



Sui Northern Gas Pipelines Limited

sng

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OGRA

Hearing for Estimated Revenue Requirement (ERR) for FY 2015-16



Editorial Board

Patron-in-Chief
Mrs. Uzma Adil Khan

Chief Co-ordinator
Syed Jawad Naseem

E Team
Media Affairs Department

The Company, under section 8(1) of the Oil and Gas Regulatory Authority Ordinance (OGRA) 2002 and Rule 4(2) of the Natural Gas Tariff Rules (NGTR) 2002 filed a Petition before the Authority on December 01, 2014 for Determination of Estimated Revenue Requirement (DERR) for FY 2015-16.

Based on the petition, the shortfall worked out to Rs. 16,643 million which translates into an increase of Rs. 38.35/MMBTU in the Prescribed Prices w.e.f. July 01, 2015.

Subsequently, the Company revised its petition on account of an increased number of urgent fee (domestic) connections and revision in Distribution Development budget against GOP directives. Based on this, the shortfall worked out to Rs. 17,168 million which translates into an increase of Rs 39.55/MMBTU in the Prescribed Prices w.e.f. July 01, 2015.

The Oil and Gas Regulatory Authority (OGRA) in accordance with the procedure mentioned in the OGRA Ordinance 2002 decided to conduct

Contd....

More inside:

Dehydration of Natural Gas ● Regulatory Affairs ● SNGPL Retired Officers ● GM HSE Lachi Camp Visit



public hearing for Estimated Revenue Requirement (ERR) for FY 2015-16 in Lahore and Peshawar, the Provincial capitals of Punjab and Khyber Pakhtunkhwa on September 10, 2015 and September 14, 2015 respectively.

The SNGPL team was led by Deputy Managing Director (Services), Deputy Managing Director (Operations), along with the Chief Financial Officer, Senior General Managers and other senior officers of the Company.

The hearing started with the recitation of the Holy Quran. The Registrar **OGRA** read out the rules and procedure of the hearing. The Chairman OGRA requested **SNGPL** to present its revenue requirement for FY 2015-16.

The Deputy Managing Director (Services), **Mr. Amer Tufail** gave the opening remarks highlighting the achievements of the Company in the last five years despite decrease in supplies from various fields and worsening law and order situation in the franchise areas including Gurguri, Kohat and Southern Punjab. The Deputy Managing Director (Services) also highlighted the financial problems being faced by the Company due to non-issuance of pending decisions for **FRR FY 2012-13 and FY 2013-14**.

The Deputy Managing Director then requested the Chief Financial Officer of the Company to give a detailed presentation

on Company's Petition for ERR 2015-16. The Chief Financial Officer gave a detailed presentation with the help of multimedia, highlighting the main points of the Company's revenue requirement for FY 2015-16.

After the presentation by the Chief Financial Officer, the legal counsel of the Company gave a detailed presentation on the different problems faced by the Company due to non-adherence of Natural Gas Tariff Rules 2002 and applicable license conditions. The Authority raised various queries which were amicably responded.

After the presentation by SNGPL's representatives, the Chairman OGRA requested the interveners to present their point of view on the revenue requirement of **SNGPL for FY 2015-16**. Various interveners including nominees of different industries, consumer groups and media persons gave their input on the ERR 2015-16. The Intervener also gave suggestions to improve the overall natural gas sector in Pakistan. The Authority as well as the Management of SNGPL appreciated the suggestions and concerns of the interveners / consumers while assuring them of their full cooperation.

The Second phase of the hearing was conducted on **September 14, 2015** at Pearl Continental Hotel Peshawar. The SNGPL team for Peshawar hearing was led by Senior General Manager- North, **Syed Zahid Hussain** and other senior officers of the Company.

The hearing started with the recitation of the Holy Quran. The Registrar OGRA read out the rules and procedure of the hearing. The Chairman OGRA requested SNGPL to present its revenue requirement for **FY 2015-16**.

The Senior General Manager- North Syed Zahid Hussain gave the opening remarks highlighting the achievements of the Company despite decrease in supplies from various fields and worsening law and order situation in the franchise areas including Gurguri, Kohat and Southern Punjab. He requested the Authority to give due consideration to the ground realities and problems faced by the Company while deciding pivotal matters in the decision.

The Senior General Manager- North then handed over the podium to **Syed Jawad Naseem General Manager (RA)** of the Company for presentation of the Company's petition. The General Manager (RA) gave a detailed presentation with the help of multimedia, highlighting the main points of the Company's revenue requirement for FY 2015-16. The Authority raised various queries which were amicably responded.

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TOTAL QUALITY MANAGEMENT

Total Quality Management (TQM) is a management approach that originated in the 1950s and has steadily become more popular since the early 1980s. Total quality is a description of the culture, attitude and organization of a company that strives to provide customers with products and services that satisfy their needs. The culture requires quality in all aspects of the Company's operations, with processes being done right the first time and defects and waste eradicated from operations to bring the organization more productive.

To be successful in implementing TQM, an organization must concentrate on the eight key elements:

- Ethics
- Integrity
- Trust
- Training
- Teamwork
- Leadership
- Recognition
- Communication



The purpose of this subject is to describe the eight elements comprising TQM.

KEY ELEMENTS

TQM has been coined to describe a philosophy that makes quality, the driving force behind leadership, design, planning, and improvement initiatives. For this, TQM requires the help of those eight key elements. These elements are divided into four groups according to their function. The groups are:

- I. Foundation – It includes: Ethics, Integrity and Trust**
- II. Building Bricks – It includes: Training, Teamwork and Leadership.**
- III. Binding Mortar – It includes: Communication.**
- IV. Roof – It includes: Recognition.**

I. FOUNDATION

TQM is built on a foundation of ethics, integrity and trust. It fosters openness,

fairness and sincerity and allows involvement by everyone. This is the key to unlocking the ultimate potential of TQM. These three elements move together, however, each element offers something different to the TQM concept.

1. Ethics – Ethics is the discipline concerned with good and bad in any situation. It is a two-faceted subject represented by organizational and individual ethics. Organizational ethics establish a business code of ethics that outlines guidelines that all employees are to adhere to, in the performance of their work. Individual ethics include personal rights or wrongs.

2. Integrity – Integrity implies honesty, morals, values, fairness, and adherence to the facts and sincerity. The characteristic is what customers (internal or external) expect and deserve to receive. People see the

opposite of integrity as duplicity. TQM will not work in an atmosphere of duplicity.

3. Trust – Trust is a by-product of integrity and ethical conduct. Without trust, the framework of TQM cannot be built. Trust fosters full participation of all members. It allows empowerment that encourages pride, ownership and commitment as well as continuous improvement.

II. BRICKS

Basing on the strong foundation of trust, ethics and integrity, bricks are placed to reach the roof of recognition. It includes:

4. Training – Training is very important for employees to be highly productive. Supervisors are solely responsible for implementing TQM within their departments, and teaching their employees the philosophies of TQM. Training that

Editor's Note

With the advent of Autumn, the SNGPL work force is all geared up to face the upcoming winters. Advanced strategies and methods are being formed to face the shortage of gas and similar issues faced by the consumers, during the winter season. However, the underlining event of the month of October was the OGRA Hearing for Estimated Revenue Requirement (ERR) for FY 2015-16. It was held in Lahore and Peshawar respectively to put forth the concerns of the Company. The edition further comprises of some notable achievements of departments like HSE, Telecom and Transmission. The milestones achieved and the innovations made are of considerable value and will surely take things one step ahead. This month has few important interactions of the Managing Director. The edition gives accolade to the retiring employees of the Company. It is a humble gesture to show regard towards their service at SNGPL spreading over several decades.

Syed Jawad Naseem
General Manager
(Media Affairs)

employees require are interpersonal skills, the ability to function within teams, problem solving, decision making, job management performance analysis and improvement, business economics and technical skills.

5. Teamwork – To become successful in business, teamwork is also a key element of TQM. With the use of teams, the business will receive quicker and better solutions to problems. Teams also provide more permanent improvements in processes and operations. Mostly Quality improvement teams or excellence teams (QITs), Problem solving teams (PSTs) and Natural work teams (NWTs) all work together to achieve the results.

6. Leadership -- Leadership in TQM requires the manager to provide an inspiring vision, make strategic directions that are understood by all and to instill values that guide subordinates. For TQM to be successful in the business, the supervisor must be committed in leading his employees.

III. BINDINGMORTAR

7. Communication -- Starting from foundation to roof of the TQM house, everything is bound by strong mortar of communication. It acts as a vital link between all elements of TQM. Communication means a common understanding of ideas between the sender and the receiver. There are three ways of communication i.e. downward communication, upward communication & sideways communication.

