

New Source Performance Standard (NSPS) for Stationary Reciprocating Compression Ignition Engines

The following is the Caterpillar understanding of the recently released NSPS regulation. The final rule will be released no later than June 28, 2006.

On July 11, 2005, the United States Environmental Protection Agency issued into the Federal Register standards of performance for stationary compression ignition internal combustion engines. The regulation covers minimum national standards for

exhaust emissions from stationary compression ignition (diesel) engines. **State and local authorities can release regulations that are more stringent.**

The NSPS ruling closely matches existing EPA non-road mobile regulations in terms of regulated exhaust pollutants and associated Tier levels. It is expected that the EPA will phase in the stationary rule in two stages beginning April 1, 2006.



Interim Period

(July 11, 2005 - December 31, 2006):

- Manufacturers are not required to certify new engines for stationary applications.
- End users are required to order engines that meet the equivalent of Tier 1 emissions standards.
- Engines between 10L/cylinder and 30L/cylinder are covered by Marine regulations (3600 & CM).
- The interim portion of the ruling applies to engines ordered after the NSPS publication date (July 11, 2005) and built on or after April 1, 2006.
- **Please note the following:**
 - Engines ordered prior to the NSPS publication date are exempt from the regulation.
 - Engines ordered after the NSPS publication date and built before April 1, 2006 are exempt.

See timeline below.

Certified Period

(January 1, 2007 and beyond):

- Factory certification is required for all new stationary diesel engines.
- Certification generally matches non-road mobile emissions and Tier levels in effect (see chart).
- Exhaust aftertreatment devices such as Selective Catalytic Reduction modules (SCRs) required in 2011 and 2012 will not be required on emergency stationary applications.
- Engines between 10L/cylinder and 30L/cylinder to be certified to Marine Standards (3600 & CM)
- 3000 bhp and above
 - Engines will be certified to Tier 1 emission levels until January 2011.
 - As of January 2011, non-emergency must meet Tier 4.
- As of January 2011, emergency must meet Tier 2.

EPA Stationary Rule Time Line



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TIER Emission Levels

The chart below illustrates the emission tier requirements at a given power rating for diesel generator sets.

EPA eKW	← Non-Road Mobile →			← All Non-Road Mobile & Stationary →			
	2004	2005	2006*	2007	2008	2011	2012
> 2000	1	1	2	2**	2**	4***	4***
500 to 2000	1	1	2	2	2	4***	4***
230 to 450	2	3	3	3	3	4***	4***
125 to 200	2	2	3	3	3	4***	4***
70 to 125	2	2	2	3	3	3	4***
35 to 70	2	2	2	2	3	3	4***
20 to 35	2	2	2	2	4***	4***	4***
<20	1	2	2	2	4***	4***	4***

* Interim rule for stationary requires Tier 1 capable between April 1 and December 31, 2006.
 ** Tier 1 certified for >3000 bhp products
 *** Applies to non-emergency generator sets only

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The landscape of the stationary generator set marketplace is changing at an unprecedented rate. These changes are being driven by federal and state emissions regulations. As we look to 2006, consideration of

several key regulatory changes will be important to any stationary generator set selection. Caterpillar is pleased to offer the following emission compliant generator sets:

60 Hz					
Rating (kW)	Model	TIER Capability	Rating (kW)	Model	TIER Capability
13-100	D13-100	2	700	C27	2
125-175	D125-175	3	750	C27	2
250	C9	3	800	C27	2
300	C9	3	900	C32	2
350	C15	3	1000	C32	2
400	C15	3	1250	3512C	2
450	C15	3	1500	3512C	2
500	C15	2	1750	3516C	2
550	C18	2	2000	3516C	2
600	C18	2	2250	3516C	2
650	C27	2	2500	3516C-HD	2

While we believe our understanding of the NSPS regulation is accurate, it should not be solely relied upon. Each person is responsible for his or her own independent analysis of the NSPS regulation as it pertains to each site.

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