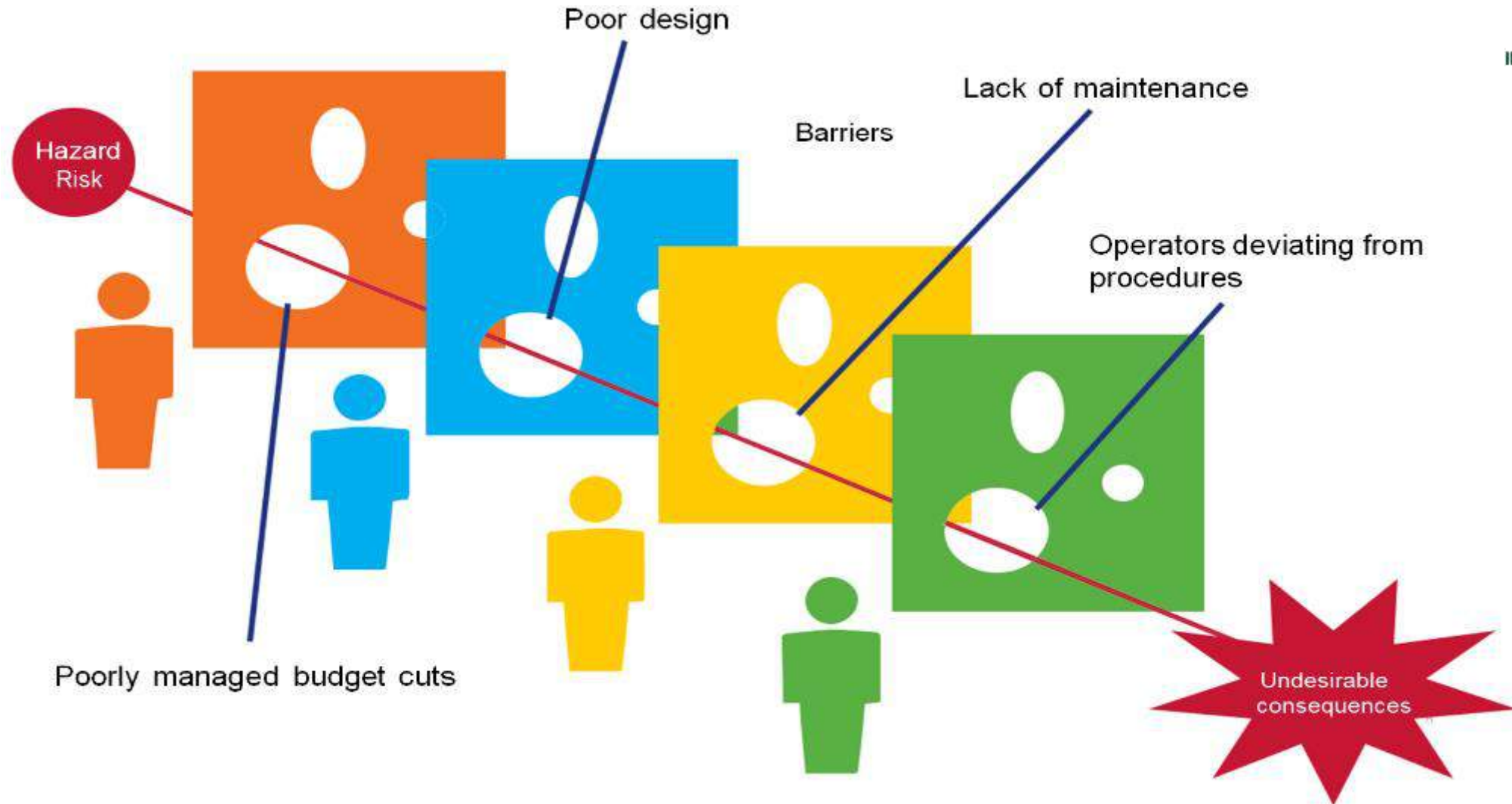




INDRAPRASTHA GAS

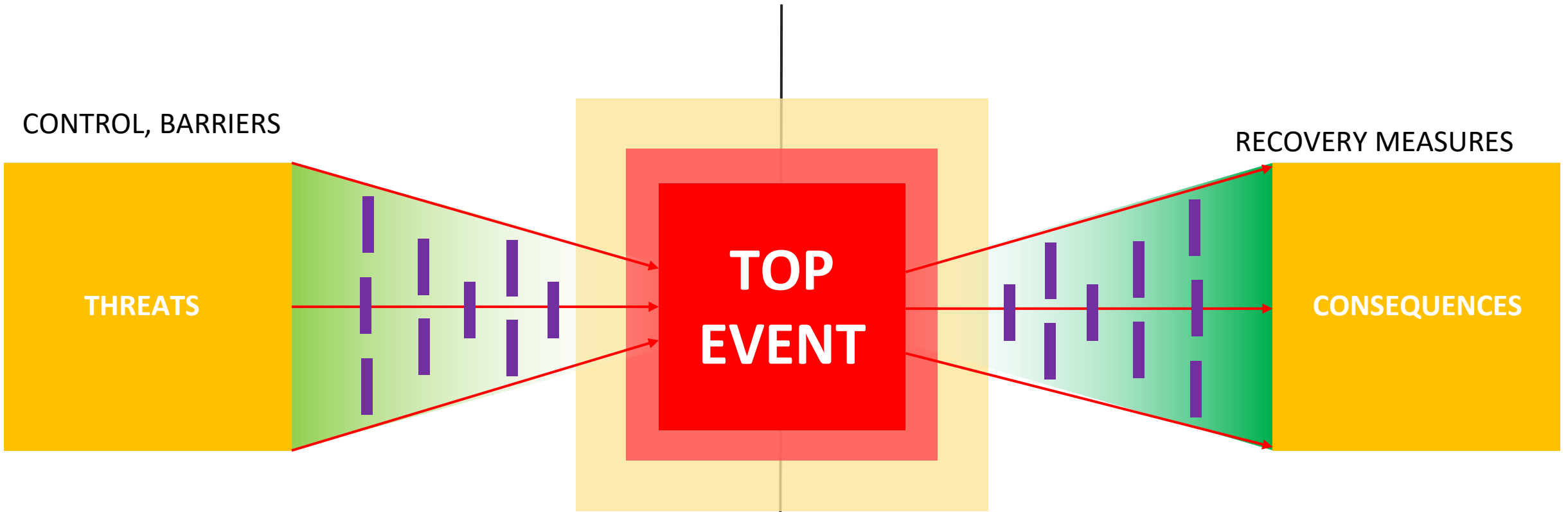
**ENSURING SAFETY IN CGD
PREVENTIVE
&
MITIGATION
MEASURES**

THE SWISS CHEESE MODEL OF ACCIDENT CAUSATION



The system produces failures when a hole in each slice MOMENTARILY ALIGNS, permitting "a trajectory of accident opportunity", so that a hazard passes through holes in all of the slices, leading to a failure.

~ JAMES REASON



Hazard	Potential to cause harm
Threat	A possible cause that will potentially release a hazard and produce a 'Top Event'
Control Barriers	Measure to prevent threats from releasing a hazard
Top Event	The 'release' of the hazard, i.e. the first consequence.
Recovery Measures	Limit the consequences arising from Top Event.
Consequence	Event(s) that result from the release of a hazard.

