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## NEWSLETTER

OIL & GAS DEVELOPMENT COMPANY LIMITED

OCTOBER-DECEMBER 2021

OGDCL won 'Fire Safety Award' at the 11<sup>th</sup> Fire Safety and Security Awards 2021 organized by the National Forum of Environment and Health (NFEH) and Fire Protection Association of Pakistan (FPAP) on December 09, 2021. Mr. Muhammad Ilyas (HSE InCharge Qadipur Gas Field) received the award on behalf of OGDCL. Management expressed pleasure for winning the award saying that we at oil and gas industry are fully committed towards the safety and wellbeing of our workforce members; we take all possible measures to shield the soft and hard assets from any mishap.

Speaking at the inaugural session of the convention, FPAP President Mr. Kanwar Waseem said that it was not enough to install the emergency equipment and train a few personnel to deal with fire emergencies in the commercial establishments including markets. He said that emergency drills should be conducted on a regular basis in commercial establishments so that all their employees and workers should know about the proven methods to save their own lives and those in their surroundings in case of a fire incident. He said that training sessions at the community level and in educational institutions should be held to create mass-scale awareness about the safety measures required against fire incidents. However, he appreciated that with the passage of time the industrial units in Pakistan had been adopting more stringent safety measures as per the international standards against fire and other emergencies.

## 11<sup>th</sup> Fire Safety Award Conferred To OGDCL



Mr. Tariq Moeen, FPAP Director, said that people and businesses in Pakistan should realize that the fire brigade is the last line of defence whenever someone has to deal with any fire emergency as the commercial, residential, and industrial buildings had to have their own fire safety measures on a compulsory basis to timely tackle any fire incident at their premises. He said that besides the availability of fire extinguishers and fire alarm systems in both commercial and residential buildings especially the high-rises, their occupants should also know the drill to exit their workplace or homes in case of any fire emergency.

Mr. Naeem Qureshi (NFEH Representative) said that his NGO had been collaborating with FPAP for over a decade to create mass awareness about methods and systems to be adopted to protect lives and properties in case of fire incidents. He said the NFEH would continue to hold more such events to make people aware of the importance of fire safety measures at their homes and workplaces.



# National Consultative Dialogue on Reducing Emissions from Deforestation & Forest Degradation (REDD) and Private Sector's Engagement in Pakistan

The REDD+ initiative in developing economies is a part of portfolio of strategies for climate change mitigation (reducing emissions or increasing sequestration). It involves market-based forest and land management strategies as one of the global mechanisms. National Consultative Dialogue on Reducing Emissions from Deforestation & Forest Degradation (REDD) and Private Sector's Engagement in Pakistan was organized by Ministry of Climate Change, EMC, IUCN and REDD+ on 22.11.2021 at Hotel Margala, Islamabad. Mr. Kamran Siddique, Senior HSEQ Officer, participated on behalf of OGDCL. The concept of REDD+ "Reducing Emissions from Deforestation and Forest Degradation and the Role of Conservation, Sustainable Management of Forests and Enhancement of Forest Carbon Stocks" emerged from the international negotiations under the United Nations Framework Convention on Climate Change (UNFCCC). It offered a holistic approach to forest and land management by addressing:

- Conservation of forests (avoiding deforestation)
- Sustainable management of forests (reduced impact logging)
- Enhancement of forest carbon stocks (afforestation, plantation and agroforestry)

Representatives from public and private sectors organizations participated in the event to ensure and discuss the domestic compliance carbon markets based on reduced emission targets.



## National Parks in Pakistan

There are, 6,555 national parks worldwide and 26 exist in Pakistan including 07 NPs in AJ&K representing different ecological regions and covering about 29,589 km<sup>2</sup>, about 3 % of the total area (881,913 km<sup>2</sup>) of the country. A century after the establishment of first national park, Lal Suhanra National Park was the first to be established in Pakistan in 1972. Minimum required area for a national park is 1000 acre (04 km<sup>2</sup>).