IV. ROOF

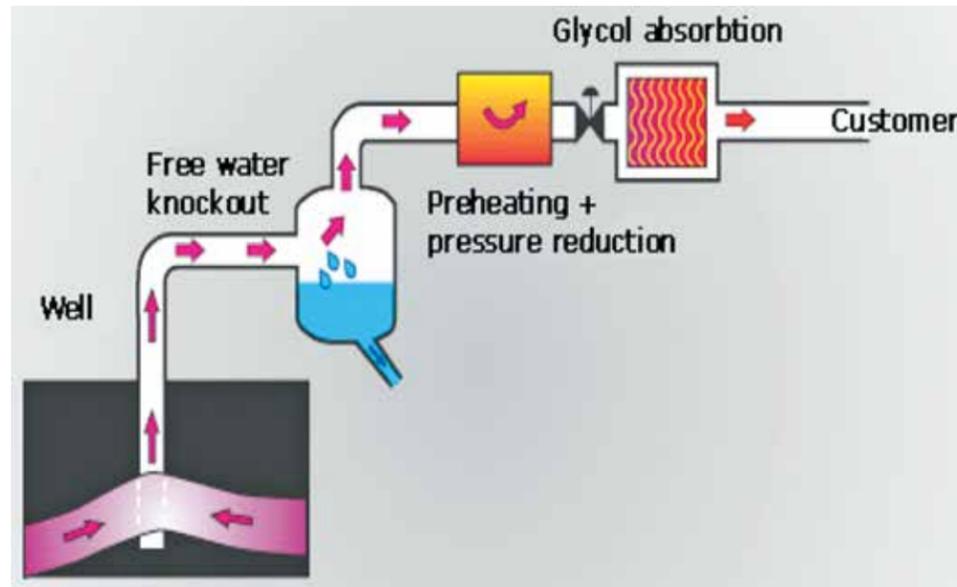
8. Recognition – Recognition is the last and final element in the entire system. It reflects suggestions and achievements for teams as well as individuals. Employees strive to receive recognition for themselves and their teams. Recognition comes in various forms like ways, places and time.

CONCLUSION

Conclusively these eight elements are key factors in the success of TQM for an organization and supervisor plays a major role in developing these elements in the work place.

Mr. Amjad Ishaque
(Sr. Engineer Comp)

DEHYDRATION OF NATURAL GAS



Water and hydrocarbons can form hydrates, which may block valves and pipelines. Known for over 70 years, this has been the primary cause of plugging of transmission lines. Until today, the most popular separation technology remains absorption with liquid Tri-ethylene Glycol (TEG), followed by adsorption with solid adsorbents such as silica, molecular sieve or alumina, which was introduced in the late 1950's. Other offered technologies comprise membranes, vortex tubes and even supersonic separations. The amount of water in a gas is often described not in terms of concentration (such as mg/Nm³) but rather as a temperature ("dew point temperature") below which water will condense and form liquid droplets. This dew point temperature is also dependent on the amount of water present in a gas.

Before natural gas can be fed into the supply grid, it has to be treated. The composition of the natural gas supplied is dependent on the type and depth of the reservoir. The gas will certainly be mixed with water in the form of reservoir brine and condensation. In 1,000 cubic meters of gas there can be anything between 10 and over 100 liters of water. To prevent any corrosion or impermeation through gas hydrate formation in the supply pipelines, this damp gas has to be dried. Since it is mainly water that is separated off, one normally refers to the process as gas dehydration.

However, other undesirable components of natural gas are higher hydrocarbons and traces of mercury. These substances are also removed in the treatment process. The facilities where this process is carried out are known as gas dehydration plants. Every well site has its own gas dehydration plant so the gas does not have to pump over any great distance before treatment.

Initial Water Removal before Dehydration

In addition to separating oil and some condensate from the wet gas stream, it is necessary to remove most of the associated water. Most of the liquid, free water associated with extracted natural gas is removed by simple separation methods at or near the wellhead.

Low Temperature Separation (LTS) Method

Like all other gases, natural gas cools down when pressure is reduced. This is known as the **Joule-Thomson Effect**. By gradually reducing the pressure, the temperature of the gas is lowered to -32°C. As a result, the water and the higher hydrocarbons and mercury condense, leaving the natural gas ready for use.



Gas Treatment: The natural gas comes up from the reservoir via the production string and reaches the surface at pressures of up to several hundred bars. From the wellhead the gas is pumped along a high-pressure pipeline into the first section of the gas dehydration plant.

Free Water Knockout: The first step in the treatment process takes place in the so-called free water knockout unit. The tiny drops of water carried in the gas stream are separated and disposed of.

Preheating and Pressure Reduction: In order to utilize the Joule-Thomson effect, the gas has to be at a specific temperature at the beginning of the process. First a pre-heater heats up the cold gas to the required temperature. Later the temperature is reduced in a cooling unit. Reducing valves lower the pressure of the gas in two stages to 115 - 125 bar with the result that the water vapor condenses and is collected in the pre-separator. In the subsequent cold separator the remaining water, mercury and higher hydrocarbons are also abstracted. The hydrocarbons are transported to a refinery for further processing.

Final Drying Process: The final drying process is to remove any remaining moisture from the gas. The removal of the water vapor that exists in solution in natural gas requires a more complex treatment. This treatment can be carried out by different methods and techniques listed below. However the most widely and commercially methods in use are Glycol Dehydration and Dry Desiccant Dehydration.



Methods

Following is the list of methods being used for the Dehydration of Natural Gas.

- Glycol Dehydration (Tri-ethylene glycol i.e. TEG & Di-ethylene glycol i.e. DEG)
- Desiccant Dehydrators (Hygroscopic salts e.g. CaCl₂, LiCl₃)
- Dry Desiccant Dehydrators using Molecular Sieves, Silica Gel, Activated Alumina or Activated Carbon
- Membrane Systems
- Vortex tubes
- Supersonic Separations
- Ethylene Glycol (MEG) Injection
- Methanol (MeOH) Injection

These processes can be used as stand alone systems, or as a component of a larger, more complicated processing facility. Each process has unique advantages and disadvantages. The requirements of each application will determine the one best suited.

Contributed by: **Zeeshan Qadar**
Executive Engineer (T), Head Office

WOBBE INDEX

Natural gas interchangeability is a key subject nowadays due to scarcity of Natural gas reserves in Pakistan and other countries. Every possible effort is being made that quality of natural gas being supplied to Boilers, Burners, Power plants and Gas turbines meets consumer needs. More over, LNG has emerged as major source and everyone knows that compositions of gas derived from LNG vary substantially from domestically produced gas. Some of the new equipments are very sensitive to gas quality due to operation and emission issues. Once it was considered that BTU content per cubic foot is the true representation of energy content of natural gas arriving from the gas line to burner but now, it is BTU per cubic foot divided by square root of specific gravity i.e. Wobbe Index.

The index is named after Italian scientist Goffredo Wobbe. In the late 1920s, he first determined the relationship between the heat output of a burner, the specific gravity of the gas used and its higher heating value. His work is critically important highlighting that not all types of fuel gas are created equally.

The **Wobbe Index** (also Wobbewert, Wobbekennzahl) is measure of the degree to which the combustion characteristics of one gas resembles to those of another gas. Two gases are said to be interchangeable when one gas may be substituted for the other without affecting the operation of gas burning appliances or equipment.

It is the amount of heat released, equal to the gross calorific value of the gas in British thermal units per cubic foot at standard temperature and pressure divided by the square root of the specific gravity of the gas.

$$\text{Wobbe Index} = \frac{\text{Gross Heat Value}}{\sqrt{\text{Specific Gravity}}}$$

If V_C is the higher heating value, or higher calorific value, and G_s is the specific gravity, the Wobbe Index, I_w , is defined as:

$$I_w = \frac{V_C}{\sqrt{G_s}}$$

The Wobbe index is commonly expressed in either HYPERLINK "http://en.wikipedia.org/wiki/British_Thermal_Unit" \o "British Thermal Unit" British Thermal Units (BTU) per standard cubic foot, or else mega joules per HYPERLINK "http://en.wikipedia.org/wiki/Standard_conditions_for_temperature_and_pressure" \o "Standard conditions for temperature and pressure" standard cubic meter (1,000 Btu/Scf = 37.3 MJ/Sm³). In the case of natural gas (HYPERLINK "http://en.wikipedia.org/wiki/Molar_mass" \o "Molar mass" molar mass 17 g/mol), the typical heating value is around 1,050 BTU per cubic foot and the specific gravity is approximately 0.59, giving a typical Wobbe index of 1,367 BTU/SCF (51 MJ/m³).

For pure Methane and next two "heavier" hydrocarbons, Ethane and Propane, properties are as follows:

Sr. No.	Component	Gross Heat Value (Btu/Scf)	Specific Gravity	Wobbe Index (Btu/Scf)
1	Methane	1012	0.55	1365
2	Ethane	1773	1.04	1739
3	Propane	2533	1.52	2046

For the purposes of the Wobbe index, fuel gases are split up into two families, which are; The Manufactured, or "Town" Gas and Natural Gas. Pressure, specific gravity, and calorific value make up a fuel's potential energy, and vary between families and even among gases of the same type, depending on the supplier. LPG fuels typically possess the highest index numbers, with natural gas in the middle and town gas on the low end.

Family	Type Of Gas	Wobbe Index Range (Btu/Scf)
1	Town Gas / Syngas	604 – 805
2 L	Natural	1046 – 1207
2 H		1220 – 1475
3	LPG	1972 – 2347

Other flame characteristics and composition limits may determine the acceptability of the replacement gas, "yellow tipping" due to incomplete combustion, sulfur content, oxygen content, etc.

References:

1. "Wobbe Index" Wikipedia
2. "The Wobbe index and Natural Gas interchangeability" Application data, document 1660 AD-5a July 30, 2007, page 1-2
3. "Interchangeability" by Edgar Kuipers, Shell NA LNG

Contributed By: **Raja Mustansar Mahmood**
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INVENTORY BATCH Processing Application



With a vision of continuous improvement, IT-ERP Team is focusing on prompt, accurate, reliable, error free information and transactions flow in Oracle applications:-

To achieve such targets in Oracle Inventory module, ERP technical team has developed a Batch Processing Application duly integrated with Oracle ERP for centralized batch processing of inventory documents across 43 store locations on daily basis.

Furthermore, the same application has been successfully rolled out to concerned departments after giving necessary trainings.

