संसदीय राजभाषा समिति द्वारा निरीक्षण

संसदीय राजभाषा समिति की पहली उपसमिति के माननीय सदस्यों द्वारा दिनांक 24 जनवरी 2009 को तेल उद्योग सुरक्षा निदेशालय के कामकाज में राजभाषा के प्रयोग की स्थिति का निरीक्षण किया गया। श्री मोहम्मद सलीम, संसद सदस्य (लोकसभा) की अवस्था में निर्देशित माननीय संसदीय क्रयकलापों द्वारा होटल ली-पीडियन, नई दिल्ली में निरीक्षण कार्य संपन्न हुआ।

- श्री मोहम्मद सलीम, संसद (लोकसभा) – संयोजक
- श्री चन्द्र कुमार, संसद (लोकसभा)
- श्री सांतोष गंगवार, संसद (लोकसभा)
- श्री धारवंश गेहलोत, संसद (लोकसभा)
- श्री गिरीश लाल भार्गव, संसद (लोकसभा)

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OISD Newsletter

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The best way to keep children home is to make the home atmosphere pleasant – and let the air out of the tyres........... Dorothy Parker.

Sh. S. Sundareshan, Additional Secretary, MoP&NG inaugurating the Stall

OISD Stall at Petrotech - 2009

Under the aegis of Ministry of Petroleum and Natural Gas, Government of India, 8th International Oil & Gas Conference and Exhibition was held in New Delhi from 11th to 15th January' 2009. OISD put up an exhibition stall in Petrotech - 2009 at Pragati Maidan, New Delhi during 11th to 15th January' 2009. Major activities / capabilities i.e., development of technical and HSE Standards, Safety audits, Accident Investigation, Capacity building, Incident analysis, learning etc. and also its role as Competent Authority for Safety in Offshore operation were displayed through exhibits.

The stall was inaugurated by Shri S. Sundareshan, Additional Secretary, MoP&NG on 11th January' 2009. OISD stall drew large number of technocrats, decision makers and dignitaries both from India and abroad.

OISD at PETROTECH-2009
A man never discloses his own Character so clearly as when he describes another’s........Jean Paul Richter (1763 – 1825).

Comments of Visitors

15/01/09 Aníbal de Silva, vice minister of Environment, Republic of Angola

Good display
(20 students to be sent)

01/01/09 Shri J. B. Verma, ED, OISD at OISD Stall

OISD is doing a great work.

14/01/09 Shri D. K. Deshpande, ED, HPCL (2nd from left) at OISD Stall

Petrotech-2009 at OISD Stall

Shri J. P. Ojha, GM (Gas), IOCL, Co-ordinator Exhibition
Oil Industry Safety Directorate (OISD) organized a three day workshop on “Risk Based Safety Management in E&P Sector” during 3rd to 5th December 2008 at Hotel Le Meridian, New Delhi.

In his key note address, Shri A.K. Hazarika, Director (Onshore), ONGC pointed out that risk based safety management is the cornerstone for a proactive approach to safety. He emphasized that our management system should ensure, all the holes in the Swiss cheese do not align under any circumstances. He shared in brief, the risk management process being followed through various life stages of conceptualisation, design, construction, operation and maintenance in ONGC.

The workshop was designed to facilitate sharing of current/best practices and experiences between the key experts and participants with an objective to arm the participants with the technical ‘know how’ related to risk management.

The safety management in an organization can be reactive, by implementing safety measures after an accident or incident has occurred, or it can be proactive. A proactive approach for safety management implies realization of actions ahead of accidents and incidents. The trade-off between reactive and proactive actions related to safety defines whether the company has a risk based or an event based approach for safety management.

There was an overwhelming response from the Industry and 80 delegates participated in the workshop. Delegates were from the public sector and private companies engaged in Oil & Gas business in India. Delegates from BG (India), Cairn India, Canoro, GAIL (India) Ltd., GSPC, Great Offshore, GVC Energy (Germanischer Lloyd), Hardy JTI, Niko, OIL, Oilex, ONGC and Reliance Industries from upstream sector and BPCL - KRL, GGCL, MGL and UI India from downstream sector attended the workshop.