TYPICAL BOW-TIE - CITY GAS DISTRIBUTION



INDRAPRASTHA GAS

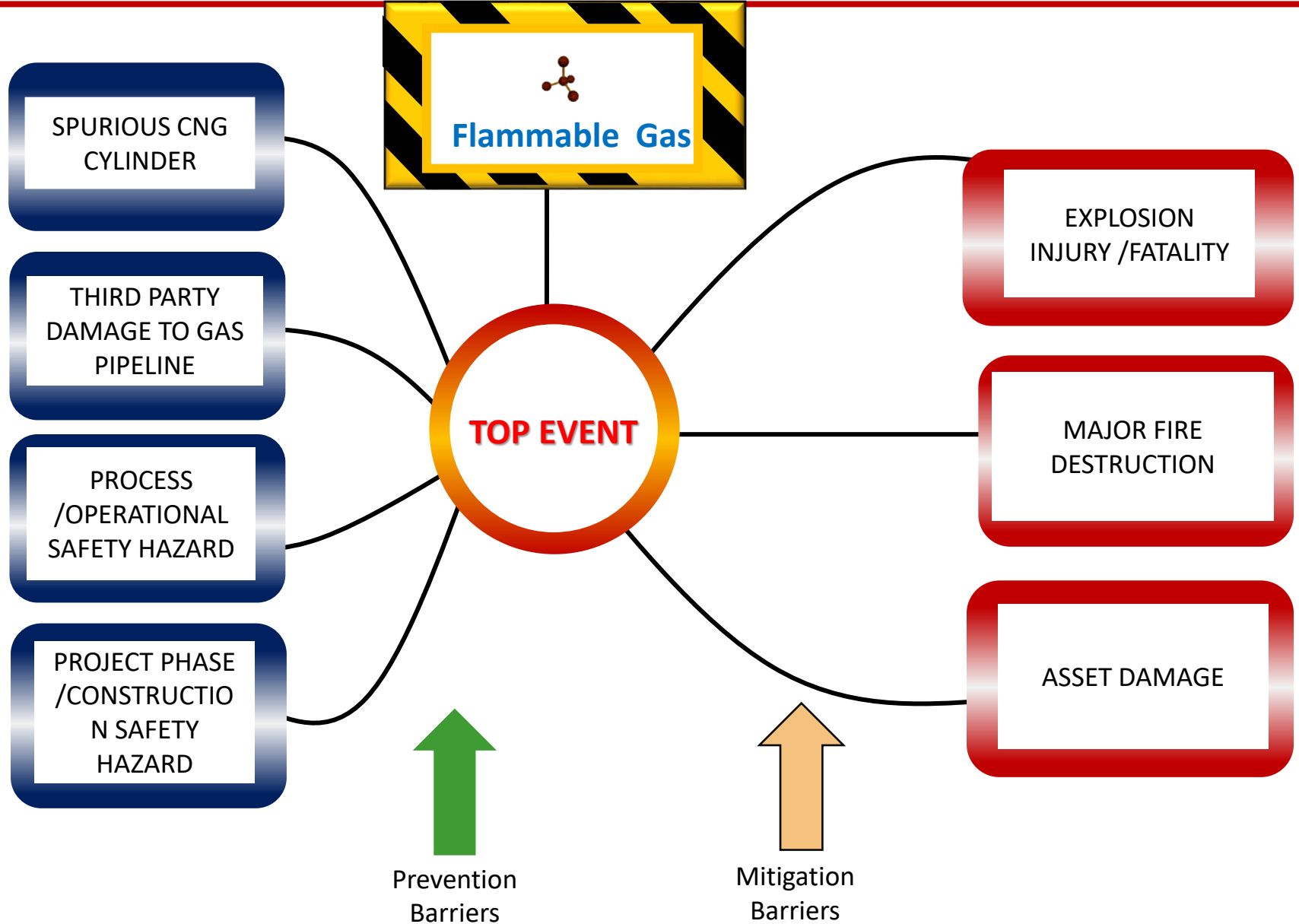
HAZARD

Top Event

Threats

Consequences

Barriers



PREVENTIVE BARRIERS



INDRAPRASTHA GAS





G.S.R. 612(E). T4S

F. No. INFRA/IMP/CGD/1/2013

G.S.R. 39(E). ERDMP



EXPLOSIVE ACT

GAS CYLINDER RULES

MSIHC RULES

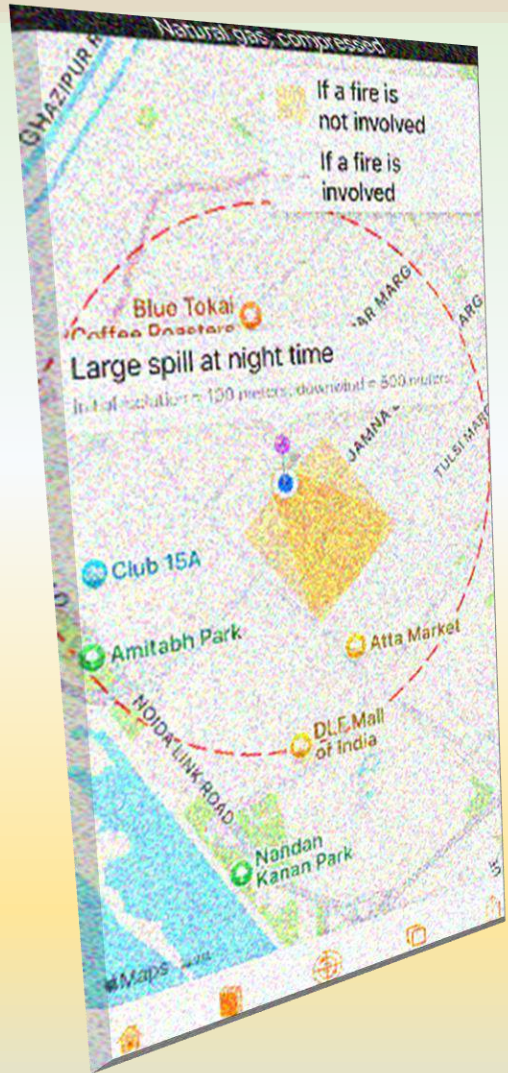


**COMPLIANCE
STANDARDS
&
REGULATIONS**





INDRAPRASTHA GAS



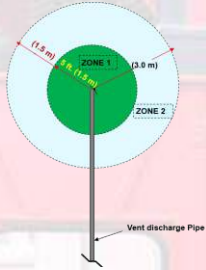
Hazardous Area

1° or 2°
