Y 8.0/12	59.10	.4498	.4865
Orange and vivid	3.5Y 8.0/12	59.10	.4632	.4669
Grayish	5.OY 8.0/10	59.10	.4376	.4601
Vivid	5.OY 8.0/14	59.10	.4699	.4920
Light	5.OY 8.5/12	68.40	.4508	.4754
Dark	5.OY 7.5/12	50.68	.4620	.4823
Green:				
Central color	7.5G 4.0/9	12.00	.2111	.4121
Bluish	0.5BG 4.0/9	12.00	.1974	.3809
Green-yellow	5.0G 4.0/9	12.00	.2237	.4399
Grayish A	7.5G 4.0/7	12.00	.2350	.3922
Grayish B [2]	7.5G 4.0/6	12.00	.2467	.3822
Vivid	7.5G 4.0/11	12.00	.1848	.4319
Light	7.5G 4.5/9	15.57	.2204	.4060
Dark	7.5G 3.5/9	09.00	.2027	.4163
Blue:				
Central color	2.5PB 3.5/10	09.00	.1691	.1744
Purple	4.5PB 3.5/10	09.00	.1796	.1711
Green and vivid	10.0B 3.5/10	09.00	.1557	.1815
Grayish	2.5PB 3.5/8	09.00	.1888	.1964
Vivid	2.5PB 3.5/12	09.00	.1516	.1547
Light	2.5PB 4.0/10	12.00	.1805	.1888
Dark	2.5PB 3.0/10	06.55	.1576	.1600
Purple:				
Central color	10.0P 4.5/10	15.57	.3307	.2245
Reddish purple	2.5RP 4.5/10	15.57	.3584	.2377
Blue purple	7.5P 4.5/10	15.57	.3068	.2145
Reddish gray	10.0P 4.5/8	15.57	.3280	.2391
Gray [2]	10.0P 4.5/6.5	15.57	.3254	.2519
Vivid	10.0P 4.5/12	15.57	.3333	.2101
Light	10.0P 5.0/10	19.77	.3308	.2328
Dark	10.0P 4.0/10	12.00	.3306	.2162

[1] Maximum chroma is not limited.
[2] For the colors green and purple, the minimum saturation (chroma) limits for porcelain enamel on metal are lower than for most other surface coatings. Therefore, the minimum chroma limits of these two colors as displayed on the Charts for comparison to porcelain enamel on metal is low, as shown for green (grayish B) and purple (gray).
NOTE: CIE=Commission Internationale de L'Eclairage.

TABLE 2—SPECIFICATIONS FOR COLOR TOLERANCE CHARTS FOR USE WITH LABELS AND PLACARDS SURFACED WITH INK

Color/series	Munsell notation	CIE data for source C		
		Y	x	y
Red:				
Central series:				
Central color	6.8R 4.47/12.8	15.34	.5510	.3286
Grayish	7.2R 4.72/12.2	17.37	.5368	.3348
Purple	6.4R 4.49/12.7	15.52	.5442	.3258
Purple and vivid	6.1R 4.33/13.1	14.25	.5529	.3209

TABLE 2—SPECIFICATIONS FOR COLOR TOLERANCE CHARTS FOR USE WITH LABELS AND PLACARDS SURFACED WITH INK—Continued

Color/series	Munsell notation	CIE data for source C		
		Y	x	y
Vivid	6.7R 4.29/13.2	13.99	.5617	.3253
Orange	7.3R 4.47/12.8	15.34	.5572	.3331
Orange and grayish	7.65R 4.70/12.4	17.20	.5438	.3382
Light series:				
Light	7.0R 4.72/13.2	17.32	.5511	.3322
Light and orange	7.4R 4.96/12.6	19.38	.5365	.3382
Light and purple	6.6R 4.79/12.9	17.94	.5397	.3289
Dark series:				
Dark A	6.7R 4.19/12.5	13.30	.5566	.3265
Dark B	7.0R 4.25/12.35	13.72	.5522	.3294
Dark and purple	7.5R 4.23/12.4	13.58	.5577	.3329
Orange:				
Central series:				
Central color	5.0YR 6.10/12.15	31.27	.5193	.4117
Yellow and grayish A	5.8YR 6.22/11.7	32.69	.5114	.4155
Yellow and grayish B	6.1YR 6.26/11.85	33.20	.5109	.4190
Vivid	5.1YR 6.07/12.3	30.86	.5226	.4134
Red and vivid A	3.9YR 5.87/12.75	28.53	.5318	.4038
Red and vivid B	3.6YR 5.91/12.6	29.05	.5291	.4021
Grayish	4.9YR 6.10/11.9	31.22	.5170	.4089
Light series:				
Light and vivid A	5.8YR 6.78/12.7	39.94	.5120	.4177
Light and yellow	6.0YR 6.80/12.8	40.20	.5135	.4198
Light and vivid B	4.9YR 6.60/12.9	37.47	.5216	.4126
Dark series:				
Dark and yellow	5.8YR 5.98/11.0	29.87	.5052	.4132
Dark A	5.1YR 5.80/11.1	27.80	.5127	.4094
Dark B	5.0YR 5.80/11.0	27.67	.5109	.4068
Yellow:				
Central series:				
Central color	4.3Y 7.87/10.3	56.81	.4445	.4589
Vivid A	4.5Y 7.82/10.8	55.92	.4503	.4658
Vivid B	3.3Y 7.72/11.35	54.24	.4612	.4624
Vivid and orange	3.2Y 7.72/10.8	54.25	.4576	.4572
Grayish A	4.1Y 7.95/9.7	58.18	.4380	.4516
Grayish B	5.1Y 8.06/9.05	60.12	.4272	.4508
Green-yellow	5.2Y 7.97/9.9	58.53	.4356	.4605
Light series:				
Light	5.4Y 8.59/10.5	70.19	.4351	.4628
Light and green-yellow	5.4Y 8.56/11.2	69.59	.4414	.4692
Light and vivid	4.4Y 8.45/11.4	67.42	.4490	.4662
Dark series:				
Dark and green-yellow	4.4Y 7.57/9.7	51.82	.4423	.4562
Dark and orange A	3.4Y 7.39/10.4	48.86	.4584	.4590
Dark and orange B	3.5Y 7.41/10.0	49.20	.4517	.4544
Green:				
Central series:				
Central color	9.75G 4.26/7.75	13.80	.2214	.3791
Grayish	10G 4.46/7.5	15.25	.2263	.3742
Blue A	1.4BG 4.20/7.4	13.36	.2151	.3625
Blue B	1.0BG 4.09/7.75	12.60	.2109	.3685
Vivid	8.4G 4.09/8.05	12.59	.2183	.3954
Vivid green-yellow	7.0G 4.23/8.0	13.54	.2292	.4045
Green-yellow	7.85G 4.46/7.7	15.23	.2313	.3914
Light series:				
Light and vivid	9.5G 4.45/8.8	15.21	.2141	.3863
Light and blue	0.2BG 4.31/8.8	14.12	.2069	.3814
Light and green-yellow	8.3G 4.29/9.05	14.01	.2119	.4006
Dark series:				
Dark and green-yellow	7.1G 4.08/7.1	12.55	.2354	.3972
Dark and grayish	9.5G 4.11/6.9	12.70	.2282	.3764
Dark	8.5G 3.97/7.2	11.78	.2269	.3874
Blue:				
Central series:				
Central color	3.5PB 3.94/9.7	11.58	.1885	.1911
Green and grayish A	2.0PB 4.35/8.7	14.41	.1962	.2099
Green and grayish B	1.7PB 4.22/9.0	13.50	.1898	.2053
Vivid	2.9PB 3.81/9.7	10.78	.1814	.1852
Purple and vivid A	4.7PB 3.53/10.0	9.15	.1817	.1727

