A REPORT ON

10TH HSE WORKSHOP
(8TH – 9TH July, 2009)

At
GTI, Noida

ORGANIZED BY
CORPORATE HSE DEPARTMENT, NOIDA
A Report on 10TH HSE Workshop held on 8-9th July, 2009 at, GTI, Noida

Preface
Health, Safety & Environment (HSE) workshop is being conducted biannually by Corporate HSE department. The 10th HSE Workshop was organized at GTI, Noida on 8-9th July, 2009. The workshop was attended by 33 delegates comprising of OICs, F&S HODs & Other O&M officers from the work centers.

Inaugural Session:

The workshop was inaugurated by Sh K. G. Gupta, ED (SHE), IOCL with traditional lighting of Lamp. He was accompanied by Shri R.K. Kashyap, ED (TQM & HSE) and Shri D K Purwar, ED (O&M), Shri P N Prasad, COO (BCPL), Shri M Ravindran, CEO (GGL), Shri S. P. Garg, DGM (HSE) and Shri D V Shastry, DGM (Training).
During inaugural ceremony, ED (TQM & HSE) in his address elaborated the importance of environmental conservation in recent times emphasized on adhering to the Montreoeol Protocol guidelines w.r.t. green house gases and replacing ozone depleting substances which contribute to global warming. He also talked about the back bone of our safety system i.e. 18 elements of GAIL’s HSE management system. He stressed on implementing the provision of each element meticulously.

ED (O&M) during his speech showed his concern on effects of climate change. He emphasized that plant in charges to take initiatives for adopting energy efficient machines/technology. He stressed that each individual have to take responsibility for environmental protection and adopt changes in our life style to conserve energy in our day to day life.

In the inaugural address, ED. (SHE)-IOCL emphasized on achieving excellence, by following best practices in the field of HSE. He shared the best HSE practices being followed in IOCL. He detailed about the air monitoring, hazardous waste handling, waste water management, green belt development, R. O. plants and shared the data of Indian Oil Corporation with the participants. He thanked GAIL for inviting in the workshop and express willingness to continue cooperation between the two organizations.

The inaugural session ended with vote of thanks from DGM (HSE)
Day 1:

**Technical Session 1, Chairperson: Sh. D K. Purwar, ED (Gas- O&M)**

The theme of the workshop was "**Environmental challenges in oil and Gas industries**". Dr. T S Panwar, a Senior Fellow of The Energy and Resources Institute, New Delhi and Director of the Energy Environment Policy Division, TERI, made a technical presentation about the different aspects of climate change and environmental issues related with use of Natural gas. In his presentation he elaborated Importance of natural gas for economic development. He shared with the delegate about the CNG activities in India, Environmental friendly uses of natural gas in power/industrial applications, comparison of emission factors for various pollutants, impact on environment in Exploration and production. At last he talked about the brief initiatives taken by TERI for environmental protection.

Additionally, Shri Arvind Namdeo Chief Manager (EMS)- Pata gave presentation on the environmental management being followed at Pata. He talked about Centralized Wastewater Treatment Facilities for treatment of all wastewater, online monitoring of ambient air Quality and Stack Air Quality by means of state of Art analyzers, In-house Secured Landfill for Solid wastes, rain water harvesting in plant & township, and specialized treatment of alkaline soil to have durability of development works / effectiveness of horticulture works. He also briefed about the Eco Culture being followed at Pata like creation of SWAS club, no vehicle day, use of solar appliances etc
At the end of the session, in his concluding address ED (O&M) thanked external faculty for his excellent presentation. He also appreciated the presentation made by Shri Arvind Namdeo on environment management at Pata. He expressed satisfaction on the environmental measures being taken at site but stressed that more commitment is required for further strengthening our efforts towards environmental protection. He said that OIC of every unit should encourage uses of energy efficient equipment and technology and take lead in this regard to improve further.

