|  |  |  |
| --- | --- | --- |
| **SITE ASSESSMENTREPORT** | | |
| **Type of Visit: Site Assessment** | | |
| **Industry Sector:**  **Electrical** | **Products Manufactured:**  **MCCB, ACB, Capacitors, Control Gears, Load Bank** | **MSME Type:**  **Medium** |
| **No. of Employees:**  **476** | **Annual turnover:** | **Participation in Government Schemes (if yes, name of the schemes):**  **No** |

| **SITE ASSESSMENT REPORT** | | | | | |
| --- | --- | --- | --- | --- | --- |
| **Parameter** | **Description** | **Assessment Finding** | **Assessment Score** | **Points for consideration of jury**  **(to be filled by Assessors)** | **Remarks** |
| A-1 | Technology selection & continual Up gradation | ***Customer requirements are collected through customer surveys. After reviewing all requirements, these requirements are put in PFMEA. PFMEA is the main document for capturing customer’s requirements. Technology selection criteria decided and selection flow chart prepared. Accordingly technology is developed. All new technologies are validated with lot of trials. Also Benchmarking Study is done.***  ***There are total 136 machines. Out of this 98 machines ( 72%) are CNC/PLC controlled with alarms and triggers*** | 4 | ----------------- | ----------- |
| ***A-2*** | ***Process Capability Assessment & Enhancement*** | ***35 CTQs are identified from FMEA to realise the potential of the processes. Out of 35 identified CTQs, 32 are monitored through control charts and process capability. X bar R chart and P chart are being used. Cp and Cpk calculated before and after improvement. 23 CTQs are having Cpk>1.33 and rest 9 are >1. After this improvement RPN again calculated and this RPN has been reduced from 200 to 80. There is a fair understanding of process capability concept.*** | 3 |  |  |
| A-3 | Low Cost Automation | ***Training module established for giving training to employees on this concept. Training scheduled is also prepared. Total 19 LCA projects implemented in year 2014-15. Rs. 29.53 lacs invested in these LCA projects and total annual saving accounted as 69.28 lacs. 13 projects identified in 2015-16. 11 projects completed and 2 are under process. Because of these LCA projects, there was 27.12% productivity improvement. Kaizen sheets and one point lessons are being used for continuous improvement. Down the line employee engaged in this concept.*** | 4 |  |  |
| ***A-4*** | ***Waste Management*** | ***From Raw material receiving to delivery of final products, every stage is mapped for various types of waste. Training program is conducted to spread out the awareness of wastes and their effect on profitability. Lean manufacturing concepts of Muda, Mura & Muri applied in the process.***  ***Current state map and future state map of G frame MCCB line drawn and lead time calculated as 41.20 days. Line balancing chart made Bottleneck operation also identified. 13 projects identified for Muda, Mura & Muri reduction. 10 are completed and 3 are under progress. In waste management also, operator are engaged.*** | ***3*** |  |  |
| ***A-5*** | ***Safe working environment*** | ***HIRA prepared for all processes. Separate safety policy documented. Safety policy covered all the parameters and this safety policy is communicated to all the employees through display and training program. Safety work permits are given to all outsiders who will work or worked inside the company. Last safety audit conducted on 06.10.2015. Review meetings conducted to take actions on all the NC raised during safety audit. Formal system is established and implemented for incident reporting and investigation. Near misses are also recorded. Quarterly review meeting conducted for reviewing safety issues.*** | 4 |  |  |
| B.1 | Process validation | ---------- | ----------- | -------------- | This parameter is not selected by the organization for assessment |
| B-2 | Supplier development | ***Well established and documented process exists in the organization for supplier selection and approval. There ae total 600 suppliers with in group. Suppliers consolidation process is going on. Regular supplier audit system is in place by dedicated team.***  ***Suppliers performance being monitored on quality, cost and delivery parameters. Consolidated report is communicated to supplier. Suppliers action plan are being monitored through a tracking sheet.***  ***Plating and powder coating are outsourced process and their controls are well defined. Specifications established for OSP and agreed with suppliers. Supplier’s self certification process is also in progress.*** | 3 |  | Apart from consolidated performance rating, parameter wise rating(quality, cost & delivery) report to be sent to supplier to identify the area where he has to take action. |
