International Journal of Technology and Emerging Sciences (IJTES)

www.mapscipub.com

Volume 05 || Issue 01 || Jan 2025 || pp. 01-09 E-ISSN: 2583-1925

A STUDY ON IMPORTANCE OF SAFETY IN ARVOS LJUNGSTROM ENERGY INDIA PRIVATE LIMITED, CHENNAI

Mr. R.Arnold Jokins [1], Dr.B.Velmurugan [2]

[1]*Student, Department of Management Studies, NPR College of Engineering and Technology, Natham, Dindigul-624 401*

[2]*Professor & Head, Department of Management Studies, NPR College of Engineering and Technology, Natham, Dindigul-624401*

Abstract - *A Study on Importance of Safety in Arvos Ljungstrom Energy India Pvt Ltd, Chennai" aims to evaluate the existing safety protocols, assess employee awareness, and understand the overall significance of occupational health and safety within the organization. Arvos Ljungstrom, a leader in air preheater and gas-gas heater technology, operates in a high-risk industrial environment where adherence to safety standards is critical for operational efficiency and employee well-being. The study was conducted through structured questionnaires, interviews with safety officers and employees, and on-site observations. The data collected was analyzed to identify the effectiveness of current safety practices, the level of training provided, frequency of safety audits, and employee perceptions of workplace hazards.*

Key Words: Safety on Employee, Safety Training.

1. INTRODUCTION

Safety in the industrial sector is critically important because it protects workers, equipment, and the environment from potential hazards associated with industrial processes. Industries often involve heavy machinery, high-risk materials, and complex operations, which can pose serious threats if proper safety measures are not in place. Prioritizing safety ensures that workers can perform their tasks confidently, reduces the risk of accidents and injuries, and helps maintain smooth and uninterrupted production. Moreover, a strong safety culture minimizes financial losses from equipment damage, legal penalties, and compensation claims. It also enhances the reputation of the industry by showing responsibility toward employee welfare and environmental protection. Ultimately, industrial safety is not just a regulatory requirement but a fundamental commitment to sustaining a healthy, efficient, and responsible workplace.

2. DEFINITION OF SAFETY:

Safety is the condition of being protected from harm, danger, or risk. It refers to the state or practice of preventing accidents, injuries, damage, or loss in various environments, including workplaces, homes, public spaces, and the natural world. Safety encompasses the use of protective measures, protocols, rules, and systems to mitigate potential hazards and ensure the well-being of individuals, property, and the environment.

- Physical Safety
- Psychological Safety
- Environmental Safety

3. SOURCE OF SAFETY:

Regulations and Standards:

In many countries, OSHA sets the framework for workplace safety, outlining standards for protective equipment, hazardous materials handling, emergency procedures, and training. Certain industries, like chemicals, mining, or construction, have additional regulations and safety standards (e.g., NFPA for fire safety, ANSI standards for equipment).International safety standards, such as ISO 45001 (Occupational Health and Safety Management Systems), guide organizations in developing safety management systems.

Safety Training and Education:

Regular training programs on workplace safety ensure that employees know how to handle equipment, chemicals, machinery, and emergencies. Training includes hazard recognition, emergency procedures, and the proper use of personal protective equipment (PPE).Workers in certain fields may need specialized certifications, such as

hazardous materials handling (HAZMAT), first aid, or machinery operation.

Personal Protective Equipment (PPE):

PPE is one of the most direct sources of physical safety in industries. Items such as hard hats, safety goggles, gloves, ear protection, and respirators are used to protect workers from workplace hazards.

4. FACTORS AFFECTING ON SAFETY:

Workplace Culture and Attitudes:

- The level of commitment to safety from management sets the tone for the entire organization. A safety-first culture, promoted by leaders, encourages employees to follow protocols and report hazards.
- Workers who are actively involved in safety programs, committees, and decision-making processes tend to adhere better to safety practices. If employees feel their input is valued, they are more likely to take safety seriously.
- The attitudes and behaviors of workers towards safety directly affect outcomes. A casual attitude towards safety can lead to risky behaviors, while a strong safety mindset reduces incidents.

