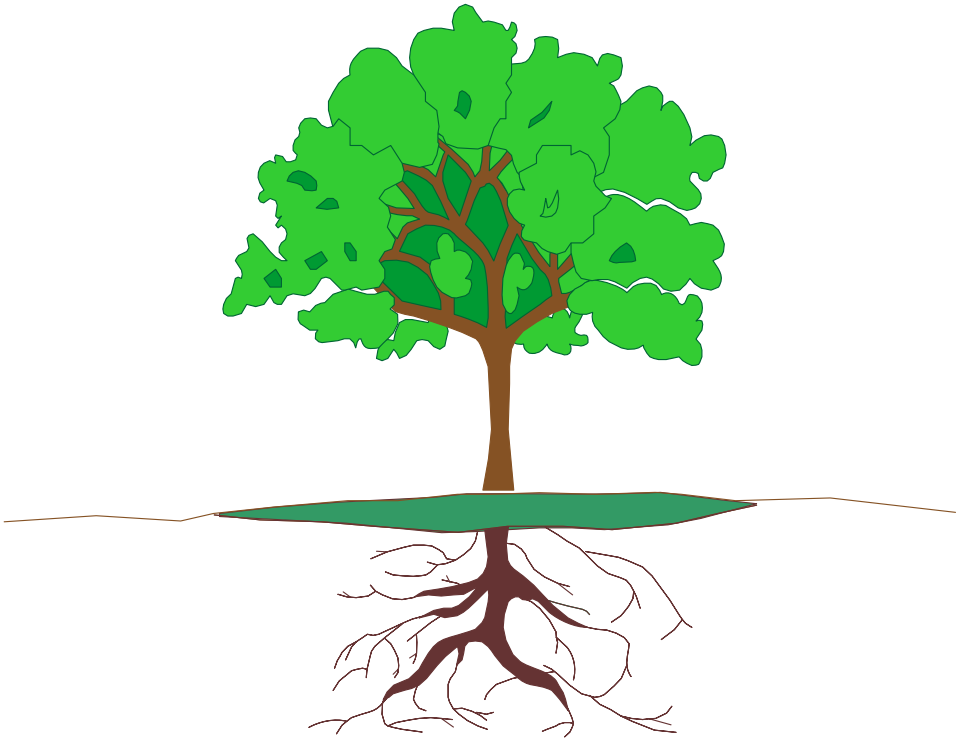
ENVIRONMENTAL REPORT
2005



PAKISTAN REFINERY LIMITED

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Scope of the Report

The scope of this report is to provide information about the environmental impacts and operational performance of Pakistan Refinery Limited in the year 2005, to all stakeholders for assessing their relationship with PRL. This standalone environmental report is written by using ACCA-WWF environmental reporting guidelines, which is the extract of GRI. Some of economic and social data is also presented in the report; however separate financial report on quarterly, bi-annual and annual basis is published while no social report is written.

Executive Summary

- This report provides complete view of Pakistan Refinery Limited operations and direct/indirect environmental impact of the processes along with supply chain activities in order to develop operational controls and long-term objectives.

- Under sustainable development program long term strategic objectives are developed through business strategy workshops such as saving of natural resources through energy conservation, oil losses reduction, zero-effluent and reduction in pollutants load in order to leave a soft foot print for the coming generations.

- Key Point Indicators (KPIs') on green house/acid rain gases, ozone depleting substances, organic pollutants and resources utilization are established. Their trends over the years, bench marking along with absolute, normalized values for the current year are shown.

- Top Management commitment to the protection of environment and minimize the damage to the health and safety of its employees, contractors and the communities resulted into implementation of the integrated HSEQ Management System and certification against the requirement of ISO-14001:2004, OHSAS-18001:1999 and ISO-9001:2000.

- Crisis Management Plan based on the fundamental principles of minimizing environmental impacts, protecting the reputation of refinery and minimizing damage to the property is in place and practiced regularly in order to test and modify fit for the purpose response.

- Violations of the legal requirements and others to which the organization has subscribed are dealt seriously and the corrective actions are taken after thorough investigation. Records of the non-compliance, quarterly walk through inspections and customers complaints with corrective actions are shown. The issues related to disposal of oily sludge, solid hazardous waste and oil spills are also raised.

- Corporate Social Responsibility (CSR) is given due importance as being one of the pillars of the business strategy.

- Contractors and Suppliers are evaluated to ensure their ability to supply materials and services in accordance with PRL's requirements. The issues related to the contractors and suppliers are also highlighted.

Message from Managing Director & Chief Executive

Managing Director delivering message during bi-annual communication meeting

It gives me great pleasure that like all other refineries around the globe, PRL has also performed exceptionally well during the financial year ending June 30, 2005. This performance is attributed to favorable international prices, tariff protection formula and operational efficiency.

Main objectives and Recent Achievements

Main challenge, facing the refinery is to remain profitable on a sustainable basis and meet future stringent products quality standards. At the same time we need to meet our commitment to environment protection.

In pursuance, Pakistan Refinery Limited signed an agreement with United Stated Trade and Development Agency (USTDA) during 2nd quarter of 2005 for US $ 400,000 grant. This amount would partially fund a study on technical, economic and financial viability of refinery up-gradation. The up-gradation will increase the production of middle distillate and improving the quality of products especially with respect to Sulfur. In addition studies are also underway to enhance LPG quality.

Our main emphasis has been to achieve the operational excellence in following areas:-

HSEQ

We have introduced integrated Health, Safety, Environment and Quality Management System conforming to ISO 9001:2000, ISO 14001:2004 and OHSAS 18001:1999 standards. The audit conducted by BVQI in September 2005 did not find any major or minor non-conformity and the auditors were quite impressed with the “walking the talk” culture and HSEQ understanding of our employees. Our effluents and emissions remained within NEQS throughout the year.

PRL has been awarded ACCA-WWF Best Environmental Reporting Award-2004 in locally listed companies.

Assets Reliability

Although an old refinery yet we are targeting for a Turn Around Cycle length of four years on sustainable basis and in this connection have also introduced Reliability Centered maintenance (RCM) in addition to other tools.

Efficiency

Objectives and Targets on energy conservation and oil loss control are being followed religiously to attain pace setter level of performance in the international industry. It is worthwhile mentioning that after installing DCS, we are currently in the final phase of testing Advance Process Control on our Crude Unit.

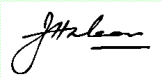
You would appreciate that this achievement would not be possible without totally committed and highly productive human capital of our refinery. However, Management is striving to further strengthening the HR Management System. For this year we are targeting areas like job analysis and evaluation and structured performance evaluation. Certain weak areas identified as a result of climate survey like increasing synergies, gap in employees behavior with respect to general business principles particularly flexibility, politeness and respect are being addressed.

The company has continued its commitment of fulfilling its Corporate Social Responsibility locally and internationally. An amount of rupees one million for Tsunami Disaster and rupees ten million along with two days salary of all employees for Earthquake victims of our country was contributed in Presidents Relief Fund, while rupees ten million were allocated for the construction of Shahra-e-Ghalib to the City District Government, Karachi. We also contribute to local projects in health and education sector and towards the betterment of society.

I would like to assure that the company is fully aware of the challenges ahead in the refining business and has the ability to cope with them by continuous improvement in the areas of health, safety, environment and quality, operational efficiency and customers' service.

Needless to say that we need to continuously strive hard to further improve our standards.

Sincerely,



Z. Haleem
Managing Director & Chief Executive Officer

Management Team

Zafar Haleem
Managing Director & Chief Executive Officer

Mohammad Afzal
GM-Projects, Construction & Materials

Akram Peracha
GM-Operations

Saleem Butt
Company Secretary & Chief Financial Officer

Qazi Shehryar
GM-Engineering

Aftab Husain
GM-Commercial & Supply

K. M. Nauman
GM-Human Resources & Admin

Mr. Muhammad Naman Shah – Business Strategy and HSE Manager is overall responsible for establishing, implementing, maintaining and improving HSEQ Management System, which includes all the environmental issues of its raw materials, processes, activities, products and services. Mr. Shah who is incharge of this report, can be contacted on the following address: -

E-mail address: naman.shah@prl.com.pk
Postal address: Pakistan Refinery Limited,
P.O. Box 4612,
Karachi-74900,
Pakistan.

The report is available at URL: http://www.prl.com.pk

Corporate Governance

Review of the Best Practices of Code of Corporate Governance

We have reviewed the Statement of Compliance with the best practices contained in the Code of Corporate Governance prepared by the Board of Directors of Pakistan Refinery Limited to comply with the Listing Regulation No. 37 of the Pakistan Stock Exchange and Chapter XIII of Lahore Stock Exchange where the company is listed.

The responsibility for compliance with the Code of Corporate Governance is that of the Board of Directors of the Company. Our responsibility is to review, to the extent where such compliance can be objectively verified, whether the Statement of Compliance reflects the status of the Company's competence with the provision of the Code of Corporate Governance and report it if it does not. A review is limited primarily to inquiries of the company personnel and review of various documents prepared by Company to comply with the Code.

As part of our audit of financial statements, we are required to obtain an understanding of the accounting and internal control systems sufficient to plan the audit and develop an effective audit approach. We have not carried out any special review of the internal control system to enable us to express an opinion as to whether the Board's statement on internal control covers all controls and the effectiveness of such internal controls.

VISION

To be the Refinery of first choice for all stakeholders.

MISSION

PRL is committed to remaining a leader in the oil refining business of Pakistan by providing value added products that are environmentally friendly, and by protecting the interest of all stakeholders in a competitive market through sustainable development and quality human resources.

Based on our review, nothing has come to our attention, which causes us to believe that the Statement of Compliance does not appropriately reflect the Company's compliance, in all material respects, with the best practices contained in the Code of Corporate Governance as applicable to the Company for the year ended June 30, 2005.

A. F .Ferguson & Co.
Chartered Accountants
Karachi: August 25, 2005

Company Profile

Pakistan Refinery Limited (PRL) was built and commissioned in October 1962 at Karachi in alliance with major foreign oil companies like Burmah Oil California, Texas Oil Corporation, Shell Petroleum Corporation and Esso Standard Eastern Inc. The current shareholders are Shell (30%), Pakistan State Oil Company Ltd (18%), Chevron Texas (12%) and remaining with the financial institutions and general public. PRL has the crude processing capacity of 50,000 barrels per operating day.

PRL is a hydro-skimming refinery. The process configuration constitutes of desalting, crude distillation, hydrodesulphurization, platforming and LPG units. Though, designed to process Iranian Light, it has acquired the ability to process a variety of imported and indigenous crude oils to produce energy products namely-LPG, MS Unleaded 90 RON, Naphtha, Kerosene, HSD, JP-1, JP-4, MTT and Furnace Oil.

PRL since its inception has been the principle manufacturer and supplier of petroleum products to the domestic market and Pakistan defense forces. It continues to serve the energy needs of the country with professional excellence and high degree of commitment. PRL takes pride in the competitive edge over other competitors in respect of efficiency, lower operating cost, high quality human resources, reliability and introduction of newer generation technologies.

PRL has demonstrated its excellence as a first rate corporate citizen by serving community and demonstrating total commitment to the cause of Health, Safety and Environment. PRL is proud to be the leader in integrated HSE Management System, being the first in Pakistan oil industry to achieve OHSAS 18001:1999 and ISO 14001:1996 certification in November 2002.

No. of sites = 2 (Refinery and Oil Storage Terminal at Keamari)

No. of Employees = 290

Annual Turnover = Rs.44.44 billion (July 04 - June 05)

Employment Information

DEPARTMENT	Own Staff	Contractual Staff
Management Team	07	00
HSE & Training	04	00
Operations	94	03
Commercial & Supply	51	23
Engineering	71	50
Projects & Construction	22	01
Finance	15	00
Human Resources and Administration	21	70
MD Secretary + Internal Audit	05	00
Total	**290**	**147**

Documented policies on the following are clear and being implemented: -

- Recruitment and Selection
- Training and Development
- Morale and Motivation
- Performance Appraisal

Major Products and Usage

PRODUCT	Product by wt%	Total Tonnage per Day
LPG	1.2	70
MTT	0.13	10
MS	6.66	400
NAPHTHA	6.63	400
KERO	1.16	70
JP-1	8.69	520
JP-4	3.48	210
HSD	28.42	1700
F.OIL	41.37	2500

All the products are sold to Shell, PSO and Chevron Texas through pipelines for retail distribution.

LPG
Generally known as Liquefied Petroleum Gas. It is used for cooking and heating purposes.

MTT
Mineral Turpentine Oil generally known as paint thinner and produced on the demand from oil marketing companies.

MS
Motor Spirit generally known as Super petrol having Octane number 90 and is used in Cars and Motor Cycles.

Naphtha
Low octane number hydrocarbon used as platformer feed where its octane no is increased from 35 to 95 or more for the production of HOBC and MS.

Kerosene
Used for lighting and heating purposes in northern areas.

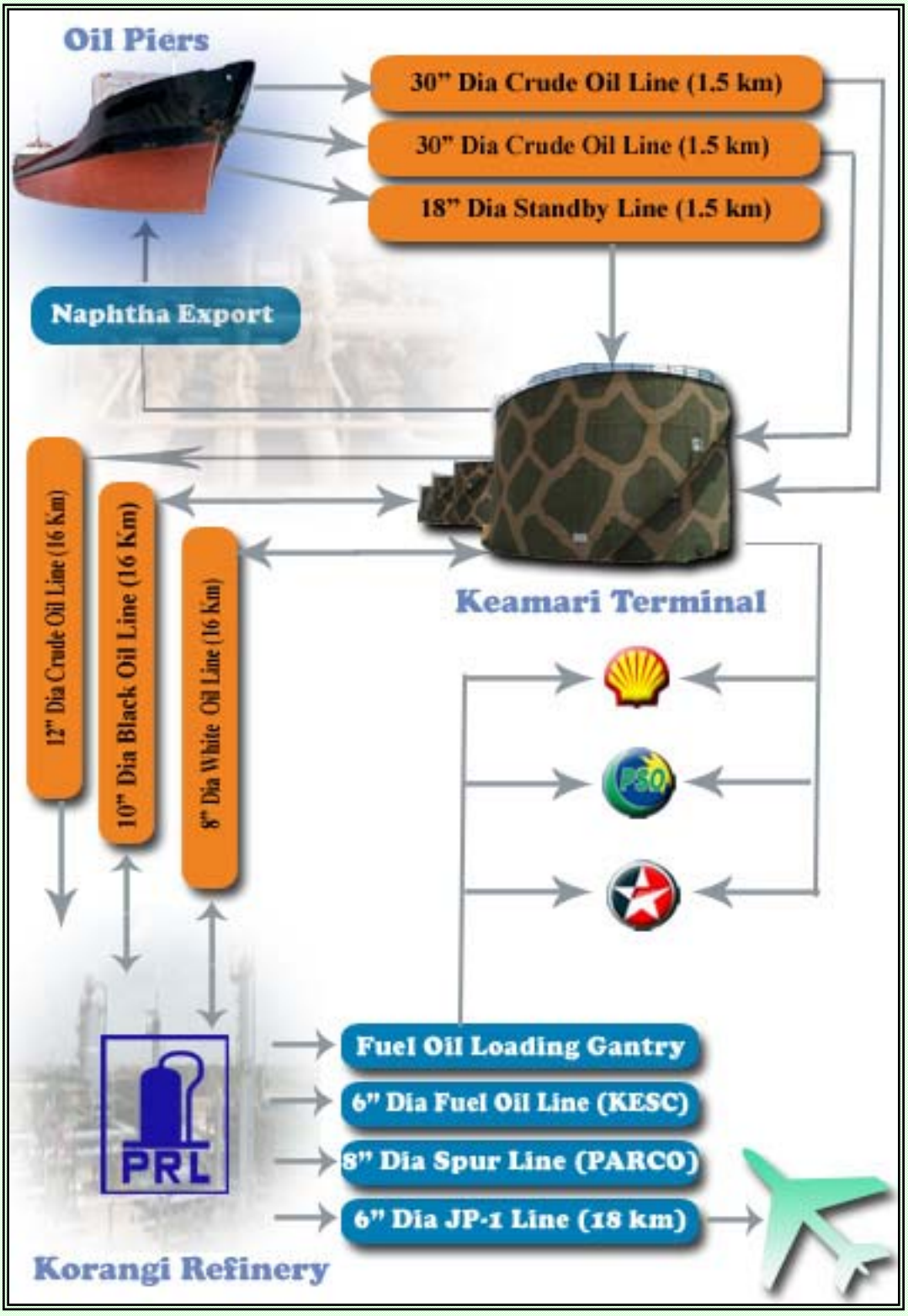
JP-1
This fuel is used in commercial planes. It is light kerosene with additives to suit the upper cold environment.

JP-4
This fuel is used in military planes. It is a mixture of Naphtha, Kero and gasoline.

HSD
High Speed Diesel used to drive buses, trucks, cars and generators etc.

Fuel Oil
Furnace Oil mainly used in thermal power stations for the production of electricity.

Overall Operation Network



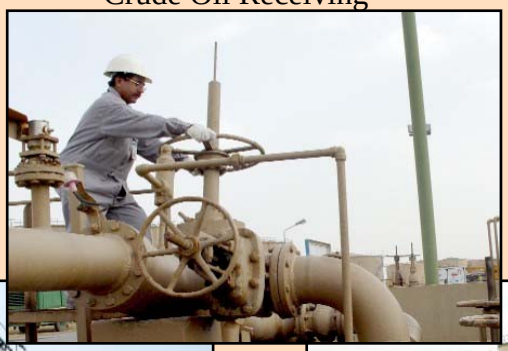
Receiving, Storage and Processing of Crude Oil

PNS - Johar loaded with 65,000 tons of cargo for PRL

More than 90 % of the crude oil is imported from Middle East region by ships. After the incident of Tasman Spirit, in order to avoid marine spills PRL has hired an international company who confirms that the hired ship is fit for sail. Although all the ships are certified against international standards but no one knows if something happens in-between the valid period.

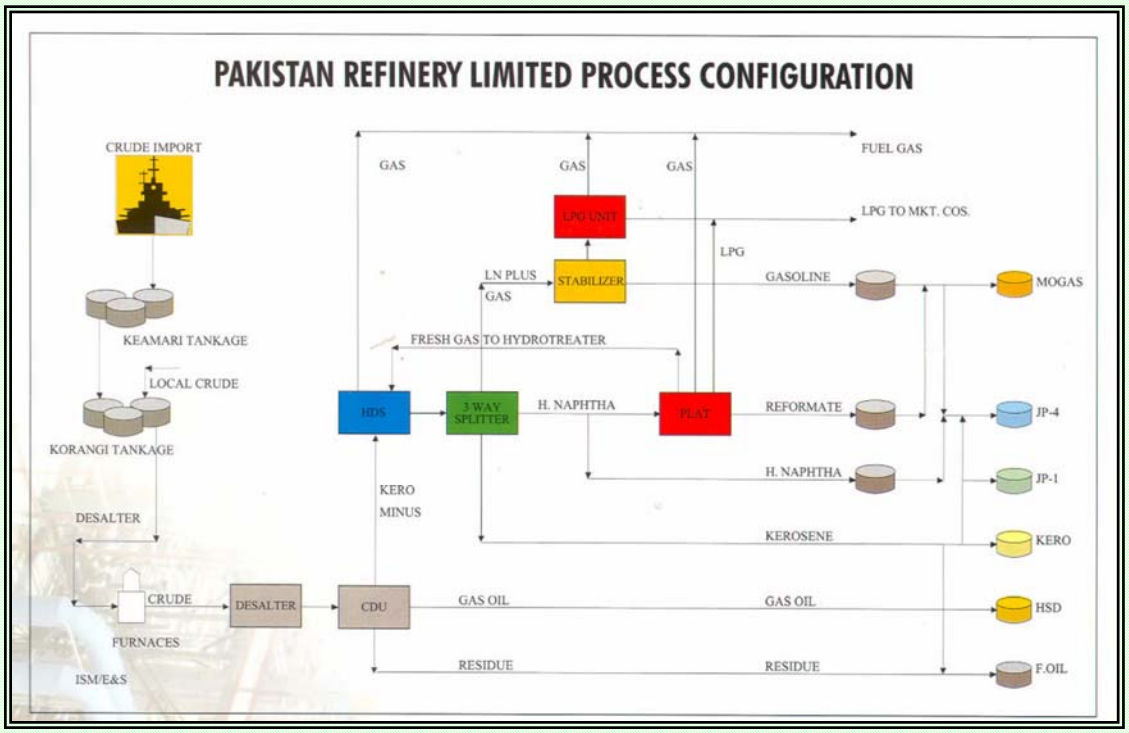
Crude oil is transported from Keamari Terminal using 12 inches diameter pipeline that is laid over a distance of 16 kilometer reaching out to Korangi Refinery. To ensure the continuity, smooth operations of oil and to minimize the chances of leakage leading to soil and underground water contamination, these lines are protected with state-of-the-art cathodic protection system employing both impressed current and sacrificial anode techniques.

