

FIXED PLANT MANAGEMENT HIF AUDIT - 17/06/2003 02:57:04 PM

1. REGISTER

Point	Standard	Guideline
1.1	There is a register of fixed plant	Intent: To verify there is a register of fixed plant including crushers, feeders, conveyors, mills, screens, pumps, boilers, compressors, turbines, etc. Personnel: Engineering, maintenance Method: View register which may be by category, area, building, etc. or part of a maintenance system.
1.2	There is a register of fixed classified plant	Intent: To verify there is a register of fixed classified plant as defined in Reg 6.1 Personnel: Engineering, maintenance Method: View register which may be by category, area, building, etc. or part of a maintenance system.
1.3	The registers are current with up to date recordings.	Intent: To verify that the registers contain up to date information. Personnel: Engineering, maintenance, purchasing Method: Check, registers, against recent purchases

2. HAZARD IDENTIFICATION AND RISK ASSESSMENT

Point	Standard	Guideline
2.1	Hazard identification has been carried out for each category of plant on site.	Intent: To verify compliance with Reg. 6.2 Personnel: Engineering, operating, maintenance Method: Review documentation related to the use and maintenance of each category of plant.
2.2	A risk assessment has been carried out for each hazard identified.	Intent: To verify compliance with Reg. 6.2 Personnel: Engineering, operating, maintenance Method: Review documentation related to the hazards identified.
2.3	New plant is purchased based on the findings of risk assessment.	Intent: To verify that only minimum risk plant is purchased. Personnel: Engineering, purchasing Method: Review recent purchase documentation to determine if identified risk has been reduced by the new purchase.
2.4	The risk assessment is reviewed when there are changes in operating parameters.	Intent: To verify that plant capability is re-assessed when operating parameters change. Personnel: Engineering Method: Review documentation for recent changes eg increased through put rates.
2.5	Safe work practices have been developed for the operation of each category of plant.	Intent: To verify that there are specific operating instructions for each category of plant. Personnel: Operating Method: Review operating SWP's

2.6	Safe work practices have been developed for the maintenance of each category of plant.	Intent: To verify that there are specific maintenance instructions for each category of plant. Personnel: Maintenance Method: Review maintenance SWP's
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3. DOCUMENTATION

Point	Standard	Guideline
3.1	Manufacturer's operation and maintenance manuals are available for plant	Intent: To verify that manufacturers are complying with legislation Personnel: Operating, maintenance Method: Review manuals
3.2	There is a procedure to report operational faults on plant.	Intent: To verify there is a procedure to request rectification of faults. Personnel: Operating Method: Review work requests, etc. Interview operators.
3.3	There is a procedure to identify faults which require the plant to be taken out of service.	Intent: To verify that plant is not operated when major faults are identified. Personnel: Operating Method: Review out of service documentation. Interview operators.
3.4	There is a procedure that allocates responsibility for the rectifying of reported plant faults.	Intent: To ensure that responsibility is allocated for fault rectification. Personnel: Maintenance Method: Review procedure. Interview maintainers.
3.5	There is a system to track progress of fault rectification.	Intent: To verify that there is a trail of responsibility for fault rectification. Personnel: Maintenance. Method: Compare work requests and maintenance records.
3.6	Classified plant inspection records are current.	Intent: To verify that classified plant is inspected and tested in accordance with standards. Personnel: Maintenance, engineering Method: Review classified plant records.

4. OPERATIONAL TRAINING

Point	Standard	Guideline
4.1	Training resources are provided specific to the type of plant.	Intent: To verify that operator training resources are available. Personnel: Training, operating Method: View training material, interview operators.
4.2	The training resources are updated when new plant is purchased.	Intent: To verify that training resources are consistent with operating requirements. Personnel: Training, operating Method: View training material, interview operators
4.3	The training resources cover specific plant safety rules.	Intent: To verify that training covers specific plant safety requirements. Personnel: Training, operating Method: View training material, interview operators.

4.4	The operators are assessed for competency.	Intent: To verify that only competent operators operate plant. Personnel: Training, operating. Method: View assessment records.
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5. PLANNED MAINTENANCE

Point	Standard	Guideline
5.1	There is a planned maintenance programme for fixed plant	Intent: To verify that plant is maintained regularly. Personnel: Maintenance Method: Review programme. Interview personnel.
5.2	The maintenance programme is updated when new plant is put in operation and / or existing plant modified.	Intent: To verify that the maintenance programme is current. Personnel: Maintenance Method: Check programme against recent purchases. Interview personnel.
5.3	There is a policy requiring that the replacement of critical components are in accordance with plant specifications.	Intent: To verify that critical components such as safety valves are replaced to specification.. Personnel: Maintenance Method: View documentation. Interview personnel.
5.4	A competent person is appointed to supervise maintenance.	Intent: To verify that maintenance is managed by a competent person appointed under MSIA Section 44. Personnel: Maintenance. Method: View documentation. Interview personnel.