TABLE 2—SPECIFICATIONS FOR COLOR TOLERANCE CHARTS FOR USE WITH LABELS AND PLACARDS SURFACED WITH INK—Continued

Color/series	Munsell notation	CIE data for source C		
		Y	x	y
Purple and vivid B	5.0PB 3.71/9.9	10.20	.1888	.1788
Grayish	3.75PB 4.03/9.1	12.17	.1943	.1961
Light series:				
Light and green A	1.7PB 4.32/9.2	14.22	.1904	.2056
Light and green B	1.5PB 4.11/9.6	12.72	.1815	.1971
Light and vivid	3.2PB 3.95/10.05	11.70	.1831	.1868
Dark series:				
Dark and grayish	3.9PB 4.01/8.7	12.04	.1982	.1992
Dark and purple A	4.8PB 3.67/9.3	9.95	.1918	.1831
Dark and purple B	5.2PB 3.80/9.05	10.76	.1985	.1885
Purple:				
Central series:				
Central color	9.5P 4.71/11.3	17.25	.3274	.2165
Red	1.0RP 5.31/10.8	22.70	.3404	.2354
Red and vivid A	1.4RP 5.00/11.9	19.78	.3500	.2274
Red and vivid B	0.2RP 4.39/12.5	14.70	.3365	.2059
Vivid	8.0P 4.04/12.0	12.23	.3098	.1916
Blue	7.0P 4.39/10.8	14.71	.3007	.2037
Grayish	8.8P 5.00/10.3	19.73	.3191	.2251
Light series:				
Light and red A	0.85RP 5.56/11.1	25.18	.3387	.2356
Light and red B	1.1RP 5.27/12.3	22.27	.3460	.2276
Light and vivid	9.2P 4.94/11.95	19.24	.3247	.2163
Dark series:				
Dark and grayish	9.6P 4.70/10.9	17.19	.3283	.2204
Dark and vivid	8.4P 4.05/11.6	12.35	.3144	.1970
Dark and blue	7.5P 4.32/10.5	14.19	.3059	.2078

TABLE 3—SPECIFICATION FOR COLORS FOR USE WITH LABELS PRINTED ON PACKAGINGS SURFACES

CIE data for source C	Red	Orange	Yellow	Green	Blue	Purple
x	.424	.460	.417	.228	.200	.377
y	.306	.370	.392	.354	.175	.205
x	.571	.543	.490	.310	.255	.377
y	.306	.400	.442	.354	.250	.284
x	.424	.445	.390	.228	.177	.342
y	.350	.395	.430	.403	.194	.205
x	.571	.504	.440	.310	.230	.342
y	.350	.430	.492	.403	.267	.284
Y (high)	23.0	41.6	72.6	20.6	15.9	21.2
Y (low)	7.7	19.5	29.1	7.4	6.5	8.2

[Amdt. 172–50, 44 FR 9757, Feb. 15, 1979; Amdt. 172–50, 44 FR 10984, Feb. 26, 1979, as amended by Amdt. 172–50, 44 FR 22467, Apr. 16, 1979; 50 FR 45731, Nov. 1, 1985; Amdt. 172–127, 59 FR 49133, Sept. 26, 1994]

APPENDIX B TO PART 172—TREFOIL SYMBOL

1. Except as provided in paragraph 2 of this appendix, the trefoil symbol required for RADIOACTIVE labels and placards and required to be marked on certain packages of Class 7 materials must conform to the design and size requirements of this appendix.

2. RADIOACTIVE labels and placards that were printed prior to April 1, 1996, in conformance with the requirements of this subchapter in effect on March 30, 1996, may continue to be used.