Crude Oil Receiving



X-country pipeline

Product Storage Tanks



Crude Distillation Unit

The crude unit is designed for operating rate of 2,128,500 metric tons of Light Iranian (Agha Jari) crude per year.

The feed stock after heating to 350°C is fed to crude distillation tower where a portion of the crude lighter than 250°C TBP cut point is taken as single crude tower (CDU) overhead product, which is subsequently hydro treated. Gas oil is produced as a side stream from Gas oil Stripper and residue is drawn from the bottom of tower. Stripping Steam is used to strip the lighter components from residue and Gas oil.

Separation of Kerosene, heavy naphtha and light naphtha is carried out in Splitter Tower after desulphurization. The heavy naphtha produced as side stream of tower is upgraded in Platforming unit while its small quantity is used for making JP-4.

Hydrotreating Unit

Hydrotreater unit is used to minimize the sulfur, nitrogen and other oil based containments to make the crude tower overhead products on specification. In hydrotreating the total overhead make of CDU, which has an end point of maximum 250°C is desulfurized by contacting the oil with a stationary catalyst (CoMo based) at high pressure and moderate temperature in the presence of hydrogen rich gas stream. The sulfur present in the oil is eliminated as hydrogen sulfide gas and since a net consumption of hydrogen gas occurs, a continuous makeup stream of hydrogen rich gas is required and taken from Platforming unit. After treating, the oil is fed to Splitter Column, where it is separated into gas, unstable gasoline (light naphtha), heavy naphtha and Kerosene.

Platforming Unit

Heavy naphtha, which is desulfurized in the Hydrotreating unit, is used as feedstock for the Platforming Unit. Platforming Unit is process designed by UOP, U.S.A. The naphtha feed is mixed with a re circulating Hydrogen rich gas to three reformer reactors where selective action of UOP's Bimetallic Catalyst upgrades the low octane feed to high octane reformate used for making gasoline. Hydrogen gas produced in platforming reaction used in hydrotreating unit.

Catalysts are regenerated in situ with the equipment installed.

Gas separator

Desalter

Distillation Tower

Furnaces

Compressors

Other Supporting Units

UNIT	CAPACITY
Steam Generation	Three boilers each having a capacity of 45,000 lbs/hr
Electricity Generation	Two diesel generators with a capacity of 1,700 kilowatts
Water Softening Plant	Soften hard water for boilers
Reverse Osmosis Unit	250,000 gallons/day Brackish water
Effluent Treatment Plant	650 metric tons per day

Absolute HSE Performance at a Glance (2005)

MEASURE ITEM	VALUE	UNITS
Environmental Investment	46.9	Millions PKR
Nitrous Oxide (N_2O)	0.5	Tonnes
Methane (CH_4)	25	Tonnes
Carbon Dioxide (CO_2)	166	Kilo Tonnes
Chloro Flouro Carbon (CFCs)	0.70	Tonnes
Oxides of Sulphur (SO_x)	1206	Tonnes
Oxides of Nitrogen (NO_x)	102	Tonnes
Volatile Organic Compound (VOCs)	357	Tonnes
Refinery – oil discharged to surface water	1.4	Tonnes
Spills > 100 kg	01	Number
Energy Consumed (Electrical)	20.9	Million Units
Energy Consumed (Ref. Fuel + Ref. Gas + Sui Gas)	55.7	Kilo Tonnes
Raw Water Consumed	120	Million Gallons
Refinery Throughput – Crude + feedstock	2155	Kilo Tonnes
Manufacturing loss	12.8	Kilo Tonnes
Hazardous Waste (wet weight)	215.5	Tonnes
Non-Hazardous Waste (wet weight)	5.5	Tonnes
Exposure Hours – Company	0.8	Million hours
Exposure Hours – Contractor	1.2	Million hours
Potential Incidents Reported	40	Number
Lost Time Injury – Company	00	Number
Lost Time Injury – Contractor	00	Number
Total Recordable Cases – Company	00	Number
Total Recordable Cases – Contractor	01	Number
Total Reportable Occupational Illnesses	00	Number

Normalized HSE Performance at a Glance (2005)

MEASURE ITEM	ACTUAL VALUE	TARGET VALUE	UNITS
Nitrous Oxide (N_2O)	0.023×10^{-3}	-----	% wt of throughput
Methane (CH_4)	0.0011	0.0010	% wt of throughput
Carbon Dioxide (CO_2)	0.077	0.141	Tonnes / Ton of throughput
Chloro Flouro Carbon (CFCs)	0.032×10^{-3}	-----	% wt of throughput
Oxides of Sulphur (SO_x)	0.056	0.043	% wt of throughput
Oxides of Nitrogen (NO_x)	0.005	0.014	% wt of throughput
Volatile Organic Compound (VOCs)	0.016	0.018	% wt of throughput
Refinery – oil discharged to surface water	0.647	0.442	Grams / Ton of throughput
Spills > 100 kg	0.08	0.20	Number / Normalized Shift Position
Actual Energy Index (Electrical + Fuel)	158	158	----
Raw Water Consumed	0.33	-----	Million Gallons / Day
Manufacturing loss	0.58	0.58	wt% on throughput
Potential Incident Reporting	0.09	0.25	Potential Incidents/ Number of Employees
Lost Time Injury Frequency – Company + Contractors	00	00	LTI / Million Man-hours
Total Recordable Case Frequency – Company + Contractor	0.49	1.52	TRC / Million Man-hours
Total Reportable Occupational Illnesses Frequency – Company + Contractor	00	00	TROI / Million Man-hours

Recent HSEQ Achievements

Environmental Friendly Products

Mr. Akram Peracha – GM Operations receiving Grant Certificate (for conducting a study to produce environmentally friendly fuels) from US Ambassador to Pakistan Mr. Ryan C. Crocker. Standing to the extreme left is Mr. Saleem Butt – Company Secretary & CFO and to the extreme right is Mr. Aftab Husain – GM Commercial & Supply.

Marine Oil Spill Response Center

Marine Oil Spill Response Center (MOSReC) formed and its first Board of Directors meeting was held on August 16, 2005. PRL is one of the pioneer members of this organization. Tier-I equipments, which were purchased on sharing basis with Shell are placed in MOSReC.

Naphtha Tank with Floating Screen

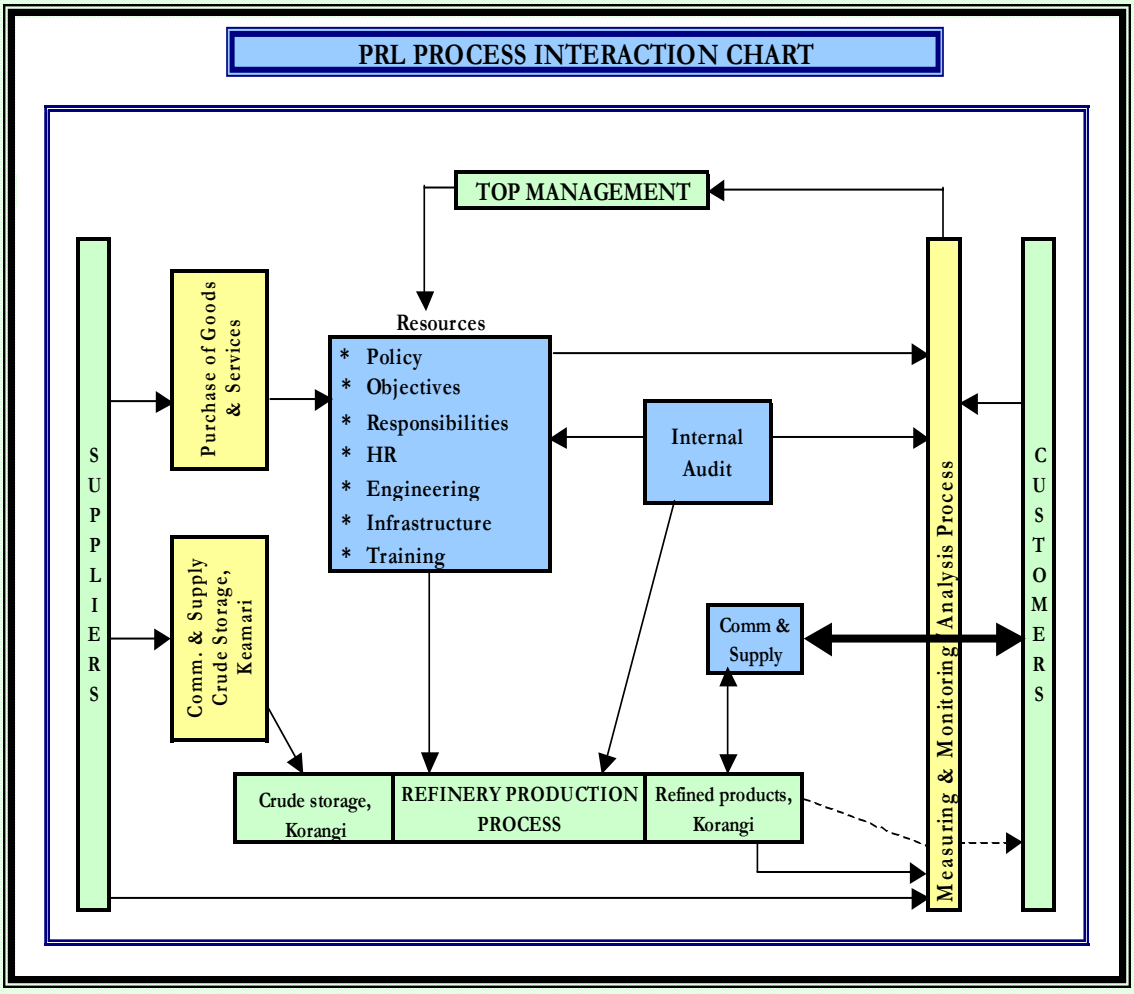
Gas blanketing option is being replaced by floating screen to minimize air pollution at Naphtha tank which is under major repair.

HSEQ Achievements During Current Year

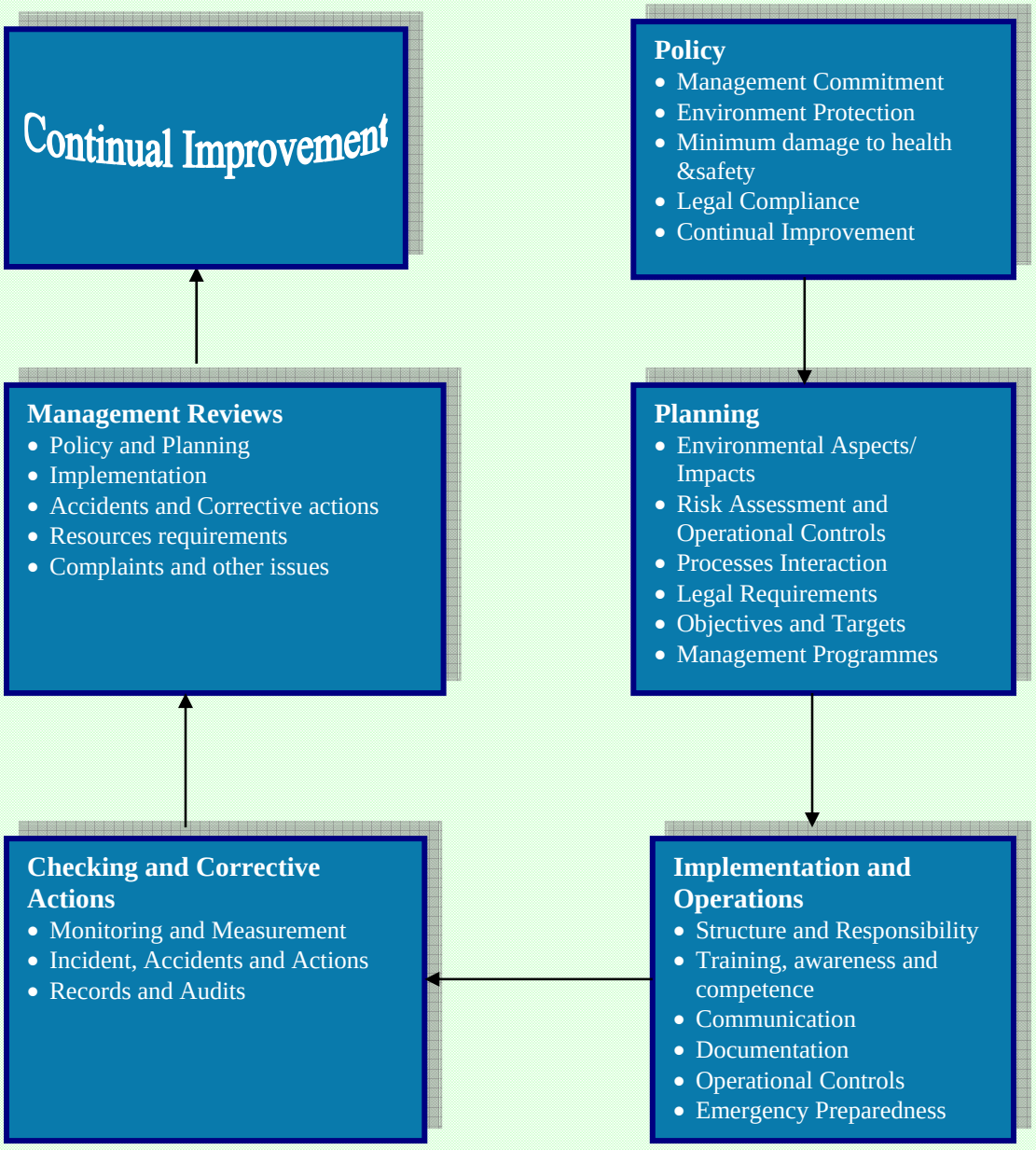
- Re-certification of the company against ISO 14001:2004 (EMS) and OHSAS 18001:1999 along with certification against ISO 9001:2000 (QMS) for three years.
- All the parameters of emissions / effluents remained within National Environmental Quality Standards (NEQS) through out the year.
- Paperless environment policy within the refinery completely implemented.
- Trees (about 500) planted within refinery premises are growing well.
- Air conditioning plant (150 tons) using CFCs is being replaced with new plant containing no CFCs.
- Better operational control resulted into reduction in soil/ underground contamination levels.
- Proposed budgets on all environmental related issues approved and work on them is in progress.

Health, Safety, Environment & Quality Management System

At PRL HSEQ Management System is an integration of ISO 14001:2004, OHSAS 18001:1999 and ISO 9001:2000.The scope of PRL's Health, Safety, Environment and Quality Management System covers refining, storage and distribution of crude oil and petroleum products at Korangi Refinery and Keamari Terminal.



HSEQ Management System Cycle



Pakistan Refinery Limited

HEALTH, SAFETY, ENVIRONMENT & QUALITY POLICY

PRL is committed to the protection of environment and to ensure health and safety of its employees, customers, contractors and communities where it operates and practice quality in all its business activities so as to exceed customer expectations.

PRL is also committed to comply with the applicable laws and requirements and work with the government and other stakeholders in their development and implementation.

PRL shall continually improve the effectiveness of health, safety, environment and quality management system by achieving its commitments through:

HEALTH

- *PRL seeks to conduct its activities in such a way as to avoid harm to the health of its employees and others, and to promote the health of its employees as appropriate.*

SAFETY

- *PRL works on the principle that all hazards can be prevented through effective leadership and actively promoting a high standard of safety.*

ENVIRONMENT

- *PRL prevents pollution through progressive reduction of emissions, effluents and disposal of waste materials that are known to have a negative impact on the environment.*

QUALITY

- *PRL focuses on customer satisfaction by operating efficiently and developing a culture, which promotes innovation, error prevention and teamwork.*

PRL conducts periodic audits and risk assessment of its activities, processes and products for setting and reviewing its objectives and targets to provide assurance to improve HSEQ system and loss control. PRL encourages its contractors working on its behalf or on its premises to also apply health, safety, environment and quality standards.

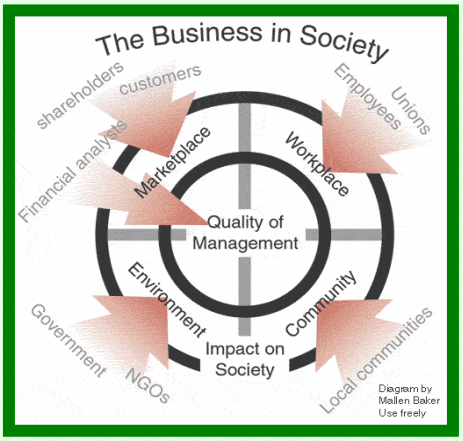
Z. HALEEM
GENERAL MANAGER & CEO
April 21, 2005

HSEQ-01/Rev 03

Corporate Social Responsibility

Business Principles
Environmental Scanning
Internal Scrutiny
Strategic Objectives
Resources Management
Corporate Governance
Customer's satisfaction
ISO 9001:2000 Certification

Diversity
Culture of integrity
Communication
Training and benefits
Educational Reimbursements
Paid holidays/ LFA
Medical Plans
Rewards for ideas
OHSAS 18001 Certification



Climate Changes
Energy & Loss Audits
Waste minimization
Reduction in energy use
Measuring Performance
Auditing Performance
Objectives and Targets
ISO-14001 Certification

Philanthropy
Education
Environment
Economic development
Civic and community
Scholarships
Roads
Dispensaries

HSEQ Requirements for Suppliers & Contractors

PRL has a defined mechanism for identifying requirements for products and services purchased from suppliers / contractors that have significant HSEQ impact. The requirements related to HSEQ of products and services are considered at the time of purchase or awarding of contract through pre-qualification and on-going assessment during use of products and services.

Criteria for Evaluation and Selection of Vendors

Vendors are evaluated to ensure their ability to supply materials and services in accordance with PRL's requirements.

Evaluation of new supplier or pre-qualification of supplier is carried out in accordance with the criteria defined below:

- Product Quality
- Price Competitiveness
- Supplier Reputation
- Warrantee / Guarantee
- Technical Strengths
- Financial Strengths
- Knowledge of HSE requirements

Once the vendor is pre-qualified, the vendor details are entered in the 'List of Approved Vendors'.

Criteria for Supplier / Contractors Performance & Re-Evaluation

Supplier / Contractor on-going performance is measured on the basis of following parameters:

a) Product quality
b) Delivery Reliability
c) Warrantee / Guarantee
d) Technical Strengths
e) HSE Compliance

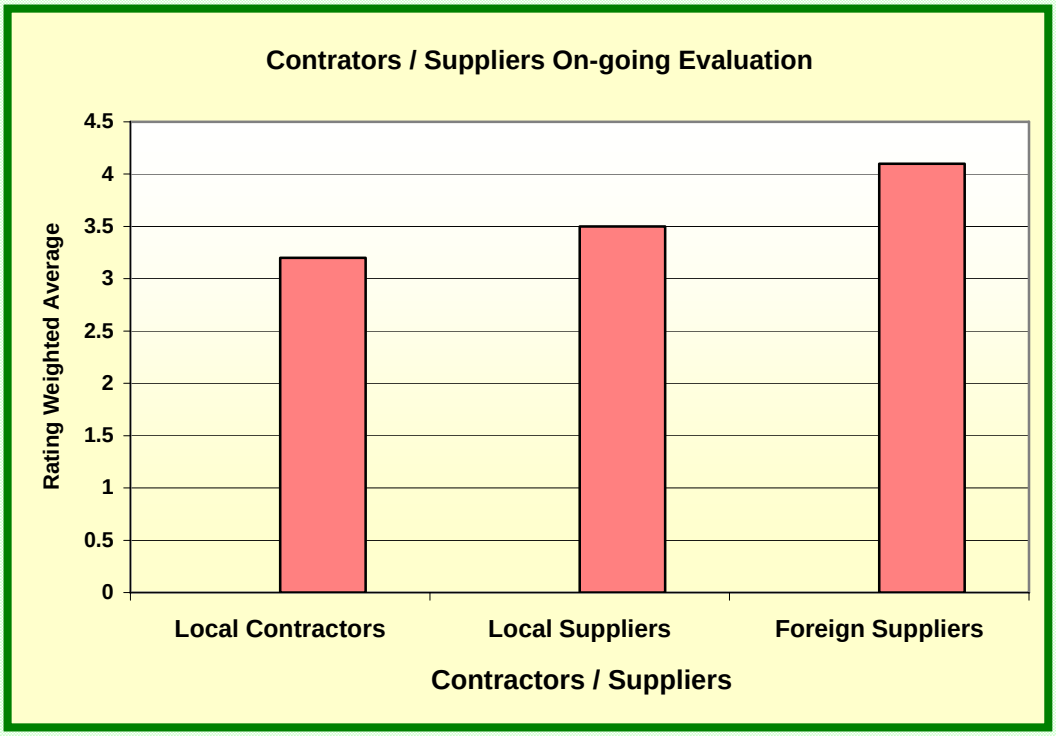
After every three months, based on supplier records and user feedback, concerned departments evaluate supplier performance and record the details on 'Suppliers / Contractors Performance Monitoring and Re-evaluation sheet'. The overall performance is determined by taking weighted average of all the parameters.

