

**SUBJECT 4**

**Re:** Assemblies, chimney or smoke flue; Duct, flexible; or Duct or Flues, other than flexible, or Fittings therefor — Items 50755, 50920, 51035 and 51045

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**Proponent:** Freight Classification Development Council

**Present Classification Provisions**

Item	Description	Class
	<b>CONDUITS, OTHER THAN EARTHEN, GROUP:</b> subject to item 50750	
50755	<b>Assemblies</b> , chimney or smoke flue, metal, see Notes, items 50757 and 50759, in boxes or crates .....	175
50757	NOTE—Applies on Chimney or Smoke Flue Pipe, with or without Elbows or Tees, in mixed shipment with two or more other chimney or smoke flue components such as: Adapters; Brackets; Collars; Spark Arresters; Wall or Locking Bands; Chimney Caps; Connectors; Kits, chimney, wall or ceiling; Plates; Sleeves; Flashings; Shields; Supports; and Thimbles.	
50759	NOTE—Also applies on components of other materials provided the weight of such components does not exceed 5 percent of the weight of the shipment.	
50920	<b>Collars</b> , stove pipe, aluminum, in boxes.....	150
51035	<b>Duct</b> , air distributing, ventilating or exhaust system, flexible, see Note, item 51036, in packages, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 1	Less than 4.....	300
Sub 2	4 but less than 5 .....	200
Sub 3	5 but less than 6 .....	175
Sub 4	6 or greater .....	110
51036	NOTE—The term 'flexible' is descriptive of duct which may withstand a bend of 180° over a mandrel having a diameter equal to the inside diameter of the duct and return to original shape without deterioration of the wall structure.	
51045	<b>Duct or Flues</b> , air or smoke, other than flexible, see Note, item 51046; <b>or Fittings therefor</b> , NOI; metal, with or without components of other materials:	
Sub 1	In boxes or crates, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 2	Less than 4 .....	300
Sub 3	4 but less than 8 .....	175
Sub 4	8 or greater.....	70
Sub 5	In packages other than boxes or crates, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 6	Less than 4 .....	400
Sub 7	4 but less than 8 .....	200
Sub 8	8 or greater.....	77.5

**SUBJECT 4**

**Present Classification Provisions — Concluded**

Item	Description	Class
51046	NOTE—The term 'flexible' is descriptive of duct or flues that can withstand a bend of 180 degrees and return to original shape without deterioration of the wall structure.	

**Proposed Classification Provisions**

Item	Description	Class
	<b>CONDUITS, OTHER THAN EARTHEN, GROUP:</b> subject to item 50750	
50755	<b>Assemblies</b> , chimney or smoke flue, metal, etc ..... ⇒Cancel; see item 51045	
50757	NOTE—⇒Cancel; no further application.	
50759	NOTE—⇒Cancel; no further application.	
50920	<b>Collars</b> , stove pipe, aluminum, etc ..... ⇒Cancel; see item 51045	
51035	<b>Duct</b> , air distributing, ventilating or exhaust system, flexible, etc ..... ⇒Cancel; see item 51045	
51036	NOTE—⇒Cancel; no further application.	
⇒51045	<b>Duct or Flues</b> , air or smoke; <b>or Fittings therefor</b> , NOI; metal, with or without components of other materials:	
Sub 1	In boxes or crates, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 2	Less than 4 ..... 300	
Sub 3	4 or greater..... 175	
Sub 4	In packages other than boxes or crates, subject to Item 170 and having a density in pounds per cubic foot of:	
Sub 5	Less than 4 ..... 400	
Sub 6	4 or greater..... 200	
51046	NOTE—⇒Cancel; no further application.	

