NATIONAL REFINERY LIMITED

HSE NEWS LETTER — Februaray-2022

HSE Newsletter Contents:

Question or concerns regarding this news letter may be directed to:

Manager HSE
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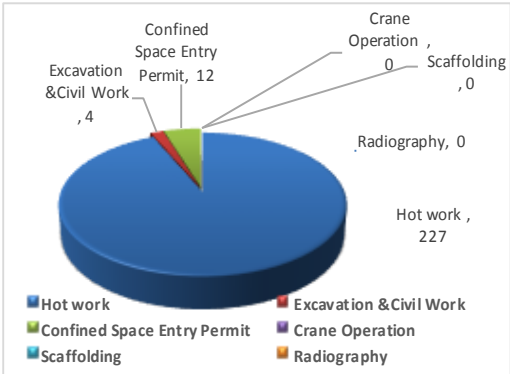
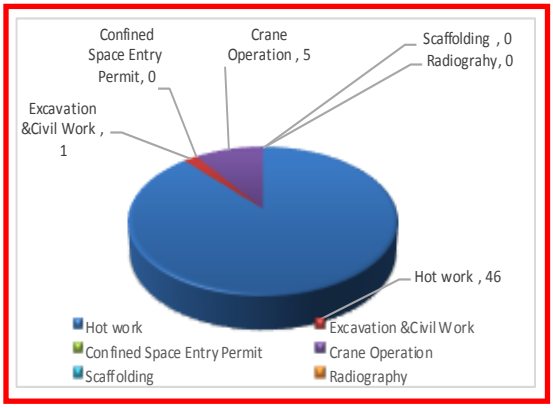
Permit to Work System at NRL Korangi & K.T

Permit is regarded as a written agreement between the person authorizing the work and the person receiving the permit to work. Following Permit to Work were issued in the Month of **February 2022** at Korangi & K.T.



Korangi Refinery



Keamari Terminal

Safe Man Hours

NRL Safety Board is updated by second week of every month. Safety Board shows the number of Safe Man-hours worked by NRL MPT and Non MPT Staff. By the Grace of All Mighty Allah and joint efforts by all of us, we have achieved **37.15822176 millions** safe man-hours without Lost Time Injury (LTI) as on **28th February 2022** Let us all give top priority towards safety, as there is no any job, which cannot be done in a safer way.

SAFETY TRAINING SESSIONS At Operation Block Meeting Hall

Class room training:

" Importance of Process safety management" conducted by **HSE Department** at **Operation Block meeting hall**.

Safety refresher trainings can be a major resource for helping prevent an injury or accident from happening in the workplace. It is the direct tool for bringing awareness of safety issues and procedures to all types of workers (from regular employees, contractors or even visitors). An effective safety induction can also ensure not just safety awareness affecting the person completing a job task or role but also ensure the safety of their coworkers too. It can set out important processes to follow , such as how to report an incident, safety procedures for working at heights, confined spaces, access control, restricted areas

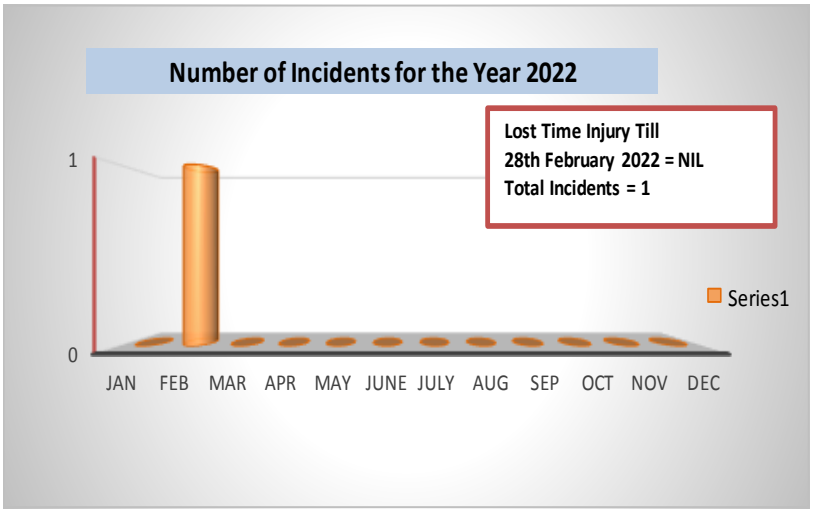
Fire Drills Conducted by Fire Department

