

# BI-02.11 Establish and maintain an effective mobile equipment maintenance strategy

*(Accountable - Engineering Manager (Site) (Unassigned))*

## Expectations

There are no maintenance process failures that result in mobile equipment fires, during operations and during servicing, maintenance and repair work.

## Specify

The site maintenance strategy considers and manages potential on-equipment fire ignition sources such as:

- Direct ignition sources from electrical component failure
- Ignition sources arising from mechanical component failure
- Ignition sources created from exposing hot surfaces through the failure of insulation, heat deflecting components, surface coatings etc.

The site maintenance strategy considers and manages potential on-equipment fire fuel sources such as:

- Failure of flammable liquid lines, hoses and reservoirs provides liquid fuel
- Components make contact with hot surfaces as solid fuel

The site maintenance strategy considers and manages potential external-to-equipment ignition sources such as:

- Hot work

The site maintenance strategy considers and manages potential external-to-equipment fire fuel sources such as:

- Poor maintenance practises introduce fuel e.g. leaving rag waste in engine bays

The site maintenance strategy considers and manages potential compromises to equipment fire detection systems such as:

- Battery back-up fails when vehicle is isolated (affecting nylon detector tube, linear detector wire or heat probes)

The site maintenance strategy considers and manages potential compromises to equipment fire detection, suppression and related systems such as:

- Battery back-up fails when vehicle is isolated (affecting nylon detector tube, linear detector wire or heat probes)
- Non-standard installation of manual actuators confuses operator
- Failure in manual/auto shut off of machine
- Inability to manually activate fire suppression system (FSS) if machine left idling and there is a fire
- Damaged fire suppression actuation system
- FSS nozzle direction checks
- Damage to fire detection and suppression systems during other maintenance

Manufacturers and suppliers provide guidance information on recommended maintenance schedule based on equipment performance, failure analysis of components and systems, and MTBF/criticality considerations.

Requirements for proof testing of safety related elements of the plant are identified and more frequent inspection, component change outs, etc. are included in maintenance schedules based on the OEM/Supplier strategy recommendations.

## **Implement**

Follow mobile equipment servicing, maintenance and repair process:

1. Establish mobile equipment maintenance and service schedules

2. Provide tools, equipment, and work space
3. Source required parts and consumables to complete maintenance tasks
4. Stand down mobile equipment from production
5. Assign maintenance tasks to trained, competent and authorised maintenance personnel
6. Prepare equipment for maintenance work
7. Carry out servicing and maintenance work
8. Monitor the quality of servicing, maintenance and repair work
9. Confirm that mobile equipment is ready to return to production

## **Monitor**

Work order records

Component failures

Equipment availability