List of National Park in Pakistan includes;

01. Margalla Hills National Park: Islamabad, established 1980, area 15,883 ha.
02. Hazarganji Chiltan National Park: Balochistan, established 1980, area 15,555 ha.
03. Hingol National Park: Balochistan, established 1997, area 6, 19,043 ha.
04. Kirthar National Park: Sindh, established 1974, area 3, 08,733 ha.
05. Ayubia National Park: Khyber Pakhtunkhwa, established 1984, area 3,122 ha.
06. Chitral Gol National Park: Khyber Pakhtunkhwa, established 1984, area 7,750 ha.
07. Sheikh Badin National Park: Khyber Pakhtunkhwa, established 1999, area 15,540 ha.
08. Sailu Malik National Park: Khyber Pakhtunkhwa, established 2003, area 12,026 ha.
09. Lulosa Dodipat National Park: Khyber Pakhtunkhwa, established 2003, area 75,058 ha.
10. Broghil Valley National Park: Khyber Pakhtunkhwa, established August 25, 2010, Area 134,744 ha.
11. Khunjerab National Park: Gilgit-Baltistan, established 1975, area 2, 27,143 ha.
12. Hunderab Shandoor National Park: Gilgit-Baltistan, established 1993, area 1, 65,000 ha.
13. Deosai National Park: Gilgit-Baltistan, established 1993, area 3, 63,600 ha.
14. Central Karakoram National Park: Gilgit-Baltistan, established 1993, area 9, 73,845 ha.
15. Qurumber National Park: Gilgit-Baltistan, established August 2, 2011, area 74,000 ha.
16. Machhiara National Park: AJ&K, established 1996, area 13,532 ha.
17. Ghamot National Park: AJ&K, established 2004, area 27,271 ha.
18. Pir Lassoora National Park: AJ&K, established 2005, area 1,580 ha.
19. Toli Pir National Park: AJ&K, established 2005, area 1,000 ha.
20. Musk Deer Gorez National Park: AJ&K, established 2007, area 52,815 ha.
21. Deva Vatala National Park: AJ&K, established 2007, area 2,993 ha.
22. Poonch River Mahaseer National Park: AJ&K, established 2011
23. Lal Suhanra National Park: Punjab, established 1972, area 51,368 ha.
24. Chinji National Park: Punjab, established 1987, area 6, 097 ha.
25. Kala Chitta National Park: Punjab, established Dec. 2008, area 36,965 ha.
26. Murree-Kotli Sattian-Kahuta National Park: Punjab, established Sep. 2009

# STOP CARDS INTERVENTION PROGRAM AWARENESS SESSIONS CONDUCTED AT OGDCL HOUSE



Key to controlling hazards is to modify behaviors by observing and intervening people as they work; hence eliminating at-risk behaviors. For this reason all hazards must be identified, reported and documented using STOP Cards. The basic principle of STOP Intervention Program is that all injuries and occupational illnesses can be prevented. The philosophy behind STOP Intervention Program is to train each member of the line management on-spot to eliminate incidents and injuries by skillfully observing people as they work, talking with them to correct their unsafe acts, and encouraging them to follow safe work practices. In this regard, floor-wise sessions were conducted by M. Habib Akbar, Senior Engineer (HSEQ) at OGDCL House to familiarize and educate OGDCL House Occupants about the importance and mechanism of STOP Cards; how to use and what improvements are expected by adopting STOP Intervention Program. Positive response was seen by the employees as they appreciated the implementation of STOP Intervention Program at OGDCL House and were enthusiastic that they are being taken onboard to play their role to instill safety culture and safe system of work.



# TRAIN-THE-HSE-TRAINER WORKSHOP



Train-The-HSE-Trainer Workshop was organized by OGTI on December 07-08 2021. This course was made up of 16 guided learning hours and designed for all levels of training experience, with the primary aim of developing veteran-level ability of Field HSE Facilitators to run productive and exciting HSE courses.