| ***C-1*** | ***Swachh workplace (5S)*** | ***Whole company is divided into various zones with responsibility of zone leader and Dy leader. Zones layout is also created. Total plant is very neat & clean. Floors are epoxy coated.***  ***Training program conducted for all zones to understand this concept of 5S.***  ***Red Tag area designated in each zone. Zone wise audit conducted by using a 5s checklist and their scores are displayed in each zone.***  ***Visual management system is very well implemented throughout the plant.*** | 3 | ----------- | Red tag campaign activity to be further improved. Money generated from red tag activity may be monitored.  Area specific checklist to be used for 5S audit.  Separate score to be monitored for 1S,2S,3S,4s and 5S. Minimum score from all zones will be the score of company. Focus on 2S to be improved |
| ***C-2*** | ***Daily works management*** | ***There is fair understanding of this concept. PQCD targets are defined for each area and displayed there. Morning meetings conducted to review the targets. More than 80% targets are met. Gaps are systematically identified and actions are initiated with PDCA approach.*** | 3 |  | In DWM, workers participation to be further enhanced. Every body should be aware about PQCD targets |
| ***C-3*** | ***Planned maintenance*** | ***Quality management system procedure ( OPS-203) is established to carry out maintenance activities. Planned maintenance (Preventive and predictive) carried out as per schedule. Schedule adherence is more than 98% and this Planned maintenance is carried out with proper checklist of equipment.***  ***Repeated break down is not there. Daily breakdown data is being recorded and analysed.***  ***Performance indicators are being monitored to know the effectiveness of maintenance process.***  ***Autonomous maintenance system is established and training module is prepared. Machine cleaning standards are prepared.*** | 4 |  |  |
| ***C-4*** | ***Process Control*** | ***Sampling plan at incoming inspection and control plan/control charts are being used in the processes. All processes are being monitored through control plan. Monthly audit is also conducted to verify the effective adherence of control plan . Daily red bin analysis meeting conducted and actions are initiated for all non-conformities.*** | 4 |  | Corrective action plan to be documented in control plan. |
| D-1 | Design capability | ---------- | ----------- | -------------- | This parameter is not selected by the organization for assessment |
| D-2 | Design process & methodologies | ---------- | ----------- | -------------- | This parameter is not selected by the organization for assessment |
| E-1 | Transportation and storage | ---------- | ----------- | -------------- | This parameter is not selected by the organization for assessment |
| ***E-2*** | ***Timely delivery*** | ***Organization has structured planning system and planning is based upon forecasting sale trend. Organization having huge warehouse back side of the factory. 100% timely delivery targets are met. Corrective action procedure is in place in case there is any delivery failure.*** | ***4*** |  |  |
| E-3 | Customer Education for product usage Maintenance and service | ***User manuals , e books , Newsletters for product demonstration are prepared for customer education regarding product proper usage .***  ***Videos are used where required.***  ***But there is no formal documented procedure for this.*** | 3 | Points for consideration of Jury | Documented procedure may be established, documented and implemented for customer education regarding product usage and service. |
| E-4 | Customer Servicing | ***Organization provide services to the customer to meet there needs & requirements.***  ***Customer servicing process properly define and maintained***  ***Target maintained mostly – 70 %*** | 3 |  |  |
| F-1 | Technology selection & continual up-gradation | ***System for consideration Environmental aspects in Technology up gradation is there .***  ***Considering also environment aspects in Technology .***  ***Verified Capital expenditure authorization request for implementation of all aspect .*** | 4 |  |  |
| ***F-2*** | ***Systems for abatement of effluent, emissions and wastes*** | ***Pro active checking of environment compliance .There is a manufacturing & service delivery systems to eliminate reduce ,or dispose effluents , emissions and solid waste .***  ***Used oils are treated/filtered and make it as hydraulic oil for re-use in machines.***  ***Vermiculture process is introduced to compose the canteen waste/plants wastes.***  ***. There is 97% less emissions from DG as per Govt. permission limit.***  ***All emissions norms are very well known to all concerned.***  ***All hazardous waste is sold to UPPCL authorized vendor*** | 4 | Points for consideration of Jury | Organization does not have any requirement of ETP |