**Analysis**

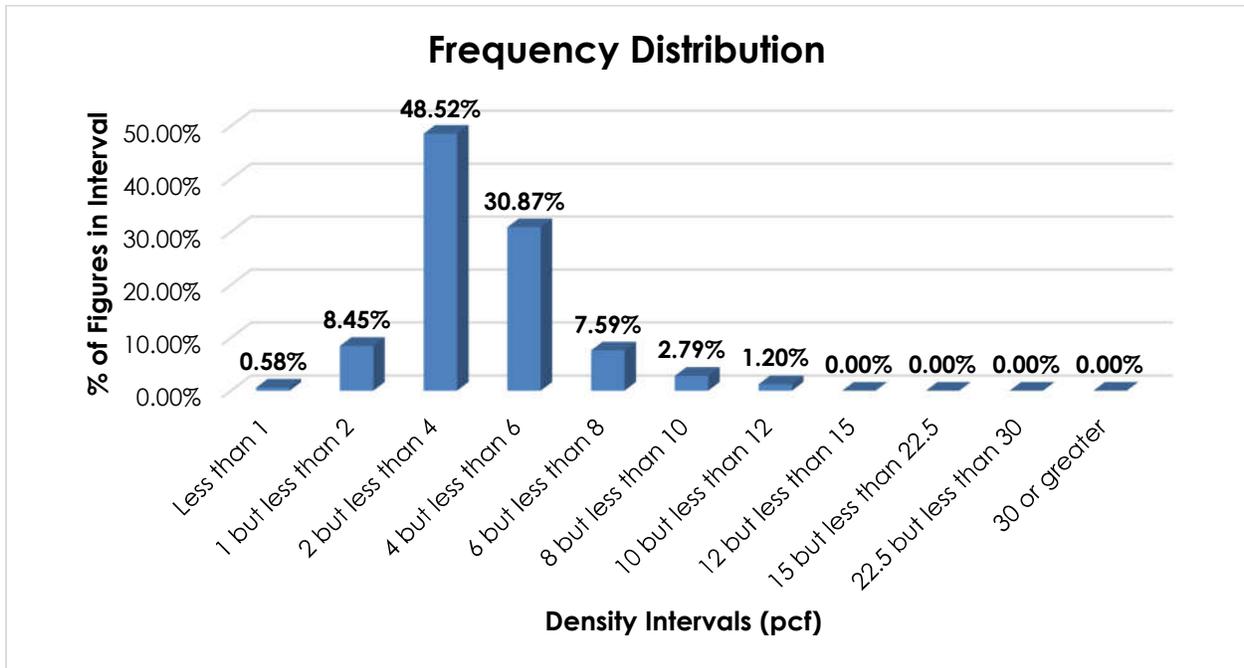
**Introduction**

This proposal is based on information developed through Research Project 1508, which was initiated based on indications that air or smoke duct or flues, as embraced by item 51045, exhibit transportation characteristics inconsistent with the currently assigned classes in subs 4 and 8. In light of interpretive problems identified during the course of research, this proposal also encompasses data on items 50755, 50920 and 51035, as shown in the Present Classification Provisions herein.

SUBJECT 4

Transportation Characteristics

**Density**—The information of record includes 52,707 density observations submitted by a carrier and obtained from the FCDC’s Density Study<sup>1</sup>. The densities range from 0.33 to 11.69 pcf, with an overall average density of 4.00 pcf. As shown in the graph below, the density distribution is right-skewed, with predominant peaks in the 2 but less than 4 pcf, and 4 but less than 6 pcf intervals.



When the data is evaluated based on the proposed density break at 4 pcf to reflect the distribution of densities, the following ranges and averages emerge.

Density Group (pcf)	Density Range (pcf)	Average Density (pcf)
Less than 4	0.33 – 3.99	2.82
4 or greater	4.00 – 11.69	5.60

**Handling**—The involved commodities may be shipped in boxes or crates, or in packages other than boxes or crates. Articles shipped in boxes or crates will generally not present unusual or significant handling considerations. However, when tendered in packages that provide minimal exterior protection, additional care must be taken when handling the freight so as to avoid damaging the products.

<sup>1</sup> The Density Study is part of an ongoing effort by the FCDC to collect information on actual shipments across all product categories handled by the LTL industry. Carriers that choose to participate in the Study periodically submit shipment data captured through their respective freight auditing programs. The FCDC uses verifiable data points, identified by NMFC item, that include the weight and the dimensions and/or cube of the shipping unit.

**SUBJECT 4**

**Stowability**—When the involved articles are tendered in boxes or crates, a flat load-bearing surface will generally be present, which would allow for other freight to be loaded on top of the handling unit. There will typically be lateral support for adjacent freight as well. When the articles are tendered in packages other than boxes or crates, they may not provide a regular load-bearing surface for top freight or lateral support for adjacent freight. Furthermore, when loading the handling unit inside the vehicle, the lack of protective packaging may limit the type of freight that may be stowed safely on top of or adjacent to the articles. This can result in increased time and effort on the part of the carrier to properly structure the vehicle load so as to mitigate the chance of damage to the products or to other freight with which stowed.

**Liability**—As is the case with most general commodities, when tendered for shipment fully enclosed within boxes or crates, the involved commodities should not be unusually susceptible to damage nor likely to damage other freight. However, when tendered in packages other than boxes or crates, which may offer little or no protection, these products exhibit greater susceptibility to damage and a greater propensity to damage other freight.

**Conclusion**

Based on the foregoing analysis, this proposal would cancel items 50755, 50920 and 51035 with reference to item 51045. Concurrently, the description of item 51045 would be amended to read, “Duct or Flues, air or smoke; or Fittings therefor, NOI; metal, with or without components of other materials,” and would maintain classes predicated on packaging and density, but with a single break at 4 pcf<sup>2</sup>. The table below relates the information of record to the proposed density groupings and FCDC guidelines for the proposed classes when tendered in boxes or crates, and a one-class adjustment from the density guidelines when the articles are tendered in packages other than boxes or crates to reflect the identified negative handling, stowability and liability characteristics.

Density Group (pcf)	Average Density (pcf)	FCDC Minimum Average Density Guideline (pcf)	Class Based on FCDC Density Guidelines	Class Adjustment Based on Handling, Stowability and Liability Considerations
Less than 4	2.82	2	300	400
4 or greater	5.60	5	175	200

Furthermore, Notes, items 50757, 50759, 51036 and 51046 would be canceled with no further application.

These proposed changes would foster clarification and simplification, as well as interpretive issues.

<sup>2</sup> The density provisions include reference to Item (Rule) 170, the inadvertence clause.