The performance rating of suppliers / contractors is evaluated on the following criteria:

Re-qualify	--	if between 3 and 5
Needs re-qualification	--	if equal to 2 and less than 3
Disqualify	--	if less than 2

Those Suppliers / Contractors, which are moved from one level to a lower level are informed through letter / e-mail / fax about their performance rating and (if required) to take corrective actions.

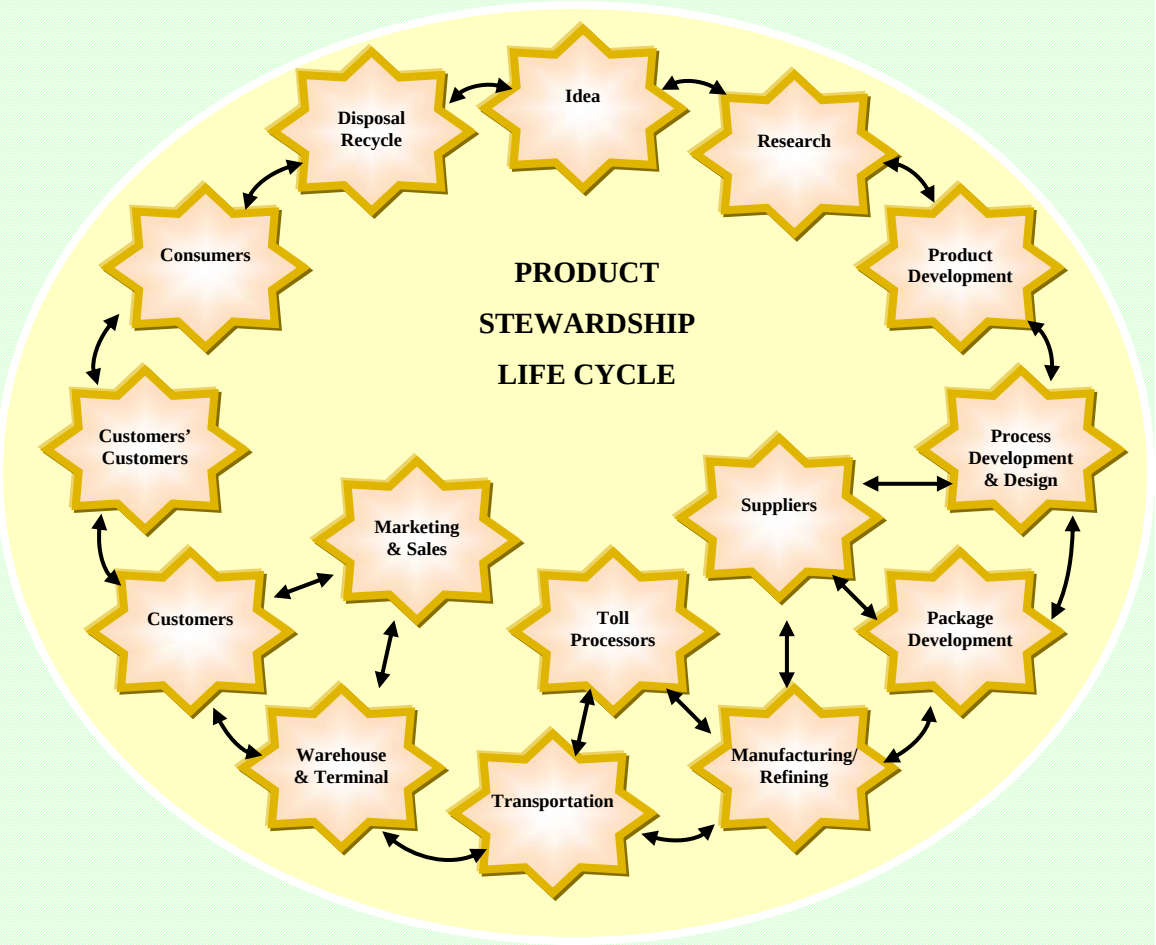
Less than 2 level suppliers / contractors are removed from the list of approved suppliers/contractors. Such suppliers / contractors can be selected again if they provide satisfactory evidence of improvement.



Issues with the Suppliers and Contractors

- Non-availability of standard and well maintained equipments like cranes, slings, shackles, etc.
- Incomplete information of products and services such as MSDS, etc.
- Non-availability of technical labor.
- Lack of awareness on HSE matters.

Product Stewardship



Stewardship of our products is our goal. Process through which our products are produced is certified against the system requirements of ISO 9001:2000, ISO 14001:2004 and OHSAS 18001:1999. We are focusing on the following area:

Product Stewardship Culture
So as to embrace, strengthen and ensure continuing product stewardship, we are committed to merge its values, policies and procedures with our company culture.

Understanding and Managing Potential Product Risks
The process of continuous identification, characterization and evaluation of potential risks associated with our products throughout their life cycle is used to manage as well as continuously improve health, safety, environment and quality system.

Marshalling the Process
In order to maintain product stewardship and our competitive edge in health, safety, environment and quality system, we continuously communicate with our employees, contractors, suppliers, and customers about product stewardship practices.

Waste Disposal Policies

PRL has a documented waste management procedure defining the types of waste along with the responsibilities for collection and disposal. At the outset special emphasis is given on the principle of reduction of waste.

Types of Waste

- **Non-Hazardous Waste (Non-Recyclable and Unusable)**

This includes cotton rags, trash, kitchen waste, hay baskets, carbon powder, etc.

- **Non- Hazardous Waste (Recyclable / Reusable)**

This includes paper, printer and fax toners / cartridges, glass, empty bottles (glass / plastic), empty drums / containers, unserviceable instruments / equipments, cartridge filters (RO Plant), metal pieces, wood waste, packaging material, paper, etc.

- **Hazardous Waste**

It comprises of empty drums of hazardous chemicals, spent catalyst, crude / product sludges, clinical waste, etc.

Waste Segregation

Segregation of non-hazardous waste is done at the collection site by providing different colour coding bins. There are two types of colored bins:

- Yellow colored bins for recyclable / reusable items
- Blue colored bins for non-recyclable / unusable items

Individuals working in their respective departments are responsible for disposing waste in its defined colored bin. Hazardous waste is stored and dealt separately.

Waste Collection and Segregation at Waste Storage Site

The janitorial staff collects the waste from the work place and ensures that the different categories of waste are not mixed during collection. The waste collected is emptied in the designated area/ bins specified for each type of waste at the storage site.

Disposal of Non-Hazardous Waste

- **Non-recyclable / Unusable**

Is disposed to designated land fill site through CDG-Karachi vehicle.

- **Recyclable / Reusable**

It is sold to the recycling contractors.

Disposal of Solid Hazardous Waste

- **Empty hazardous chemical drums**

All empty drums of hazardous chemicals are returned to the supplier.

- **Spent catalyst**

The spent catalyst generated from reactors during annual shutdown is disposed off in US-EPA approved landfill site.

- **Used Oil / Lubricants**

Used lubricants / oils are emptied in the main oily drainage system leading to API Separator, from where it is recovered and reprocessed.

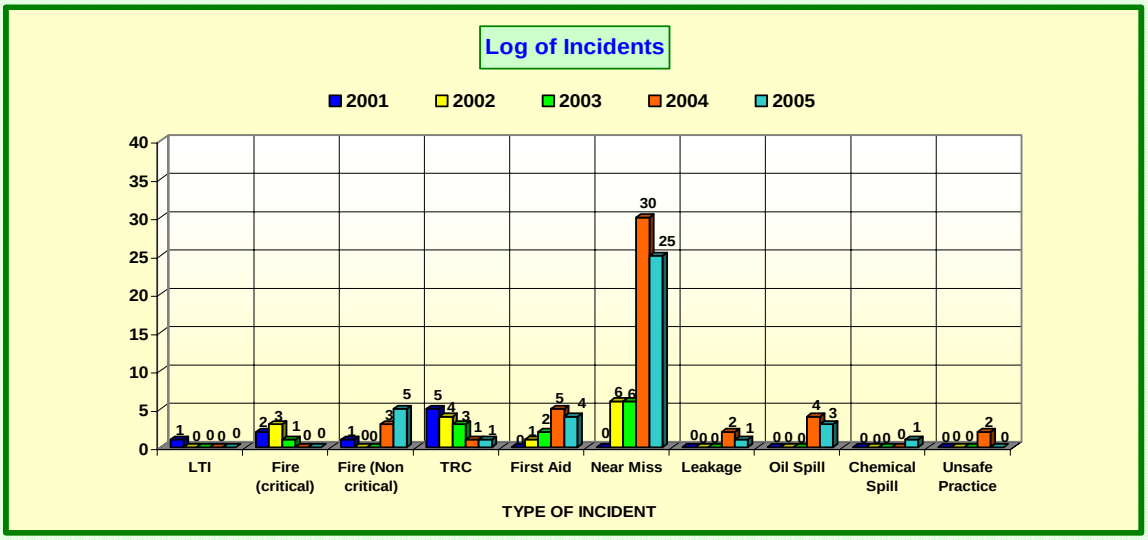
- **Clinical Waste**

Clinical waste generated from the dispensary is incinerated through CDG approved incinerator.

- **Crude / Product Sludges**

Sludges are sold to brick industry where it is used as fuel in kilns. Apart from this, sludges are also biodegraded in special designated landfarming areas.

Log of Incidents / Accidents



Note: Above comparison is based on fiscal year

Brief Description of Incidents (Year 2005)	Date
Leakage from the flange of HSD line at Keamari Terminal due to gasket rupture.	05/01/2005
Level indicator tube of caustic tank detached from its upper connection resulting in spill of caustic on the cardigan, shirt and right hand of trainee engineer. No injury was sustained.	12/01/2005
Valve operating key fell from the platform and hit scaffoldder on his right arm, who was working on ground. Minor bruises sustained.	13/01/2005
Epoxy paint drum inside Tk-54 caught fire due to welding flux, which fell from tanks top roof.	13/01/2005
Wall constructed to protect foam skid pump at Keamari Terminal collapsed and resulted in minor injuries to worker.	31/01/2005
Violation of permit to work system while working on diesel generator	21/02/2005
Fan dimmer (regulator) electronic circuit failure lead to smoldering inside switchboard located in PRL Mosque.	02/03/2005
Violation of permit to work while working on control room air conditioning system.	25/03/2005
Acetylene cylinder attachments threads caught fire due to leakage.	29/03/2005
Fire alarm cable in front of Tank-59 at Keamari Terminal got damaged during excavation work for laying diameter 30” crude transfer line.	20/04/2005
10-15 liters of crude oil leaked from the lower flange of Tank-03 high-level alarm, during filling.	04/05/2005
Activity of transferring filled HCl (acid) cans from truck to acid storage shed was carried out by vendor labor. There was no objective evidence of PPE used.	04/05/2005
Tank farm operator injured his finger due to slipping of wheel key	08/05/2005
Laborer was hit by the pick up while it was being reversed. No injury was sustained.	18/05/2005

Brief Description of Incidents (Year 2005)	Date
Falling of under construction pre-cast concrete spiral type ladder steps at check post near gate number-1.	12/06/2005
Bending of one segment of easy scaffold bottom frame at road no.16.	28/06/2005
Falling of 13 ft x 10 ft mobile tube scaffold structure at road no. 16.	01/07/2005
Boiler DCS room east side safety glass cracked after being struck by a scaffold pipe.	05/07/2005
104-B burner # 02 assembly base plate welded portion detached from furnace bottom floor.	22/07/2005
Electric tea power plug adaptor melted in control room.	01/08/2005
Fire tender hit company van resulting in minor damage to van.	05/08/2005
Collision of hi-lux van with road median and traffic signal post while saving the motorcyclist at Kh-e-Ittehad, DHA.	09/08/2005
X-country fuel oil pipeline of diameter 10” leaked in front of Brohi petrol pump at Shireen Jinnah colony.	11/07/2005
Clamp on diameter 8” white oil line leaked between pile-bridge and suspension bridge.	26/08/2005
Old clamp on diameter 10” fuel oil line leaked at Kh-e-Nishat.	30/09/2005
Smoke observed from the junction box while starting 1104-J pump motor.	12/09/2005
Smoke observed from the junction box while restarting 110-J compressor motor after over load tripping.	12/09/2005
Lab personnel received injury to his hand due to broken sample bottle.	14/09/2005
False bomb threat alarm.	12/10/2005
Electric spark from underground electric pole cable near Tank-43.	18/10/2005
Barrier at main refinery entrance fell down on employee's car due to motor malfunction.	25/10/2005
Electrical section apprentice received injury to finger while working in workshop.	27/10/2005
Leakage from diameter 30" crude tanker discharge line near PHI at Keamari Terminal.	30/10/2005
Leakage from diameter 18” de-ballast line behind Tank-55 yard at Keamari Terminal.	01/11/2005
Leakage from JP-1 line near NRL.	07/11/2005
Leakage from diameter 10" fuel oil line in front of sea view flats.	13/11/2005
Smoldering of laborer clothes in store adjacent to paint store behind workshop area.	17/11/2005

Direct Environment Impact & Explanation

ACTIVITY	ASPECT	IMPACT	OBSERVATIONS
Crude Oil/ Products pumping through pipeline	• Possible spillage • Release of VOCs • Possibility of fire • Maintenance activities	• Contamination of land • Contamination of sea / water • Loss of property / life • Air Pollution • Waste generation	• Marine oil spill response center formed to combat Tier-I and Tier-II oil spills • Preventive maintenance plans in place • Crisis Management Plan/ waste management plan in place
Crude Oil/ Product Storage	• Tank bottom sludge • Air emissions / VOCs • Overflow/ leakage / rupture of tanks • Maintenance activities • Possible fire • Effluent • Odor / Radiography	• Soil contamination • Degradation of air quality • Water contamination • Waste generation • Loss of property • Oil slippage to sea • Health impact	• In house natural biodegradation • Routine maintenance of tanks • Periodic inspections are carried out • Crisis Management Plan in place • Standard Operating Procedures available
De-salting	• Caustic +Amines • Water discharge • Crude test sample • Sulphuric acid • De- emulsifier (DS-950) • Sediments during cleaning • Empty chemical drums	• Contamination of water and soil • Possibility of chemical Spillage • Health & Safety Hazard • Waste Generation	• Effluent water drained to API separator • Acid handling and storage instructions are available • Environmental friendly disposal of waste
Crude Heating	• Air Emissions • Heat generation • Energy use • Furnace oil/ Refinery gases/ Natural gas • Noise • Steam condensate from the traps • Odor & Maintenance	• Air pollution • Depletion of natural resource • Wastage of resource • Waste generation	• Crisis Management Plan available • Furnaces operation procedure available • Steam condensate recovery options should be determined
Distillation	• VOCs from pressure relief valves • Noise • Relief valve operation • Maintenance activities	• Degradation of air quality / air pollution • Waste generation	• Options should be explored to put the outlet of the relief valves in a closed system • Study conducted but not feasible economically
Separation Vessels & Coalescer	• Waste water from the Coalescers • Absorbed H_2S in water • Maintenance activities • Fuel gases	• Contamination of water • Degradation of air quality / air pollution • Waste generation	• Absorbed H_2S in water is releasing to the surrounding air • H_2S not stripped off from the water • H_2S monitoring devices with operators • Testing of H_2S above the drains is carried out

ACTIVITY	ASPECT	IMPACT	OBSERVATIONS
Reactors	• Spent catalyst • Ash and particulate matters during regeneration / off-loading of catalyst • Maintenance activities • Release of CO_2 during regeneration	• Waste generation • Health hazard • Degradation of air quality	• Used- Cobalt Molybdenum Catalyst dumped as per the available standards • Safety measure incorporated for off-loading
LPG Treatment & Storage	• Steam condensate • Release of LPG • Maintenance activities • Water + Caustic + other impurities with Na_2S	• Air degradation • Contamination of water • Waste generation • Depletion of natural resource	• Steam condensate recovery options should be determined • Crisis Management Plan in place • Explore possibility of caustic neutralization at source of discharge
Boiler	• Flue gases • Soot (Soot Blowing) • Boiler blow down • Natural gas / Furnace oil as fuel • Noise • Vibration • Heat generation • Fire • Explosion • Maintenance activities	• Air pollution • Water pollution • Causes increase in TDS level of discharging water • Depletion of natural resource • Degradation of air quality • Damage to asset/ loss of life • Waste generation	• Periodic and continuous blow down water goes to API Separator • Testing of emissions and effluent is required for startup and shutdown conditions
Cooling Towers	• Airborne water traces • Blow down water • Filter Washing <u>Use of Chemicals</u> • Bio Depressant • Corrosion Inhibitor <u>Solid Hazardous Waste</u> • Empty chemical drums • Possible chemical spillage • Maintenance activities	• Degradation of air quality • Water pollution • Possibility of spillage causing land contamination • Degradation of land/ health effect • Soil / land contamination • Waste generation	• Cooling Towers =2 • Blow down water goes to the API Separator • Cooling towers blow down water is collected in a tank, which can be used for fire fighting purposes
Shutdown Activities	• VOCs from opened vessel • Fugitive emissions • Effluent due to flushing • Oily water • Flushing steam • Water • Metal scrapings • Radiography	• Degradation of air quality • Water pollution • Degradation of land • Health impact	• Adequate HSE staff is available in the area and also the area is properly gas freed before any hot job
Generator	• Generator exhaust emissions • Noise • Oil drained from the air cleaner • Possibility of spillage of diesel from the diesel storage tank	• Degradation of air quality • Soil contamination • Waste generation due to maintenance activities	• Total 03 standby generators • Fuel used - Diesel • Oil spillage is observed at the storage site of the lube oil of the generator

In-Direct Environment Impact of Raw Material & Explanation

Aspect	Impact	Scale	Life Cycle Impact Data	Common Effect	Required Actions
INPUTS					
Crude Oil	Depletion of natural resources	Global	• Nitrogen Dioxide (NO_2) • Oxides of Sulphur (SO_x) • Methane (CH_4) • Volatile Organic Compounds (VOC) • Sludges	• Ozone depleting potential • Land and Air pollution • Global warming • Acid rain potential • Respiratory diseases	• Efficient operation of plant • Proper disposal procedures
Raw Water	Depletion of natural resources	Global	• Increased moisture rate	• Global warming • Scarcity of water	• Efficient utilization • Re-use of water
Electrical Consumption	Depletion of natural resources	Global	• Increase in ambient air temperature	• Global warming	• Efficient utilization of energy • Energy conservation

In-Direct Environment Impact of Products & Explanation

Aspect	Impact	Scale	Life Cycle Impact Data	Common Effect	Required Actions
PRODUCTS (Fuel Oil , Diesel, Kerosene, Gasoline , LPG)					
Flue gases from exhaust of vehicles, Thermal Power stations, Aero planes etc upon combustion of the products like furnace oil, kerosene, diesel and jet fuels.	Global warming	Global	• Carbon Dioxide(CO_2) • Nitrogen Dioxide (NO_2) • Methane (CH_4) • Chloro flouro carbon (CFCs)	Global Warming Potential Note: Global Warming potential can be 50, 100 or 500 year potentials	• Furnace burners to be changed with low excess air burners • The vehicles to be well tuned
Usage of chemicals in products to boost performance like TEL	Stratospheric ozone depletion Health hazards	Global	• Ethylene dichloride (EDC) • Lead oxides	• Ozone Depleting potential • Cancer and respiratory track diseases	• No more use of TEL in Pakistan • Environmental friendly chemicals to be used
Poisonous gases generation as a result of combustion	Acidification	Regional /Local	• Sulphur Dioxide (SOx) • Nitrogen Oxides (NOx) • Hydrochloric Acid (HCl) • Ammonia (NH_4)	Acidification potential	Low Sulfur fuels especially in HSD and Furnace Oil need to be produced
Leakages from Tanks and Fugitive emission	Photochemical smog	Local	Non-Methane Hydrocarbon (NMHC)	Photochemical oxidant creation potential	All the fixed roof crude and product tanks to be changed with floating roof and screens to minimize vapor escape
Accidental release of products from tanks	Aquatic toxicity Soil and ground contaminants Human health	Global/ Regional /Local	• Toxic chemicals with a reported lethal concentration to fish • Total releases to water and soil	Sea water and ground water contamination	• Regular monitoring • Containments to be provided
Hazardous waste	Aquatic toxicity Soil and ground contaminants Human health	Global/ Regional /Local	Quantity disposed off in a landfill	Health Hazards	Methods being explored to get rid of hazardous waste in Environmental friendly manner

Rationale behind Key Performance Indicators

Key performance indicators are developed keeping in view the environmental aspect/ impact analysis and hazard identification / risk assessment of all activities, processes and products of PRL. The following are KPIs' which would help to protect environment and minimize damage to the health and safety of our employeeq1s.

