



## **Operations**

The Pipelines Division registered an excellent performance with ever-highest operational throughput of 67.3 million tonnes of crude oil and petroleum products. The achievement is 101.67% higher than the Memorandum of Understanding (MOU) / internal targets and increase of 5.2 % than the previous year's throughput.

The overall crude oil throughput for the year 2010-11 is 42.4 million tonnes and the petroleum product throughput is 24.9 million tonnes. Throughput of newly commissioned Dadri-Panipat RLNG pipeline for the year 2010-11 is 345 MMSCM.

### ***Northern Region Pipelines***

The MOU targets of different pipelines in Northern Region were achieved during the financial year 2010-11. Panipat-Rewari Pipeline (PRPL) achieved MOU target (1500 TMT) on March 12, 2011. PRPL achieved the highest ever annual throughput of 1563 TMT in 2010-11 crossing the previous best of 1502 TMT achieved in 2009-10. Mathura-Tundla Pipeline's MOU target (302 TMT) was achieved on March 27, 2011. Mathura-Bharatpur Pipeline's MOU target (203 TMT) was achieved on February 27, 2011.

Mathura-Delhi Pipeline's MOU target (2885 TMT) was achieved on March 28, 2011. Panipat-Jalandhar LPG Pipeline's MOU target (388 TMT) was achieved on February 18, 2011. Mundra-Panipat Crude Pipeline's internal target (7000 TMT) was achieved on March 28, 2011.

Sanganer Pump Station of Mundra-Panipat Pipeline (MPPL) was re-commissioned on February 18, 2011. Facilities were created at Radhanpur for injecting Mangla Crude from Cairns Energy India Ltd. into Mundra-Panipat Crude Pipeline, which was commissioned on June 25, 2010. The total injection of 421TMT was done in MPPL at Radhanpur during the year 2010-11 since its commissioning on June 25, 2010.

During the year, 28 crude oil tankers were received at Mundra with 6.9 million metric tonnes of crude unloading at Mundra.

A total of 167 tankers berthed since inception.

Mathura-Delhi Pipeline achieved the highest monthly throughput of 290.48 TMT in December 2010 surpassing the previous highest throughput of 280.50 TMT in November 2010.

Rectification of all five Priority-I defects identified in IPS survey in Delhi-Panipat section completed on December 3, 2010.

Backup communication for computer network through OFC link between NRPL Panipat and Bijwasan established on January 12, 2011.

Strategic Initiatives of NRPL completed as detailed below:

- Diagnostic testing of HT motors and transformers
- CAT survey of PBPL and PRPL
- Digitization of permanent land records
- CCTV installed in 22 RCP and 5 stations

Rain water harvesting scheme completed in stations of Panipat, Kohand, Bhatinda, Ambala Jalandhar and in Pipli T-Point.

### ***Eastern Region Pipelines***

Hadia-Mourigram-Rajbandh-Baruani Pipeline (HMRBPL) and Paradip-Haldia section of Paradip-Haldia-Baruani Pipeline (PHBPL) achieved the highest ever throughput of 3.18 million tonnes and 9.98 million tonnes respectively.

Guwahati-Siliguri Pipeline (GSPL) achieved the stretched MOU target of 1.4 million tonnes on March 18, 2011.

Haldia-Mourigram-Rajbandh-Baruani Pipeline (HMRBPL) achieved the MOU target of 2.6 million tonnes on January 23, 2011.

Haldia-Baruani section of PHBPL achieved its internal target (7200TMT) on December 12, 2010. In 2010-11, a total of 46 crude oil tankers have discharged at Paradip Single Point Mooring (SPM) of which 37 were VLCC tankers. The 100th tanker MT Olympic Loyalty berthed on March 23, 2011. Since inception a total 101 tankers have discharged at Paradip SPM.

In GSPL, SRN was first time pumped from Guwahati to Bongaigaon after making the delivery facility at Bongaigaon.

### ***Western Region Pipelines***

Stretched internal target (21300 TMT) of Salaya-Viramgam section of SMPL achieved on March 12, 2011.

Stretched Internal target (5900 TMT) of Chaksu-Panipat section of SMPL was achieved on March 7, 2011.

Stretched internal target (13900 TMT) of Viramgam-Chaksu section of SMPL was achieved on March 4, 2011. Stretched internal target (8000 TMT) of Chaksu-Mathura section of SMPL was achieved on February 28, 2011. Stretched Internal target (7400 TMT) of Viramgam-Koyali section of SMPL was achieved on March 19, 2011. All sections of SMPL have achieved more than 100% capacity utilization.