SUI NORTHERN GAS PIPELINES LIMITED
Inventory Batch Processing Application
Version 1.0.0

Key Features

- Daily centralized Batch Processing of 43 Store Locations
- Facilitate Batch Processing of the following Documents:
 - Stack Documents
 - MRV
 - ISST-6
 - MISC Receipts
 - Finance Documents
 - SA
 - ST
- Cross Verification of Data Punched by Store Resources before Final Posting to Oracle Inventory through Batch Processing Application
- Maintained Daily Batch Processing History Day by Day
- Real Time View of New and Existing Batches with Pending Status
- Able to Process different Periods Pending Batches

Integrated with Oracle ERP Inventory

24/7 IT Support For ERP & CC&B Application

24/7/365 has appeared more regularly in the last couple of years or so, and is of course inspired by the use of the term 24/7 to mean 'all the time', i.e. 24 hours a day, 7 days a week. With its embellishment of 365, this new variation emphasizes the fact that something happens not only all day, but also on every day of the calendar year, with no breaks for weekends, public or other holidays. However unlike days and weeks, which unequivocally contain 24 hours and 7 days respectively, the number of days in a year varies once every four years. In 2012 there was therefore some evidence for use of a modified version 24/7/366, taking into account the extra day afforded by a leap year.

Through 24/7 IT/MIS support following milestones were achieved during the month of September:-

- CBA Agreement for the year 2013-15 against more than 7,000 Subordinate staff have been updated in Oracle payroll system.

- Annual increment/salary revision for the year 2014-15 for more than 1,200 Executives
- Annual closing against Oracle Supply Chain Management and Oracle Financials

- Definition and reconciliation of Annual Capital Budget for the Year 2015-16
- Billing operations/Jobs for more than 5 million consumers.
- Database, application, system, network and end user support.



AUTOMATION OF JOB COMPLETION REPORTS (ORACLE INVENTORY SYSTEM)

Completion report and its Importance

Completion report is a tool used to reconcile the cost incurred on the Job with the financial / perpetual record, for example:

- Reconciliation of material consumed with stores inventory record;
- Reconciliation of Contract Payments/Over heads with financial records;
- Analysis of Actual Cost of the Job with Budget Sanctioned.

At SNGPL, capitalization is carried out at the end of each financial year on the basis of "Commissioning Status" by the Job holder followed by "Completion Report" on the approved format by Board of Directors.

The Finance department, after implementation of integrated module of Stores Module of Oracle Inventory, has successfully implemented a work-around solution for preparation of completion reports through Oracle Inventory Module.

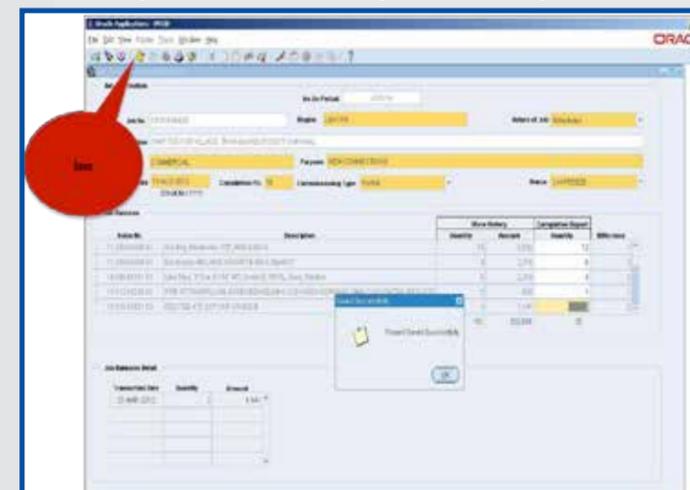
Key Benefits of the SNGPL Job Completion Entry Form (Oracle Inventory System)

The benefits reaped by the utility are:

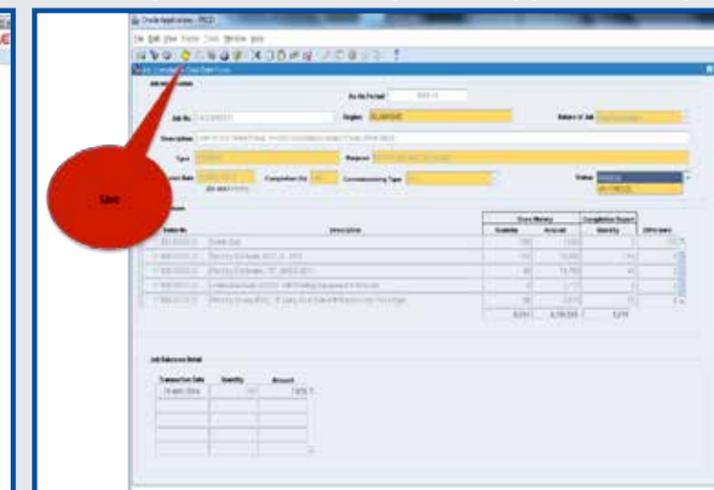
- Preparation of Job completion reports on timely basis;
- In time discharge of information relating to the non reconciled/not received information regarding the completed jobs enhancing the efficiency of job costing system;
- Elimination/reduction of data entry errors;
- Completion reports are always access able on Oracle Financials, which reduces the requirement of space for housekeeping.

Preparation of Completion Reports – A 3 Step procedure:

Job Completion Date Entry Form - Step-I



Job Completion Date Entry Form-Approval - Step-II



Material Reconciliation Statement - Step-III

SUI NORTHERN GAS PIPELINES LIMITED. Material Reconciliation Statement As on Period JUN-14					
Job Number	14/32/363011	Nature of Job	Scheduled		
Description	CWIP-CMS IND. FSD	Type	Industrial		
		Purpose	New Connect		
Region	Faisalabad	Commissioning Date	30-NOV-14		
Completion %	100	Commissioning Type	Full		
Index No	Description	Store History		Completion Report Quantity	Difference Quantity
		Quantity	Amount		
15.040.00235.03	Stud Bolt, 5/8" x 3-1/2", ASTM A 193 Grade B7, with Nuts ASTM A 194 grade 2H & Washers BS 3410	16	1,099	16	0
35.017.00001.03	MTR 3M-125 WITH EMCO R	1	54,910	1	0
35.017.00127.03	MKM-250 C/W, 3/4"	1	5,508	1	0
35.025.00640.03	Electronic Volume Corrector (EVC)	1	44,874	1	0
Total:		19	106,191	19	0
Prepared By		Approved By			
Signature: _____		Signature: _____			
Name: _____		Name: _____			
Designation: _____		Designation: _____			

PEAK SHAVING WITH SYNGAS (SNG)

Synthetic Natural Gas (SNG) plays a critical role in meeting the energy needs. SNG is a term that describes a variety of “manufactured gases”. In our case, SNG is a blend of Liquefied Petroleum Gas (LPG) and air that provides a direct replacement for natural gas. Natural gas is an easy first choice among fuels; however, its popularity has consequences, not all of them good for consumers. Concerns of shortages leave many large gas consumers concerned over how to ensure delivery of this clean energy resource while hoping to minimize how much it costs. For many, the solution may include a popular gas-energy alternative Synthetic Natural Gas (SNG).

To create SNG we dilute vapor with air to approximately 45% air and 55% LPG. LPG-Air or SNG can play both a strategic and tactical role in meeting specific energy needs.

Characteristic of SNG

If the natural gas and the SNG have an identical wobble index, they produce an equivalent amount of energy and require the same amount of combustion air. Burners operating on SNG will not require pressure adjustment and the measure and observed combustion characteristic.

Wobbe Index is considered one of the better indicators of the interchangeability. Wobbe Index can be generally defined as “energy flow”. It is calculated as the ratio of the calorific value to the square root of the specific gravity relative to air (i.e. SG air = 1). Wobbe index is used when “energy input” rather “gas” flow is of interest. This is the case for example, with a gas appliance. With an appliance, the gas input rate is controlled by the jet or burner. If the gas is supplied at constant pressure, the flow is proportional to the reciprocal of the square root of the specific gravity. Hence energy input is proportional to Wobbe index. Such

an index is necessary in case where the feedstock LPG varies and can alter the calorific value. For example, assuming the LPG is propane; an SNG mixture to replace natural gas will have a specific gravity of about 1.29-1.31 and a BTU value of 1400-1500 BTU/Ft³.

Wobbe Index Calculation

$$I_W = \frac{V_C}{\sqrt{G_S}}$$

V_C is the higher heating value, or calorific value,
 G_S is the specific gravity
 I_W is the Wobbe Index

Natural Gas	SNG
Heating Value: 1017 BTU/FT ³	Heating Value: 1502 BTU/FT ³
Specific Gravity: 0.60	Specific Gravity: 1.31
Wobbe Index $\frac{1017}{\sqrt{0.60}} = 1312$	Wobbe Index $\frac{1502}{\sqrt{1.31}} = 1312$

Natural gas interchangeability makes sense when the economic investment to provide the interchangeable fuel cost less than obtaining pipeline capacity to deliver the same amount of natural gas. SNG system can be tangible investment in both long term security and flexibility of gas supply.

A significant number of utility SNG systems have been installed around the world to meet the demand in peak shaving. As natural gas industry faces two seasonal peak demand periods. The traditional winter “heating” peak which is followed by an emerging summer peak as natural gas is increasingly used for power generation. This growing reliance on gas-fired power generation exerts more pressure on gas deliver-ability. With increased price variability and seasonal volatility the ability to strategically manage natural gas shortage is critical. Using LPG/air blends to stimulate and replace natural gas can be a powerful tool.



