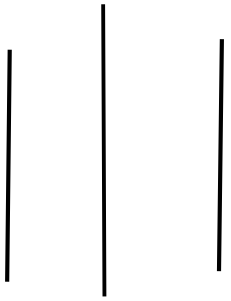
Report of the Occupational Health and Safety Audit

Occupational Safety and Health Center
Lalitpur Nepal



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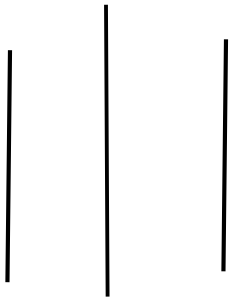

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Table of Contents

References:

1. Nepal Labour Act 2074
2. Labour Regulation 2075
3. Nepal national building code (107:1994) Provisional Recommendation on fire Safety
4. Nepal national building code (206:2015) Architectural Design Requirements
5. ISO 45001 Occupational health and safety management system (OHSMS)
6. Occupational Safety and Health Administration (OSHA)
7. Guidelines on occupational safety and health management systems (ILO OSH 2001)
8. Report on Formulation and Modification of Syllabus of Trainings (OSHC)
9. Annual Progress Report of OSCH 2080/81

Attachment

1. OHS Inspection Checklist
2. Audit Meeting Attendances Records

Abbreviations

OSHC:	Occupational Safety and Health Centre
DoLOS:	Department of Labour and Occupational Safety
OHS:	Occupational Health and Safety
ILO:	International Labour Organisation
OHSMS:	Occupational Health and Safety Management System
ISO:	International Organization for Standardization
IDLH:	Immediately Dangerous to Life or Health
LOTO:	Lock Out Tag Out
PPE:	Personal Protective Equipment
HIRA:	Hazard Identification and Risk Assessment
JHA:	Job Hazard Analysis
COSHH:	Control of Substances Hazardous to Health
OSHA:	Occupational Safety and Health Administration
IOSH:	Institute of Occupational Safety and Health
PEL:	Permissible Exposure Limit
SDS:	Safety Data Sheets
MSDS:	Materials Safety Data Sheets
SOP:	Standard Operating Procedure
PTW:	Permit To Work
STEL:	Short Term Exposure Limit
LTEL:	Long Term Exposure Limit
TWA:	Time-weighted Average
TLV:	Threshold Limit Value

1. Executive Summary

The Occupational Health and Safety (OHS) audit of the Occupational Safety and Health Centre (OSHC) in Bhaisepati, Lalitpur, aimed to assess its compliance with safety standards, identify areas for improvement, and enhance the safety of its facilities, and operations. Being the only government agency in Nepal offering OHS training, OSHC plays a very important role of empowering industries all over Nepal with the capacity to make the workplace safer. The audit evaluated major elements of training programs, facilities, emergency readiness, and staff safety procedures. While the center demonstrated positive initiative in training quality and facilities, severe safety deficiencies were noted, including inadequate fire safety systems, equipment not in good working condition, and no emergency procedures. It was suggested that prompt action be taken to eliminate these threats and improve the center's overall system of safety.

The key results of the audit were structural and operational shortcomings. There were no spill response procedures and inventory controls in the chemical laboratory, hence putting personnel at risk. Emergency preparedness was also compromised because there was no emergency plan, no first aid kits, and no assembly points. Electrical safety was compromised by loose panels, damaged equipment, and lack of safety signage. The fire protection systems were substandard, and there were no smoke detection systems or fire extinguishers. Despite the above, the hostel facilities, administrative offices, and training halls were relatively well-maintained, and the training courses were well-organized with a robust feedback system, thus being relevant and effective. To address these matters, the audit came up with 25 actionable recommendations. They included developing an emergency preparedness plan, enhancing fire and electrical safety, implementing chemical inventorying and disposal procedures, and enhancing facility maintenance. These actions need to be implemented urgently to mitigate risks, ensure compliance with national and international OHS standards, and safeguard trainees and staffs. OSHC's commitment to the implementation of these suggestions will make it a pace-setter in occupational safety and health training, leading the way to a safety culture across Nepal's industries.

2. Occupational Safety and Health Centre (OSHC)

The Occupational Safety and Health Centre (OSHC), located in Bhaisepati, Lalitpur, is the sole government agency in Nepal tasked with conducting various OHS-related training programs for workers and employers. Throughout the country, this center has been carrying out initiatives like occupational safety and health training for industry establishment employees, and the collection and analysis of samples of hazardous substances in the workplace (OSH-related corrective action). The main intention of the center is to reduce accidents by creating a safe workplace and creating a healthy working environment ensuring the safety of every worker/employee and increasing the production and productivity of the industry/organization. Nepal government established the "Occupational Safety and Health Project" in the year 2052 and this project was approved by the Government of Nepal (Cabinet) dated 2075. According to the decision of 03.32, a permanent organizational structure has been accepted from 1st Shravan 2075 to remain as a business safety

and health center. The training center is required 20 staff to operate successfully. However, it is run by 13 employees. The overall in charge (center chief) is a second-class government person.

3. Purpose of the Audit

The primary purpose of this audit is to systematically evaluate the organization's overall OHS performance, training program effectiveness and identify strengths, weaknesses, and opportunities for improvement. Specifically, the objectives are as follows:

- To verify compliance with applicable national and international OHS regulations.
- To assess the adequacy and effectiveness of the current OHS training programs.
- To assess the safety of training halls, laboratory, kitchen, office, and other training areas to minimize risks such as slips, trips, falls, electrical hazards, or fire incidents.
- To evaluate the existing safety procedures for emergencies, such as evacuation plans, fire drills, and first aid preparedness.
- To ensure that the physical infrastructure (building safety, ventilation, lighting, and sanitation) meets health and safety requirements.
- To encourage both staff and trainees to adopt safe practices by identifying areas where additional training or awareness is needed
- Provide actionable recommendations to improve safety management systems, ensuring that the training center remains safe over time.

4. Scope of the Audit

The scope of the OHS audit defines the boundaries and extent of the audit, covering key areas, processes, and documentation. This audit specifically focuses on:

4.1 Facilities: The audit thoroughly examines every important facility on the property, ensuring a careful assessment of the building's general infrastructure as well as its various functional sections. This comprises the restrooms, offices, and training room, all of which are necessary for day-to-day operations and the comfort of the occupants. Along with important safety elements in stairways and corridor, the kitchen and storage areas are also evaluated for sufficiency and standard compliance. A comprehensive assessment of the facility's state and operational effectiveness is also conducted by looking at the parking and laboratory areas to make sure they satisfy safety and functional standards.