**Technical Session 2, Chairperson: Sh. P N Prasad, COO (BCPL)**

A total of 9 presentations by Natural Gas Pipelines and Compressor stations were made during the session by Fire & Safety and O&M representatives of different work centers on HSE activities, case studies of incidents and near misses occurred at the installations since last workshop.

*(Workshop session in progress)*

**Natural Gas Pipelines:**

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<th>Topic</th>
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<td>1</td>
<td>NCR region presented paper on HSE activities. He presented the Safety Features of O&amp;M of pipelines under NCR. He shared an near miss incident dated 22.06.2009 of fire in dry grasses near by to the terminal SV-3 KHERAKALAN and was also discussed in detail with the delegates.</td>
<td>Sh J Chakraborty DM(F&amp;S)</td>
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<td>2</td>
<td>GAIL Mumbai presented paper on the HSE initiatives taken in year 2009. GAIL Mumbai highlighted Point Gas Detectors at Filter area and Metering skid of the pipeline terminal and connected with Fire and Gas detection panel at terminal/SV station control room and also about Review of Emergency Preparedness at RGPPL DABHOL terminal on 30th March 09. A case study of rerouting of 18” Trombey RCF P/L near JijaMata Nagar nala near Mahul Trombey was discussed with participants.</td>
<td>Sh U S Kosta, DGM (O&amp;M),</td>
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3 Agra region presented a paper on the HSE activities and detailed about the fire and safety system in Agra region. A near miss incidents on 8.6.09 while doing housekeeping job at Sone Ka Gurja IP3 was shared with the delegates. B. Barik, DM (F&S)

4 GAIL, Puduchery presented paper on the HSE initiatives taken since last workshop. They highlighted the community awareness leaflet distributed among villagers. Besides a case study dated 10th Dec 2008 related to pigging of pipelines. The recommendation were also discussed with the delegates. Sh L Arumugam, CM (O&M)

5 GAIL, Rajamundhary presented a paper on the HSE activities for the last six months. The activities included observance of National safety day, world environment day, Annual health check-up, training etc. One case study during the gas-in activity at Oduru terminal during checking the leakages on flanges when suddenly the impulse tubing of a SDV came off due to pressure & got wrapped around the support stand was discussed. Sh H G Patle, DM (F&S)

6 GAIL, Baroda presented paper on the HSE initiatives taken in the past eight months. They highlighted the introduced of emergency turn out procedure and display of safety posters. Sh Ajay Bharat, SO (F&S)

**Compressor Stations:**

1 GAIL Hazira presented paper on the HSE initiatives taken in the past eight months. The activities discussed included Hazira participated in mock drills carried out by mutual aid partners M/s BPCL and IOCL in October 2008 month. Presentation also highlighted the safe handling of waste. Sh. Arun Kumar, DM(F&S) Hazira

2 GAIL Khera presented a paper on HSE activities carried out during the last six months. They highlighted the modification carried out for Weighing of 70kg CO2 cylinders installed in CO2 flooding system at GTCs. One case study for the incident related to ejection of PG assembly during hydro testing on 18th May 2009 was shared with the participants. Sh Amit Rodge, DM (F&S),Khera

3 Paper presented by GAIL Jhabua included the HSE activities highlighting Occupational Health check-up, Observance of safety day, Critical safety campaigns, periodic safety audits, safety committee meetings and Fire & safety trainings. Sh R K Chhibber, SO (F&S) Jhabua
On second day of workshop, external faculty, Dr D D Basu, Senior Scientist, CPCB was invited for delivering technical talk. He made a presentation on Environmental Legislation in India (Role, Responsibility & Implementation). He detailed about the different pollution control acts rules and notifications in India, rules and notification under E (p) act. He also elaborated the functions of the central pollution control board, state pollution control board, consent mechanism, water act, air act etc. he also talked about the procedure for grant of authorization for handling of hazardous waste. During his 1.5 hrs presentation he touched different aspects related to laws, its implementation and polluter, pollutes, regulator relationship.

