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Rule Analysis and Checklist

DRAFT

Working title: Restricted Use Generator Exemption

Code citation(s): ss. NR 406.04(1)(w) and NR 407.03(1)(u)

Other codes affected: s. NR 400.02(56), s. NR 445.09

Objective: To improve the operational efficiency of, and to simplify the permitting processes administered under, chs. NR 406 and NR 407, Wis. Adm. Code.

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Subgroup members and affiliations: David Bender – Sierra Club, Todd Palmer – WI Paper Council, Jeff Jaeckels – MG&E, Art Harrington – Godfrey and Kahn, Don Huff – Dairyland Power Cooperative.

Problem being solved or issue being resolved:

Existing rules provide for an exemption from permitting requirements for emergency electric generators with a capacity of less than 3,000 kW that are fired on gaseous fuel, gasoline or distillate fuel oil. Currently, there is no exemption for emergency fire pumps and fire pump engines.

Since this Adm. Code was adopted, USEPA finalized rules covering engine powering emergency generators, emergency fire pump engines, and other restricted use engines which subject many of these units to federal emission control requirements. These federal rules have led to the following issues with the existing permit exemptions:

- Emergency fire pump engine installation now generally requires a construction permit due to these units being subject to a s. 111 or s. 112 requirement under the Clean Air Act.
- The State's definition of "emergency use" is not consistent with USEPA's definition. .
- USEPA has clarified the definition of emergency to exclude things such as peak-shaving. While the DNR historically has said this is not included in the definition of emergency, it is not clearly stated in the existing Adm. Code.
- In addition to engines powering emergency generators or emergency fire pumps, USEPA has defined two additional types of engines with low use and low air pollution emissions and reduced requirements in the RICE NESHPA¹. These are black start engines, defined as engines whose only purpose is to start up a combustion turbine; and limited use engines, defined as any stationary engine that operates less than 100 hours per year.

Currently, emergency fire pump engines, black start engines, and limited use engines do not meet the state definition of "emergency electric generator," and, therefore, cannot be specifically exempt from construction or operation permitting. Furthermore, these engines, when subject to NSPS do not meet the criteria for general exemption even

¹ RICE is an acronym used by EPA to refer to reciprocating internal combustion engines. NESHPA stands for national emissions standards for hazardous air pollutants

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though their emissions in terms of amount, frequency, and duration are very similar to emissions from emergency generators.

Discuss how the proposed rule solves the problem or resolves the issue laid out above:

The proposed rule defines a “restricted use” engine that includes emergency fire pumps as well as the restricted use engines defined under the federal RICE NESHAP. A new permit exemption would then be written to replace the “emergency generator” exemptions in ch. NR 406 and NR 407.

Describe facilities affected by the proposed rule (size, type, location, and approximate number):

The proposed rules would likely affect thousands of facilities in WI with emergency generators, emergency fire pumps, and other restricted use engines.

Will emissions be affected by the proposed rule (increased or decreased)? Yes No

Discussion (list pollutants affected. If no change, say why): In order to qualify for exemption, engines need to demonstrate that they are operating as required in the RICE NESHAP rules. Sources, though exempt from air permitting requirements, continue to be subject to the NESHAP, any applicable NSPS and any applicable state air pollution requirements.

Discuss how the proposed rule improves operational efficiency and/or simplifies the air permitting process:

The proposed rule allows emergency fire pumps and other restricted use engines to be installed without a construction or operation permit and harmonizes, to the extent feasible, the state and federal definitions of emergency, black start, and limited use engines.

The proposed change eliminates the need to issue construction and operation permits for emergency fire pump engines, black start engines, and limited use engines. This allows the DNR to focus resources on more significant emissions units.

The proposal also harmonizes requirements and reduces confusion for affected facilities and DNR staff as to what requirements apply to any generator or fire pump engine.

Discuss how the proposed rule assures the program remains consistent with the requirements of the Clean Air Act, 40 CFR Part 70, and the Wisconsin Statutes:

Federal law does not require these emissions units to be covered by an air permit. USEPA gives states authority to exempt certain types of emissions sources from permit requirements. The types of emissions units being proposed as newly exempt all have emissions similar in type, frequency, duration, and amount, to units currently defined as emergency and exempt from state air permit requirements.

The proposed rule strives to make federal and state definitions of emergency engines more consistent.

The statutes give DNR authority to create exemptions:

285.60(6) EXEMPTION. (a) Notwithstanding the other provisions of this section the department may, by rule, exempt types of stationary sources from any requirement of this section if the potential emissions from the sources do not present a significant hazard to public health, safety or welfare or to the environment.

The DNR believes including black start and limited use internal combustion engines in the proposed exemption is consistent with the intent of the original exemption for emergency generators and is consistent with the intent of the Federal NESHAP. All the requirements in the NESHAP for black start engines are the same as those for emergency

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engines. Limited use stationary engines have even fewer requirements than emergency stationary engines. Existing limited use engines do not need to meet any requirements of the NESHAP including subpart A. New limited use stationary RICE do not need to meet any of the requirements of the subpart except for initial notification.