Training and Skill Development:

- Workers need continuous, updated training on equipment, safety protocols, emergency procedures, and hazard identification. Poor or insufficient training is a significant risk factor.
- Workers with higher skill levels and experience are more likely to recognize and mitigate risks effectively. Inadequate skill levels can lead to mistakes, especially when handling complex machinery or hazardous materials.

Environmental and Physical Conditions:

- A poorly designed workplace with narrow aisles, cluttered spaces, or obstacles can increase the likelihood of accidents. Properly designed workspaces, clear signage, and well-maintained areas contribute to safety.
- Inadequate lighting or poor visibility in certain areas can increase the risk of accidents. Proper lighting ensures workers can see hazards and work safely, especially in areas like warehouses or construction sites.
- Extreme temperatures (too hot or cold), high humidity, or poor ventilation can create unsafe working conditions. Proper temperature control and climate control are essential to maintaining safety.
- A clean and organized work environment reduces the chance of slips, trips, and falls. Accumulated debris, cluttered walkways, or spills increase risks.

Machinery, Equipment, and Technology:

- Proper maintenance of machinery and equipment is critical to prevent malfunctions or failures that can cause accidents. Poorly maintained equipment increases the risk of injuries.
- Ensuring that machinery is equipped with safety guards and that these are regularly inspected and maintained is vital to avoid injuries from moving parts.
- While automation reduces human exposure to dangerous tasks, relying too heavily on technology without adequate safety checks can introduce new risks, such as system malfunctions or cybersecurity threats.

Safety Policies and Procedures:

- Lack of well-defined and accessible safety procedures can lead to confusion and mistakes during emergencies. Having clear, written protocols for both routine tasks and emergency situations is essential.
- Regular and thorough risk assessments help identify potential dangers and the likelihood of accidents, allowing organizations to take preventive actions. Failing to perform regular hazard analysis leaves workers exposed to unseen risks.
- Failure to comply with regulatory safety standards (such as OSHA or industry-specific regulations) increases the chances of accidents. Adhering to established safety standards and guidelines reduces risks significantly.

Human Factors and Behavior:

- People make mistakes, and errors due to fatigue, stress, or lack of attention can lead to accidents. Ensuring sufficient breaks, rotating tasks, and managing workloads are essential to reduce human error.
- Some workers may engage in risky behaviors, like ignoring safety protocols, to save time or out of overconfidence. A lack of supervision or complacency can enable such behaviors.
- Fatigue, mental exhaustion, and stress can affect decision-making and reaction times, increasing the likelihood of mistakes and accidents. Ensuring that workers get adequate rest and managing workloads effectively is key to mitigating fatigue-related risks.

Personal Protective Equipment (PPE):

- Properly selected, maintained, and used personal protective equipment (such as helmets, gloves, ear protection, and respirators) is a fundamental factor in workplace safety. PPE that is unavailable, uncomfortable, or poorly maintained can discourage use, increasing safety risks.
- Even if PPE is available, employees must be motivated to use it. Lack of enforcement or complacency can lead to workers not using the equipment as required, exposing them to avoidable hazards.

Communication:

- Effective communication about safety hazards, risks, and procedures is vital to prevent accidents. Misunderstandings, lack of communication, or language

barriers can lead to mistakes, especially during high-risk tasks.

- Employees must feel comfortable reporting hazards, near misses, and unsafe conditions without fear of retaliation. An open communication channel is essential for identifying and mitigating safety risks early.

External Factors:

- Changes in local, national, or international safety regulations can impact workplace safety protocols. Companies must adapt to new laws to stay compliant and ensure worker safety.
- During economic downturns or financial stress, companies may cut corners on safety measures to save costs, potentially leading to increased risks and unsafe working conditions.
- The safety of materials, components, or tools supplied by third parties affects the overall safety of the industry. Substandard materials can pose serious safety hazards.

Health and Wellness:

- The overall health of workers can impact safety. Individuals with pre-existing health conditions (e.g., heart problems or respiratory issues) may be more vulnerable to accidents or injuries, especially in physically demanding or hazardous environments.
- Use of alcohol, drugs, or other substances can impair workers' judgment, coordination, and decision-making, leading to accidents.

Emergency Preparedness and Response:

- A lack of well-practiced emergency response plans (for fires, chemical spills, electrical failures, etc.) can leave workers unprepared when a real emergency arises. Drills and clear, accessible instructions are essential.
- Having trained first aid responders on-site and easy access to medical facilities can significantly reduce the severity of injuries.

