	Acceptable standard
	indicates activity in progress.
	Area for improvement

MAINTENANCE MANAGEMENT AUDIT 2020

	Topic	Standards	Success & Target evaluation	Assessment Notes	Auditor	Max Score	Score
Maintenance Practices							
A	**Work Planning & Control**						
1	Does a monthly maintenance plan exist that accounts for expected and unexpected fluctuations in output requirements?	A maintenance master plan should exist that takes account of both expected, and unexpected changes in machine utilisation and output demands. Modification, safety & routine work should be included. A clear communication path must exist between production planning & engineering.	Review the backlog of outstanding jobs every 3 months. If significant and consistent shortfall exists then the master plan should be re evaluated & changed accordingly.			10	
2	Is the planned / predictive maintenance routinely reviewed.	A direct communication link must exist between production planning, supervisors / section leaders & engineering. Changes in existing arrangements should be agreed, and alternative arrangements made.	As Above			5	
3	Is the planned / predictive maintenance widely advertised or communicated to all relevant parties.	Planned and Predictive maintenance must be widely advertised as to what is done, and when. Predictive techniques should be explained to all parties concerned in simple terms. This approach will promote co-operation and inspire confidence.	Carry out spot checks with operators, supervision and relevant departments to assess attitude and understanding.			5	
4	Is a programme in place to carry out criticality assessments of key and auxiliary plant	Criticality assessments should be made on all key items of plant and equipment. The results should be incorporated into the planned & predictive maintenance programmes. Such assessments should be subject to review on an agreed time frame.	Carry out spot checks on the criticality assessments review dates. Compare downtime analysis results to ensure effective and comprehensive assessments.			10	
5	Is all key equipment included in the planned / predictive maintenance schedule .	Tasks and schedules details should exist in the system for all the 'Planned' work on all equipment. Frequent reviews should take place as issues arise from route cause analysis. The target for engineering unplanned lost time should be no more than 5 hours per month per machine.	Regular downtime analysis should reveal the effectiveness of the maintenance techniques. History of additional items should be reviewed at an agreed frequency.			10	
6	Have the maintenance procedures been subject to risk assessments and or SSOW .	Risk assessments should be carried out on all planned tasks. Engineering staff should be trained to carry out their own risk assessments prior to planned or predictive maintenance being started.	Check the works order to ensure H&S data is present including SSOW as applicable			10	
7	Is a procedure in place for the authorisation and normalisation of modifications or project work	Machine modifications including safety work should be subject to informed authorisation before commencement. Risk assessments should be updated and the tasks should be converted into a work order.	Such work orders should not commence without informed authorisation.			5	
8	Is there a procedure in place to record incomplete maintenance.	Any incomplete tasks should be recorded as such, and the remaining work identified and communicated to interested parties.	Periodic inspection should be made of completed work orders for both maintenance and project work.			5	
9	Does a checklist exist covering handover from engineering to production.	The handover procedure should be specified in a short checklist form. This helps to prevent problems arising from locks being left on isolators, guards left off or the machine left in an untidy state. Hot spot boards should also be used to advise ongoing issues.	Handovers should occasionally be audited			5	
10	Is the departmental performance recorded in terms of completed work orders / requests.	The target for request completion should be that no more than 1% of requests should be outstanding for more than 30 days. The overall performance should be graphically represented and the results should be visible to all.	Performance should be recorded on a graph			5	
11	Is planned maintenance work targeted within normal shift patterns.	Arrangements should be made wherever possible to carry out planned work within normal shift periods. This will make the effort put in more visual to all concerned, reduce overtime, and ensure effective utilisation of engineers' time.	WCM meetings and production meetings could be the forum for auditing effectiveness.			5	
12	Is the planned vs. reactive maintenance ratio monitored.	Target should be set at local level for key areas of the site. It is suggested that 3 categories exist. Planned work, preventative (including predictive & servicing) reactive (lost time due to preventable problems) & other work which would typically include safety or development work.	Performance should be recorded on a graph			5	
						Total	0
B	**Maintenance Improvement Plans**						
13	Does the site have a maintenance improvement plan?	A simple plan should exist that includes: Failure analysis, development of predictive techniques, and engineering dept performance. Re-evaluation of the plan should take place at least annually.	Ask the Engineering manager to show you the plan. For best practise this should be reviewed.			5	
16	Are the top downtime & machine failures being tracked and an action plan in place to address issues.	There should be a formal process that reviews the downtime causes. This could be a section within an engineering team meeting. Data should be taken from MP2 records, or any other relevant sources.	Ask to see the resulting documentation or evidence of any decisions.			5	
						Total	0
C	**Condition Monitoring**						
15	Does a condition monitoring programme exist within the business.	A programme of condition monitoring should exist. Vibration analysis should be considered for all items of key equipment. Risk assessments should be used to identify monitoring points that need fixed accelerometers. The use of thermography should be considered for key electrical equipment. Oil analysis should be considered for lubrication and hydraulic systems.	Records of inspections & results should be available. Records of remedial action should be available. An estimate of lost time avoided is desirable.			10	
16	Has a criticality study been made on equipment for cost effective condition monitoring	A criticality survey should be carried out and reviewed at least annually. The areas identified should be evaluated for the correct cost effective solution in predictive technique(s).	A database of equipment and test points should show additions and dates.			10	
17	Are all monitoring paths loaded onto computer?	Site planner should have a record of all condition monitoring on computer.	Records should be available on MP2.			5	
						Total	0
D	**Lubrication**						
18	Does the site have a comprehensive lubrication schedule.	The lubrication schedule should be based on the equipment criticality assessment document. The schedule should detail frequency of checks and type of lubricant OR be condition based lubrication	Records should be available.			10	
19	Does the site practise oil analysis.	A criticality survey should be carried out and reviewed at least annually.	Records should be available.			10	
20	Does a filtration programme exist.	Assessment should be made of the areas most likely to benefit from filter cart filtration. Lubrication systems should be evaluated for effective system filtration.	Records should be available.			5	
						Total	0
E	**Data Accuracy**						
21	Is the quality of the Work Order descriptions and comments acceptable?	Comments should contain: the date and the initials of the person making the comments, and the comments should reflect the situation as clearly as possible	WCM meetings and production meetings could be the forum for auditing effectiveness.			5	
22	Are the engineers logging all work	A record of engineering time should exist.	Ask to view records.			5	
23	Is the downtime being recorded?	The downtime should be completed for all work orders completed. The downtime should be in HOURS (to the nearest 1/4) and '0' recorded if there is no downtime	Inspect sample work orders.			5	
24	Are the correct reason for failure codes being used?	A reason for failure code should be used for all work orders and the correct code should be selected	Inspect sample work orders.			5	
25	Are preventable failures identified on all work orders / maintenance requests	A system for the identification of preventable failures should exist, to continually update the preventative / predictive programmes.	Inspect sample work orders.			5	
						Total	0
F	**People**						
26	Is there a structured training plan for maintenance personnel to ensure skills match the requirements?	A training plan should exist for each individual.	Inspect training records. Check requested / agreed training needs from appraisals.			5	
27	Are the engineering staff given an appraisal at least annually.	All engineers should be formally appraised annually, to monitor performance, and identify training needs.	Conduct straw pole of engineering staff.			5	
28	Does the engineering dept have its own WCM meetings.	The engineering dept should have its own WCM initiative, and include all team members including the store keepers.	Ask to see the resulting documentation or evidence.			5	
						Total	0