The course was designed by Muhammad Mubashir Abbas, Lead HSEQ Auditor/ Instructor (Manager HSEQ) and aimed to develop essential training skills and promote a clear understanding of how to teach effectively, leaving training delegates energized and well-equipped to deliver quality training sessions that should draw out the input to get the best output from any type

of audiences. The contents were a) Design (A Request For Training/ Conducting a Cost-Benefit Analysis, Role of Training, Conducting a Needs Assessment, Goals & Objectives, Evaluation Strategies, Writing a Training Proposal/ Working with Training Providers/ Trainer's Types (Methods)); b) Development (Characteristics of Adult Learning, Kolb Learning Styles, Sequencing Learning Activities, How to Prepare a Powerful Training Module/ Presentation, Organizing a Presentation, Effective Visual Aids, Emergency Scenario Interactive Emergency Drill Level-4 (Critical)); c) Delivery (Delivery Skills Reminders, Interaction Skills, Group Process, Cultural Factors, Resistance & "Difficult Learners", Facilitation Skills, Energizers, Closing a Training Session & Evaluation Process/ Action Planning/ Use of Comparison Groups)

Participants were asked to work in teams, do quizzes/ exercises, go through pertinent case studies, prepare short presentations and deliver toolbox talks to an audience on a subject of their own choice, followed by feedback session to demonstrate their learning and understanding based on SKA (Skill-Knowledge-Attitude). It is anticipated that the Workshop is going to help HSE Facilitators a long way in delivering learner-focused sessions through professional engagement maximizing the potential of the standardized HSE training material.





# First Ever Comprehensive HazOp Study of Qadirpur Gas Processing Plant

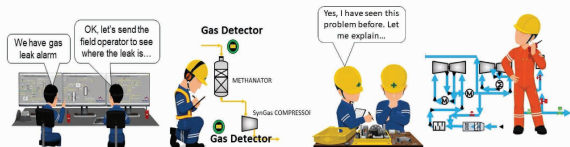


A Comprehensive HazOp Study of Qadirpur Gas Processing Plant was conducted from 28-09-2021 to 07-10-2021 to a) check, verify and validate the efficacy of process controls and barriers/ internal controls; b) update documentation/ arrangements for achieving safe operating limits; c) ensure placement of conscious labeling on equipment, storage vessels, containers, tanks and pipelines carrying or containing hydrocarbons as per appropriate international standards and d) ensure provision of updated emergency response plans.

HazOp took into account the actual changes and the potential changes expected during the operations lifetime in a Workshop format led by an experienced Chairperson from independent party "The Process Edge", Custodian from process team, Secretary from HSE domain and concerned Discipline Engineers/ Sector Experts.

In this study all the areas of the gas processing plant e.g. process train I&II, FEC area, liquid handling area, membrane area and utilities area were distributed in 22 nodes and all the parameters assessed for their hazards operability. The 10 days study played a key role in competence building of internal Qadirpur Team being the first ever study of the entire plant in which Qadirpur Team was fully involved.

Corporate HSE bestows a special gratitude to the Qadirpur Area/ Field Management and HazOp Team Members comprising Mr. Fayyaz Haider-STO Process, Mr. Israr Ahmad SE Instrument, Mr. Naeem-ud-din AE Mech and Mr. Saghar Mehboob AE HSEQ for effectively participating in the HazOp study with dedication and hard work.



# Process Safety Management Workshops at OGDCL



A comprehensive Process Safety Management Foundation Course was conducted at OGTI on November 29-30, 2021. Mr. Muhammad Nouman, C.E. HSEQ, was the Course Facilitator. The course was based on globally recognized PSM models. In the course, participants learned a) how to identify process safety and major accident hazards in facilities and to assess their risks and define critical controls (barriers); b) understand the concepts of static and dynamic barrier management, use of barrier management to analyze process safety and root cause incident investigation; c) characteristics of different types of barriers: hardware (plant), human (people) and organizational (process); d) managing process safety risks, by providing governance and structure in terms of showing commitment of the organization to process safety, understanding hazards & their associated risk, managing risk in operations, maintenance & learning from incidents; and e) good-industry practices related to the individual PSM elements. Considering effectiveness of the workshop and feedback by the participants, another workshop was conducted at Nashpa Plant on Dec 15-16, 2021. Management commitment is well demonstrated by planning PSM workshops at all major facilities.