CONTAINMENT

PSV/SRV

GAS /FLAME

ESD



IDENTIFICATION

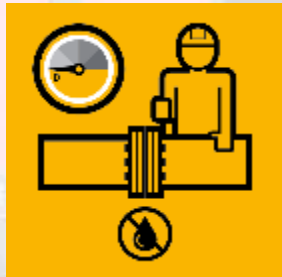
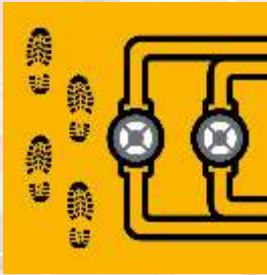
PREVENT

RELEASE

DETECT

CONTROL

ENGINEERING CONTROL
and
PROCESS/ DESIGN SAFETY

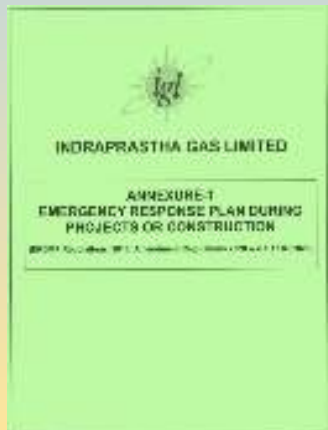
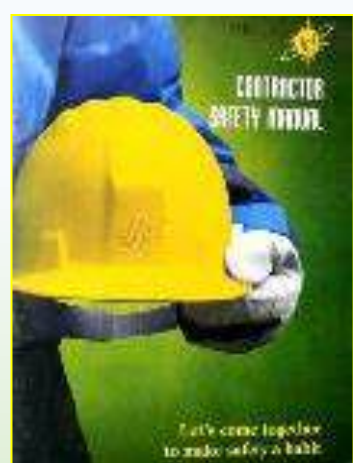




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ISO 9001 ISO 14001 ISO 45001



HOT WORK PERMIT REVIEW

- CNG O&M
- PNG O&M
- PNG PROJECTS
- CNG PROJECTS
- BUILDINGS



>50,000 Nos.

