



**Carriage Workshop, Lallaguda
South Central Railway, Secunderabad**

Integrated Management Systems Manual

for

***Integrated Management Systems of Quality, Environment,
Safety & Health and Energy***

In compliance with the requirements of

***(ISO 9001:2015, ISO 14001:2015, OHSMS 45001:2018 &
ISO 50001:2018)***

Issue No : 00

Date: 01 February 2020

Approved by

(Chief Workshop Manager & Top Management)

Issued & Controlled by

(Dy.Chief Mechanical Engineer & Management Representative)

Controlled Copy of:


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This Integrated Management Systems Manual (IM) Doc. No. IM/ M-02 has been developed to have common systems in conformance to the requirements of ISO 9001: 2015 – Quality Management System (QMS), ISO 14001:2015 – Environmental Management System (EMS), ISO 45001:2018 Occupational Health & Safety Management System (OHSMS), ISO 50001:2018 – Energy Management System (EnMS) Standards for Carriage Workshop, Lallaguda & Lube Oil Filter Plant, S. C. Railway, Secunderabad.

The same is approved by Chief Workshop Manager, Carriage Workshop, Lallaguda, S. C. Railway, Secunderabad, and is issued by MR to all the authorized holders for its implementation.

Integrated Management Systems Manual (IM) is issued to authorized holders. All are required to keep updated copy of this manual and to ensure its compliance in their respective areas and to propose any changes from time to time for further updation of the same, which shall be incorporated as amendment.


The change management of this manual shall follow the requirements of Control of Documents mentioned in this manual – P/01.



(Signature)

Dy. Chief Mechanical Engineer




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Sl. No.	Authorized Holder	Copy No.
1.	TOP MANAGEMENT	00
2.	Management Representative	01
3.	Document Control, IMS Cell (Master copy)	02
4.	All Employees (Read Only Format)	03
5.	Certification Body	04

Note:

Copy No. 03 is uploaded on LAN in read only electronic format and available with all the concerned personnel.

S.C. Railway Carriage Workshops Lallaguda	Integrated Management System – Manual		Chapter No. G/04	
	Title:	Amendment History		
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S. No.	Chapter No.	Brief Nature of Amendment	Date of Revision	Current Revision No.
1.				
2.				
3.				
4.				
5.				

S.C. Railway Carriage Workshops Lallaguda	Integrated Management System – Manual		Chapter No. M/01	
	Title:	Scope of Integrated Systems Manual & Exclusions		
	Approved by: CWM	Rev. No.	00	
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EXCLUSIONS:

The IMS also satisfies the full requirements of ISO 3834-2:2005 with the exception of the following Clauses:

- a) **Clause 13: Post Weld Heat Treatment**, which is outside the scope of Carriage Workshop, Lallaguda, S. C. Rly, Secunderabad.


Justification:

The type of Material and Thickness range that is being used in the welding repair activities at Carriage Workshop, Lallaguda does not entail the post weld heat treatment.


The Integrated Management Systems Manual (IM) also includes all clauses of ISO 9001:2015 (QMS), ISO 14001:2015 (EMS), ISO 45001:2018 (OH&SMS), ISO 50001:2011 (EnMS) and ISO 3834-2:2005

1.2. APEX INTEGRATED SYSTEMS MANUAL BASIS:

This Integrated Systems Manual sets out the policy and directions for meeting the requirements of International Standards **ISO 9001:2015 (QMS)**, **ISO 14001:2015 (EMS)**, **ISO 45001:2018 (OH&SMS)**, **ISO 50001:2011 (EnMS)** and **ISO 3834-2:2005**, providing an important documentary guide to the systems as a whole. The integrated systems shall hereafter be abbreviated to Integrated Management Systems (IMS).

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- a. **ISO 9000:2015** Quality Management Systems–Fundamentals and Vocabulary
- b. **ISO 9001:2015** Quality Management Systems – Requirements.
- c. **ISO 9004:2009** Quality Management Systems–Guidelines for Performance Improvements,
- d. **ISO 3834-2:2005** Quality Requirements for Fusion Welding of Metallic Materials
Part 2: Comprehensive Quality Requirements
- e. **ISO 3834-5:2005** Quality Requirements for Fusion Welding of Metallic Materials
Part 5: Documents with which it is necessary to conform to claim conformity to the quality requirements of ISO 3834-2, ISO 3834-3 or ISO 3834-4
- f. **ISO 14001:2015** Environmental Management systems – Specification with guidance for use.
- g. **ISO 14004:2016** Environmental Management Systems – General guidelines on principles, systems and supporting techniques.
- h. **ISO 45001:2018** Occupational Health and Safety Management System Requirements with Guidance for use
- i. **ISO 19011:2011** Auditing techniques for all the systems
- j. **ISO 31000:2018** Risk Management - Principles and guidelines.
- k. **ISO 50001:2018** Energy Management Systems – Requirements with Guidance for Use

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1. All the terms used in this Apex Manual are in accordance with ISO 9000:2015.

- 1.1. **Organization:** Carriage Workshop, Lallaguda, & Lubricating Oil Filter Plant, S. C. Railway, Secunderabad.
- 1.2. **Customer:** Various Divisions and all the passengers
- 1.3. **Top Management:** **Chief Workshop Manager (CWM), Carriage Workshop, Lallaguda, S. C. Rly, Secunderabad** is the Top Management for all sorts of decision making, ensuring affective & efficient Operation, Maintenance services and Safety of its esteemed Passengers and also the Employees of Carriage Workshop, Lallaguda & Lube Oil Filter Plant, S. C. Railway, Secunderabad.



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4.1. Understanding the Organization and its Context

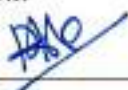
The organization has determined external and internal issues which are relevant to its purpose and its strategic direction that affect its ability to achieve the intended results of the Integrated Management System. The external and internal issues identified through PEST and SWOT are continuously being monitored and reviewed in Management Review Meetings.

PEST

Political (P) <ol style="list-style-type: none"> 1. Ecological/environmental Issues 2. Current & Future Legislation 3. Internal Legislation 4. Regulatory Bodies and Processes 5. Government Policies 6. Funding, Grants and Initiatives 7. Lobbying/Pressure Groups 8. Wars and Conflicts 	Economic (E) <ol style="list-style-type: none"> 1. Home Economy Situation 2. Home Economy Trends 3. Overseas Economies and Trends 4. General Taxation Issues 5. Taxation Specific to Product/Services 6. Specific Industry Factors 7. Customer/End-User Drivers 8. Interest and Exchange Rates 9. International Trade/Monetary Issues
Social (S) <ol style="list-style-type: none"> 1. Lifestyle Trends 2. Demographics 3. Customer Attitudes and Opinions 4. Law Changes Affecting social Factors 5. Major Events and Influences 6. Buying Access and Trends 7. Ethnic/religious Factors 8. Advertising and Publicity 9. Ethical Issues 	Technological (T) <ol style="list-style-type: none"> 1. Competing Technology Development 2. Replacement technology/Solutions 3. Maturity of Technology 4. Manufacturing Maturity and Capacity 5. Information and Communications 6. Technology Legislation 7. Innovation Potential 8. Technology Access, Licensing, patents 9. Global Communications.

SWOT

Strength (S) <ol style="list-style-type: none"> 1. Strong Technology backup 2. Experienced and Motivated team 3. Strong Customer focus 4. Advantages and Proposition 5. Resources, Assets, People 6. Experience, knowledge, data 7. Innovative aspects 8. Location and geographical 	Weakness (W) <ol style="list-style-type: none"> 1. High inventory 2. Limited customer base 3. Gaps in capabilities 4. Lack of competitive strength 5. Financials 6. Timescales, deadlines and pressures 7. Continuity, supply chain robustness 8. Reliability of data, planning
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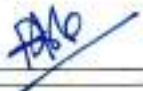
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<ul style="list-style-type: none"> 9. Accreditations, qualifications, certifications 10. Processes, systems, IT, communications. 11. Cultural, attitudinal, behavioral 12. Management cover, succession 	9. Processes and systems etc.
Opportunity (O) <ul style="list-style-type: none"> 1. Lean organization leads to <ul style="list-style-type: none"> a) Flexibility in products & Services b) Quick response to customer needs 2. Low Competition 3. High growth potential 4. Technology development and innovation 5. Seasonal, Weather influences 	Threat (T) <ul style="list-style-type: none"> 1. Political effects 2. Legislative effects 3. Environmental effects 4. Obstacles faced 5. Financial pressure 6. Attrition.

4.2. Understanding the Needs and Expectations of Interested Parties

The organization has determined and identified interested parties relevant to IMS and the requirement of the interested parties in order to prevent the potential effect on the organization's ability to consistently provide products and services which meet the customer and applicable statutory and regulatory requirements.

Interested Parties	Requirements	Monitoring & Review mechanism
External Providers	<ul style="list-style-type: none"> 1. Specification Communication 2. Payment as agreed 3. Technology support 	Review in Management Review Meetings
Customer	<ul style="list-style-type: none"> 1. Quality of product & Service 2. Delivery of product on time. 3. Response to complaint 4. Proper communication channel 	<ul style="list-style-type: none"> 1. Through documented procedure of customer or interested parties claims or complaints (P/06) 2. Review in Management Review Meetings.
Statutory & Regulatory Body	Complying with the statutory and regulatory requirements as defined from time to time.	<ul style="list-style-type: none"> 1. Through documented procedure of Evaluation of Compliance (P/10) 2. Review in Management Review meetings.
Management	<ul style="list-style-type: none"> 1. Good financial performance 2. Legal & Other compliance 3. Avoidance of penalty/fines 	Control of Management
Employee	<ul style="list-style-type: none"> 1. Management Support 2. Good work environment 3. Recognition and reward 	Control of Management
Trade Union	<ul style="list-style-type: none"> 1. Compliance of applicable laws. 2. Good working relationships with management 	Through regular PNM Meetings.

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Interested Parties	Requirements	Monitoring & Review mechanism
Government Agencies	<ol style="list-style-type: none"> Prompt payment of taxes due. Good risk management. Emergency procedures in place and drills 	Through Management Review Meetings.
Media	<ol style="list-style-type: none"> Fast, accurate information concerning environmentally related impacts/incidents to the local/national press. Openness/transparency to everyone 	Through Management Review Meetings.
Society	<ol style="list-style-type: none"> No complaints relating to: Noise, parking, health and safety, pollution, waste, employment. Compliance with statutory and regulatory requirements. 	Through Management Review Meetings.

4.3. Determining the scope of the integrated Management System

The organization had determined the scope of the Integrated Management System by considering external and internal issues, requirement of relevant interested parties and product and service of the Organisation.

The organization has identified geographical boundaries applicable to IMS and types of products and services applicable to all the requirements of IMS within the scope.

Scope of the integrated Management System

- *Periodical overhauling of coaches, intermediate overhauling of bogies, refurbishment of coaches, repair of broad gauge coaching stock and their identified sub-assemblies.*
- *Assembly, Testing & Dispatch of Lubricating Oil and Fuel Oil Filters for Diesel Locomotives*

EXCLUSIONS:

The IMS satisfies the full requirements of ISO 9001: 2015 with the exception of the following Clauses:

Clause 8.3: Design & Development of products and services, including all sub clauses, which is outside the scope of Carriage Workshop, Lallaguda, S. C. Rly, Secunderabad.

Justification:


Design and development activities are being conducted by RDSO, LUCKNOW. Hence, this clause is not applicable.

Scope of the Welding Quality Requirements (ISO 3834-2:2006)

- *Periodical overhauling of all type of coaching stocks including Modifications, Conversions, by using steel Group 1.1, 1.4 and 1.7 Group of materials by SMAW, GMAW and GTAW Process*

EXCLUSIONS:

The IMS also satisfies the full requirements of ISO 3834-2:2006 with the exception of the following Clauses:

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Clause 13: Post Weld Heat Treatment, which is outside the scope of Carriage Workshop, Lallaguda, S. C. Rly, Secunderabad.

Justification:

The type of Material and Thickness range that is being used in the welding repair activities at Carriage Workshop, Lallaguda does not entail the post weld heat treatment.

4.4. Integrated Management System and its processes

The organization has determined processes, inputs/outputs, sequence, interaction, criteria and methods of effective application, resources and its availability. Has also assigned responsibilities and authorities and identified risks and opportunities and has also evaluated the changes required.

Organization Profile:


Carriage Workshop, Lallaguda & Lube Oil Filter Plant, S. C. Railway, Secunderabad at a glance

4.4.1. INTRODUCTION:

- a) The Workshop was established on 30th September 1893, under the aegis of "THE NIZAM GUARANTEED STATE RAILWAYS" for undertaking periodic over hauling and repairs to BG and MG Steam Locomotives, Coaches and Wagons.
- b) Subsequently it was brought under the purview of "NIZAM STATE RAILWAYS". On formation of South Central Railway on 2nd October 1966, it became a major workshop of the zone.
- c) It continued to be a composite workshop for MG and BG rolling stock till 1973. Due to phasing out of steam locos, the workshop took up POH of all types of BG coaches and was named as "Carriage Workshops".
- d) The workshop is spread over an area of 13.97 hectares with 4.25 hectares of covered area. The workshop presently handles a wide variety of coach POH which includes ICF design coach, LHB coach, EMU, Self-propelled Coaches like SPARME/SPART/DEMU/DHMU & Tower Wagon.
- e) The Carriage Workshop, Lallaguda is currently engaged in POH, IOH, NR of BG coaching stock including LHB coaches, supply of Wheels, DVs and other sub-assemblies to Divisions.
- f) The Carriage Workshop, Lallaguda being located within Secunderabad can be easily accessed from other parts of the country, by Rail, Road or Air. The local address of the unit is as under:

Carriage Workshop,
South Central Railway,
Lallaguda, Secunderabad – 500017.

- g) The workshop is well connected with the telecommunication network of Secunderabad. The telephone and the fax numbers are:
 - Telefax, with CWM : 040-27003402
 - Telefax, with Dy. CME : 040-27003402
 - Telephone : 040-27003402, 27004219
- h) The Carriage Workshop, Lallaguda is a field unit of the SCR, controlled by the CME/SCR through the CWM/SCR.
- i) This unit is headed by the CWM, who reports to CME/SCR through

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- j) CWE/SCR. The CWM has, under his administrative control, the Accounts, Personnel, Mechanical, Electrical and Store departments attached with workshop for administrative convenience.
- k) Carriage Workshop, Lallaguda, was awarded ISO 9002:1994 certification in 2000, which was subsequently re-certified as ISO 9001:2000 Workshop in 2007 and transitioned to ISO 9001:2008 during May 2012 for Quality Management System (QMS).

4.4.2. Salient features of LGD Workshop are:

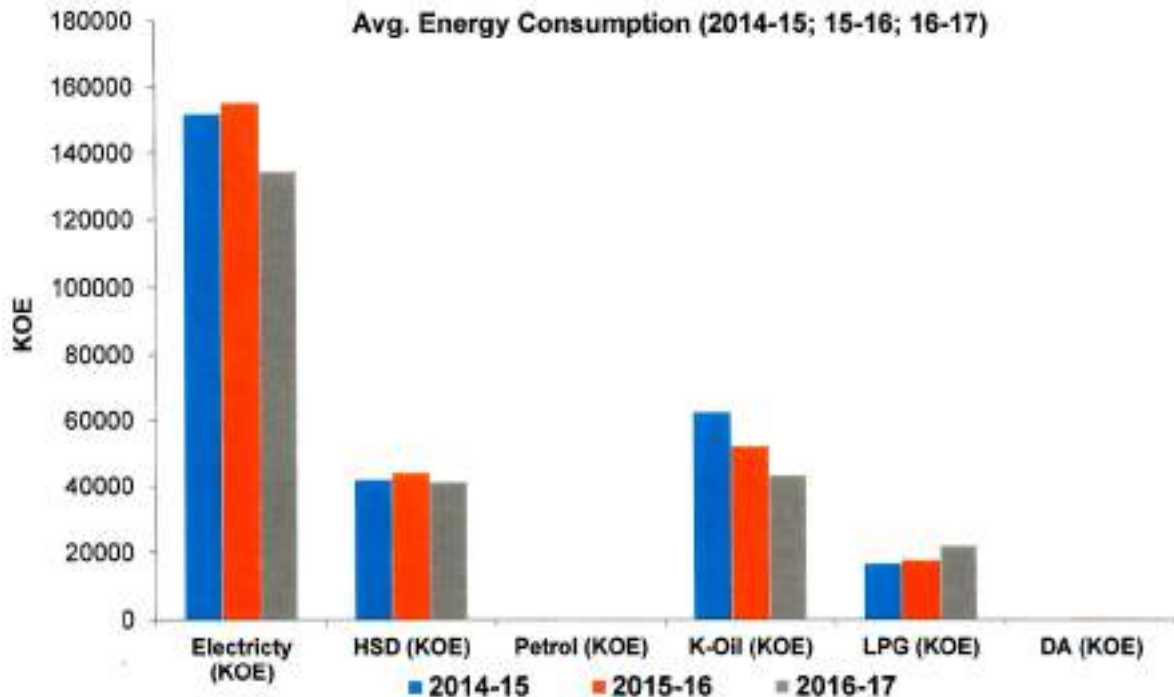
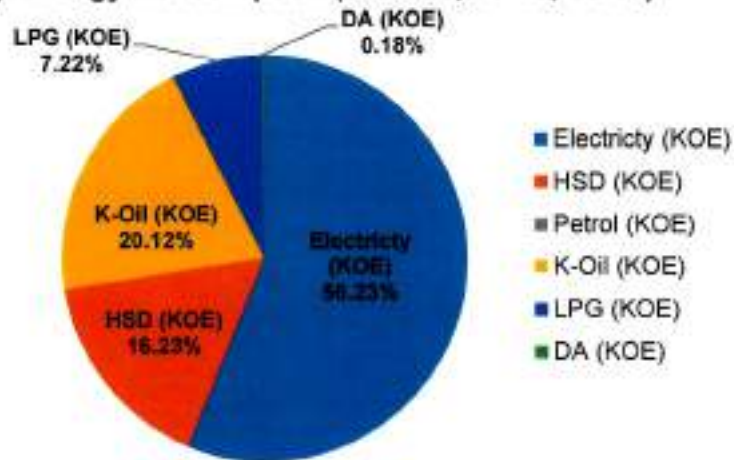
- Year Established : 1893
 - Total Area : 34.5 Acres (13.961 Hectares)
 - Total Covered Area : 10.5 Acres (4.249 Hectares)
 - Greeneries and Green Area : 0.35 Hectares & 335 no's Trees
 - Total No. of Machinery : 520 Nos.
 - Track Length : 8.25 Kms.
 - Staff Strength : 3258
 - Electrical Consumption : 1.74 lakhs unit per month (Avg. for 2015-16)
 - Water consumption : 1559 Kilo Litres (Oct'16)
- l) LOFP/SC was commissioned in 1978 to assist the Railways in meeting their requirements of Lube Oil Filter Elements due to the failure of private suppliers and also to keep in check the price of filters purchased from trade.
- m) Lube Oil Filter Plant, South Central Railway, Secunderabad (LOFP/SCR/ SC) is one of its kind in the entire Indian Railways for manufacturing pleated paper type filter elements required for the maintenance of DLW/ALCO type Diesel Locomotives of Indian Railways.

4.4.3. Salient features of LOFP, SC are:

- Year Established : 1978
 - First filter manufactured : 17/05/1978
 - Total Area : 1635.78 Sq. Mtrs
 - Total Covered Area : 824.2 Sq. Mtrs
 - Greeneries and Green Area : 947 Sq. Mtrs & 07 no's Trees
 - Staff Strength : 50
- n) Carriage Workshop, Lallaguda & Lube Oil Filter Plant, S. C. Railway, Secunderabad, has been receiving Water from Greater Hyderabad Municipal Corporation (GHMC) and has also captive storage of sub-soil water. Metered quantity of water supplied by GHMC is used for day to day processes and other internal uses.
- o) LGDS workshop including LOFP is going to acquire certification in IMS inclusive of ISO 9001: 2015 (QMS), ISO 14001: 2015 (EMS), ISO 45001:2018 (OH&SMS) & ISO 50001:2018 (EnMS).

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Avg. Energy Consumption (2014-15; 15-16; 16-17)




4.4.4. Organization's MISSION:

Carriage Workshop, Lallaguda & Lube Oil Filter Plant, S. C. Railway, Secunderabad, as a subsidiary of Indian Railways was established with the following mission:

"Be a Learning Organization and the first choice of stakeholders through customer focus, dynamic leadership, motivated and committed human capital, innovation, excellence with global perspective and good corporate governance."

This mission involves:

- Creation of necessary processing, transmission, distribution and receiving facilities.
- Speedy and efficient implementation of all new projects such as maintenance of LHB coaches.