5. OBJECTIVES OF THE STUDY:

- To assess potential hazards in a specific environment or activity, enabling proactive measures to prevent harm.
- To educate individuals or groups about safety practices and their role in reducing accidents or injuries.
- To evaluate and strengthen safety protocols, ensuring they meet current needs and regulations.
- To analyze data and trends to minimize the occurrence of unsafe events and their consequences.
- To foster a culture of safety that prioritizes physical, mental, and emotional health for all involved.

NEED OF THE STUDY:

Despite widespread awareness of its significance, safety is often overlooked or inadequately implemented across various environments, leading to a high incidence of preventable accidents, injuries, and fatalities. In many workplaces and industries, including high-risk sectors like manufacturing, construction, and steel production, the absence of strict safety measures and proper training exposes workers to dangerous situations. This neglect not only endangers human lives but also results in financial losses, legal complications, and damage to the organization's reputation. The problem lies in the gap between recognizing the importance of safety and consistently applying effective safety practices, highlighting the urgent need for stronger enforcement, awareness, and a culture that prioritizes the well-being of every individual.

6. SCOPE OF THE STUDY:

The scope of the importance of safety encompasses a broad range of contexts, from individual well-being to organizational efficiency and societal stability. At its core, safety is fundamental to protecting human life, preventing injuries, and ensuring environments—whether workplaces, homes, or public spaces—are conducive to productivity and peace of mind. In a workplace setting, the scope includes compliance with occupational health standards, reducing accidents, and safeguarding employees from physical and psychological harm, which in turn boosts morale and efficiency. For instance, industries like construction or healthcare rely heavily on safety protocols to mitigate risks inherent to their operations. Beyond the individual level, safety extends to economic and legal dimensions. Organizations that prioritize safety avoid costly lawsuits, downtime, and reputational damage, while governments enforce safety regulations to maintain public welfare and infrastructure integrity. The scope also covers environmental safety, addressing how human activities impact ecosystems, such as through pollution control or disaster preparedness. In personal life, safety ensures freedom from threats like crime or accidents, fostering a sense of security. Ultimately, the importance of safety spans physical, emotional, and systemic layers, aiming to create resilient communities and sustainable progress across all sectors.

7. HYPOTHESIS OF THE STUDY:

H0 (Null Hypothesis): There is no significant relationship between workplace safety measures and employee productivity.

H1 (Alternative Hypothesis): There is a significant positive relationship between workplace safety measures and employee productivity.

8. RESEARCH DESIGN:

The research design outlines how the study will be conducted. It defines the approach to data collection, analysis, and interpretation.

- **Descriptive Research**: This design is suitable for studying the importance of safety in various contexts, such as workplaces or public spaces. Descriptive research can help identify and describe patterns, relationships, and key factors that affect safety outcomes.
- **Exploratory Research**: If there is limited prior knowledge on a specific aspect of safety, an exploratory approach can be used to gather initial insights.
- **Correlational Study**: This design examines relationships between safety measures (e.g., training programs, equipment) and outcomes like accident rates, employee productivity, or well-being.
- **Case Study**: A case study approach can be used to explore safety practices in specific industries or organizations in-depth. This approach helps understand real-life examples of how safety measures are implemented and their effects.

9. RESEARCH METHODOLOGY:

This study employs a mixed-method research methodology, combining both qualitative and quantitative approaches to comprehensively understand the importance of safety in workplaces, particularly in high-risk industries.

- **Primary data:** will be collected through structured questionnaires and in-depth interviews with employees, safety managers, and industry experts to gather insights into their experiences, knowledge, and perceptions of safety practices.
- **Secondary data:** will be obtained from safety reports, accident records, industry standards, academic journals, and government publications to support and validate the primary findings. Quantitative data will be analyzed using statistical tools to identify trends, frequency of incidents, and the effectiveness of safety interventions, while qualitative data will be thematically analyzed to understand attitudes and behaviors toward safety.

METHOD OF DATA COLLECTION:

Surveys and Questionnaires :

Structured questionnaires will be distributed to employees, supervisors, and safety officers to gather quantitative data on their awareness, understanding, and attitudes toward safety practices. This method will help in collecting a large amount of data efficiently.

