

15A NCAC 02D .0968 AUTOMOBILE AND LIGHT DUTY TRUCK ASSEMBLY COATINGS

(a) For the purpose of this Rule, the following definitions apply:

- (1) "Automobile" means a motor vehicle designed to carry up to eight passengers, excluding vans, sport utility vehicles, and motor vehicles designed primarily to transport light loads of property.
- (2) "Automobile Topcoat Protocol" means Protocol For Determining The Daily Volatile Organic Compound Emission Rate Of Automobile and Light-duty Truck Topcoat Operations (EPA-453/R-08-002) or 40 CFR Part 60, Subpart MM, Standards of Performance for Automobile and Light-Duty Truck Surface Coating Operations. The protocol document can be obtained free of charge at https://www3.epa.gov/airquality/ctg_act/200809_voc_epa453_r-08-002_auto_ldtruck_vocemisrate_protocol.pdf.
- (3) "Electrodeposition" means a process of applying a protective, corrosion-resistant waterborne primer on exterior and interior surfaces that provides coverage of recessed areas. It is a dip coating method that uses an electrical field to apply or deposit the conductive coating onto the part. The object being painted acts as an electrode that is oppositely charged from the particles of paint in the dip tank.
- (4) "Final repair" means the operations performed and coating(s) applied to completely assembled motor vehicles or to parts that are not yet on a completely assembled vehicle to correct damage or imperfections in the coating.
- (5) "Light-duty truck" means vans, sport utility vehicles, and motor vehicles designed primarily to transport light loads of property with a gross vehicle weight rating of 8,500 pounds or less.
- (6) "Primer-surfacer" means an intermediate protective coating applied over the electrodeposition primer (EDP) and under the topcoat. Primer-surfacer provides adhesion, protection, and appearance properties to the total finish.
- (7) "Solids turnover ratio (R_T)" means the ratio of total volume of coating solids that is added to the EDP system in a calendar month divided by the total volume design capacity of the EDP system.

(b) This Rule applies to automobile and light-duty truck assembly coating operations and related cleaning activities whose emissions of volatile organic compounds meet the threshold established in 15A NCAC 02D .0902(b) at:

- (1) automobile or light-duty assembly plants during the vehicle assembly processes with the following primary coating product applications:
 - (A) new automobile or new light-duty truck bodies, or body parts for new automobiles or new light-duty trucks;
 - (B) other parts that are coated along with these bodies or body parts; or
 - (C) additional coatings that include glass bonding primer, adhesives, cavity wax, sealer, deadener, gasket/gasket sealing material, underbody coating, trunk interior coating, bedliner, weatherstrip adhesive, and lubricating waxes/compounds; and
- (2) facilities that perform coating operations on a contractual basis other than plastic or composites molding facilities.

(c) This Rule does not apply to:

- (1) aerosol coatings of automobile and light-truck assembly coatings;
- (2) coatings that are applied to other parts intended for use in new automobiles or new light-duty trucks, such as application of spray primer, color and clear coat to fascia or bumpers, on coating lines that are not related to the vehicle assembly process at automobile or light-duty assembly plants. Those coatings are regulated by 15A NCAC 02D .0964 and .0967; and
- (3) aftermarket repair or replacement parts for automobiles or light-duty trucks that are regulated by 15A NCAC 02D .0964 and .0967.

(d) With the exception of materials supplied in containers with a net volume of 16 ounces or less, or a net weight of one pound or less, emissions of volatile organic compounds before control for:

- (1) automobile and light-duty truck assembly coatings shall not exceed limits established in Table 1.

Table 1. Volatile Organic Compounds emission limits for automobile and light-duty truck assembly coatings.

Assembly Coating Process	Volatile Organic Compounds Emission Limit			
Electrodeposition primer (EDP) operations, including application area, spray/rinse stations, and curing oven	When solids turnover ratio R_T ≥ 0.160 ;	When $0.040 \leq R_T < 0.160$	When $R_T < 0.040$;	
	0.7 lb/gal coatings solids	$0.084^{0.160-R_T} \times 8.34$ lb/gal coating solids	No VOC emission limit.	

	applied.	applied.	
Primer-surfacer operations, including application area, flash-off area, and oven	12.0 lb VOC/gal deposited solids on a daily weighted average basis as determined by following the procedures in the Automobile Topcoat Protocol		
Topcoat operations, including application area, flash-off area, and oven	12.0 lb VOC/gal deposited solids on a daily weighted average basis as determined by following the procedures in the Automobile Topcoat Protocol		
Final repair operations	4.8 lb VOC/gallon of coating less water and less exempt solvents on a daily weighted average basis or as an occurrence weighted average.		
Combined primer-surfacer and topcoat operations	12.0 lb VOC/gal deposited solids on a daily weighted average basis as determined by following the procedures in the Automobile Topcoat Protocol		

- (2) materials used at automobile and light-duty truck assembly coatings facilities shall not exceed limits established in Table 2.

Table 2. Volatile Organic Compounds emission limits for miscellaneous materials used at automobile and light-duty truck assembly coatings facilities.

Material	VOC Emission Limit (grams of VOC per liter of coating excluding water and exempt compounds, as applied)
Automobile and light-duty truck glass bonding primer	900
Automobile and light-duty truck adhesive	250
Automobile and light-duty truck cavity wax	650
Automobile and light-duty truck sealer	650
Automobile and light-duty truck deadener	650
Automobile and light-duty truck gasket/gasket sealing material	200
Automobile and light-duty truck underbody coating	650
Automobile and light-duty truck trunk interior coating	650
Automobile and light-duty truck bedliner	200
Automobile and light-duty truck weatherstrip adhesive	750
Automobile and light-duty truck lubricating wax/compound	700

(e) EPA Method 24 or 25A of Appendix A to 40 CFR Part 60 shall be used to determine the volatile organic compounds content of coatings, other than reactive adhesives used at automobile and light-duty truck coating facilities, unless the facility maintains records to document the volatile organic compounds content of coating materials from the manufacturer.

(f) The emission limits established in Paragraph (d) of this Rule may be achieved with a combination of higher-solid solvent-borne coatings, efficient application equipment, and bake oven exhaust control.

(g) The owner or operator of any facility subject to this Rule shall comply with 15A NCAC 02D .0903 and .0958.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5); Eff. September 1, 2010; Readopted Eff. November 1, 2020.