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- Generation of adequate internal/extra budgetary resources for meeting the expansion needs of the organization and minimizing its reliance on external support.
- Adoption of rigorous measures for environmental protection and pollution control and considering health and Safety of all the performers.
- Commitment to meet the need of the customers with high quality services.

4.4.5. Organization's VISION:

"Be the leading organization in providing excellent services to its customers and beyond with global focus, committed to customer care, value creation for all stake holders and environmental, health & safety and energy responsibility".

4.4.6. Prevention of Pollution:

- Emissions of the various processes and functions in the Carriage Workshop, Lallaguda & Lube Oil Filter Plant, S. C. Railway, Secunderabad premises are diverted through stacks of sufficient heights. No hydrocarbon is allowed to vent directly to the atmosphere. Emissions are well within specified TPCB limits.
- Solid waste as generated during various processes are adequately and with due care are disposed off. Similarly used oil & used chemicals are also being disposed off in environment friendly manner.
- The organization has conducted and documented an energy planning process and it is consistent with IMS policy
- **Concept of 3 R is honestly followed i.e. Reduce, Reuse & Recycle.**

In view of this being a "Polluting" category of industry, we have adopted the followings sophisticated programmes/procedures/techniques to implement the concept of 3 R.

4.4.7. Legal Sanctions/Consents:

All statutory compliances / permissions / valid consents, are obtained from various Regulatory Bodies in time. Such as Water & Air Consents from TSPCB, Annual Environmental Statement, etc.


4.4.8. Horticulture: 37.35% of open land covered by greenery.

4.4.9. SAFETY:

Carriage Workshop, Lallaguda, S. C. Railway, Secunderabad attaches the highest importance to Safety in operations at all its establishments.

4.4.9.1. Onsite Disaster Control Plan:

Carriage Workshop, Lallaguda & Lube Oil Filter Plant, S. C. Railway, Secunderabad is having its own On-Site Disaster Control Plan to enhance overall efficacy for handling any kind of emergency. Our onsite Disaster Control Plan is religiously practiced by conducting mock drills once every Six months. The same plan has been practiced / in action since its inception. The above mentioned plan has been rehearsed / checked up to the satisfaction of various Statutory Authorities. The above plan clearly defines the category of hazards and mitigation methods and the role and responsibilities of all levels of personnel involved. A procedure is being established for preventing and mitigating the hazards which may have direct / indirect impact on environment and OH&S and all kinds

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of emergency situations. Evacuation plan is also a part of this document. Carriage Workshop, Lallaguda & Lube Oil Filter Plant, S. C. Railway, Secunderabad outsources emergency fire tenders from Fire Brigade Ambulances, Fire jeeps, fire trained personnel, auxiliary firefighting squad, senior first aiders per shift and various types of fire protection and safety equipment's to handle any kind of emergency.

4.4.9.2. Off Site Disaster Control Plan

Off Site Disaster Control Plan has been drawn up by the district administration in consultation with the Carriage Workshop, Lallaguda, S. C. Rly and Indian Railways. Safety Committee consists of members having equal participation from all management levels including staff. Meetings are held every quarter to discuss points pertaining to Safety, health, quality, environment & Energy, thus improvement in overall safety systems.

4.4.10. Man Power Status:

Carriage Repair Workshop, Lallaguda Carriage Workshop S. C. Rly, Secunderabad is having around 2800 personnel working for, providing Technical / Support services, Green-belt development & protection in and around the premises and are committed to nurture the Environmental, Health & Safety and Energy Management System, and its effective implementation.

4.4.11. Social and Welfare Development:

We observe the following campaigns:

- # National Safety Week # Sadbhavana Week # Fire Services Week
- # Hindi Fortnight # World Environment Day # Energy Conservation Week
- # Independence Day # Republic Day # International Yoga Day

4.4.12. Achievements:


- a) Certified for "5S" Workplace Management
- b) Certified for IMS (QMS:2015, EMS:2015, OHSAS:2007 & EnMS:2011)
- c) Awarded SILVER rating by CII as per Green Company Rating System.
- d) Certified for Welding Quality Requirements as per ISO 3834-2:2006
- e) Certified for "Lean Six Sigma" with 15 Green Belts & 05 processes.

4.5. Integrated Management System and its processes:

Carriage Workshop, Lallaguda & Lube Oil Filter Plant, S. C. Railway, Secunderabad, have identified the processes needed for establishment of the Quality, Environmental Management System, requirements of Occupational Health and Safety Assessment and Energy Management through their applications throughout the Organization.

The organization has established, documented, implemented and has been maintaining the Integrated Management Systems and improving its effectiveness continually in accordance with the requirements of ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 and ISO 50001:2018 standards, any clauses that are deemed inappropriate due to the nature of the organization's business, are identified and excluded from the scope of this Integrated Management System.

Various criteria and methods have been developed and are being followed to ensure that the operation and control of these processes are effective. The management ensures the availability of resources and information necessary to support the operation and monitoring of these processes. Methods for monitoring, measuring and analysing these processes are identified and are carried out. Methods for implementation of actions necessary to achieve planned results are laid down and these methods are evaluated and necessary corrective & preventive actions are taken for continual improvement of the processes.

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Carriage Workshop, Lallaguda, Secunderabad have established various measurement, monitoring, analysis and improvement processes to ensure that the management systems, processes and services conform to the objectives/requirements.


The requirements of this Integrated Systems Manual extend to Carriage Workshop, Lallaguda, Secunderabad and establish an IMS for the provision of services and support activities within the organization. The policies of the Apex Integrated Systems Manual apply to all organizational activities within the organization's premises.

4.5.1. The organization has:

- a. Identified the procedures needed for the IMS and their application throughout the organization as given in **Annexure – II**. This is for the existing services based on the understanding of current requirements of customers.
- b. Identified the Codes Manuals and Guide lines needed for the IMS and their application throughout the organization as given in **Annexure – III**.
- c. Determined the sequence and interaction of these processes as depicted schematically in **Annexure – IV**.
- d. Established and documented Integrated Management Policy, which serves as the main driving force for implementing and improving integrated Quality, Environmental, Health & Safety performance and Energy management practices and programmes aimed at Carriage Workshop, Lallaguda and Lube Oil Filter Plant, S. C. Rly, Secunderabad. Depicted as **Annexure – V**.
- e. Set appropriate Quality, Environmental, Health & Safety and Energy Management Objectives and Targets for improvement as given in **Annexure – VI**. Arranging all required necessary resources for implementing these objectives and targets to improve emission standards / reduction of natural resource depletion/ contribution towards green and healthy environment for present & future generation in suitable time-frame.
- f. Determined the boundaries of the Integrated Management System as depicted schematically in **Annexure – VII**.
- g. Identified and complied with all relevant legislative and regulatory requirements.
- h. Identified environmental aspects and related requirements of OH&S with management of energy related to maintenance activities and their significance.
- i. Determined the criteria and methods needed to ensure that both the operation and control of these processes needed are effective.
- j. Ensured the availability of resources and information necessary to support the operation and monitoring of these processes and periodically reviews them.
- k. Established the systems for monitoring, measuring and analysing these processes as mentioned in various Sections.
- l. Established the system of implementing actions necessary to achieve planned results and continual improvement
- m. The analysis of the process data/ information is used for initiating Corrective action and mitigation of risk for continual improvement of the integrated management system.

4.6. References:

- ❖ ISO 9001:2015 Clause 4.1
- ❖ ISO 3834-2:2006
- ❖ ISO 14001:2015 Clause 4.1
- ❖ ISO 45001:2018 Clause 4.1
- ❖ ISO 50001:2018 Clause 4.1

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5. Management Commitment:

The top management has defined, developed, implemented and is maintaining the IMS as per combined Standards requirements.

The top management ensures that employees at all levels within the organization understand the goals and objectives of the organization and its Integrated Management System (IMS). This is achieved through regular meetings and training programmes.

The top management conducts management reviews at defined interval.

The top management has established Integrated Management Policy and Objectives, which is understood & implemented to all level of the organization.

The top management has provided adequate resources for carrying out the activities as per requirements.

The top management carries out the activities relating to monitoring, measurement, analysis and improvement.

Communicating to the organization the importance of meeting customer as well as statutory, regulatory and other requirements.

5.1. Customer Focus:

The top management ensures that customer requirements are determined and are met with the aim of enhancing customer satisfaction. The top management also ensures through Management Representative and other means the promotion of awareness of customer requirement throughout the organization. They shall facilitate in the understanding of customer requirements with the aim of enhancing customer satisfaction. The system is modified if required to ensure services/service delivery in line with the requirements so determined.


We are having a procedure for Handling of Customer satisfaction & Complaints. In case of identifying the environmental aspects as well as setting objectives/ targets the views of other interested parties are obtained, due importance is also given in evaluating their significance level.

5.2. Integrated Management System Policy:

The organization has defined and documented its Integrated Management Systems Policy as given in **Annexure – V**. The policy, principally, lays its explicit commitment to achieve performance excellence to the best satisfaction of the stakeholders, inclusive of customers, every time indicating continual improvement. The Policy emphasizes that the top management is commitment to comply with safety, statutory as well as corporate requirements, while continually improving effectiveness of the management systems. The Policy has been signed by the CWM, Carriage Workshop, Lallaguda S. C. Railway, Secunderabad showing commitment at the highest level. Future business opportunities are identified based on the market trend / requirements, present capabilities and customer requirements.

This policy includes the following:

- Customer satisfaction, and supply of services of specified Quality
- Effective and efficient operation and to ensure high level of services.
- Commitment to comply with requirements and continually improves the effectiveness of the Integrated Management System.
- Commitment to continual improvement and prevention of pollution and mitigation of Hazards towards health and safety.

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- Commitment to comply with statutory requirement, law of the land, legislation & regulation and other requirements.
- Policy provides a framework for establishing and reviewing Objectives and Targets.
- Policy is understood, implemented and maintained by all the employees of the organization. The IMS policy is made known to all employees through discussions, training programmes, handouts, display boards and any other means felt appropriate.
- The IMS policy is made available to the public/ interested parties.

The IMS Policy is reviewed for continuing suitability during the Management Review meeting every six months and necessary actions will be taken.

5.3. Responsibility and Authority:


Key roles and responsibilities of personnel shown in the Organization Chart are as mentioned in Clause 5.5 of the manual. The responsibility and authority of all the persons affecting quality & their interrelationship and maintenance of IMS, achieving objectives, targets, procedures, internal audits & action plan of management reviews have been defined and documented. Whenever personnel responsible for specific functions are not available, the immediate superior shall re-delegate their responsibilities. The responsibility and authority of key personnel of Carriage Workshop, Lallaguda & Lube Oil Filter Plant, S. C. Railway, Secunderabad is given below. In addition to this, there exists a Schedule of Powers (SOP) manual in which authority of various levels of employees is clearly specified with respect to different work functions.

The responsibility and authority of various persons in the individual departments is mentioned in the respective departmental system manuals along with the departmental Organogram. The responsibility and authority of key personnel is given to perform, manage and verify the work to:

- a. Initiate action to prevent the occurrence of any non-conformities relating to the services, process & safety and environmental related issues and Integrated Management System.
- b. Identify & report any problem relating to services, process & IMS.
- c. Initiate & recommend the solution through designated channel and verify their implementation.
- d. Control the nonconforming services from further use until the nonconformity is corrected.

5.3.1. Chief Workshop Manager (CWM), Carriage Workshop, Lallaguda, S. C. Rly, Secunderabad:

- Overall in charge of Workshop and responsible for outturn and RSP works and other targets communicated time to time, both in quantity and quality.
- Co-ordination with other Departments, Divisions, Headquarters and other Units of Indian Railways.
- Timely formulation, processing, monitoring and finalizing of contracts assisted by the Officers of the Workshop.
- Report to Chief Workshop Engineer about the monthly targets, day to day outturn and other related issues.
- Implementation of modernization of Workshop plan duly assisted by all the Officers of the Workshop.
- Assessment of overall material requirement of POH i.e, planning, organizing,

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directing, co-ordination and reviewing.

- To ensure proper functioning of Carriage Workshop, Lallaguda & Lube Oil Filter Plant, S. C. Railway, Secunderabad and to ensure that the quality of services conform to the specified requirements and adherence to the statutory and mandatory legal requirements.
- To liaison with external agencies such as Government officials, district authorities, neighboring society, regulatory bodies, non-governmental agencies etc.
- To lay down the Integrated Quality, Environmental Health & Safety and Energy Policy and ensure that the policy is understood, implemented and maintained at all levels.
- Nominate a Management Representative & Management Appointee with adequate responsibility and authority for implementation of ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 & ISO 50001:2018, Integrated Management Systems.
- To hold the Management Review Meetings (MRM) and to authorize personnel for implementation of the decisions taken in the review meetings.
- He is also responsible for the General Security Arrangement and General Administration.
- Various functional heads of Carriage Workshop, Lallaguda & Lube Oil Filter Plant, S. C. Railway, Secunderabad report to CWM. He will function as a HOD for the personnel directly reporting to him.
- Any other work assigned by CWE and CME.

5.3.2. Senior Electronic Data Processing Manager (Sr.EDPM) & Deputy Chief Mechanical Engineer (Dy.CME):

He will be responsible for the following activities.

- Co-ordination with Top Management for effective implementation of various Management Systems and functioning of IMS Cell.
- Functioning of EDP Centre and implementation of WISE-II and other computerisation programmes.
- Co-ordination with Divisions for feed and for timely turning out of coaches.
- Organising calling in programme meetings regularly and follow up on the decisions taken.
- POH planning and monitoring DEMU, DHMU, Tower Car and SPART coaches.
- Outturn of all shops under WM.
- POH and facility planning for LHB coaches and special stocks like DEMU, DHMU etc.
- Guide WM, AWM's, AEME/LOFP and other subordinate officers in day to day working.
- Look after mechanical cadre of workshop.
- Implementation of Technical Standing Orders (TSO's) and Maintenance Instructions (MI's) pertaining to coach maintenance.

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- Arranging regular maintenance audits and special drive to ensure safety reliability and proper passenger amenity and aesthetics in coach repair.
- Focus very closely on quality aspects of outturn.
- Co-ordination with NTXR Organisation and taking timely preventive action on the areas showing weakness. Even initial NTXR rejections to be brought to NIL.
- Feedback regarding quality aspects received from Divisions, in addition to "100 days sick marking" to be analysed and necessary corrective and preventive action to be taken.
- Ensure safe working conditions and implement safe working practices in shops under his control.
- To monitor and to carry out inspections as prescribed in Quality Plan (QPL) and necessary corrective and preventive action to be taken on deviations/non-conformities found during QPL check.
- Co-ordination between employees and Trade Unions.
- Co-ordination between employees and officers.
- Any other work assigned by CWM.

In carrying out the above tasks, he will be assisted by WM, AWM's and AEME/LOFP in discharge of his duties.

5.3.3. Deputy Chief Electrical Engineer (Dy.CEE):


Overall in charge for the Electrical department of CWS/LGD, Signal & Telecommunications Workshop/MFT, General & Signal Stores/MFT, Engineering Workshop/LGD, Flash Butt Welding Plant/MLY and Rail Bogie Kharkana/Yadgir. He will be responsible for the following activities.

- Ensuring the power supply arrangements to all the above workshops.
- POH activities of all coaching stock i.e. AC coaches, Non-AC coaches, Power Cars, DEMU, DHMU, Tower Cars, Inspection Cars and other coaches.
- Special Repairs to all the coaching stock.
- Repairs and maintenance of all the associated equipment.
- Repairs and overhauling activities.
- Attending to Stores department scrap survey meeting.
- Material planning and co-ordination with stores and work spots.
- Electrical Millwright activities.
- Co-ordination between employees and union.
- Co-ordination between employees and officers.
- Any other work assigned by CWM.

In carrying out the above tasks, he will be assisted by ADEE in discharge of his duties.

5.3.4. Deputy Chief Materials Manager (Dy.CMM), M&E/LGD:

- Head of the Department of Workshop Stores Depot (Mechanical & Electrical).
- Manages for procurement of Materials as per schedule of powers delegated

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and its storage.

- Periodical review of inventory.
- Follow-up with SCR Headquarter office for procurement of stock items.
- Establishing, implementing, maintaining and ensuring continuing suitability of all aspects of IMS in areas under STR.
- Responsible to resolve OH & S issues in STR.
- Under administrative control of CWM.

5.3.5. WORKS MANAGER (WM):


- Workshop POH outturn with proper product mix.
- Shop IOH outturn, 100 days sick marking, Neutral rejections and other unsatisfactory coach performances.
- Quality of shop outturn, 100 days sick marking, Neutral rejections and other unsatisfactory coach performances.
- Outturn of shops – Carriage, Corrosion (including Battery Box and Doors section), Bogie, IOH, CBC & Buffer, Trimming, Paint and Water Tank Section.
- Condemnation and conversion of coaches.
- Implementation of TSO's & MI's pertaining to shops under his control.
- Outturn of DEMU, DHMU, Tower Cars and SPART coaches.
- Monitoring works contract related to shops under his control.
- Material planning of stock and non-stock items pertaining to shops under his control.
- Planning and progress of RSP works pertaining to coaches.
- Conducting inspections as envisaged in Quality Plan (pertaining to his shops) and corrective action thereof.
- Authorization for release of final services to the customer.
- Achieving objectives & targets related to the department.
- Coordination of all activities related to Operations and Monthly Reports etc.
- Communication to other departments.
- Aspect identification, Impact evaluation and operational control related to department.
- Implementation and maintaining of IMS standards. Control of IMS documentation and records related to the department.
- Any other work assigned by CWM and Dy.CME.
- Training identification of the department.

In carrying out the above tasks, he is assisted by Assistant Works Manager (AWM) – I & III and staff under him.

5.3.6. PRODUCTION ENGINEER (PE):

He is responsible & accountable for the following:

- Working of PCO (Progress, Inspection, Planning and Incentive) organization, Drawing Office, IMS Cell and Information Cell.
- Millwright Shop (Commissioning, Condemnation and repair of machine).
- CTR/Air Brake Shop, Spring Shop, Machine Shop, Welding Shop, Wheel Shop, Component, Power Car shops.


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- Budgeting.
- Material Planning and Processing of all Repair shops, Production shops and monitoring the activities of material cell will respect to the following for entire mechanical department of shops and LOFP:
 - a. Revision of AAC, opening and closing of card.
 - b. Work order processing
 - c. Planning and monitoring Non-stock procurement
 - d. Material Inspection
 - e. All other material related issues such as Raising Warranty claims on firms etc.,
 - f. Assessment of training requirement, training planning and functioning of BTC.
 - g. M&P, RSP & WP proposal formulation and monitoring progress.
 - h. Deal with Audit para, Draft para and Special Letters.
 - i. Working of Workshop Safety Organisation.
 - j. Monitoring works contracts related to shops under his control.
 - k. PNM and Industrial relation.
 - l. Conducting inspections as envisaged in QPL (pertaining to his sections) and corrective action thereof.
- Fitment of Bio-toilets in Coaches.
- Calibration of test and measurement instruments.
- Achieving objectives & targets related to the department.
- Communication to other departments.
- Aspect identification, Impact evaluation and operational control related to department.
- Implementation and maintaining of IMS standards Control of IMS documentation and records related to the department.
- Any other work assigned by CWM.
- Training identification of the department.

In carrying out the above tasks, he is assisted by Assistant Works Manager, AWM-II and staff under him.

5.3.7. Executive Electrical Engineer (EEE):

- All POH activities of AC/Non-AC coaches, Power Cars, Inspection Cars and Special stock viz. DEMU/DHMU/Tower Cars etc.,
- Repairs and Overhauling activities of ER-I Shop.
- Material inspection pertaining to LGDS and Dy.CMM/M&E/LGD
- Repairs and assistance to outstation depots
- Review of post POH performance of AC/Non-AC coaches including failure investigation, correspondence with divisions etc.,
- All non-personnel matters pertaining to Dy.CEE(S)/LGD.


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- Initiation of indents and petty repairs, Works contract matters pertaining to his area of work.
- PNM subjects related to his area of work.
- Material planning and coordination with stores and other Railway units.
- Reliability action plan for AC and Non-AC coaches.
- Implementation of action plan items of Headquarters and RDSO modifications from time to time.
- Achieving objectives & targets related to the department.
- Aspect identification, Impact evaluation and operational control related to department.
- Any other works matters assigned by Dy.CEE from time to time.

5.3.8. CHEMIST & METALLURGIST (CMT):

In-charge of CMT organization of Lallaguda.