(Workshop session in progress)

After presentation of Dr D D Basu, In house technical presentation of six process plants were made during by Fire & Safety and O&M representatives of different Process plants on HSE activities, case studies of incidents and near misses occurred at the installations since last workshop.

The brief details are as under:

1. GAIL Vijaipur presented a paper on the HSE activities which includes Occupational Health check-up, Observance of safety day, Critical safety campaigns, periodic safety audits, safety committee meetings, Fire & safety trainings etc. They highlighted the details of licenses, progress against objective and targets, the renewal of mutual aid agreement between GAIL (India) Ltd, vijaipur and M/S NFL Vijaipur as well as M/s IOCL Dongar and about Contractors Safety.

   Sh Anant Tandale, M(F&S), Vijaipur

2. GAIL Vaghodia presented paper on HSE activities carried out since Aug 2008. They highlighted the special HSE activities like Meeting held with state authorities for conducting Off Site drill at Vaghodia, repair of underground portion of Fire water P/L leakage at Unit area, near FWPH, ADMN-II, Sub. One case study in compressor station area on 25th Feb 2009 during maintenance of one of the air fin condensers was discussed. They also presented the environment management system being followed at Vaghodia and highlighted the energy saving carried out in year 2007-08.

   Sh P Giripunje, M(F&S) and Sh. P K Dey SM(T/S)
3 GAIL Gandhar presented paper on HSE activities for last six months. The activities like training programme on behavior based safety management through m/s Gujarat Safety Council were highlighted. A Case study of energization of electrical motors dated 30th April 2009 and its recommendations were shared with the participants.

| Sh R P Singh , M (F&S) |

4 GAIL Usar presented paper on HSE activities for last six months. They highlighted the visit of CMD at Usar and HSE activities like safety day observance, Critical safety campaigns, periodic safety audits, safety committee meetings and Fire & safety trainings. They also highlighted the modification carried out for Mounded Storage Inspection. A case study during handling of a cylinder for valve cap coming out from cylinder thread and cylinder falls on ground was discussed.

| Sh S S Dharne, Mgr (F&S), Usar |

5 GAIL Lakwa presented paper on HSE activities for last six months. They highlighted the HSE Improvements like Remote starting of Fire Water Pumps from FCR, Installation of recirculation valve in fire water pump house, HC Detector Installed at the air inlet of Sub station AHU besides presenting a case study of damage of front tyre of Tanker due to iron rod protruding out from the RCC road.

| Sh. A W Kuhrekar, Mgr (F&S), Lakwa |

6 GAIL Pata presented a paper on the activities. GAIL, Pata apprised the delegates about safety statistics. They highlighted the Onsite Emergency Drills conducted at HDPE-2 and at LPG, Industrial hygiene survey of Pata plant conducted first time through CLI-Mumbai, New practice of Safety related Group Discussions amongst plant employees (Every Monday) by all HODs, Hazardous area identification using color codes (green, yellow & red) as per the risk, Special training campaign conducted for polymer truck drivers and hydrocarbon TT drivers, Best Safe plant competition based on operational safety has been organized with New Evaluation criteria based on Process Safety Index, developed by internal team at Pata.

Besides two case studies one on 27th June 2009 of fire during loading operation on one of the MFO tanker engulfing another MFO tanker and one Naphtha tanker parked in a row and another on 28th may 2009 of fatality during laying of instrument cable on cable tray at about 5mtr. height where Sh Harish Kumar of M/s Magin Construction Co. slipped and fell down on the RCC ground and received head injury and he succumbed to injury. The recommendations of both the case studies were discussed in detail.

| Sh. D V Pant, SM(F&S) |

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**Technical Session 2: Chairperson: Sh R K Kashyap, ED(TQM &HSE)**

In house technical presentation of LPG pipelines were made during this session by Fire & Safety and O&M representatives on HSE activities of past ten months, case studies of incidents and near misses occurred at the installations.