4.2 Documentation: During the audit, key documents reviewed encompassed a comprehensive range of materials critical to evaluating the organization's occupational health and safety (OHS) performance and compliance. These included the organization's OHS policy and procedural documents, which outline the framework and standards for maintaining a safe working environment. The training program was thoroughly examined to assess its scope, relevance, and effectiveness in equipping employees with the necessary knowledge and skills. Annual progress reports were reviewed to evaluate the organization's achievements and challenges in meeting its OHS objectives. Training records and competency assessments were also examined to verify that

employees had undergone required training and demonstrated the necessary proficiency in safety practices. Together, these documents provided a holistic understanding of the organization's commitment to and implementation of robust health and safety measures.

4.3 Personnel: The audit process requires comprehensive interviews and consultations with a diverse group of personnel, ensuring that insights are gathered from all relevant departments and roles within the organization. This includes office staff, whose administrative functions and compliance with procedures are critical to operations; the housekeeping team, whose efforts maintain cleanliness, hygiene, and safety standards; and the security guard. By engaging this broad range of personnel, the audit aims to capture a holistic understanding of the organization's practices, identify areas for improvement, and ensure that all key contributors are represented in the evaluation process.

The audit covered key aspects of occupational health and safety, including:

- Fire safety and emergency preparedness
- Electrical safety
- Training hall safety
- Illumination and ventilation
- Slips, trips and fall hazards
- Kitchen safety
- Laboratory safety
- Hazardous materials management
- Building infrastructure
- First aid and medical response
- Training and awareness programs
- Others

5. Benefits of OHS audit: Audits of occupational health and safety are essential for ensuring worker safety and encouraging a risk-management culture. The detection and remediation of possible workplace risks is one of the main advantages of performing OHS audits. Audits find risky behaviors, broken equipment, and other hazards that could cause mishaps or injuries through methodical assessment. Organizations can reduce workplace accidents, make the workplace safer for workers, and lower the expenses of injury and compensation claims by taking swift action to address these problems. The fact that OHS audits help ensure that legal and regulatory standards are met is another important advantage. Laws frequently mandate that orgnisation adhere to certain safety standards; noncompliance can lead to penalties, legal ramifications, or even the closure of the business. By finding weaknesses in safety systems and suggesting fixes, routine OHS audits assist firms in maintaining compliance.

Additionally, exhibiting a proactive commitment to safety improves the company's standing and fosters confidence among stakeholders, including staff and clients. OHS audits increase the productivity and efficiency of organizations. Accidents, absenteeism, and equipment failures are

less likely to cause disruptions in a safe and well-maintained workplace. Workers are more likely to be motivated, engaged, and productive if they feel safe in their workplace. Additionally, by establishing standards and encouraging adherence to best practices, the audit process promotes ongoing progress. In addition to improving overall operational performance, this promotes a culture of safety in which management and staff cooperate to maintain strict occupational health and safety regulations.

6. Audit Methodology: The audit methodology employed a combination of techniques to ensure a thorough and objective assessment of the organization's OHS performance, training program, building infrastructure. The key components of the methodology are as follows:

Literature Review: During the audit process, following national international OHS law, regulation and guidelines reviewed.

Nepal national building code (107:1994) Provisional Recommendation on fire Safety: The "Provisional Recommendation on Fire Safety" lists crucial fire safety precautions for Nepali residential buildings. It highlights the very minimum needed to provide safety in an emergency, including adequate access, fire escape routes, and evacuation provisions. After the 1988 earthquake brought attention to the need for strong safety regulations, the code was created. It provides definitions for relevant terminology, makes a distinction between ordinary and important structures, and specifies requirements for structural components such as fire extinguishers, chimneys, and fire escapes, including setback spaces, exit doors, and stair width.

Additionally, it covers fire safety zoning and lightning arrester installation to reduce the likelihood of lightning-caused fires. By citing other regulations, when necessary, the rule encourages architects and builders to take into account higher safety standards. Although it is limited in scope, its goal is to increase fire resilience in residential and urban environments while ensuring safer designs that comply with regulations. The government of Nepal, foreign consultants, and several engineering and architectural organizations worked together to develop this tentative recommendation.

Nepal national building code (206:2015) Architectural Design Requirements: In Nepal, the planning, design, and construction of buildings are governed by the Nepal National Building Code (NNBC) 206: 2015 Architectural Design Requirements specifications. New building technology and safety issues, especially with regard to earthquake readiness, prompted revisions. Significant changes were made as a result of the update process, which was started by the Building Construction Management and Improvement Committee (BCMIC) and examined by experts. These changes included updated requirements for lighting, ventilation, and lift installation, better methods for calculating exit capacities, and criteria for classifying buildings. In order to promote safe and sustainable construction methods, it was formally approved in 2015 and published in 2016.Buildings are categorized by the code according to their height (low-rise, medium-rise, high-rise, and skyscrapers) and occupation (residential, educational, hospital, etc.).

To ensure a safe evacuation in the event of an emergency, it establishes minimum requirements for a number of elements, including exit systems, room sizes, stairways, and hallways. High-rise structures are subject to special regulations, which include the need for pressurized staircases, lifts, and refuge shelters. Parking, basements, and accessibility for those with disabilities are also included, guaranteeing inclusivity in public areas and structures with special rules for those in wheelchairs. Accessibility for disabled persons is a critical section of the code, dividing buildings into three categories: minimally accessible, partially accessible, and fully accessible. Depending on the category, requirements include ramps, wide doorways, disabled-friendly lifts, and sanitary facilities. Furthermore, essential safety measures such as fire-resistant staircases, mechanical ventilation in basements, and proper drainage systems are emphasized. This comprehensive approach ensures that buildings in Nepal meet modern safety, functionality, and inclusivity standards, aligning with international best practices.

Nepal labour act 2074: This is the main piece of legislation in Nepal that deals with OHS. It describes thorough occupational health and safety procedure to safeguard employees and sustain a safe work environment. Employers are required to adopt a safety policy, maintain a safe workplace, offer training, and supply PPE at no cost. They are also in charge of guarding against environmental risks and ensuring the security of any visitors who may access the working place. Material manufacturers and suppliers are required to ensure product safety and supply the required safety data sheets and manuals. Employees are expected to wear the appropriate protective gear and adhere to safety regulations.

The act mandates forming a safety and health committee in workplaces with 20 or more employees to oversee and advise on safety practices. It grants workers the right to stop work in case of immediate danger and provides guidelines for resolving disputes related to workplace safety risks. The act also includes provisions to control infectious diseases, offer special accommodations for pregnant workers, and manage occupational disease treatments, potentially supplemented by the social security fund. Regular inspections ensure compliance, and any failures can prompt the authorities to order immediate corrective actions.