A warm welcome was extended to all delegates and speakers by Sh. J.B. Verma, ED, OISD. The Workshop was inaugurated by Shri L.N. Gupta, Joint Secretary, (Refineries) Ministry of Petroleum & Natural Gas, by lighting a lamp.

Shri L.N. Gupta expressed concern on number of accidents including fatalities that have taken place during last 3-4 years. He emphasized on the Swiss Cheese Model and advised companies to improve management of the risk.

Technical Sessions:

1. An Introduction to Risk Management by Mr. Don Lloyd, Head of HSSE, BG Group, UK.
   Mr. Don Lloyd explained risk management process covering hazard identification, risk analysis, risk assessment, risk management options, ALARP (As Low As Reasonably Practicable) cost benefit analysis, risk and regulations and issues in the practical application of risk management.

2. Risk Assessment by Mr. Rajneesh Kumar, Head of Operations, International Risk Control Asia (IRCA), India.
   Mr Rajneesh Kumar explained qualitative and quantitative risk assessment with the help of two case studies of onshore and offshore installations.

3. Design of Installation by Mr. Jitendra Kumar, Principal Consultant, Germanischer Lloyd.
   Mr. Jitendra Kumar explained importance of Safety Integrity Level (SIL) Assessment and Layers of Protection (LOPA) in Asset Management. SIL methods were explained and practical application of SIL was explained with the help of a case study.
Progress is a nice word. But Change is its motivator and changes has its enemies....Robert F. Kennedy.

Delegates at the workshop

4. Asset Integrity Management (AIM), by Mr. Carlos A. Palacios, Director of Engg. Services, TechCorr LLC, USA.
   Mr. A. Carlos Palacios explained need of AIM, causes of failure, corrosion, Total Integrity Management System and Elements of AIM.

5. Behaviour Based Safety by Mr. L.B. Muralidhar, GM, BG India.
   Mr. L.B. Muralidhar explained process of behaviour based safety and shared his experiences of implementing behaviour based safety in BG India.

6. Incident Investigation - I by Ms. M.B. Sarma, Manager (S&E), Oil India Ltd.
   Ms. M.B. Sarma explained process of incident reporting and investigation being followed in OIL and presented two case studies of incident investigations.

7. Incident Investigation - II by Mr. H.C. Taneja, JD (E&P), OISD.
   Mr. H.C. Taneja explained Human, Technical, Organisational (MTO) method of incident investigation with one case study of incident investigation.

8. Enhancing Safety in Offshore Operations by Mr. Akhil Verma, DGM, Corp HSE, ONGC.
   Mr. Akhil Verma presented case studies of two major accidents in offshore and shared how the learning from these accidents was used to enhance safety.

9. Offshore Regulatory Developments by Mr. Arshad Hussain, JD (E&P), OISD.
   Mr. Arshad Hussain explained shift to goal based safety regulations worldwide and establishment of offshore safety regime in India.

Concluding Session of the workshop

The main points emerging from feedback and discussions during the workshop are as follows:

1) More inputs related to case studies can make it even more interactive. Some more videos and visual can be included.
2) Programs were tightly packed otherwise nicely scheduled.
3) May extend workshop by one or two days so that, exercises in Risk Management, ORA etc. can be taken up.

Feedback collected from Delegates (66 delegates submitted feedback, out of 80 delegates who attended workshop) was analysed. Overall workshop was assessed as 4.3 / 5.0, whereas fulfilment of delegates expectation was 4.2 / 5.0.

Workshop content for academic / technical level was rated as 4.19 / 5.0 and at practical level rating was 3.92 / 5.0. Content of presentations was rated in the range 3.56 to 4.33 (for individual presentations) with mean of 4.03. Performance of Presenters was rated in the range of 3.48 to 4.46 with mean of 3.97.

Appreciations:
1) Workshop is very informative, knowledge sharing and inspiring.
2) Topics on Quantitative Risk assessment and SIL were very informative.
3) Selection of the topics and overall coverage was simply excellent
4) Need of the time “The Risk Management” has been well taken care.
5) Suggestions, sharing of knowledge etc. were free flowing and transparent.

Mr. Don Lloyd, BG Group UK speaking at the Technical Session

Following points were discussed:

1. Safety in Road Transportation of LPG: The trial of internal EFCV conducted at BPCL-Uran LPG plant has been found successful. The recommendations of committee forwarded to PESO have been accepted and PESO has made it mandatory to provide internal EFCV in LPG bulk tank trucks supplying to ALDS.
2. Comprehensive Periodic Inspection Procedure for mounded LPG vessels: Inspection procedure for mounded LPG vessels would be circulated to industry.

