




IMPROVING ATTITUDE TOWARDS SAFETY IS OUR TOP PRIORITY

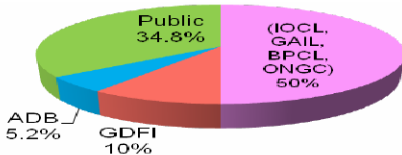






PETRONET LNG LIMITED

- Incorporated on April 2, 1998
 - Authorized Capital US\$240 Million, Paid up capital US\$150 Million
- Commencement of Commercial Operations - April, 2004
- Equity
 - 50% held by Oil & Gas PSUs (ONGC, IOC, BPCL & GAIL)
 - 10% held by GDFI (part of GDF SUEZ)
 - 5.20% ADB



Category	Percentage
Public	34.8%
(IOCL, GAIL, BPCL, ONGC)	50%
GDFI	10%
ADB	5.2%



INDIA Entering LNG Market



India joins the LNG importing country club on 30th Jan 2004 .



Location of Dahej Terminal



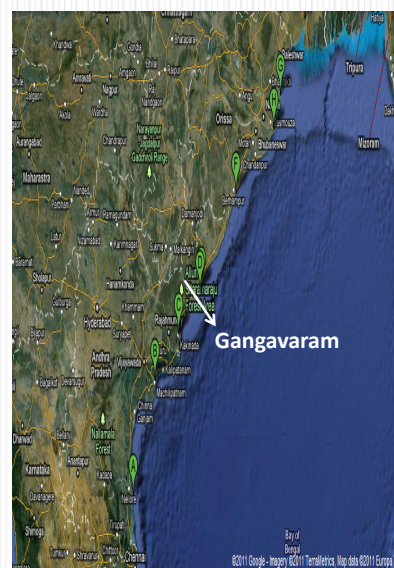


KOCHI TERMINAL COMMISSIONED



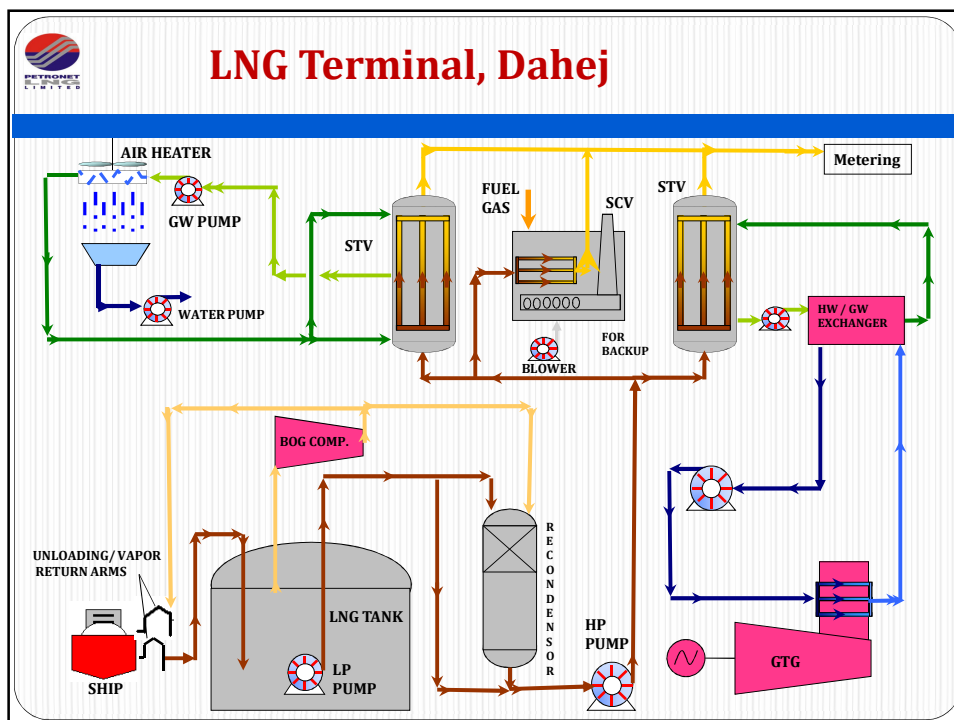
THIRD TERMINAL UPCOMING AT EAST COAST

- Proposed Capacity: 5 Mmtpa
- Location: Gangavaram, Andhra Pradesh
- Regasification Scheme: Indirect Fluid using ambient air heater
- DFR Completed
- Estimated Project cost: Rs.4500 Crores (USD 900 Million)



DAHEJ LNG TERMINAL

- Located at West Coast, State of Gujarat in the Gulf of Cambay
- Commencement of Operations in 2004
- Capacity (mmtpa) : 5.0 → 10.0 → 15.0
(2004) (2009) (2016)
- Truck Loading facility can handle 2500 loadings/ yr.
- LNG Cargoes unloaded : 1000+ cargoes
- Further capacity expansion to 15 mmtpa
 - Second Jetty : Under Construction
 - Regas & Storage Capacity : DFR, FEED Completed
 - EPC Award : November, 2013