- Monitoring welding and non-destructive testing activities of coach components.
- Monitoring of phosphating & cleaning of components using chemicals.
- Monitoring quality of painting works.
- Housekeeping of shop and scrap disposal.
- CMT investigation of failure components.
- Environmental audit and Pollution control measures.
- Planning, finalization and technical approval of any modification/ up gradation/ expansion schemes in the plant keeping into consideration all the Quality Environment and Safety norms and also by identifying OHSMS and HIRA for CARRIAGE WORKSHOP, SC RLY, LALLAGUDA
- Planning and co-ordination with the external / Govt. bodies for ensuring that all the necessary compliance certifications required in the plant operation are met.
- Meeting Legal requirements:
 - a) TPCB Consents Water and Air.
 - b) Calibration of weighing machines.
 - c) Measuring & Monitoring Ambient Air Quality (AAQM), Effluent and Noise levels.
- Implementation and monitoring of IMS standards pertaining to quality management and management of environment and Safety in Workshop.
- Inspections as provided in Quality Plan.
- Communication to other departments. Control of IMS documentation and records related to the department.
- Training identification of the department.
- Aspect identification, Impact evaluation and operational control related to department.
- Any other work assigned by CWM and Dy.CME.

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In carrying out the above tasks, he is assisted by a team of Supervisors and Staff under him.

5.3.9. Sr. Divisional Engineer (Sr. DEN):

He will be responsible for the following activities:

- Upkeep and maintenance of civil engineering assets within workshop
- Execution of works as sanctioned by CWM
- Execution of any other works for which CWM is the nominated executing agency
- Planning and processing estimates for new works to be proposed under LSWP/PWP
- Technical guidance to CWM with respect to Civil Engineering Works
- Preparation of Budget estimates with respect to revenue demands as well as demand no. 16 related to civil engineering works within the workshop.


5.3.10. Workshop Personnel Officer (WPO):

- For arranging In-house and External training for all personnel as per approved Training planner.
- Arranging and recording the training feedback obtained from the participants for assessing the effectiveness of the training.
- For maintaining an updated training records in Service Record (SR) of all personnel.
- Necessary coordination with concerned HoDs and the MR for identifying and approving the training requirements.
- Implementation of Legal rules related to department.
 - Labor laws.
 - Workman Compensation Act
- Establishment Rules
- Achieving objectives & targets related to the department.
- Communication to other departments.
- Aspect identification, Impact evaluation and operational control related to department.
- Implementation and maintaining IMS standards Control of IMS documentation records related to the department.
- Training identification of the department.
- Training for CARRIAGE WORKSHOP, LALLAGUDA and Lube Oil Filter Plant S. C. Railway, Secunderabad personnel and competency check.

In carrying out the above tasks, he is assisted by a team of Office Superintendents and staff under him.

5.3.11. Assistant Works Manager (AWM) – I:

- Assist Works Manager (WM).
- Responsible for POH outturn of the following shops:


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- a) Carriage Shop
- b) Paint Shop
- c) Trimming Shop
- d) Water Tank Section

- Plan & monitor POH outturn on day to day basis.
- Quality of outturn of shops under his area of control.
- Implementation/sustainability of IMS/5S/3834/GreenCo and any other standards come up in the course of time.
- Conducting periodic audits of maintenance practices in shops under his control and taking corrective measures.
- Material planning both Stock and Non-stock for the shops under his control
- Planning and Processing of procurement of T&P items in shops under his control.
- Monitoring the working of contractual works pertaining to his shops.
- Conducting inspections as provided in Quality standards (for his shops).
- Any other works entrusted by CWM, DyCME & WM.

5.3.12. Assistant Works Manager (AWM) – II:

- Assist Works Manager (WM).
- Responsible for POH outturn of the following shops:
 - a) IOH Section
 - b) CBC Shop
 - c) Bogie (CB&UF) Shop
 - d) Corrosion Shop
 - e) NTXR and
 - f) Draw Gear section
- Quality of outturn of shops under his area of control.
- Implementation/sustainability of IMS/5S/3834/GreenCo and any other standards come up in the course of time.
- Conducting periodic audits of maintenance practices in shops under his control and taking corrective measures.
- Material planning both Stock and Non-stock for the shops under his control
- Planning and Processing of procurement of T&P items in shops under his control.
- Monitoring the working of contractual works pertaining to his shops.
- Conducting inspections as provided in Quality standards (for his shops).
- Condemnation of Coaches.
- Any other works entrusted by CWM, DyCME & WM.


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5.3.13. Assistant Works Manager (AWM) – III:

- Assist Production Engineer (PE).
- Responsible for Production outturn of the following shops:
 - a) Wheel Shop
 - b) Air Brake Shop
 - c) Spring Shop
 - d) Welding Shop
 - e) Machine Shop
 - f) Millwright Shop
 - g) Component Shop
 - h) Drawing Section
 - i) Power Car Shop
 - j) PCO Wing (Inspection, Progress, Planning, Tender, B&E, Material, CWM's Office, IMS Cell & IT Section)
- Monitoring of the feed of due/overdue coaches monthly/quarterly.
- Quality of outturn of shops under his area of control.
- Plan & monitor Production outturn on day to day basis.
- Implementation/sustainability of IMS/5S/3834/GreenCo and any other standards come up in the course of time.
- Conducting periodic audits of maintenance practices in shops under his control and taking corrective measures.
- Material planning both Stock and Non-stock for the shops under his control
- Planning and Processing of procurement of T&P items in shops under his control.
- Monitoring the working of contractual works pertaining to his shops.
- Conducting inspections as provided in Quality standards (for his shops).
- Condemnation of Coaches.
- Any other works entrusted by CWM, DyCME & PE.

5.3.14. Assistant Divisional Electrical Engineer (ADEE):

- Electrical Power Supply and Maintenance activities of Carriage Workshop/LGD, Signal & Telecommunications Workshop/MFT, General & Signal Stores/MFT, Electric Loco Shed/LGD, Flash Butt Welding Plant/MLY, Rail Bogie Kharkana/YG and Supervisors Training Center/SC.
- Electrical Millwright activities and Reliability action plan for power maintenance for units mentioned above.
- Repairs and Overhauling activities of ER-II Shop.
- Initiation of indents and petty repairs, Works contract matters pertaining to his area of work.
- All Establishment (including W.C), matters of Electrical staff under DyCEE.

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- PNM subjects connected to his area of work.
- Works programme for LSWP, M&P, RSP etc.,
- Compliance of inspection notes of GM, CEE, CME, CWM and other Officers.
- All budget matters.
- Drawing section matters and development activities.
- Electrical Millwright activities of LGDS, EWS, FBWP, S&T Workshop and G&S depot.
- Any other works matters assigned by DyCEE from time to time.

5.3.15. Assistant Executive Mechanical Engineer (AEME), LOFP/SC:

He will be responsible for the following activities:

- Over all charge of Locomotive LUBE OIL FILTER PLANT, Secunderabad
- Defines the responsibilities and authority of all personnel directly reporting to him.
- Provide resources and monitor performance.
- Co-ordinates the management review meetings.
- To review effective implementation of all corrective and preventive actions in the plant against customer complaints, product and process non-conformities and system non-conformities
- To identify the areas of improvements and decide upon the statistical tools to be used in order to achieve continuous improvement.
- Planning and processing procurement of tools, gauges, measuring instruments and periodical Calibration of all the Measuring and Monitoring Equipment's used in LOFP/SC

5.3.16. Assistant Materials Manager (AMM):


- Procurement of Spares, Consumables, Lab Chemicals, Capital Items and others as per the Specified Quality requirements.
- Contract for various works except Civil Jobs.
- Disposal of Scrap and obsolete items.
- Approval of subcontractors, and updation of the list.
- The approval of Purchase Order after review.
- Verification of Purchased Services.
- Maintenance and Operation of main stores.
- Regular monitoring of the stored items.

In carrying out the above tasks, he is assisted by a team of CDMS (Chief Depot Material Superintend), DMS and staff under him.

5.3.17. Energy Manager:

Shri S Rajesh, SSE/ACS has been nominated as the Energy Manager for Carriage Workshop, Lallaguda in accordance with the applicable legal requirements. He will be responsible for the following activities:

- Focal point of all the Energy Management activities in the Organization.


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- Provides leadership in the development of policy on Energy Management Action Plan (EnMAP)
- Formulation of Organization's Energy Policy.
- Perform the activities related with Energy Management at the Organization level.
- Prepares the information to be submitted to the Designated Agency with regard to the energy consumed and action taken on the recommendation of the Accredited Energy Auditor [Clause 14(k)].
- Establish an energy conservation cell & prepare an annual activity plan
- Develop and manage training programme for energy efficiency at operating levels
- Develop integrated system of energy efficiency and environmental improvement Initiate activities to improve monitoring and process control to reduce energy costs.
- Co-ordinate implementation of energy audit/efficiency improvement projects through external agencies.
- Establish / participate in information exchange with other energy managers of the same sector through association.
- Provide information to BEE and Designated Agency of the respective States as demanded in the Act

5.3.18. Responsible Welding Coordinator (RWC):

Shri T. S. Sudhakar/IWT/SSE/PCM & Shri M. Ramesh/IWT/SSE/COR has been nominated as the RWC. They will be responsible for the following activities;

- Upkeep of welding quality of all the products produced by workshop.
- Qualification of welders and welding operators.
- Constantly review the requirements related to product standards whether the requirement of the welding procurement the standards or not.
- Responsible for welding related tasks in the organization to administration and technical reviews related to design, quality and acceptance requirement of welders.
- Authority to decide:
 - i) Suitability of welding equipment.
 - ii) Auxiliaries' equipment supply identification and handling.
 - iii) PPE's and other safety equipment directly associated with applicable manufacturing process.
 - iv) Equipment maintenance.
 - v) Equipment verification and validation.
- Guiding in production planning in:
 - i) Appropriate welding procedure being adopted
 - ii) Weld sequence on arrangement for any production test
 - iii) Allocation of qualified personnel
- Preparation of WPS and deciding the rate of qualification of welders
- Issuing of work Instructions.

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- Inspection of welding consumables.
 - i) Compatibility
 - ii) Delivery condition
 - iii) The storage and handling of welding consumables.
- Validation of welders and welding personnel periodically by inspecting their works at the time of working.

5.3.19. In-charge (Telecom)- RAILTEL

- Overall functioning of the CARRIAGE WORKSHOP, LALLAGUDA & LUBE OIL FILTER PLANT, S. C. RAILWAY, SECUNDERABAD Tel department.
- Implementation and maintaining of IMS standards. Control of IMS documentation and records related to the department.


5.3.20. ISO–Coordinator- IMS CELL

- Responsible for issue, updation, amend documents pertaining to Various Management Systems established and implemented in LGD Workshop.
- Control of documentation and records related to the IMS.
- Distribution of Management System Policy, Objectives & Targets etc.
- To control all document as per established procedure.
- To make pertinent documents available at all locations.
- To maintain the master list of controlled documents.
- To keep issue records of all controlled documents.
- To identify / withdraw obsolete document to avoid unintended use.
- To incorporate changes in documents as per established procedure.

5.3.21. Common responsibilities and authorities of all Controlling Officers:

All Controlling Officers shall in general be responsible for:

- Establish and review departmental objectives and targets in line with the apex objectives and targets
- Deferment and holding of the process under their direct control in case any nonconformity is observed /anticipated to occur.
- Initiate corrective and preventive actions in their respective areas and ensure their timely implementation.
- Identification of environmental aspects and impacts, evaluation of the significant aspects, and establish Operational Control Instructions (OCIs) and Environmental Management Programmes (EMPs). Also to identify Hazards towards health and safety and prepare HIRA in their administrative area.
- Review and periodic monitoring of environmental aspects with in their administrative area.
- Finalization of departmental objectives / targets / EMPs and HIRA in their administrative area duly approved by MR.
- Review progress of EMPs OH&SMPs and EnMAPs identified for their areas, if any.
- Review progress periodically on objectives / targets achievement.

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- Ensuring awareness in the department on Policy deployment
- Review corrective actions taken through operational control on intended environmental performance results.
- To define functional responsibility and authority of the personnel reporting to them.
- To accord Approval / Maintenance / Updation of the procedures relevant to their work areas.
- To maintain identification and traceability as per established procedures in their work area.
- To control non-conformities including the non-conforming services in their respective work area.
- To implement Corrective and Preventive actions for any nonconformities including the audit observations in their area.
- To control records related to their work areas.
- To implement applicable (if any) statistical techniques identified in their work area.
- Assessment of training needs of employees working under him
- Maintaining material safety data sheet (MSDS) of significant incoming and outgoing materials of his department
- Monitor overall performance of the department.

5.3.22. Common responsibilities of employees

All employees are in general responsible for observing any nonconformity / potential nonconformity within their area of work shall report the same to their immediate superior for initiating corrective and preventive actions. They are also authorized to suggest suitable actions for improvement as per their skills and experience. The detailed responsibilities and authorities are defined in the relevant procedures. The responsibilities and authorities of all personnel in the organization have been defined and are maintained in the form of organogram by the respective controlling officers.

- 5.4. The specific responsibility and authority of all controlling officers in addition to common responsibilities given above are as under.


5.4.1. Management Representative – MR (IMS):

The Top Management. nominates a Management Representative (MR) of the Organisation with adequate responsibility and authority as per the requirement of the Integrated Management System in addition to his existing responsibilities.

Sr EDPM & Dy. CME/LGDS, has been nominated Management Representative (MR) for satisfactory implementation of Integrated Management Systems within the organization by the top Management.

To ensure effective implementation of IMS throughout the Organisation, Top Management has also nominated following officials as Deputy Management Representative (Dy.MR) and Responsible Welding Coordinators (RWC) as per the requirements of ISO 3834-2 to assist MR.


❖ WM Dy.MR/QMS

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❖	PE	Dy.MR/OHSMS
❖	CMT	Dy.MR/EMS
❖	ADEE	Dy.MR/EnMS
❖	AEME/LOFP	Dy.MR/IMS/LOFP/SC
❖	AMM/M&E	Dy.MR/IMS/M&E/LGD
❖	RWC	SSE/PCM & SSE/COR
❖	Energy Manager	SSE/ACS


MR is responsible for establishment, documentation and implementation of Integrated Management System in the organization. He/She carries out the following functions:

- a. Establishing, implementing and maintaining all aspects of documented Integrated Management System in accordance with ISO 9001: 2015 Quality Management System standard, ISO 14001:2015 Environmental Management System standard, ISO 45001:2018 Occupational Health & Safety Management System and ISO 50001:2018 Energy Management System standard.
- b. Ensuring that all the documents & procedures are in line with the IMS Policy and objectives of the organization.
- c. Assess effectiveness of the Integrated Management System through planned internal audits, review of audit findings and monitoring corrective and preventive actions so as to ensure that QMS, EMS OHSMS & EnMS systems are in place and are being followed by all concerned.
- d. Conducting Management Review Meeting (MRM) and report the performance of QMS, EMS, OHSAS & EnMS which also forms the basis for continual improvements.
- e. Report on performance of Integrated Management System periodically checked for continual improvement.
- f. Reporting Top Management on the performance of the Integrated Management System including internal and external audit reports in the Management Review meetings for review, corrective actions and for its continual improvement.
- g. Liaison and coordination with certifying agency and external agencies as and when necessary on matter relating to Integrated Management System.
- h. Analyzing the feedback of customer and other interested parties.
- i. Appoint trained and certified internal auditors for internal & follow-up audits.
- j. Promote awareness of customer requirements through Meetings, Trainings, Discussions or any other means as appropriate.
- k. The MR in discharging his responsibilities shall report directly to the Top Management and may seek Top Management's support as and when required. MR keeps Top Mgt. informed by reporting on QMS, EMS OHSMS & EnMS as a basis for its improvement.
- l. Whenever MR is on leave / Tour for long duration, he may nominate an alternate person to act as MR during his absence.

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5.4.2. Energy Management Team:

S. No.	Design.	Shop	Responsibilities
1.	Dy.CME/LGD	MR	Ensure the IMS is established, implemented, maintained, and continually improved in accordance with this International Standard
2.	PE/LGD	Dy.MR/OHSMS	Ensure that all shops under their control are effectively implementing the EnMS
3.	EEE/LGD	Dy.MR	
4.	AEME/LOFP		
5.	AWM-III/LGD	-	
6.	ADEE/LGD	-	
7.	Energy Manager	ACS	1. As detailed in clause 5.3.17 above.
8.	SSE	MLW	<ol style="list-style-type: none"> Overall in-charge for Mechanical Maintenance of Workshop. Develop and manage training programme for energy efficiency at operating levels. Develop integrated system of energy efficiency and environmental improvement. Initiate activities to improve monitoring and process control to reduce energy costs. Co-ordinate implementation of energy audit/efficiency improvement projects through external agencies.
9.	SSE	Wheel	1. To improve energy efficiency, reduce cost, and increase awareness and understanding of the energy impacts of utility activities and operations among the staff.
10.	SSE	ACS	
11.	SSE	ETL	
12.	SSE	CAR	2. Effectively implementing the IMS in their respective shops
13.	SSE	MLW	Rationalization of compressor operation. Periodic maintenance of machinery and EOT cranes
14.	Certified Internal Auditors for EnMS (as per R/IMS/Int-Aud-List)		<ol style="list-style-type: none"> Audit the various shops as per audit plan. Identify areas of improvement w.r.t EnMS Policy & Objectives. Evaluate the non-conformities and discuss with concerned FU In-charge for necessary root cause & corrective actions. Identify the activities and operations to include in the Energy Management System.
15.	JE	IMS	<ol style="list-style-type: none"> IMS Documents preparation. Co-ordination with all shops for effective implementation of IMS.
16.	Sr. Instructor	BTC	3. Co-ordinate with external agencies for certification of IMS.


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5.5. ACCOUNTABILITY:

All the authority concerned who is having assigned responsibilities along with delegation is accountable (or) answerable for the same.

5.6. REFERENCE:

- ❖ Duty List of Mech. Officers vide Ltr No: LG/M/147/4/Duty List/GS dated 30/08/12.
- ❖ Revised Duty List PE & WM vide Ltr No: LG/M/147/4/Duty List/GS dated 12/08/16.
- ❖ AWM Duty List vide Ltr No: LGDS/CWM/2017 dated: 27/03/2017.
- ❖ Dy.CEE, & ADEE Duty List vide Dy.CEE note dated 10/07/2017
- ❖ Energy Manager responsibilities as per Clause No:04 of BEE/CEM prospectus.
- ❖ ISO 9001:2015 Clause 5.1, 5.2, 5.3
- ❖ ISO 3834-2:2005 Clause 7.3
- ❖ ISO 14001:2015 Clause 5.1, 5.2, 5.3
- ❖ ISO 45001:2018 Clause 5.1, 5.2, 5.3
- ❖ ISO 50001:2018 Clause 5.1, 5.2, 5.3
- ❖ Management Review Meeting Minutes (MR/IMS/MRM)

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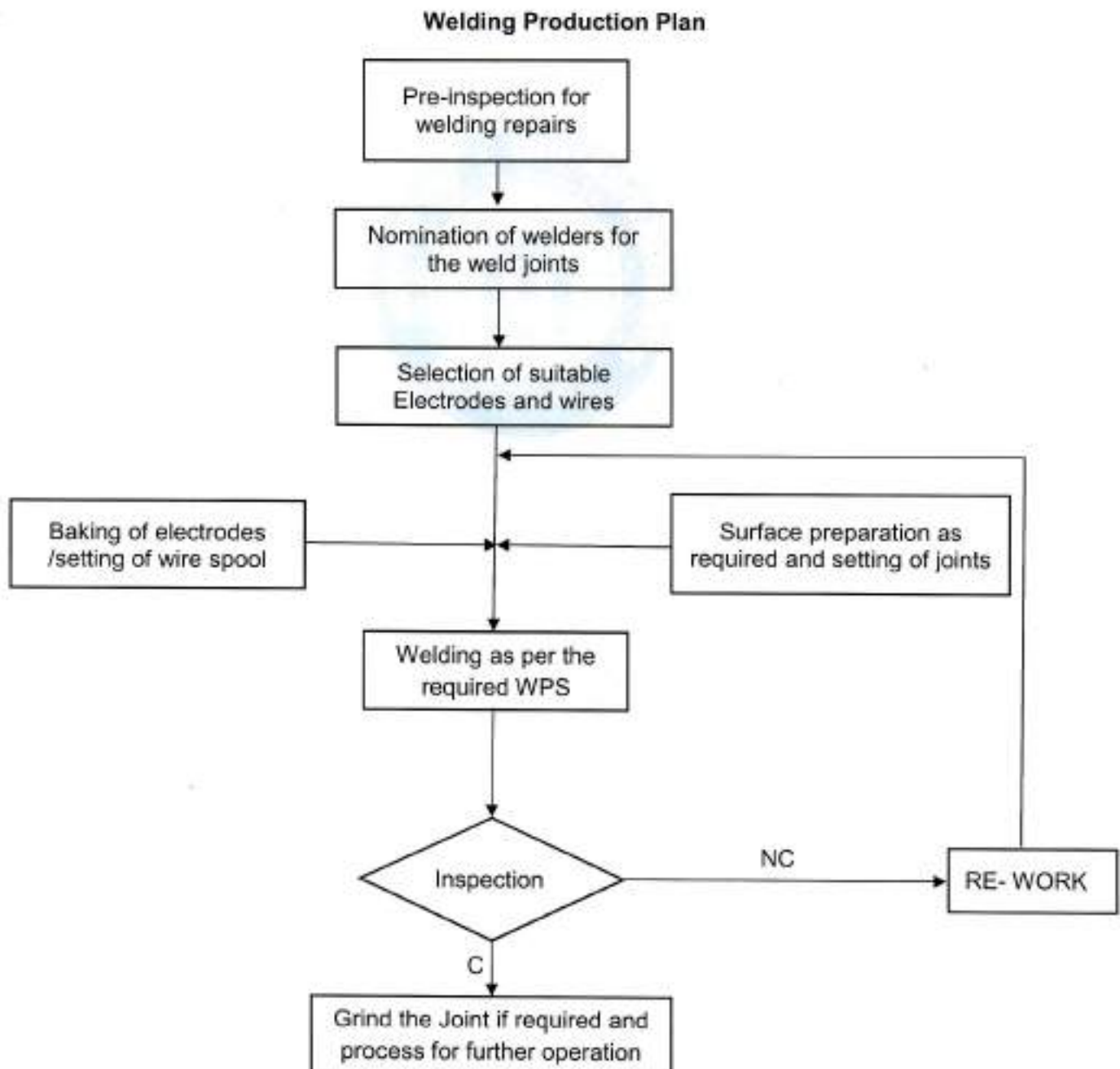
6. Integrated Management System Planning:


The Objectives and the continual improvement targets set in harmony with our vision, mission and core values plan to achieve excellence in the following areas.

