CFM-DE-01 Liquid fuel loss of containment - design weakness

During operations, there is a failure of reservoirs, hoses or lines containing fuel, hydraulics, lubrication, coolants etc. caused by:

- Caused by rubbing, vibration, corrosion etc.
- Awkward to reach or poorly sited isolation point (can't disable fuel flow)
- The released liquid is a fuel that can be ignited in its specified or particular state e.g. turbo charger, exhaust, electrical fault, atomised fluids at pressure etc.
- Pressurised bearings which continue to feed fuel (oil) to turbo even after shutdown of engine triggered
- Gravity fed oil to turbo (continues to feed fuel (oil) after shutdown of engine triggered)
- Failure to consider the damage exposure of external components (e.g. flammable liquid storage tank caps and breathers, overflow position, etc.)
- The loss of containment is due to equipment or component design failure from OEM or third-party supplier.

This credible failure mode is addressed by:

- BI-01.52 Skilled and experienced personnel are accountable for selection of mobile equipment
- BI-02.01 Introduction of equipment to site process
- BI-02.22 Design of flammable liquid reservoirs, e.g. hydraulic fluid and fuel tanks are maintainable and leak proof
- BI-02A.01 Fit for purpose equipment selection processes - General
- BI-02A.02 Fit for purpose equipment selection processes - fuel, lubrication and hydraulic lines
- BI-02A.03 Fit for purpose equipment selection processes - Electrical Systems
- BI-02A.31 QA/QC Processes used in Manufacture
- BI-02A.47 Fuel and exhaust specifications are detailed for mobile equipment
- BI-02A.48 Flammable liquid line specifications are detailed for mobile equipment
- BI-02A.49 Fuel shut off specifications are detailed for mobile equipment
- BI-02A.50 Hydraulic line specifications are detailed for mobile equipment
- BI-02A.50.1 Flammable Fluid Line Control Systems detect and react to loss of containment
- BI-02A.51 Hydraulic tank specifications are detailed for hydraulic tanks on mobile equipment
- BI-02A.70 Fire resistant coolants, hydraulic fluids are tested, approved and available for use in mobile equipment, when required.