Emissions to Air

- Green house gases
- Acid Rain Gases
- Ozone Depleting Substances
- Volatile Organic Compounds

Emissions to Water

- Organic Pollutants

Emissions to Land

- Hazardous and Non-Hazardous Waste (Landfill, Incinerated)

Resources Used

- Raw Water use
- Fuel Consumed
- Crude Oil

Health and Safety

- Lost Time Injury frequency
- Total Recordable Case frequency
- Total Reportable Occupational Illness frequency

Approach and Methods

The performance data is determined by using the most accurate methodology, which is available and practicable. All values are the actual tested figures whose test results are available. However, gaseous load is calculated by using Tier-1 approach of Shell's "Group HSE performance monitoring and reporting" guidelines. This approach uses standard emission factors (for refineries of similar types) in combination with the actual values.

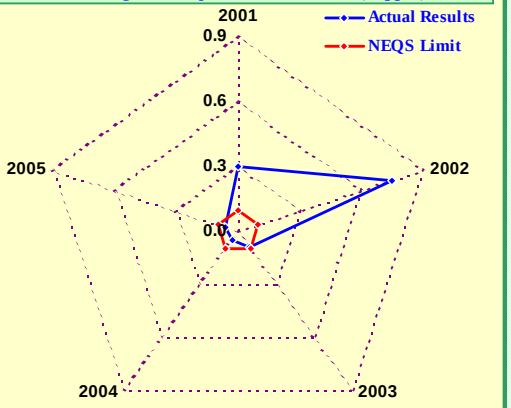
Environment Impact Assessment - Effluents

PRL measures and monitors on regular basis all the key characteristics of operations and activities that can have significant impact on the Health, Safety and Environment. Below are the statistical representations of environmental impacts:-

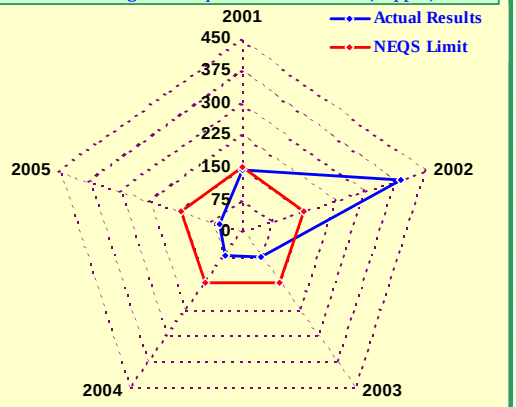
Effluent Discharged to Sea after Treatment – Trends over time

Oil & Grease
Effluent Discharged to Aquatic Environment (in ppm)

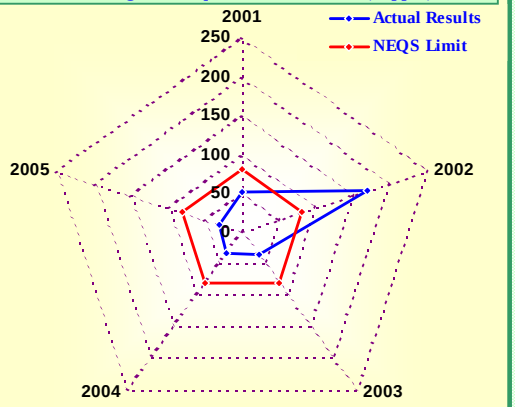
Phenols
Effluent Discharged to Aquatic Environment (in ppm)



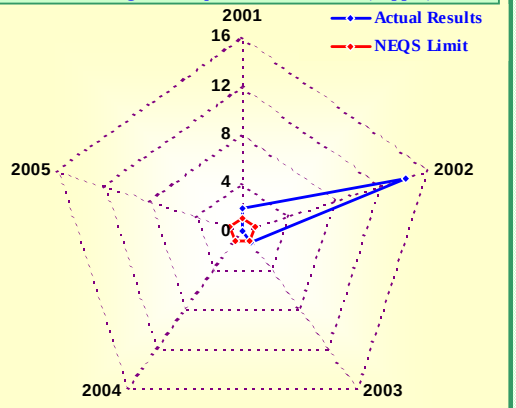
Chemical Oxygen Demand (COD)
Effluent Discharged to Aquatic Environment (in ppm)



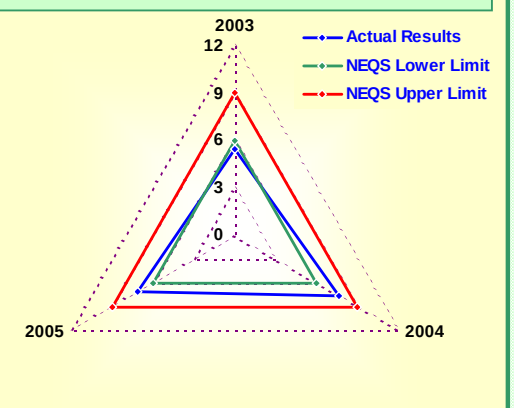
Biological Oxygen Demand (BOD)
Effluent Discharged to Aquatic Environment (in ppm)



Sulphides
Effluent Discharged to Aquatic Environment (in ppm)



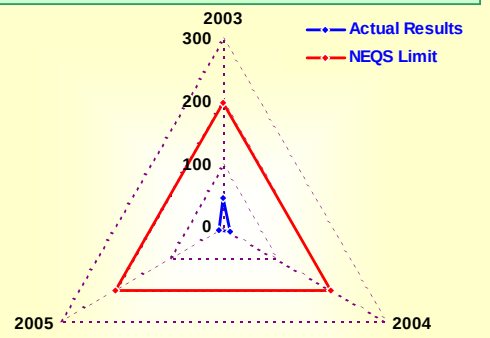
pH
Effluent Discharged to Aquatic Environment



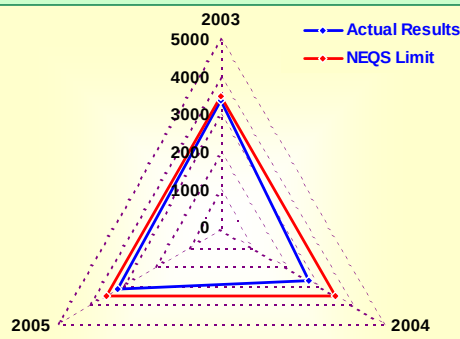
Environment Impact Assessment - Effluents

Effluent Discharged to Sea after Treatment – Trends over time

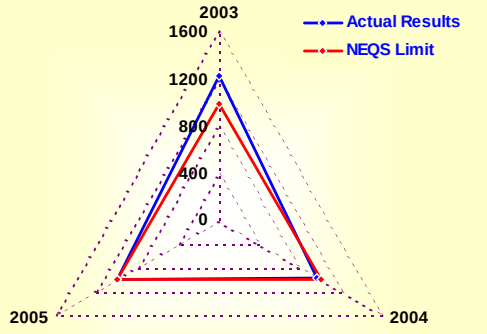
Total Suspended Solids (TSS)
Effluent Discharged to Aquatic Environment (in ppm)



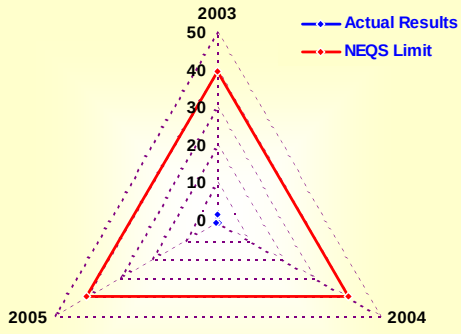
Total Dissolved Solids (TDS)
Effluent Discharged to Aquatic Environment (in ppm)



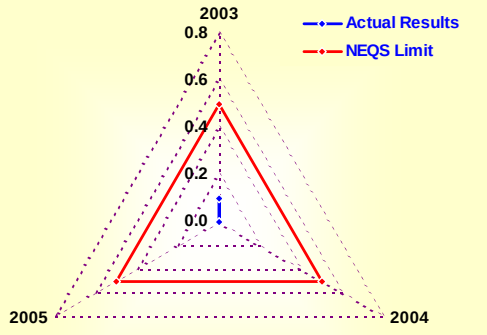
Chloride
Effluent Discharged to Aquatic Environment (in ppm)



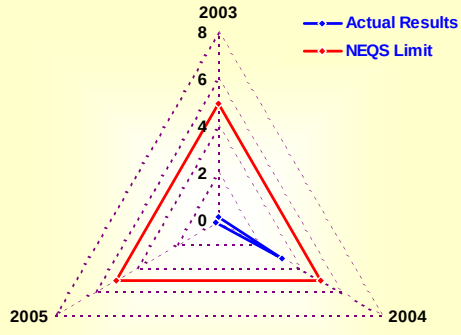
Ammonia
Effluent Discharge to Aquatic Environment (in ppm)



Lead
Effluent Discharge to Aquatic Environment (in ppm)

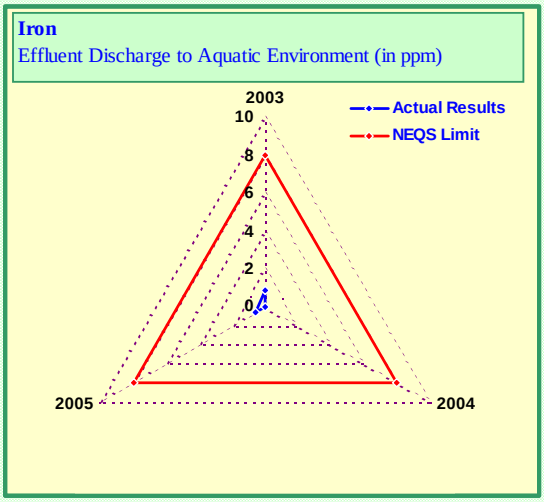


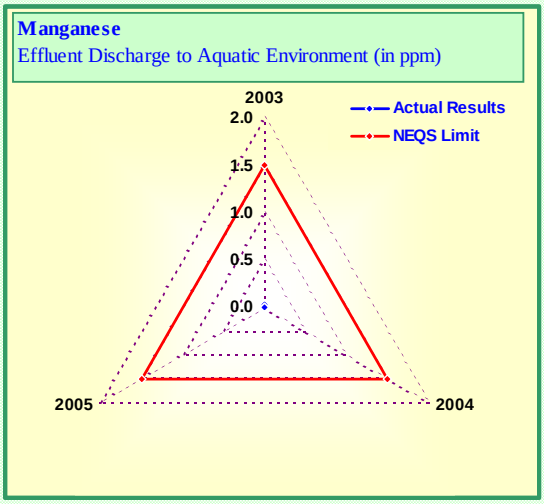
Zinc
Effluent Discharge to Aquatic Environment (in ppm)

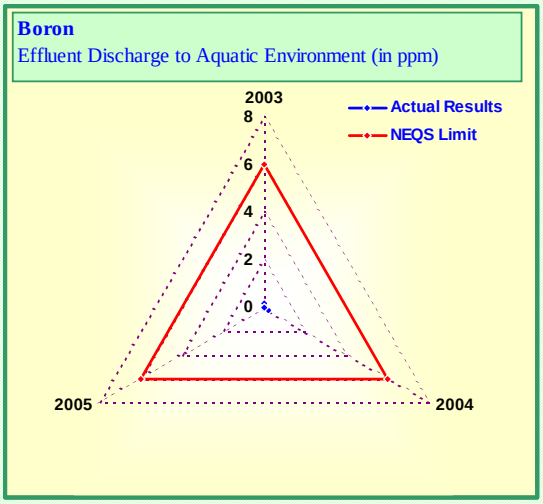


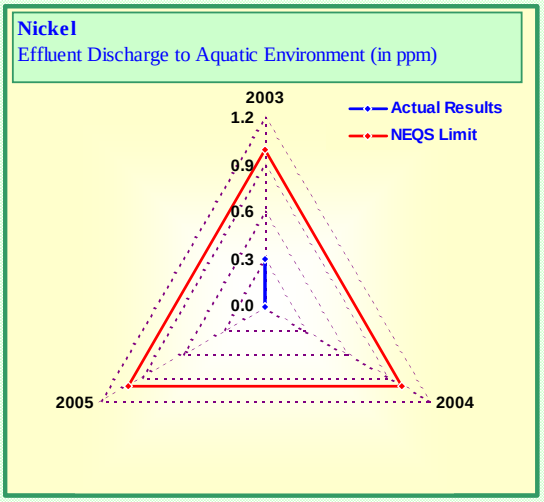
NEQS = National Environmental Quality Standard

Effluent Discharged to Sea after Treatment – Trends over time







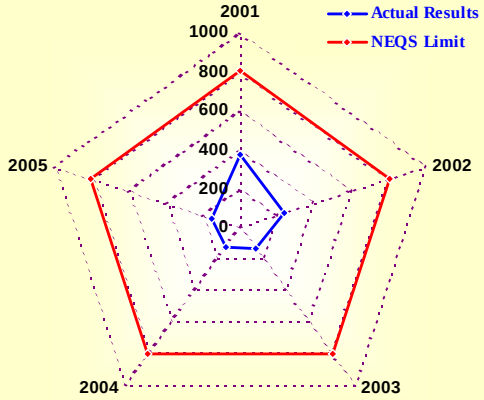


NEQS = National Environmental Quality Standard

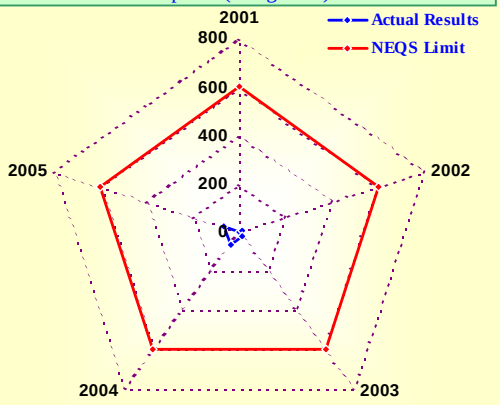
The remaining effluent parameters of NEQS like – fluoride, cyanide, cadmium, chromium, copper, selenium, silver, arsenic, barium, chlorine, mercury, cadmium are also tested annually and their results are always NIL.

Emissions from Stacks – Trends over time

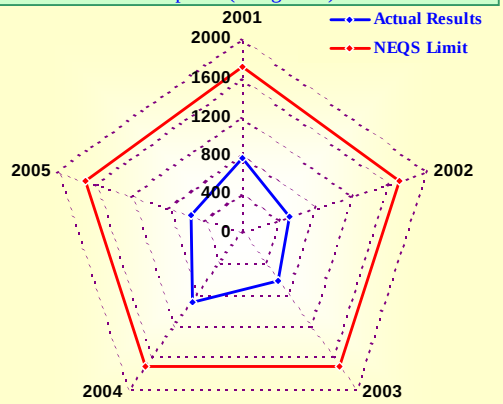
CO
Emitted into the atmosphere (in mg/Nm3)



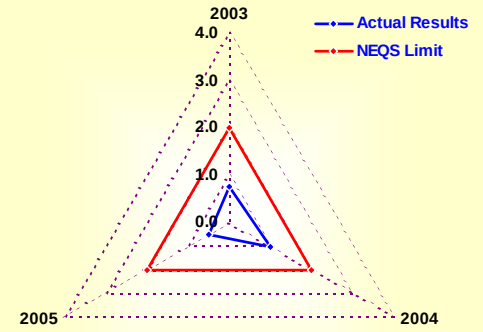
NOx
Emitted into the atmosphere (in mg/Nm3)



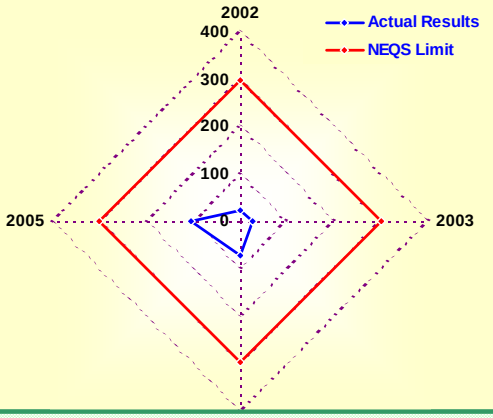
SOx
Emitted into the atmosphere (in mg/Nm3)



Smoke
Emitted into the atmosphere (in Ringlemann)



Particulate Matter
Emitted into the atmosphere (in mg/Nm3)



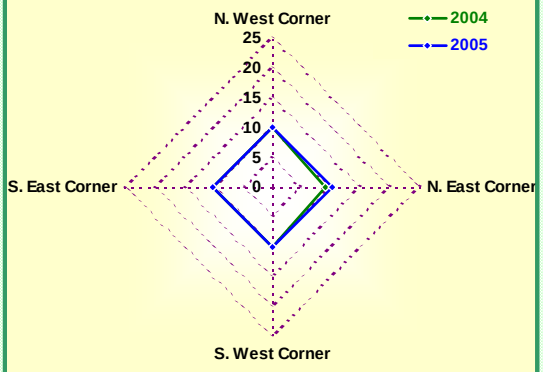
The remaining emission parameters of NEQS like – Hydrogen, chloride, chlorine, hydrogen sulphides, mercury, cadmium, arsenic, copper, antimony, zinc, lead are also tested annually and their results are always NIL.

NEQS = National Environmental Quality Standard

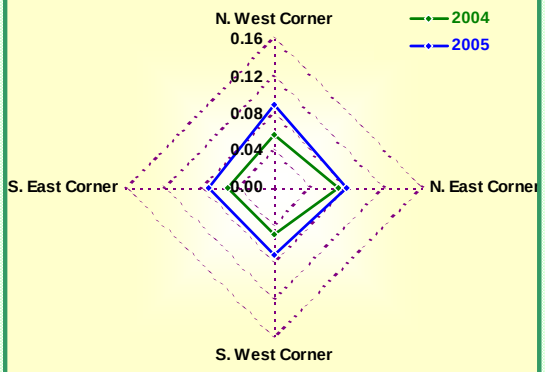
Ambient Air – Trends over time

Ambient air testing is performed annually. The objective is to monitor the impact of refinery emissions on the environment. The samples are taken from four locations representing the periphery of the refinery. Criteria pollutants such as particulate matter, SOx, CO, NOx and others are measured. This year additional samples were taken from the plant area as well to assess the level of pollutants.