| ***F-3*** | ***Systems for energy efficiency*** | ***Organization have a method of energy efficiency through minimizing breakdowns, reducing cycle time, increasing no. of cavities in tools etc.***  ***Training program conducted for all employee for awareness of energy efficiency. There is a unique mechanism to reduce energy consumption.***  ***All equipment are found calibrated.***  ***Centralise ducktail AC’s replace with minimum split AC’s. Tubes replaces with LED. Sub meters are there.*** | 4 |  |  |
| ***F-4*** | ***Systems for natural resource conservation*** | ***3 R Concept to reduce natural resources.***  ***Targets are set for reducing the natural resources***  ***Evidence of copper , zinc , Replacing of thermocol by shredded paper for domestic market***  ***Solar system project is under consideration*** | 3 | Points for consideration of Jury |  |
| G-1 | Installation of environmental protection and measuring equipment | ***Environment protection plan and list of pollution control equipment verified .Pollution control facilities like sewage treatment plant, dust collector, composting plant, rain water harvesting etc installed in the organization.***  ***Report also verified for indoor air quality of zinc metallization area.***  ***Pollution control facilities commissioning reports verified.*** | 4 |  |  |
| ***H-1*** | ***Planned maintenance of Environmental management systems*** | ***Maintenance plan & check points of preventive maintenance verified for environmental management systems. Maintenance history & record is there. There is no breakdown of these equipment as handling of these equipment is very easy.***  ***Predictive maintenance schedule verified.*** | 3 |  |  |
| H-2 | Planned maintenance of energy control systems | ***List of energy conservation equipments verified.***  ***Maintenance plan & check points of preventive maintenance also verified. .Maintenance history & record is there. Predictive maintenance schedule verified. Break down trend shows reduction in break down by 57 %.***  ***Technology upgradation is also evident like invertor drive in moulding machine and replacement of centralized AC plant with split AC.*** | 4 |  |  |
| I-1 | Design compliance with regulatory requirements | ---------- | ----------- | -------------- | This parameter is not selected by the organization for assessment |
| J-1 | Disposal after use | ---------- | ----------- | -------------- | This parameter is not selected by the organization for assessment |
| K-1 | Plant layout | ---------- | ----------- | -------------- | This parameter is not selected by the organization for assessment |
| K- 2 | Materials Management | ***Process flow chart established for material planning and procurement approval system is also established. Concept of decentralization of stores is very well implemented in the organization. Safety stock and reorder level defined for the items. Supplier portal is given to each supplier. Advance shipping note (ASN) system implemented.***  ***Shelf life is pre-entered in the system so that no material will be issued after shelf life.***  ***Packing standard for each item is established.***  ***Inventory is being monitored value wise and no of days equivalent to production***. | 3 |  |  |
| ***K-3*** | ***Material handling systems*** | ***Material flow defined for material handling system. Pull system implemented on shop floor. List of hazardous material and their training for handling is verified.*** | 3 |  | Secondary containment to be implemented for storing hazardous chemicals. |
| L- 1 | People development plan | ---------- | ----------- | -------------- | This parameter is not selected by the organization for assessment |
| L-2 | Employee involvement activity | ---------- | ----------- | -------------- | This parameter is not selected by the organization for assessment |
| M-1 | Outsourced activities : Selection, control and improvement | ---------- | ----------- | -------------- | This parameter is not selected by the organization for assessment |
| N-1 | Trademark | ---------- | ----------- | -------------- | This parameter is not selected by the organization for assessment |
| N-2 | Industrial Design | ---------- | ----------- | -------------- | This parameter is not selected by the organization for assessment |
| N-3 | Copyright | ---------- | ----------- | -------------- | This parameter is not selected by the organization for assessment |
| N-4 | Patent | ---------- | ----------- | -------------- | This parameter is not selected by the organization for assessment |
| ***O-1*** | ***Outgoing (at customer end) quality performance level*** | ***Last 6 month data shows that outgoing quality level is 826PPM. Improvement seen in last 3 years data.***  ***Feed back taken from the customer and Current customer satisfaction level is 90%*** | 3 |  |  |
| ***O-2*** | ***In-house quality performance level (first pass)*** | ***Final inspection data shows improvement over the year.***  ***2014-15 = 98.28%***  ***2015-16(YTD)=99.4%.***  ***Product wise data verified. All data shows improvement. Pareto analysis conducted to identify the area of improvement.*** | 3 |  |  |