Discuss estimated resources needed for implementation for both DNR and affected facilities:

The DNR anticipates very few additional resources would be needed to implement this change. A fact sheet for externals tailored to small business would be created to help facilities understand the exemption. A memo to staff explaining the new definition and exemption would also be needed. Mentioning the new exemption at staff training and monthly conference calls would likely be all the training needed for permit and compliance staff.

General discussion of why the rule is crafted as proposed, including any sticking points and how they were resolved, any other decision points, and why the final decision was made:

The initial draft rule language shared with the work group attempted to restate the federal definition and harmonize it with state rules. The federal definition of “emergency” generator is very long and contains many requirements. Attempts to paraphrase, condense and make manageable this language in state code only led to more inconsistency. In the end, it was suggested that DNR refer to the specific parts of the Federal Code that we wanted to reference.

DNR also considered expanding the rule to include only emergency fire pumps, however, in discussions with stakeholders, it became clear that other types of engines defined in the federal rule were very similar in their emissions profiles to emergency generators and would also benefit from being included in the exemption. Based on this analysis, DNR concluded that it should add black start engines and limited use engines to the definition.

There was also discussion on whether or not the state restriction to 200 hours per year operation was necessary since the federal rule’s hour restriction is different and provides for unlimited use of an emergency engine during emergency situations.

DNR believes the 200 hour per year limit in the definition of “restricted use engine” is essential for two reasons. First, it establishes a potential emission rate. Without the 200 hour per year restriction in rule, the only other way to establish a potential emission rate less than 8760 hours per year for an emergency generator would be through a permit which negates the reason for the exemption. Second, the 200 hour per year limit is used in DNR’s justification for not requiring modeling of intermittent sources such as emergency generators. Without the 200 hour per year restriction, DNR would need to perform individual air quality modeling for numerous emergency engines. It’s the DNR’s opinion that such modeling would not inform or benefit public health, industry or the DNR.

Legal review completed: Yes No

Discussion: Preliminary legal review completed.

Statutory changes required: Yes No

Discussion: The term “emergency electrical generator” is not included in the statutes. The proposed changes do not require any changes to statute.

SIP revision required: Yes No

Discussion: The exemptions in both 406 and 407 are included in the state’s SIP as well as many of the definitions in ch. NR 400. A revision to the SIP will be needed to fully implement these changes.

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Attachment: Proposed Rule Language

The department proposes to repeal NR 400.02(56)

~~(56) “Emergency electric generator” means an electric generator whose purpose is to provide electricity to a facility if normal electrical service is interrupted and which is operated no more than 200 hours per year.~~

The department proposes to create NR 400.02(136m) to read as follows:

(136m) “Restricted use internal combustion engine” means an internal combustion engine that operates no more than 200 hours per year and meets the applicable criteria and operational restrictions in any of the following federal definitions:

- (a) ‘emergency stationary RICE,’ as defined in 40 C.F.R. Part 63.6675 and meeting all applicable operational restrictions of 40 C.F.R. Part 63.6640(f)(2) through (4)
- (b) ‘black start engine,’ as defined in 40 C.F.R. Part 63.6675;
- (c) ‘limited use stationary RICE,’ as defined in 40 C.F.R. Part 63.6675

The department proposes to amend NR 406.04(1)(w) to read as follows:

~~(w) Emergency electric generators powered by internal combustion engines Restricted use internal combustion engines~~ which are fueled by gaseous fuels, gasoline or distillate fuel oil with ~~an~~ combined total electric electrical output of less than 3,000 kilowatts, ~~or the equivalent in brake horsepower, for which the owner/operator maintains all of the following records:~~

1. The annual hours of operation for each engine; and
2. The purpose of operating the engine whenever the engine is operated.

The department proposes to amend NR 407.03(1)(u) to read as follows:

~~(u) Emergency electric generators powered by internal combustion engines Restricted use internal combustion engines~~ which are fueled by gaseous fuels, gasoline or distillate fuel oil with ~~an~~ electric combined total electrical output of less than 3,000 kilowatts, ~~or the equivalent in brake horsepower, for which the owner/operator maintains the all of the following records:~~

1. The annual hours of operation for each engine; and
2. the purpose of operating the engine whenever the engine is operated.

The department proposes to amend NR 445.09(1)(c) to read as follows:

445.09 Requirements for compression ignition internal combustion engines combusting fuel oil.

(1) APPLICABILITY. This section applies to any compression ignition internal combustion engine that is capable of combusting fuel oil, except for any of the following:

~~(c) A ~~restricted use internal combustion~~ engine used to power an emergency electric generator exempt under s. NR 406.04 (1) (w) or 407.03 (1) (u).~~