Navy Environmental Quality Fact Sheet

Do you perform scheduled oil changes?

Would you like to improve this process in the following areas?

- ***Meet environmental compliance regulations***. Reduce the amount of hazardous waste generated from oil change-outs. Media area is hazardous waste.
- ***Improve workers' safety and health***. No change to current operations.
- ***Increase productivity***. Practice more effective preventive maintenance.
- ***Save money***. Reduce hazardous waste disposal costs and oil procurement costs.

Joint Oil Analysis Program

An oil analysis program (OAP) can provide early detection of machinery failure and extend oil change intervals. An OAP is applicable to ground support equipment and aircraft. The early detection can help prevent failures before they have a chance to happen. Oil is not changed on a strict schedule, but from the physical condition of the oil as determined by the OAP. This prevents oil from being changed unnecessarily. For certain types of equipment, approval may be necessary to change the Maintenance Requirement Deck and Tech manuals on oil change requirements. The oil analysis can be accomplished through commercial laboratories, in-house equipment, or the Navy Oil Analysis Program (NOAP). The NOAP has the added benefits of 16 existing laboratories and program infrastructure, significantly cheaper analysis rates than commercial laboratories, and expertise on oil analysis from vehicles. OAPs have been implemented throughout the DoD.

How can you achieve these improvements?

Establish an oil analysis program.

How does this method work?

Perform oil testing before regularly scheduled oil change-outs.

How will this method save you money?

Reduce the frequency of oil change-outs and decrease equipment failure. The capital cost for oil analysis equipment for vehicle maintenance is approximately $2,000-$12,000. The program savings will vary depending upon the activity's situation.

How can this method eliminate or reduce pollution?

This P2 method can extend the interval between oil change-outs. Use of an oil analysis program will result in the following pollution reductions:

- Reduce waste oil generation.
- Reduce new oil procurement.

Which processes can benefit most from this method?

This method can be used in shops that maintain vehicles and equipment requiring oil change-outs. Typical shops include:

- Automotive Maintenance
- Equipment Maintenance
- Aircraft Maintenance
- Ground Support Equipment Maintenance

How can this method reduce regulatory compliance concerns?

This method can reduce the frequency of oil change-outs during vehicle and equipment maintenance and reduce the disposal of waste oil. Use will result in the following regulatory compliance benefits:

- Reduction in hazardous waste helps facilities meet the waste minimizatoin requirement under RCRA, 40 CFR 262.41 (a) (6).
- May help facilities reduce their generator status and lessen the tasks required to comply under RCRA, 40 CFR 262 (i.e., recordkeeping, reporting, inspections, transportation, accumulation time and emergency measures).

Achieving Environmental Compliance Through Pollution Prevention

Every day the Navy faces the challenge of operating and maintaining the fleet while complying with environmental regulations. This burden can be reduced by using pollution prevention technologies and methods to reduce compliance requirements. This fact sheet is one in a series designed to encourage activities to use pollution prevention technologies and methods. The overall goal of this series is to promote sustained environmental compliance at the lowest life-cycle cost.

For additional information, contact:

DoD Joint Oil Analysis Program (http://www.joaptsc.navy.mil) and the Transportation Pollution Prevention Model Shop Report, July 1998, Section 4 (http://www.afcee.brooks.af.mil/eq/p2cd/handplan/handbook/106.htm)

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