

**§ 1039.640**

**40 CFR Ch. I (7–1–10 Edition)**

may approve a period of delayed compliance for up to one model year total (or two model years total for small-volume manufacturers). If you qualify for the hardship provisions specified in 40 CFR 1068.250 for small-volume manufacturers, we may approve a period of delayed compliance for up to two model years total.

**§ 1039.640 What special provisions apply to branded engines?**

The following provisions apply if you identify the name and trademark of another company instead of your own on your emission control information label, as provided by § 1039.135(c)(2):

(a) You must have a contractual agreement with the other company that obligates that company to take the following steps:

(1) Meet the emission warranty requirements that apply under § 1039.120. This may involve a separate agreement involving reimbursement of warranty-related expenses.

(2) Report all warranty-related information to the certificate holder.

(b) In your application for certification, identify the company whose trademark you will use and describe the arrangements you have made to meet your requirements under this section.

(c) You remain responsible for meeting all the requirements of this chap-

ter, including warranty and defect-reporting provisions.

**§ 1039.645 What special provisions apply to engines used for transportation refrigeration units?**

Manufacturers may choose to use the provisions of this section for engines used in transportation refrigeration units (TRUs). The operating restrictions and characteristics in paragraph (f) of this section define engines that are not used in TRUs. All provisions of this part apply for TRU engines, except as specified in this section.

(a) You may certify engines under this section with the following special provisions:

(1) The engines are not subject to the transient emission standards of subpart B of this part.

(2) The steady-state emission standards in subpart B of this part apply for emissions measured over the steady-state test cycle described in paragraph (b) of this section instead of the otherwise applicable duty cycle described in § 1039.505.

(b) Measure steady-state emissions using the procedures specified in § 1039.505, except for the duty cycles, as follows:

(1) The following duty cycle applies for discrete-mode testing:

**TABLE 1 OF § 1039.645—DISCRETE-MODE CYCLE FOR TRU ENGINES**

Mode number	Engine speed <sup>1</sup>	Torque (percent) <sup>2</sup>	Weighting factors
1 .....	Maximum test speed .....	75	0.25
2 .....	Maximum test speed .....	50	0.25
3 .....	Intermediate test speed .....	75	0.25
4 .....	Intermediate test speed .....	50	0.25

<sup>1</sup> Speed terms are defined in 40 CFR part 1065.

<sup>2</sup> The percent torque is relative to the maximum torque at the given engine speed.

(2) The following duty cycle applies for ramped-modal testing:

**TABLE 2 OF § 1039.645—RAMPED-MODAL CYCLE FOR TRU ENGINES**

RMC mode	Time in mode (seconds)	Engine speed <sup>1</sup>	Torque (percent) <sup>2,3</sup>
1a Steady-state .....	290	Intermediate Speed .....	75.
1b Transition .....	20	Intermediate Speed .....	Linear Transition.
2a Steady-state .....	280	Intermediate Speed .....	50.
2b Transition .....	20	Linear Transition .....	Linear Transition.
3a Steady-state .....	280	Maximum Test Speed .....	75.
3b Transition .....	20	Maximum Test Speed .....	Linear Transition.