- ✓ Efficient and safe operation,
- ✓ Maximum throughput at optimum maintenance cost, and
- ✓ Meeting requirements of the customers, stakeholders, and regulatory authorities.

The Integrated Management System planning of the objectives and the targets are carried out through the planning of individual processes, contributing to the organizational performance, considering their interactions, as detailed in **Annexure-IV**.

6.1. Planning for Welding & related activities



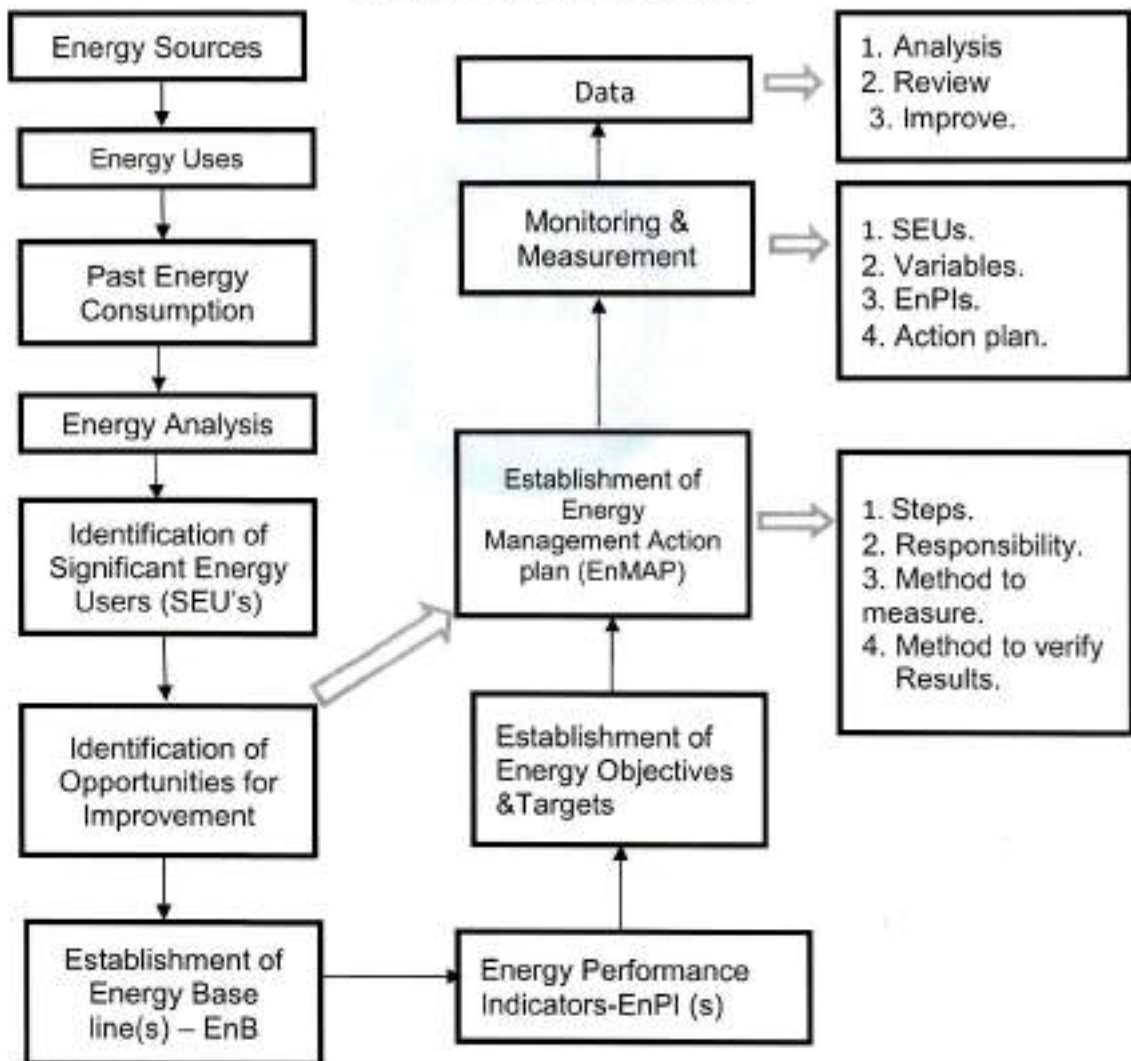
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6.1.1. Welding Production plan is carried out in order to meet the following requirements: -

- a) Identify the individual processes required to repair the sub-assemblies.
- b) Refer to the appropriate procedure specifications for welding and allied processes
- c) Determine the sequence in which the welds are to be made
- d) Determine the specification required for inspection and testing
- e) Determine the environmental conditions (e.g. protection from wind and rain)
- f) Allocation of qualified personnel
- g) Arrangement for any production test.

6.2. Energy Planning:

Energy Planning Flow Chart



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6.2.1. Energy planning is carried out in order to meet the following requirements: -

- a) to ensure effective operation and control of these processes,
- b) to ensure availability of resources and supportive information required,
- c) monitoring, measurement and analysis of these processes and initiating and implementing necessary actions,
- d) to have control over outsourced processes to achieve the requisite energy efficiency
- e) Determination of controls over Significant Energy Users.
- f) identification of legal and other requirements to which LGD workshop subscribes and its applicability to Energy Management System
- g) to meet the established IMS objectives.

6.2.2. Energy consumption related to:-

- a) repair activities on the coaches and its sub-assemblies,
- b) manufacturing of locomotive filters and spares,
- c) Handling, storage and disposal of the materials and allied activities within the defined scope of an Energy Management System. Also taken into account are the process flows, nature of activities, any internal and/or external communications related to energy management system for identifying the energy consumption aspects.

A procedure has been established, implemented and maintained for the evaluation of Energy Base Line, Energy Performance Indicators and maintenance of the relevant records with responsibilities.

6.3. Energy Review:

6.3.1. Energy review is conducted to:

- a) Analyze energy use based on measurement and other data
- b) Identify the areas of significant energy uses
- c) Identify, prioritize, and record opportunities for improving energy performance
- d) Provide useful information for the development of the energy baseline and the selection of energy performance indicators (EnPIs).
- e) Monitor capability to support effective continuous improvement of the EnMS in the future.

6.3.2. It is carried out every year using previous year's data and also be carried out when there is a major change in facilities.


6.3.3. A procedure has been established, implemented and maintained for the evaluation of Energy Review.

6.4. Energy Baseline:

In order to determine and demonstrate energy performance improvements, an organization must have an established and documented Energy Baseline (EnB). Baselines create a benchmark for comparing energy performance from year to year.

Energy Baselines are established for Electrical Energy, High Speed Diesel Oil, Kerosene Oil, LPG and DA (in terms of MTOE – Million Tonnes of Oil Equivalent).

Review of baseline(s) are made when EnPI no longer reflect energy use and consumption,

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when there is a major changes in the process, operational patterns or energy systems.

Energy base lines are prepared by considering the energy consumption for the last 3 years.

A procedure has been established, implemented and maintained for the evaluation of Energy Baseline.

6.5. Energy Performance Indicators (EnPI).

6.5.1. EnPIs provide relevant energy performance information to enable all groups within the organization understand the energy performance and take actions for improvement.

6.5.2. EnPIs have been expressed for each energy source as energy consumed (in MTOE) per unit of output (ECU – Equated Coach Unit).

6.5.3. Energy generated through Non-conventional sources (KWh) available in Solar Energy Data Sheet.

All Significant Energy Users are listed and for Conservation of Energy, Operational Control Instructions (OCI) and/or Energy Management Action Plan (EnMAP) have been laid down.

6.6. Action to address Risks and Opportunities:

6.6.1. The organization has established, implemented and maintained the procedure for managing risks and opportunities involved in its products and services.

6.6.2. Responsibility and authority for this procedure are spread across various functions, and defined within this procedure.

Note: The procedure has adopted definitions for key terms developed specifically by LGD Workshop and determined appropriate for its use within the unique requirements of its management system. It does not adopt current ISO definitions, which LGD Workshop has determined are not sufficient for its use.

6.6.3. This procedure is applicable to the potential risks arising from the activities, products, services, infrastructure and equipment relating to:

- a) POH, IOH & NR of Broad gauge coaching stock and allied works,
- b) Repair of identified sub-assemblies.
- c) Manufacturing of filters.
- d) Procurement of raw material and their storage, handling, usage.
- e) Handling of wastes generated and their disposal.

6.6.4. Responsibility and authority for this procedure are spread across various functions, and defined within this procedure.


6.6.5. Risks are managed with a focus on decreasing their likelihood, and minimizing their impact if they should occur.

6.6.6. Opportunities are managed to increase their likelihood, and to maximize their benefits if they should occur.

6.6.7. Where risks and opportunities overlap, the best appropriate method for managing them shall be ascertained, given the situation at hand.

6.6.8. Procedure for Management of Risks:

- a) Risks are considered during the execution of various processes.

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- b) Top Management reviews these risks and takes action to minimize them.
- c) The methods for risk assessments vary, but should always include a means of identifying the risk under examination, and a description of the result of the risk assessment.
- d) Detailed methods may include FMEA (failure mode effects analysis), SWOT (strength, weakness, opportunity and threat) or other tools. No single method is used for all risk assessments; the tool selected should be the best tool applicable to that particular risk analysis.


6.6.9. Procedure for Management of Opportunities:

- a) As part of the POH process, Carriage Workshop, Lallaguda shall seek out opportunities which could enhance new offerings that are within the scope of capabilities and streamlining existing processes to improve efficiency and reduce maintenance costs.
- b) In addition, throughout all overhauling & manufacturing processes, the corrective action system and internal auditing process should be used to identify possible opportunities for improvement.
- c) Discussing and analyzing opportunities shall be done by top management and made part of the management review activities; these shall be recorded in the management review records.
- d) If an opportunity requires a risk assessment, this shall be done as defined above.
- e) Analysis of any opportunity will generally result in one of the following possible determinations:
 - Pursue the opportunity
 - Explore the opportunity in greater detail before proceeding
 - Accept the opportunity, but under limited and controlled conditions
 - Decline the opportunity, typically based on a high expected risk

6.7. Environmental Aspects and Hazard Identification, Risk Assessment(HIRA) and determining controls

A preliminary review has been done to identify meaningful Environmental aspects and their associated impacts to serve as a basis for establishing, implementing, maintaining and improving documented EMS. A multi-disciplinary Core Team was set up consisting of participants of various departments. Based on service providing operating experience and various studies carried out in Environment Impact Assessment, External environmental audit, Risk & consequence analysis the following significant environmental aspects are identified for Carriage Workshop, Lallaguda & Lube Oil Filter Plant, S. C. Railway, Secunderabad, considering start up, normal, shutdown as well as potential emergency conditions.

- a. Emissions to Air.
- b. Release to Water.
- c. Noise/Visual.
- d. Optimum Utilization of natural resources.
- e. Legal compliance
- f. Local environmental and community issues.

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The environmental aspects are reviewed to check the effectiveness of environmental performance.

The Carriage Workshop, Lallaguda & Lube Oil Filter Plant, S. C. Railway, Secunderabad has established, implemented and maintains a procedure for the ongoing Hazard Identification & Risk Assessment (HIRA) and determination of necessary controls

The procedure for HIRA takes the following into account:

- a. Routine and non-routine activities
- b. Activities of all the persons
- c. Human behavior, capabilities and other human factors
- d. Identified hazards originating outside the workplace capable of adversely affecting the health and safety of persons
- e. Hazards created in the vicinity of workplace by work related activities under the control of Carriage Workshop, Lallaguda & Lube Oil Filter Plant, S. C. Railway, Secunderabad.
- f. Infrastructure, equipment and materials at the workplace
- g. Changes or proposed changes in the organization, its activities or materials
- h. Modification to OH&S management systems
- i. Any applicable legal obligations relating to risk assessment and
- j. The design of work areas, processes, installations machinery/equipment and operating procedure etc.

While setting objectives and targets, it ensures that certain aspects leading to significant impacts and hazards towards health and safety are considered. While setting objectives and targets, it ensures that impact of each significant environmental aspect is taken care of and its effects are minimized by proper Operational Control Instruction. Review of all aspects including significant aspects will be done every six months in Management Review Meeting (MRM). Revised scale for identifying significance & new aspects will be included / deleted during this meeting.


6.8. Legal & Other requirements

Carriage Workshop, Lallaguda & Lube Oil Filter Plant, S. C. Railway, Secunderabad shall comply with all legal requirements, which are applicable to the operational and maintenance activities.

In order to ensure compliance and review of legal requirements, detailed legal checks shall be done as per documented procedure. Any nonconformance shall be part of management review meeting and shall be addressed through specific action plan. While defining objectives and targets, it shall be considered. Any addition or deletion of new act or law will be immediately discussed in MR review meeting.

An up to date list of applicable Acts and Rules shall be prepared and maintained in Legal register and same shall be reviewed in every MRM or once in a year. All the necessary licenses /consents shall be obtained, renewed and maintained in Legal Register. Conditions of licenses and consents shall be implemented.

Directives/communications from statutory and regulatory bodies shall be considered for updating the legal requirements. Legal register is retained with MR and the personnel of Carriage workshop, Lallaguda can have access to the legal register for their references.

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It is ensured that the applicable legal and other requirements, to which Carriage Workshop, Lallaguda subscribes are taken into account in establishing, implementing and maintaining its Integrated Management System.

A list of presently applicable Acts/ Rules with required licenses are given below.

Applicable Acts / Rules


1. Factories Act 1948
2. Environment Protection Act 1986 with Amendment of 2002.
3. (Manufacture Storage and Import of Hazardous Chemicals (MSIHC) Rules 1989 With Amendment Of 2000
4. Hazardous Waste (Management & Handling) Rules 1989 with Amendment of 2003
5. Air Act, 1981
6. Water Act, 1974
7. Water Cess Act, 1977
8. Noise Pollution Rules – Amendment 2010,
9. Hazardous Waste (Management, Handling And Trans boundary Movement) Rules 2008 Amendment 2010,
10. Petroleum Act, 1934
11. Indian Boilers Act, 1923
12. Battery Wastes (Management & Handling) Rules 2001
13. Batteries Management Rules – Amendment 2010,
14. Public Liability Insurance Act 1991
15. The Noise Pollution (Regulation & Control) (Amendment) Rules 2002
16. The Ozone Depleting Substances (Regulation & Control) Rules 2000
17. National Ambient Air Monitoring Act 2000.
18. The Recycled Plastics Manufacturing and Usage Rules (Amendment) 2003.
19. Indian Electricity Rules, 1956
20. National Building Code 2005 Section IV
21. MOEF Notification for Noise Limit for DG Set and Compressors Etc.
22. The Epidemic Diseases Act, 1897

Consents / Conditions

- Factory License
- TSPCB Consent For Air
- TSPCB Consent For Water

6.9. Objectives and Targets

In line with the commitment given in Policy, measurable objectives and targets for QMS, EMS, OHSAS & EnMS are established to achieve continual improvement and same are given at Annexure-VI, Objectives have been established based on the framework provided by the Policy. Organizational Objectives usable at departmental levels and

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functions are appropriately assigned within the organization. Where required additional Departmental objectives may be framed based on the organizational objectives.

The process objectives for various processes, where appropriate, have been established in line with the objectives. They are in terms of performance measures and measured & analyzed for improvement.

Objectives are established, understood and implemented throughout the organization with measurable parameter and functional wise.

6.10. Environmental Management Programme(EMP); Occupational Health & Safety Management Programme (OHSMP) and Energy Management Action Plan (EnMAP)

Carriage Workshop, Lallaguda & Lube Oil Filter Plant, S. C. Railway, Secunderabad shall establish documented, management programmes & action plans to ensure that IMS objectives and targets are achieved within the stipulated time frame. The programmes & action plan include the following:

- a. Designation of responsibility and authority for achieving objectives and targets
- b. And the means and time frame
- c. Frequency of review

These are reviewed at regular and planned intervals.


The management shall provide adequate resources including training and skilled personnel and clearly identify responsibilities essential for the implementation and achievement of Management Programme & Action Plan.

The documented management programme for EMS as well as for OH&SPs and action plan for EnMS is a structured approach to support the control of environmental performance, energy conservation and ensure its consistency and mitigate the affect of hazards.

After completion of EMP, OHSMP & EnMAP, performance will be monitored by writing Operational Control Procedures (OCP's) at Functional Unit level.

REFERENCE:

- ❖ ISO 9001:2015 Clause 5.1, 5.2, 5.3,6.2
- ❖ ISO 14001:2015 Clause 5.1, 5.2, 5.3,6.2
- ❖ ISO 45001:2018 Clause 5.1, 5.2, 5.3,6.2
- ❖ ISO 50001:2018 Clause 5.1, 5.2, 5.3,6.2
- ❖ ISO 3834-2: 2005 Clause 10.1
- ❖ Integrated Management System Objectives & Targets: Annexure – VI

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7. PROVISION OF RESOURCES

The resources needed to implement and maintain the Integrated Management System and continually improve its effectiveness, and to enhance customer satisfaction by meeting customer requirements is determined by the HOD and communicated to the relevant authority. These resource requirements is reviewed (especially during management reviews) and is provided by appropriate means as described below.

The organization has determined and provided necessary resources needed:

- To establish & maintain the Integrated Management System, & continually improve its effectiveness.
- To enhance customer satisfaction by meeting their requirements.

7.1. General

The organization selects and assigns personnel performing work/tasks that may impact on services quality and/or environment. All personnel are recruited based on their educational qualification, job experience & skills and competence is defined based on appropriate education, skills and experience. The organization has also a system to assess the competence of its personnel on periodic basis (Performance Appraisal) to identify gap in the performance, if any, as well as assess their training needs to bridge the gap.


7.2. Infrastructure

The infrastructure needed for effective functioning of the Integrated Management System in terms of workspace requirements, equipment needed, the other support facilities required is assessed by the Planning Section for current work requirements and by the respective controlling officer for future growth.

The requirement for infrastructure is reviewed during Management Review Meeting or at times when required. The required infrastructure is provided after assessing the cost-benefit implications. Some of them are:

- a) Power sources and other machines
- b) Equipment for joint and surface preparation for cutting, including thermal cutting
- c) Jigs and fixtures, material handling equipment (fork lifters/ cranes etc.,) are used for production activities
- d) Ovens, holding ovens, quivers etc. are used for treatment of welding consumables
- e) Facilities for surface cleaning, destructive and non-destructive testing.
- f) Routine/Preventive/Breakdown/Shutdown Maintenance of Mechanical, Electrical & Electronic equipment/systems in all service areas by Maintenance departments like Mechanical, Electrical, IT & EDPC.
- g) Excellent Communication and computer network system within the complex for better communication.
- h) Fire prevention, protection, and extinction and safety system available in the workshop to provide safe environment in the plant.
- i) Support Services like Production Control Organisation, Personnel Department, Finance & Accounts Department, and Stores Department to achieve the objectives.

