

# Asset Integrity / Maintenance

## Opportunity Self-Assessment

Innocence

Excellence

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1	Maintenance budget based on historical volumes and not forward looking on asset condition, risk or planned use.	1 2 3 4 5	Asset integrity supports a risk based capital planning process for asset owners/mtce. to defend best use of limited resources.
2	Mtce. budgeting process not linked to current or future forecasted condition of assets by class. i.e.) replace or rebuild	1 2 3 4 5	Budget prepared for labour, materials and services based on asset condition determined during scheduled assessments.
3	Mtce. Budget does not provide granularity to link specific equipment activities or events to budget/cost.	1 2 3 4 5	Budgeting includes; components, PM's, shutdowns, asset modifications, conditional & corrective mtce.
4	Total lifecycle cost of assets not recognized or calculated as part of capital replacement program.	1 2 3 4 5	All optimizes total-life-cycle by reducing operating & mtce costs while extending life and proactively managing risk of failure.
5	New assets are designed in isolation from operations, maintenance and H&S personnel.	1 2 3 4 5	New assets designed & optimized for RAMBOSS; reliability, accessibility, maintainability, operability, safety & sustainability.
6	One solution proposed and adopted is the norm to resolving	1 2 3 4 5	Design reviews incorporate value add engineering and value improvement methodologies.
7	A single mtce. Strategy (PM, Pd, CBM) applied for all types of assets.	1 2 3 4 5	Eqpt. mtce. Strategies (predictive, preventative, etc.) developed by eqpt type & criticality according to established criteria.
8	Asset regulatory and criticality of equipment not consider in establishing planned maintenance routines.	1 2 3 4 5	Mtce. plans and routines established based on regulatory requirements & criticality of eqpt in consultation with operations.
9	Scheduled maintenance delayed as equipment not released by operations in a timely and orderly manner.	1 2 3 4 5	Scheduling and coordination of work done in consultation with operations and other key stakeholders (sales & procurement).
10	Standard operating procedures nor work to time standards (estimates) developed for repetitive work.	1 2 3 4 5	Planned mtce. work managed with established SOP's & estimated work orders measured in weeks of backlog by trade.
11	Mismatched crewing in size or skill composition results in eqpt delays or additional under used mtce. personnel	1 2 3 4 5	Mtce. crews assigned work based on skill and est. hours to ensure work load is matched to available resources.
12	Fire fighting is the norm to equipment failure with reactive intervention rather than planned, staged, scheduled mtce.	1 2 3 4 5	Variances to planned scheduled work identified, reported and analyzed for required corrective action.
13	Inadequate reporting of work completed (i.e. bad order) hinders "root cause" analysis and systemic corrective actions.	1 2 3 4 5	Work completed as per SOP & reported as to cause of failure and with labour, parts, materials, services and work performed.
14	Operations routinely failures to routinely release equipment until production targets have been achieved.	1 2 3 4 5	Prior to inspection/repairs ensures ops releases, cleans, de-energizes and locks out eqpt. as per agreed schedule.
15	Equipment routinely repaired returned to service with no critical dimensions measured or reported	1 2 3 4 5	Inspect & measure deviations in the condition of the asset's function, repair & record technical info.in the WO system.
16	Maintenance planning and scheduling of work is predominantly within a 3 week window.	1 2 3 4 5	Condition of assets proactively monitored to optimize planned maintenance intervention with 96% equipment availability.
17	Multiple types of equipment failures are experienced as standalone events and not viewed as a "systemic" problem.	1 2 3 4 5	Equipment failure analyzed and corrective action taken and implemented to correct the "root cause" of the system failure.
18	Financial Info. not available to support total life cycle costing and determining "beyond economic repair" end of life.	1 2 3 4 5	Information systems support data analysis to support total life cycle management of assets from cradle to grave
19	Mtce. Contracts negotiated at head office with little or no involvement or follow-up at site level.	1 2 3 4 5	Maintenance contracts are actively managed by a contract administrator knowledgeable with the negotiated contract.
20	Major mtce. shutdowns are managed as part of routine work with no S/D methodology or lessons learned/debrief used.	1 2 3 4 5	Major shutdowns are planned/managed by a dedicated team with senior mgt. support following a robust S/D methodology.

Scoring Methodology: Add-up the total score of your self-assessment (circled scores).

- If you scored; 20 - 40 - Substantial opportunity for improvement
- If you scored; 41 - 60 - Significant opportunity for improvement
- If you scored; 61 - 80 - Multiple areas of opportunity for improvement
- If you scored; 81 - 100 - Congratulations. You are an effectively managing your maintenance program.