3. Formulation of Guidelines on Maintenance and Inspection of underground LPG storage vessels: Checklist for maintenance & inspection of underground storage vessels would be circulated to industry.

4. Complete revision of OISD-GDN-114, 115, 128, 139, 152 & 162: The status of revision of OISD-128, 139 and 162 has been shared with the members which is expected to be completed by March, 2009. No major changes have been proposed in OISD-GDN-115 by the functional committee members and hence, the standard was reaffirmed. Further, the provision of Low Temperature Suit as specified in OISD-STD-144 was also deliberated in detail by Functional Committee and it was proposed that this provision shall not be mandatory in OISD-STD-144 as there are practically no situation where the use of low temperature suit can be made in case of emergency. The proposal of committee was deliberated and accepted by the steering committee.

5. Amendment of Internal Safety Audit check list for cross country pipelines: The checklist, after review by OISD, would be circulated to members by January, 2009.

6. Development of pre-commissioning check list for cross country pipelines: The comprehensive pre-commissioning checklist for cross country pipelines has been adopted by the steering committee.

7. Emergency Preparedness Plan for cross country pipelines: It was informed that the functional committee for complete revision of OISD-STD-141 has been advised to include a chapter on emergency preparedness plan in the revision. The revision of the standard would be completed by March 2009.

8. Recognition of training and External Safety Audit by OISD by local factory inspectorate: The matter has been taken up with DG-FASLI, who has agreed to discuss the issue of recognition of External Safety Audit by OISD with their Chief Inspectorate of Factories. Regarding, training of industry personnel for Safety Officer, the matter has been taken up with DG-FASLI and with State Factory Inspectorates in their conferences recently.

9. Design, maintenance of LPG tank wagons in consultation with RDSO: A meeting comprising of RDSO, IOC, BPCL, HPCL, ONGC and OISD has been organized. Industry issues have been deliberated in detail. RDSO has agreed to resolve the industry issues pertaining to design and maintenance.

10. Design, Operations & Maintenance of bulk tank trucks/trailers: Industry members were requested to send the nominations.

11. Pending recommendation of OISD audit of JLPL: It was emphasized that industry member should expedite the completion of pending recommendations of JLPL audit on immediate basis.

12. Guidelines on Ethanol Handling and Design & Safety Requirements of Tank Truck carrying ethanol: Industry members were requested to forward the nomination for the functional committee for developing the guidelines.

13. Submission of internal investigation reports by ONGC: All the industry members were requested to forward a copy of the internal investigation reports of major incidents to OISD.

14. Oil Spill Response Facilities at Uran: After detailed deliberations, it was decided that an industry meeting would be organized at OISD. ONGC to expedite the feedback from Ministry of Shipping.

15. Amendments in OISD-STD-144: First meeting of functional committee has been held and proposals are being deliberated.

16. Development of standard on Hydrogen Dispensing System for automotive use: Industry members were requested to forward the nomination for the functional committee for developing the guidelines.

17. Adoption of New OISD Standard: OISD-STD-127: Selection, Operation and Maintenance of Diesel Engines was adopted by steering committee.

18. Adoption of OISD Standards after Complete Revision: Following OISD Standards were adopted by steering committee:
   (i) OISD-STD-114: Safe Handling of Hazardous chemicals.
   (ii) OISD-STD-121: Selection, Operation and Maintenance of Steam and Gas Turbines.
   (iii) OISD-STD-152: Safety Instrumentation for Process System in Hydrocarbon Industry

19. Accident Reporting, Investigations and Analysis: The incidents of pilferage / sabotage/ miscreant’s activities particularly on cross country pipelines / flow lines to be reported to OISD with effect from 1st April, 2008 onwards. Industry members to enhance supervision, strengthen training and follow the laid down OISD standards to minimize such incidents.

20. Monitoring of Recommendations of External Safety Audits (ESAs) operations: E&P companies were advised to liquidate the pending recommendations in a time bound manner urgently. ONGC to offer their new facilities / pipelines for pre-commissioning audits in line with extant practice.

