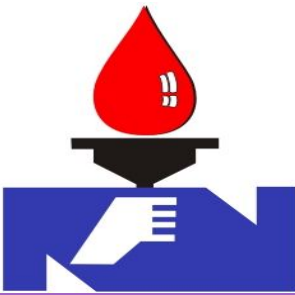


# NATIONAL REFINERY LIMITED



## HSE NEWS LETTER

October — 2017

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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. 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 were issued in the Month of **October 2017** at Korangi & K.T.

KORANGI REFINERY		KEAMARI TERMINAL	
PERMITS	TOTAL QUANTITY (NOs.)	PERMITS	TOTAL QUANTITY (NOs.)
Hot Work Permit	452	Hot Work Permit	21
Confined Space Entry Permit	08	Confined Space Entry Permit	—
Excavation / Civil Work	19	Excavation / Civil Work	13
Radiography Permit	—	Radiography Permit	—
Crane Operation	19	Crane Operation	—
Cold Work Permit	—	Cold Work Permit	—
Scaffolding Permit	01	Scaffolding Permit	—

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](mailto:mgrhse@nrlpak.com)

## 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 **27.614192** millions safe man-hours with out Lost Time Injury as on **October 31<sup>st</sup>, 2017**. Let us all give top priority towards safety, as there is no job, which cannot be done in a safer way.



## 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 **October 2017**.

S. No	Date	Team Leader	Nos. of Participant Attended	Nos. of Absentees	Type of Drill	Response Time (min: sec)
<b>Korangi Refinery</b>						
01.	05-10-2017	Mr. Bilal Muhammad Khan	13	—	Live	03 min 45 sec
02.	12-10-2017	Mr. Saeed-ur-Rehman	09	04	Dry	—
03.	19-10-2017	Mr. Furqan Ahmed	13	—	Live	03 min 50 sec
04.	26-10-2017	Mr. Khan Muhammad	11	02	Live	03 min
<b>Keamari Terminal (K.T)</b>						
01.	04-10-2017	Mr. Asif Bhatti	07	—	Dry	—
02.	11-10-2017	Mr. Asif Bhatti	07	—	Dry	—
03.	18-10-2017	Mr. Muhammad Abid	07	—	Dry	—
04.	25-10-2017	Mr. Muhammad Abid	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 **October 2017**.

S. No	Date	Team Leader	Nos. of Participant Attended	Nos. of Absentees
01.	03-10-2017	Mr. Azam Baig	12	01
02.	10-10-2017	Mr. Khan Muhammad	11	02
03.	17-10-2017	Mr. Furqan Ahmed	10	03
04.	24-10-2017	Mr. Shafique Babar	12	01
05.	31-10-2017	Mr. Shahid Mehmood	13	—

## 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 **October 2017** on **13<sup>th</sup> October 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
08.	August 2017	00	Nil
09.	September 2017	00	Nil
10.	October 2017	00	Nil
<b>Total</b>		<b>06</b>	<b>Nil</b>

## 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 **October 2017** on **13<sup>th</sup> October 2017**. Boiler # 7 was not in operation. The results of noise level reading was reported to all stakeholders.

## H<sub>2</sub>S & VOCs Monitoring Korangi

HSE department monitors the Hydrogen Sulphide (H<sub>2</sub>S) & Volatile Organic Compounds (VOCs) which are being toxic in nature to the human beings and pollution to the environment. The results of H<sub>2</sub>S & VOCs recorded at more than **75 different locations in Refinery** for the month of **October 2017** on **13<sup>th</sup> October 2017**. Boiler VII was not in operation. The results was reported to all stake holders.

## Safety Article : Safety Guidelines for Liquefied Petroleum Gas

**Liquefied Petroleum Gas:** includes commercial butane, commercial propane and mixtures thereof being small chain paraffin hydrocarbons readily stored and handled as liquids at ambient temperatures and at moderate pressures. It can be stored as a liquid under refrigerated conditions at sub-atmospheric pressure or partially refrigerated to reduce the vapor pressure.

### General Safety Guidelines:

1. It is colorless as liquid/ vapors, however, when its liquid evaporates, the cooling effect causes condensation and almost freezing of water vapors in air, thus escape of LPG becomes detectable at the escape point / in near vicinity.
2. LPG vapors are only slightly toxic, with anesthetic effect if inhaled in high concentration.
3. The most important rule is to maintain the area, whether it a process unit, storage area, loading rack or a filling station, should be free from any leaks. Leaks must be dealt with immediately.
4. Venting to the atmosphere may be permitted under the following conditions:
  - 2.1 Quantity to be vented is appreciably small; for example purging of a line before collecting a sample.
  - 2.2 There should not be any sources of ignition around the handling area.
  - 2.3 Vent Jet should not impinge any object, equipment or pipeline.
  - 2.4 Adequate wind velocity is available to quickly dissipate the vapors. Under still air conditions LPG venting is not permitted. If this has to be done then provision must be made to dissipate the vapors with the help of a jet of steam / other safe inert media.
  - 2.5 Orifice or opening from which LPG is being vented should be absolutely minimum; ¼ sq inches for vapors and 1/8 sq. inches for liquids.
3. Venting of liquid LPG is more dangerous due to the formation of “**explosive cloud**” which could travel a long distance “undisturbed” to a source of ignition. Thus it should be avoided as far as possible.
4. Electrical continuity and earthing is very important in LPG handling equipment pipe lines etc. Operator should have a continuous lookout for any loose connections, static dissipation shunt must be provided at all points of flanges. Loose connections must be repaired at once.
5. Draining of water or aqueous spent caustic solutions from Reflux drums or two-phase separation system in the service of LPG must be done with utmost care. There have been a lot of disasters in refineries attributed to draining of two-phase separation system.
6. Any Propane or LPG tank must not be filled beyond certain capacity of the container, depending upon the percentages of butane and propane. As a rule the maximum quantity of LPG, which should be filled into any tank, should be such that the tank will not become liquid full due to expansion of the contents with rise of temperature to the higher temperature, which the contents will reach in service.
7. Any make-shift connection on piping in LPG/propane, flammable gas service is not allowed.
8. Non metallic flexible tubing in process area, for example tubing from orifice plate to recorder is not allowed. Such tubing should preferably be made of appropriate stainless steel. Copper tubing should be avoided due to its low melting point