Labour Regulation 2075: These regulations offer comprehensive guidelines and requirements for carrying out the 2074 Labour Act's provisions. It places forth precise rules for employment practices, including duties for companies and rights and protections for workers. Important clauses include regulated working hours (8 hours a day and 48 hours a week), necessary employment contracts, and overtime compensation equal to 1.5 times the usual income. Along with enforcing prompt wage payments, it also outlines leave entitlements, such as annual, sick, and maternity/paternity absences. The rule requires businesses to provide sanitary facilities and safety equipment, particularly for workers in hazardous tasks, in order to ensure a safe and healthy workplace.

Additionally, the rule sets guidelines for fair termination practices, outlining severance pay based on years of service and protecting against unfair dismissals. Employers and employees contribute to social security funds, providing benefits like pensions and health coverage. It also prohibits

child labour and discrimination based on gender, caste, or ethnicity. With these provisions, the Nepal Labour Rule 2074 aims to ensure fair treatment, equitable wages, and safe working conditions for Nepalese workers, contributing to a more organized and ethical employment sector.

ISO 45001 Occupational health and safety management system (OHSMS): A global standard for occupational health and safety management systems is ISO 45001. It gives businesses a foundation for proactively enhancing worker well-being, lowering risks, and improving workplace safety. OHSAS 18001 was superseded by ISO 45001, which was published by the International Organization for Standardization (ISO) in 2018. In order to reduce workplace dangers and guarantee adherence to relevant legal and regulatory standards, it places a strong emphasis on a methodical and integrative approach that involves leadership, employee participation, and continuous development. Because it adheres to the High-Level Structure (HLS), the standard can be used with other ISO management systems, including ISO 14001 for environmental management and ISO 9001 for quality management.

ISO 45001's emphasis on risk-based thinking and employee involvement is one of its main characteristics. According to the standard, companies must recognize occupational health and safety hazards as well as opportunities and take the necessary steps to mitigate them through suitable controls and procedures. In order to ensure that upper management actively contributes to the development of a culture of safety, it also highlights the need of leadership commitment. In order to establish workable solutions to workplace dangers and to foster a shared responsibility for safety, worker involvement is encouraged. Organizations can improve employee satisfaction, productivity, and brand reputation in addition to lowering workplace accidents and injuries by implementing ISO 45001. It is a useful tool for businesses looking to show that they are dedicated to creating a safe and healthy workplace.

7. Interviews and Consultations: A thorough understanding of the Occupational Health and Safety training program and evaluation system was obtained through structured interviews with key staff. A wide variety of stakeholders, including the information officer, technical staff, security guard, storekeeper, and employees, participated in these interviews. Every participant contributed a distinct viewpoint, which helped to create a comprehensive picture of the program's execution, advantages, and shortcomings. While technical workers supplied insights into the lab, mechanical equipment and applicability in their daily tasks, the information officer gave an overview of the training's content and how it aligned with organizational policies. While the storekeeper raised issues with material handling and storage safety, the security guard provided information on system to be followed in emergency. Employee experiences, opinions, and recommendations about the training were shared. These structured interviews were an essential tool for assessing the OHS training programs and its evaluation processes' efficacy. The various viewpoints made it easier to spot areas that needed improvement and training process gaps.

8. Inspection of Training Center: A thorough building inspection was carried out on the 4th and 5th of Magh, 2081, as a crucial step in the audit process. The four-story training center was built to meet a range of operational and instructional requirements. The building has three training halls that can be use simultaneously, as well as administrative offices for managing the center's daily operations. The building contains mechanical lab, chemical lab, and hygiene lab, hostel, restroom, store, library, kitchen. However, training center is not appropriate for disable persons as it doesn't have access facility. Each facility's detailed inspection is as follows:

8.1 Training Halls: The training facility has three different halls, each with different amenities and usefulness levels. With all the necessary equipment for productive learning sessions, one hall stands out as the most complete training area. It has a writing board for educational reasons, tables, chairs for seating, and a projector for visual presentations. Furthermore, this hall has heating and cooling capabilities, ensuring a comfortable setting for training sessions. It is the best option for holding training sessions because of the resources that are available. The center's second hall, however, is underutilized because of its few amenities and lacks other essential training facilities, even if it has simple sitting arrangements like chairs and tables.

The third hall, located on the ground floor, provides a unique feature—a dedicated exit door, enhancing its safety and accessibility in case of emergencies. This hall is equipped with chairs and benches but lacks other necessary equipment for conducting fully functional training sessions. While all three halls are equipped with cooling and heating facilities to ensure comfort. Upgrading the second and third halls with essential training equipment could significantly enhance the overall functionality of the training center.

8.2 Chemical Laboratory: Chemical lab is established for collecting samples from industries and testing to ensure production materials meet the necessary health and safety requirements. Chemicals lab is poorly managed and have a catastrophic effect on the safety of personnel and the environment when there is a shortage of safety control measures in the chemical laboratory at the training center. A major problem is the lack of a proper chemical inventory system, resulting in a build-up of expired chemicals which may have become unstable over time. Having different incompatible chemicals in close proximity increases the chances of dangerous reactions occurring, which can result in fires, explosions, or the release of toxic gases. Moreover, the lab lacks fundamental labels for the chemical safety which are important for anyone working or visiting the laboratory to be informed of the risks that could potentially occur. This gap indicates non-conformance with minimum safety practices at laboratories and emphasizing need of render of corrective action to protect against risk.

Additionally, the laboratory does not have a chemical spill response plan, nor specific emergency procedures, including for chemical splashes and spills. This lack of preparation could leave staff unprepared to respond to incidents, with potentially serious injuries or environmental damage. The lab's single entry-and-exit door design could impede evacuations during an emergency, increasing the potential for harm. In summary, each of the above deficiencies highlight a clear

and evident need for safety upgrades including appropriate chemical management systems, spill response, signage, and redesign of the lab layout to make the lab a safer place to work.

8.3 Mechanical and Hygiene Laboratory: The purpose of the mechanical lab is to give trainees a comprehensive grasp of mechanical hazards and risks and how to reduce them. The lab is equipped with a double-wheel table bench grinder, a welding machine, and other tools required for hands-on learning. In addition to other safety equipment like fire-retardant coveralls and safety harnesses, personal protection equipment (PPE) like masks, hard helmets, and safety shoes are stored for demonstration purposes. These resources are meant to increase awareness of mechanical hazards and control measures when operating machinery that poses a risk. Most of the PPE in the lab is outdated. Safety harnesses were chemically contaminated, which might have given the trainees false information. The finding of expired fire extinguishers in the lab further undermined the effectiveness of fire safety measures. This implies that important safety equipment has not received routine maintenance and inspections. These issues must be fixed in order to guarantee that the lab's objectives of advancing safety and hazard management are effectively met. Regular audits, timely replacement of expired items, and appropriate storage of safety equipment can all significantly improve the lab's safety standards.