In addition to above, the external process audits and energy audits are being carried out periodically for continual improvement of the processes. A full-fledged maintenance team is in place to plan for the upkeep of existing buildings, structures, equipments and materials.

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7.3. People & Work Environment:

Carriage Workshop, Lallaguda & Lube Oil Filter Plant, S. C. Railway, Secunderabad manpower is about 2800 Nos.

The organization has determined and is maintaining the necessary work environment needed to achieve a positive influence on motivation, satisfaction and performance of people to enhance the overall performance of the organization and achieve uninterrupted supply of services to its customers.

The organization has at its disposal qualified welders and welding operators as per ISO 9606-1 standard.

The organization has at its disposal sufficient and competent personnel for planning, performing and supervising the inspection and testing including non-destructive testing of the welding activities as per applicable standards.

The organization is committed to provide adequate working environment to its employees. Procedures and Work Instructions for jobs have been identified in respective departmental systems Manuals and the employees are made aware about the systems which are required to be followed. Health checkup of all the employees is conducted annually. The awareness on general safety instructions and different rules/regulations etc. imparted to all the employees in the form periodical refresher course.


All Employees are provided with Personnel Protective Equipment (PPE) like, Safety Shoes, Safety Helmet and protective Clothing etc. Special protective equipment as required for some processes are also identified and provided as and when required. Basic amenities for the employees with proper hygiene and cleanliness are being provided at their work places itself. Ambulance and First Aid facilities to workmen are available.

Mill Wright Section ensures that the plant and machinery are suitable to achieve the services conformity.

7.4. Monitoring and Measuring Resources:

Carriage Workshop has determined the monitoring and measurement requirements and the devices required to show the evidence of the conformity of the services. The monitoring and measuring devices needed to demonstrate conformance of the services are determined. Monitoring and measurement are carried out in a manner that is consistent with the monitoring and measurement requirements. Master equipment are used to calibrate the other equipment when calibration is done in house. Requirements of various monitoring and measuring devices have been identified. Details regarding the calibration of monitoring devices are available with SSE/ABS(CTR).

- It is ensured that measuring and test devices are Calibrated or verified at specified intervals, prior to use, against measurement standards traceable to international standard, where no standards exist the basis used for calibration or verification is recorded.
- Carriage Workshop also ensures that Validity of the software used for monitoring and measurement are under control by laboratory personnel and the calibration of equipment used for monitoring Environment and OH & S performance.
- It is ensured that measuring and test-equipment used are capable of making the required measurements. And are adjusted or readjusted as necessary.
- The devices are identified to enable the calibration status and are safeguarded from adjustment that would invalidate the measurement result.


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- Protected from damage and deterioration during handling, maintenance and storage.
- Comparative references, wherever used, is verified by an appropriate authority as capable of verifying the acceptability of the services. Such comparative references are rechecked at prescribed frequency, and records of calibration are maintained.
- If required contractually or desired by customer specifically, technical data pertaining to the valid calibration of inspection measuring and test-equipment is made available to the customer/ customer's representative for verifying the dimensions and that the instrument is functioning adequately
- Carriage Workshop, Lallaguda has established and maintains the procedure to control, calibrate and maintain the qualified inspection, measuring and test equipment and the reference standards / materials.
- Since the entire workshop operation is carried out using centrally controlled distributed control systems, the control and measurement functions have been accorded the highest importance. An established procedure has been developed and documented for identifying the test and measurement equipment required for calibration. All laboratory tests are performed using quality chemicals and calibrated instruments / analyzers.
- The responsibility rests with Production Engineer/LGDS for control of inspection, measuring and test equipment.
- It is the Policy to regularly monitor the integrity of the test equipment and the reference material before its use and shall maintain the records.
- In case of inception of new measuring instruments / standards, PE/LGDS shall fix-up the calibrating frequency and ensure the instruments are calibrated so that traceability of measurements is established. SSE/ABS(CTR) In-Charge shall also ensure that the same is not used without being calibrated. SSE/ABS(CTR) shall ensure that calibration results / certificates are maintained with concerned personnel.
- It is the Policy of the organization to regularly monitor the integrity of the test equipment and the reference material before its use and shall maintain the records.
- In case the equipment is found not to conform the requirements the validity of previous measuring results is assessed and recorded. The appropriate action is taken on the equipment and any services affected. A record of the results of calibration is maintained. Quality system procedure for control of monitoring devices is established , maintained and followed to control calibrate and maintain monitoring and measuring devices. The quality system includes device type, unique identification, location, frequency of checks, check method and acceptance criteria. It is ensured that environmental conditions are suitable for calibrations, inspections measurements and tests being carried out.

7.5. Competence, Awareness and Training

The organization has determined the necessary competence for personnel performing work affecting services quality and is available with the Workshop Personnel Department.

To develop the skill, competency and capability of the personnel, training is imparted and considered as on- going activity. The Training Section has established "Procedure for Training" for identifying training needs and provides training to personnel as per identified needs. All Trainings like Managerial, Developmental, and Organizational are imparted. The effectiveness of training is also evaluated

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Training is also imparted on environment and safety aspects etc. The effectiveness of such functional trainings conducted is assessed and records of the same are maintained by Personnel department and concerned shop/section in-charges. Some of the training related to activities that can have adverse effect on Environmental and Safety are conducted by Safety department in consultation with HODs and records are also retained by Safety department.

The following are also ensured:

- a. That any person(s) performing tasks on behalf of Carriage Workshop, Lallaguda that have the potential to cause a significant environmental impact(s) and OH & S Impact.
- b. The personnel both employed and those working on Carriage Workshop, Lallaguda behalf are aware of the OH&S consequences, actual or potential, of their work activities, their behaviour, and the OH&S benefits of improved personal performance
- c. Awareness among the personnel on their roles and responsibilities on emergency preparedness and response requirements.
- d. That the Training procedure takes in to accountability, language skills and literacy and risk


The training process entails the following:

- a) Determine the necessary competence for personnel performing work affecting quality/environment.
- b) Skill requirements for personal competency.
- c) Provision of training to satisfy competence needs of personnel so identified.
- d) Evaluate the effectiveness of the actions taken i.e. the training imparted
- e) Ensure that the personnel are aware of
 - the relevance and importance of conformance to the Policy and Procedures, and to the requirements of IMS
 - the importance of their activities and how they contribute to the achievement of the Objectives
 - the significant impact and their consequences, actual or potential, of their activities and benefits of improved personal performance (achievement of the Objectives)
 - their roles & responsibilities in achieving conformance to the policy and IMS including emergency preparedness and response
 - potential consequences of departure from specified operating procedures
- f) Maintenance of appropriate records of education, training, skills and experience
- g) Fire & Safety Training is given to nominate Employees of each shop as well as to Contract employees from time to time.

7.6. Communication

The organization has established appropriate communication processes through this Integrated Management System for effective Internal Communication within the organization.

The Policy & Objectives are communicated to all employees through discussions, training programmes, Pamphlets, display boards & any other means as appropriate. Achievement of the Policy & Objectives is reviewed in the Management Review Meetings.

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- a. The communication regarding the effectiveness of the Integrated Management System is done through the Management Review Meetings and any other avenues as felt appropriate. It is ensured that all the employees impacted are communicated the relevant issues discussed in such meetings by the respective department/ functional heads. Receiving, documenting and responding to relevant communication from external interested parties
- b. communication with contractors and other visitors to the workplace

The decision of the management whether to communicate externally about its significant environmental aspects, Hazards and Energy Performance has also been documented. The communication between management and employees is through notice boards, electronic media, suggestion schemes, meetings and through controlling officers etc.

The communication is also effective and documented where

- a. The participation of workers by their appropriate involvement in hazard identification, risk assessments and determination of controls, involvement in the development and review of IMS policies and objectives
- b. The consultation with workers where there are any changes that affect their OH&S and representation on OH&S matters
- c. Communication to the workers about their participation arrangements, including who is their representative(s) on OH&S matters
- d. Consultation with workers and contractors where there are changes that affect their OH&S
- e. Where appropriate, consultation with relevant external interested parties consulted about pertinent OH&S matters


The Top Mgt. conducts meetings of Functional Unit in-charges for communicating with employees as well as reviewing the working of the workshop.

The organization has its own dedicated telecom network, which facilitates easy transmission of voice and data throughout Carriage Workshop, Lallaguda & Lube Oil Filter Plant, S. C. Railway, Secunderabad.

Following means will be adopted to have effective internal communication:

Internal Office Memo, Electronic Media, Shift Log books, Notifications, Job cards.

Activity/ Message	From	To	Method of Communication	Frequency of Communication
Policy	Top Mgmt	HOD, HOD to Department Level	Internal Office Memo (IOM), e_mail	As & when required
Objectives	HOD	HOD, HOD to Department Level	IOM, e_Mail	As & when required
Training	PER BTC	HOD, HOD to Department Level	IOM, Circulars & e_mail	As & when required
Improvements Achievements	Top Mgmt	HOD, HOD to Department Level	IOM, Circulars, Phone call & e_mail	As & when required
Customer Complaints / Feedback	Top Mgmt	HOD (Operation)	Phone call, e_mail	As & When required
Internal Audit	MR	All HODs & Internal Auditors	Circular, e_mail	Once in six months
Emergency Situation	SFT	All personnel	Siren	As & when required

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7.7. Documentation Requirements (General)

The Integrated Management Systems consists of following documentation established, documented, implemented & maintained at all levels. Documented statement of a policy, viz., Integrated Quality, Environment, Health & Safety and Energy Policy (Annexure V), Documented objectives, viz., Integrated Quality, Environment, Health & Safety and Energy Objectives of Carriage Workshop, Lallaguda, Secunderabad.

- The organization-level integrated ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 and ISO 50001:2018 manual.
- Documented procedures identified by Carriage Workshop, Lallaguda to ensure the effective planning, operations and control of the processes, individually at the departmental levels, called the IMS Procedures (P)
- Records to provide evidence of implementation of QMS, EMS OHSAS & EnMS requirements and their conformity. Associated forms & formats, work instructions etc. referred to in the procedures
- Records generated as per IMS requirements and documented procedures.
- External Documents such as, drawings, supplier's manual, IS standards & other standards.


7.7.1. Structure of Documentation:

Documents are structured in four layers as follows:-

Level – I	IMS Manual (IM)
Level – II	IMS Procedure (P) Work Instruction (WI), Quality Plan (QPL), and Documents of an External Origin. Welding Procedure Specification (WPS)
Level – III	Rly Bd. Guidelines / RDSO Instructions, Energy Performance Indicators (EnPI) Operational Control Instruction (OCI) Hazard and Aspect Score, Inspection Report Sheets (IR), Emergency Plan (EPL), Quality Risk (QR) Analysis Environmental Risk (ER) Analysis, Assessment of Health Risks & Opportunities, Environmental Management Programme (EMP), Occupational Health and Safety Management Programme (OHSMP) Energy Management Action Plan (EnMAP)
Level – IV	Forms, Formats, Registers.

7.7.2. IMS Manual (IM) – Level-I

The Apex Integrated Management Systems Manual describes the organization's Integrated Systems Policy and the general organization structure and methods for maintaining the Integrated Management Systems. The manual references the related Quality system, EMS, OHSAS & EnMS procedures followed to meet the specified policies and approaches. It is the policy level document, which also

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Indicates that all requirements of QMS, EMS OHSAS & EnMS standards have been addressed, outlines the organization structure and includes responsibility of key personnel. It also provides reference and directions to Integrated Management System Procedures (P) for all the related procedures.

7.7.3. IMS Procedure (P), Work Instruction (WI), Quality Plan (QPL), and Documents of External Origin, Welding Procedure Specification (WPS) – Level-II

- a) IMS procedures established, documented, implemented and maintained at LGD workshop addresses the workshop and Lube Oil Filter Plant activities, keeping in view the conformance with the requirements of ISO 9001:2015 (QMS), ISO 14001:2015 (EMS), ISO 45001:2018 (OHSMS) and ISO 50001:2018 (EnMS) and the scope of IMS.
- b) IMS procedures invite references, as necessary to work instructions/operational control instructions/Emergency Plan, which define how a specific activity is performed.
- c) WI's are established and implemented to detail, how particular tasks of quality system are to be performed where the absence of such instructions would adversely affect quality.
- d) QPL's are established and implemented in quality management system to assess the quality of the processes as well as products.
- e) WPS's are encapsulated procedures to perform the welding operation. It contains every detail related to perform the welding operation based on the parameters defined.
- f) Documents of an external origin are controlled as per laid down procedure. The documents of an external origin determined by LGD workshop (incl. LOFP/SC) necessary for implementation of IMS have been listed below:-
- g) Drawings, Specifications, Manuals, Test procedures & instructions pertaining to BG coaches & Diesel Locomotives and received from RDSO, ICF, Railway Board, CAMTECH, CME/SCR/SC, CEE/SCR/SC.
- h) Specifications issued by BIS and other international bodies, which are purchased by LGD workshop for use in connection with the repair of the coaches.
- i) Manuals received from suppliers and original equipment manufacturers (OEM) regarding equipment used by LGD workshop.
- j) Environmental Acts and Rules as applicable to the LGD workshop and LOFP/SC specified by TPCB, CPCB.
- k) Acts and Rules as applicable to the LGD workshop & LOFP/SC pertaining to Occupation Health & Safety.

7.7.4. Operational Control Instruction (OCI), Hazard and Aspect Score, Inspection Report Sheets (IR), Emergency Plan (EPL), Environmental Management Programme (EMP), Occupational Health and Safety Management Programme (OHSMP), Energy Management Action Plan (EnMAP) – Level-III

- a) **OCIs** describe the controls required for those operations having significant aspects identified to mitigate the impact on environment and also have controls to reduce the OH & S risk involved in OH & S hazards identified.
- b) **Hazard and Aspect score** provides the basis for providing Operational Controls for the significant hazards, aspects and high risk processes.
- c) **IR** sheets are used to calculate the incentive bonus to the staff for the POH activities attended on a coach. It contains the activities as described in the QPL/WI/Documents of External Origin etc., the time allowed for each such activity and the amount of material consumed for each activity.
- d) **EPL** contains the response plans in case of identified potential emergency

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situations and accidents including mock drill procedure through the environmental and health & safety point of view.

- e) **EMPs** are the management programmes that include action plans designating the responsibility for achieving objectives and targets (environmental issues) at each relevant function and level of the organization and identify the means and time frame by which they are to be achieved.
- f) **OHSMPs** are the management programmes that include action plans designating the responsibility for achieving objectives and targets (OH & S issues) at each relevant function and level of the organization and identify the means and time frame by which they are to be achieved.
- g) **EnMAPs** are the management action plans designating the responsibility for achieving objectives and targets (energy issues) at each relevant function and level of the organization and identify the means and time frame by which they are to be achieved.

7.7.5. Forms, Formats & Records (F&R), Level-IV

This document provides objective evidence for the performed activities. The formats ensure that the services are produced in accordance with specified requirement. The effective implementation of EMS is demonstrated by records. List of other records pertaining to Environment Management at Carriage Workshop, Lallaguda & Lube Oil Filter Plant, S. C. Railway, Secunderabad is also integrated with the implementation of QMS, EMS, OHSAS & EnMS Policy and procedures. The records will contain all Nonconformity Reports (NCRs), Corrective Action Reports (CARs) & observations etc.

7.8. Documents System Structure

The IMS is reviewed in the Management Review Meeting & suitably modified in event of following instant,

- a) Introduction of new services or any breakthrough,
- b) Changes in IMS standards,
- c) Upgrading / strengthening the practices for increasing the effectiveness of the IMS.


7.8.1. Apex Integrated Systems Manual

The organization has established and is maintaining an Apex Integrated Management Systems Manual that includes:

- a. The scope of the Integrated Management System including scope of and justification for any exclusion.
- b. To state the application of the requirements of the International Standards to the IMS.
- c. References to documented procedures established for the IMS
- d. Description of the interaction between processes of the Integrated Management System (Ref. Annexure. - II).

It is the policy level document, which indicates that all requirements of QMS-ISO 9001:2015, EMS-ISO 14001:2015, OHSAS-18001:2007, EnMS-ISO 50001:2011 and ISO 3834-2:2005 have been addressed, outlines the organization structure and includes responsibility of key personnel. It also provides reference and directions for all the related procedures.

The SCOPE for the purpose of IMS certification shall be:

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- **Periodical overhauling of coaches, intermediate overhauling of bogies, refurbishment of coaches, repair of broad gauge coaching special stock and their identified sub-assemblies.**
- **Assembly, Testing & Dispatch of Lubricating Oil and Fuel Oil Filters for Diesel Locomotives**

7.8.2. Creating and Updating Documented Information

Identification and description (title, date, author and reference no. format and media), review and approval for suitability and adequacy are ensured.

7.8.3. Control of Documented Information

The organization has established a "Procedure for Control of Documented Information" described in Integrated Management System Procedures (P) for controlling documents required for implementation of the Integrated Management System.


The documented procedure defines the controls needed to enact for the following activities:

- a. The Management Representative is responsible for the issue, control and recall of all documents
- b. Documents are periodically checked for adequacy.
- c. Review and update as necessary & re-approve documents
- d. All Obsolete documents are promptly removed from all points of issue & use.
- e. Ensure the changes and the current revision status of documents is identified & is available at points of use.
- f. Ensure that documents remain legible and readily identifiable
- g. Ensure that documents of external origin determined by the organization to be necessary for the planning and operation of the management systems of QMS, EMS, OHSMS & EnMS are identified and their distributions controlled are identified and their distribution controlled.
- h. Prevent the unintended use of obsolete documents and to apply suitable identification to them if they are retained for any purpose.
- i. It is ensured that all documents pertaining to work instructions, drawing, technical requirements, specification, procedures, etc. are available at all points of use.
- j. A master list of current documents is maintained & updated on time.
- k. A Master copy of each document is maintained for the purpose of traceability.
- l. The Retention Period and Locations of Documents are defined in the respective document.
- m. Once the retention period is over the Documents are disposed off as defined in the "Procedure for Control of Document"

7.8.4. Control of Documented Information:

7.8.4.1. General

All the results of activities described in this Manual and associated documents are maintained by concerned personnel, to demonstrate the effectiveness of the IMS. The controls applicable are detailed in the procedure for Control of Records.

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7.8.4.2. Identification

Documents required for the demonstrating conformance to specified requirements and the effective operation of the IMS are identified. The identification of documentation is given with a Unique Number as mentioned in the procedure.

7.8.4.3. Maintenance & Access

The designated person responsible for maintenance of records shall ensure that the records are legible, suitably stored to prevent damage and / or loss, and are appropriately collected and filed for easy retrievability.

7.8.4.4. Indexing and Filing:

Records are filed appropriately and are indexed in a manner consistent with the prevailing Workplace Management Techniques. Suitable partition, where required is made in files. In case the file becomes too bulky the subsequent record is transferred to another file of the same name.

7.8.4.5. Record Retention:

Records are kept in areas, which provide suitable protection from damage, deterioration, loss & unauthorized access. Retention period and locations are specified in the respective procedures.

Electronic records are kept in Workshop Information System (WISE) data server or files / folders with various extensions based on the type of application with proper security. The files are organized in a structured manner using suitable transaction codes of WISE and are being kept in various directories and / or sub directories as specified in the respective procedures.

7.8.4.6. Disposal:


Once the retention period is over, the records are disposed off as defined in the "Procedure for Control of Records".

7.8.5. Electronic data security:

All the data related is directly updated through Central Server (WISE). The security of data is ensured through passwords assigned to each person with accessibility restricted to the modules related to their working. Any modification of data can only be done by the concerned password holder after necessary authorization by him in the systems. Software expert acts as system administrator and is responsible for safe and secure storage of data and working of systems.

References:

- ❖ ISO 9001:2015 Clause 5.1, 5.2, 5.3,7.1,7.2,7.3,7.4,7.5, 7.5.1, 7.5.3
- ❖ ISO 14001:2015 Clause 5.1, 5.2, 5.3,7.1,7.2,7.3,7.4,7.5, 7.5.1, 7.5.3
- ❖ ISO 45001:2018 Clause 5.1, 5.2, 5.3,7.1,7.2,7.3,7.4,7.5, 7.5.1, 7.5.3
- ❖ ISO 50001:2018 Clause 5.1, 5.2, 5.3,7.1,7.2,7.3,7.4,7.5, 7.5.1, 7.5.3
- ❖ ISO 3834-2:2005 Clause 7.1, 7.2, 8.1, 9.1, 14.1
- ❖ Control of Documents: P/01
- ❖ Control of Records: P/02
- ❖ Control of Welding Process: P/09
- ❖ Fire & Safety Manual
- ❖ Identified Processes - Annexure I
- ❖ Sequence and Interaction of these processes - Annexure II

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8. PLANNING OF SERVICE REALIZATION

The requirements of the services are to maintain high level of quality services to its customers through effective operation and maintenance. The basic Objective is to provide the services of specified quality up to the satisfaction of customers.

