

Checklist B 1/2

Special Award for TPM Achievement

Categories		Check Points
1	TPM Policies and Objectives	As premises for the fulfillment of corporate social responsibility (CSR), the corporate vision is clearly defined for business growth in the 21 st century.
		TPM policies are planned in relation between company policies and plant/factory policy.
		TPM policies and objectives are checked using methods such as benchmarking that all sections of PQCDSME are displayed corresponding to 8 pillars.
		A TPM target value is established in line with management results, and a system is set up to quantitatively evaluate the progress of activities.
		The achievement status of TPM policies and objectives is available in a time line using objective data.
		The achievement status of TPM objectives is confirmed and necessary actions are taken for unachieved indexes.
		Distinctive and innovative TPM activities are exercised fusing the market needs and seeds of the company.
2	Focused Improvement	Each loss from equipment, procedure, operation, unit requirement, and management are being exposed along with the flow of materials and information, and improvement issues are prioritized according to the level of importance.
		Thinking and procedures for zero-loss are thoroughly implemented.
		Human-machine systems are completed in line with management objectives.
		Efforts are made to set up easy-to-operate equipment.
		There are many improvement cases that directly connect to management.
		Focused Improvement issues and themes are set up in relation to TPM policies and objectives.
		A system is set up to analyze and understand the relationship between loss and cost using the loss map and loss tree methods, and achievement is seen.
		A system to prevent recurrence of problems such as defects, breakdown, and short mechanical stalling is standardized aiming for zero occurrences.
		A system to apply cases of Focused Improvement horizontally is established and results are being achieved.
3	Autonomous Maintenance	The results of improvement are announced qualitatively and in terms of PQCDSME, and future issues and goals are clearly set.
		Autonomous maintenance is established and the improvement structure is moving forward.
		Small-group activities have been revitalized and specified achievements are gained.
		Kaizen proposals are made actively and the contents are at a high level.
		Continued level improvement training is provided for maintenance skills.
		The achievement target for autonomous maintenance is shown in steps, and there is a system established to diagnose the progress and completion showing results.
		Actions are being taken to remove dirt, stains, scattered raw materials, and oil leakage, etc. and to eliminate their cause.
		Cleaning, lubrication, bolt tightening, and inspections are performed perfectly and without fail, and thorough measures are taken for difficult-to-handle areas.
		A system to upgrade the skills of all employees is established with a skill evaluation chart, one-point lessons, and maintenance skill training, showing results.
4	Planned Maintenance	Computerized systems are being successfully used for the purpose of spare parts control, maintenance cost control, maintenance information, etc., showing results.
		The concept of optimal maintenance cost is being effectively applied.
		Equipment diagnostic techniques are steadily being applied and are showing results.
		Equipment is set up for easy autonomous maintenance.
		A number of cases are available that demonstrate excellent results of corrective maintenance.
		Goals for planned maintenance are set up in line with TPM policies and their progress is being monitored.
		Duties for autonomous maintenance and planned maintenance are clearly defined and a cooperative structure among operators and professional maintenance men is established, showing results.
		Sudden breakdown is significantly decreased with thorough failure analysis and enhanced maintenance; a system is set up for MP design information to accumulate and utilize the data showing results.
		A system is set up and is being upgraded for professional maintenance skills such as repair skills, inspection skills, lubrication control skills, and failure analysis skills.
5	Quality Maintenance	A system is set up and is being upgraded ensuring the accumulation of maintenance information such as the status of equipment deterioration, failure, equipment shutdown, maintenance man-hours, etc.
		The 4M requirement for quality assurance is clearly defined and duty segregation for each pillar and collaborative issues are noted.
		Details of manufacturing procedures are traceable.
		A system is structured to realize a facility that will not send out defects.
		A system is structured to set up and manage operations and work requirements that will not send out defects.
		A production line with zero defects is available.
		Quality maintenance goals are established in line with TPM policies and progress is monitored.
		Based on fundamentals and principles, quality defects are being analyzed for their cause.
		A measure is set up to effectively and thoroughly applies the brakes on defect recurrence.
		A system is established to set up a quality maintenance system with figure 8 deployment.
		In order to reduce the defect rate caused by equipment, necessary training and research are moving forward.

