

Docket File Information
SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. LICENSEE/LOCATION INSPECTED: MAHLE Engine Components USA, Inc. 2020 Sanford Street Muskegon, MI 49444 REPORT NUMBER(S) 2018001	2. NRC/REGIONAL OFFICE Region III U. S. Nuclear Regulatory Commission 2443 Warrenville Road, Suite 210 Lisle, IL 60532-4352
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3. DOCKET NUMBER(S) 030-04910	4. LICENSE NUMBER(S) 21-12192-01	5. DATE(S) OF INSPECTION January 30, 2018
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6. INSPECTION PROCEDURES USED 87124	7. INSPECTION FOCUS AREAS 03.01-03.08
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SUPPLEMENTAL INSPECTION INFORMATION

1. PROGRAM CODE(S) 03620	2. PRIORITY 5	3. LICENSEE CONTACT Max Mascheweske, RSO	4. TELEPHONE NUMBER (231) 724-1875
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Main Office Inspection Next Inspection Date: January 30, 2023

Field Office Inspection _____

Temporary Job Site Inspection _____

PROGRAM SCOPE

This was an unannounced, routine inspection of an engine parts manufacturer who is authorized to use millicurie quantities of tritium (H-3) for research and development at its facility in Muskegon, Michigan. The licensee has approximately 9 employees who worked with radioactive materials. The licensee uses H-3 as a tracer in engine oil to test for oil consumption and emission analyses in internal combustion engines. The engines with H-3 in the oil were operated in monitored test cells. Each test cell with H-3 oil in the engine was posted with "Caution Radioactive Material" signs. After testing, each engine was flushed so that the remaining oil was below release criteria for the engine. The test cell was cleaned and monitored for tritium. Engines were disassembled and disposed as scrap and the licensee submitted annual reports describing the disposal of engines containing H-3 in accordance with its license condition. Used engine oil was disposed of as mixed waste. The licensee performed monthly in vitro bioassays for their radiation workers.

Performance Observations

At the time of the inspection, no engine testing was being performed. However a test engine with tritium in the oil was in a test cell, and the cell was properly posted. Licensee staff demonstrated lab surveys and package receipt surveys, preparation of oil for tests, monitoring of test cells, disposal of used oil, bioassays of personnel, inventory of licensed material, and security of the material. The inspector reviewed a selection of records, including internal audits, inventories, bioassays, and surveys records.

No violations of NRC requirements were identified during this inspection.