SNG is typically classified as.

1. Peak Shaving:

This allows both natural gas distribution companies and industrial gas consumers to supplement their natural gas during peak demand period.

2. Base-Load Systems:

This provides a natural gas equivalent bridge fuel in regions where natural gas will be implemented but is not yet available.

3. Backup Systems:

This allows industrial gas consumers to use SNG during curtailment periods, and allows taking advantage of arbitrage opportunities.

SNG technology is never more than part of an equation when it comes to energy management. But to consider using SNG requires an understanding of overall LPG

logistics. If supply and pricing are appropriate, SNG can be an attractive energy alternative to natural gas for peak shaving. Pakistan has a mature history of using LPG based SNG system. Pakistan’s first base load SNG system was commissioned over 30 years ago. The system served Quetta City, the capital of Baluchistan providing 7,500 m³/h of SNG via a pipeline grid at approximately 2 bar g. In late 2005 Southern Sui Gas Company began construction of an SNG system in the city of Gwadar, a port city also located in Baluchistan near the border of Iran. It was commissioned in early January 2006. Various other cities in Pakistan are targeted to supply SNG in 2006-2007.

Process Description

Liquid LPG is stored in tanks under pressure. The amount of storage required is determined by the output capacity of the proposed facility, the projected hourly usage, and the logistical ability to replenish the LPG. When the SNG system is in operation, LPG is transferred from the tanks via a pump to an LPG vaporizer. As LPG liquid passes through the vaporizer also provides adequate super-heat to prevent re-condensation. The super-heat LPG vapor is then blended with air supplied from an air compressor to a specific ratio creating the SNG. The mixing occurs in a proportional blending system as illustrated in figure. The system’s flow system then allows injection of SNG into the gas distribution grid as required.

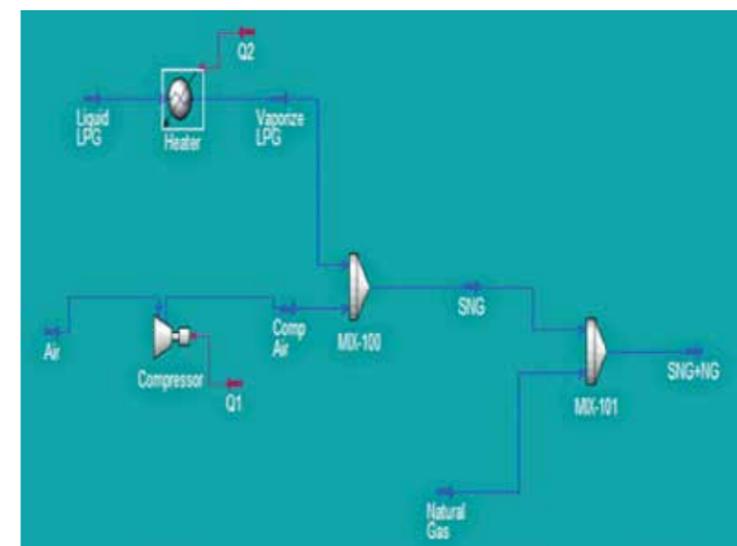


Fig A: Process Schematic

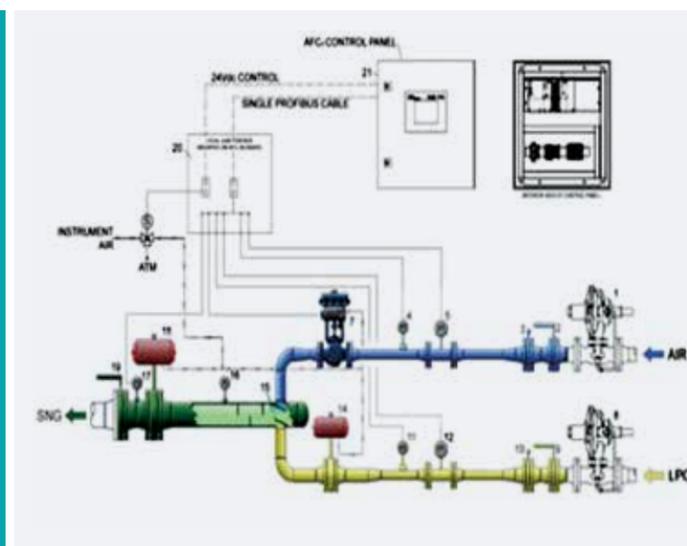


Fig B: Process & Instrument Diagram

SNG for peak shaving is typically injected into the natural-gas to replace up to about 25 to 40% of the total gas flow grid to “right” mixture quality (BTU/Ft) for a peak shaving site involves several factors, including the composition of the natural-gas and LPG streams and the interchangeability criteria to be met.

NG/SNG Mixing Control Schema

There are two types of configuration used for mixing of Natural gas and Synthetic Natural Gas.

1. Peak shaving using ratio control:

In ratio Control, a pressure and temperature corrected flow signal from a meter in the natural gas line upstream of the SNG tie-in is required. A similar flow signal is required from an SNG meter. These signals allow a flow control Valve installed after the blander to regulate a volumetric ratio up to 40% of SNG to natural gas in the pipeline. This ratio ensures the overall specific gravity of the SNG/NG will remain below 1.00 (lighter than air).

2 Peak shaving using pressure control

An alternative method of peak shaving control is Pressure Control. In pressure control, the amount of SNG replacement of NG can vary from minimum to 100%. The role of the SNG is simply to maintain line pressure and flow in the NG pipeline regardless of SNG/NG ratio. During operation, a pressure transmitter provides a flow control signal that will reduce the SNG flow rate as the natural gas pressure in the pipeline approaches some fixed pressure set point. If the natural gas system pressure rises above the set value, the flow control valve closes and SNG injection will stop. When the line pressure drops, the flow process will begin again.

There are many application of SNG not only peak shaving but can also include off-grid market development as well as industrial back-up systems in mature gas market.

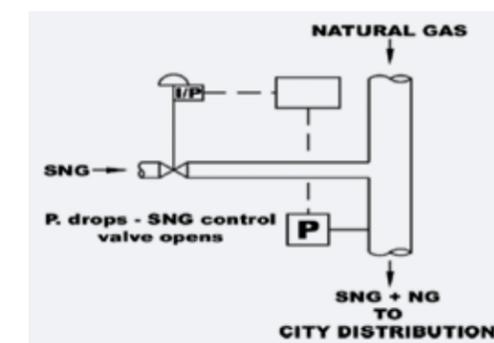


Fig C: Ratio Control

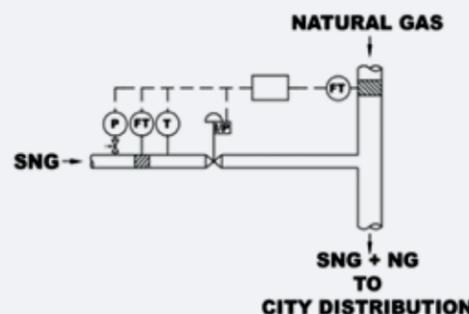


Fig D: Pressure Control

Conclusion

The natural gas markets of today are not the same as a few decades back. Our growing reliance on natural gas-fired power generation has added a new dynamic to the market. Price variability and seasonal volatility demand the ability to strategically manage shortages of supply as well as pricing issues. Using LPG/air (i.e. SNG) to simulate and replace natural gas can be a good option. Applications can involve not only peak shaving during high demand periods but can also include off-grid market development as well as industrial back-up systems. SNG can provide an identical or nearly identical Wobbe Index burners operating on SNG require no pressure adjustments and the measured and observed combustion characteristics show essentially complete acceptance.

Asad Abbas Ahmed
Executive Engineer (Metering)
RMS Faisalabad



VIDEO WALL SYSTEM installed at Head Office

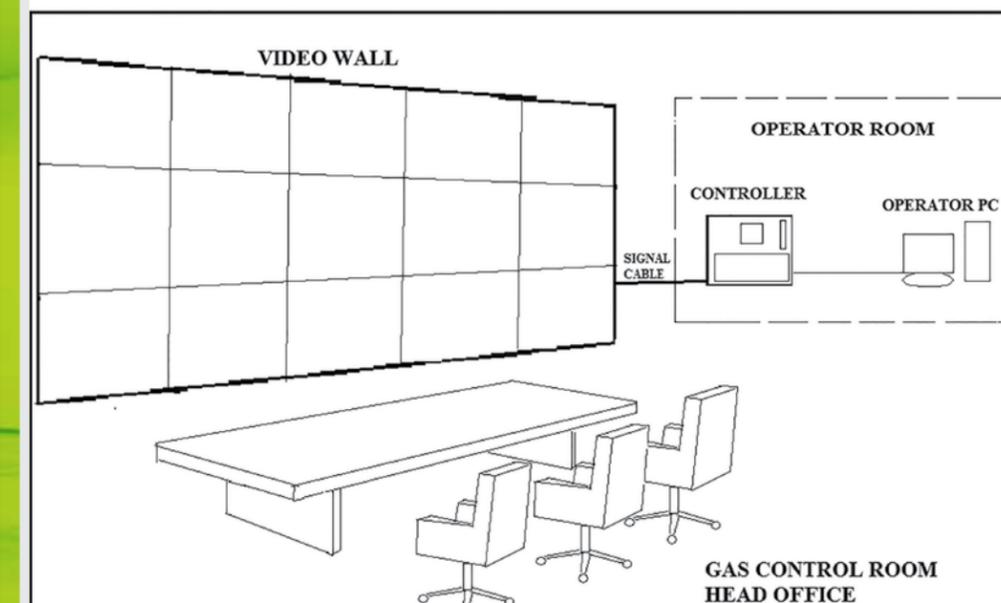


Telecom Department has always been at the forefront where technology is concerned. From dedicated Microwave Wireless links to advanced SCADA control of the SNGPL system, the Telecom Department has always delivered fast, reliable and free to use means of communication and control to the Company.