| O-3 | Field performance level  (based on customer defined targets for field performance) | ---------- | ----------- | -------------- | This parameter is not selected by the organization for assessment |
| P -1 | Total Employee Involvement (TEI) | ---------- | ----------- | -------------- | This parameter is not selected by the organization for assessment |
| ***P -2*** | ***Scrap (as a % of gross sales)*** | ***2013-14 = 0.77%***  ***2014-15=0.32%***  ***2015-16(YTD)=0.20%***  ***There is continuous reduction in scarp %.***  ***Red bin meeting concept being used for scrap reduction.*** | 4 |  |  |
| P -3 | Process Capability (Cp/ Cpk) | ---------- | ----------- | -------------- | This parameter is not selected by the organization for assessment |
| P -4 | Overall Equipment Effectiveness | ---------- | ----------- | -------------- | This parameter is not selected by the organization for assessment |
| ***Q -1*** | ***Optimal use of natural resources*** | ***Consumption of natural resources used in the organization are identified.***  ***Sensors are used in urinal / wash basins. RO waste water is used for gardening. Rain water arrangement is effectively used.***  ***Load categorization done for critical and non-critical machine and DG runs only for critical machines and saving the fissile fuel.***  ***Used paper are used in packaging instead of thermocol***  ***Replacement of wooden packing with corrugated Boxes , Cost reduction is evidence*** | 4 |  |  |
| ***Q -2*** | ***Energy performance*** | ***Verified specific energy trend & achievement.***  ***Verified month wise consumption report- Electricity consumption, Positive Trend is there. Verified Utility trend. Verified over all plant specific energy improvement- 23 %, Energy performance indicator are reviewed regularly.*** | 4 |  |  |
| ***Q -3*** | ***Environmental performance – air/effluent / solid wastes*** | ***Waste reduction projects is there .Verified U.P. Pollution control board certificate of water, air , Domestic discharge capacity – 10 KL. Annual return of Hazardous waste & annual report is there . Verified explosive license for diesel storage . All types of environmental norms are identified.***  ***Improvement of emission like – DG Set stack, Air emission***  **There are three level of Monitoring done by Top management**. | 4 |  |  |
| R -1 | Turnover growth | ---------- | ----------- | -------------- | This parameter is not selected by the organization for assessment |
| ***R -2*** | ***Operating profit/ % improvement (Measured as Gross Profit)*** | ***Management has established their own methodology to see the profit growth year and year. Financial data shows that there is approx. 12% profit growth YOY during last 3 years*** | ***4*** |  |  |
| R -3 | Safety Score | ***To track the safety of employees safety calendar has monitored on daily basis and necessary corrective actions are taken***  ***Process established to record the incidents and their countermeasures.***  ***Logbook is maintained to record the near misses.***  ***There is 24 hrs. monitoring through cameras for any unsafe acts/conditions.***  ***Injury frequency rate and man days lost are being monitored.***  ***There is a 36% improvement in first aid/minor injuries over last 2 years.*** | 3 |  | Safety awareness to be more increased down the line. |
| R -4 | Inventory turnover (ITR) | ---------- | ----------- | -------------- | This parameter is not selected by the organization for assessment |

|  |
| --- |
| **Visit Summary:**  **Positive area:**   1. **Top Management commitment for improvement through ZED implementation.** 2. **Understanding of team about ZED requirements** 3. **Infrastructure, latest technology, competent people** 4. **Very neat and clean plant, epoxy floor, very well implemented visual management, work environment, use of required PPE.** 5. **Canteen food quality** 6. **Supplier portal- Material re-consolidation, no manual interaction for payment, sms alert / phone to owner for any rejection, continuous 7 days mail if action plan does not receive.** 7. **Environmental and energy performance monitoring** 8. **Effective Process control to reduce the impact on environment**   **Area for improvement :**   1. **Mismatch of formats for supplier selection/supplier audit/supplier revalidation.** 2. **Communication of supplier performance rating to supplier- detailed report to be communicated.** 3. **Red tag campaign activity to be further improved. Money generated from red tag activity may also be monitored.** 4. **Area specific checklist to be used for 5S audit.** 5. **Separate score to be monitored for 1S,2S,3S,4s and 5S. Minimum score from all zones will be the score of company. Focus on 2S to be improved** 6. **All types of waste category to be considered for identifying the waste.** 7. **In DWM, workers participation to be further enhanced. Everybody should be aware about PQCD targets.**   **Organization is evaluated on 30 parameters ( 20 mandatory and 10 optional)** |