6. MAINTENANCE OF SPECIFIC ITEMS

Point	Standard	Guideline
6.1	Emergency stop / shut down systems are tested.	Intent: To verify that emergency systems are tested and maintained. Personnel: Maintenance Method: View test records and resultant maintenance records.
6.2	Audible / visual start up warning systems are tested.	Intent: To verify that warning systems are tested and maintained. Personnel: Maintenance Method: View test records and resultant maintenance records
6.3	Guarding is inspected	Intent: To verify that moving parts are guarded and inspected. Personnel: Maintenance and operators. Method: View shift logs and inspection records and inspect a sample of plant installed. Interview personnel.
6.4	Lighting, including emergency lighting, of work areas is inspected and tested.	Intent: To verify that illumination is available and maintained. Personnel: Maintenance Method: View test records. Inspect buildings. Review maintenance records.
6.5	Limit controls are tested.	Intent: To verify that limit controls are tested e.g. movement, overload, pressure, temperature, speed and volume. Personnel: Maintenance Method: View test records.

6.6	Dust suppression equipment is functional.	Intent: To verify that dust suppression is effective. Personnel: Maintenance Method: Inspect
6.7	Radioactive sources are inspected.	Intent: To verify that radioactive sources are inspected. Personnel: Maintenance Method: View inspection results
6.8	Vigilance systems are inspected and tested.	Intent: To verify that background vigilance is operative eg. smoke, thermal, gas, visual, etc. Personnel: Maintenance Method: View inspection and test records.
6.9	Fire suppression systems are inspected and tested.	Intent: To verify that fire suppression systems will operate as designed. Personnel: Maintenance Method: View inspection and test records.
6.10	Emergency warning systems are tested.	Intent: To verify that emergency warning systems are tested. Personnel: Maintenance Method: View test records
6.11	Communication systems are inspected and tested.	Intent: To verify that communication systems are inspected and tested. Personnel: Maintenance Method: View inspection and test records
6.12	Control labels and warning decals are inspected and maintained	Intent: To verify compliance with MSI Reg. 6.2 (2) (g) for fixed plant.. Personnel: Maintenance Method: View inspection records.

7. MAINTENANCE FACILITIES

Point	Standard	Guideline
7.1	Maintenance personnel have equipment and tools that are compatible with the plant being maintained.	Intent: To verify that any specialised maintenance equipment is available. Personnel: Maintenance Method: Inspect a sample of equipment. Interview personnel.
7.2	Maintenance equipment is stored and maintained.	Intent: To verify that maintenance equipment itself does not introduce hazards due to poor storage or maintenance. Personnel: Maintenance Method: Inspect a sample of equipment. Interview personnel.
7.3	There is lifting and jacking equipment available.	Intent: To verify that equipment is available for the safe movement of fixed plant eg. Various types of cranes, rigging, jacks, etc. Personnel: Maintenance Method: Inspect a sample of equipment. Interview personnel.
7.4	There are procedures for lifting and jacking of specific plant.	Intent: To verify that lifting and jacking hazards of specific plant have been dealt with. Personnel: Maintenance Method: View procedures. Interview personnel.

7.5	The persons who use the lifting and jacking equipment are competent.	Intent: To verify that specific training in lifting and jacking has been given. Personnel: Maintenance Method: View training records. Interview personnel.
7.6	There are procedures for wash down / cleaning prior to maintenance.	Intent: To verify that wash down / cleaning hazards eg. High pressure, steam, chemicals, etc. have been dealt with. Personnel: Maintenance. Method: View procedures. Interview personnel.
7.7	The persons who use the wash down / cleaning equipment have been trained.	Intent: To verify that specific training in wash down / cleaning has been given. Personnel: Maintenance Method: View training records. Interview personnel
7.8	Standard work procedures for electrical welding require the earth lead to be as close as possible to the job and not through the building structure or pipework.	Intent: Compliance with Australian standards. Personnel: Maintenance Method: Inspect a sample of welding installations. Review SWP's.

8. ACCESS FOR OPERATION AND MAINTENANCE

Point	Standard	Guideline
8.1	Operational access to plant is provided.	Intent: To verify that the hazards of operational access have been addressed. Compliance with Australian Standards for stairways, ladders and platforms. Personnel: Operating Method: Interview operators
8.2	Maintenance access to plant is provided.	Intent: To verify that the hazards of maintenance access have been addressed. Compliance with Australian Standards for stairways, ladders and platforms. Personnel: Maintenance Method: Interview maintainers.
8.3	Access facilities are inspected and maintained.	Intent: To verify that access is not restricted for any reason. Personnel: Operating, maintenance Method: Interview operators and maintainers.