- **Fire Drill:**

Every Thursday at 1000 hrs and Wednesday at 1530 hrs , planned fire drill conduct by the fire protection department at Korangi Refinery and Keamari terminal respectively, to check the preparedness or effectiveness of fire-fighting staff and firefighting equipment at the time of emergency. Also training regarding usage of fire fighting equipment is delivered to participant from different department in fire drill by the fire protection department.

INCIDENT / ILL HEALTH AND LOSS TIME INJURY

Incident	An incident is an unplanned, undesired event that adversely affects completion of a task.
Near miss	A near miss describes incident where no property was damaged and no personal Injury sustained, but when given a slight shift in time or position, damage and / or injury easily could have occurred.
Accident	An accident is an undesired event that results in personal injury, property damage and equipment damage.
Loss Time injury (LTI)	If any NRL employee on duty had on the job accident, which render the employee medically unfit to resume of his duty next 24 hours is considered to be lost time injury (LTI).



INTERNAL / EXTERNAL MONITORING CONDUCTED BY HSE DEPARTEMENT

Ambient Air Monitoring

Drinking Water Sampling

Stack Emission Testing

Fugitive Emission Testing

Noise Monitoring in Plant

Vehicle Emission Monitoring

Safety Article: What Is Industrial Hygiene ?

OSHA defines industrial Hygiene as, "that science and art devoted to the anticipation, recognition, evaluation, and control of those environmental factors or stresses arising in or from the workplace, which may cause sickness, impaired health and well-being, or significant discomfort among workers or among the citizens of the community."

Industrial hygienists analyze, identify, and measure workplace hazards or stresses that can cause sickness, impaired health, or significant discomfort in workers through chemical, physical, ergonomic, or biological exposures. Two roles of an industrial hygienist are to spot those conditions and help eliminate or control them through appropriate measures.

WORKSITE ANALYSIS:

A worksite analysis is an essential first step that helps an industrial hygienist determine what jobs and work stations are the sources of potential problems. During the worksite analysis, the industrial hygienist measures and identifies exposures, problem 3 tasks, and risks. The most-effective worksite analyses include all jobs, operations, and work activities. The industrial hygienist inspects, researches, or analyzes how the particular chemicals or physical hazards at that worksite affect worker health. If a situation hazardous to health is discovered, the industrial hygienist recommends the appropriate corrective actions.

EXAMPLES OF JOB HAZARDS:

- **Air Contaminants** These are commonly classified as either particulate or gas and vapor contaminants. The most common particulate contaminants include dusts, fumes, mists, aerosols, and fibers
- **Biological Hazards** These include bacteria, viruses, fungi, and other living organisms that can cause acute and chronic infections by entering the body either directly or through breaks in the skin. 5 Occupations that deal with plants or animals or their products or with food and food processing may expose workers to biological hazards. Laboratory and medical personnel also can be exposed to biological hazards
- **Physical Hazards** These include excessive levels of ionizing and nonionizing electromagnetic radiation, noise, vibration, illumination, and temperature.
- **Ergonomic Hazards** The science of ergonomics studies and evaluates a full range of tasks including, but not limited to, lifting, holding, pushing, walking, and reaching. Many ergonomic problems result from technological changes such as increased assembly line speeds, adding specialized tasks, and increased repetition; some problems arise from poorly designed job tasks.