The brief details are as under:

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<td>GAIL JLPL presented a paper on HSE activities of JLPL PL installation during last six months. Besides a case study related to metal loss of pipeline was discussed in detail with the delegates.</td>
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<td>Sh A K Roy, SM (F&amp;S)</td>
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| 2 | VSPL team presented paper on various HSE activities during last six months. The activities like observance national safety week, world environment day, on site emergency drill, community awareness etc were presented. A case study of incident of fire and burn injury of one person on 7th Feb 2009 during Basket |
| Sh Bhattacharya Mgr (F&S), Vizag. |
Filter Cleaning job and its recommendations were discussed with the participants.

The prizes were given to Shri Arvind Namdeo, CM (EMSG)- Pata and to Sh H G Patle, DM (F&S) GAIL, Rajamundhary for their excellent presentation. The prizes were given away by ED (TQm & HSE)

During and after the technical sessions, deliberations on various issues were made. The minutes are listed below:

1. Exec. Director (TQM & HSE) stressed upon the following issues
   - Work permit system: Minimum two hard copies of work permit to be generated.
   - Though incidents are few but they are taking place and hence more vigilance is required to prevent such occurrence.
   - Taking critical care ambulance for remote area plants.

2. Manager (F&S) emphasized that the character limitation in generating work permit to be increased to accommodate sufficient comments/detail.

(Group Photograph of the Participants)
The valedictory session was chaired by Shri R K Goel, Director (Finance) and co-chaired by Sh R K Kashyap, ED (TQM & HSE) and Shri A K Kaushik, ED (F&A).

The session started with the formal introduction by DGM (HSE) about the workshop and he detailed the proceeding of the two days of workshop. He also elaborated the benefits of the workshop and about the safety and environmental initiatives taken by GAIL.

ED (TQM & HSE) in his valedictory speech expressed satisfaction over the progress of the workshop and stressed that the GAIL’s robust 18 element HSE management system to be followed in letter and spirit.

During this session, The Manual for Specification of Personal Protective Equipments (PPEs) was formally released by Shri R K Goel, Dir (F&A).

This was followed by presentation of CMD rolling Trophy for year 2007-08. The winners under different categories were as follows:

Category-(I) Gas Processing Units:
- HSE Champion (Winner) - Gas Processing Unit Vijaipur
- HSE Champion in the making (ie 1st Runner up) - Gas Processing Unit, Vaghodia

Category-(II) Gas Compressor Stations & LPG Pumping Stations:
- HSE Champion (Winner) - Compressor Station, Vaghodia.
- HSE Champion in the making (ie Ist Runner up) - LPG Booster station, Nasirabad

Category-(III) Natural Gas & LPG Dispatch Terminals:

- HSE Champion (Winner) - Agra Region.
- HSE Champion in the making - KG Basin, Rajamundary

Dir (F&A) giving away the HSE Champion (Winner)- Gas processing unit trophy to Shri Narendra Kumar (OIC)-Vijaipur and his team

Dir (F&A) giving away the HSE Champion (Winner)- Gas Compressor Stations & LPG Pumping Stations trophy to Shri S K Srivastava (OIC)-Vaghodia and his team
Dir (F&A) giving away the HSE Champion (Winner)- Natural Gas & LPG Dispatch Terminals trophy to Shri N K Agarwal (OIC)-Agra and his team

Dir (F&A) giving away the certificates for HSE Champion in making (Runners UP)- under different categories

In his concluding speech Dir (F&A) appreciated the Manual for Specification of Personal Protective Equipments (PPEs) and desired that similar manual for personal health care to be prepared for healthy manpower. He apprised that GAIL management gives top most importance to safety during project review.
The workshop concluded with vote of thanks by DGM (HSE). On behalf of Corp-HSE department, he thanked Dir (F&A) for his inspiring presence during the closing session in spite of his busy schedule. He also thanked chairpersons for sharing their rich experience with the participants and motivating participants to achieve excellence in HSE activities at plant and in personal life as well. He also thanked other senior officers, all delegates, and external faculty members for participating in the workshop. He thanked management of GTI for their assistance in successful organization of 10th HSE workshop.

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