Interviews :

Semi-structured interviews with industry experts, safety managers, and selected workers will provide deeper qualitative insights into real-life experiences, challenges, and perceptions regarding the implementation of safety measures.

Observation :

Direct observation of workplace environments and safety practices will be conducted to assess how safety protocols are followed in day-to-day operations, and to identify any gaps between policy and practice.

Document Analysis :

Examination of accident records, safety audit reports, training materials, and industry safety guidelines will offer valuable secondary data to support the findings and provide context to the primary data collected.

Case Studies:

Specific incidents of workplace accidents and successful safety programs will be studied in detail to understand the factors that contribute to safety success or failure.

10. TOOLS USED FOR DATA COLLECTION:

Among the various methods, which can be used to collect the Primary data, the researcher has adopted Questionnaire method. The researcher has prepared structured questionnaires, which contained predominantly multiple choice questions.

ANALYTICALLY TOOLS FOR THE STUDY:

- Percentage analysis test
- Correlation
- Chi-square

PERIOD OF THE STUDY:

The period of the study is from 02.01.2025 to 30.04.2025

AREA OF THE STUDY:

He study is based on the Analytical report recruitment Process in Arvos ljungstrom energy India private limited.

LIMITATIONS OF THE STUDY:

- **Limited Access to Internal Data**: The study may face restrictions in accessing detailed internal safety records, accident logs, and confidential safety audits due to company policies or privacy

concerns, potentially affecting the comprehensiveness of the data.

- **Sample Size Constraints**: The sample size for surveys, interviews, or observations may be limited to a small group of employees or specific departments within the company, which may not fully represent the entire organization, thus limiting the generalizability of the findings.

  Time and Resource Constraints: Given the timeframe for the project, it may be difficult to conduct an in-depth analysis of all aspects of safety within the organization, including thorough on-site observations or long-term tracking of safety practices and their impacts

11. COMPANY PROFILE:

Arvos Ljungstrom Energy India Private Limited, Chennai, is a leading provider of energy-related services and solutions. The company is part of the Arvos Group, a global leader in heat transfer and energy solutions. Arvos Ljungstrom Energy India Private Limited, Chennai, is committed to delivering high-quality products and services that meet the evolving needs of its customers.

Arvos Ljungström Energy India Private Limited is a leading provider of advanced heat exchange solutions, specializing in regenerative air preheaters and gas-gas heaters, primarily serving the power generation and heavy industrial sectors. As a part of the globally renowned ARVOS Group, the company brings world-class engineering expertise and innovative technologies to the Indian market. With a strong focus on energy efficiency, emissions reduction, and sustainable operations, Arvos Ljungström supports thermal power plants and industrial facilities in enhancing their operational performance while minimizing environmental impact. The company is known for its commitment to quality, safety, and customer satisfaction, offering not only high-performance equipment but also comprehensive aftermarket services including upgrades, maintenance, and spare parts. Leveraging decades of experience and continuous technological advancement, Arvos Ljungström Energy India plays a crucial role in contributing to India's growing energy needs and environmental goals, positioning itself as a trusted partner for efficient and reliable energy solutions.

CORE VALUES

- Safety: The company prioritizes safety in all its operations and activities.
- Innovation: Arvos Ljungstrom Energy India Private Limited, Chennai, is committed to innovation and continuous improvement.
- Customer Focus: The company is dedicated to delivering high-quality products and services that meet the needs of its customers.
- Teamwork: Arvos Ljungstrom Energy India Private Limited, Chennai, fosters a culture of teamwork and collaboration.
- Sustainability: The company is committed to sustainability and reducing its environmental footprint.

MISSION

Arvos Ljungstrom Energy India Private Limited, Chennai's mission is to provide innovative energy solutions that meet the evolving needs of its customers while prioritizing safety, sustainability, and customer satisfaction.

VISION

The company's vision is to be a leading provider of energy-related services and solutions in India and globally, while maintaining its commitment to safety, innovation, and customer satisfaction.