Keeping in view the latest innovations and needs of the Management, we have installed a Video Wall in Head Office Gas Control. A Video Wall is an array of large, flat screen, LCD displays arranged in a matrix to form one huge screen. In Telecom's case this is a 22 feet long by 7 feet tall mega display. A Video Wall is capable of displaying Data in True High Definition that cannot be done with a projector display. Multiple Streams

of Video, Data and SCADA information can be displayed at once in any configuration as the operator desires. The Video Wall setup consists of 15 Nos. 55" HD Display Cubes connected in 3 Rows and 5 Columns (3x5=15), these Display Cubes are not standard LCD TV type displays, they are purpose-built displays which have their own cooling systems, fault detection panels, multiple inputs and Daisy-Chaining

VIDEO WALL SCHEMATIC DIAGRAM



capability to work in unison with other displays to form one big picture. The cubes are separated by only a mere 5.7 mm bezel so that the picture does not break between the cubes. That is why the installation of a Video Wall system is a high precision job.

From the date of commissioning, the video wall has been of utter importance in SCADA display as well as for inter and intra departmental presentations. It has been in use for presentation of SCADA data to the Management, presentations regarding future telecom projects to OGRA, orientation for newly hired executives and training of Telecom interns.

A typical presentation shows the real value of a multi-signal source capable 154 square feet display where the actual presentation is augmented by real-time SCADA data, related videos and animations all at the same display.

A training session of Video Wall operations and management was held at Head office by the supplier in which a number of Telecom Engineers were trained for the operations and maintenance of the Video Wall. Due to the complex and delicate nature of the Video wall system, only qualified Engineers are operating the system to date.

Although the Video Wall system is not designed for Video conferencing purpose, we have integrated it with our Company vide video conferencing network on trial basis. A few video conferences were held in which all the regions were present on video link displayed on the video wall in addition to the live SCADA showing real time status of the SNGPL Transmission Network.

By : **Abdur Rehman**
Engineer Telecom - Head Office

Interactions



Mrs. Uzma Adil Khan, MD SNGPL, accompanied by senior members of the management; in a meeting with Ms. Paulina Gallardo, Country Director and Mr. Leandro Cabanillas, Regional Director from United World.



Mr. Imran Iqbal, D.G. Space Application Research and Member SUPARCO arrived at the Head Office to meet Mrs. Uzma Adil Khan, MD SNGPL.



Mrs. Uzma Adil Khan, MD SNGPL in a meeting with the senior management of Askari Bank.



Mrs. Uzma Adil Khan, MD SNGPL in a meeting with Air Vice Marshal Imran Khalid, Additional Secretary- II, Ministry of Defence, Rawalpindi.



Mrs. Uzma Adil Khan, MD SNGPL, in a meeting with Mr. S.Iftikhar Hussain, SVP All Pakistan CNG Owners Association (APCOA).



Mrs. Uzma Adil Khan, MD SNGPL, in a meeting with Mr. Murtaza Javed Abbasi, Acting Speaker National Assembly.



Mr. Abdul Razak Dawood, CEO DESCON Engg. Ltd, arrived at the Head Office to meet Mrs. Uzma Adil Khan, MD SNGPL.



Mrs. Uzma Adil Khan, MD SNGPL, in a meeting with Sheikh Aftab Ahmed, MOS Parliamentary Affairs Division and Chairman, Steering Committee on Paki MDGs Community Development Programme.



Mr. Eric Becker, Regional Manager for infrastructure in MENA, M/s. International Finance Corp. (World Bank Group); arrived at SNGPL gas house to meet with Mrs. Uzma Adil Khan, MD SNGPL and the Senior Management.

GAS CHROMATOGRAPH



History:

Chromatography is more than a 100 years old. It was the Russian botanist Mikhail Semenovich Tswett who in 1906 first used the term chromatography from the Greek 'chroma' for color and 'graphien' for writing. Since the early eighties, it has become common in the world, for natural gas to be bought and sold based on the amount of energy delivered. The quantity of energy delivered is calculated by multiplying the gas volume per unit time with the heating value (BTU) per unit volume. The most widely used method to determine BTU content of natural gas is gas chromatography.

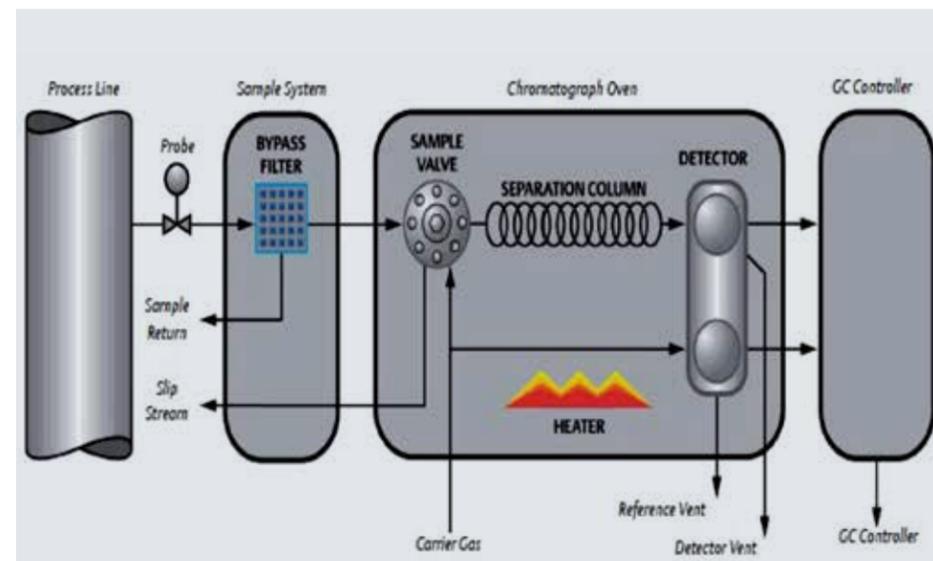
Gas Chromatography:

Gas chromatography (GC), is a common type of chromatography used in analytical chemistry for separating and analyzing compounds that can be vaporized without decomposition. The instrument used to perform gas chromatography is called a gas chromatograph.

Gas Chromatograph is used to separate, identify and quantify component concentrations of a representative gas sample to accurately calculate the heating value, specific gravity and determine the compressibility from the measured component concentration.

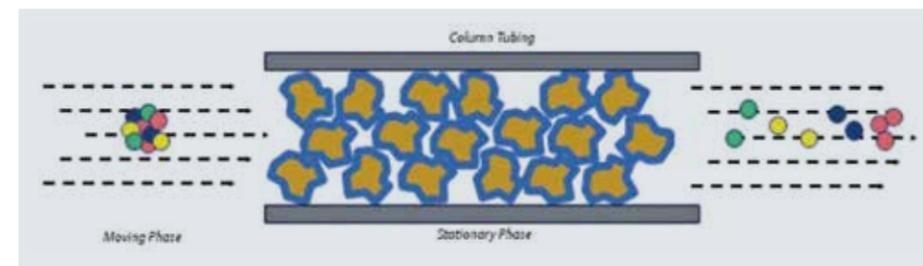
Basic Components:

The gas chromatograph consists of sub-systems that inject the sample, separate the sample, detect the components, integrate the peaks, and report the results. The injection, separation, and detection all occur in the heart of the GC known as the GC oven. The integration and calculation of results are done in the controller which can be considered the brain of the system.



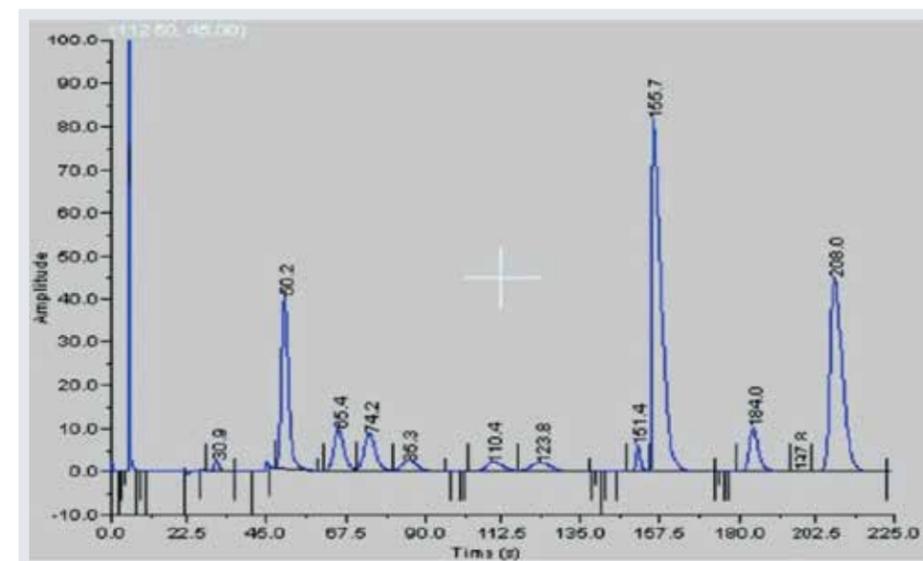
Gas Chromatograph Working:

In gas chromatography, the mobile phase (or "moving phase") is a carrier gas, usually an inert gas such as helium. The stationary phase is a microscopic layer of liquid or polymer on an inert solid support. The Mobile Phase moves over the stationary phase, components are introduced into the mobile phase, and are carried through the stationary phase where different components interact differently with the stationary phase based on the differences between adsorption affinities of the sample components for the surface of an active solid which leads to separation of the components.