This standardized course was meant for those responsible for implementing process safety management in their domains like Area & Plant Managers, HODs (Operations & Maintenance), Senior Engineers (e.g. Design, Reliability & Inspection). The program was based on a mix of interactive lectures, breakout sessions and worked cases. Process safety awareness among the OGDCL team would effectively contribute in safe operation of facilities along with significant loss prevention.



**RESCUE 1122 DELIVERED****A BASIC LIFE SUPPORT, CPR & FIRST AID TRAINING COURSE AT DAKHNI**

Rescue 1122 was invited at Dakhni Field to deliver a Basic Life Support (BLS), CPR & First Aid at Dakhni Gas Processing Plant on 13th December 2021. Sectional InCharges along with Core EMT Members from various Sections attended the useful session. Following contents were covered and discussed in detail:



- Concept/ philosophy of First Aid
- ER Procedures w.r.t. Oil & Gas Related Scenarios
- Qualities & Aims of First Aiders
- Initial Assessment of the Emergency by First Aiders
- CPR Concept
- Cardiac Arrest & its Symptoms
- Spinal Injury Management
- Closed Injury & RICE (Rest, Ice, Compression & Elevation)

- ABC Concept (Airway, Breathing & Circulation)
- Concept of 3Ps (Preserve Life, Prevent Injury & Promote Recovery)
- 4 Levels of Consciousness (Normal, Drowsiness, Semi Consciousness & Coma)
- Human Circulatory System & Related Emergencies
- D (danger) R (response) ABC
- Chest Compressions & Rescue Breaths for an Adult CPR
- Fracture Management

**EMERGENCY DRILL AND AWARENESS SESSION****WITH RESPECT TO FIRE & TOXIC GAS RELEASE**

Corporate HSE chalked out a companywide plan to augment safe working culture by reinforcing behavioral based HSE among all employees on equal footings in the shortest possible time. In this regard HSE Dakhni and Uch organized Emergency Drills & Awareness Sessions in perspective of Emergency Response Planning & Evacuation. In-house Facilitators imparted onsite Session on EMERGENCY RESPONSE PLANNING with respect to Fire & Toxic Gas (H<sub>2</sub>S) Release at various Operating Wells of Dakhni Plant to train the field manpower and raise knowledge on HSE System on 25.10.2021. Hydrogen Sulphide (H<sub>2</sub>S) is a second toxic gas after Hydrogen Cyanide. IDHL value of H<sub>2</sub>S is 100 ppm. H<sub>2</sub>S can kill even at very low concentration compared to most other toxic gases. Dakhni and Uch Fields comes under category of High Risk Field as H<sub>2</sub>S concentration in raw gas is above 500 ppm. So keeping in mind the preventive approach to cater any emergency situation, awareness of employees on H<sub>2</sub>S management at field level is always essential. Later on, Level -1 Toxic Gas/ H<sub>2</sub>S Leakage Drill was arranged at Dakhni's Operating Wells (1 & 3) around 2000 meters from ER Post. Response of Well Operators, Evacuation and Medical Teams was assessed. Also the effectiveness of Firefighting Appliances/ Extinguishers, H<sub>2</sub>S comprehension levels and donning & doffing Self Contained Breathing Apparatus (SCBA) checked.



# National Highway and Motorway Police

## Conducted Defensive Driving Training (DDT) at BOC, Kunnar Field and Road Safety Seminar at Qadirpur Gas Processing Plant

Road incidents has major contribution in accidental fatalities statistics and needs extra vigilance & care during driving. Competence and awareness levels of drivers have a vital role to minimize such fatal accidents. Most important takeaways from DDT are the ability to drive and stop safely as well as imparting best practices for ensuring person and his vehicle always perform well on the road. In the light of OGDCL Integrated HSEQ Management System Manual, Defensive Driving Training (DDT) for the quintessence of Journey Management was planned at BOC and Kunnar Field to provoke the thoughts of drivers to comply the safe driving protocols. National Highway & Motorway Police being the expert in "Road Safety" was contacted and scheduled the cited program on 29-11-2021.