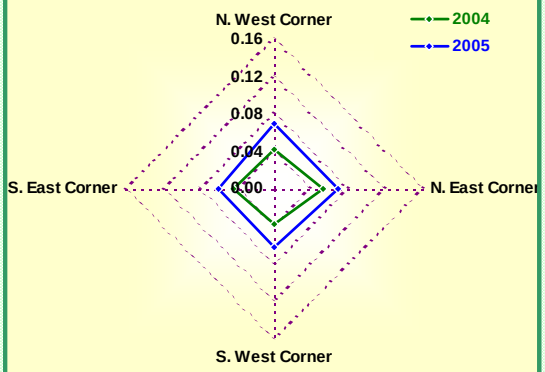
Particulate Matter (PM10)
In the ambient atmosphere (in mg/Nm3)



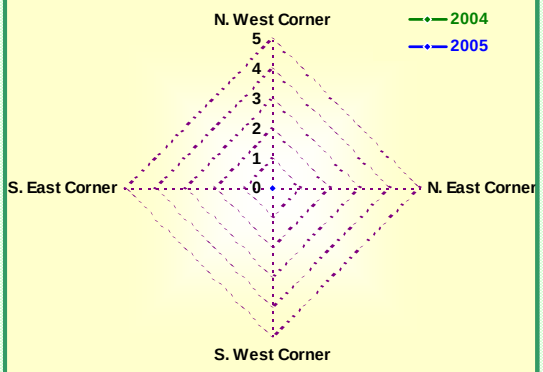
Oxides of Sulphur (SOx)
In the ambient atmosphere (in mg/Nm3)



Oxides of Nitrogen (NOx)
In the ambient atmosphere (in mg/Nm3)



Carbon Monoxide (CO)
In the ambient atmosphere (in mg/Nm3)



Environment Impact Assessment – Soil
Land Contamination Remedial Steps

A programme for soil and underground water monitoring was initiated in 2001 with the aim to determine the level of soil and ground water contamination within refinery premises and thereafter to quantitatively monitor on annual basis. The testing for 2005 is due in the month of December.

Sludge pits

Sludge pits are being constructed in the tank yards next to the tanks. These pits would serve as transitional storage for sludge before final dispatch. Previously mud pits were dug for this purpose.

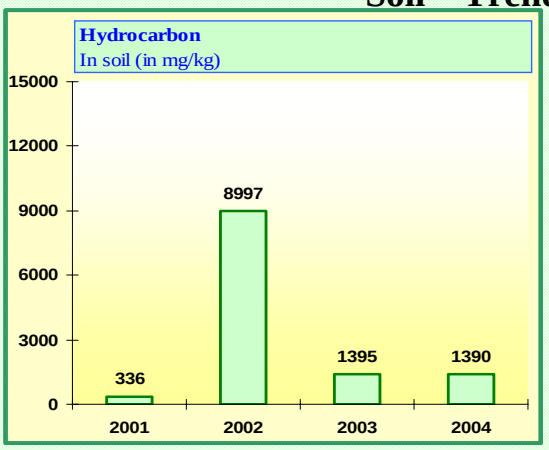
Concrete Drainage System

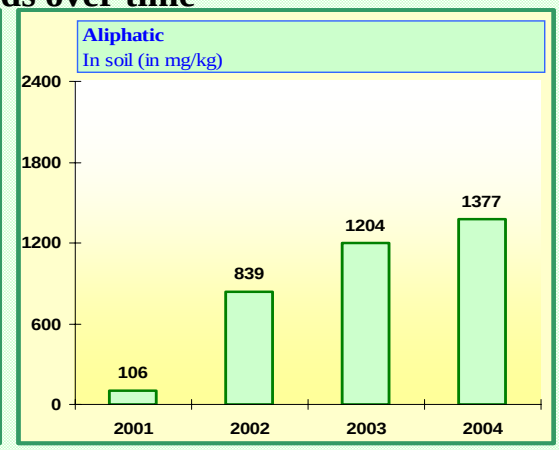
In addition to the already existent concrete drainage system around plant area and inside tank yards, concrete drainage system also been provided around crude decanting facility. This new drainage system would cater accidental spillage along with storm water.

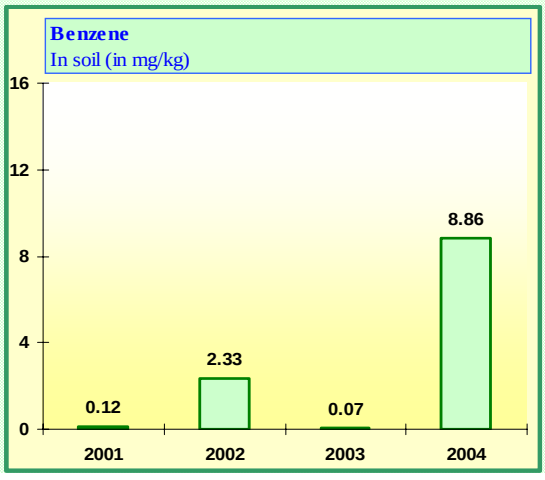
Concreting Underneath Valve Manifold in Tankfarm

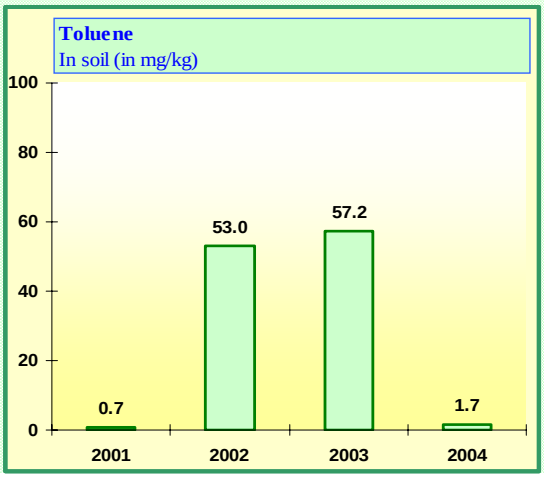
As an action point from soil and ground water quality test results, the areas underneath the valve manifolds in tankfarm were concreted. This step has led to the prevention of soil contamination.

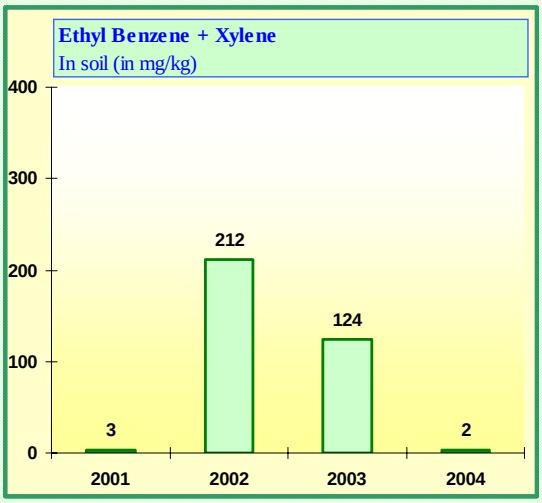
Soil – Trends over time

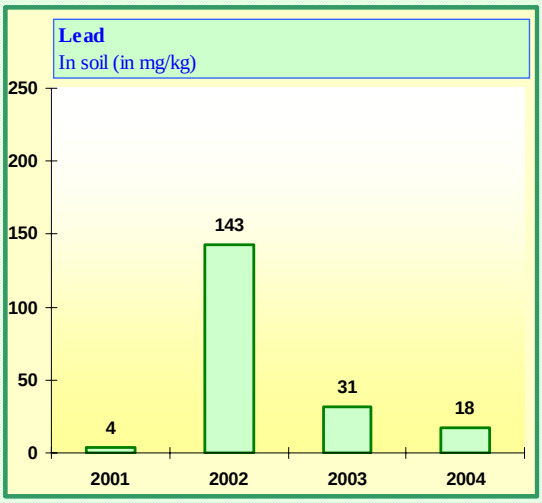






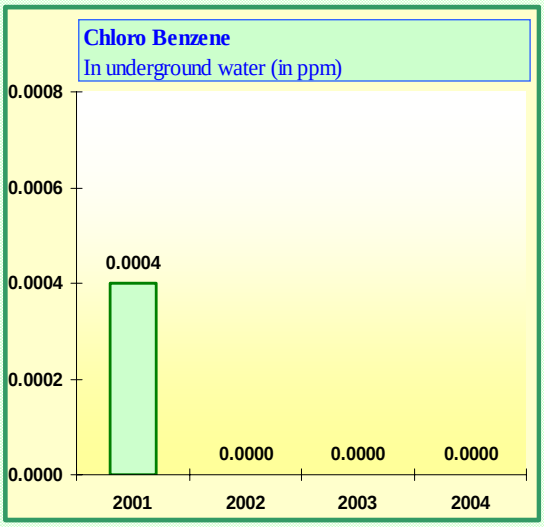


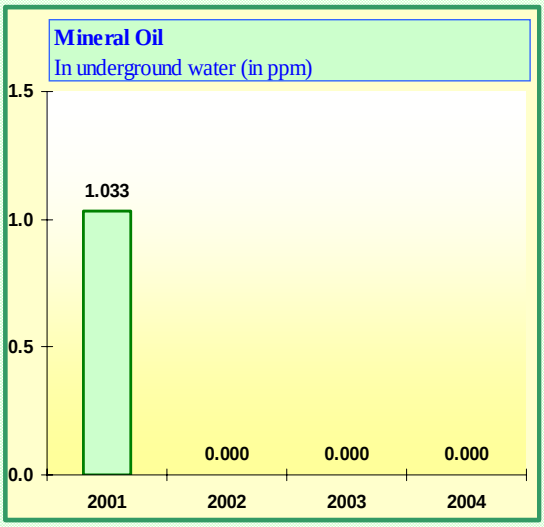


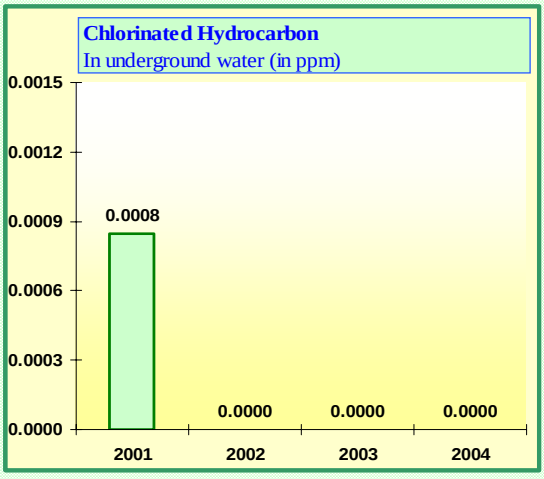


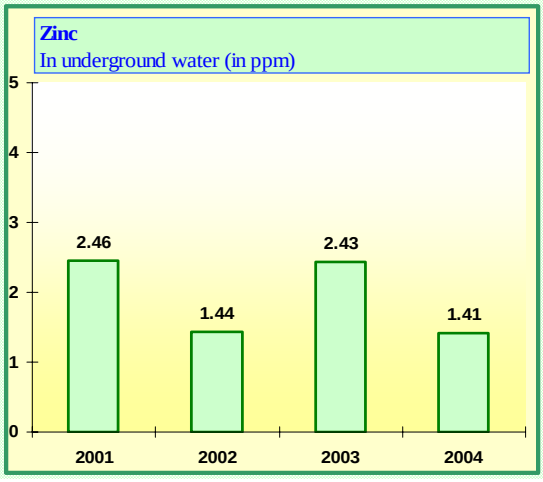
Environment Impact – Underground Water

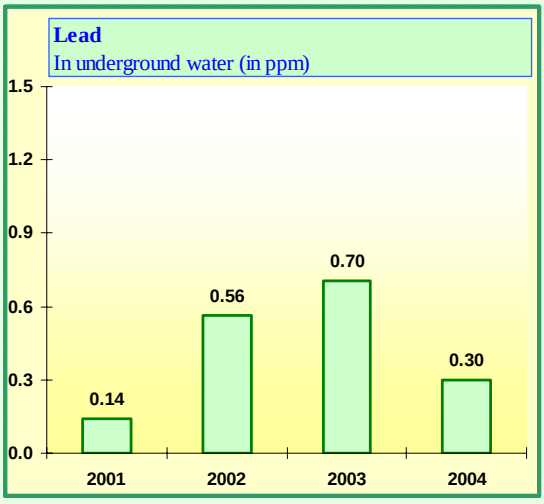
Underground Water – Trends over time

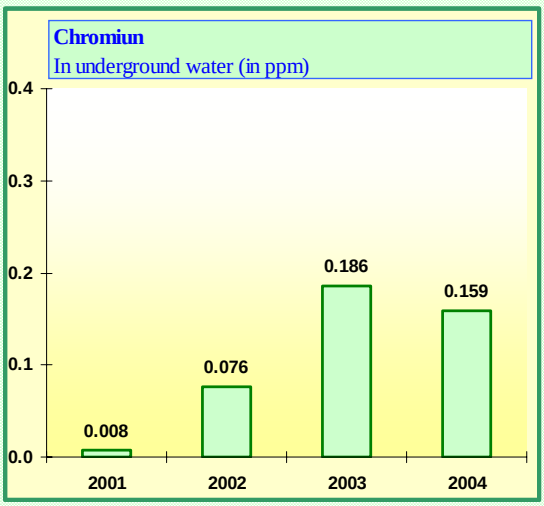




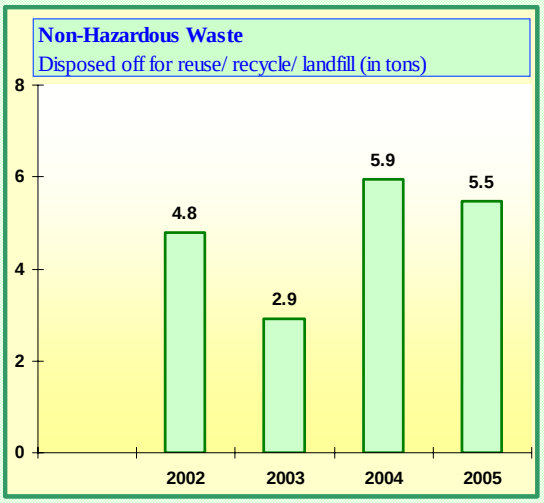


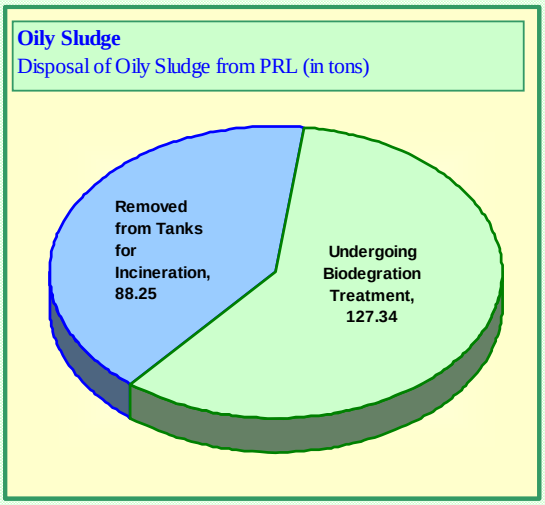


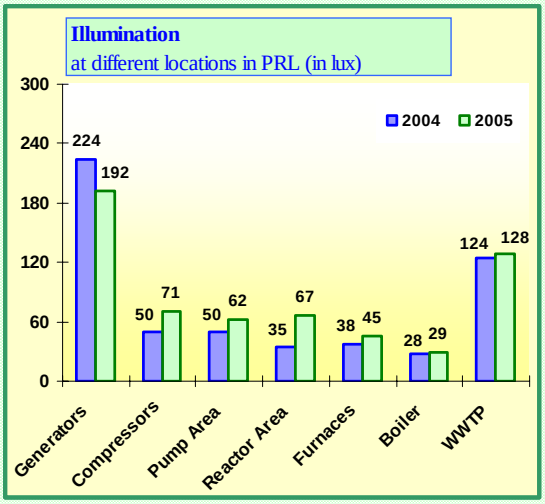


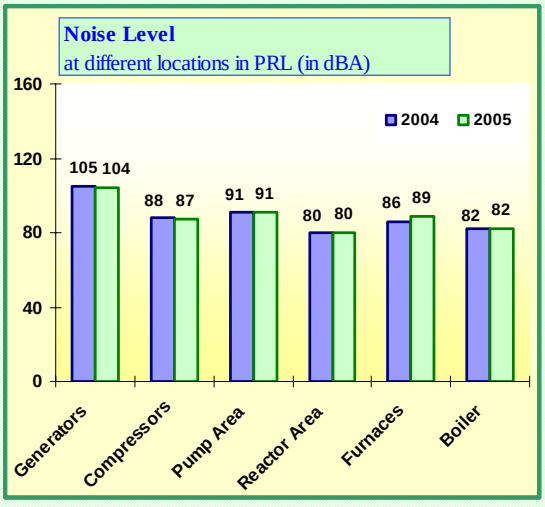


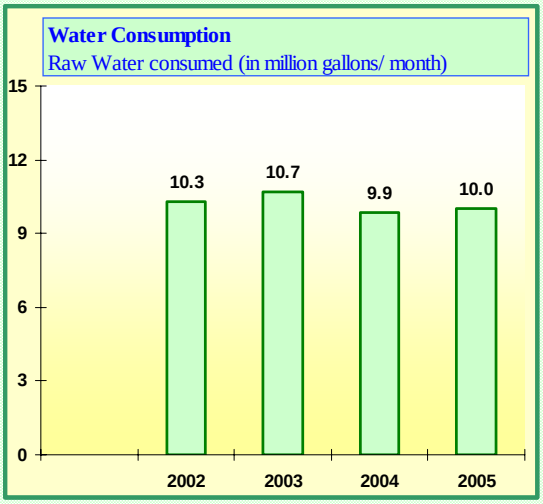
Environment Impact Assessment - Miscellaneous

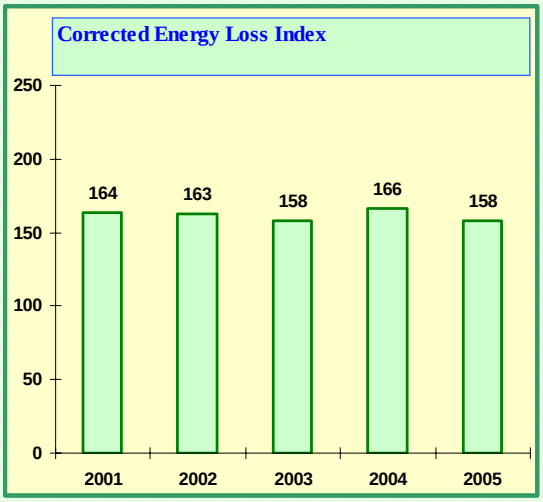


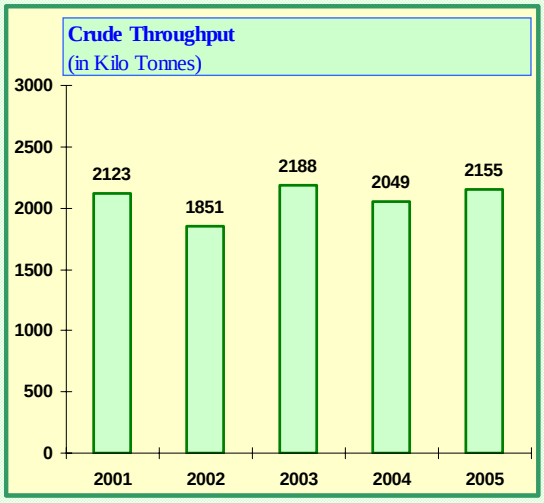






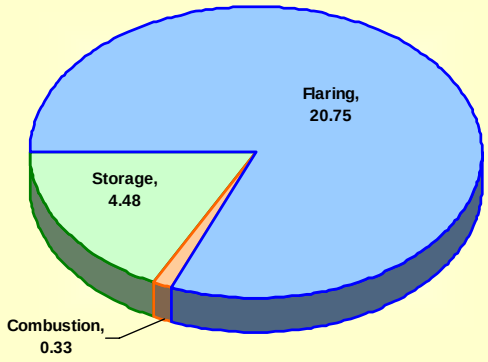

Water Consumption
Raw Water consumed (in million gallons/ month)
15
12
9
6
3
0
10.3
10.7
9.9
10.0
2002
2003
2004
2005


Corrected Energy Loss Index
250
200
150
100
50
0
164
163
158
166
158
2001
2002
2003
2004
2005

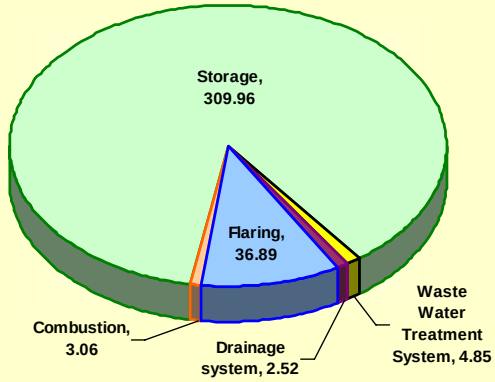

Crude Throughput
(in Kilo Tonnes)
3000
2500
2000
1500
1000
500
0
2123
1851
2188
2049
2155
2001
2002
2003
2004
2005

Different Gaseous Load

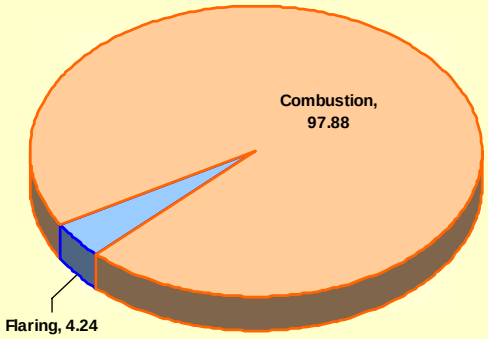
Methane (CH4) load
Tons/ year



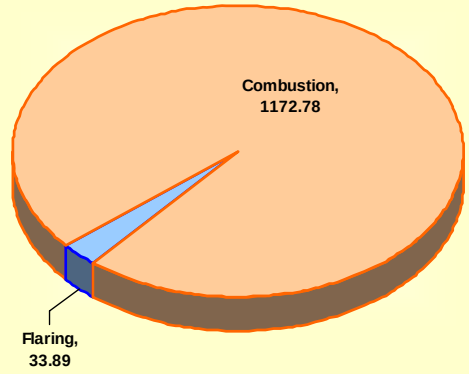
Volatile Organic Compound (VOC) load
Tons/ year



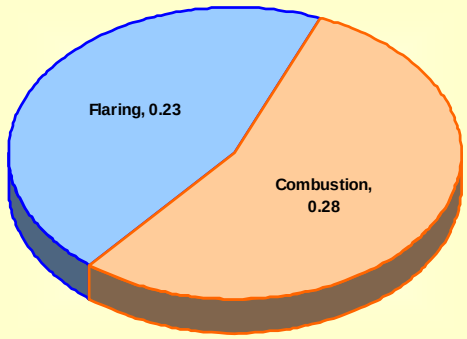
NOx load
Tons/ year



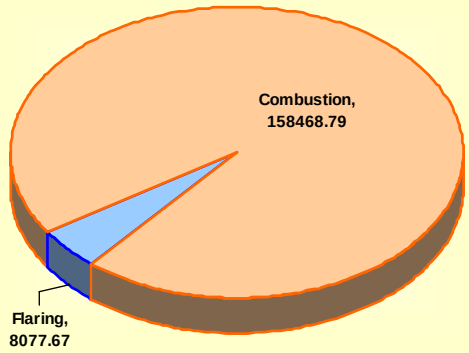
SOx load
Tons/ year



Nitrous Oxide (N2O) load
Tons/ year



Carbon Dioxide (CO2) load
Tons/ year



Environment Impact Assessment - Transport

Monitoring and measurement of emissions from PRL vehicles along with the fuel consumed is done annually.