The gas chromatograph oven is heated at a constant temperature, and has a constant flow of carrier gas (usually high-purity helium) flowing through it. The carrier gas is used for transporting the sample through the oven during the separation process. The oven consists of three valves and four columns, and a set of balanced thermal conductivity detectors. The graphical representation of Gas Chromatograph analysis is called Gas Chromatogram.

Gas Chromatogram:



Component Detection and BTU Calculation:

In a gas chromatograph, it is vital that three things never change:-

1. Oven temperature
2. Flow of carrier gas
3. Sample size

To find out quantitative information, we use a set of matched thermal conductivity detectors (TCDs) integrated in a bridge circuit. One detector is the reference and is only exposed to the carrier gas. The other is called the measure detector and is exposed to both the carrier and the separated sample components. When carrier gas is flowing across both the reference and measure detectors at the same time, the detector bridge is balanced and no signal is generated. When a component other than carrier gas is going across the measure detector, the bridge is not balanced and a signal is generated, amplified, and sent to the controller. After the controller has calculated the mole percent of each component, the controller multiplies each of these percentages by a corresponding BTU value often taken from an internal table (GPA 2145). From the individual BTU, calculated for each component the controller can then do a summation and calculate a total BTU per cubic foot of gas mixture.

References:

Wikipedia
Application Note by Emerson Process Management

Submitted By: **Waqas Hussain**
Executive Engineer (T)



Developing HR Strategy

8 steps towards delivering a successful HR strategy

1. Aligning business and HR needs:

The business' goals – that is its strategic imperatives – sit at the heart of any HR strategy and in order to align business and HR needs, one key question must be answered, “Can your organization’s internal capability deliver its business goals?”

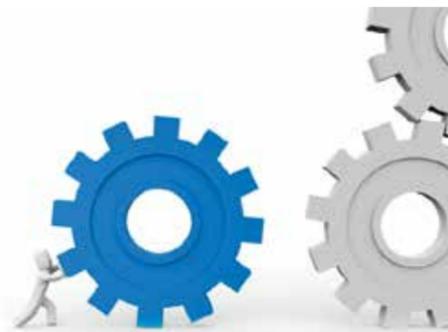
This is where HR receives most criticism. The function is frequently accused of failing to fully understand its business, goals and strategy for achieving these goals, and its business model and how it delivers to its customers. For those who already understand the demands of their business, it is easy to identify where the business has strong core competencies and where the business is weakest.

Sometimes these weaknesses are related to essential systems or processes, but more often – and significantly for HR – these weaknesses relate to the quality of the workforce, its motivation and ability to deliver organization performance. Taking steps to understand your business and where it has competitive advantage is an essential first step towards determining the key HR interventions that form the basis of an HR strategy.

2. Developing your HR strategy:

Deeper knowledge and understanding of your business goals and business model can identify potential threats and opportunities in the quantity and quality of human resource required by your organization. This in turn identifies the key components of your HR strategy and the virtuous circle of providing whatever your organization needs for success.

It is also critical that the HR team has a high level of expertise in aligning major HR interventions and their relevance to business performance. This calls for expert HR thinking



and identifies the requisite interventions and, equally important, how they fit together to leverage organization performance.

If there is a strong need for the organization to develop its management capability, for instance, should you align your compensation strategy to reinforce this objective? If the organizational structure defines the accountabilities clearly at every level of the organization, is your HR team selecting and developing against them? This is joined-up HR at work.

Another concern for HR is when it should make strategic interventions. Easy, it either follows your business cycle, or is triggered by other key events such as a merger, an acquisition or a change in business direction.

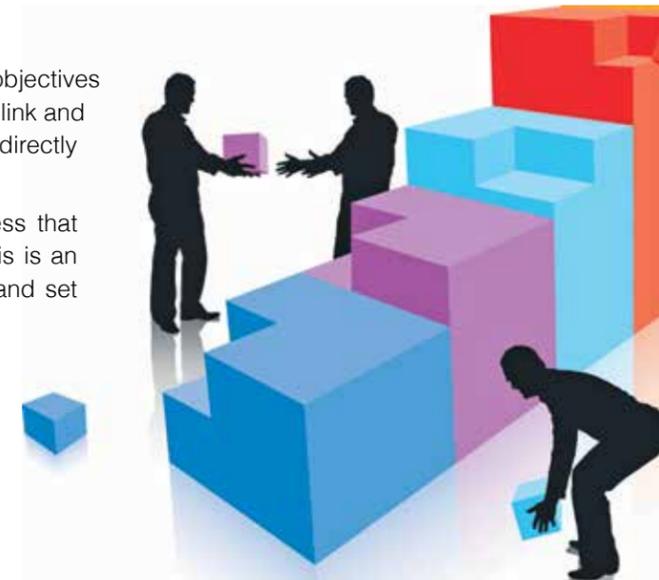
3. Organizational performance:

Organizational performance is the process by which business goals and objectives are cascaded and managed across and down an organization. It provides a link and rationale for all other HR activity and, in addition, the greatest opportunity to directly impact business success, enhancing HR's reputation and contribution.

HR needs to create and install a robust performance management process that sets out performance objectives for all levels of staff within a business. This is an opportunity to develop line managers' skills in being able to disseminate and set stretch targets for their business.

A critical part of this process is a robust performance review process, which gives people feedback about what has been achieved – what people have done well and not so well.

The third element is a personal development review process where individual strengths and weaknesses are identified for the purposes of assessing and meeting organizational development needs.



4. Organizational design and structure:

Organizational design is the shape, size and structure of the organization required to meet customers' needs. It reflects the management processes that drive the business model and determines organizational agility and flexibility. These processes can be a source of competitive advantage or sources of frustration, unnecessarily absorbing time, cost and resources.

Decisions affecting the shape, size and cost of the organization will be aligned with the business strategy. It should be relatively easy to see whether an organization invests in marketing, sales or manufacturing, for instance, and whether the organization is maximizing its work flow capability.

As people experts, the role of HR is to add value to the structure and operation of the business. Structural weaknesses

offer an opportunity to revamp any part of the organization by identifying and making appropriate changes, reductions in size or cost; or improvements to the quality of the operation.

Conversely, structural strengths are a signal to the HR team to reinforce organizational competence.

5. Strategic resourcing:

Achieving clarity throughout the organization's structure is critical in order for resourcing strategies to work well. If the organization is transparent about its key roles and accountabilities, this will define the skills and knowledge required to undertake the work and determine strategic resourcing requirements.

Deciding on your resourcing strategy means identifying a number of critical

components. These range from the processes needed to determine resourcing needs, the processes to attract the right people and the processes for assessing and selecting the right people. HR has a strong traditional involvement in all of the above. In addition, it is essential to ensure each stage of the resourcing activity is aligned and in direct response to the strategic imperatives.

Another important component determining the effectiveness of any resourcing strategy is the need to create a 'recruitment brand' – how the image (or brand) of the organization appears to the recruitment market can either support or undermine the success of a resourcing strategy.



6. Organization development:

If strategic resourcing is about providing a pipeline for importing external talent, then an organization's development strategy is the way in which the HR team decides what changes and improvements need to be made to the current workforce.

Usually these responses work at three levels – the individual, team and organization – and all are geared to achieve high levels of organizational performance. It requires a close examination of the strategic imperatives and clarity about the capabilities to execute it.

Development responses will aim to increase business skills, the application of business skills (sometimes called competencies) and the behavioral elements – all of which contribute to an organization's effective performance. It is important at an individual level, particularly for senior people, that they feel their development needs are agreed and that they are provided with the skills to do their jobs.

At a team level, it defines individuals' ability to work with others flexibly and align

individual and team skills and activity to business goals – all of which ensure that the organization is equipped to deliver its goals.

7. Compensation and benefits:

Often called reward strategy, the purpose of compensation and benefits systems is to align the performance of the organization with the way it rewards its people, providing the necessary incentives and motivation required for an organization to deliver its goals.

Its components are a combination of base pay, bonuses, profit sharing, share options, and a range of appropriate benefits, usually based on market or competitor norms and the organization's ability to pay. Typically, the components of an organization's reward strategy will reflect the particular performance culture of a business.

There is evidence that organizations see compensation as a strategic management lever and are increasingly experimenting with new practices – team bonuses, for example, aimed at improving team performance or skills/behavior payments

to up skill the workforce or reinforce culture or behavior change. A company's reward policy in particular benefits from clarity about which other elements of the HR strategy it aims to support.

8. Organization culture:

Culture is usually described as the "way we do things round here" – the way the organization acts, reacts and interacts. The trend in the last 10 to 15 years has been to align organizational behavior more strongly with customers' needs, creating customer-facing units and customer-sensitive behaviors. This has been as a direct result of the increased competition around product, quality, prices and packaging. In re-aligning an organization's culture there can be real benefit and competitive advantage through improved service.

HR teams which are closely involved with the organization's cultural ambitions can lead these initiatives through their knowledge of organization psychology such as describing new behaviors and work styles; and through their skills in organizational development and being able to provide development solutions to deliver the improvements.

Production of the HR strategy:

The eight components described here form a generic model of the most commonly used elements of HR strategies. It is important to select those that are most relevant to any particular organization.

