Purpose:	To ensure that appropriate data is analyzed to identify: (1) Suitability and effectiveness of the quality management system, and (2) Appropriate process improvement action and opportunity for improvement is taken.
Scope:	This procedure covers the statistical techniques used for analysis of data in the area of customer satisfaction; conformity to product requirements; characteristics and trends of processes; information relating to vendors. The statistical techniques used include, but not limited to, bar chart, pie chart, line chart, table etc. If recurring problems are analyzed, process improvement action shall be taken to resolve such problems.
ISO Reference:	MS ISO 9001:2015 Clause No. 9.1.3 and 10.3

(1) Analysis of Data

Step	Activity	Responsibility	Reference
1	ISO Manager (IM) shall compile relevant data at frequency defined in the Analysis of Data Table (shown below) with statistical techniques (i.e. graphs, histogram, and pie chart). Such data shall be recorded on the Analysis Of Data Report for management review. IM will also compile an ISO Annual Activity Time Chart for use to monitor the submission of data required by the department managers for analysis.	IM	Analysis Of Data Report ISO Annual Activity Time Chart
2	Analyses the statistical chart to detect for any abnormal trend that indicated actual or potential problem. Note: For actual existence of problem, refer to Non Conformance & Corrective Action Procedure for resolution of the problem. Upon detection of a problem, initiate immediate corrective action. If such problem continues to recur, take process improvement action to further prevent occurrence of the problem. The statistical charts shall also be used as a basis for review during the Management Review meeting to identify potential non-conformance and opportunity for continual improvement.	IM	Non Conformance & Corrective Action Procedure

Step	Activity	Responsibility	Reference
3	It is the responsibility of the Department Manager to maintain the required record of data for analysis. The respective Department Managers will be required to undertake corrective action for any under achievement of the QMS requirement as discovered in the data analysis or as directed by IM or Managing Director (MD). Should there be a requirement to raise a Non-Conformance Report (NCR), the Department Manager is to obtain the NCR allocation number from IM as listed in the NCR Monitoring Log and provide a copy of the said NCR to IM. Necessary action shall then be taken by the Department Manager to investigate the root cause(s). The Department Manager shall evaluate the impact of identified root cause(s) to determine whether it is necessary to carry out corrective action or process improvement action. This is to eliminate potential occurrence of the problem. Such corrective action taken shall be recorded in the NCR Form accordingly. As for the need to take process improvement action, refer to the procedure as stated below.	Department Manager	NCR Form NCR Form
4	IM shall be responsible to close all the NCRs raised and review for further action whenever necessary and to ensure that all corrective action or process improvement status are being monitored and attended within timely manner.	IM	
5	IM shall carry out an annual data analysis with the use any process improvement technique such as Pareto analysis, cause and effect analysis, and any other QC tools (optional) to identify appropriate action to be taken.	IM	

(2) Analysis of Data Table

No.	ISO 9001:2008 Clause & Measurement	Dept	Analysis Method
	8.4 a) Customer Satisfaction		
1	Customer Complaints per month	IM	Bar Chart
2	Customer Satisfaction Assessment Rating Score per year	IM	Bar Chart
	8.4 b) Product Conformity		
3	Non-Conformance Report (NCR) per month	IM	Bar Chart
4	Number of Defects per Type of Works per year.	PM	Bar Chart
	8.4 c) Process Characteristics		
5	Cost Variance Between Budget & Actual Production Cost per year	MD	Table
6	Number of NCR issued during IQA per Department.	IM	Bar Chart
	8.4. d) Vendor Performance		
7	Supplier Assessment Rating Score according to Performance Criteria per year	CM	Table
8	Contractor Assessment Rating Score according to Performance Criteria per year	CM	Table

(3) Process Improvement Action

Step	Activity	Responsibility	Reference
1	If any risk assessment as per procedure and corrective action which had been taken is not effective, IM shall discuss with relevant Department Manager concerned for more effective solution. IM may then consider initiating a process improvement action to further resolve the recurring problem.	IM	Risk Management Procedure
2	IM shall address such recurring problem by implementing process improvement action in raising the Process Improvement Action Plan & Notification Memo and monitor the impact and effectiveness of the action taken via the Process Improvement Action Report. IM will obtain the approval of MD to appoint a Department Manager or any qualified person to carry out the process improvement action. IM will plot out the plan, scope and objectives required for the execution of the process improvement actions by the appointed personnel (either Department Manager or a qualified person). IM shall also raise the Process Improvement Action (PIA) Report by filling up the 'Description of action plan or changes required for improvement of process (improvement program title)', 'ISO Procedure / Work Instruction Reference (if any)', 'Description of implementation activities, timescales and responsibilities' and 'Action by'.	IM	Process Improvement Action Plan & Notification Memo, Process Improvement Action Report PIA Report

Step	Activity	Responsibility	Reference
	The Process Improvement Action (PIA) Report shall then to be issued to the appointed Department Manager or qualified person for further action.	IM	PIA Report
3	The appointed Department Manager or qualified person shall annotate satisfactory actions taken as specified by the 'Description of implementation activities, timescales and responsibilities' in the PIA Report. Make necessary comment after verifying, validating and evaluate the action taken or changes made to address the non-conformances. Give recommendation to resolve the issue fully (if any). Submit the PIA Report to IM for verification and onward transmission to MD for approval and case closure.	Department Manager or Appointed Qualified Person	PIA Report PIA Report

End