MOU target (1071 TMT) of Koyali-Dahej Pipeline (KDPL) was achieved on February 17, 2011. KDPL recorded the highest ever throughput (1286 TMT) since commencement of KDPL.

Amod-Hazira section was added to the Koyali-Dahej Pipeline and was commissioned on July 11, 2010. Total Crude handling in 2010-11 at Vadinar is 22.8 MMT, which is the highest ever since commissioning surpassing the previous best of 22.682 MMT in 2009-10. The cumulative crude oil handling at Vadinar since inception is 455.36 MMT.

Salaya-Viramgam and Viramgam-Chaksu section of Salaya-Mathura Pipeline recorded highest ever annual throughput of 22.67 MMT & 15.10 MMT respectively during 2010-11.

During 2010-11, 81 VLCC tankers berthed at SBM which is the highest ever since inception surpassing the previous best of 76 VLCC tankers in 2008-09. A total of 4265 Tankers have berthed at SBM since inception.

### ***Southern Region Pipelines***

CTMPL achieved the highest ever throughput of 1960 TMT since commissioning which is 8.9% more than the stretched target. It achieved its MOU target (1726 TMT) on February 18, 2011 and stretched target (1800 TMT) on March 03, 2011.

CTMPL has achieved ZERO incident and pilferage record consecutively for the fifth year since its commissioning in August 2005. This has been due to continuous monitoring of mainline by LSMs, timely rectification of washouts, removal of encroachments, prohibiting sand thefts with the support of local police force, yearly off-site mock-drills and community development and awareness programmes.

Technical Services

The operational performance of the Salaya-Mathura Pipeline, Haldia-Barauni Crude Oil Pipeline and Chennai-Trichy-Madurai Pipeline found to be comparable with other worldwide pipelines in the benchmarking study carried out by Solomon Associates, USA during the year.

Trial run with DRA chemical in Beawar - Rewari section of Mundra-Panipat Pipeline (MPPL) was carried out to enhance throughput (flow rate) of MPPL in absence of Sanganer Pump station.

Major schemes under additional facilities for technical upgrade include capacity augmentation of PRPL, Provision of Mobile Oil Spill recovery unit for PHBPL Haldia, Transmix tanks at SRPL & WRPL, IP Based CCTV for PHBPL and Construction of residential quarters and transit accommodation facilities at PHBPL Bolpur.

## **Inspection**

Intelligent Pig Surveys (IPS) of 6 pipelines namely, 18 inch Koyali-Viramgam section of Koyali-Sanganer Pipeline, 42 inch offshore pipeline system of Salaya-Mathura Pipeline, 8 inch Guwahati - Siliguri Pipeline and Koyali - Ahmedabad Pipeline, 12 inch Haldia - Mourigram-Rajbandh and Haldia - Barauni Pipeline were completed. Based on findings of survey of with a total length of 1500 km, repairs works are in progress.

Maintenance and inspection of four large capacity crude storage tanks i.e. one each at Vadinar, Viramgam, Chaksu and Haldia were taken up during the year.

Batch dosing of corrosion inhibitors in 42 inch onshore/offshore pipeline system at Vadinar during tanker free days has been started along with bimonthly pigging since August 2010 to mitigate the threat of internal corrosion.

The third post-commissioning Hydrostatic test of the 197 km, 12 inch diameter Allahabad- Kanpur (AK) section of Barauni-Kanpur Pipeline (BKPL) was successfully carried out during April 30 to May 19, 2010 to re-establish the seam integrity. This pipeline section built using API-5LX46 low frequency grade ERW pipe and commissioned in 1966 had experienced in service seam failures in the past. During the hydrostatic test five seam defects were eliminated and the job was successfully completed in 20 days against the scheduled 25 days.

The massive exercise of conducting the Hydrostatic Test of this 197 km long pipeline section was taken up in close coordination with Marketing, Refinery, Railways, NHAI, other Government agencies, statutory bodies and local administration.

## **Projects**

During the year Pipelines Division entered into an era of gas transportation business by commissioning Dadri-Panipat Pipeline to supply Re-gassified LNG to Panipat petro-chemical complex.

During the year Division expanded its network of pipeline by 358 km in length, totaling to 10,899 km with capacity of 75.26 MMTPA of crude and petroleum products and 10 MMSCMD of gas, with commissioning of five pipeline projects.