VALUES IN ACTION

- Safety Training Programs: The company provides regular safety training programs for its employees.
- Innovation Hub: Arvos Ljungstrom Energy India Private Limited, Chennai, has established an innovation hub to encourage innovation and continuous improvement.
- Customer Feedback: The company seeks feedback from its customers to improve its products and services.
- Team-Building Activities: Arvos Ljungstrom Energy India Private Limited, Chennai, organizes team-building activities to foster a culture of teamwork and collaboration.
- Sustainability Initiatives: The company has implemented various sustainability initiatives to reduce its environmental footprint.

MILESTONES

- Establishment: The company was established in 2010 as a subsidiary of the Arvos Group.
- Expansion: Arvos Ljungstrom Energy India Private Limited, Chennai, expanded its operations to other parts of India in 2015.
- New Product Launch: The company launched its new product line, Ljungstrom Air Preheater, in 2018.

- Certification: Arvos Ljungstrom Energy India Private Limited, Chennai, received ISO 9001:2015 certification in 2020.
- Partnership: The company partnered with a leading energy company in 2022 to provide energy solutions.

ACHIEVEMENTS

- Award for Innovation: Arvos Ljungstrom Energy India Private Limited, Chennai, received an award for innovation in energy solutions in 2019.
- Recognition for Safety: The company received recognition for its safety practices in 2020.
- Customer Satisfaction: Arvos Ljungstrom Energy India Private Limited, Chennai, achieved high customer satisfaction ratings in 2022.
- Expansion into New Markets: The company expanded into new markets in Asia and the Middle East in 2022.
- New Product Development: Arvos Ljungstrom Energy India Private Limited, Chennai, developed new products to meet the evolving needs of its customers.

Awards and Recognition:

- Innovation Award: The company received an innovation award for its energy solutions in 2019.
- Safety Recognition: Arvos Ljungstrom Energy India Private Limited, Chennai, received recognition for its safety practices in 2020.
- Customer Satisfaction Award: The company achieved high customer satisfaction ratings in 2022.

Certifications and Compliance:

- ISO 9001:2015 Certification: Arvos Ljungstrom Energy India Private Limited, Chennai, received ISO 9001:2015 certification in 2020.
- Compliance with Industry Standards: The company complies with industry standards and regulations.

Partnerships and Collaborations:

- Partnership with Leading Energy Company: Arvos Ljungstrom Energy India Private Limited, Chennai, partnered with a leading energy company in 2022.
- Collaboration with Research Institutions: The company collaborates with research institutions to develop new energy solutions.

Future Plans:

- Expansion into New Markets: The company plans to expand into new markets in Asia and the Middle East.
- New Product Development: Arvos Ljungstrom Energy India Private Limited, Chennai, is developing new products to meet the evolving needs of its customers.
- Sustainability Initiatives: The company is committed to reducing its environmental footprint and implementing sustainability initiatives.

PROCESS

- Design and Engineering: The company has a robust design and engineering process to develop innovative energy solutions.
- Manufacturing: Arvos Ljungstrom Energy India Private Limited, Chennai, has a state-of-the-art manufacturing facility to produce high-quality products.
- Quality Control: The company has a stringent quality control process to ensure that its products meet the highest standards.
- Testing and Commissioning: Arvos Ljungstrom Energy India Private Limited, Chennai, conducts thorough testing and commissioning of its products to ensure that they meet customer requirements.
- After-Sales Support: The company provides comprehensive after-sales support to its customers, including maintenance and repair services.

Process Flow:

- Customer Inquiry: The company receives customer inquiries and requests for energy solutions.
- Design and Proposal: Arvos Ljungstrom Energy India Private Limited, Chennai, designs and proposes energy solutions to meet customer needs.
- Manufacturing and Testing: The company manufactures and tests its products to ensure that they meet customer requirements.
- Installation and Commissioning: Arvos Ljungstrom Energy India Private Limited, Chennai, installs and commissions its products at customer sites.
- After-Sales Support: The company provides after-sales support to its customers, including maintenance and repair services.

Technology and Tools:

- Computer-Aided Design (CAD): The company uses CAD software to design and engineer its products.
- Finite Element Analysis (FEA): Arvos Ljungstrom Energy India Private Limited, Chennai, uses FEA to simulate and analyze the behavior of its products.
- Manufacturing Software: The company uses manufacturing software to manage its production processes.
- Quality Control Software: Arvos Ljungstrom Energy India Private Limited, Chennai, uses quality control software to ensure that its products meet the highest standards.