21. Oil Spill Response Facilities: It was re-emphasized for early implementation of OSR Tier-I facilities.

22. Guidelines on identification of hazards & evaluation for upstream sector: ONGC and OIL would submit the details of major activities for which the guidelines are required, for review by OISD.

23. Revision & inclusion of checklists for drilling, workover and installation in OISD-GDN-145: Checklist already developed for ESAs can be used for internal safety audits.

24. Revision of frequency for ISA for smaller facilities: After deliberations, it was decided to maintain the frequency for internal safety audits for smaller facilities as one year.

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Great Spirits have always found violent opposition from mediocrities ......................... Albert Einstein
25. Predictive maintenance practices: Failure occurrence data:
An industry meeting along with OISD would be held to share the industry data and experiences.

26. Requirement of fire hydrants system for Class-C product storage:
The present provisions would be further clarified, if required.

27. Testing of frequency of Aviation Refueler Hoses:
The frequency as prescribed in OISD-STD-135 i.e. on quarterly basis shall be retained.

28. Foam quantity requirement in Clause 4.4.11 of OISD-STD-117:
The necessary typographical error would be corrected in the standard.

SAFETY ALERT

Engine Room Fire

Incident:
A fire took place in an engine room of an onboard Mobile Offshore Drilling Unit (MODU). This caused extensive damage to the MODU. It took about one hour to bring the fire under control and another 3 hours for cooling various facilities of MODU affected by fire. There were no injuries. Attempts were made to fight the fire with water and portable extinguishers to some extent but could not control the fire. The fire was brought under control by dousing with CO₂. Surrounding cooling was achieved using water cannon from a stand-by boat. The engine room and its equipment suffered considerable fire damage. The rig was out of operation for a considerable period of time.

Factors that caused the fire to escalate include:
1. Availability of flammable material in the engine room, including hydrocarbon contaminated insulation and a wheelie bin.
2. Main fire water pumps were unavailable once the main generators were shut down.
3. The fire in the engine room ruptured the rig-air line. The loss of rig air disabled the emergency fire pump's automatic air primer. It took over 2 hours to manually prime and start the emergency fire pump.
4. The rig-air isolation valve for the engine room was in the engine room.
5. Some portable fire extinguishers did not function.
6. Bulk lube oil & hydraulic fluid were stored on the engine room.

Lessons Learnt:
1. Engine room fires are a very serious risk. Inspection and maintenance of exhausts, fuel lines, turbochargers & superchargers are critical, including the inspection and replacement of contaminated /damaged insulation. Housekeeping and cleanliness make a difference in reducing risk and damage.
2. Provision and testing of emergency equipment is critical (in this case some CO₂ cylinders did not activate when required and some portable fire extinguishers did not function). Redundancy in emergency systems can save lives.
3. Consideration to be given for facility specific common mode failures ad (in this case the rig air system).
4. The role of stand-by vessels is critical.
5. Highlights importance of emergency response for various scenarios. Practice makes perfect.

Un-insulated cracked engine exhaust bellows where fire was started

Cause:
Incident investigation was carried out and it was found that the cause of the fire was due to the radiant heat from an un-insulated and cracked exhaust bellows igniting the insulation in the deck head. The insulation was later found to be soiled with hydrocarbons. The fire spread through the engine room and flashed over to the engine room roof.

Uninsulated and cracked engine exhaust bellow where fire was initiated.

Hydrocarbon contaminated insulation on an adjacent engine exhaust bellow. A hole in the pipe was found when the insulation was removed for inspection.

Source: National Offshore Petroleum Authority

In every real man a child is hidden that wants to play.......Friedrich Nietzsche (1844-1900)
The following fixed offshore installation has been given consent under Rule 17 of Petroleum and Natural Gas (Safety in Offshore Operations) Rules, 2008.

Reliance Industries Ltd, Navi Mumbai has been given consent to operate its new fixed offshore installation “Control and Riser Platform (CRP)” located in Block KG-DWN-98/3 (KG-D6) in Krishna Godavari Basin Concession, offshore east coast India. The CRP is designed for an initial KGD6 gas production capacity of 40 MMSCMD and has provisions to increase KGD6 gas production capacity to 80 MMSCMD. It is also designed to handle 9 MMSCMD of gas production from MA FPSO.