### ***Projects Commissioned***

The 10 inch diameter 111 km long Bijwasan-Panipat Naphtha Pipeline was commissioned at a cost of Rs. 79 crore on April 27, 2010.

Introduction of Rajasthan crude into Salaya-Mathura Pipeline and Mundra-Panipat Pipeline at a cost of Rs. 30 crore on June 25, 2010.

The 12 inch diameter, 94 km long branch line to Hazira from Koyali-Dahej Pipeline at a cost of Rs. 109 crore on July 12, 2010.

The 8 inch diameter 21km long Mathura-Bharatpur Spur Pipeline at a cost of Rs. 24.94 crore on July 13, 2010.

The 30 inch diameter, 132 km long Dadri-Panipat R-LNG Pipeline at a cost of Rs. 389 crore on July 18, 2010.

### ***Projects under Implementation***

Total 15 pipeline projects are under implementation at an approved cost of Rs. 7174.47 crore with proposed capacity addition of 12.54 MMTPA and an addition of 2968 km length to pipeline network.

<b>Project</b>	<b>Approved Cost (Rs. Crore)</b>
Branch Pipeline from Viramgam to Kandla, ex-Koyali-Sanganer Pipeline	349.00
Construction of additional tanks and blending facility at Vadinar	267.00
Paradip- Raipur-Ranchi Pipeline	1793.00
Integrated Crude oil handling facilities at Paradip	1492.33
De-bottlenecking of SMPL System	1914.00
Hookup of Tikrikalan ToP with MJPL	59.00
Augmentation of Chennai-Trichy-Madurai pipeline	46.00
Transfer pipeline from North oil jetty to PHBPL Paradip	81.00
Augmentation of Chennai-Bangaluru Pipeline	53.00
ATF Pipeline to Kolkata	45.00
ATF Pipeline to Guwahati	44.00
Pipeline from Caveri Basin Refinery to Trichy	98.00
Paradip- Haldia- Durgapur LPG Pipeline	913.00
Hook-up of Jasidih Marketing ToP with HBPL	14.20
Augmentation of Panipat- Rewari Pipeline	5.94

### ***Projects under Consideration***

Initiatives have been undertaken for implementation of the following projects:

- Laying of Sanganer-Bijwasan Naphtha Pipeline
- Augmentation of Paradip- Haldia- Barauni Pipeline
- Mundra-Viramgam Crude Oil Pipeline
- Ennore- Pondicherry- Trichy LPG Pipeline
- Branch pipeline to Raxaul and Baitalpur
- Gas Transmission Pipelines

During the year, following execution of Term Sheet with Gujarat State Petronet Ltd (GSPL), IndianOil in consortium with GSPL, HPCL and BPCL bagged the gas pipeline bids called by PNGRB for the Mallavaram- Bhilwara, Mehsana - Bhatinda and Mehsana-Srinagar pipelines.

### **Information Systems**

Web portal for online claim for post retirement medical scheme, approval and payment to retired employees against medical claims [www.indianoilpipelines.in](http://www.indianoilpipelines.in) was launched on September 1, 2010.

Disaster Recovery site for the first time in a Division was established at Bijwasan for backup of important applications software and data. With this Pipelines will be the first division to set off ISO 27001 deployments, which will enable confidentiality, integrity and availability of our Information assets.

Centralized Internet Services implemented on November 10, 2010 with the installation and commissioning of Proxy server and Load balancer at PLHO, Noida for the entire Pipelines Division.

With the implementation of HyperV technology in PLHO to run the application servers in virtual environment, server utilization will be improved reducing the cost.

## **Human Resource**

A major initiative in the form of "HR Index" has been implemented in Pipelines Division. The HR Index aims at facilitating effective implementation of HR policies and practices and brings about overall improvement at each and every location in the Pipelines Division and thereby enhancing the engagement of employees. The locations were assessed vis-à-vis various HR Index Parameters. On the IndianOil Day, the Best Station, the Best Unit Hqrs/Base and the Best Region Office were awarded by Director (Pipelines).

Long Term Settlement (LTS) for workmen was signed with the Recognized Unions during the year. Total 86 new officers joined Pipelines Division in 8 batches during 2010-11.

The Mentor-mentee engagement initiative in Pipelines Division has been revisited and revamped with the objective of providing speedy learning, knowledge acquisition by Probationary Officers and Relationship building across the Division.