TRAINING & AWARENESS

- Project Site
- PNGO&M/CNG Stn Site
- TPI /PMC Mentoring Session
- Office /C.R. IGL Employee
- Other CGD industry
- Societies, C&I
- State Fire Service
- Authorities (PWD,DJB,GDA etc.)



Particular	TOTAL
Sessions	37,445
Participants	1,85,213

SITE INSPECTION

- Domestic
- Industrial
- Commercial
- CGS
- FRS/DRS/SVs
- Joint site Visits
- CNG Stations
- LCV inspection



DOM	>8000 Nos.
C&I	>2000 Nos.
CNG	>3000 Nos.

AUDIT

- Internal Safety Audit sites
- External Safety Audit Sites
- ISO Audits
- Internal Financial Audit
- T4S Audit
- IMS Audit
- ERDMP Audit
- Any other(Asset Audit by C&P and Stores)



MEETINGS

- Board Meetings
- SCM
- Project Review Meeting
- O&M Review Meeting
- Control Room Level
- Meeting with Regulatory & Statutory Authorities (PESO, PNGRB, Factory Inspector etc.)
- Kick off meeting with Vendors



COMMISSIONING & SHUTDOWNS

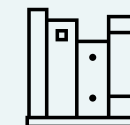
- MDPE
- STEEL
- CNG Stations



> 70 Nos. Major Pipeline shutdowns

MIS REPORTING

- DPR
- Monthly F&S
- C.R. Level Reports
- Asset Reports
- Award Application
- Data Analytics : GSP dashboard updation.
- BRSR/ SUSTAINABILITY
- MoPNG Qtly Reporting
- Risk Management Compliance





पीएनजी सुरक्षा जागरूकता शिविर 285 Nos. Covering ~3000 participants



सीएनजी ग्राहकों के लिए सुरक्षा क्लीनिक 122 Nos. Covering ~ 11,000 Vehicles



118 Nos. जेसीबी ड्राइवर जागरूकता अभियान



113 Nos. TPI/PMC MENTORING SESSIONS



आईजीएल कर्मचारियों के लिए C.R. स्तर पर सुरक्षा प्रशिक्षण



Total 64 Nos. DIAL BEFORE DIG PROGRAMS FOR VARIOUS UTILITIES.



SKILL DEVELOPMENT TRAINING THROUGH HYDROCARBON SECOTR SKILL COUNCIL (HSSC)