The mode of training was presentation, real time road accidents videos, discussion & Question/Answer session. The session was arranged as per schedule and Mr. Hamza Bin Sohail InCharge HSE BOC kicked off the session. Representative of National Highway Police, Inspector Kamran delivered a comprehensive session on DDT whereby the topics covered were Pre-Trip Inspections; Difference between Motorway and Highway; Following Distance; Causes of Road Accidents; Consequences of Road Accidents; Sharing the Road with Pedestrians; Sharing the Road with Cyclists and Motorcyclists; Sharing the Road with Slow-Moving Vehicles; and Parking and Delivering Safely. DDT ended with distribution of souvenirs to field management.



Qadirpur Gas Field also organized a "ROAD SAFETY SEMINAR" with the coordination of National Highway & Motorway Police. DDT session was imparted by Mr. Muhammad Imran (DSP/CPO beat 25 N-5 NH&MW Police) and Seminar concluded by gifts-distribution ceremony.



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STANDARDS IMPLEMENTATION

## MODULAR TRAINING SERIES FOR OGDCL HOUSE TEAMS

After the successful ISO certification of major operating fields i.e. Dakhni, Nashpa, Qadirpur, KPD-TAY, Uch, Sinjhora, Chanda & Mela, OGDCL top management decided ISO 45001:2018 & ISO 14001:2015 Certification of OGDCL House as the next corporate target. In the continuation of achieving this corporate target, a renowned multinational Auditing Cum Training Services Firm SGS was engaged to impart series of modular trainings for the OGDCL House Teams with respect to the technical scope of ISO Certification Project. The objectives were to a) raise the awareness/knowledge among OGDCL House Teams regarding OGDCL's Integrated HSE Management System in the context of ISO 45001:2018 & ISO 14001:2015 Management System's requirements; and b) impart relevant/specified understanding to focused groups for effective implementation of Action Plans to conveniently achieve the Corporate Target i.e. ISO Certification of OGDCL House; Therefore, the following scheme was focused for effective participation:



General Admin. / TPT

04 Participants

Maintenance

05 Participants

System / IT / Communication

05 Participants

Security

04 Participants

Medical

03 Participants

HSE/ Fire

04 Participants

Module:1 HSE Leadership &amp; Support

25th &amp; 26th Nov., 2021

Mr. Usman Alvi, SGS Instructor

Module:2 HSE Planning

02nd &amp; 03rd Dec., 2021

Mr. Umar Khayyam, SGS Instructor

Module:3 HSE Operations

09th &amp; 10th Dec., 2021

Mr. Tahir Rasheed, SGS Instructor

Module:4 HSE Performance Evaluation

16th &amp; 17th Dec., 2021

Mr. Usman Alvi, SGS Instructor

Module:5 HSE Improvement

23rd &amp; 24th Dec., 2021

Mr. Usman Alvi, SGS Instructor

## First Aid / Burn Handling Training

Conducted by **Red Crescent Society** on 03-12-2021 at KPD-TAY

## Safe Pigging Operation

The use of Pig Launcher and Receiver Stations for pipeline cleaning, inspecting and maintenance is a method seen worldwide. The main benefit of this type of maintenance is that it can be carried out without interrupting the process in operation. The drawback is that it is also a high risk event. A launcher or receiver station is typically a vessel connected in parallel to the existing pipeline. This makes it possible to launch or receive the pig using the pipeline's normal operating pressure and without interrupting the flow or stopping production. The vessel is equipped with a closure door to load or offload a pig. By leading the process through the launcher station, the pig is launched and pushed through the pipeline to be received at the other end in the receiver station.

Throughout the years many accidents happened all over the world during this dangerous maintenance operation. Usually there is manual labour involved in loading and offloading the pig. According to statistics, "70% of the reported incidents in the oil and gas industry worldwide are attributable by human error". People can be trained to follow procedures and informed about potential danger but a mistake cannot be excluded.