HR Conclave - 2011, an Industry level conference of HR professionals of industries in Noida and NCR was organized by Pipelines Division on 26th March 2011. The theme of the Conclave was 'Strategizing Human Capital for New Business Horizons' and 'Engaging collectives in driving business and setting new milestones'.

## ***Training & Development***

In order to update technical skills and further build up capability of operating personnel towards ensuring safe, efficient and environmental friendly operations, Capability Building Programme in Pipeline Operations were conducted at PLHO in 8 batches during the year. In all 170 executives comprising station incharges to operating level officers of all pipelines locations all over India attended the programmes. Eight number of programmes, each of three days duration covering various important aspects of pipeline operations were conducted by our in-house expert faculty and oil industry experts.

IndianOil Pipelines and Petrofed jointly organised a three day training programme for faculty members of engineering colleges in the Northern States of our country on the concept of Industry-Academia Interface "Defect Assessment & Maintenance in Pipelines" during July 26-28, 2010 at UPES Campus, Dehradun and NRPL Panipat.

Three day external training capsule on "Hazard Identification techniques, Risk Assessment and Risk Mitigation methods" was provided for 77 executives in three batches from all regions and PLHO at NITIE, Mumbai during 20th to 22nd December 2010, 31st January to 2nd February 2011 and 28th February to 2nd March 2011.

Two executives of GNPOC, Sudan were provided training on Maintenance Management of Pipeline System during 21st to 25th June 2010 by our executives at WRPL Gauridad and Viramgam resulting in revenues of around Rs. 2.50 Lakhs.

One executive of GNPOC, Sudan was provided training on ROW Maintenance in Petroleum Pipelines during 14th to 18th June 2010 by our executives at WRPL Gauridad and Surendra Nagar resulting in revenues of around Rs. 1.25 Lakhs.

During the year our executives at WRPL Vadinar provided training to 14 executives of HPCL Mittal Energy Limited (HMEL) on "Marine Operations & Maintenance" earning a revenue of Rs. 35 Lakhs.

IndianOil provided faculty assistance to Kuwait Petroleum Corporation for two five day programmes "Training on Practical Class Maintaining Diesel Engines" during 6th to 10th and 21st to 25th March 2011 earning revenue of around Rs. 12.7 Lakhs.

## **Finance**

Benefit of reduced Customs Duty by availing EPCG licence for on-going projects in Pipelines Division introduced.

Pipelines Division as a pilot location for SAP Pay Roll implementation will launch the system from 1st April 2011 in the entire Division.

There was a tremendous increase in e-payments from to 63% in 2010-11 from 33% in 2009-10.

Employees payments are made online and cash counters were closed across all locations of Pipelines Division. E-mail messaging containing details of the payments released to the vendors and employees by PLHO-Finance through e-banking has been started in-house developed system. Submission of all employee claims like telephone expense reimbursement travelling allowance, reimbursement on spectacles, entertainment, etc. enabled online. Web-based online claim system was implemented for retired employees' for Post Retirement Medical Claims.

### **Awards and Recognitions**

- Salaya-Mathura Pipeline has been declared Best Performer - OISD award (1st position) for the year 2009-10 in Cross Country Pipelines Category.
- Northern Region Pipelines Panipat and Bijwasan won British Safety Council Award 2009 for consecutively two and five years respectively.
- Northern Region Pipelines, Panipat bagged Safety Award -2009 from National Safety Council of India, Mumbai on October 30, 2010.
- Koyali-Ahmedabad Pipeline bagged Certification of Appreciation by Gujarat Safety Council for Gujarat State Safety Award 2009 during January 2011.
- Western Region Pipeline, Sendra station has been awarded with Director (Pipelines)' Rolling Trophy 2009-10 in the Best Station contest organized in the Pipelines Division.
- Shri K.K. Jha, Director (Pipelines) has been conferred the IPMA level-A certification (Certified Projects Director) by the Project Management Association (PMA), in association with International Project Management Association (IPMA).
- Shri J. P. Sinha, CIPM was conferred with the prestigious NACE International Gateway India Section's (NIGIS) "Award for Excellence in Corrosion Science & Technology" for the Year 2009-10 during the NACE 'CORCON-2010' East Asia & Pacific Area: Corrosion Conference & Expo on September 24, 2010. Shri Sinha joins a distinguished group of IndianOil People recognized by NIGIS with this award.
- Northern Region Pipelines, Panipat was awarded first prize consecutively for 11th time for Hindi implementation by NARAKAS.