Carriage Workshop, Lallaguda & Lube Oil Filter Plant, S. C. Railway, Secunderabad has developed and established well-structured plans that are required for service realization. All the process required for quality service realization has been identified and are put to use in line with the requirements of the Integrated Management System. Monitoring, inspection and test activities specific to its entire quality services and the criteria for quality services acceptance. Preventive maintenance of machinery is carried out to ensure their continual suitability.

The various records required to provide evidence that the process and services meet requirements of customer are maintained in respective places. Various modules of Enterprise Resource Planning (ERP) (Workshop Information System) such as Material Management, Maintenance, Quality Management, Service Planning, Finance, HR and Health, Safety & Environment have been implemented which facilitate in the various processes for systematic and efficient functioning and traceability of records.

The service realization processes along with their interaction have been mapped and shown in **Annexure-II**. The necessary resources required for the services realization have been provided.

8.1. Review of Requirements related to the Services:

8.1.1. Determination of requirements related to the services

The organization has determined the product requirements in terms of Quality and Quantity of services to be supplied to its customers as per the terms of contract.

The above procedure ensures that

- Requirements specified by the customer including requirements for delivery and post-delivery activities are determined.
- Requirements not stated by the customer but necessary for identified or intended uses are known.
- Statutory and Regulatory requirements related to the services are determined & documented.
- Any additional requirements, modifications determined by the organization.

8.1.2. Review of Requirements related to the Services


The Carriage Workshop, Lallaguda, S. C. Railway, Secunderabad has established and is maintaining a documented procedure for reviewing of Customer requirements, satisfaction and complaints.

The following aspects are considered for the review of requirements:

- the product standard to be used, including other supplementary requirements;
- statutory and regulatory requirements;
- any additional requirement determined by the Organisation;
- the capability of the Organisation to meet the prescribed requirements.

8.1.3. Customer Communication

The organization has determined and implemented effective arrangements for communication with customers.

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Customer Feedback obtained through Customer Satisfaction evaluation form. These Forms are analyzed and wherever necessary, corrective/preventive actions are taken as per "Procedures for Corrective & Preventive Action"

8.2. Design and Development

- Currently this section of the QMS standard (i.e., ISO 9001:2015) is **NOT APPLICABLE** to the organization's activities. As and when requirements become applicable, the same will be addressed. Hence currently this section of the standard is **Not Subject to Audit**

Ref: Section 1.1 (a) of the Chapter M/01 of this Manual under "Scope of Integrated Systems Manual & Exclusions".

- PROPER DESIGN OF PROCESS, FACILITIES, EQUIPMENT, AND SYSTEM MAY LEAD TO IMPROVED ENERGY PERFORMANCE.

a) Facilities Design:

While designing a new shed / office building or during renovation, harvesting of natural ventilation & illumination are considered guidelines given in the Energy Conservation Building code issued by Ministry of power. All buildings are provided with weathering course to reduce solar heat transfer. Wherever possible, building envelope is made using composite panels to reduce solar heat transfer.

b) Plant and equipment Design:

While procuring pump, compressor, air-conditioner, and crane etc., suitable capacity equipment are alone planned to reduce energy loss. While designing pipe size for pumped water, air and other fluids- energy loss due to pipe friction and under size pipe are considered. Pipes laying are planned to reduce shortest length and less number of bends.

c) Process design:

While designing process for manufacture of coaching components less energy consuming methods are planned.

8.3. Purchasing Process: Outsourced to Controller of Stores, S. C. Railway, Secunderabad.

A list of suppliers of Materials and services is maintained and regularly updated. It is ensured that purchased services conform to specified purchase requirement.


Suppliers are selected and removed from the approved list on the basis of the following criteria:

- Past History
- Service
- Reliability

Suppliers are evaluated and selected on their ability to supply services in accordance with the organization's requirement. A record of the result of evaluations and any necessary action arising from the evaluation is maintained.

- PROCUREMENT OF ENERGY PRODUCTS, SERVICES AND EQUIPMENT.

- a) When procuring energy using products, services and equipment for the significant energy use area, the indenter department will identify the expected level of energy efficient services, products and equipment and should specify that requirement in the specification for procurement /scope of work of contract.

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b) In addition to the above all procurements are governed by Railway Board policies/ guidelines as given below.

- Use of Star labeled products on Railways as per Railway Board L.No: 2006/ Elect.(G)/150/5 dated 13-08-16.
- Procurement of energy efficient machines, Elimination of energy intensive devices, use of Non-conventional Energy Sources as per Railway Board L.No: 2004/Elect(G)/180/11Pt.II(NT) dated 22-07-08.

8.3.1. Purchasing Information

Purchasing documents shall contain specifications clearly describing the services ordered including following, wherever applicable:

- a. The type, class, grade, style or other precise identification.
- b. The description of the items, specification, drawings, process requirements, inspection & test requirements etc.
- c. Requirements for approval of services, procedures, processes and equipment
- d. Requirements for qualification of personnel
- e. Quality management system requirements

The concerned C&P executives shall review and approve the purchasing/sub-contracting documents prior to issue for adequacy of specified requirements.

8.3.2. Verification of Purchased Services


If required, specifically by contract, the materials to be purchased are verified at source. The intended verification arrangement and method of release are mentioned in the purchasing information. The incoming goods, irrespective of verification at source, are inspected by the user department on receipt, so as to ensure that the services conform to required specifications. When desired by a customer, the company arranges verification by the customer of purchased services at the supplier's premises or at the customer's premises.

8.3.3. Control of Production and Service Provision

- a. Quality Plan, as applicable in the respective functional areas.
- b. The services/ processes is verified using calibrated instruments at specified stages as defined in the Quality Plan as applicable in the respective functional areas. The Quality Plan shall include the acceptance criteria or make reference to the applicable Standards/ Codes/ Work Instructions/ Method card where these are defined.
- c. Measuring and test equipment are calibrated in accordance with a well-established and documented procedure
- d. Operators are skilled and trained in their respective jobs. Work instructions are provided to the operators/ technicians to ensure that the job is done as per specified requirements.

8.3.3.1. The Carriage Workshop also ensures that:

- a. There are effective controls on delivery of services to customer.
- b. Requirements related to controls on the activities, purchased goods and services including the sub-contract activities that can have significant impact on the quality of welding.

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8.3.3.2. The Carriage Workshop also ensures that:

- a. There are effective controls on delivery of services to customer.
- b. Requirements related to controls on the activities, purchased goods and services including the sub-contract activities that can have significant impact on the quality of welding.
- c. Requirements related to controls on the activities, purchased goods and services including the contract activities that can have significant impact on the environment, objectives and policy
- d. Requirements related to controls on the activities, purchased goods, equipment and services including the contract activities and visitors to manage the OH & S Risks, OH & S objectives and policy
- e. The release of the services is controlled as given in Operation Manual. The delivery and post-delivery activities are as it is mentioned in Operation Manual: Production/Services/ Installation, machinery and equipments, which require to be maintained to ensure continuing process capability, are maintained as defined in referred procedure.
- f. Carriage Workshop, Lallaguda, S. C. Railway, Secunderabad, has incorporated most modern built-in safety and security systems during its design development, engineering, construction and operational phases. Fire protection system provided for is maintained by F&S department as given in manual F& S/ M 09.
- g. To comply with legislative rules and regulations, setting of procedure for evaluation in order to meet each legislative requirement is developed. The same is strictly monitored as per plan.
- h. Emergency situations as covered under Onsite emergency plan shall be checked/ reviewed by conducting mock drills.

8.3.4. Validation of Processes for Production and Service Provision

There is no process either for product or service provision where the resulting output cannot be verified by subsequent monitoring or measurement. Hence, this clause is **Not Applicable and Hence Not subject to Audit**. As and when this clause becomes applicable, the same is addressed.


Ref: Section 1.1 (b) of the Chapter M/01 of this Manual under "Scope of Integrated Systems Manual & Exclusions".

8.3.5. Identification and Traceability:

The Carriage Workshop has the effective measures of identification & traceability of the services rendered by the method of identifying the monitoring and measurement status throughout Service Realization

8.3.6. Customer Property

The Carriage Workshop exercises due care with the customer properties while these are under its control or being used. It identifies, verifies, protects and safeguards the customers' properties. In case, any of the customer's property is lost, damaged or otherwise found to be unsuitable for use, Carriage Workshop reports this to the customer and maintains the relevant records.

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8.3.7. Preservation of Services


The Carriage Workshop preserves the services during internal use and delivery to the intended destination in order to maintain the conformity to the requirements. This entails identification, handling, packaging, storage, protection and preservation.

8.3.7.1. Identification of Product:

- a) Every product that is repaired/maintained/manufactured by LGD shops or LOFP goes into a finished product i.e. an Overhauled Coach or a repaired sub-assembly or a diesel locomotive filter. These products are assigned a description. The description assigned may or may not synchronize with the description given in the product drawing.
- b) Every serviced/manufactured product is identified through the given description in all its process areas.
- c) A person who has to deal with the serviced/manufactured product learns to identify it visually, aided by his colleagues or superiors. No special training is given for identification of products.
- d) Some of the examples of product identification are given below: -
 - A coach is identified through its type and coach number assigned. The particulars of date of POH and the code of the workshop are also stenciled on the end panel of a coach after POH. Other particulars are also painted on the exterior of the coach after POH.
 - Bogie frames carry their own serial numbers.
 - Wheel sets are identified by wheel barrel number painted on wheel discs.
 - Locomotive filters are identified by S.No, Date of manufacture or engraving on locomotive filter end caps
 - In-coming materials received from suppliers are inspected and based on the result of the inspection; the materials are identified and segregated.
 - Materials lying on shop floor are identified and traced by painting of individual products which are identifiable, small in number and large in size, or, painting of packages or cartoons in which they are packed or, stacking the products in areas/bins/containers of appropriate colour.

8.3.7.2. Handling:

- a) Better work practices are established at LGD workshop and LOFP/SC to prevent damage to or deterioration of a material while handling.
- b) Materials with complex shape/size or prone to accident require special handling. Special handling procedures for such materials are established and followed by FU in-charge concerned.

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8.3.7.3. Packaging:

- a) No packaging is specified for coaches. Packaging for sub-assemblies received for repair & return is done if required by the customer.
- b) Locomotive filters are packed in cardboard carton boxes for customer dispatch.

8.3.7.4. Storage:

- a) Designated areas are provided for storage of different products in LGD workshop as well as in LOFP. Accepted and conforming materials procured from suppliers or manufactured in-house are stored in such areas that safeguard them from damage or deterioration.
- b) The authority in-charge of storage wards exercise periodical checks for quantity as well as quality of the materials, as enjoined in Stores department codes.
- c) Specific procedure has been established in respect of components stored in bogie sub-store, which receive the material from issue wards, as distinct from other materials.
- d) Finished coaches are not stored; they are handed over to the traffic department on the same day of final inspection.
- e) Loco motive filters manufactured are stocked (as per para 3.2) and dispatched as per customer PO.

8.3.7.5. Protection:


- a) Products that have a limited shelf-life are identified and stored separately. Issue of such products is on 'least -life-first-issue' basis.
- b) Products lying in stock beyond shelf life are re-inspected for fitness for use, before issue.

8.3.7.6. Delivery:

- a) FU in-charge concerned hands over the repaired sub-assemblies after due inspection, to the customer.
- b) The repaired item is stored properly to protect the quality of finished product until delivery.
- c) There are no contracted requirements to deliver a finished coach at destination. As such Carriage workshop, Lallaguda shop protects the quality of a finished coach until it is collected by the customer.
- d) Finished coaches declared fit for traffic after final inspection are locked properly and handed over to customer representative.
- e) Finished loco motive filters are handed over to customer representative or delivered by road through contractor.

8.3.8. Post Delivery Activities

The organization meets all the post-delivery activities associated with products and services keeping in mind the applicable statutory and regulatory requirements and its potential consequences, nature, use and intended lifetime services for customer requirements and customer feedback.

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8.3.9. Control of changes

Changes in the processes, products, systems and services are controlled to the extent necessary

8.3.10. Release of Products and Services

The organization has developed the arrangements to verify the products conformity to the requirements by carrying out effective inspection and testing. Products are not released before inspection and testing. Release of products and services are to be done by the approved authority or customers


8.3.11. Control of Non-conforming outputs

Organisation has set up a system to identify and control the non-conforming products. The non-conforming products are not allowed to go further without ensuring its conformity to the requirements.

A documented procedure has been established to define the controls with responsibilities to deal with the non-conforming products (Ref: P/05).

8.3.11.1. Non-Conformities in Coaches/Locomotive Filters- QMS:

- a) There are some fittings that are an integral part of the coach body. During POH/IOH/SR of coach, these fittings are normally not removed unless there is a deficiency or defect noticed during inspection when the coach is received. Non-conformity may be noticed in such areas after repairs.
- b) A distinct marking on the coach body identifies such non-conformities.
- c) The non-conformities are attended to by the shop concerned and coach is re-inspected to demonstrate conformity to the requirements. The attention to the non-conformities detected is given without reference to the customer and as per existing WIs & QPLs.
- d) Corrective/Preventive action is initiated for non-conformities that occur frequently.
- e) The stages at which normally non-conformities come across are identified as below:-
 - I. Pre-inspection of In-coming coaches,
 - II. Stage inspection of serviced coaches,
 - III. Final inspection of serviced coaches.
- f) Coaches either PCV or OCV ready to turn out with minor non-conformities may be passed locally fit for traffic by WM/AEE or higher officials as per the contract agreement made with the customer, provided a quality checklist is recorded in such cases.
- g) Whenever coach repaired by LGD workshop is reported sick by the customer within 100 days of POH for non-conformities on account of LGD workshop, the expert staff is deputed to take appropriate action to eliminate the non-conformities. Locomotive filters failed in final inspection, treated as non-conforming product and reworked as per existing WIs & QPLs

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8.3.11.2. Non-Conformities In Sub-Assemblies, Parts:


- Sub-assemblies, parts are received for repair from different shops within LGD workshop and from Divisions on SCR on basis of repair and return.
- Such sub-assemblies, parts that are found repairable are repaired and inspected as documented. Parts manufactured within LGD workshop are also inspected as documented.
- Sub-assemblies, parts found non-conforming after they have been attended/inspected are identified, segregated and colour coded suitably.
- FU in-charge concerned reviews non-conforming products whether they can be repaired, rejected or processed further through concession.
- Notified materials like wheels, roller bearings, springs etc. declared rejected are made unfit for use before disposal.
- All non-conforming sub-assemblies, parts of loco motive filters are reworked and processed further.
- No non-conforming product is reused unless non-conformities in it are eliminated or allowed to process under concession duly granted.
- Record of the non-conformities detected during any stage and action taken to eliminate the same is maintained by the FU in-charges concerned and the inspection authority.

8.3.11.3. CONCESSION:

- In respect of coach and its sub-assemblies, parts received and repaired by LGD workshop, if any non-conformity is detected that cannot be eliminated but does not affect the specified requirements of a finished product and safety of the passengers, such non-conformity may be permitted through concession.
- Concession, as defined above, may be sought by FU in-charge concerned but needs to be recommended by the Controlling Officer concerned.
- Dy.CME for Mechanical issues and Dy.CEE for Electrical issues will consider the request for concession and either agree or reject the concession.
- Concessions are granted only after due discussion and agreement with the customer.
- Concession of the same nature is not granted more than once in three months unless specifically approved by CWM at the request of Dy.CME or Dy.CEE, as the case may be.
- Record of the concession/s sought and granted is maintained by MR. MR will highlight concession/s granted in MRM.

8.3.11.4. Non-Conformities In EMS & OHSAS:

- The non-conformities to the established EMS and OHSAS in LGD Workshop are identified, documented, action taken to mitigate any environmental impact/s and OH&S consequences respectively.

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- b) Corrective and preventive actions appropriate to the magnitude of the problem, the environmental impact/s and OH & S consequences are taken to eliminate the detected non-conformity/ies.
- c) Controlling Officer concerned shall evaluate the need for actions to prevent non-conformities.
- d) Controlling Officer concerned is responsible for handling and investigating the non-conformities in their area of jurisdiction and taking action to mitigate any environmental impact/s and OH&S consequences.
- e) Record of the non-conformities detected and action taken to mitigate the same is maintained by the FU in-charges concerned

8.3.11.5. Non-Conformities In EnMS:

- a) All potential nonconformities which may lead to decrease in energy performance (high energy consumption, decrease of energy efficiency, decrease in output etc..) are to be anticipated in advance and likely root cause shall be inhibited and necessary preventive actions like, awareness and operation training to staff, documentation and adherence of operational control procedures, procurement of reliable and energy efficient items, equipment, procurement of fuel oil/gas with conformance to specification are to be ensured.
- b) All non-conformities identified through various sources are immediately attended as a corrective measure.
- c) All identified non-conformities are analysed thoroughly to pin point a root cause and appropriate actions are taken to eliminate recurrence of non-conformity as part of corrective action.
- d) Record for corrective and preventive action taken are maintained in the respective FUs.

8.4. Emergency Preparedness & Response


Carriage Workshop, Lallaguda, S. C. Railway, Secunderabad has developed an "ON SITE EMERGENCY PLAN" for preventing and mitigating the environmental impacts and to ensure that there is an appropriate response to unexpected or accidental incidents. This plan also meets the statutory requirement.

Carriage Workshop reviews and revises ON SITE EMERGENCY PLAN every year based on response, procedures and practical reports. Mock drills followed with management review are also conducted to test that these procedures are practicable. The Internal safety audits are held once in six months. External safety audit is also conducted by expert external agencies.

Safety permits are issued by safety department after analyzing work conditions or type of work or different conditions.

Safety report is also prepared and submitted to Statutory / legislative authorities. Necessary actions are taken for improvement of safety standards.


Carriage Workshop has developed the systems needed to review the Emergency Preparedness, particularly after the occurrence of accident / incident and emergency. After every incident, near miss accidents and emergency situation an internal enquiry committee finds out the reasons and analyses the various aspects of the incident and

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submits the report to the safety committee, which further discusses in management review meeting and necessary preventive and corrective actions are taken. The safety committee discusses various safety requirements and ensures workers participations in this process.

8.5. References:

- ❖ ISO 9001:2015 Clause 5.1, 5.2, 5.3, 8.1, 8.2, 8.3, 8.5,8.5.1,8.5.2,8.5.3,8.5.4
- ❖ ISO 14001:2015 Clause 5.1, 5.2, 5.3, 8.1, 8.2
- ❖ ISO 45001:2018 Clause 5.1, 5.2, 5.3, 8.1, 8.2
- ❖ ISO 50001:2018 Clause 5.1, 5.2, 5.3, 8.1, 8.2, 8.3
- ❖ ISO 3834-2:2005 Clause 5, 6, 11, 12, 15, 17
- ❖ Control of Records: P/02
- ❖ Control of Non-Conforming Services: P/05
- ❖ Non-Conformities, Analysis, Improvement, Corrective And Preventive Action: P/06
- ❖ Control of Welding process: P/09
- ❖ On site Emergency Plan: EPL/001
- ❖ Fire & Safety Manual

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9.1. Monitoring , Measurement, Analysis & Evaluation

9.1.1. GENERAL

The organization has planned and implemented the monitoring, measurement, analysis and improvement processes needed to:

- Demonstrate conformity of the services.
- Ensure conformity of the Integrated Management System.
- Continually improve the effectiveness of the Integrated Management System.
- The **"Graph or Charts"** are used to represent statistical techniques at appropriate places.
- Monitor and measure the Energy, Environment performance and OH & S Performance (both Proactive and Reactive)

Above are planned and carried out in a controlled manner.

9.1.2. Customer Satisfaction

As one of the measurements of performance of QMS, EMS OH&SMS and EnMS, the organization monitors information relating to customer perception as to whether the organization has met customer requirements. The organization aims for producing services as per standard and customer requirements, ensuring prompt delivery of the services and addressing customer complaints helps us to achieve total customer satisfaction.

Customer satisfaction level is evaluated on monthly basis on the basis of feedback received from the customers in the following areas:


- ❖ Quantity
- ❖ Quality
- ❖ Delivery
- ❖ Responsiveness
- ❖ Transportation
- ❖ Communication
- ❖ Suggestion for improvement

In case there is feedback from the customer is below satisfaction index, the complaint is suitably addressed to and analyzed for the root cause & necessary corrective action will be taken. The potential causes are also identified and preventive actions are recommended and implemented.

9.1.3. Analysis & Evaluation of Data

Carriage Workshop, Lallaguda subscribes to continual incremental improvement through implementation of the IMS, which emanates from appropriate analysis of the data from the scheme of monitoring and measurement established and subsequent use of the information obtained. It actually determines, collects and analyzes appropriate data to demonstrate the suitability and effectiveness of the Integrated Management System and to evaluate whether continual improvement of the effectiveness of the Integrated Management System can be made.