Checklist B 2/2

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6	Early Management	Systems are in effect for the development and control of plants and products; results have been achieved.
		Systems are in effect for economic comparison and risk analysis of plant investment alternatives.
		Systems are in effect for MP design and MP information feedback.
		A number of cases are available for easy-to-make products and easy-to-use equipment.
		Plants and products have been developed that achieve high-level customer satisfaction.
		Management items and standards are clearly defined for product and plant development management, goals are set in line with TPM policies, and progress is being monitored.
		In product and plant development management, a system that extracts the origin of problems with design review and debugging is fully functioning.
		The MP design approach and implementation in equipment, molds, jigs, and fixtures are all systemized and an information feedback system for MP design is in place.
		Initial phase control is being exercised on new products and equipment, and it is producing a positive result.
		A system that connects the development of new technology and processing to the development of new products and equipments is in place and specific cases are available.
7	Education and Training	The training environment, curriculum, and tools are in order for the improvement of knowledge, skills, and techniques.
		Internal TPM instructors have been trained and appointed.
		All company staff members eligible for certified maintenance specialist have taken the examination, with a high passing rate.
		The criteria for training assessment are in good order and are proving conducive to operator vitalization.
		A challenging training program is in good order providing a comfortable workplace.
		Goals for training programs are qualitatively set up and important themes for the training programs are interlinked with the future plans of the company.
		A systematic training program for each job and rank is established with employees having a full understanding of the required knowledge and skills for each job and rank, showing results.
		A place for maintenance skill training is provided and utilized for professional maintenance training and operator training, increasing the ability to carry on skills.
		OJT training programs are fully functioning and lead to the upgrading of skills for all staff members, improving multi-skilled worker training.
		Results from the human resources program are being feed back to the TPM activities and system to verify that achievement is moving forward.
8	Improvement of the Administrative and Indirect Departments	People-friendly, pleasant offices are in place.
		Actions are being taken to provide shorter work hours and care of senior workers.
		Effective support is being rendered to production departments to improve operation efficiency.
		Cost control is in effect for each product.
		Work improvement is being aggressively pursued, and concrete results are being obtained.
		Improvement goals for Improvement of the Administrative and Indirect Departments are in place in line with TPM policies and progress is being monitored.
		By supporting the efficacy of production activity and improvement of supplier activity, the product inventory and goods in process have been reduced.
		Losses by the Improvement of the Administrative and Indirect Departments are accurately measured, significant reduction in operation man-hours is achieved, and indirect fixed costs are reduced.
		Information is being transmitted quickly and accurately, and information needed is available on demand.
		A system to carry over the skills required for sustainable operation maintenance is in place.
9	Safety, Health, and Environment	Company policies regarding safety and the environment are being observed in every area of company operation.
		Human contact is being aggressively pursued on production floors.
		Work environment protection (noise, odor, light, etc.) is in effect.
		Zero accidents and zero pollution are being pursued in an effort to create a globally friendly plant.
		Safety, sanitation, and accident prevention are all being handled adequately.
		Safety, sanitation, and environment control policies are well defined, improvement targets are set for reduction of waste and emissions, etc., and progress is being monitored.
		Past cases of labor accidents and plant disasters have been scientifically analyzed, and action has been taken to prevent recurrence.
		A risk analysis hazard map of the plant has been created, the safety inspection manual is in order, and safety patrols are being made.
		Safety assessment is enforced before introducing new equipment and/or process.
		Environmental measures such as risk management and waste management are being considered, moving forward targeting zero emissions and reduced environmental load.
10	Effects and Evaluation of TPM	TPM activities are in place with a goal-oriented emphasis.
		The level of achievement for TPM goals is being assessed, and cause analysis is being carried out for its achievement or non-achievement.
		Objectives are being met in terms of overall equipment effectiveness, sporadic breakdowns, minor stoppages, and defect product indexes.
		Prominent results have been obtained in reducing process defects and customer complaints.
		The product inventory and works in process have been drastically reduced in comparison to before TPM introduction.
		A record of zero accidents and zero pollution is continuing.
		Product cost reduction, cash flow improvement, and achievements leading to operating profits are showing.
		High worker morals and a stimulating working environment are in place as an intangible benefit of TPM activities.
		Problems that remain unsolved in connection with TPM activities are being clearly recognized and concrete action plans are being envisioned.