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**Purpose/Regulatory Requirements**

This document summarizes the Verso Quinnesec Mill stationary engine requirements for the applicable sections of 40 CFR 63 Subpart ZZZZ Stationary Reciprocating Internal Combustion Engines (RICE) and 40 CFR 60 Subpart JJJJ Stationary Spark Ignition Internal Combustion Engine (SI-ICE).


Table 1 below summarizes the five stationary engines located at the Quinnesec Mill.

**Table 1: Stationary Engine Summary**

Unit / Equipment #	Applicable Regulation	Location	Installation Date	Fuel	Compression or Spark Ignition	Rated Brake Horsepower	Maintenance Plan Numbers/Service
Emergency Diesel Fire Pump, Equip. #: 12-11001-21	40 CFR 63 Subpart ZZZZ (RICE unit)	Clearwell Building	2001	Diesel	Compression	300	111505 / Cummings
Lime Mud Storage Aux Gas Engine, Equip. #: 45-13011-21	40 CFR 63 Subpart ZZZZ (RICE unit)	Lime Kiln	2002	Gas	Spark	37	NA / Fairchild
Lime Kiln Aux Gas Motor, Equip. #: 45-15002-21	40 CFR 63 Subpart JJJJ (SI-ICE unit)	Lime Kiln	2013	Gas	Spark	30-40	NA / Fairchild
Admin Computer Room Backup Generator Equip. #: 08-21020-92	40 CFR 63 Subpart ZZZZ (RICE unit)	By Administrative Building	2004	Natural Gas	Spark	97	111499 / Wolter
#41 Computer Room Backup Generator, Equip. #: 65-31316-18	40 CFR 60 Subpart JJJJ (SI-ICE unit)	41 Mezzanine Area	2011	Natural Gas	Spark	176	100111 / Wolter

**Purchasing or Replacement of Stationary Engines**

The Environmental Department must evaluate and approve the purchase, replacement, or major repair of stationary engines at the Quinnesec mill. A major repair is defined as a repair costing greater than 50% of the cost of a new, comparable engine. All new engines purchased must meet the appropriate EPA emissions standards. The Environmental Department will determine and communicate applicable regulatory requirements and update the Emergency Stationary Engine Plan as necessary.

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### **RICE Unit Requirements**


Stationary emergency spark ignition (SI) or compression ignition (CI) reciprocating internal combustion engine (RICE) units at the Quinnesec Mill include the Emergency Fire Water Pump, the Lime Mud Storage Tank Auxiliary Engine, and the Admin Computer Room Backup Generator. Emergency RICE units must be equipped with a non-resettable hour meter. Compliance is demonstrated through maintaining hours of operation within the specified limits and conducting specified maintenance activities.

### **SI-ICE Unit Requirements**

The SI-ICE units at the Quinnesec Mill include the #41 Computer Room Backup Generator and the Lime Kiln Auxiliary Engine. These spark ignition units will meet the emissions standards for non-emergency units. As such, the EPA certification documentation and maintenance requirements for SI-RICE units will be used to demonstrate compliance for these units.

### **Summary of Maintenance, Operating, and Recordkeeping Requirements**

1. Specific maintenance must be conducted on all stationary engines to demonstrate compliance. Completion of required maintenance must be documented. This is the responsibility of Maintenance and/or contracted service providers. Records of maintenance must be provided to the Verso Environmental Air Engineer. See the Maintenance section below for specific maintenance requirements.
2. All emergency RICE and SI-ICE units not meeting the non-emergency standards must have a non-resettable hour meter. Operations and/or Maintenance must document the hour meter readings and reasons for operation (maintenance/readiness/emergency/non-emergency). Operating time records must be provided to the Verso Environmental Air Engineer.
3. Emergency RICE Units must not exceed the annual operating-time limits:
  - a. 100 hours for maintenance checks and/or readiness testing
  - b. 50 hours for non-emergency purposes (cannot generate any income)
  - c. The 50 count toward the 100
  - d. No time limit for operating during emergencies

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See the Operating Time Details section below for additional information.

4. RICE unit startup and idling time must be minimized to 30 minutes or less. This is the responsibility of Operations and Maintenance.
5. Documentation of EPA certification for applicable SI-ICE units must be maintained. This is the responsibility of the Environmental Air Engineer.

### **Maintenance**

The maintenance of stationary engines is conducted by Verso personnel or contracted maintenance providers. Maintenance schedules are set up in the SAP Maintenance Scheduling and Tracking System or are available from the service provider. SAP maintenance plan numbers and service providers are specified in Table 1 above. All applicable stationary engine maintenance activities and hour meter readings must be documented and made available to the Environmental Department.

- **Maintenance Requirements for Emergency RICE Units** - Stationary engines must be operated and maintained according to the manufacturer's emission-related operation and maintenance instructions or a maintenance plan which provides, to the extent practicable, for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. Maintenance plans must include the following minimum maintenance activities:
  - **Emergency CI RICE Units**
    - Change oil and filter every 500 hours, or annually, whichever is first
    - Inspect air cleaner every 1000 hours, or annually, whichever is first
    - Inspect all hoses and belts every 500 hours, or annually, whichever is first, and replace as necessary
  - **Emergency SI RICE Units**
    - Change oil and filter every 500 hours, or annually, whichever is first
    - Inspect spark plugs every 1000 hours, or annually, whichever is first
    - Inspect all hoses and belts every 500 hours, or annually, whichever is first, and replace as necessary

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- **Maintenance Requirements for SI-ICE Units Meeting the Non-Emergency Standards**


- Certified engines must be operated and maintained according to the manufacturer's emission-related written instructions. Note that failure to do this will result in the engine being considered non-certified. Non certified engines require an appropriate maintenance plan to be developed and implemented. Also, non-certified engines will require an emissions performance test to be conducted if the engine is > 100 HP.

In situations where an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work or management practice requirements on the schedule required in the final rule, the maintenance activity can be delayed until the emergency is over. The maintenance should be performed as soon as practicable after the emergency has ended.

### **Operating Time Details for Units with Required Non-Resettable Hour Meters**

**Maintenance Checks and Readiness Testing** - Emergency stationary units may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units are limited to 100 hours per year.

**Operating Time Limits and Exceptions** - There is no time limit on the use of emergency stationary engines in emergency situations; however, the owner or operator is required to record the length of operation and the reason the engine was in operation during that time. Records must be maintained documenting why the engine was operating to ensure the 100 hours per year limit for maintenance, testing and demand response operation is not exceeded. In addition, owners and operators are allowed to operate their stationary emergency unit for non-emergency purposes for 50 hours per year, but those 50 hours are counted towards the total 100 hours

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provided for operation other than for true emergencies. The 50 hours per year for non-emergency purposes cannot be used to generate income for a facility, for example, to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

There is no time limit for operation of non-emergency, EPA certified stationary engines meeting the applicable operating and maintenance requirements.

#### Plan Revision Record

Revision Date	Description of Change	Reviewer
11/16/17	Original document	P. LaFleur