 **Long Term Chartered LNG Tankers**

DISHA **RAAHI**

 **ASEEM**

 **Jetty**




❖ 2.54 Kilometer long Jetty




Jetty Features




Description	Specification
LNG Unloading Arms FMC	3 X 16" Total Flow Rate = 10360 m3/hr
NG Loading Arm FMC	1 X 16" Flow Rate = 14000 m3/hr (at 0.13 barg, -87.7 Deg C)
LNG Drain Drum	V-101 Capacity = 53 m3
Berth Aid System Weather, Tide, Current Monitoring	Marimatech
Unloading Arm Safety System	FMC
Unloading Lines	2 X 30"

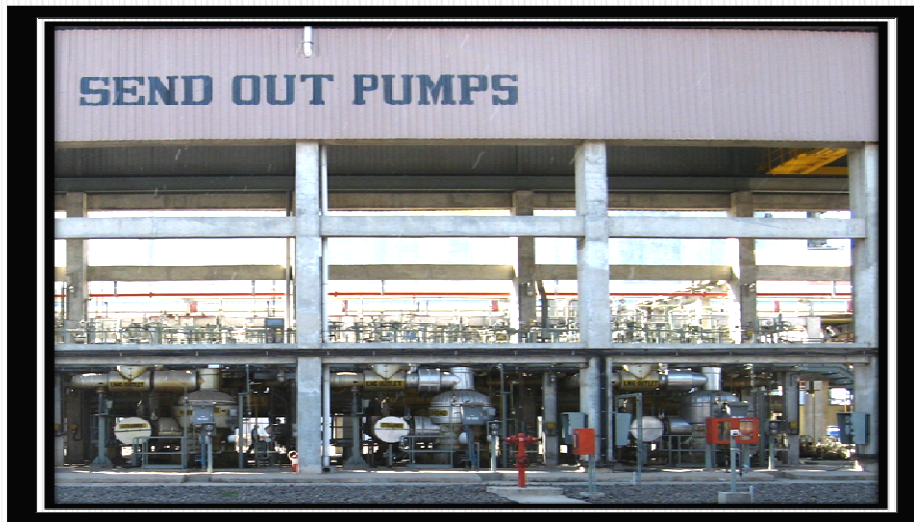


DAHEJ LNG STORAGE TANKS





LNG HP Pumps



❖ 10 HP Pumps, each of 400 m³/hr rated flow



LNG Vaporizers



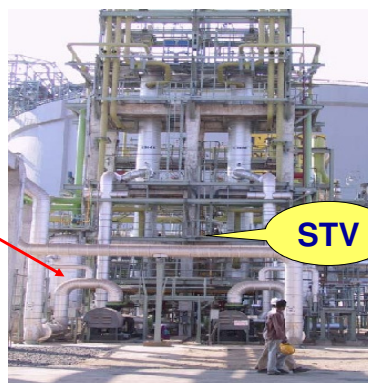
❖ 14 STV (88 T/hr), 4 SCV(100 T/hr) and I STV(107 T/hr)



LNG Vaporizers (Cont...)



- 14 STVs / Air Heaters with 224 fans
- Close loop system with no exhaust
- Most environment friendly system



LNG Truck Loading Facility



❖ 1 loading bay for 2500 tanker loadings per year


 **SATELLITE LNG HUB & LNG BY ROAD**

LNG BY ROAD

VAPORISATION FACILITIES

SATELLITE HUB



 **Captive Power Plant**



❖ 5 GTG and each of 7.5 MW ISO rating



Operational Excellence

- The Dahej operation team has an impeccable safe and efficient operation record since 2004
- Annual technical and safety audits are being done through reputed organizations for benchmarking the operating procedures with the best international standards.
- Periodic safety trainings are imparted to employees in-house and reviewed with renowned agencies
- The Fire fighting team and operating staff is well trained in both LNG and NG fire fighting scenarios.
- PLL has assisted the O&M team of RGPPL for commissioning and operations of the LNG terminal.



Operational Excellence

- Leading the use of technology , PLL has the first and only LNG tanker loading facility in India.
- Engineering knowledge in use of Energy efficient regasification units.
- Excellent know-how of marine facilities ,ensuring reliable and safe marine operations even in the most inhospitable environments.
- Total 86 different LNG ships received at Dahej till date



OPERATIONAL CONTROL

- Standard Operating Procedure
- Field Round and Patrolling Sheet
- Work Permit System
- Fluid Lock Out and Trip Bypass procedure
- Performance Management System
- Change Management system
- Internal/External audits
- Plant Health Monitoring
- Incident analysis
- Training



HSE - PRACTICES IN PLACE


- Unsafe Act / Unsafe Condition / Near miss Reporting system.
- Best Safety Observer of the month.
- HSE web portal.
- Random Plant safety inspection by Mgmt level Employees.
- Job Specific Safety Training system.
- Refresher Safety Training for all employees.
- Home Safety & First Aid programme for family members.
- Defensive Driving Safety programme for Drivers and LNG truck drivers.