	Petrol (liters)	Diesel (liters)
Fuel consumed by PRL vehicles in 2005	7258	855

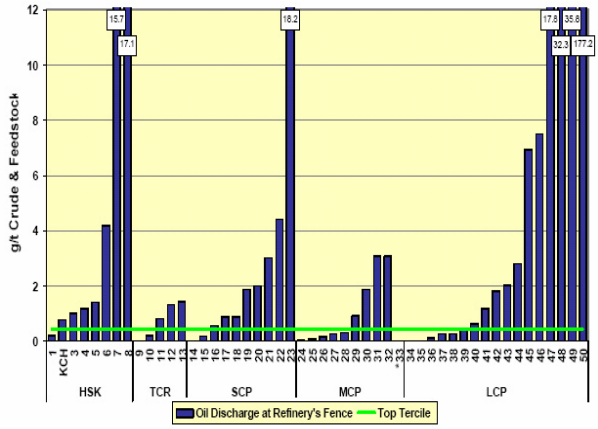
Vehicle Emission Test Results of 2005

Vehicle	Smoke (Ringleman / Equivalent scale)	CO (ppm)	Noise (dBA)
Isuzu Fire Truck	00	530	79
Iveco Fire Truck	00	380	82
Fuso Fire Truck	01	725	82
Ambulance	00	570	65
Suzuki Potohar (Fire Section)	00	410	71
Suzuki Potohar (Projects & Construction)	00	370	72
Suzuki Potohar (Inspection Section)	00	175	75
Suzuki Potohar (Administration)	00	295	80
Toyota Hi-lux (Rotary Section)	00	610	81
Toyota Hi-lux (Stationary Section)	00	110	75
Toyota Hi-lux (Plant & Utility Section)	01	400	78
Toyota Hi-lux (Projects & Construction)	00	128	72
Toyota Hi-lux (Civil Section)	00	730	68
Suzuki Pick-up (Electrical Section)	00	222	83
Suzuki Vitara (Administration)	01	728	65
Suzuki Bolan (Administration)	00	630	82

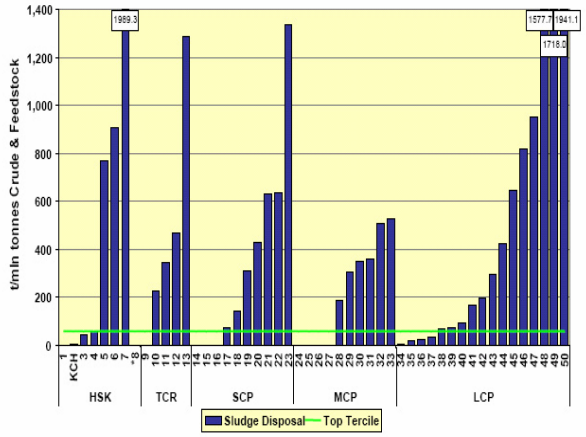
KPIs' Benchmarking within Sector

Shell Global Solution "International" carried out bench marking of Pakistan Refinery Limited against the top refineries of the world, with the aim to quantitatively assess our standing. KCH in the graphs represents Pakistan Refinery Limited, Karachi. Top Tercile is the average values for the group of best performers and selected as the target values for PRL.

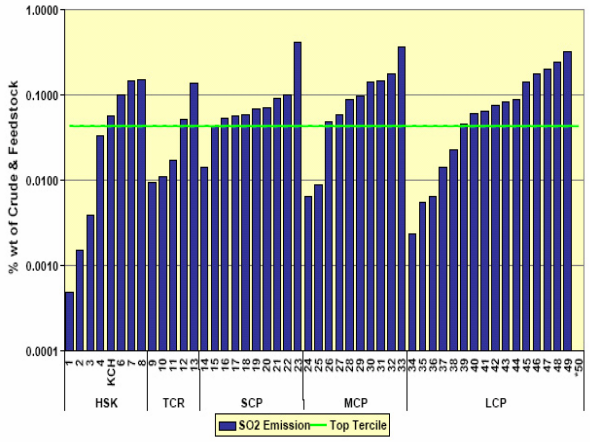
Oil Discharged at Refinery's Fence



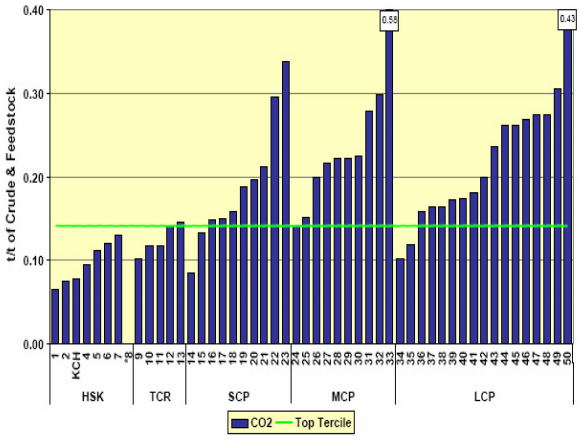
Sludge Disposal



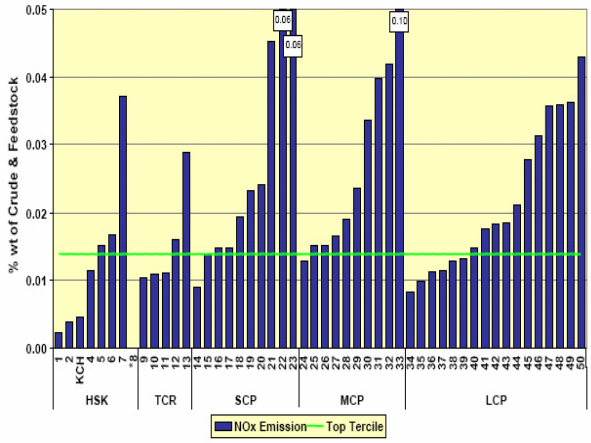
SO_2 Emission



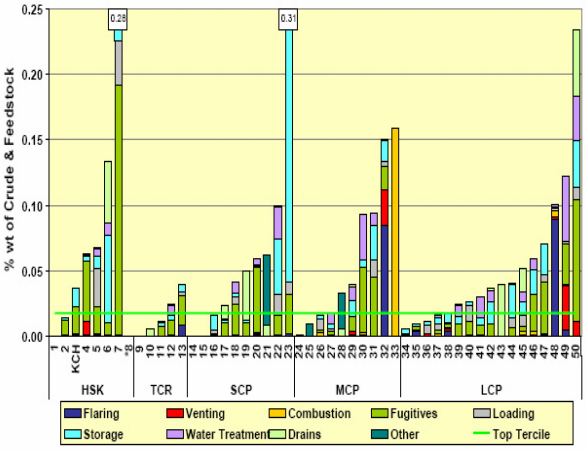
CO_2 Emission



NO_x Emission



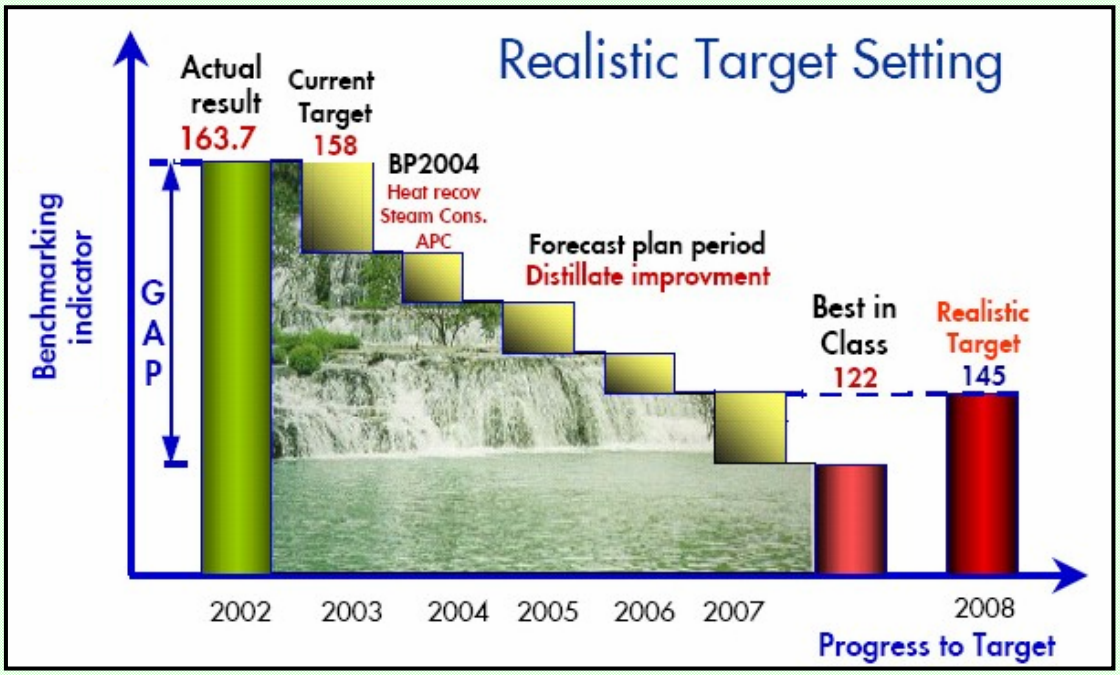
VOC Emission



Progress on Ongoing Environmental Objectives & Targets (Sustainability Issues)

Flue Gas Heat Recovery

The main objective was to recover about 12 million BTU / hr of energy from the flue gases of platformer, hydro and one of the crude furnaces. The engineering and procurement part was given to Foster Wheeler – UK, who completed the project successfully and all the equipments, engineering drawings reached PRL by July 2004. The local fabrication of ducts and foundations is complete. Complete tie in will take place during March 2006 maintenance turnaround.



Parts of Heat Recovery Unit

Progress on Ongoing Environmental Objectives & Targets (Sustainability Issues)

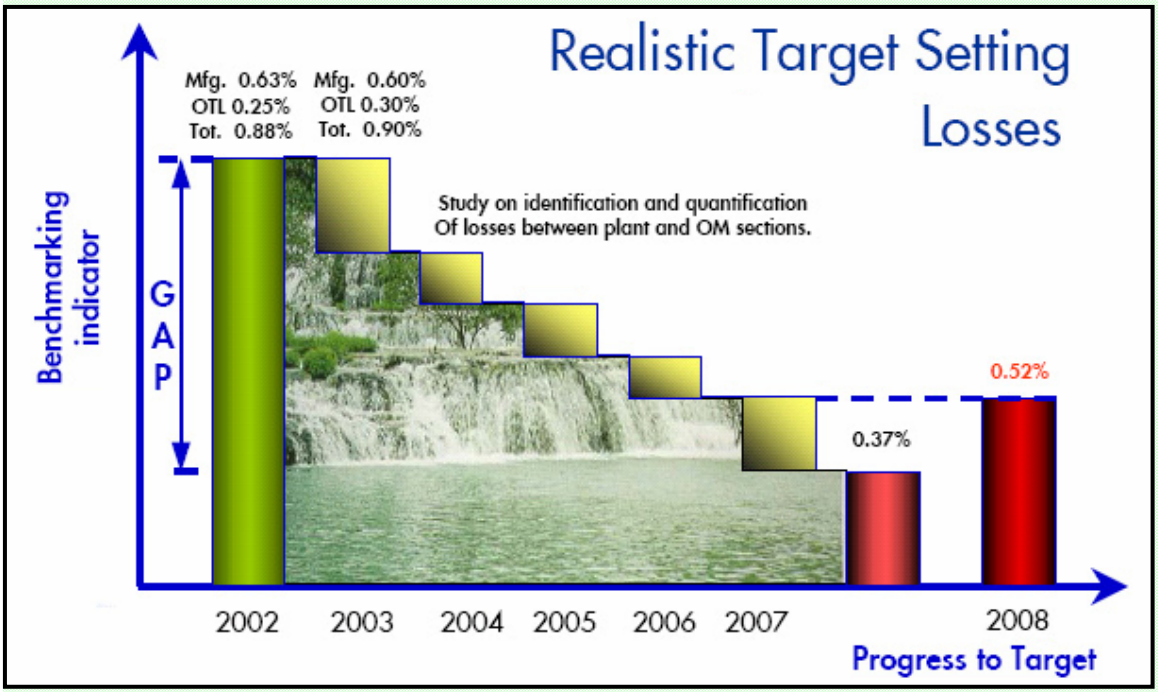
Advanced process control on crude distillation unit has been implemented and the loops are being tuned for yield optimization and energy conservation.

Advanced Process Control Panels

Oil Loss Control

At the moment the loss is 0.58% on crude throughput through better operational controls and training programmes. A study has been completed on identification/ quantification of losses between plant and oil movement. Consequently the following projects have been initiated:

1. Radar gauging system at diesel tanks (03 nos.) to be completed by June 2006.
2. Light oil being drained at plant for API to be collected at source and put to slop tank for reprocessing. The project completed at two locations.



Progress on Ongoing Environmental Objectives & Targets (Sustainability Issues)

Zero Effluent

Presently waste water is treated in an effluent treatment plant to bring it within NEQS limits and thrown into sea. The objective is to save natural resources and reuse the water. Budget of 5.0 million PKR approved. Plan is to use the existing desalination plant for this purpose. Project completion date is December 2006.

The methodology is to conserve natural resources by recycling water after proper treatment by installing a Tertiary Treatment Unit and recycle the effluent to minimize the effluent in a first phase from 600 MTD to 125MTD.

METHODOLOGY	TIME FRAME	RESPONSIBILITY	REF. DOCUMENTS/ RECORDS
Budget Allocation	June-2005	OM	Budget Folder
Completion of study and finalization of TOR	September-2005	OM	Zero effluent Folder
Arrangement of proposal & selection of Vendor	December-2005	OM	Zero effluent Folder
Ordering & Arrival of equipment	June-2006	OM/PCM	Approval from purchase committee
Execution of modification	September-2006	OM/EM	Zero effluent Folder
Test Run / Verification of results	November-2006	OM	Test Results/Log Sheets/Zero effluent Folder
Completion Report	December-2006	MR	MR Report

Progress on Ongoing Environmental Objectives & Targets (Sustainability Issues)

Global Compact

The objective of Global Compact, an initiative of U.N Secretary General Kofi Annan, is a world wide call to help build the social and environmental framework to support and ensure the continuation of open and free market whilst ensuring that people have a chance to share the benefits of new global economy. The principles of global compact are approved by the board of directors and are available in PRL financial report 2004-05.

A budget of 8.0 million PKR is approved under the head of global compact and corporate social responsibility for the year ending June, 2006.

UN Millennium Development Goals

Goals	Actions Under Consideration
Eradicate extreme poverty and hunger	---
Achieve universal primary education	To establish / adopt a school initially for 100 children to provide them free primary education, primarily for the children of poor surrounding communities
Promote gender equality and empower women	---
Reduce child mortality	Financial support to selective hospitals
Improve maternal health	---
Combat HIV/ AIDS, malaria and other diseases	Awareness programmes on HIV/ AIDS, malaria and other diseases are proposed to be held at PRL for its own employees and contractors' staff working at PRL
Ensure environmental sustainability	---
Develop a global partnership for development	• Develop and train a rescue team to act as a resource center during any natural catastrophe/ disaster in the country • Support establishment of a 'Day Care Center' for Alzheimers

Progress on Previous Year's Objectives

STATUS OF YEAR 2004 OBJECTIVES	PKR million	STATUS
DCS and APC for crude unit – energy conservation and yield improvement	100.00	Achieved
Replacement of control valves on crude distillation unit	3.50	Achieved
Replacement of storm water pump	0.80	Achieved
Fire alarm system at Keamari	0.30	Achieved
Control valves for crude unit	3.00	Achieved
Dike wall for JP-1 pipeline in Malir river bed	2.00	Achieved
Dust concentration monitoring unit	0.80	Achieved
Construction of open drain channel at Gantry – spill collection	1.30	Achieved
Welding fume extractor	0.30	Achieved
Installation of mechanical seals on pumps	0.20	Achieved
Heat recovery of flue gases – platformer, crude and hydro furnaces	69.00	In-progress
Fan ducting in warehouse chemical storage area	0.30	Achieved
Gas recovery	1.00	Dropped
Portable fire water pump	4.00	Enhanced
Modification of hydrants at Keamari and Korangi – subsurface foam injection system	2.00	Achieved
Fire fighting equipments	1.00	Achieved
Emergency shut down system for boilers	10.00	In-progress

Summary of Significant Accounting Policies

The significant accounting policies adopted in the preparation of financial statements are set out below:

Basis of preparation

These financial statements are prepared in accordance with approved accounting standards as applicable in Pakistan and the requirements of the Companies Ordinance, 1984. Approved accounting standards comprise of such International Accounting Standards as have been notified under the provisions of the Companies Ordinance, 1984. Wherever, the requirements of the Companies Ordinance, 1984 or directives issued by the Securities and Exchange Commission of Pakistan differ with the requirements of these standards, the requirements of the Companies Ordinance, 1984 or the requirements of the said directives have been followed.

Overall valuation policy

These financial statements are prepared under the historical cost convention except as has been stated below in respective policy notes.

Fixed assets

Fixed assets are stated at cost less accumulated depreciation/amortization except capital work-in-progress, which is stated at cost.

Current and Deferred Taxation

Charge for current taxation is based on the higher of taxable income at the applicable rates of taxation or half percent of turnover as defined in the Income Tax Ordinance, 2001.

Deferred tax is provided in full, using the liability method, on temporary differences arising between the tax base of assets and liabilities and their carrying amounts in the financial statements.

Stores, spares and chemicals

These are valued at cost, determined using weighted average method, less provision for obsolescence. Items in transit are valued at cost comprising invoice value plus other charges incurred thereon.

Stock-in-trade

Stocks of crude oil are valued at cost determined on "first-in first-out" method except crude oil in transit which is valued at cost. Finished products are valued at lower of cost and net realizable value.