The hygiene lab is an essential facility for gathering and evaluating samples of air, noise, dust, food, water, and lighting from a variety of industries to make sure they adhere to safety and hygienic regulations. The lab has equipment inventory, which includes spectrophotometers, BOD incubators, personal samplers, desiccators, WBGT sets, and muffle furnaces. But these equipment are not calibrated as per manual requirements. Additionally, the absence of safety information signs and clearly defined emergency protocols poses a risk to personnel safety, potentially compromising the lab’s reliability and operational safety. Addressing these issues is crucial to enhance the lab’s effectiveness and adherence to hygiene and safety regulations.

8.4 Administrative Office and Library: The administrative offices are kept up nicely, with effective heating and cooling systems that ensure both employees and guests a comfortable stay. To enable efficient operations, they are furnished with the required furniture and basic equipment, such as PCs and printers. Additionally, the offices have adequate ventilation and lighting, which support a productive and healthy work environment. A well-stocked library with a range of Occupational Health and Safety (OHS) resources, including books, periodicals, and other informational materials, is another asset that enhances the training center. These resources are all in good condition and easily accessible to support learning and development initiatives.

8.5 Kitchen and Restrooms: The training center's internal kitchen is kept clean, however there were safety issues because an expired LPG cylinder was being utilized. There is no fire extinguisher/blank in kitchen. The absence of routine pest control procedures may eventually jeopardize hygienic standards. There are separate restrooms for male and female on each floor of the facility. Restroom has availability of necessities like hand soaps and supply of water. However, maintenance problems like broken window glass in certain toilets and irregular cleaning

of a few unused restrooms draw attention to areas that require care in order to maintain the facility's overall safety and cleanliness standards.

8.6 Corridor, hostel and stair: The training center's corridor are kept clear of obstructions on the majority of floors, ensuring staff and trainees safe and easy mobility. The center's dedication to safety and awareness is emphasized by the visible safety signs and information boards that line the corridors. The third floor, however, was not free of obstructions. Furthermore, there is a serious safety hazard in the second-floor battery charging corner because there are no safety measures in place, which could put the people utilizing it in danger. Promptly resolving these problems will improve the center's operational effectiveness and safety requirements. For trainees arriving from outside Kathmandu, the center provides a dedicated hostel facility. The hostel rooms are maintained in a clean and orderly manner, ensuring a comfortable stay for the residents. The staircase areas are also well-kept, fitted with handrails to promote safety during movement. These facilities demonstrate the center's efforts to provide a conducive environment for learning and accommodation.

8.7 Others: There are several safety risks at the training facility that need to be addressed right away. There is a serious fire risk because some of rooms used by others are full of unnecessary items. The training center's roof boundary wall is also noticeably low, which raises the possibility of falling dangers. The drainage system is unprotected and exposed outside the structure, which increases the possibility of trips, falls, and water contamination.

9. Training Programs: The one of key focus of this audit is to review the existing training programs offered by the Occupational Health and Safety Center (OHSC), which stands as the sole government entity providing OHS training nationwide. The training programs include various industries, including construction, hydropower, manufacturing, cement, and automobiles, among others. The OHSC staff, alongside external resource persons, collaboratively design and deliver these training sessions to ensure their relevance and effectiveness. The systematic planning of the training calendar, conducted quarterly, ensures regular engagement with stakeholders and aligns with the dynamic requirements of industries across the country. To ensure accessibility and awareness, OHSC publishes notices of its training schedules on its official web portal and social media platforms (Facebook).

OHSC provides varied OHS training at different times. The following are the training programs.

Training Activities	Topics covered	Targeted Industry	No. of Session
1 day training program	Introduction to OSH, OHS provisions in labour act, occupational disease, personal hygiene, First aid, Hazards and risk	All	4
2 days training program	Introduction to OSH, OHS provisions in labour act, hazards and risk at workplace, first aid, electrical safety, chemical safety, housekeeping, fire safety	All	8

	including practical demonstration of fire extinguishers.		
3 days training program	Introduction to OSH, labour act and regulation, OHS provision in labour act, electrical safety, emergency preparedness, fire safety, field visit, First aid and CPR training and demonstration	All	12
4 days training program	Introduction to OSH, Nepalese Legal Provisions of OSH, Positive Attitude for better performance, Stress management for better health, Hazard Identification Risk Assessment (HIRA), Principle of Hazard Control (Hierarchy of Hazard Control, Workplace Accident and its Prevention, Fire safety, field visit	All	16
7 days training program	Boiler Safety and Operation Management including field visit	Production Industry	28
14 days training program	Overall OHS topics including Role of OSH Centre in Promotion of OSH in Nepal, Introduction of OHS, Occupational Hazard and Risk, Hazard Control Principle, Physical Hazards, Chemical Hazards, Mechanical Hazards, Biological Hazards, Ergonomic Hazards, Electrical Hazards, Psychosocial Hazards, Workplace accident and prevention, Confined Space, Fire Safety, Emergency Preparedness, Practical demonstration of fire extinguisher use, mechanical hazard, Boiler Safety, Materials Handling, Personal Hygiene, Housekeeping, HIRA, PPE etc.	All	56

The center's training programs, especially the 4-days, 7-days, and 14-days programs, has field visit and practical demonstration sessions. These long days training includes first aid and fire safety practical demonstrations to prepare trainees for emergency scenarios. First aid training focuses on critical life-saving techniques, such as performing CPR and the proper use of bandages, ensuring participants can respond effectively to medical emergencies. Meanwhile, the fire safety program emphasizes proactive and reactive measures, including fire extinguisher inspections and proper usage techniques. These sessions aim to equip trainees with the necessary skills to manage fire-related hazards safely.

Every training session that OSHC offers is organized using a thorough framework that ensures the process's effectiveness and quality. This framework allows for a clear measurement of trainees' progress by using pre- and post-training evaluations to gauge their knowledge and abilities before and after the program. A strong feedback mechanism is also in place, which encourages learners to offer ideas and insights that improve and polish the training methodology. All trainees receive carefully produced handout materials from OSHC to aid in their learning, ensuring that they will have access to useful resources both during and after the training. Together, these components

show that OSHC is successfully running its training programs, emphasizing resource provision, comprehensive evaluation, and ongoing improvement to optimize trainees' growth and satisfaction.