### EXTERNAL SAFETY AUDIT

#### EXPLORATION & PRODUCTION - OFF-SHORE

5th to 8th January, 2009: Offshore jack up rig Deep Driller-1. The rig is owned by Premium Drilling and hired by GSPC for drilling in KG offshore. Built in 2006 having Singapore state flag, it is classed as Certified Drilling System (CDS) by ABS. It is designed for operations in water depths up to 374 feet and maximum drilling depth up to 9,144 metres. At the time of audit, the rig was drilling at an exploratory cum appraisal well KG-32 at 5400 metres in 102 metres water depth. The objective of this audit was to evaluate compliance to the ‘Petroleum and Natural Gas (Safety in Offshore Operations) Rules, 2008’. The audit comprised of systems audit including verification of operations.

#### EXPLORATION & PRODUCTION - ON-SHORE

5th to 9th January, 2009: The following installations of ONGC, Cauvery Asset were audited. The Asset has oil production of 0.299 MMT and gas production of 1169.4 MMSCM during 2007-08. Production Installation – EPS-Tiruvurur Production Installation - GCS-Kuthalam Workover Rig – CW-01 Workover Rig – ROM-50-15 Drilling Rig – E-1400-09

### PROCESS & ENVIRONMENT

15th to 19th December, 2008: The fifth External Safety Audit of ONGC, Uran was conducted. The Uran Plant receives gas from Mumbai High, Bassien & other offshore fields. The oil & gas are transferred from offshore with the help of sub-sea pipelines namely HUT and MUT gas and oil lines. Major products from the Uran plant are Crude Oil, Ethane, Propane, LPG and Naphtha.

6th to 9th January, 2009: External Safety Audit of Gas Processing Plant of GAIL, Lakwa, Assam was conducted. The design capacity of this plant is 2.0 MMSCMD of gas supplied by ONGC but due to non availability of gas, it is operating at around 30% of its capacity. This plant was commissioned in Oct. 1998 and produces LPG and solvex – GL. (Naphtha). The products are dispatched through tank trucks.

### CROSS COUNTRY PIPELINES

21st to 28th December, 2008: GAIL (India) Ltd’s Jamnagar – Ajmer Section of Jamnagar-Loni pipeline. This section of the pipeline is of length 826 kms, 8” / 14” / 16” diameter, 6.4 mm / 7.1 mm / 8.7mm / 9.5mm wall thickness, API-5LX-60 / 65 grade having capacity 2.5 MMTPA. The pipeline emanated from RIL’s Jamnagar Refinery to deliver LPG at Ajmer, Jaipur, Piyala, Delhi and Loni terminals.

27th to 30th January, 2009: GAIL (India) Ltd.’s natural gas pipeline network in Maharashtra Region. The audit was conducted for the first time. The total pipeline length is 126.50 km consisting of various pipelines of 4” 6” 8” 12” 18”, 20” and 26” diameters emanating from ONGC’s Uran gas processing complex to various installations / consumers like ONGC-Trombay, MSEB, RCF-Thal, HPCL, BPCL, MGL, IPCL etc.

### PRE-COMMISSIONING SAFETY AUDIT:

#### PROCESS

20th to 22nd January, 2009: Pre-Commissioning Safety Audit of MS Maximisation Project at BRPL was carried out by OISD team. The project aims at augmentation of the feed processing capacity of existing reformer from 107 TMTPA to 160 TMTPA. Accordingly, the project envisaged revamp in the existing Pre-treater unit and the reformer. The revamp comprises of additional 10 nos. of equipment replacement of 4 nos. and modification in 5 nos. of equipment. The detailed engineering and execution is done by M/s EIL as per the requirement of the process licensor M/s Axens.

### CROSS COUNTRY PIPELINES

29th to 31st December, 2008: IOCL’s product pipeline from Koyali Refinery to Ratlam. This pipeline consists of 265.234 km long, 16” diameter, 0.25” m wall thickness. The designed capacity of the pipeline is 2.0 MMTPA in Phase-I and 2.6 MMTPA in Phase-II. The pipeline has been laid to supply MS, SKO, HSD & ATF to Ratlam terminal.

### SURPRISE SAFETY AUDIT

MARKETING

12th - 13th December, 2009: HPCL, POL Terminal, Loni, Pune

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