### HAZARDS

- High Pressure can cause multiple injuries even fatalities.
- Residues from pigging can contain solid waxes, condensates and gases. These can include hazardous substances such as: BTEX (benzene, toluene, ethyl benzene and xylenes); Hydrogen sulphide; & NORM (Naturally Occurring Radioactive Material)
- Workplace exposure limit (WEL) for benzene is 1 ppm (8-hour time-weighted average (TWA)); & for H<sub>2</sub>S are 5 ppm (8-hour TWA) and 10 ppm (15-minute TWA).

### CONTROLS

- Restrict access to authorized personnel.
- Ensure portable/ personal alarms are worn and ensure that all items of PPE are compatible.
- Prevent peeking into and entry by any worker into the receiver.
- Provide eyewash equipment and an emergency shower close to the work site.
- Erect barrier and notices.
- Provide fixed and portable hydrocarbon & H<sub>2</sub>S detectors in the area.
- Provide a fully enclosed receiver (trap) to isolate the pig or sphere in a well-ventilated area.
- Ensure that displaced vapours vent to a safe place or to a vapour recovery system.
- Ensure that drains are sloped to prevent residues building up, and covered to minimize vapour releases.



Receiving or launching the pig involves a number of sequential valve operations in combination with opening and closing the closure door. One mistake in this operation could easily cause severe injury, even death, to the operator or a bystander. Before opening the closure safely, there are several basic safety criteria that need to be met.

- The vessel must be drained and depressurized.
- The vessel must be isolated from the process pipeline by closing the Kicker lines and the main valves.
- In case of a closed drain systems and/or vent headers the vessel must also be isolated by closing the drain and vent valves.
- The vessel needs to be free from toxic gasses like H<sub>2</sub>S.
- At the same time the vessel must remain isolated when the door is open
- When the launching or receiving procedure starts the closure should be properly closed.

Since the launcher / receiver station is a bypass there is also a potential danger that production is interrupted when the throttle is not fully opened before starting to isolate the launcher / receiver station again. Several safety measures can be taken on the closure doors to prevent opening under pressure and by using written procedures but this is no guarantee that all of the above is taken into consideration.

### H<sub>2</sub>S Involvement

In H<sub>2</sub>S environment there is often a vent connected to a header and a drain connected to a close drain system. This means the drain and vent must still be opened to drain and depressurize but also closed again before opening the closure. Next to that the vessel must also be purged several times in combination with the vent to reduce the level of H<sub>2</sub>S to guarantee safe opening of the closure.

### Recommended Practices

Operating a pig launcher/ receiver is a high risk event with people involved and at the same time safe operation depends on these people. Mechanical interlocks can take out the human factor of possible mistakes and guide the operator through a safe pre-determined sequence. A standardized Pigging Operations SOP must illustrate clear roles and responsibilities, sequence of operations, hazards of each step, correct positioning of valves & other controls including safe distance marking, area barricade etc. The said SOP must contain safety precautions, positioning of team members, and significance of calibrated pressure gauges. The communication mechanism and responsibility must be decided prior to the pigging job. Personnel deputized for the pigging job must be trained and experienced resources. This is pertinent to mention that pig launching and receiving must be attended by essential personnel only. Job planning must identify the number of competent personnel to be engaged on the job. Before the pigging operation, it is recommended to check/ inspect the quality of pig and substandard pig should not be used in any circumstances. Two pressure gauges to be fitted to the barrel of the launcher/ receiver for redundancy to guard against this event because any of the pressure gauge can be faulty or broken. When opening the door of a launcher or a receiver, no one should stand in front of the door or at the side where the hinge is fitted and directly in line with the door.