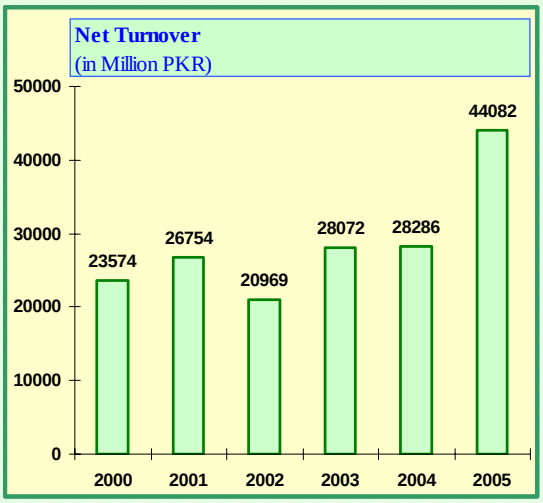
Provisions

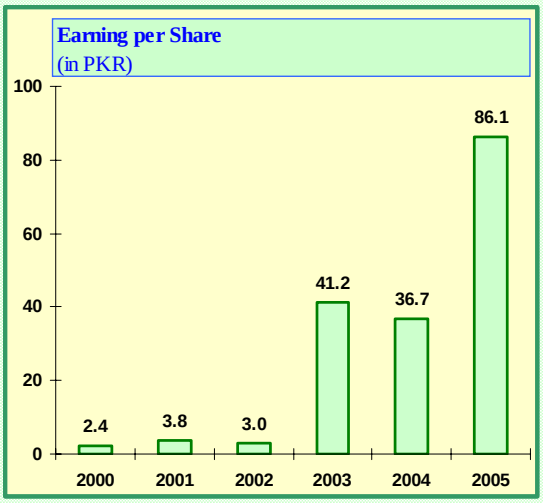
Provisions are recognized when the Company has a present legal or constructive obligation as a result of past events; it is probable that an outflow of resources will be required to settle the obligation; and a reliable estimate of the amount can be made.

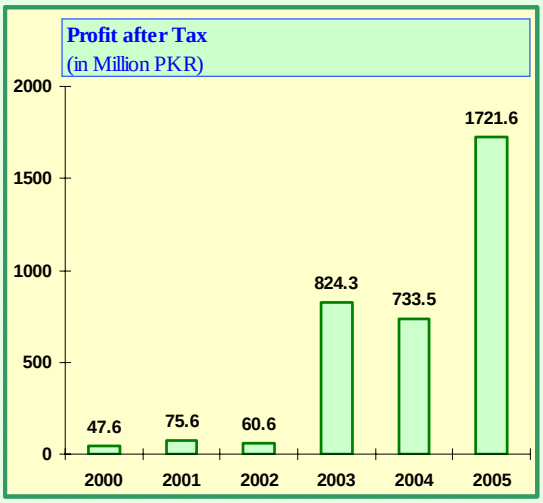
Revenue recognition

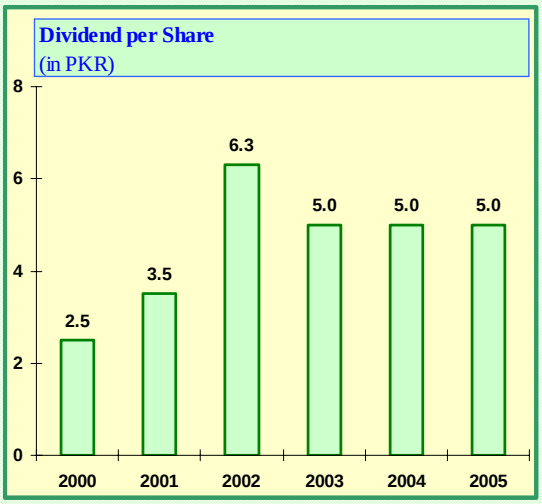
(a) Local sales are recorded on the basis of products pumped in oil marketing companies' tanks. Sale of furnace oil loaded through gantry is recognized when it is loaded into tank lorries.
(b) Export sales are recorded on the basis of products shipped to customers.
(c) The prices of refinery products are primarily based on import parity pricing formula.
(d) Dividends are recognized when the right of receipt is established.
(e) Income on bank deposits is recognized on accrual basis.

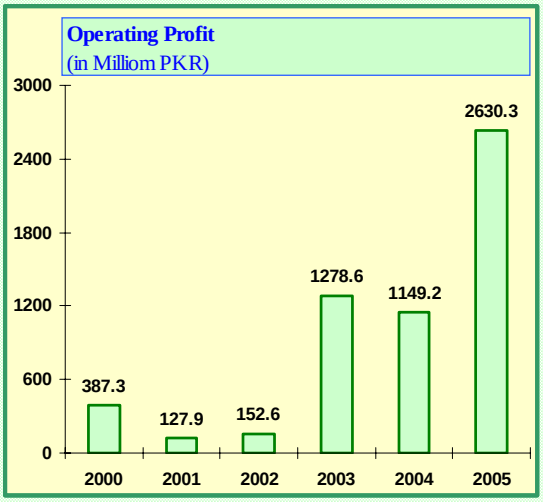
Financial Performance Last Six Years at a Glance

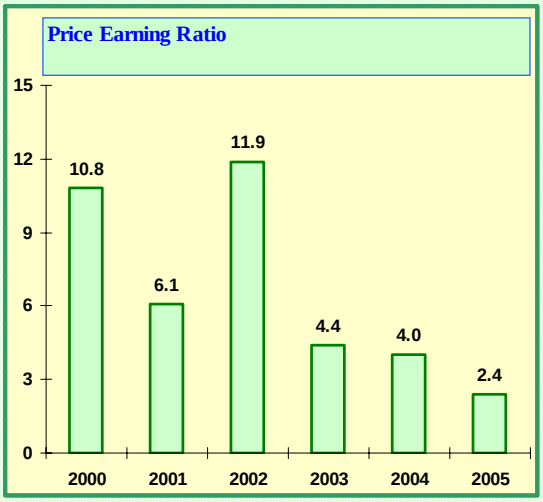




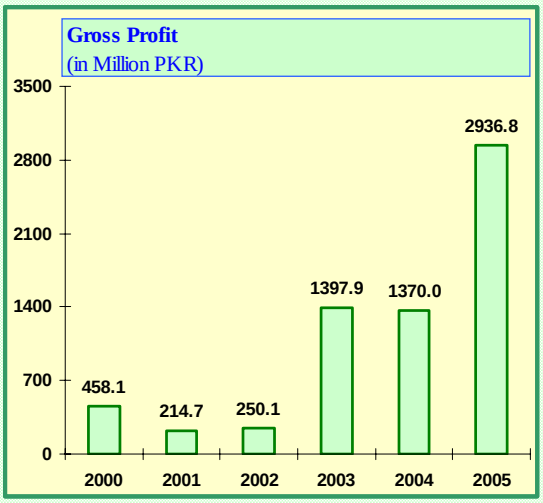


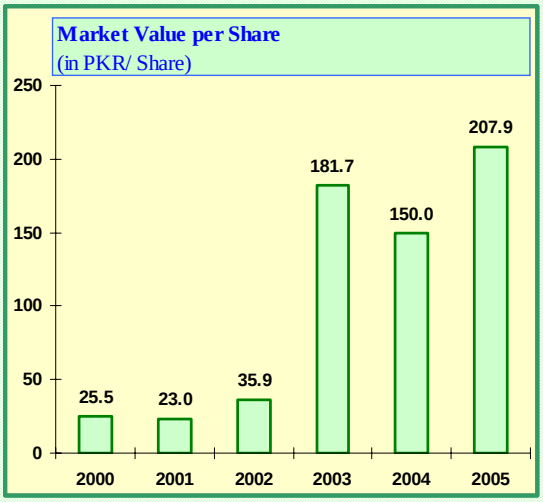


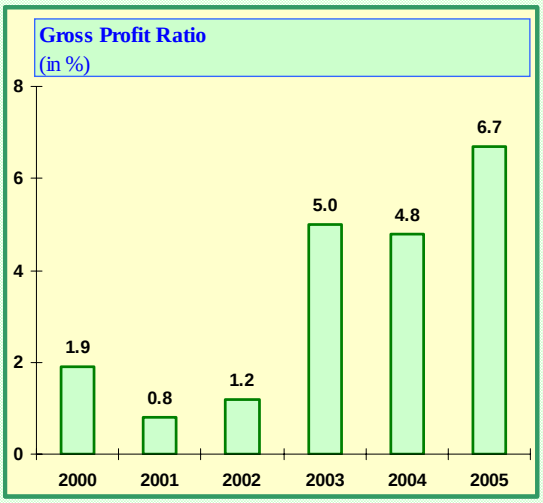


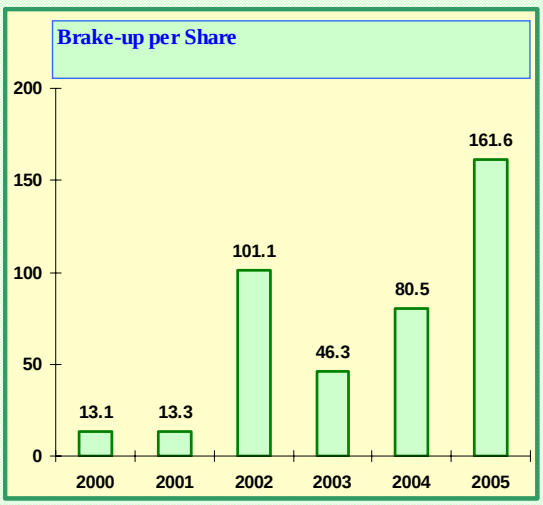


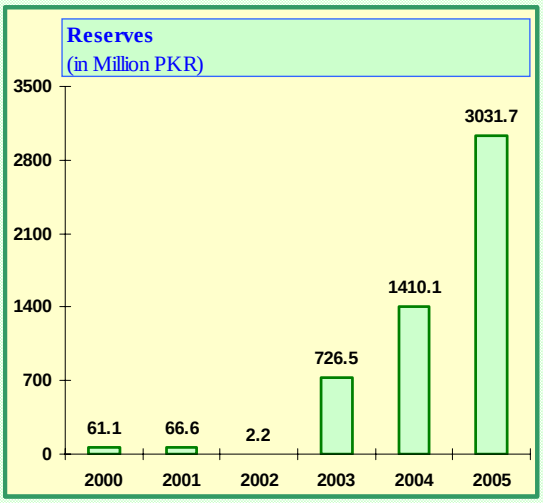
Financial Performance Last Six Years at a Glance

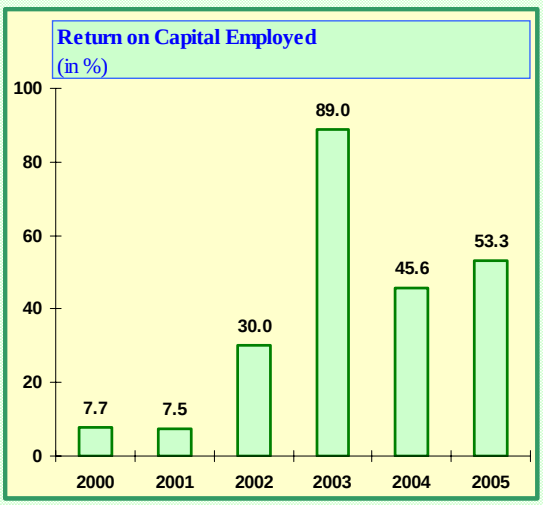




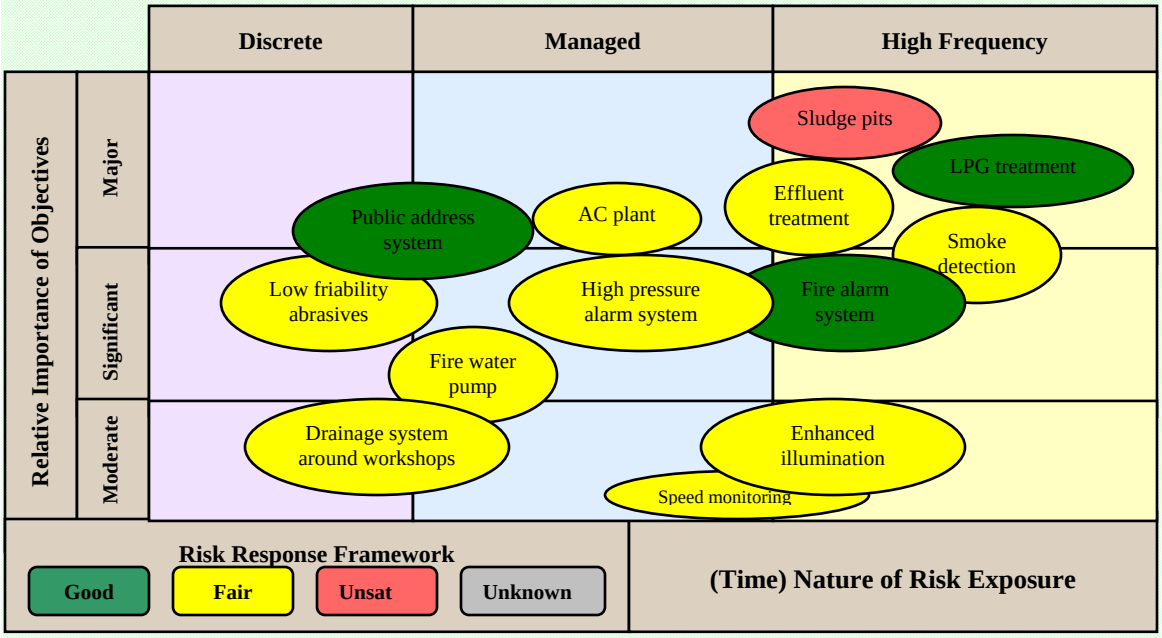








Approved Capital Expenditure on HSEQ Compliance (2005)



HSEQ OBJECTIVES FOR THE YEAR 2005-06	PKR million
Sludge pits	0.40
Speed monitoring devices	0.25
Low friability abrasives	0.60
Enhanced illumination	0.50
AC plant replacement	9.00
Public address system	0.70
LPG treatment plant	8.00
Variable frequency drive motors	0.30
Portable fire water pump (additional)	9.00
Effluent treatment	5.00
Smoke detection system	4.00
High pressure alarm system	2.00
Drainage system around workshops	1.80
Up-gradation of fire alarm system at Korangi	1.00

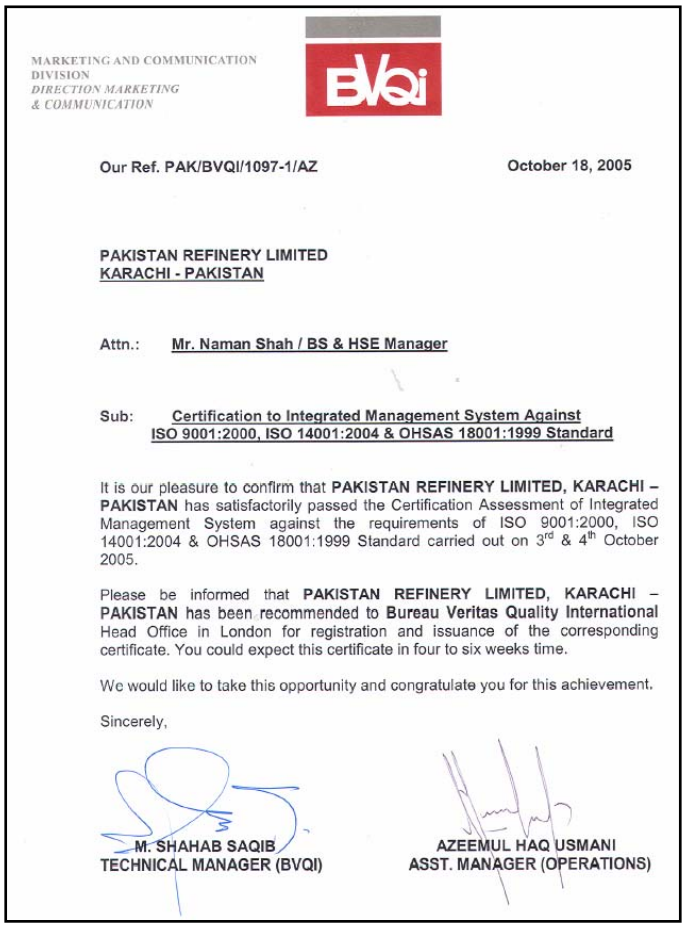
Approved Operating Expenditure on HSEQ Compliance (2005)

OPERATING EXPENDITURE FOR HSEQ COMPLIANCE (2005-06)	PKR million
Monitoring and measurement – effluents, emissions, soil, underground water, ambient air (External Assurance)	0.40
Calibration of HSE equipments	0.03
Sensors of HSE monitoring equipments	0.07
Certification of ISO-9001 and re-certification of ISO-14001 and OHSAS-18001	0.20
HSEQ related consultancies	0.05
Safety incentives / HSEQ suggestions	2.00
Oil spill recovery equipments	0.06
HSEQ related subscriptions / memberships	0.10
Publications, newsletters, environmental reports, stationary	0.65
Safety gears	0.60
Purchase of fire fighting foam	0.30

External Compliance / Non-Compliance

External Compliance

Third party audit of PRL Korangi and Keamari Terminal is carried out annually. This year third party audit for the certification of quality management system in accordance with ISO 9001:2000 along with re-certification audit against ISO 14001:2004 and OHSAS 18001:1999 standards was held in October 2005. The audit plan covered all clauses applicable to the activities / processes / facilities, which includes policy, environmental aspects / impact analysis, management commitment, objectives & targets, training records, competence level of employees, monitoring and measurement results, non-conformities, emergency response plan, mock drills, results of internal audit, management review and others. The auditors - Bureau Veritas Quality International (BVQI) identified no major or minor non-conformity and in fact complemented the HSEQ awareness of all the refinery staff along with the management commitment.



MARKETING AND COMMUNICATION
DIVISION
DIRECTION MARKETING & COMMUNICATION

BVQI

Our Ref. PAK/BVQI/1097-1/AZ — October 18, 2005

PAKISTAN REFINERY LIMITED
KARACHI - PAKISTAN

Attn.: Mr. Naman Shah / BS & HSE Manager

Sub: Certification to Integrated Management System Against ISO 9001:2000, ISO 14001:2004 & OHSAS 18001:1999 Standard

It is our pleasure to confirm that **PAKISTAN REFINERY LIMITED, KARACHI – PAKISTAN** has satisfactorily passed the Certification Assessment of Integrated Management System against the requirements of ISO 9001:2000, ISO 14001:2004 & OHSAS 18001:1999 Standard carried out on 3rd & 4th October 2005.

Please be informed that **PAKISTAN REFINERY LIMITED, KARACHI – PAKISTAN** has been recommended to **Bureau Veritas Quality International** Head Office in London for registration and issuance of the corresponding certificate. You could expect this certificate in four to six weeks time.

We would like to take this opportunity and congratulate you for this achievement.

Sincerely,

M. SHAHAB SAQIB
TECHNICAL MANAGER (BVQI)

AZEEMUL HAQ USMANI
ASST. MANAGER (OPERATIONS)

External Non-Compliance

One customer complaint was received during the year 2005, below is the brief detail

Brief description	Raised On	Closed Out Date
Customer complaint received from one of the oil marketing company regarding viscosity of HSFO, which they claimed was 184 Cst as against the maximum limit of 180 Cst. The complaint was dealt with effectively.	June 10, 2005	June 22, 2005

Internal Compliance / Non-Compliance

HSEQ Committees

In order to facilitate effective functioning of HSEQ Management System, PRL has one main Management and three sub-committees.

The Management HSEQ Committee meets after every six months under the chairman ship of Managing Director-CEO and evaluates health, safety, environment and quality performance based on the following inputs and take appropriate decisions for implementation:

- Progress of HSEQ Objectives and Targets
- Results of Internal Audit
- Status of Corrective and Preventive Actions
- Complaints / Communication from interested parties
- Customer Feedback
- Process performance and product conformity
- Monitoring / Measurement Results
- Accident / incident, near miss, operational upsets, etc.
- Inputs from HSEQ Sub-Committees

The sub-committee meets at least once in three months and discusses issues relating health, safety, environment and quality.

Walkthrough Inspections

As a proactive approach, a team is formed to conduct HSEQ walk through inspections in all the areas of refinery and Keamari Terminal. Walk through inspection is conducted at least once in three months.

