

# ICEPIM 2015

## International Conference on Pipeline Integrity management

### Pipeline life-cycle extension strategies – Operation & Maintenance

By Amit Kumar Sharma  
Sanmarg Projects Pvt. Ltd.



B-7, Ansal Chambers 2, Bhikaji Cama Place, New Delhi- 110066, India  
Mob: +91 9971943010 / 9899694522 / 9711110427 / 9999143548 Tel: +91-11-46507555  
Email: [technical@pipelineintegritymanagement.in](mailto:technical@pipelineintegritymanagement.in) / [marketing@pipelineintegritymanagement.in](mailto:marketing@pipelineintegritymanagement.in)

# Amit Kumar Sharma

---



Present Affiliation	Sanmarg Projects Pvt. Ltd.
Acedemic Qualification	Science Graduate with MBA (Oil & Gas)
Area of Experience	Business Development, Operation & Maintenance and Project Coordination.

# Industry Scenario

---

- India is going to be the world's third largest energy consumer by 2020. leading to increased oil & gas imports.
- Higher dependency on pipeline infrastructure. Expanding further of around 15,000 Kms.
- Laying of new pipelines is a costly affair.
- Effective implementation of O&M practices can go a long way in maintaining the pipelines with extended service life.

# Industry Scenario...

---

- About 33% of Indian pipelines are more than 25 years old. 5000 Kms are non piggable.
- Pipelines, by using best practices served for more than 50 years, still operated in good conditions & achieving the yearly throughput targets.
  - IOCL's Guwahati - Siliguri pipeline &
  - OIL Naharkatia–Nunmati–Barauni cross-country crude oil Pipeline.
- But even mishaps can occur...

# Major Mishaps

---

- A major accident happened in a natural gas pipeline in South India which caused death of 16 people. The cause behind accident was major leak due to corrosion.
- In Delhi recently, a gas pipeline burst due to accidental digging of Pipeline by PWD workers.



- New York 127 years old gas pipeline blast in 2014, killed 8 people. The cause behind that was stress corrosion.
-

# Major challenges in O&M of Pipelines

---

- Inspection of non – pigable pipelines.
- Third party damage and intrusion detection.
- Awareness for pipeline assets among the key stake holders.
- To create an integrated approach towards smooth operation & maintenance along with the emergency response & repair system.

# Coping up with challenges

---

- Use of latest Technologies
  - Inspection of non piggable lines through smart pigs,
  - Fiber Optic Monitoring (Pipeline Intrusion Detection System/ Leak Detection System),
  - Aerial patrolling by Drones,
  - Spreading awareness through social media.
- Enforcing the sever penalties for uninformed activities over the pipelines.
- Creating joint emergency response team.
- Composite O&M approach – integration of works.

# Role of Pipeline Operator

---

- Change in mind set from Detection to Prevention.
- Testing , supporting and implementing new technologies.
- Use of improved training / communication practice with all stakeholders and with other pipeline operators.
- To sum up, adopting best O&M practices for pipelines is the need of the hour for enhanced life of pipelines which is more economical as compared to the laying of new pipeline.



---

Thank you!!!