The data collected and compiled is analyzed by concerned HODs using suitable statistical techniques such as trend graphs to demonstrate the suitability and effectiveness of the Integrated Management System. The deviations from desired requirements is identified

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and cause analysis is done to determine areas where corrective and preventive action can be taken for driving continual improvement. Statistical techniques provide an essential and effective tool for Analysis of data for improvement. Such techniques are used for arranging the data in order to obtain help in analysis on non-conformances and visualize the trend of quality performance in the specific areas.

The output from this analysis serves as input to the Management Review Meetings to evaluate where continual improvement of the Integrated Management System can be made.

To ensure the suitability and effectiveness of the Integrated Management System and evaluate continual improvement, data is collected and analyzed in the following areas:

- a) IMS effectiveness measures-trends
- b) Customer satisfaction
- c) Conformity to services requirements
- d) Optimization of process parameters and energy balance
- e) Internal consumption of fuel
- f) Compliance with the Management Programmes and applicable legislation & regulatory requirements
- g) Characteristics and trends of processes (including operational criteria/ performance indicators) and services including opportunities for preventive action.
- h) Supplier performance

9.2. Internal Audit

The organization conducts internal audits at least once in six months to determine whether the Integrated Management System:

- a. Conforms to the planned arrangements.
- b. Meeting the requirements of international standard and to the Integrated Management System requirements established by the organization.
- c. Integrated Management System is effectively implemented and maintained
- d. Is effective in meeting the Management Policy and Objectives.


Internal Audits are scheduled on the basis of the status and importance of the activity to be audited and are carried out by personnel who do not have direct responsibility for the activity being audited. The results of the audit are recorded and brought to the attention of the personnel having responsibility for the activity being audited and corrective action for the deficiencies is taken up on a time bound programme by the management responsible for the areas.

The MR/Management appointee is responsible for the area being audited ensures that the corrections/corrective actions are taken without undue delay to eliminate the detected non-conformities and their causes. Follow up audits includes the verification of the actions taken and the reporting of verification results.

The MR/Management appointee are also responsible for the need to plan the internal audit based on the Environmental importance of the activity and the OH & S risks.

The audit schedule and the functions to be audited are finalized by the MR on the basis of their nature and importance. The Auditors submit the audit reports and their observations to the MR in the Audit Report. MR reviews the same and prepares a summary report. The corrective and preventive actions as recommended are initiated and completed within the stipulated time period. Follow-up audit activities be verified and recorded for implementation and effectiveness of corrective and preventive action taken.

Only trained auditors carry out the Internal Audit. The list of such auditors is maintained by MR. a checklist on Internal Audit is available with MR for guidance and reference by the Internal Auditors.

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Internal Audit Procedure includes the following and are as per ISO19011:2011

- Scope & frequency of the audit.
- Selection of trained auditors for conduct of audits to ensure objectivity of the audit process.
- The responsibilities and requirements for planning and conducting audits, and for reporting results and maintenance of records.
- Summary of the Internal Audit result is prepared for each Internal Audit and is included in the agenda for MRM for analysis, which is presented during the Management Review Meeting.

Internal Audits are held simultaneously for all the management systems, viz. QMS, EMS, OHSAS and EnMS.

9.3. Management Review

9.3.1. General

The top management reviews the organization's Integrated Management System at least once in six months and as and when necessary to ensure its continuing suitability, adequacy and effectiveness in meeting the requirements of ISO 9001: 2015 (QMS), ISO 14001:2015 (EMS), ISO 45001:2018 (OH&SMS) & ISO 50001:2018 (EnMS), organizations Integrated Policy & Objectives. This review includes assessing opportunities for improvement and the need for changes to the Integrated Management System, including the Integrated Policy and Integrated Objectives.


Chief Workshop Manager, Carriage Workshop is the Chairman of Management Review Meeting. The MR, coordinator of the Management Review Meeting circulates the proposed agenda along with notification for the conduct of MRM, after obtaining the approval of the Chairman.

A Management Review Committee constituted by the Top Mgt., conducts the review. The committee consists of following:

9.3.2. Review Inputs:

The following is the input to Management Review Meetings to ensure the effectiveness of the Integrated Management System and shall not be limited to only these

1. Review of IMS Policy, Objectives & Targets and to the extent they have been met
2. The status of action from previous Management reviews
3. Changes in:
 - a. External and internal issues that are relevant to the IMS i.e. QMS, EMS, OH&SMS & EnMS.
 - b. The needs and expectations of Interested parties, including compliance obligations.
 - c. Its significant environmental aspects.
 - d. Legal requirements and Other requirements
 - e. Risks & Opportunities.
4. Information on the performance and effectiveness of the IMS including trends in:
 - a. Customer satisfaction and feedback from relevant interested parties.
 - b. Process performance and conformity of products and services
 - c. Nonconformities and Corrective actions.
 - d. Monitoring and measurement results

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- e. Fulfilment of Compliance Obligations.
 - f. Results of the evaluation of compliance with legal requirements and other requirements.
 - g. Audits results.
 - h. Consultation and Participation of workers.
 - i. Risks and Opportunities.
 - j. The performance of external providers
5. The adequacy of resources for maintaining an effective Integrated Management System.
 6. The effectiveness of actions taken to address Risks and Opportunities.
 7. Relevant communication(s) from interested parties, including complaints.
 8. Evaluation of compliance with applicable legal requirements and with the other requirements.
 9. Results of participation and consultation
 10. The OH&S performance of the organization.
 11. Status of incident investigations, Corrective Actions and Preventive Actions
 12. Changing circumstances, including developments in legal and other requirements related to OH&S and recommendations for improvements.
 13. Energy performance and energy performance improvements based on monitoring & measurement results including EnPI(s)
 14. Status of the action plans.
 15. Opportunities for continual improvement, including those for competence.
 16. Recommendations for improvements.

9.3.3. Review Output

The output from the Management Review includes any decisions and actions related to


- a. Improvement of the effectiveness of the Integrated Management System and requirements of EMPs, OH&SMPs and EnMAPs.
- b. Improvement of services related to customer requirements.
- c. Resource needs.

Time bound action plan and responsibility of its implementation are assigned to concerned persons while discussing any of the issues listed above. MR is to review the implementation of the decisions taken in the management review meetings.

Records of the Management Review Meetings are maintained by MR for a period of 3 years.

9.3.4. Monitoring and Measurement of Processes & Services

Performance measurement for the various processes, where applicable have been established and are aligned to measure the process effectiveness and efficiency. These measurements are defined at the end of the processes / procedures where included as Process Measurements. The organization has identified the various processes applicable and procedure for the measurement of the process is given in manuals. The monitoring and measurement of these processes demonstrates their ability to achieve planned results. When planned results are not achieved, corrective actions are taken as appropriate.

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The verification whether planned results are being attained is done through Internal Audit, apart from the monitoring, described above.

The requirements of clause 9.1 of ISO 45001:2018 related to monitoring and measurement of OH & S performance are also measured and maintain the records of evaluation of Legal requirements and other requirements.

Identified environmental performance indicators for its activity shall be measured and verified continuously. All the environment aspects and impact shall be identified along with measurement system. Wherever possible the aspects shall be identified, measured and records maintained.

Identified energy performance indicators for FU's shall be measured and verified continuously. All the variables affecting the performance of SEU's shall be identified, measured and records maintained

Carriage Repair Workshop, Lallaguda, Secunderabad has established documented procedure to monitor and measure the key characteristics of significant environment impact of its operational activities. Following monitoring shall be done

- Ambient Air Quality
- Stack gas analysis
- Effluent Water analysis
- Noise
- Drinking Water Quality
- Others as per requirement
- Illumination Level

The results shall be analyzed and used to determine activities requiring corrective actions and improvements

The organization monitors and measures the characteristics of the services to verify that service requirements have been met during receiving, in-process and delivery of the services.

Inspection and testing is carried out in accordance with the Documented Procedures and the Inspection Plan to ensure the conformance of the services to the specified requirements.


The documented Procedures and Inspection Plan for final inspection and testing shall ensure that all previous specified inspection and tests are carried out, and the results meet the specified requirements.

The release of conformed products/services for the customers is not proceeded till the planned arrangements are satisfactorily completed unless otherwise approved by the relevant authority.

The details of the Quality Control Procedures are given in Quality Plans. Records are maintained to give evidence that the services have been supplied within defined acceptable criteria. All the relevant records of testing of services are duly signed by authorized persons.

REFERENCES:

- ❖ ISO 9001:2015 Clause 5.1, 5.2, 5.3,9.1,9.2,9.3 ❖ ISO 50001:2018 Clause 5.1, 5.2, 5.3, 9.1,9.2,9.3
- ❖ ISO 14001:2015 Clause 5.1, 5.2, 5.3, 9.1,9.2,9.3 ❖ ISO 19011:2011, Internal Audit Procedure: P/04.
- ❖ ISO 45001:2018 Clause 5.1, 5.2, 5.3, 9.1,9.2,9.3 ❖ Corrective Action Procedure: P/06

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10. Continual Improvement

Carriage Workshop, Lallaguda, Secunderabad is committed to continually improve the effectiveness of the Quality, Environmental, Occupational Health and Energy Management System through the review of the following:

- Review of performance vis-à-vis the Integrated System Policy,
- Review of performance vis-à-vis the Quantifiable Objectives of Carriage Workshop, Lallaguda & Lube Oil Filter Plant, S. C. Railway, Secunderabad
- Review of performance vis-à-vis the Quantifiable Objectives of each concerned department,
- Departmental system review meeting records,
- Analysis of data as described,
- Audit results,
- Results of Incident Investigation, Environmental Performance Data, OH & S Performance Data
- Management Systems records,
- Management review meetings records,
- Customer complaints / Feedback on quality or environmental performance,
- Corrective and Preventive action reports,
- Major Technical Breakthroughs and Modifications,
- Future Improvement prospects

10.1. Corrective Action


There exists an established procedure to take corrective action on any non-conformity identified with respect to services/process/environmental systems. Documented Procedure for implementing Corrective and Preventive actions, across the Organization is released by MR/MA. Additionally for specific corrective actions to be taken for Operations, relevant Procedure / Work Instructions/Operational Control is documented by the concerned department.

Corrective and Preventive actions taken have a degree appropriate to the magnitude of problems and commensurate with the risks involved.

If Corrective and Preventive action requires any change in the documentation, the same is recorded and implemented as per "Procedure for control of Documents"

The "Procedure of Corrective and Preventive Action" shall include:

- a) Effective review of non-conformance including customer complaints,
- b) Any other non-conformance reported or observed at any time, or during measurements, during operational control or during audit, reported by other interested parties including society.
- c) Investigation of the causes of non-conformity relating to services, process, environment and Integrated Management System and records the results of the investigation in "Corrective and Preventive Action Report".
- d) Review the Corrective Action and Preventive actions through Risk Assessment prior to implementation
 - Determination of the corrective action needed to eliminate the causes of non-

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conformities and evaluating the need for action to ensure that nonconformities do not recur.

- Application of controls to ensure that corrective action is taken and that it is effective by identifying person responsible and fixing target date for completion.
- Records of the results of action taken.
- Monitoring of identified corrective actions is also done periodically for their effectiveness. The corrective action reports are reviewed during the Management Review Meetings.

The data on the performance, the analysis done and the status of corrective and preventive actions is discussed during the Management Reviews to determine the progress on such improvements being initiated and to provide the necessary support and resources. The responsibility for the specific initiative is defined depending on the nature of activities to be carried out.

If the improvement requires a system change then the relevant processes is revised and personnel trained as applicable.

10.2. Effective Customer Complaint Management

Customer complaints are received by way of letters/ faxes/ telephone calls/e-mails or in person and are recorded as per the "Procedure for Corrective and Preventive Action"

The customer is informed about the action planned. All customer complaints are resolved either by:


- Doing the root cause analysis and taking the necessary corrective and or preventive action
- Provision of free service, where possible
- Sending a 'Regret Letter' and explaining relevant reasons
- Ensuring that similar errors would not take place in future

Records of all customer complaints and their resolutions along with root clause analysis and are maintained.

10.3. Risk Analysis

There exists an established procedure to take preventive actions and the same is based on the inputs of Internal Audit / Customer Complaint./ Management Review, preventive actions are identified with respect to services / process / system so as to implement action in advance so that system is effectively maintained to eliminate the causes of potential non-conformities and to prevent their occurrence. The same shall include;

- The appropriate information & analysis from:
 - a) Audit results
 - b) Non-conformity reports
 - c) Study of Integrated Management System Documentation related to the non-conformity reports.
 - d) Need to review the Corrective Action and Preventive actions through Risk Assessment prior to implementation

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e) Customer complaints

- Determining potential nonconformities, and their causes.
- Identification of an effective preventive action plan and evaluating the need for action to ensure that nonconformities do not recur.
- Preventive actions are initiated by identifying person responsible for fixing the target date for completion of the proposed action.
- Records of the results of action taken.
- Monitoring of identified preventive actions is also done periodically for their effectiveness. The preventive action reports are reviewed during the Management Review Meetings.


10.4. Closure of Actions:

It is ensured that "Corrective Action Report" and "Preventive Action Report" are closed by Departmental Heads / Internal Auditors / Management Representative as follows


- a) Internal Audits findings are closed by the Internal Auditor(s)/ Management Representative, & Lead Auditor after verifying the position effectiveness of the same.
- b) Corrective and Preventive Action Reports for customer complaints/ services/process/environmental related non-conformities/ Improvement, is closed by the MR after verifying the effectiveness.

REFERENCES:


- ❖ ISO 9001:2015 Clause 5.1, 5.2, 5.3,10.1.10.2,10.3
- ❖ ISO 14001:2015 Clause 5.1, 5.2, 5.3, 10.1.10.2,10.3
- ❖ OHSAS 18001:2007 Clause 4.1, 4.2
- ❖ ISO50001:2011 Clause 4.2, 4.2.1, 4.2.2, 4.3
- ❖ ISO 3834-2:2005 Clause 15
- ❖ Procedure for Control of Documents: P/01
- ❖ Management Review Meeting
- ❖ Procedure for Internal Audit: P/04
- ❖ Control of Non-Conforming Services: P/05
- ❖ Non-Conformities, Analysis, Improvement, Corrective And Preventive Action: P/06

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Sr. No.	Abbreviation	Full Form
1.	AAQ	Ambient Air Quality
2.	AAQM	Ambient Air Quality Measuring & Monitoring
3.	AEME	Assistant Executive Mechanical Engineer
4.	AIA	Aspect & Impact Analysis
5.	ALCO	American Locomotive Company
6.	ADEE	Assistant Divisional Electrical Engineer
7.	AMC	Annual maintenance Contract
8.	AMM	Assistant Materials Manager
9.	AWM – I, II, III	Assistant Works Manager– I, II, III
10.	BEE	Bureau of Energy Efficiency
11.	BG	Broad Gauge
12.	BIS	British international Standards
13.	BMI	Body Mass Index
14.	BOD	Bio-Chemical Oxygen Demand
15.	BP	Blood Pressure
16.	BS	British Standards
17.	BS	Blood Sugar
18.	BSS hanger	Bogie Spring Suspension Hanger
19.	BTC	Basic Training Center
20.	C&W	Carriage & Wagon
21.	CAMTECH	Center for Advanced Maintenance Technology
22.	CARs	Corrective Action Reports
23.	CBF	Coach Body Underframe Shop
24.	CDI	Civil Defense Instructor
25.	CDMS	Chief Depot Material Superintendent
26.	CEO	Chief Executive Officer
27.	Ch.OS	Chief Office Superintendent
28.	Ch.OS&WI	Chief Office Superintendent & Welfare Inspector
29.	CHG	Coaching
30.	CMA	Chemical & Metallurgical Assistant
31.	CME	Chief Mechanical Engineer
32.	CMS	Chemical & Metallurgical Superintendent
33.	COD	Chemical Oxygen Demand
34.	COS	Controller of Stores
35.	CPCB	Central Pollution Control Board
36.	CRIS	Center for Railway Information System
37.	CRSE	Chief Rolling Stock Engineer
38.	CWE	Chief Workshop Engineer
39.	CWM	Chief Workshop Manager
40.	CWS	Carriage Workshop Lallaguda

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Sr. No.	Abbreviation	Full Form
41.	DCP	Dry Chemical Powder
42.	DCWI	Divisional Carriage & Wagon Inspector
43.	DEE	Divisional Electrical Engineer
44.	DEE	Divisional Electrical Engineer (Workshop)
45.	DEMU	Diesel Electrical Multiple Unit
46.	DEN	Divisional Engineer
47.	DISH	Director, Industrial Safety and Health
48.	DLW	Diesel Locomotive Works
49.	DMS	Depot Material Superintendent
50.	Dy.CEE	Deputy Chief Electrical Engineer
51.	Dy.CIF	Deputy Chief Inspector of Factories
52.	Dy.CME	Deputy Chief Mechanical Engineer
53.	Dy.CMM	Deputy Chief Materials Manager
54.	Dy.FA&CAO	Deputy Financial Advisor & Chief Accounts Officer
55.	Dy.MR	Deputy Management Representative
56.	EA	External Agency
57.	ECU	Equated Coach Unit
58.	EDPC	Electronic Data Processing center
59.	EEE	Executive Electrical Engineer
60.	EFU	Equated Filter Unit
61.	Elect	Electrical
62.	EMP	Environmental Management Programme
63.	EMS	Environmental Management System
64.	EMU	Electrical Multiple Unit
65.	EnB	Energy Baseline
66.	EN-Con	Energy Consumption
67.	EnMAP	Energy Management Action Plan
68.	EnMS	Energy Management System
69.	EnPI	Energy Performance Indicators
70.	EOC	Emergency Operation Center
71.	EPL	Emergency Plan
72.	ER	Environmental Risk Analysis
73.	ERP	Enterprise Resource Planning
74.	ETL	Electrical Train Lighting
75.	ETP	Effluent Treatment Plant
76.	F & R	Files & Records
77.	F & S	Fire & safety
78.	FAB	First Aid Box
79.	FBS	Fasting Blood Sugar
80.	FFE	Fire Fighting Equipment

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Sr. No.	Abbreviation	Full Form
81.	FIR	First Information Report
82.	FMEA	Failure Mode Effects Analysis
83.	FU	Functional Unit
84.	GHMC	Greater Hyderabad Municipal Corporation
85.	GMAW	Gas Metall Arc Welding
86.	HIRA	Hazard Identification Risk Assessment
87.	HOD	Head of Department
88.	HQ	Head Quarters
89.	HR	Human Resources
90.	HSD	High Speed Diesel
91.	IA	Internal Audit
92.	ICF	Integral Coach Factory
93.	IM	Integrated Management System Manual
94.	IMS	Integrated Management System
95.	INSP	Inspection
96.	IOD	Injury on Duty
97.	IOH	Intermediate Overhaul
98.	IOW	Inspection of Works
99.	IPF	Inspector, Railway Protection Force
100.	IR	Inspection Report Sheet
101.	IRCA	Indian Railways Conference Association
102.	ISO	International Organization for Standardization
103.	IWIP	International Welding Inspection personnel
104.	JE	Junior Engineer
105.	KOE	Kilograms of Oil Equivalent
106.	LAB	Chemical & Metallurgical Laboratory
107.	LGD	Lallaguda
108.	LHB	Linke Hofmann Busch
109.	LOFP	Lube Oil Filter Plant
110.	LOR	Legal & Other Requirements
111.	M&P	Machinery & Plant
112.	MA	Management Appointee
113.	Mech	Mechanical
114.	MG	Meter Gauge
115.	MLW	Millwright Shop
116.	MMAW	Manual Metall Arc Welding
117.	MME	Monitoring and Measuring Equipment
118.	MoEF	Ministry of Environment and Forest
119.	MR	Management Representative
120.	MRM	Management Review Meeting

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Sr. No.	Abbreviation	Full Form
121.	MSDS	Material Safety Data Sheet
122.	MSIHC	Manufacture storage & Import of Hazardous Chemicals
123.	MTOE	Million Tons of Oil Equivalent
124.	NCP	Non-conforming Product
125.	NCRs	Nonconformity Reports
126.	NCWS	Neutral Carriage & Wagon Superintendent
127.	NDLS	New Delhi
128.	NPOH	Non-Periodical Overhaul
129.	NR	Nominated Repair
130.	NS	Non-Stock
131.	NTXR	Neutral Train Examiner
132.	OCI	Operational Control Instruction
133.	OCV	Other Coaching Vehicles
134.	OEM	Original Equipment Manufacturer
135.	OH&S	Occupational Health and Safety
136.	OHSMP	Occupational Health and Safety Management Programme
137.	OHSMS	Occupational Health and Safety Management System
138.	OP	Operating Procedure
139.	P	Procedure
140.	PA	Preventive Action
141.	PCO	Production Control Organization
142.	PCV	Passenger Coaching Vehicles
143.	PDC	Propose Date of Completion
144.	PE	Production Engineer
145.	PER	Personnel section
146.	PEST	Political Economic Social Technological
147.	PFC	Process Flow Chart
148.	PLG	Planning section
149.	POH	Periodic Overhaul
150.	PPE	Personal Protective Equipment
151.	QMS	Quality Management System
152.	QPL	Quality Plan
153.	QR	Quality Risk Analysis