HSE - PRACTICES IN PLACE

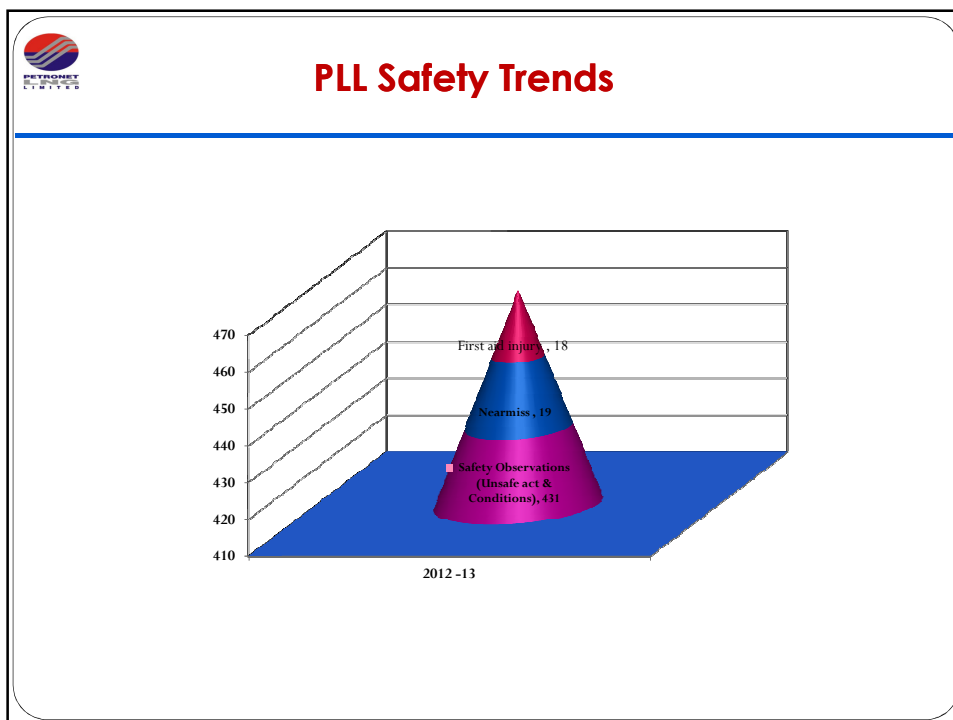
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- Safety Alert on every Monday.
- Road Safety Awareness message circulation.
- Safety Briefing video in LCD for daily contractors and visitors at gate.
- LNG hazard Awareness & action during emergency - Booklet in local language.
- Ear Plug dispenser in high noise areas.
- Voltage detector instrument for electrical lockout verification.
- Continuous mobile area gas monitoring at Hot work location.
- Intrinsically safe mobile phones for O&M for better communication in Gas zone area.
- Monthly Safety Index by external agency and reporting to Management.



Last Three Years Safety Performance

Particulars	April 10 – March 11		April 11 - March 12		April 12 - March 13	
	O	C	O	C	O	C
No. Of Employees	195	285	192	244	198	293
Total No. of Man Hours Worked (Million)	0.37662	0.83198	0.37136	0.71245	0.41538	0.85565
Reportable Accidents						
a) Fatal accidents	NIL	NIL	NIL	NIL	NIL	NIL
b) Non fatal accidents	NIL	NIL	NIL	02	NIL	NIL
No of non Reportable Accidents						
a) Near Miss Incidents	37	NIL	29	NIL	19	NIL
b) First aid cases	06	03	09	05	06	12
c) Any other (Minor Accident)	01	NIL	03	NIL	NIL	NIL
Total Man Days lost due to Accidents	NIL	NIL	NIL	140	NIL	NIL
No. of Occupational Diseases	NIL	NIL	NIL	NIL	NIL	NIL
No. of Fire Accidents	NIL	NIL	NIL	NIL	NIL	NIL
Loss Due to Fire (Rs. In Lakh)	NIL	NIL	NIL	NIL	NIL	NIL
Frequency Rate of Accident	NIL	NIL	NIL	2.807	NIL	NIL
Severity Rate of Accident	NIL	NIL	NIL	196.5	NIL	NIL





Security Measures

- Automated Three Tier Access control
- Surveillance & Monitoring through CCTV Camera's
- Security Control Room & Back up Control Room
- Intrusion Detection System
- Guard Tour System for Patrolling
- Security Gadgets
- Perimeter Lights (Metal Halide)



Security Measures

- Biometrics
(Hand Geometry)
- Bar code pass system
- Visitors Management
System
- Frisking
(Male & Female)
- Baggage inspection





Surveillance & Monitoring Security Control Room

06 LCD

03 Console Positions

Manned 24 hrs

Video analytical Software

Motorola Base Station



Sea Patrolling



Sea patrolling on Prahari with Gunmen on board
Use of Tugs during Monsoons (May to Sept)
Speed upto 35 knots
Capacity : 08 personnel



SAFETY MANTRA

**AN OUNCE OF PRACTICE
IS BETTER THAN
A POUND OF WORDS**



SAFETY PLEDGE

On this day, I solemnly affirm that

- I will rededicate myself to the cause of safety, health and protection of environment.
- I will do everything possible for the prevention of accidents, occupational diseases and protection of the environment in the interest of self, my family, my community and the nation at large.



THANK YOU