The following programs have been scheduled for the second quarter of fiscal year 2081/82, under OSHC's yearly program:

S.N.	Program/Activity	No of training	Status
1	3 days Emergency awareness and First aid training to all industrial workers	2	Completed
2	1 day Interaction Program with OS&H Focal Points (Coordination Program related to OS&H)	1	Pending
3	4 days workplace hazard identification and risk assessment training (HIRA)	2	Completed
4	1 day OHS training for construction workers	1	Completed
5	1 day basic OHS awareness training	2	Completed
6	OHS empowerment training for member of health and safety committees	2	1 Completed & 1 pending
7	2 days OHS training for automobile sector workers	2	Completed
8	OHS training curriculum developed and modification		Completed
9	Collection and analysis of hazardous substances at workplaces		15 completed
10	Motivational and capacity-building program for employees		Pending
11	3 days OHS awareness training all industries		Pending
12	Development of audio-visual materials (Occupational safety and health, personal protective equipment, and first aid at the workplace)		Pending
13	Study, inspection, and audit of OS&H conditions in government offices		Agreement completed
14	OHS awareness training for rolling mills' workers	1	Completed
15	OHS awareness training for cement industries' workers	2	Pending
16	OHS awareness training for grills and fabrication workers	1	Completed
17	7 days capacity building training on pressure vessel and boiler safety	1	Completed
18	OHS training for hydropower sector workers	2	Pending
19	Research and study for laboratory standardization and ISO Certification		Completed

Training Syllabus: OSHC has recently developed training syllabus in consultation with external experts. Overall training syllabus is trying to encapsulate the OHS themes. However, training

program specifies the gaps. Therefore, the report states that training programs have to be tailored based on industry-specific risks. Employers and managers are responsible for the implementation of Occupational Health and Safety legislation or standards in an organization or workplace and are therefore the most important people to be trained in OHS. The training should emphasize the provisions of OHS in the Nepal Labor Act, the significance and advantages of OHS compliance, and the roles and responsibilities of employers and managers in maintaining a safe working environment. The training may be 1 day. For small-sized firms with lower risk levels a 2 or 3 days training program would be sufficient. Yet, high-risk sectors such as construction, infrastructure, mining, and hydropower need to have more extensive training, ranging from 4 to 7 days so that they have comprehensive knowledge on occupational health and safety. Additionally, OSHC could develop OHS training programs based on international syllabus such as NEBOSH, IOSH, OSHA, ILO and introduce a certification system for individuals who want to become OHS professionals in Nepal. This type of training can be full 14 days or more days training program with written examination. This will bring in uniformity in safety procedures and make professionals competent enough in providing workplace safety and compliance.

10. Hazard identification and Risk assessment: Hazard identification and risk assessment are critical processes in ensuring workplace safety, as every workplace, office, or training center inherently presents unique hazards and risks. During the audit, an Occupational Health and Safety (OHS) checklist was utilized to systematically identify potential hazards in training center. The checklist covered various aspects, including physical, electrical, chemical, ergonomic, ensuring a comprehensive evaluation. Key findings highlighted as follows:

10.1 General Safety of training center: The audit highlights some safety compliances, such as visible building address, information officer details, functional lights, unobstructed public exits, emergency equipment access, handrail-fitted stairs, slow-closing doors, and clean, non-slippery floors. There are some key safety issues: broken glass panes were found in some toilet windows, external sewer and drain lines are uncovered, and materials were stored in the third-floor corridor, obstructing exits. These issues require immediate attention to ensure compliance with safety standards and the elimination of hazards. Following questions were included in general safety of training center.

1	General Safety	√	×	Observations
1.1	Is the building address or identification clearly visible?	√		Training center address are posted on building and clearly visible.
1.2	Is information officer contact details displayed?	√		Information office detail is posted at building entrance.
1.3	Are exterior and interior lights in working order?	√		Lights are in working order
1.4	Are the exits onto public streets free from visibility obstructions?	√		Public exits are free of obstruction

1.5	Does building has accessible to emergency equipment and vehicle?	√		Emergency vehicle can access to training center.
1.6	Are windows free from cracks or broken panes?		×	Some of toilets windows glass found broken.
1.7	Are stairs, landings and handrails in good repair and fastened securely?	√		Stairs are fitted with handrails.
1.8	Are all external sewer, drains lines covered or secured?		×	External drains lines are not covered and secured.
1.9	Do entrance doors close slowly to avoid hazards to fingers?	√		Doors are close slowly
1.10	Are floors non slippery and cleaned?	√		Floors found cleaned.
1.11	Are corridors and exits free and clear of all obstructions?		×	Materials were stored in 3rd floor's corridor.
1.12	Are parking facilities provided?	√		Car and bike facilities are provided.

10.2 Emergency Preparedness: The emergency preparedness assessment of the training center reveals significant gaps in essential safety measures. The training center is busy with participants and visitors. However, there is no designated emergency exit, and the stairs serve as the only means of access and evacuation in case of an emergency. An emergency plan, emergency contact details, and exit signs are not in place, leaving the facility to well prepared for potential emergencies. Additionally, emergency escape routes have not been posted, and the lack of first aid kits further exacerbates the center's inability to handle crisis situations effectively. Moreover, the center does not have trained first aiders, an assembly point, or any record of evacuation drills being conducted. These deficiencies highlight the absence of a structured safety framework, placing individuals at risk during emergencies. Addressing these issues by implementing the missing elements is crucial to ensure the safety and well-being of everyone in the training center. Following evaluation conducted during audit.

3	Emergency Preparedness	√	×	Observations
3.1	Is emergency plan in place?		×	Training center does not have emergency plan.
3.2	Are emergency protocols/contact details displayed?		×	Emergency contact details are not posted.
3.3	Are exits signs identified and marked?		×	There are not exits signs in overall training center
3.4	Are emergency escape routes posted?		×	Emergency escape routes are not posted.
3.5	Are first aid kits available?		×	First aid kits are not available.
3.6	Trained first aider available?		×	Staffs are not trained as first aider.
3.7	Is assembly point available?		×	There is no assembly point
3.8	Evacuation drill conducted?		×	Evacuation drills are not conducted.
3.9	Is there emergency exit to each floor?		×	There is no emergency exit. Stair is used for access and exit during the emergency.

10.3 Fire Safety: The training center faces a significant risk of fire accidents due to various high-risk areas, including a chemical lab, a kitchen, and storage spaces prone to flammability, compounded by the widespread use of electrical connection, equipment and appliances that could serve as ignition sources. Although the facility has a limited number of dry powder chemical (DCP) and CO2 fire extinguishers, these are inadequate to cover the entire center effectively and are not subjected to regular inspections to ensure functionality. Besides the detection of systems is not provided on every floor and inside the rooms increases the likelihood, making the facility blank to any early warning of a fire. Even though the staff possesses only general skills in firefighting, their potential to handle an important fire event is little and significantly raises the chances of runaway growth and of great damage or injury. Long-term measures such as the routine inspection of the fire prevention equipment, provision of fire detection systems, and enhanced training of staff in firefighting are important to counteract these critical weaknesses. See the observation checklist.