When the key elements are decided, there are a number of simple questions that the HR team should be asking itself as each element of the strategy is considered in turn:

START – What are we not doing yet, that the business needs from us?

STOP – What should we stop doing because it does add not value?

CONTINUE – What are we already doing that supports the business plan?

Ali Raza
Officer (HR) Services
Head Office

UPCOMING ISO 9001:2015

IN RESPECT OF CHANGES IN ISO 9001:2008

The International Organization for Standardization has published more than 19,500 international standards covering every aspect of industry and business. ISO 9001 is related to quality management system which provides the best management practices and procedures to the organization to meet their customer requirements. The first ISO 9000 series standard was published in 1987 and later its revised version came in 1994 with minor changes. The third version of ISO 9000 series standard was published in 2000 with major changes and fourth in 2008 through minor revision.

The next version of the standard is expected to be published by the end of this year. Work has been underway since 2012 to revise the International Quality Management system (ISO 9001). This update will replace the current version of 2008. The main reasons for change is to keep ISO 9001 relevant, reflect changes in its environment and ensure it continues to deliver "confidence in the organization's ability to consistently provide product that meets customer and applicable statutory and regulatory requirements". The current focus on effective process management is to be maintained but greater emphasis will be placed on producing desired outputs and providing confidence in product.



The existing ISO 9001:2008 consist of eight clauses, whereas the upcoming version is based on ten but revised clauses, i.e. Introduction, Scope, Normative References, Terms and Definitions, Context of the Organization, Leadership, Planning, Support, Operations, Performance Evaluations and Improvement.

The new ISO 9001 is expected to be more closely geared to customers and

to integrate market needs. Companies nowadays often find themselves in a complex, dynamic environment which presents them with new challenges. This development will also be reflected by ISO 9001:2015, with a major role being played by aspects such as risk management, change management and knowledge management. It can be assumed that the process-oriented approach will be reinforced in the revised standard and that a risk-based

approach will be included, too. In the process-oriented approach as well as the leadership and planning, the emphasis is likely to be on risk management.

M Zaman Riaz
Engr. RA

HOW TO REDUCE AND COPE WITH STRESS



Stress is a commonly used word in our daily life. You may feel there's nothing you can do about stress. The bills won't stop coming, there will never be more hours in the day and your work and family responsibilities will always be demanding. But you have more control over stress than you might think. Stress management is all about taking charge of your lifestyle, thoughts, emotions, and the way you deal with problems. No matter how stressful your life seems, there are steps you can take to relieve the pressure and regain control.

What is Stress Management?

We all respond to stress differently so, there's no "one size fits all" solution to managing stress. But if you feel that the stress in your life is out of control, it's time to take action. Stress management can teach you healthier ways to cope with stress, help you reduce its harmful effects, and prevent stress from spiraling out of control again in the future.

No matter how powerless you may feel in the face of stress, you still have control over your lifestyle, thoughts, emotions, and the way you deal with problems.

Stress management involves changing the stressful situation when you can, changing your reaction when you can't, taking care of yourself, and making time for rest and relaxation. The first step is to recognize the true sources of stress in your life.

What are the sources of stress in your life?

It's easy to identify sources of stress following a major life event such as changing jobs, moving home, or losing a loved one, but pinpointing the sources of

everyday stress can be more complicated. It's all too easy to overlook your own thoughts, feelings, and behaviors that contribute to your stress levels. Sure, you may know that you're constantly worried about work deadlines, but maybe it's your procrastination, rather than the actual job demands, that is causing the stress.

Learning healthier ways to manage stress

If your methods of coping with stress aren't contributing to your greater emotional and physical health, it's time to find healthier ones. No single method works for everyone or in every situation, so experiment with different techniques and strategies. Focus on what makes you feel calm and in control.

Physical Activity

Physical activity plays a key role in reducing and preventing the effects of stress, but you don't have to be an athlete or spend hours in a gym to experience the benefits. Just about any form of physical activity can help to relieve stress and burn away anger, tension, and frustration. Exercise brings positive change in your mood and makes you feel good. It can also serve as a valuable distraction to your daily worries.

Managing stress with regular exercise

Once you're in the habit of being physically active, try to incorporate regular exercise into your daily schedule. Activities that are continuous and require moving both your arms and your legs are especially effective for relieving stress. Walking, running, swimming and cycling are good choices.

Pick an activity you enjoy, so you're more likely to stick with it. Instead of continuing to focus on your thoughts while you exercise, make a conscious effort to focus on your body and the physical sensations you experience as you're moving. Adding this mindfulness element to your exercise routine will help you break out of the cycle of negative thoughts that often accompanies overwhelming stress.

Engage Socially

Social engagement is the quickest, most efficient way to rein in stress and avoid over-reacting to internal or external events that you perceive as threatening. There is nothing more calming to your nervous system than communicating with another human being who makes you feel safe and understood. This experience of safety, as perceived by your nervous system, results from non-verbal cues that you hear, see and feel.

The inner ear, face, heart, and stomach are wired together in the brain, so socially interacting with another person face-to-face, making eye contact, listening in an attentive way and talking can quickly calm you down. It can also release hormones that reduce stress, even if you're unable to alter the stressful situation itself.

Reach out to family and friends and connect regularly in person. The people you talk to don't have to be able to fix your stress; they just need to be good listeners. Opening up is not a sign of weakness and it won't make you a burden to others.

Avoid un-necessary stress

While stress is an automatic response from your nervous system, some stressors arise at predictable times for example your commute to work, a meeting with your boss, or family gatherings. When handling such predictable stressors, you can either change the situation or change your reaction. When deciding which option to choose in any given scenario, it's helpful to think of the four A's: avoid, alter, adapt, or accept.

It's not healthy to avoid a stressful situation that needs to be addressed, but you may be surprised by the number of stressors in your life that you can eliminate.

Learn how to say "NO"

Know your limits and stick to them. Whether in your personal or professional life, taking on more than you can handle is a surefire recipe for stress. Distinguish between the "shoulds" and the "musts" and, when possible, say "no" to take on too much.



Accept the things you can't change

Many sources of stress are unavoidable. You can't prevent or change stressors, such as the death of a loved one, a serious illness, or a national recession. In such cases, the best way to cope with stress is to accept things as they are. Acceptance may be difficult, but in the long run, it's easier than railing against a situation you can't change.

Learn to forgive

Accept the fact that we live in an imperfect world and that people make mistakes. Let go of anger and resentments. Free yourself from negative energy by forgiving and moving on.

Make time for fun and relaxation

Beyond a take-charge approach and a positive attitude, you can reduce stress in your life by nurturing yourself. If you regularly make time for fun and relaxation, you will be in a better place to handle life's stressors.

Set aside relaxation time

Include rest and relaxation in your daily schedule. Don't allow other obligations to encroach. This is your time to take a break from all responsibilities and recharge your batteries.

Eat a healthy diet

Well-nourished bodies are better prepared to cope with stress, so be mindful of what you eat. Start your day right with breakfast, and keep your energy up and your mind clear with balanced, nutritious meals throughout the day.

Muhammad Ibraheem
Dy. Chief Officer (HR)

INDUSTRIAL PRINTERS

(BILL PRINTING SOLUTION) for SNGPL Bill Printing

IT/MIS prints more than 5 million bills every month. Timely bill processing and printing plays a vital role for any utility company. IT/MIS has procured new state-of-the-art printers to ensure high quality bill printing to achieve monthly timelines for existing requirement as well as to cater for future expansions. The new printers are capable of handling existing load of 5 Million impressions (Bills) every month with projected growth of approximate 25,000 per month.

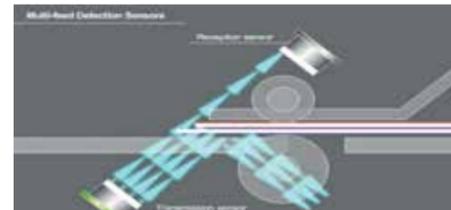
After going through a rigorous procurement procedure, IT/MIS has procured "KONICA MINOLTA BIZHUB 1250" industrial printers; these printers are designed for heavy duty printing to handle high workloads. Four printers have been installed in the Head Office and two in Regional office Islamabad for monthly bill printing.



Features of The Printers are Given Below:-

Speed and Rugged:

Speed and Rugged: New Production Printers are capable of printing round the clock and one printer can print up to 3 Millions impressions per month. On the fly consumable replacement like input paper supply, toner replacement to keeps operations going without missing a beat. Each printer can print 125 PPM (Pages per minutes) with optimized data processing, enhanced CPU and memory processing.

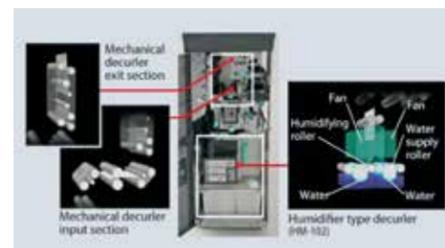


Air-Suction Paper Feed:

To reduce paper missing caused by chemical and powder on the sheets, an air-suction paper feed unit blows air from the sides and front, ensuring greater constancy.

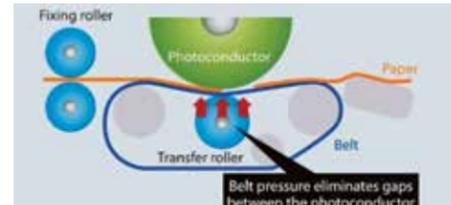
Hybrid Decurling System:

This reduces the curling and clinging of the paper to highly accurate paper delivery and a humidifier to prevent paper curls.