# HSE PERFORMANCE REPORTING PROTOCOLS

Efficient and prompt reporting of the incidents, near misses and unsafe behaviors/ conditions is pivotal for ensuring safe system of work and correct decision making towards incident free environment. Reporting mechanism in OGDCL is multi-tiered as follows:

- Pursuant to Section 4.3 i.e. HSE Roles, Responsibilities, Accountabilities & Authorities of Integrated HSE System Manual, Location InCharges are held responsible to ensure hazards identification & reporting at their respective location.
- In accordance with the Section 7.6 i.e. HSE Protocol for Management of Project Contractors and Service Companies of Integrated HSE System Manual, Contractor and Service Company's employees are required to immediately report to OGDCL representative all the significant and important incidents involving fatality, injury, illness, environment impacts, near hits and/or hazardous situation.
- Refer Section 8.1 i.e. UBUC (hazards) Identification & Reporting of Integrated HSE System Manual, it is required that all hazards to be timely identified, reported and documented using STOP Cards. The basic concept of STOP Cards is that injuries and occupational illness can be prevented by intervening all unsafe work and only allowed resumption once appropriate measures are taken.
- Ref. Section 8.3 i.e. Data Analysis of Integrated HSE System Manual, all locations submit (preferably through email) the basic HSE facts and figures to HSE Corporate Team at OGDCL House and Line Management on daily basis. These include summary of incidents and near misses (UBUC). HSEQ Department further apprises top management of any untoward event(s) or symptom(s). In addition, all locations submit the consolidated HSE performance of their working entity on a standardized Monthly HSE Report based on Leading and Lagging Indicators.
- To promote the reporting, Location InCharges are to implement On Spot Recognition Award and HSE Champion of the Month Award in line with the Section 8.4 i.e. Reward, Recognition & Penalties of Integrated HSE System Manual at their respective locations to encourage reporting of UBUC (hazards) and near misses.
- For the sake of incident reporting pursuant to Section 9.3 i.e. Incident Investigation of Integrated HSE System Manual, first-hand information of an accident is to be transmitted by Location Incharge to all concerned at Head Office within 01 hour of the incident through available communication channels like telephone, cellular messages, email, fax etc. Location Incharge are required to submit Preliminary Incident Report on the prescribed format (PIR) to HSEQ Department and concerned HOD at Head Office on immediate basis but not later than 12 hours.



## WHY PLANT TREES?

### 1 Oxygen production

A single mature tree can provide enough oxygen to support 2 human beings for a year.



### 3 Paper

One big tree can provide you with 80,000 sheets of A4 paper.



**80,000**  
sheets of paper

### 2 CO<sub>2</sub> storage

A tree needs to grow for 40 years to be able to offset 800 kg of CO<sub>2</sub>.



### 4 Climate change

You need to plant 10 trees per year on average to offset your carbon emissions.



### 5 Noise reduction

Trees muffle urban noise almost as effectively as stone walls.



### 7 Carbon offset

To offset carbon emissions from transportation you should plant:



5,000km

✓ one tree for every 5,000km with a motorbike

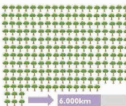


3,000km

✓ one tree for every 3,000km with a car

### 6 Health

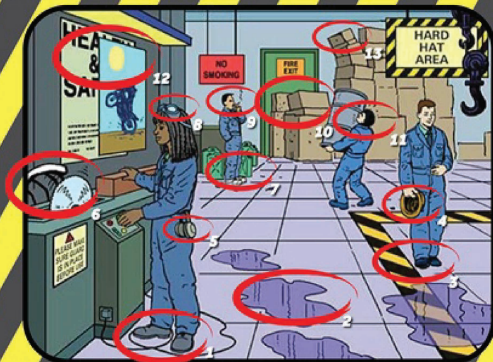
A walk in the forest not only makes you more relaxed and calm, but also improves your immune defense.



✓ one tree per passenger for every 6,000km with a plane (so around 300 trees per flight)



# Identifying Hazards: Hazards Hunt Survey



- |  |  |
|--|--|
| 1. Wire is wrapped around her feet         | 8. Not wearing eye protection                    |
| 2. Spills on the ground are not cleaned up | 9. Smoking in a no smoking area                  |
| 3. Standing in a restricted area           | 10. Boxes are covering the fire exit             |
| 4. Not wearing his hardhat                 | 11. Carrying something that is too big and heavy |
| 5. Not wearing ear protection              | 12. Poster is covering a health & safety sign    |
| 6. Guard is not protecting the saw blade   | 13. Boxes are stacked too high                   |
| 7. Smoking next to oil cans                |  |