4	Fire Safety	√	×	Observations
4.1	Are fire extinguishers suitable and sufficient?		×	More fire extinguishers required
4.2	Are all fire extinguishers inspected, charged, and accessible?		×	Fire extinguishers are not inspected
4.3	Is fire alarm system, including smoke and/or heat detectors, operable and able to be heard throughout the building		×	There is no fire detection system
4.4	Are trained fire wardens available?	√		OSHC staffs have basic knowledge of fire fighting

10.4 Electrical Safety: The electrical safety inspection identifies a lot of deficiencies. Electrical panels are left open, and the circuits are not properly identified. Some of the electrical switches

are defective, and some cords are damaged with manifestations such as fraying or splicing. Electrical safety signs are missing on the panels, and the electrical equipment has never been inspected. The RCDs (ELCBs) are not installed in the building. Urgent measures are required to correct the safety hazards identified and to comply. See the observation list.

5	Electrical Safety	√	×	Observations
5.1	Are all electrical panels secured?		×	Electrical panels are left opened
5.2	Have all electrical circuits been identified?		×	There is no identification on electrical circuits
5.3	Are all electrical switches and receptacles in good condition?		×	Some of electrical switches found damaged
5.4	All electrical cords and extension cords are in good shape with no fraying, swelling, splicing or patches?		×	Some of electrical cords were damaged
5.5	Electrical safety signs posted on panel?		×	No electrical safety signs posted on panel
5.6	Are electricals tools and equipment in good condition and inspected?		×	Electrical equipment was not inspected.
5.7	Have RCDS (ELCB) installed and functioning?		×	ELCBs are no installed in training building.

11. Key Audit Findings: The findings from audit are documented, typically categorizing major non-conformance, minor non-conformance, observation and opportunity for improvement. This helps prioritize corrective actions and ensures continual improvement. The evaluation of the audit findings is based on the following definitions.

Major Nonconformities **(MaNC):** Indicates a situation that could lead to serious injury or illness to employees due to inadequate safety practices or procedures.

Minor Nonconformities (**MiNC**): A deviation that does not significantly impact the system's effectiveness or compliance. It typically involves minor issues.

Observations **(OBS):** Any issues which are likely to become a NC if not treated until the next audit are marked as observations **(OBS)**. No response is required.

Opportunities for Improvement **(OFI)**: If certain aspects which generally comply with the requirements of the standard should be improved, then they are marked as opportunities for improvement. See the details of key audit findings in tabular form.

Summary of Audit Findings Log

S.N.	Category	Findings (including area and facility)	Remarks
1	OFI	Safety posters are posted in training center. More hazards information and updated OHS poster required.	

2	OFI	Some materials were store in 3rd floor corridor. However, corridor not fully obstructed.	
3	OBS	Some of unused restrooms are not regularly cleaned.	
4	OBS	Hostels rooms need regular clean up.	
5	MiNC	Some toilet's window glass found broken	
6	MiNC	Electrical panels and circuits are not marked and identified.	
7	MaNC	The training center does not have an emergency preparedness plan. The first kit is not provided, evacuation drills are not carried out, exit signs are absent, emergency escape routes are not marked. Assembly point is not established.	
8	MaNC	There are not enough fire extinguishers in the training center, and it is not inspected.	
9	MaNC	The building is not equipped with a smoke or heat detection system.	
10	MaNC	Electrical panels are left open creating electrical incident.	
11	MaNC	Electrical switches and cable found damage.	
12	MaNC	Electrical appliances, equipment are not inspected.	
13	MiNC	Electrical safety signs are not posted on panels.	
14	MaNC	Expired LPG cylinder is being used in kitchen.	
15	MaNC	There is absence of fire blanket/extinguisher in kitchen.	
16	MiNC	There is no pest control done in the kitchen.	
17	MaNC	External drains lines are not covered and secured.	
18	MaNC	Chemical lab does not have inventory system.	
19	MaNC	Some of chemical containers were not labeled. Expired chemicals were stored in lab.	
20	MaNC	Lab does not have chemical spill procedure. Chemicals are not segregated. First kit is not available in lab.	
21	MiNC	Lab does not have materials safety data sheet, there is no warning signs at entrance.	
22	MaNC	Height of parapet wall is short and person could fall.	
23	MiNC	Unwanted materials are stored in some of room by others.	
24	MaNC	Battery charging station at corner of corridor without any safety precaution.	
25	MaNC	There is no emergency exit. Stair is used for access and exit during the emergency.	
25	MaNC	RCD/ ELCBs are not installed in the building.	

12. Recommendations: Several non-compliances were identified during the audit, with certain critical risks necessitating immediate corrective action to mitigate potential adverse impacts.

These critical issues demand prompt attention to ensure compliance and avoid incidents/accidents. Following recommendation are made based on the key findings of audit.

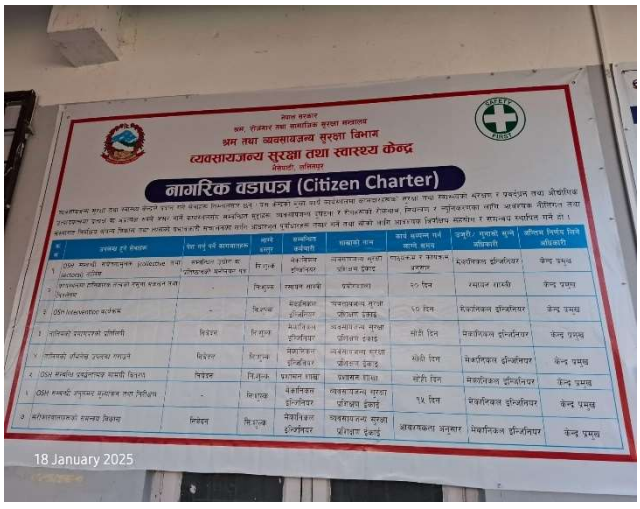
S.N.	Recommendations	Responsibility	Timeline
1	The development of an emergency preparation plan is necessary to handle emergencies.	OHSC	30-12-2081
2	The emergency exit route must be marked and identified for use in the event of an emergency.	OHSC	30-12-2081
3	An assembly point and a first aid kit must be available.	OHSC	30-12-2081
4	Electrical panels must be closed and secured.	OHSC	30-11-2081
5	Electrical safety signs need to post on electrical panel.	OHSC	30-11-2081
6	Damaged glass of windows must be replaced.	OHSC	30-11-2081
7	More fire extinguishers are needed, and routine maintenance is necessary.	OHSC	30-11-2081
8	Smoke/ heat detector need to install throughout the training facility.	OHSC	30-12-2081
9	Electrical switches and electrical cables must be replaced and repair.	OHSC	30-11-2081
10	Expired LPG cylinder must be replaced.	OHSC	30-11-2081
11	Fire blanket/extinguisher needed in kitchen.	OHSC	30-11-2081
12	Regular pest control needs to conduct in kitchen.	OHSC	30-12-2081
13	External drains must be covered and secured.	OHSC	30-12-2081
14	Chemical inventory requires in chemical lab. It needs to update on regular basis.	OHSC	30-12-2081
15	Each chemical must have clearly labeled information.	OHSC	30-11-2081
16	Expired chemicals need to remove and dispose properly.	OHSC	30-12-2081
17	Procedures for chemical spills must be developed. A first aid kit is required in a chemical lab.	OHSC	30-12-2081
18	Chemical safety signs must be posted in the laboratory. Chemicals must be separated and stored in accordance with its safety data sheet.	OHSC	30-12-2081
19	Height of parapet wall should be 1.2m to avoid falling accident.	OHSC	30-12-2081
20	Unwanted materials stored by other users need to remove.	OHSC	30-12-2081
21	All corridors need to be free of obstruction.	OHSC	30-12-2081
22	Hostels rooms and toilets need regular cleaning.	OHSC	30-11-2081