Multi-Feed Detection Sensor:

An ultrasonic sensor detects multi-feeding to prevent blank pages from being mixed in with the output.



Belt Transfer System:

The belt transfer system improves the quality of the transferred images and paper feeding. The paper is adhered onto the transfer belt to eliminate any gaps, ensuring that the toner is consistently fixed onto the belt without unevenness. Incidences of images being cut at the paper's edge and transfer shifts caused by nip resistance are also minimized.

Improved Work flow Efficiency with Job Management:

Streamline complex output operations with flexible workflow management. Capable to view the jobs, manage multiple job queues and retain recent jobs for reprinting.

After commissioning of these industrial printers, the performance of bill printing job activities has been significantly improved. The complex bill printing operation has also been streamlined with flexible work flow management functionality. Bill printing task are being carried out on timely basis and performance and productivity of the staff is also improved.

By: IT Department

Sponsorship of International ECO Internship Programme 2015 by SNGPL

In collaboration with WWF Certificate Distribution Ceremony at WWF Head Office on 29th August, 2015



SNGPL has signed an agreement with WWF Pakistan for the Sponsorship of iECO Internship Program 2015 through which 3000 students of class 7 and above will be enrolled from Government and private educational institutions in Punjab, Khyber Pakhtun Khwa and Azad Jammu and Kashmir. As per Memorandum of Understanding (MOU) signed between SNGPL and WWF- Pakistan, 1000 under privileged students will also be covered in this program. The purpose of this programme is to make students focus on the importance of conservation as it is the need of hour.

The programme is a structured workshop based on six sessions that gives students an opportunity to learn more about the pressing environmental challenges of today. The sessions cover a wide range of topics on nature conservation and the environment such as biodiversity, sustainable

development, water conservation, renewable energies, climate change, green journalism, solid waste management and nature photography. The students are also involved in hands on activities such as documentary making, eco designing, picture story, and survival training. The Internship Programme is continued and it is expected that the no of students will be more than 3000. Thus, SNGPL and the International ECO Internship Programme are aiming for the better awareness regarding conservation and a sense of responsibility in the interns.

A Certificate Distribution ceremony held by WWF Pakistan on 29th August, 2015 at WWF Head Office in which Mr. Liaqat Raza (SGM HR / LS)-SNGPL was invited as a Chief guest. Around sixty students from the leading schools / colleges / universities in Lahore completed "International Eco-Internship Programme"

sponsored by SNGPL, aimed at providing them an opportunity to learn more about the environmental challenges of today. Prizes were distributed to the High achieved whose performance was excellent in these sessions. Students who performed well in the documentary-making session received letters of appreciation.

Mr. Liaqat Raza briefed that SNGPL is committed to raise energy conservation awareness among the youth of the Country. Through the programme, the Company aims to spread this message across the country so that sustainability can be promoted. Further, SGM HR/LS informed that SNGPL is proud to offer the largest environmental internship platform in the country which caters to more than 5,000 students in a year.

Asma Maqbool
Executive Eng HSE
Head Office

CORPORATE SOCIAL RESPONSIBILITY POLICY OF SNGPL

Installation of Pressure Water Pump in Village Dabb Dawar Khel, U/C ESAK Chountra Tehsil and District Karak



SNGPL's initiative towards the provision of "Safe Drinking Water" for the Community of Village Daab Dawaar Khel – District Karak



Site visit and interaction with the Community

Corporate Social Responsibility policy of SNGPL, as approved by the Board of Directors has a core objective of community investment/welfare.

SNGPL has a CSR objective to provide the clean / safe drinking water for the selected under privileged community. The availability of clean drinking water is expected to curb water-borne illness and disease, and should yield social benefits in the form of better health of the adjoining population.

SNGPL has recently completed a CSR Project regarding the provision of drinking water by the installation of Pressure water pump at village Daab Dawar Khel, District Karak, as advised by Ministry of Petroleum and Natural Resources (MP&NR).

In order to benefit public/ community of village Daab Dawar Khel, EE HSE, Project Camp Laachi visited the community of the village for subject purpose. After site visit, feasibility study (including cost estimation, details of civil work, boring etc) for the installation of Pressure water pump at this village was carried out by the Project camp Laachi. Area demarcation activity carried out at site on 30.06.2015, in the presence of village community and along with their consent.

The capacity of the plant has been designed in such a way that it is sufficient for drinking needs of almost 1200 people. The beneficiaries are neighboring households belonging to the poorer sections of the society.

Mr. Farrukh Majeed (GM HSE) visited the Village Daab Dawar Khel, on 09-10-15 along with Mr. Khalid Nawaz EIC (Project Camp Laachi) and other Executives. GM HSE was



A glimpse of SNGPL and Community partnership



SNGPL in Society – Creating Shared Value

briefed by EIC Laachi Camp regarding the operation of the plant. Mr. Abdul Wahab, the owner of the land met GM HSE and thanked on the behalf of the community.

Community members appreciated the initiative taken by SNGPL for the provision of drinking water for the community.

SNGPL believes that by addressing various social objectives, establishing a cohesive bond among corporate, their employees, customers and also the community; we can perform better for the common national cause.

Contributed By: **Asma Maqbool**
Executive Eng HSE
Head Office

MONITORING OF HSE INITIATIVES IN LACHI CAMP

SNGPL being ISO-14001 and OHSAS-18001 certified company values Health, Safety and Environment (HSE) in its everyday operation. In order to strengthen commitment of safe working environment across the company monitoring visit was carried out by General Manager (HSE) along with his team to Project camp Laachi on Friday, 9th October 2015. Preliminary meeting was carried out with EIC Laachi camp and sectional heads of each department regarding status of HSE Initiatives like SN Uniform/ Safety Shoes inspection, Anti Dengue drive, Occupational health and safety measures taken at camp and construction sites.

Camp visit was carried out by GM (HSE) in following areas: Office block, Store yard, Fabrication yard, Civil Yard, Workshop, Genset area, Casual staff Mess, Tent resident area and First Aid Centre. EIC and concerned sectional heads apprised GM (HSE) regarding their efforts for HSE improvement in camp setup. HSE improvements were recognized and further improvement suggestions were discussed for implementation. It was mutually agreed during camp visit that learning and experience gained in current camp setups will be utilized in future camp construction practices.

Camp visit was followed by construction site visit of Khushal Garh bridge. Crossing of MS line 24 Inch Diameter was in progress by hanging / supporting the pipeline alongside the bridge structure at the site. EIC apprised GM (HSE) regarding construction plan and safety measures taken for job.

Safety aspects for crossing were inspected on site by GM (HSE). It was observed that Project SOP of crossing, Site safety checklist, Risk assessment of job is followed on site. Appropriate PPEs like coverall, safety shoes, gloves, masks, life jackets, safety harness belt etc present with construction crew. Area was cordoned off utilizing barricading tape, safety cones, warning sign board and signal man deputed to control traffic on bridge. Requisite first aid box and Fire extinguisher was present on site. Standby power boat was present in river to meet any emergency situation.

At the end of visit, GM (HSE) gave his input for further HSE precautions and improvement. He emphasized for continuous improvements in HSE standards with same zeal and passion.

Muhammad Noman
Executive Eng HSE - Lachi Camp

SNGPL RETIRED OFFICERS' WELFARE FORUM (FLORET CLAN)

During the year 2011, some of the retired SNGPL officers assembled and desired formation of a platform where they could join for collaboration in a free and friendly atmosphere to discuss and resolve their genuine hardships after their retirement.

Late, Dr. Tariq Bucha, Ex-Chief Media Affairs, SNGPL, open-heartedly offered his office premises and other services to run the forum meetings. Because of his selfless efforts, a large number of retired officers were motivated towards the forum's activities gradually.

Presently, the Forum's membership has reached to a number of one hundred members. It has emerged as the retired officers' right securing oriented forum. It is strongly committed towards the welfare of the retired officers and maintains a very cordial relationship with SNGPL management.

The Forum may, from time to time, seek assistance from SNGPL management for amicable resolution of their genuine matters pertaining to the officers, within the ambit of the Company's policies.

Under the Forum's organizers, more than five dinners at Services and Lahore Gymkhana Clubs have been arranged. At the recent dinner at Gymkhana Club on August 23, 2015, MD SNGPL and the senior management graced the event along with all members of the forum.

In view the current spirit of the forum's members, we hope it continues to assist the retired officers in all ways possible, bringing forth an avid opportunity to spend quality time with their ex-colleagues.

Naeem. A. Khan
Ex. GM Media Affairs
Secretary Information
SNGPL Retired Officers' Welfare Forum.



RETIREMENTS



Sagheer Ahmed, Superintendent Accounts. He has served the Company for a period of 37 years. He was given a warm farewell.



Muhammad Asif Butt, Superintendent Admin was bid farewell on his retirement from the Company.



Deputy Foreman Operator AC, Abdul Rasheed Bhatti retired from the Civil Department. He joined the Company in 1984.



Mr. Zafar Iqbal, Assistant In charge, Computer Operator HR retired from the Company after decades of service.



Mr. Haq Nawaz Senior Supervisor Record Keeper, UFG Control, retired from the Company after a service of 33 years. He was given a warm farewell.

OBITUARY

SAD DEMISE OF
MR. AHMAD EBRAHIM
EX-GENERAL MANAGER (TELECOM), SNGPL,
HEAD OFFICE (1964 - 1990)

It is regrettably informed that Mr. Ahmad Ebrahim, Ex-General Manager (Telecom), SNGPL, Head Office, has expired in South Africa and has been buried there after offering Namaz-e-Janaza.



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