NATIONAL REFINERY LIMITED

HSE NEWS LETTER **July— 2017**

HSE Newsletter Contents:

Permit to Work System at NRL Korangi & K.T

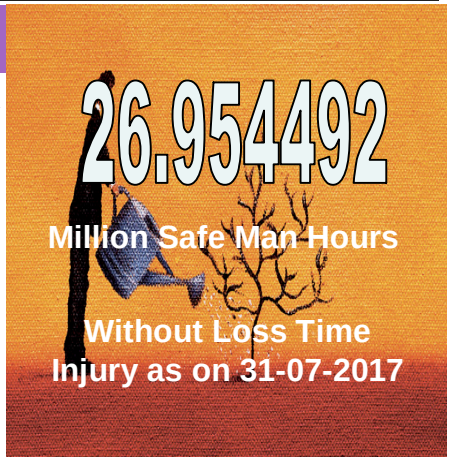
Permit is regarded as a written agreement between the person authorizing the work and the person receiving the permit to work. During working days in the morning several naked flame hot work permits were audited before issuance of various jobs at different locations inside Refinery by Sr. Engineer, Engineer and HSE / Fire Protection Officers along with respective area custodians. Following Permit to Work (PTW) were issued in the Month of **July 2017** at Korangi & K.T.

KORANGI REFINERY	
PERMITS	**TOTAL QUANTITY (NOs.)**
Hot Work Permit	372
Confined Space Entry Permit	05
Excavation / Civil Work	01
Radiography Permit	—
Crane Operation	09
Cold Work Permit	—
Scaffolding Permit	01

KEAMARI TERMINAL	
PERMITS	**TOTAL QUANTITY (NOs.)**
Hot Work Permit	01
Confined Space Entry Permit	—
Excavation / Civil Work	04
Radiography Permit	—
Crane Operation	—
Cold Work Permit	—
Scaffolding Permit	—

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 Al Mighty Allah and joint efforts by all of us, we have achieved **26.954492** millions safe man-hours with out Lost Time Injury as on **July 31st, 2017**. Let us all give top priority towards safety, as there is no job, which cannot be done in a safer way.



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

Manager HSE
National Refinery Limited (NRL), 7-B, Korangi Industrial Zone, Karachi-74900, Pakistan.
Email: mgrhse@nrlpak.com

Fire Drill at NRL Korangi & KT

Live Fire / Dry drill is carried out every Thursday at 1000 hrs. sharp at NRL Korangi Refinery & Dry Drill is carried out every Wednesday at 1530 hrs. sharp at NRL Keamari Terminal. This drill helps in checking the fitness of fire fighting equipment & imparting training to Auxiliary Staffs as describe in Procedure to gain experience for combating / catering of live fire fighting. HSE department observes the response time during fire drill. Following are the status of Drills practices which were carried out in the month of **July 2017.**

S. No	Date	Team Leader	Nos. of Participant Attended	Nos. of Absentees	Type of Drill	Response Time (min: sec)
Korangi Refinery						
01.	06-07-2017	Mr. Khan Mohammad	14	—-	Dry	——
02.	13-07-2017	Mr. Furqan Ahmed	12	01	Dry	——
03.	20-07-2017	Mr. Khalid Huussain	13	—-	Dry	——
04.	27-07-2017	Mr. Khalid Huussain	12	01	Dry	——
Keamari Terminal (K.T)						
01.	05-07-2017	Mr. Shafiq Ansari	07	——	Dry	——
02.	12-07-2017	Mr. Muhammad Abid	07	——	Dry	——
03.	19-07-2017	Mr. Shafiq Ansari	07	——	Dry	——
04.	26-07-2017	Mr. Shafiq Ansari	07	——	Dry	——

Hose Handling Drill Korangi

Hose handling drill is carried out every Tuesday at 1000 hrs. sharp at Fire station NRL Korangi Refinery. This drill helps in handling of fire fighting equipment to Auxiliary Staffs from Productions, Security, Quality Control and Oil movement departments to handle / cater emergency situation. Following are the status of Hose Handling Drills practices which were carried out in the month of **July 2017.**

S. No	Date	Team Leader	Nos. of Participant Attended	Nos. of Absentees
01.	04-07-2017	Mr. Shahid Rashid (Mgr. F.P)	13	—-
02.	11-07-2017	Mr. Mohammad Riaz	09	04
03.	18-07-2017	Mr. Ali Muhammad	12	01
04	25-07-2017	Mr. Shahid Rashid (Mgr. F.P)	10	03

Illumination Monitoring Report Korangi

HSE department monitor the Illumination intensity at various Rooms, corridor & Control rooms which include Admin Block, Operation Block, all three Refineries, Canteen, Fire station, Security, Shipping office, Oil movement office, Quality Control, Workshop Hall, Ware house office and Dispensary office for the month of **July 2017** on **26th July 2017**. The results was reported to all stake holders.