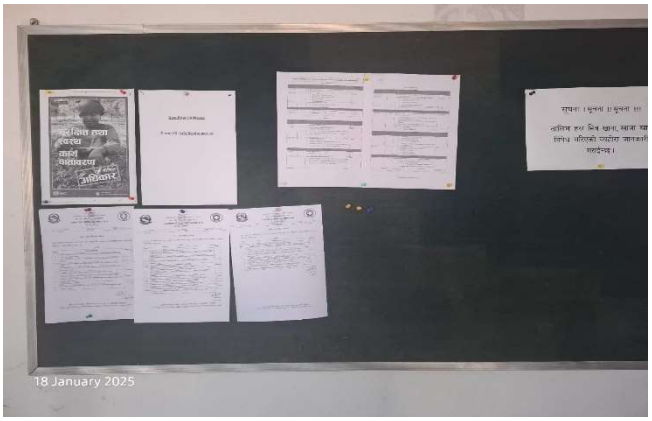
23	Battery charging station need to be secured with provision of fire extinguisher.	OHSC	30-12-2081
24	External emergency evacuation exits(stairs) needs to provide each floor.	OHSC	30-12-2081
25	RCD/ELCBs need to installed to avoid electrical accidents.	OHSC	30-12-2081

13. Conclusion: The Audit Report emphasizes the critical findings and outlines the path forward to ensure the safety and compliance of the Occupational Safety and Health Centre (OSHC). The audit revealed both strengths, such as well-organized training programs and relatively well-maintained administrative offices, and areas of concern, including severe gaps in emergency preparedness, fire safety, electrical safety, and laboratory management. Key issues like the absence of emergency plans, insufficient fire safety measures, and inadequate maintenance of electrical systems highlight the urgency for corrective actions. Addressing these deficiencies is not only essential for compliance with national and international standards but also for safeguarding the safety and well-being of staff and trainees.

Most crucial in the future is implementation of the 23 practical recommendations that have been made in the report. They include establishment of emergency preparedness guidelines, better fire detection and prevention systems, periodic maintenance of electrical and lab equipment, and establishment of chemical safety procedure. OSHC can be an example for OHS training in Nepal by following these steps in a timely manner. This will not only reduce risk but also consolidate its position as a leader in the creation of a culture of productivity and safety in industries. Adherence to these measures will enhance OSHC's vision of creating a safe workplace environment, staying in touch with the best practice around the world and spearheading a country-wide initiative towards occupational health and safety excellence.

14. Photos (Positive Observations)

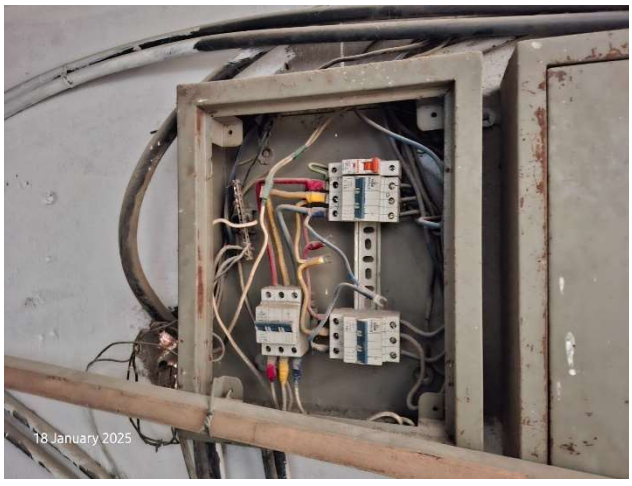


Citizen charter posted at entrance of OSHS.	Information officer detail available.
	
Training details posted on notice board.	Training center has web portal.
	
Safety posters are displayed in training center.	
	
Library facility is available.	Training hall equipped with furniture and other facility.

	
Toilet facility for both male and female.	Hand soap and water supply provided.

15. Photos (Area of Improvements)

	
Chemicals are not segregated as per SDS.	Several expired chemicals are stored in lab.

	
Electrical switches board left opened.	Battery charging station at corner of corridor without any safety precaution.
	
Damaged electrical panel.	Materials stored in corridor creating obstruction.
	
External drains uncovered.	Opened electrical panel board.

<table>
<tr><td> 
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<tr><td colspan="2">Scrap materials stored in rooms by another user.</td></tr>
<tr><td> 
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<tr><td>Poisonous chemical left in health lab.</td><td>Safety equipment (lux meter, heat index) without calibration.</td></tr>
<tr><td> 
</td><td> 
</td></tr>
<tr><td>Expired LPG cylinder being used.</td><td>Safety harness was contaminated.</td></tr>
</table>

	
Fire extinguishers without regular inspection.	Height of parapet wall is short.
	
Damaged window’s glasses of toilet.	Damaged and exposed electrical cables.

