Centre For Industrial Solutions and Advanced Training

Two Days Training Programme on High voltage Electrical Safety, Factory acts, IE/CEA and applicable standards, Safety Audits & Methods, Arc flash & Mitigation Techniques, Safety in Hazardous and mining areas

3-4 June 2022 at Kolkata, 5-6 July 2022 at Nagpur

CISAT
5/12/2022

Two Day`s Training Program on

High Voltage Electrical Safety, Factory acts, IE/CEA and applicable standards, Safety Audits & Methods, Arc flash & Mitigation Techniques, Safety in Hazardous and Mining areas

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Description:

The course is aimed to build the capacity of senior and junior supervisory staff to adopt electrically safe procedures to prevent accidents and promptly respond and take measures to tackle any emergency or hazardous situation because of electricity. The course is designed to provide advanced knowledge about electrical safety for the plant managers and supervisors.

To provide detailed information about Arc Flash, Electrical Hazards and Protection to the participants. Participants will also get to know about various International standards on Electrical safety & regulations regarding Arc flash.

Who should attend?

Plant managers and supervisors, Safety officers, practicing engineers all those who are not much well verse with electrical safety & Auditing. The program will be very much useful to all new joiners to take futuristic step towards work strategies.

Course will focus on the following learning objectives:

1. An in-depth understanding of Arc Flash, Analysis, electrical safety procedures & accident prevention techniques. International standards such as IEEE, IS, NFPA and NESC related to this.

2. Learning how to manage the situation after an accident has occurred and investigation

3. Participatory learning to get an insight of management of Electrical risk

4. Learning to cope with the critical situations created by the various hazards due to electricity.

Course Objectives:

Personnel who are exposed to electrical hazards must understand the basics of electrical hazards and safe work practices outlined in company' s Safe Operating Practices (SOPs) in order to implement the procedures and bring improvement in electrical safety performance. The course objective is to provide each individual with an overview of management of electrical safety by knowing the hazards that are applicable to their workplace by giving them the necessary exposure of the intricacies of electrical safety to the plant managers and the supervisors before conducting the audit. At the end of the course, each participant will become familiar with compliance responsibilities set forth by the statutory regulations. Emphasis will be placed on the use of compliance management techniques when dealing with electrical safety in the workplace.

When participants complete the course they will be able to:

- Recognize the hazards of electricity & take preventative measures
- Avoid making body an electrical conductor
- Avoid causing damage to the equipment or conductors
- Take emergency measures to rescue someone who has received a shock

Course Contents:

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Delivery Schedule: 2 Days Training Programme on High Voltage Electrical Safety and mining safety				
Day	**SR**	**Topic**	**Subtopic**	**Duration (Min)**
Day 1	1	**Introduction, Objective Setting and Pre Test**		20
	2	Fundamentals and requirements of High Voltage Electrical Safety	Overview of Electrical Power Systems, High voltage electrical equipments such as Circuit Breakers, Cables, Transmission lines, Transformers, Motors, Control Panels, etc. Faults in power systems and overview of	90

			protection systems.	
	3	Electrical safety in high voltage systems	Hazards in high voltage systems, Electrical shock and its effect on human body Causes of high voltage electrical shock and its control, Fire hazards in high voltage systems and its mitigation. HIRA.	90
	4	Safety Related to	Energized Equipment & Circuits, Enclosed Spaces	60
			Ladders & Platforms, Excavations, Hand & Power Tools	
			Material Handling & Storage, Inspection of Test Instruments.	
	5	Concept of grounding systems and its role in HV safety	Types of grounding systems, Neutral earthing, Protective earthing, concept of Step and Touch potential, Practical approach for safe grounding systems, Protection against corrosion, Earth resistivity testing, Residual current devices.	90
	6	Safety from Lightning, surge voltages and harmonics in high voltage systems	Over voltages in power systems, causes and effects, Lightning surges, types and effects, Lightning zones and requirements, Measures for protection against Lightning and other overvoltage conditions, Surge protection of equipments, harmonics in power system and protection.	120

	7	Design level safety for electrical equipments	Description of design parameters for safe operation of high voltage equipments.	60
	8	Safe work practices and safe conditions for HV equipments and mining.	Safe operation, testing and maintenance, Condition monitoring of HV Cables, Switchgears, Motors, transformers, Circuit Breakers. Mining Safety.	105
	9	Personal protective equipments and clothing	Role, types, Selection and Testing procedures. SOP related to safety.	30
	10	Recommendations of NFPA, IE, CEA, relating to HV safety	Description and application of various clauses, Standards and requirement to be fulfilled. Overhead Lines- Line Clearance, Communication Facilities, Testing facilities.	90
Day2	11	Arc Flash and Mitigation	What is Arc Flash and reasons?	120
			Exposure to Arc Flash	
			Various Regulations (OSHA, IS, NESC & NFPA)	
			Protection and Safety	
			Application of PPE	
			Arc Flash Boundary	
			Testing and de-energization of Electrical Equipment' s	
			Hazard Assessment and methods of Control	
			Electrical Safety: Need and Working methodology	
			On site Study methodology for Arc Flash Hazard Identification, Case Studies	

Registration:

Dates of the program: *3-4 June 2022 at Kolkata, 5-6 July 2022 at Nagpur*

Participation fees: **Rs. 20000/- per delegate** (Excluding GST@18%, Training program includes training material hard copies, Tea, Lunch & snack, excluding lodging and Boarding)

Payment: ECS/NEFT/DD in favor of "**Centre for Industrial Solutions and Advanced Training**" Bank: IDBI, Sadar, Nagpur, Maharashtra 440018, India; Account No: **0509 1020 0000 3353**; IFSC Code: IBKL0000648; MICR Code 440259006; Swift Code IBKLINBBNGP.

Venue: To be informed post nominations confirmation.

Contact for any In-house Training/Webinar or other nominations at your plant or location.

Looking forward to further communication from you soon.
With Best Regards and Thanks,
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- Do contact for any In-house Training program at your plant or location of known to you as per business need.
- We can do undertake Skill management, Design, Development, Delivery, implementation and Assessment of all of your need.
- We also developed a comprehensive online Learning Management System for L&D which is one of the best in world. Do ask for Demo.