INCIDENT / ILL HEALTH AND LOSS TIME INJURY

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.
Incident	An incident is an unplanned, undesired event that adversely affects completion of a task.
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).

MONTHWISE STATUS OF INCIDENT & LOSS TIME INJURIES

Sr. No.	MONTH	INCIDENTS	LOSS TIME INJURIES
01.	January 2017	00	Nil
02.	February 2017	00	Nil
03.	March 2017	01	Nil
04.	April 2017	00	Nil
05.	May 2017	01	Nil
06.	June 2017	00	Nil
07.	July 2017	04	Nil
Total		**06**	**Nil**

Noise Survey Report Korangi

HSE department recorded the noise level reading at various location i.e., Lube-I, Lube-II, Fuel Refinery, Utilities, Oil Movement, R.O, Power Generation, Workshop, Warehouse, Quality control, Fire Protection, Shipping and Security department for the month of **July 2017** on **26th July 2017**. Boiler # 7 was not in operation. The results of noise level reading was reported to all stakeholders.

H_2S & VOCs Monitoring Korangi

HSE department monitors the Hydrogen Sulphide (H_2S) & Volatile Organic Compounds (VOCs) which are being toxic in nature to the human beings and pollution to the environment. The results of H_2S & VOCs recorded at more than **75 different locations in Refinery** for the month of **July 2017** on **26th July 2017**. Boiler VII was not in operation. The results was reported to all stake holders.

Safety Article : Hydrogen Sulphide (Cont. from June)

1. Hazardous Properties of H_2S:

Hydrogen sulfide is heavier than air and may travel along the ground. It collects in low-lying and enclosed, poorly-ventilated areas such as basements, manholes, sewer lines, underground telephone vaults and manure pits.

For work within confined spaces, use appropriate procedures for identifying hazards, monitoring and entering confined spaces.

The primary route of exposure is inhalation and the gas is rapidly absorbed by the lungs. Absorption through the skin is minimal. People can smell the “rotten egg” odor of hydrogen sulfide at low concentrations in air. However, with continuous low-level exposure, or at high concentrations, a person loses his/her ability to smell the gas even though it is still present (olfactory fatigue). This can happen very rapidly and at high concentrations, the ability to smell the gas can be lost instantaneously. Therefore, DO NOT rely on your sense of smell to indicate the continuing presence of hydrogen sulfide or to warn of hazardous concentrations.

In addition, hydrogen sulfide is a highly flammable gas and gas/air mixtures can be explosive. It may travel to sources of ignition and flash back. If ignited, the gas burns to produce toxic vapors and gases, such as sulfur dioxide.

Contact with liquid hydrogen sulfide causes frostbite. If clothing becomes wet with the liquid, avoid ignition sources, remove the clothing and isolate it in a safe area to allow the liquid to evaporate.

Toxic limit values (selection)

It is important to know the current national or international limits of H_2S in occupational circumstances. H_2S can be identified in each language and country by the international Chemical Abstract Service Registry Number (CAS). It is called 7783-06-4.

Authority	Description	TWA	STEL	IDLH
NIOSH	REL	10 ppm TWA	15 ppm STEL	100 ppm
OSHA	PEL	20 ppm Ceiling	50 ppm for 10 min	
ACGIH	TLV	1 ppm TWA	5 ppm STEL	
UK	WEL	5 ppm TWA	10 ppm STEL	
Canada	OEL	10 ppm TWA	15 ppm Ceiling	
Australia	OEL	10 ppm TWA	15 ppm STEL	
Germany	AGW	5 ppm		
South Africa		10 ppm TWA	15 ppm STEL	
Brazil	OEL	8 ppm (max 48hrs/wk)		100 ppm (IPVS)
International	AGW	5 ppm		

NIOSH: The National Institute for Occupational Safety and Health (USA)
REL: Recommended Exposure Limit
IDLH: Immediately Dangerous to Life and Health
OEL: Occupational Exposure Limit

OSHA: Occupational Safety and Health Administration (USA)
STEL: Short-Term Exposure Limit
TLV: Threshold Limit Value
AGW: Arbeitsplatzgrenzwert

ACGIH: American Conference of Governmental Industrial Hygienists (USA)
TWA: Time-Weighted Average
WEL: Workplace Exposure Limit
PEL: Permissible Exposure Limit