equal to 45 percent of the maximum power at rated speed and speeds less than 95 percent of maximum test speed, or 1.50 times the applicable standards (or FELs) at loads less than 45 percent of the maximum power at rated speed, or 1.50 times the applicable standards (or FELs) at any loads for speeds greater than or equal to 95 percent of the maximum test speed.

(ii) As an option, the manufacturer may choose to comply with limits of 1.25 times the applicable standards (or FELs) when tested over the whole power range in accordance with the supplemental test procedures specified in §94.106, instead of the limits in paragraph (e)(2)(i) of this section.

(f) The following define the requirements for low-emitting Blue Sky Series engines:

(1) **Voluntary standards.** (i) Category 1 and Category 2 engines may be designated “Blue Sky Series” engines by meeting the voluntary standards listed in Table A–2, which apply to all certification and in-use testing:

<table>
<thead>
<tr>
<th>Power ≤ 37 kW, and displ. &lt; 0.9</th>
<th>4.0</th>
<th>0.24</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.9 ≤ displ. &lt; 1.2</td>
<td>4.0</td>
<td>0.18</td>
</tr>
<tr>
<td>1.2 ≤ displ. &lt; 2.5</td>
<td>4.0</td>
<td>0.12</td>
</tr>
<tr>
<td>2.5 ≤ displ. &lt; 5</td>
<td>5.0</td>
<td>0.12</td>
</tr>
<tr>
<td>5 ≤ displ. &lt; 15</td>
<td>5.0</td>
<td>0.16</td>
</tr>
<tr>
<td>15 ≤ displ. &lt; 20, and power &lt; 3300 kW</td>
<td>5.2</td>
<td>0.30</td>
</tr>
<tr>
<td>15 ≤ displ. &lt; 20, and power ≥ 3300 kW</td>
<td>5.9</td>
<td>0.30</td>
</tr>
<tr>
<td>20 ≤ displ. &lt; 25</td>
<td>6.6</td>
<td>0.30</td>
</tr>
<tr>
<td>25 ≤ displ. &lt; 30</td>
<td>6.6</td>
<td>0.30</td>
</tr>
</tbody>
</table>

![Image of a table with data]

(ii) Category 3 engines may be designated “Blue Sky Series” engines by meeting these voluntary standards that would apply to all certification and in-use testing:

(A) A NO\textsubscript{X} standard of 9.0 × N\textsuperscript{−0.20} where N = the maximum test speed of the engine in revolutions per minute (or 4.8 g/kW-hr for engines with maximum test speeds less than 130 rpm).

(NOTE: Round speed-dependent standards to the nearest 0.1 g/kW-hr.)

(B) An HC standard of 0.4 g/kW-hr.

(C) A CO standard of 3.0 g/kW-hr.

(2) **Additional standards.** Blue Sky Series engines are subject to all provisions that would otherwise apply under this part.

Test procedures. Manufacturers may use an alternate procedure to demonstrate the desired level of emission control if approved in advance by the Administrator.

(g) Standards for alternative fuels. The standards described in this section apply to compression-ignition engines, irrespective of fuel, with the following two exceptions for Category 1 and Category 2 engines:

(1) Engines fueled with natural gas shall comply with NMHC+NO\textsubscript{X} standards that are numerically equivalent to the THC+NO\textsubscript{X} described in paragraph (a) of this section; and

(2) Engines fueled with alcohol fuel shall comply with THC+NO\textsubscript{X} standards that are numerically equivalent to the THC+NO\textsubscript{X} described in paragraph (a) of this section.


§ 94.9 **Compliance with emission standards.**

(a) The general standards and requirements in §94.7 and the emission standards in §94.8 apply to each new engine throughout its useful life period. The useful life is specified both in years and in hours of operation, and ends when either of the values (hours of operation or years) is exceeded.

(1) The minimum useful life is:

(i) 10 years or 1,000 hours of operation for recreational Category 1 engines.

(ii) 10 years or 10,000 hours of operation for commercial Category 1 engines.

(iii) 10 years or 20,000 hours of operation for Category 2 engines.

(iv) 3 years or 10,000 hours of operation for Category 3 engines.
§ 94.10 Warranty period.

(a)(1) Warranties imposed by §94.1107 for Category 1 or Category 2 engines shall apply for a period of operating hours equal to at least 50 percent of the useful life in operating hours or a period of years equal to at least 50 percent of the useful life in years, whichever comes first.

(2) Warranties imposed by §94.1107 for Category 3 engines shall apply for a period of operating hours equal to at least the full useful life in operating hours or a period of years equal to at least the full useful life in years, whichever comes first.

(b) Warranties imposed by §94.1107 shall apply for a period not less than any mechanical warranties provided by the manufacturer to the owner.


§ 94.11 Requirements for rebuilding certified engines.

(a) The provisions of this section apply with respect to engines subject to the standards prescribed in §94.8 and are applicable to the process of engine rebuilding. Engine rebuilding means to overhaul an engine or to otherwise perform extensive service on the engine (or on a portion of the engine or engine system). For the purpose of this definition, perform extensive service means to disassemble the engine (or portion of