SERVICES

- Energy Solutions: The company provides energy solutions for various industries, including power, oil and gas, and chemicals.
- Heat Transfer Solutions: Arvos Ljungstrom Energy India Private Limited, Chennai, provides heat transfer solutions, including heat exchangers and air preheaters.

- Maintenance and Repair Services: The company offers maintenance and repair services for its products and other energy-related equipment.

Service Portfolio:

- Energy Efficiency Solutions: The company provides energy efficiency solutions, including energy audits and energy-saving projects.
- Renewable Energy Solutions: Arvos Ljungstrom Energy India Private Limited, Chennai, provides renewable energy solutions, including solar and wind power.
- Energy Storage Solutions: The company provides energy storage solutions, including battery storage and other energy storage technologies.
- Power Generation Solutions: Arvos Ljungstrom Energy India Private Limited, Chennai, provides power generation solutions, including gas turbines and steam turbines.

Industry Expertise:

- Power Industry: The company has expertise in the power industry, including thermal and renewable power.
- Oil and Gas Industry: Arvos Ljungstrom Energy India Private Limited, Chennai, has expertise in the oil and gas industry, including upstream and downstream operations.
- Chemical Industry: The company has expertise in the chemical industry, including process engineering and plant design.

DATA ANALYSIS AND INTERPRETATION

PERCENTAGE ANALYSIS

DISTRIBUTIONOFRESPONDENTSBY UNSAFE SHORT CUTS

Response	No. of Respondents	Percentage (%)
Strongly Disagree	35	29.2%
Disagree	23	19.2%
Neutral	16	13.3%
Agree	23	19.2%
Strongly Agree	23	19.2%
TOTAL	120	**100**

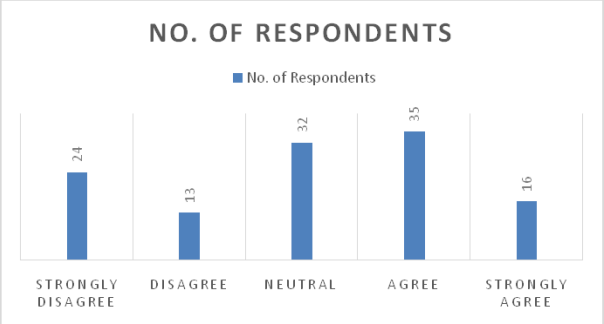
DISTRIBUTIONOFRESPONDENTSBYORGANIES THE MINIMIZE THE HAZARDS

Response	No. of Respondents	Percentage (%)
Strongly Disagree	14	11.7%
Disagree	42	35.0%
Neutral	22	18.3%
Agree	25	20.8%
Strongly Agree	17	14.2%
TOTAL	120	**100**

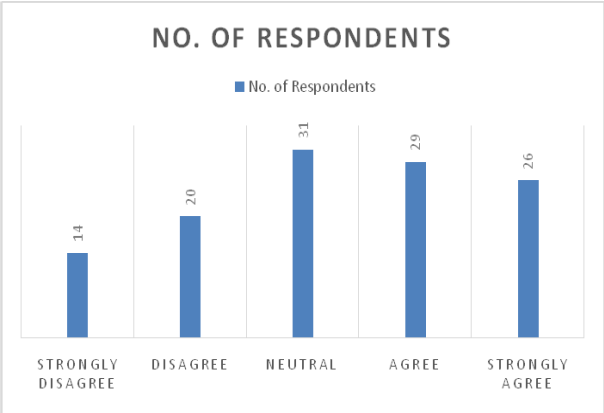
DISTRIBUTIONOFRESPONDENTSBY SAFETY EQUIPMENT IS REGULARLY INSPECTED

Response	No. of Respondents	Percentage (%)
Strongly Disagree	24	20.0%
Disagree	13	10.8%
Neutral	30	25.0%
Agree	20	16.7%
Strongly Agree	33	27.5%
TOTAL	120	**100**

DISTRIBUTIONOFRESPONDENTSBYPERSONAL PROTECTIVE EQUIPMENT



DISTRIBUTIONOFRESPONDENTSBY SAFETY TRAINNING IS DONE OFTEN



12. SUGGESTIONS

- Schedule regular "safety walk-arounds" by senior management to demonstrate visible commitment.
- Tie managerial performance metrics to safety targets (e.g., near-miss reporting rates, training completion).
- Introduce confidential or anonymous hazard-reporting mechanisms (e.g., digital app, suggestion boxes).
- Conduct workshops emphasizing learning from near-misses without blame.
- Develop role-specific training—especially for high-risk operations (e.g., molten metal handling)—with hands-on simulations.
- Institute quarterly refresher sessions and micro-learning (short e-modules) to reinforce key protocols.
- Post clear, concise standard operating procedures (SOPs) at each workstation.
- Conduct regular, cross-functional audits of procedure compliance, with immediate feedback loops.

