## ROUSH INDUSTRIES INC.

EXECUTIVE ORDER A-344-0077-1
New On-Road Heavy-Duty Motor Vehicles

Pursuant to the authority vested in the Air Resources Board by Health and Safety Code Division 26, Part 5, Chapter 2; and pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: The following on-road motor vehicles with a manufacturer's GVWR over 14000 pounds are certified as described below. Production vehicles shall be in all material respects the same as those for which certification is granted.

|                         |                  |                       |   |                    |                       | ENG                    | INE DESC     | RIPTIO | N                                |   |                             |         |  |  |
|-------------------------|------------------|-----------------------|---|--------------------|-----------------------|------------------------|--------------|--------|----------------------------------|---|-----------------------------|---------|--|--|
| MANUFACTURE             | R                |                       |   | NODEL ENGINE FAMIL |                       | ENGINE<br>SIZES<br>(L) | FUEL TY'PE 1 |        | STANDARDS<br>& TEST<br>PROCEDURE | INTENDED SERVICE  | ECS & SPECIAL<br>FEATURES 1 | OBD     |  |  |
| ROUSH<br>INDUSTRIES INC | . A-34           | A-344-0076-1          |   | 017 HRIIE06.8BWZ   |                       | 6.8                    | LPG          |        | Otto                             | HDO   | TWC, SFI, HO2S<br>2WR-HO2S, | EMD+    |  |  |
| Gasoline, LPG           | or Alcoh<br>Only | ol Vehicle            | S |                    |                       |                        |              | V      | EHICLE DESCR                     | PTION   |                             | N FACTO |  |  |
| EVAPORATI               | IVE              | FUEL TANK<br>CAPACITY |   | HICLE              | VEHICLE MAKE & MODELS |                        |              | ENGINE | NE                               | ENGINE MODELS / CODES   |                             |         |  |  |
| FAMILY                  | UL (K)           | (gallons              |   | YEAR               | VEHICLE               | E MAKE & MODELS        |              | (L)    |                                  | (rated power, in hp)  |                             |         |  |  |
| HRIIF0265LPG            | 150              | 41, 64                |   | 2017               | Roush E450 Incomp     |                        | nplete       | 6.8    | E450 Inc                         | ncomplete / HHE418NR5, HHE418MR5, HHE41LNR<br>HHE41LMR5 (305 for all codes) |                             |         |  |  |

\* =not applicable; GVWR=gross vehicle weight rating; 13 CCR xyz=Title 13, California Code of Regulations, Section xyz; 40 CFR 86.abc=Title 40, Code of Federal Regulations, Section 86.abc; L=liter; K=1000 miles; hp=horsepower; kw=kilowatt;

1 CNG/LNG=compressed/liquefied natural gas; LPG=liquefied petroleum gas; E85=85% ethanol fuel; MF=multi fuel a.k.a. BF=bi fuel; DF=dual fuel; FF=flexible fuel;

L/M/H HDD=light/medium/heavy heavy-duty diesel; UB=urban bus; HDO=heavy duty Otto;

EMD=engine manufacturer diagnostic system; OBD(F) / (P) / (\$)=full / partial / partial with fine / on-board diagnostic;

(2012-08-20)

Following are: 1) the FTP exhaust emission standards or family emission limit(s) as applicable under 13 CCR 1956.1 (urban bus) or 13 CCR 1956.8 (other than urban bus); 2) the SET and NTE limits under the applicable California exhaust emission standards and test procedures for heavy-duty diesel engines and vehicles (Test Procedures); and 3) the corresponding certification levels, in g/bhp-hr, for this engine family. "Diesel" CO, SET and NTE certification compliance may have been demonstrated by the manufacturer as provided under the applicable Test Procedures in lieu of testing. (For flexible- and dual-fueled engines, the CERT values in brackets [] are those when tested on conventional test fuel. For multi-fueled engines, the STD and CERT values for default operation permitted in 13 CCR 1956.1 or 13 CCR 1956.8 are in parentheses.)

|      |      | NMHC |      | NOx |     | NMHC+NOx |      | CO . |       | PM  |       | нсно |  |
|------|------|------|------|-----|-----|----------|------|------|-------|-----|-------|------|--|
|      | FTP  | SET  | FTP  | SET | FTP | SET      | FTP  | SET  | FTP . | SET | FTP   | SET  |  |
| STD  | 0.14 |      | 0.20 | *   |     |          | 14.4 |      | 0.01  | *   | 0.01  |      |  |
| CERT | 0.11 |      | 0.15 | *   |     |          | 2.3  |      | 0.000 | *   | 0.001 |      |  |
| NTE  |      |      |      | •   |     |          |      | •    |       | •   |       | •    |  |

<sup>4</sup> g/bhp-hr=grams per brake horsepower-hour; FTP=Federal Test Procedure; EURO=Euro III European Steady-State Cycle; NTE=Not-to-Exceed emission limit; STD=standard or emission test cap; FEL=family emission limit; CERT=certification level; NMHC/HC=non-methane/hydrocarbon; NOx=oxides of nitrogen; CO=carbon monoxide; PM=particulate matter; HCHO=formaldehyde;

BE IT FURTHER RESOLVED: For the listed vehicle models the manufacturer has submitted the materials to demonstrate certification compliance with 13 CCR 1965 (emission control labels), 13 CCR 1971.1 (on-board diagnostic), 13 CCR 1976(b)(1)(F) {evaporative emission standards}, 13 CCR 2035 et seq. (emission control warranty), and 13 CCR 2235 [fill pipes and openings of motor vehicle fuel tanks]. (The braces { } are for gasoline, LPG or alcohol fueled vehicles only.)

Vehicles certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this Executive Order.

This Executive Order hereby supersedes Executive Order A-344-0077 dated July 13, 2017.

Executed at El Monte, California on this

\_ day of October 2017.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

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