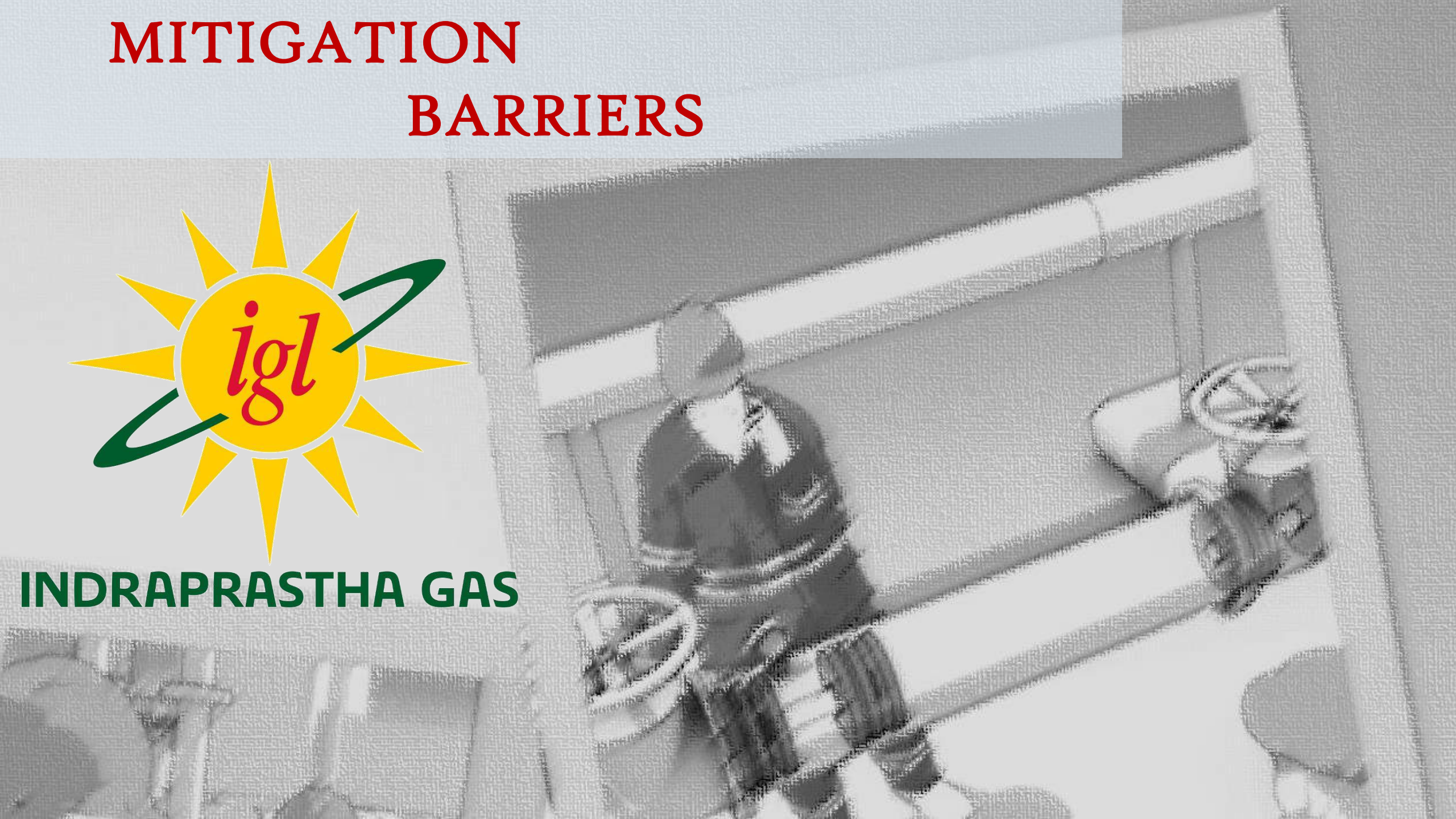


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MITIGATION BARRIERS



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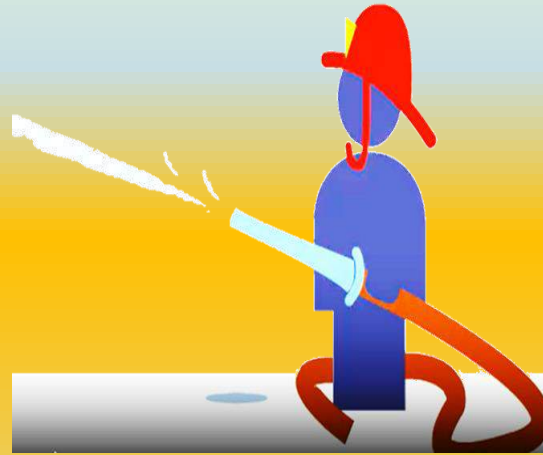
FIRE PROTECTION & EMERGENCY RESPONSE



>11,000 Nos.

13 ERVs

11 CNG C.Rs || 57 PNG C.R.s || 06 ECCs



MUTUAL AID AGREEMENT WITH GAIL, IOCL, ADANI TOTAL, CUGL and TATA STEEL

MOCK DRILLS

Level-1	246 Nos Nos
Level-2	10 Nos.
Level-3	3 Nos.



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