OHS Checklist for Training Center

Building: OHSC	Department: Training	Location: Bhaisepati, Lalitpur
Name of /Auditor/Inspector: Kabiraj Pun & Prakash Bikram Singh		Date: 4th & 5th Magh 2081

1	General Safety	√	×	Observations
1.1	Is the building address or identification clearly visible?	√		Training center address are posted on building and clearly visible.
1.2	Is information officer contact details displayed?	√		Information office detail is posted at building entrance.
1.3	Are exterior and interior lights in working order?	√		Lights are in working order
1.4	Are the exits onto public streets free from visibility obstructions?	√		Public exits are free of obstruction
1.5	Does building has accessible to emergency equipment and vehicle?	√		Emergency vehicle can access to training center.
1.6	Are windows free from cracks or broken panes?		×	Some of toilets windows glass found broken.
1.7	Are stairs, landings and handrails in good repair and fastened securely?	√		Stairs are fitted with handrails.
1.8	Are all external sewers, drains lines covered or secured?		×	External drains lines are not covered and secured.
1.9	Do entrance doors close slowly to avoid hazards to fingers?	√		Doors are close slowly
1.10	Are floors non slippery and cleaned?	√		Floors found cleaned.
1.11	Are corridors and exits free and clear of all obstructions?		×	Materials were stored in 3rd floor's corridor.
1.12	Are parking facilities provided?	√		Car and bike facilities are provided.
1.13	Others			
2	**Training Management and Administration**	**√**	**×**	**Observations**
2.1	Does the training center has a sufficient number of instructors for each curriculum?	√		Yes, trainings are conducted by OSHC staffs and external resource persons
2.2	Does the training center has sufficient resources to conduct training?	√		Currently OSHC managing with available resources
2.3	Does the training center published notification of upcoming training programs?	√		Yes, upcoming training programs are notified by web portal and social media.

2.4	Does the training center maintain a record for each trainee?	√		OSHC keeps records for each trainee.
2.5	Does the training center conduct field visit and practical demonstration session?	√		Yes, field visits are the part of 4, 7 and 14 days training programs. First aid and fire safety training have practical demonstration.
2.6	Does the training center provide training materials to trainee?	√		Yes
2.7	Is there a mechanism for feedback?	√		Feedback mechanism is available.
2.8	Does the training center provide certificate to trainee?	√		Yes
2.9	Is training room, or other space used for instruction heated (air conditioned), lighted, and ventilated?	√		Yes
2.10	Others			
3	**Emergency Preparedness**	**√**	**×**	**Observations**
3.1	Is emergency plan in place?		×	Training center does not have emergency plan
3.2	Are emergency protocols/contact details displayed?		×	Emergency contact details are not posted
3.3	Are exits signs identified and marked?		×	There are not exits signs in overall training center
3.4	Are emergency escape routes posted?		×	Emergency escape routes are not posted
3.5	Are first aid kits available?		×	First aid kits are not available.
3.6	Trained first aider available?		×	Staffs are not trained as first aider
3.7	Is assembly point available?		×	There is no assembly point
3.8	Evacuation drill conducted?		×	Evacuation drills are not conducted
3.9	Is there emergency exit to each floor?		×	There is no emergency exit. Stair is used for access and exit during the emergency.
3.10	Others			
4	**Fire Safety**	**√**	**×**	**Observations**
4.1	Are fire extinguishers suitable and sufficient?		×	More fire extinguishers required
4.2	Are all fire extinguishers inspected, charged, and accessible?		×	Fire extinguishers are not inspected

4.3	Is fire alarm system, including smoke and/or heat detectors, operable and able to be heard throughout the building		×	There is no fire detection system
4.4	Are trained fire wardens available?	√		OSHC staffs have basic knowledge of fire fighting
4.6	Others			
5	**Electrical Safety**	**√**	**×**	**Observations**
5.1	Are all electrical panels secured?		×	Electrical panels are left opened
5.2	Have all electrical circuits been identified?		×	There is no identification on electrical circuits
5.3	Are all electrical switches and receptacles in good condition?		×	Some of electrical switches found damaged
5.4	All electrical cords and extension cords are in good shape with no fraying, swelling, splicing or patches?		×	Some of electrical cords were damaged
5.5	Electrical safety signs posted on panel?		×	No electrical safety signs posted on panel
5.6	Are electricals tools and equipment in good condition and inspected?		×	Electrical equipment was not inspected.
5.7	Have RCDS (ELCB) installed and functioning?		×	ELCB are not installed in the building.
5.8	Others			
6	**General Work Environment & Indoor Air Quality**	**√**	**×**	**Observations**
6.1	All rooms and work areas properly illuminated. Glare and reflections avoided.	√		Rooms and training halls are properly illuminated.
6.2	All rooms clean, sanitary, and orderly. (garbage disposed properly, etc.)	√		Overall training center is cleaned.
6.3	All rooms are ventilated, temperature is in acceptable level.	√		Ventilation system is in place with heating and cooling facility.
6.4	Others			
7	**Restroom**	**√**	**×**	**Observations**
7.1	Sufficient number of restrooms?	√		Each floor has sufficient numbers of restrooms.
7.2	Male and female restroom provided.	√		Male and female restrooms are in each floor.
7.3	Soaps, towel, water supply provided.	√		Toilets have required facilities.
7.4	Toilets and urinals clean and sanitized.	√		Toilets were cleaned during inspection.
7.5	Floor is clean and sanitized.	√		Toilets' floor was cleaned

7.6	Others		×	Some of toilets windows glass are broken.
8	**Kitchen**	**√**	**×**	**Observations**
8.1	Are the floors in good condition and cleaned regularly?	√		Kitchen floor was cleaned.
8.2	Is the area free of clutter and obstructions?	√		No obstruction observed in kitchen
8.3	Are LPG cylinders in good condition and stored properly?		×	Expired LPG cylinder being used.
8.4	Is a fire blanket and/or fire extinguisher available near the stove?		×	Kitchen does not have fire blanket/extinguisher.
8.5	Are all chemicals and cleaning products clearly labelled and kept in the allocated storage area?	√		Yes
8.6	Is there a regular pest control routine?		×	Pest controls not conducted.
8.7	Others			
9	**Chemical Lab**	**√**	**×**	**Observations**
9.1	Up-to-date inventory maintained for all hazardous materials?		×	No chemical inventory observed.
9.2	Chemical Safety Data Sheets (SDS) maintained and readily available?		×	SDS are not available at lab.
9.3	First aid materials readily available?		×	There is no first aid in lab
9.4	Spill cleanup materials available?		×	Spill cleanup materials were not found in lab
9.5	Safety shower and eye wash available?	√		Wash room is used as safety shower and eye wash
9.6	Appropriate PPE available?	√		Basic PPE (gloves, glass) are available.
9.7	Appropriate labels are found on all hazardous chemical containers?		×	Some of chemical bottles were not labeled.
9.8	Chemicals are segregated?		×	Chemicals segregation was not observed
9.9	Appropriate warning signs posted near lab entrance?		×	No warning signs posted in lab entrance
9.10	Expired chemicals removed?		×	Several expired chemicals stored in lab
9.11	Smoking, eating, and drinking prohibited in lab?	√		Noone allowed to eat, smoke and drink in lab.
9.12	Lab is maintained secure; door is locked when no one is in lab?	√		Lab is locked and secured.

9.13	Refrigerators and freezers clearly labeled "Not for Storage of Food for Human Consumption"?		×	There are no warning signs in freezers.
9.14	Chemical wastes disposed properly?	√		Yes