Walkthrough Inspection Month	Total Jobs Identified	Jobs Completed	Percentage Completed
September 2004	203	202	99 %
December 2004	187	184	98 %
March 2005	137	131	96 %
September 2005	167	95	57 %

Management Team Field Tours

Members of management team conduct quarterly field visits and give safety talk to the employees in the field. Observations on HSEQ are also raised for immediate corrective action.

Internal Audits

Each process comprising the HSEQ management system is audited at least once every year. Below is the brief description of NCRs raised during the last internal HSEQ audit, which was held in June, 2005.

Brief description	Raised On	Closed Out Date
Two oil drums were found unidentified at crude pump.	June 22, 2005	July 30, 2005
Oil leakage from drain pit at road 01 (Keamari) in front of Tank – 51 yard.	June 22, 2005	August 30, 2005

Internal non-conformances (NCR) are also raised when any non-conformity is identified. Below is the detail of NCRs raised during the year 2005.

Brief description	Raised On	Closed Out Date
Activity of transferring of filled HCl (acid) cans from truck to acid storage shed was carried out without PPEs.	May 06, 2005	May 13, 2005
The value of CO in the emission from diesel generators was greater than the permissible limits specified by National Environmental Quality Standard.	June 06, 2005	August 07, 2005

Monitoring and Measurement

PRL monitors and measures the characteristics of activities / operations related to significant HSE impact and HSEQ Policy, Objectives & Targets.

Measurement / Monitoring Type	Location of Monitoring / Measurement / Sample Collection	Frequency of Monitoring / Measurement
Waste Water	Waste Water Treatment Plant at Korangi Refinery	Monthly
	API Separator at Keamari Terminal	Before Discharge
Sewage Water	Keamari Terminal	Monthly
Air Emissions	Boiler #1, 2, 3 & Main Furnace Stack at Korangi Refinery	Monthly
	Generators at Korangi Refinery & Keamari Terminal, RON test engine	Yearly
	Process Area Korangi, Waste Water Treatment Plant	Quarterly
Automobile Exhaust Emissions	Exhaust pipe of automobile used in PRL activities	Yearly
Noise	Process / Utilities / Tankfarm Area Korangi & Keamari Terminal.	Yearly
Soil and Underground Water	All monitoring wells	Yearly
Drinking Water	All drinking points	Yearly
Solid Waste	Korangi Refinery & Keamari Terminal	Every Delivery
Water Consumption	Korangi Refinery & Keamari Terminal	Monthly
Illumination	Korangi Refinery & Keamari Terminal	Yearly

HSE Suggestions

Safety Awards

Incentive Schemes on Suggestions / Innovations

Maintenance Plans

Calibration of Critical Equipments

Training and Development

Progress on Issues / Ongoing Problems

Sludge Disposal

Crude oil sludge from tanks was being dumped in tank yards; this had lead to soil contamination. In the first phase already dumped crude oil sludge was removed from tank yards for landfarming and in the second phase concrete sludge pits have been constructed for temporary storage before landfarming.

Mercury bulbs / lights

Replacement of tube lights / bulbs with mercuric tube lights / bulbs has lead to increased illumination and energy saving. But still there is no arrangement / method available for the disposal of fused mercury tube lights / bulbs. As mercury is a heavy metal, it requires special disposal technique. At present used tube lights / bulbs are stored separately until safe environmental friendly disposal option is explored.

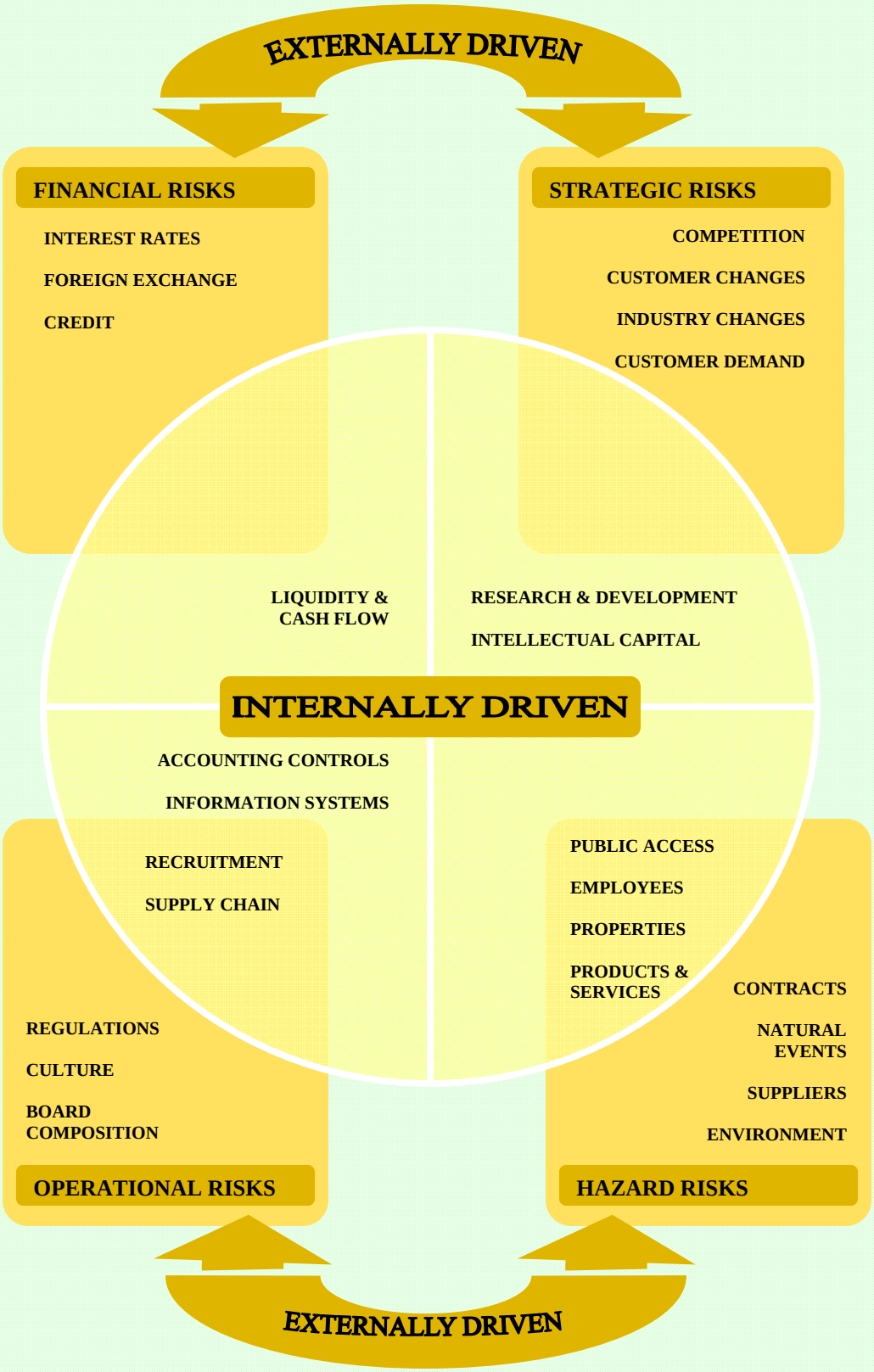
Use of R-22 Refrigerant Gas

R-22 refrigerant gas, which contributes to ozone depletion, is being used in air conditioners. In order to eliminate this environmental aspect, present air conditioning system is being replaced. Budget of 9.0 million PKR has been allocated in this regard.

Oil Spills

Oil spills due to poor condition of fuel oil bowzers had become a regular feature. Most of the incidents in the recent years were due to this. Management after analyzing the gravity of the situation decided to eliminate the risk by eliminating this hazard. Fuel oil gantry operation has been stopped. Fuel oil is now being pumped to marketing companies through pipelines via Keamari Terminal.

Risk Management Frame Work



Crisis Management / Emergency Preparedness & Response

Pakistan Refinery Limited has a documented Crisis Management Plan, which is applicable to emergency / crisis situation arising from PRL's direct / indirect activity. The document is based on the following fundamental principles: -

i. Minimizing harm to people
ii. Minimizing environmental impacts
iii. Protecting the reputation of refinery
iv. Minimizing liabilities
v. Minimum damage to the property

The purpose of the document is to:

i. Define responsibilities and provide guidance for appropriate response to emergency/ crisis situation.
ii. Ensure the principles of prevention, preparation, mitigation and restoration are met.
iii. Ensure that concerned / PRL Staff receives prompt and accurate information about the emergency / crisis situation in order to expedite response, control and decision-making.

There are two levels in this document, which set out roles, responsibilities and procedures:

i. Emergencies:

Emergencies are incidents beyond the capacity of area authority / first responder and require the assistance of emergency response team. These are the incidents that are normally contained and managed by PRL personnel. Such incidents range widely in size, location, cause and effect.

ii. Crisis:

When emergencies escalate and take form of crisis. A crisis is any critical emergency that involves series of death, threat to community, large-scale damage to environment/ property / flora / fauna / data, disruption of operations, threat to the ability to carry out business or damage to the image of the company.

Mock Drill Simulating 'Tank on Fire'

The effectiveness of the plan and extent of its preparedness is tested by conducting routine drill and mock drills. Different scenarios such as oil / chemical spill, fire, gas release, bomb threat and others are created in mock drills. Two mock drills are held annually, one each at PRL Korangi and Keamari Terminal.

Contingency Planning

Crisis Management Center

Crisis Management Center is located at PRL Korangi. This center acts as hub for all command and control activities. The center is equipped with all essential communicational facilities. Crisis are managed and controlled by Crisis Manager (MD-CEO), who is assisted by Crisis Management Team. Crisis Manager informs and remains in contact with Chairman and other stakeholders.

Composition of Crisis Management Team

- Managing Director and CEO – Crisis Manager
- GM Operations – Emergency Manager
- GM Commercial & Supply – Emergency Manager for marine spills
- GM Human Resources & Admin – Media Manager
- CFO – Member
- GM Projects, Construction & Materials – Member
- GM Engineering – Deputy Emergency Manager
- Business Strategy & HSE Manager – HSE Advisor and facilitator

Responsibilities of Crisis Management Team

- Provide timely, factual and accurate information to the media through a designated official spokesperson.
- Cooperate as fully as possible with the media, within the limits of safety, security and investor relations.
- Prevent comment or information being offered by unauthorized employees.
- Ensure all relevant management and media relations personnel are alerted as soon as possible.
- Keep employees informed.
- Keep the local community, civic leaders and emergency services informed.
- Provide timely information to other concerned public, including shareholders, regulatory authorities, suppliers and business partners.
- Do not offer speculative comment.
- Make known any management decisions relating to reconstruction, employee or community relief or future policy.
- Distinguish between cause, responsibility and blame. Where we are certain of the cause, we will disclose the fact. We acknowledge our responsibility to act in the public interest. We will not discuss issues of blame until all salient facts are known and confirmed.

Stakeholders Engagement / Feedback

PRL believes in a business strategy that generates value while contributing to the well being of the planet in general and communities living around in specific.

Communication Strategy

Top management ensures that communication takes place within the organization regarding the effectiveness of its Management System and the employees are involved in the development and review of policies / procedures and consulted when there are changes that affect work place safety, health and environment.

Employee involvement on HSEQ matters is ensured through:

- HSEQ Committees
- Hazard identification and risk assessment process
- Training programmes
- Involvement in incident investigations
- Planned inspections
- Safety talks
- Milestone recognition/celebrations

PRL communicates externally about its significant HSE hazards and risks if desired by any of the interested party. Procedure defines methodology for receiving, documenting and responding to request for information and communication on HSE issues from external interested parties.

Stakeholders Engagement / Feedback

- HSE performance published in the financial report (2005) to provide information about the environmental and operational performance of Pakistan Refinery Limited to all stakeholders for assessing their relationship with PRL.

- HSEQ policy and environmental report 2004 is available on PRL web site.

- The complaints are received through web or by individual managers and diverted to MR for proper handling and corrective measures.

- The customers and stakeholders are provided full assistance to handle emergencies, which are beyond their control.

- Lecture to PSO employees given on Hazard identification, risk assessment and development of operational controls to minimize damage to the property in case of fires and other emergencies by our Business Strategy and HSE Manager.

- PRL presented case study (Corporate Social Responsibility) to different organizations in Lahore by our Business Strategy and HSE Manager. The event was organized by PERT.

Stakeholder's Issues and Actions

Stakeholder	Issues	Action
Shell gas (Adjacent to PRL)	Wild growth around PRL boundary wall and poor visibility on PRL approach road during night.	Wild growth removed and a plan made to avoid in future. Permanent streetlights provided on the approach road.
Local Community	JP-1 line to airport is passing through some residential areas.	Line re-routed.
PARCO	PARCO Fire engine under maintenance for one month and no alternate available.	PRL fire staff instructed to send Fire engine in case of any emergency.
PSO	Fire at their Lube Oil blending plant.	Fire engine with crew and specialist sent to site who extinguished the fire to minimize environmental damage.
Employees	Quality of Gloves and Safety shoes.	Quality of gloves and shoes improved.

Demonstration of Commitment


Certification
Awarded to
PAKISTAN REFINERY LIMITED
REFINERY: P.O. BOX # 6012, KORANGI CREEK ROAD
DEPOT: PORT AREA OIL STORAGE TERMINAL, KEAMARI
PAKISTAN
BVQI certify that the Quality Management System of the above organisation has been assessed and found to be in accordance with the requirements of the standard detailed below
STANDARD
ISO 9001:2000
SCOPE OF SUPPLY
REFINING, STORAGE AND DISTRIBUTION OF CRUDE OIL AND PETROLEUM PRODUCTS IN THE REFINERY AT KORANGI CREEK AND KEAMARI DEPOT


ACCA-WWF PAKISTAN
BEST
ENVIRONMENTAL REPORTING
AWARD
2004
ACCA-WWF Pakistan
Environmental Reporting Awards 2004
Best Environmental Report - Local Listed Companies
Pakistan Refinery Limited
ACCA
WWF
Rewarding Transparency


Certification
Awarded to
PAKISTAN REFINERY LIMITED
REFINERY: P.O. BOX # 6012, KORANGI CREEK ROAD
DEPOT: PORT AREA OIL STORAGE TERMINAL, KEAMARI
PAKISTAN
BVQI certifies that the Environmental Management System of the above organisation has been assessed and found to be in accordance with the requirements of the standard detailed below
STANDARD
ISO 14001:2004
SCOPE OF SUPPLY
REFINING, STORAGE AND DISTRIBUTION OF CRUDE OIL AND PETROLEUM PRODUCTS IN THE REFINERY AT KORANGI CREEK AND KEAMARI DEPOT


DNV
LOSS CONTROL MANAGEMENT
CERTIFICATE
This is to certify that
PAKISTAN REFINERY, LIMITED
Karachi, Pakistan
has met the criteria of
Level (1) One
of
DNV's International Safety Rating System
6th Edition
based on
Optional Element Scoring (OES)
The following activities have been assessed:
Management
Auditor


Certification
Awarded to
PAKISTAN REFINERY LIMITED
REFINERY: P.O. BOX # 6012, KORANGI CREEK ROAD
DEPOT: PORT AREA OIL STORAGE TERMINAL, KEAMARI
PAKISTAN
BVQI certifies that the Occupational Health & Safety Management System of the above organisation has been assessed and found to be in accordance with the requirements of the standard detailed below
STANDARD
OHSAS 18001:1999
SCOPE OF SUPPLY
REFINING, STORAGE AND DISTRIBUTION OF CRUDE OIL AND PETROLEUM PRODUCTS IN THE REFINERY AT KORANGI CREEK AND KEAMARI DEPOT


BRITISH SAFETY COUNCIL
ORGANIZATIONAL MEMBER
This is to certify that in the interests of
ACCIDENT & FIRE PREVENTION
AND OCCUPATIONAL HEALTH
PAKISTAN REFINERY LIMITED
is a member of the
BRITISH SAFETY COUNCIL

Accreditation
Third Party Assessor's Statement

Certification Objectives and Scope

Bureau Veritas Quality International (BVQI) was appointed as independent assessor to carry out the third party assessment of Health, Safety, Environmental and Quality Management System of Pakistan Refinery Limited in accordance with the requirements of International Standards ISO 14001:2004, OHSAS 18001:1999 and ISO 9001:2000 during the month of October 2005. The main objective of this assessment was to evaluate PRL's commitment towards the establishment and adherence of the said standards and also to verify the compliance of various regulatory and statutory requirements such as National Environment Quality Standards (NEQS) 2000, and the others to which PRL subscribes.

The assessment carried out in the year 2002 resulted in the Certification of Pakistan Refinery Limited towards ISO 14001:1996 and OHSAS 18001:1999 valid for a period of three years and the present one was re-certification audit towards ISO 14001:2004 and OHSAS 18001:1999 along with certification audit towards ISO 9001:2000 valid for another three years.

The scope that was covered during the assessment included refining, storage and distribution of crude oil and petroleum products at Korangi Refinery and Keamari Terminal.

Continuous Monitoring

As per the certification policy and IAF (International Accreditation Forum) Guidelines, it is obligatory for organizations to undergo continuous monitoring by the certification body to ensure compliance to requirements on an on-going basis. Bureau Veritas Quality International (BVQI) has been performing regular surveillance audits every year and found the implementation of the requirements in full effect. Also major improvements were observed in the areas of health, safety and environment, providing evidence to the core theme of the standards, which require organization to continually improve its HSEQ Management System once it subscribes to certification.

Verification Method

The assessment scheme is based on review of environmental aspects identified by PRL, which have significant impact on environment, all health and safety hazards having associated significant risks and interaction of the processes are reviewed. Representative samples are selected from activities of PRL and audited for compliance against requirements of ISO 14001:2004, OHSAS 18001:1999 and ISO 9001:2000.

A detailed site tour of Refinery and Storage Areas in Korangi and Keamari is also performed in every visit to ensure that operational controls are effectively established and implemented. Crisis Management / Emergency Preparedness and response plans are also tested to ensure that organization is well equipped to respond to any untoward incident or accident. The continuous monitoring of PRL's HSEQ System has provided confidence to BVQI that the system is effectively and efficiently functioning in compliance to recognized regulatory and statutory requirements as well as requirements of ISO 14001:2004, OHSAS 18001:1999 and ISO 9001:2000.

Responsibilities of Executive Management and Verifier

As per PRL's HSEQ Management Manual, the ultimate responsibility of ensuring the adequacy of the HSEQ Management system lies with the Chief Executive Officer and Managing Director who is responsible for continuous observance to stated and implied requirements of health, safety, environment and quality at all times.

Bureau Veritas Quality International (BVQI) has not been involved in the development or consultation of PRL's HSEQ Management System at any point in time and has maintained the independence and credibility during the entire certification process.

Opinion

Transparency and Completeness

The management system in response to requirements of ISO 14001:2004, OHSAS 18001:1999 and ISO 9001:2000 intends to cover significant environmental impacts and health and safety risks and quality issues. The management programs cover minute details to meet the objectives and targets established by the organization in order to continually improve it HSEQ performance. The objectives and targets are regularly assessed and management programs are reviewed and audited by BVQI to ensure progress towards meeting HSEQ commitments.

The Environmental Report-2005 clearly reports objectives, programs, and measures taken by PRL to ensure its continued commitment and it is BVQI's opinion that the text and data have been presented in a fair and balanced manner.

The stakeholders are regularly informed through effective communication procedures about the health, safety, environmental and quality performance and key issues which require their attention. We look forward to stakeholders' opinions on the issues covered in this written report and the process for this being presented in a transparent manner.

Accuracy

The health, safety, environment and quality performance reporting system is effective, generating data which when aggregated at a corporate level is generally accurate and reliable. The system is well incorporated in the business processes, with a high level of commitment noted during the assessment process.

Health, Safety, Environment and Quality Strategy

Noted progress has been accomplished in implementing the PRL's HSEQ strategy which resulted in commissioning of effluent treatment plant, effective solid hazardous waste management, continuous monitoring of soil and underground water contamination, elimination of low density asbestos, replacement of glands with mechanical seals on pumps, review of shipping standards, products conformity and procurement of oil spill equipment, resulting in compliance towards the requirements of ISO 14001:2004, OHSAS 18001:1999 and ISO 9001:2000 and strong adherence to PRL's own commitment of being an environmental friendly, employee health, safety and products conformity conscious organization.

As a proactive measure towards meeting the future challenges and maintaining company's image and credibility, Bureau Veritas Quality International (BVQI) proposes PRL to initiate Risk Based Inspections to minimize operational risks, optimize equipment availability, avoid assets damage and minimize business interruptions.

M. Sahab Saqib
Technical Manager
BVQI-Pakistan

Pakistan Refinery Limited

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