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Sr. No.	Abbreviation	Full Form
154.	R&R	Recruitment & Reversal
155.	RCF	Rail Coach Factory
156.	RDSO	Research, Design and Standards Organization
157.	RPF	Railway Protection Force
158.	RPM	Respirable Particulate Matter
159.	RPN	Risk Priority Number
160.	RSK	Rail Spring Karkhana
161.	RWC	Responsible Welding Coordinator
162.	SAIL	Steel Authority of India Limited
163.	SC	Secunderabad
164.	SCR	South Central Railway
165.	SEU	Significant Energy User
166.	SIPF	Sub Inspector, Railway Protection Force
167.	SO	Safety Officer
168.	SPART	Self-Propelled accident Relief Train
169.	SPM	Suspended Particulate Matter
170.	SR	Special Repair
171.	Sr.DME	Senior Divisional Mechanical Engineer
172.	Sr.DMO	Senior Divisional Medical Officer
173.	Sr.EDPM	Senior Electronic Data Processing Manager
174.	SS	Suspended Solids
175.	SSE	Senior Section Engineer
176.	SWOT	Strength Weakness Opportunity Threat
177.	TGW	Things Going Wrong
178.	TM	Top Management
179.	TRG	Training
180.	TSO's	Technical standing Orders
181.	TSPCB	Telangana State Pollution Control Board
182.	VOC	Volatile Organic Compound
183.	WI	Work Instruction
184.	WISE	Workshop Information System
185.	WM	Works Manager
186.	WPO	Workshop Personnel Officer
187.	WPQR	Welding Procedure Qualification Record
188.	WPS	Welding Procedure Specification
189.	WQS	Welding Quality Standards

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Sr. No.	Document Number	Title
1.	P/01	Control of Documents
2.	P/02	Control of Records
3.	P/03	Training
4.	P/04	Internal Audit
5.	P/05	Control of Non-Conforming Product
6.	P/06	Non-Conformities, Analysis, Improvement, Corrective And Preventive Action
7.	P/07	Calibration
8.	P/08	Control of Painting Process
9.	P/09	Control of Welding Process
10.	P/10	Identification, Compliance, Access and Updation of Legal and other Requirements.
11.	P/11	Identification of Hazards and Assessment of Risks & Opportunities
12.	P/12	Evaluation of Compliance
13.	P/13	Communication, Participation and Consultation
14.	P/14	Operational Control-OHSMS
15.	P/15	Monitoring and Measurement-OHSMS
16.	P/16	Incident Investigation
17.	P/17	Identification of Environmental Aspects and Assessment of Risks & Opportunities.
18.	P/18	Operational Control-EMS
19.	P/19	Emergency Preparedness and Response
20.	P/20	Monitoring and Measurement-EMS
21.	P/21	Identification & Analysis of Risk (QMS)
22.	P/22	Procedure for Ascertaining of Energy Baseline
23.	P/23	Identification of Sig. Energy Uses (SEU)
24.	P/24	Identification of Energy Performance Indicators (EnPI)
25.	P/25	Energy Review
26.	P/26	Operational control- EnMS
27.	P/27	Monitoring, Measurement & Analysis (EnMS)
28.	P/28	Identification and Evaluation of Energy Risks
29.	P/29	Procedure for Qualification of WPS

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	Title:	List of Departmental Manuals		
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Sr. No.	Department	Manual No.
1.	Integrated Management Systems Manual	IMS/ M-02
2.	Integrated System Procedures Manual	P/01 to P/29
3.	Railway Board Guidelines	
4.	RDSO Guidelines	
5.		
6.		
7.		
8.		
9.		
10.		



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1.0 Criteria and method are determined in the respective procedures to ensure that both the operation and control of these processes are effective.

2.0 Necessary availability of resources and information is ensured.

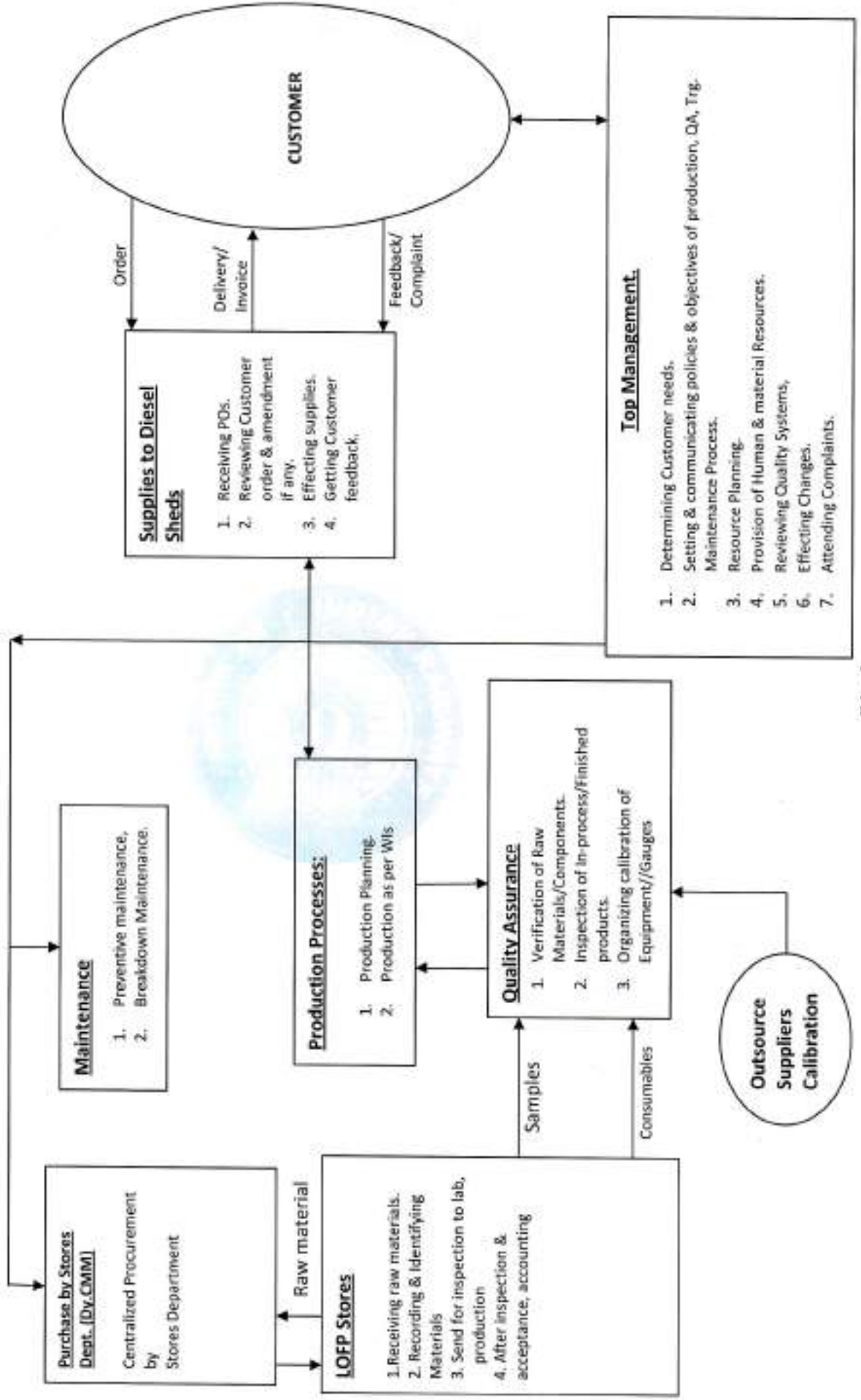
3.0 The control over the outsourced processes is achieved through terms and conditions, which are agreed to between Carriage workshop, Lallaguda/Lube Oil Filter Plant, SC and the Contractor. After receiving the product/fitment from the contractor, it is inspected /tested to suit the terms and conditions put in the contract documents.

4.0 The outsourced processes are as under:-

- Refurbishment of SKF make CTR-Bearing of LHB coaches.
- Testing of different process parameters conforming to TPCB norms.
- Training of personnel for implementation of IMS consisting of ISO - 9001:2015, ISO - 14001:2015, ISO 45001:2018 & ISO 50001:2018.
- Cleaning of Bogie Frames and components.
- Conversion of BG coaches into ART/ARME coaches.
- Supply, installation and testing of equipment, accessories of Non-AC pantry cars.
- Disposal and transportation of Hazardous wastes from LGD workshop to waste management contract or as per TPCB.
- Transportation of junk ferrous scrap from LGD workshop to scrap yard.
- Transportation of countable items ferrous scrap from LGD workshop to scrap yard.
- Transportation of filled/used grease, kerosene and Lub-Oil drums-210 Ltrs. from LGD workshop to scrap yard.
- Sale and removal of Industrial waste products from LGD workshop.
- Housekeeping/cleaning of LGD workshop premises/toilets/washing areas/WC at LGD workshop as per scope of the work.
- Transportation of condemned battery cells from LGD workshop to scrap yard.
- Maintenance of Roof Mounted AC Units of Coach.

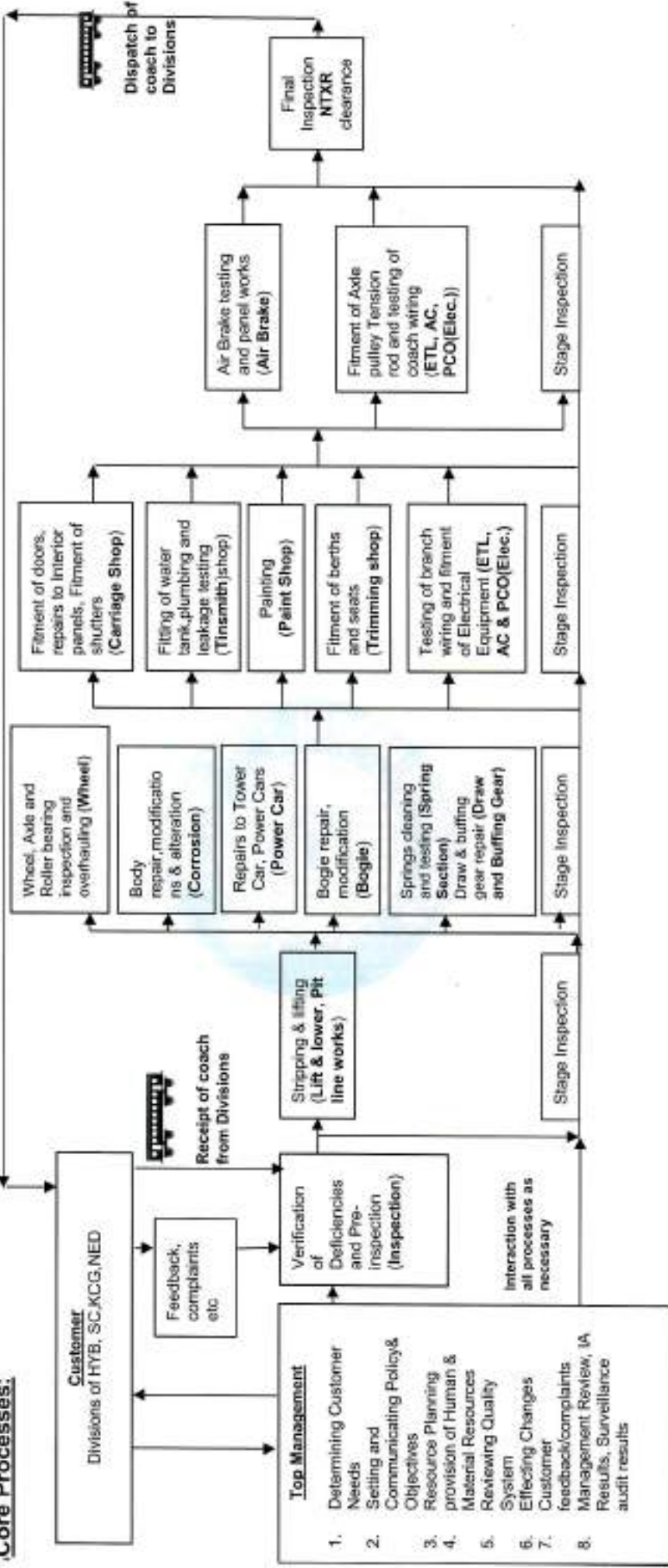
S.C. Railway Carriage Workshops Lallaguda		Integrated Management System – Manual		Annexure– IV
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II. Interaction of various Processes at Lube Oil Filter Plant, S.C.Railway




I. Interaction of various Processes at Carriage Workshop, Lallaguda, S.C.Railway

Core Processes:



- BTC
- CMT Lab
- Component
- CTR
- Drawing
- Elec. Maintenance
- Elec. Repair
- Machine
- Material
- Millwright
- Planning
- Progress
- Spring
- Welding
- Safety Organization

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आईएमएस नीति

(क्यूएमएस, ईएमएस, ओएचएसएस और ईएनएमएस)

हम, निम्नलिखित उपायों के माध्यम से कोचिंग स्टॉक की आवधिक ओवरहालिंग और डीजल लोकोमोटिव फिल्टरों के निर्माण की गुणवत्ता में सतत सुधार लाते हुए ग्राहकों की संतुष्टि को प्राप्त करने के लिए वचनबद्ध हैं.

- पर्यावरण प्रदूषण की रोकथाम ।
- कर्मचारियों को रोगग्रस्त और चोटग्रस्त होने से बचाना ।
- सभी कर्मचारियों, ग्राहकों, ठेकेदारों, आपूर्तिकर्ताओं और आगंतुकों के लिए, खतरों को खत्म करना और व्यावसायिक स्वास्थ्य और संरक्षा जोखिमों को कम करके सुरक्षित कार्यस्थल को उपलब्ध कराना।
- ऊर्जा का प्रभावी उपयोग ।
- उपयुक्त विधिक और नियामक आवश्यकताओं का अनुपालन ।
- व्यावसायिक स्वास्थ्य और संरक्षा मामलों पर कर्मचारियों और उनके प्रतिनिधियों और अन्य हितधारकों के साथ परामर्श और सहयोग ।
- आईएमएस के उद्देश्यों और लक्ष्यों की नियमित पुनरीक्षा ।

सिकंदराबाद
1 फरवरी 2020

मुख्य कारखाना प्रबंधक
लालागुडा, दमरे.

IMS POLICY


(QMS, EMS, OHSAS & EnMS)

We are committed to achieve Customer satisfaction with continual improvement in quality of Periodical Overhauling of coaching stock and manufacturing of Diesel Locomotive Filters through:

- Prevention of Environmental Pollution
- Prevention of ill health and injury of employees.
- Provision of Safe Workplace for all Employees, Customers, Contractors, Suppliers and Visitors by Eliminating Hazards and reducing Occupational Health & Safety Risks.
- Effective utilisation of Energy.
- Compliance of applicable statutory and regulatory requirements
- Consulting and collaborating with employees and their representatives and other stakeholders on Occupational Health & Safety matters;
- Regular review of IMS Objectives and Targets

Secunderabad
1st February 2020


Chief Workshop Manager
Lallaguda, SCRIy

S.C. Railway Carriage Workshops Lallaguda	Integrated Management System – Manual		Annexure – VI	
	Title:	IMS Objectives & Targets		
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आईएमएस उद्देश्य और लक्ष्य

(गुणवत्ता, पर्यावरण, स्वास्थ्य व सुरक्षा और ऊर्जा प्रबंधन प्रणाली)

क्र.सं	उद्देश्य	लक्ष्य
1	कर्मचारियों / यात्रियों, कर्मियों, उपकरण और स्थापनाओं के लिए संरक्षा बनाए रखना.	कारखाना में किये गये मरम्मत गतिविधियों / एलओएफपी विनिर्माण कार्यों के परिणामस्वरूप होने वाली दुर्घटनाओं की शून्य सहिष्णुता. 1) मार्ग में डिब्बों का पृथक्करण - एक वर्ष की अवधि के भीतर निचली सीमा- 02 कोचिंग स्टॉक 2) प्रति वर्ष दुर्घटनाओं और चोटों में 10% की कमी.
2	आपरेटिंग प्रक्रियाओं को विश्वस्त रीति से अनुकूलतम ऊर्जा स्तर पर रखना.	अनुबंधित मांग की अधिकतम उपयोगिता.
3	आधुनिक अनुरक्षण / प्रबंधन तकनीकों का उपयोग करते हुए सवारी डिब्बा कारखाना के उन्नयन के लिए गुणवत्ता अनुरक्षण कार्यक्रमों का कड़ाई से पालन करना.	योजनाबद्ध अनुरक्षण कार्यक्रमों और बैठकों में निर्धारित आउट टर्न लक्ष्यों का पालन करना.
4	ग्राहकों की संतुष्टि को बढ़ाना.	ग्राहकों की 90% स्तर की संतुष्टि के लिए कार्य करना.
5	प्रशासन / कर्मिक / मानव संसाधन विकास क्रियाकलापों के माध्यम से सतत प्रेरणा और कर्मियों के कौशल्य को अद्यतन करना.	1) हर 3 वर्षों में, 100% कर्मचारियों को पुनश्चर्चा पाठ्यक्रम में प्रशिक्षण देना. 2) प्रशिक्षुओं के विशेष प्रशिक्षण अवधि में पिछले वर्ष की तुलना में 7% की वृद्धि. 3) यह सुनिश्चित करना है कि प्रत्येक कार्य यूनिट में कम से कम 10% कर्मचारियों को 'प्राथमिक चिकित्सा' तकनीक में प्रशिक्षित करना है और एक कैलेंडर वर्ष में एक बार 100% कर्मचारियों के लिए 'अग्निशमन तकनीक' का प्रदर्शन करवाना है।
6	ऊर्जा की बचत	हर वर्ष, प्रति यूनिट के आउट टर्न में 2% ऊर्जा खपत की घटाती.
7	पर्यावरण प्रबंधन कार्यक्रम (ईएमपी), व्यावसायिक स्वास्थ्य संरक्षा कार्यक्रम (ओएचएसएमपी) और ऊर्जा निष्पादन संकेतकों की निगरानी (ईएनपीआई)	निर्धारित अवधि के भीतर सभी ईएमपी ओएचएसएमपी और ईएनपीआई के लिए न्यूनतम 70% की कार्यसिद्धि .
8	पानी की बचत	5% हर वर्ष.

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IMS OBJECTIVES & TARGETS

(QMS, EMS, OHSAS & EnMS)

Sr. No	Objectives	Targets
1.	Maintaining safety for employees/passengers, personnel, equipment and installations.	1) Zero tolerance of accidents resulting from workshop repair activities/LOFP manufacturing practices. 2) En-route coach detachments - Below 02 coaching stock over a period of One Year 3) 10% decrease in accidents and injuries every annum.
2.	Operating processes reliably at optimum energy level.	Utilisation of contracted demand at maximum level
3.	Strict adherence to quality maintenance programmes for Carriage Workshop up-gradation using modern maintenance/management techniques	Adherence to the planned maintenance schedules and meeting targeted outturn.
4.	Improving customer satisfaction	Serving for 90% level Customer Satisfaction.
5.	Continual motivation and updating of skills of personnel through Administration/Personnel/ HRD activities.	1) Cover 100% employees in Refresher Course training every 3 years. 2) Increase in trainee man days for special trainings by 7% compared to previous year. 3) Ensuring that minimum 10% of the staff is trained in 'First aid' techniques in each Functioning Unit and, once in a calendar year 100% staff is demonstrated 'Fire Fighting technique'.
6.	Energy saving	Reduction of 2% energy consumption per unit outturn every annum
7.	Monitoring of Environment Management Programs (EMPs), Occupational Health Safety Programs (OHSMPs) and Energy Performance Indicators (EnPIs)	Minimum achievement of 70% for all EMPs, OHSMPs and EnPIs within stipulated duration
8.	Water saving	5% every annum

S.C. Railway Carriage Workshops Lallaguda	Integrated Management System – Manual		Annexure – VII
	Title: IMS Boundaries		
	Approved by: CWM	Rev. No	00
	Signature: <i>[Signature]</i>	Effective Date:	01/02/2020
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CARRIAGE WORKSHOP LALLAGUDA COMPLETED WORKS UNDER MODERNISATION

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