13. CONCLUSIONS

The study reveals a foundational safety framework at Arvos Ljungström Energy India, with formal structures—training programs, PPE provision, and SOPs—in place. However, significant gaps exist in leadership visibility, psychological safety, training quality, and two-way communication. By embedding visible management commitment, enhancing open reporting, tailoring training, and reinforcing procedures and PPE practices, the organization can close these gaps. Strengthening these areas will not only reduce incidents and near-misses but also foster a proactive, trust-based safety culture that underpins both employee well-being and organizational performance. Continuous monitoring of key safety metrics, combined with iterative improvements, will ensure sustainable, long-term safety excellence.

By implementing these targeted measures and monitoring their impact through safety KPIs, Arvos Ljungström Energy India can transition from compliance-driven processes to a truly proactive, trust-based safety culture—reducing incidents, strengthening employee morale, and enhancing operational resilience.

DISCLOSURE

The authors affirm that all data, case studies, and references to organizations—including but not limited to ARVOS Ljungstrom Energy India Private Limited, Chennai—have been included in this manuscript with the full knowledge and formal consent of the respective entities. The journal and its editorial board do not assume any responsibility for legal or ethical issues that may arise from the unauthorized use of proprietary or confidential information. The authors accept full responsibility for ensuring the authenticity, accuracy, and legitimacy of all content submitted.

REFERENCES

[1] Nivethigha, R. P., Divyabharathi, S., & Velmurugan, B. (2017). Business ethics, values and social responsibility to an entrepreneur. *International Journal of Research in Management & Business Studies*, *4*(1), 18-21.

[2] Velmurugan, B., (2024) "AI insights deciphering India's ascendancy through the digital library: Navigating the digital realm India's odyssey towards information equity and technological eminence", Improving Library Systems with AI: Applications, Approaches and Bibliometric Insights. IGI Global, pp. 285-293.

[3] Murugeswari, S., Jambulingam, S., Velmurugan, B., & Binith Muthukrishnan, K. (2022). Challenges of women leaders and managerial effectiveness in it industry in Coimbatore. *Ann. For. Res*, *65*(1), 6725-6731.

[4] Sangeetha, M., Tamilselvi, V. and Velmurugan. B. (2023), "A study on employee absenteeism: Study at Sri Vinayaga Containers, Dindigul,"International Research Journal Education and Technology, Vol.5 No.6,pp.140-143.

[5] Gopikannan, B., Lilian, P. T. J. K., & Velmurugan, B. (2024). A Study On Performance Appraisal Among Employee In Kauvery Hospital, Chennai. *International Journal of Advances in Social Science and Humanities*, 01-08.

[6] Aishwarya, T., Tamilselvi, V., & Velmurugan, B. (2024). An Analytical Study: Stress Management Of An Employee In Trioangle Minds Technology Pvt Ltd, Madurai. *International Journal of Advances in Social Science and Humanities*, 13-19.

[7] Saranya, M. S. M. D. S., & Velmurugan, B. (2024). A Study On Employees Payroll In Amex Alloys Private Limited, Coimbatore.

[8] Sangeetha, M. M., Tamilselvi, M. V., & Velmurugan, B. (2023). A Study on Employee Absenteeism: Study at Sri Vinayaga Containers, Dindigul.

[9] Fathima, A. S., Tamilselvi, V., & Velmurugan, B. Analytical Study: Employee Absenteeism on Naga Limited Innovative Foods Division, Dindigul. Vol. 9, issue 02, 2024, IJCRD.

[10] Velmurugan, B. Lignocaine Effect on the Sevoflurane Requirements Monitored by the Bispectral Index, Vol 7, Issue 8, 2017, IJAR.