

## Fall Hazard Analysis and Remediation

Falls in the workplace are the leading cause of occupational injuries and cost operators billions of dollars each year. Maintaining a safe work environment reduces costs, mitigates risks, and ensures the safety of employees. A well-conceived fall protection program begins with identification and analysis of fall hazards in the workplace followed by a comprehensive remediation program to ensure a safe working environment.

The Occupational Safety and Health Administration (OSHA), under Title 29 of the Code of Federal Regulations (29 CFR), requires employers to provide a workplace free of recognized safety and health hazards. Failure to provide fall protection consistently ranks as OSHA's leading citation, so it is critical to understand the requirements and implement a comprehensive fall hazard analysis and remediation program to ensure a safe work environment.

Working together, LJB, Inc., a firm specializing in safety and environmental engineering, and EN Engineering, a company with extensive operational experience in the downstream energy production market, provide expert fall hazard analysis and remediation services. As experts in OSHA Fall Protection regulations, LJB engineers assess fall hazards in the refining industry and develop comprehensive plans for proper fall protection measures, techniques, and equipment. Following the assessment, EN Engineering develops detailed engineering and design for the corrective actions identified. Together, the two firms have helped clients take proactive steps toward earning Voluntary Protection Program (VPP) Star status and build a safer workplace by correcting thousands of potential fall hazards.

### Benefits of Fall Hazard Analysis and Remediation

- Increased employee safety and development of safety culture
- Reduction in OSHA recordable incidents and related costs
- Ensured compliance with OSHA regulations for hazard assessment
- Recognition by OSHA of proactive work toward VPP compliance/certification with no unexpected OSHA inspections

### Areas of Expertise

- Code compliance
- Ergonomics
- Trip and fall hazard analysis
- OSHA regulation compliance
- Voluntary Protection Program (VPP) compliance
- Risk management and loss prevention



Before: Clearance, ladder, and cage hazards



After: Issues mitigated through corrective design

## Services

- Fall hazard identification and assessment prioritization
- Data organization and review
- Field verification of compliance status
- Operational maintenance review
- Plan development to mitigate deficiencies
- Construction cost estimating
- Shop drawing review
- Ergonomic analyses
- Detailed engineering and design of corrective actions to mitigate deficiencies
- Construction oversight
- Ongoing hazard mitigation
- Fall protection training

## Fall Protection Training

LJB offers customized fall protection training courses that help solve fall protection issues before they arise. The training provides tools needed to identify fall hazards, as well as the insights and skills to develop and implement a comprehensive and cost-effective fall hazard control program. LJB's Competent Person fall protection training course has been approved as meeting EM-385 requirements outlined by the U.S. Army Corps of Engineers. Each of LJB's training programs is designed so that participants can engage with the material and apply it in their workplaces. Training options include:

- Awareness
- Authorized Person (and refresher training)
- Competent Person (and refresher training)
- Qualified Person
- System-specific training
- Pre-turnaround (for petrochemical and refining sites)



Before: Ladder and platform hazards



After: Issues mitigated and access improved



Before: Handrail hazards identified



After: Detailed design corrected issues