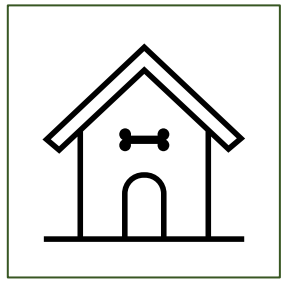
DIGITISATION of Safety Work Permit System

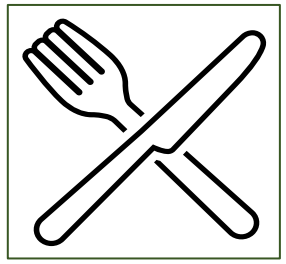
celebrating 25 years

About Indraprastha Gas Limited(IGL)

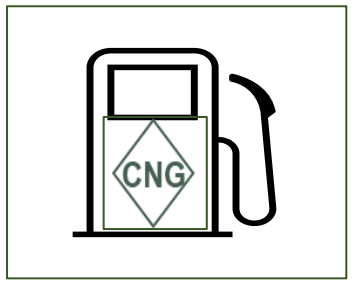
IGL is a JV of GAIL (India) Limited and BPCL. It is incorporated in the year 1998 with the objective to provide a safe, and reliable natural gas supply to its customers across domestic, commercial, industrial, and transport segments.



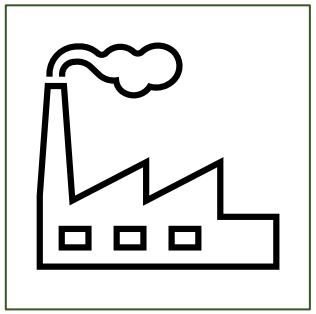
DOMESTIC
~ 2.5 Million



COMMERCIALS
5681 Nos.



CNG STATIONS :819 Nos.



INDUSTRIAL
4519 Nos.

Sr.No	Geographical Area
1	NCT of Delhi
2	Gautam Buddha Nagar
3	Ghaziabad
4	Hapur
5	Muzaffarnagar, Shamli, & Meerut (part)
6	Kanpur(part), Hamirpur, & Fatehpur
7	Chitrakoot & Banda
8	Rewari
9	Gurugram
10	Karnal
11	Kaithal
12	Ajmer, Pali & Rajsamand

GENESIS: WHY APP BASED PTW?

- Traceability Issue
- Legibility Issue
- Delay in
- -Issuance
- -Start of work
- -Closure.

=

Major non-compliance

in

Safety Work Permit System

DEVELOPING SOLUTION

Requirement of work permit system

Limitations of existing (hard copy) permit system w.r.t. CGD

Challenges

Arriving at Conclusion

Internal Brainstorming session

LIMITATIONS

Locations are distance apart from each other.

Apprehension of Permit issued in haste.

Very tedious and impractical checking of safety conditions

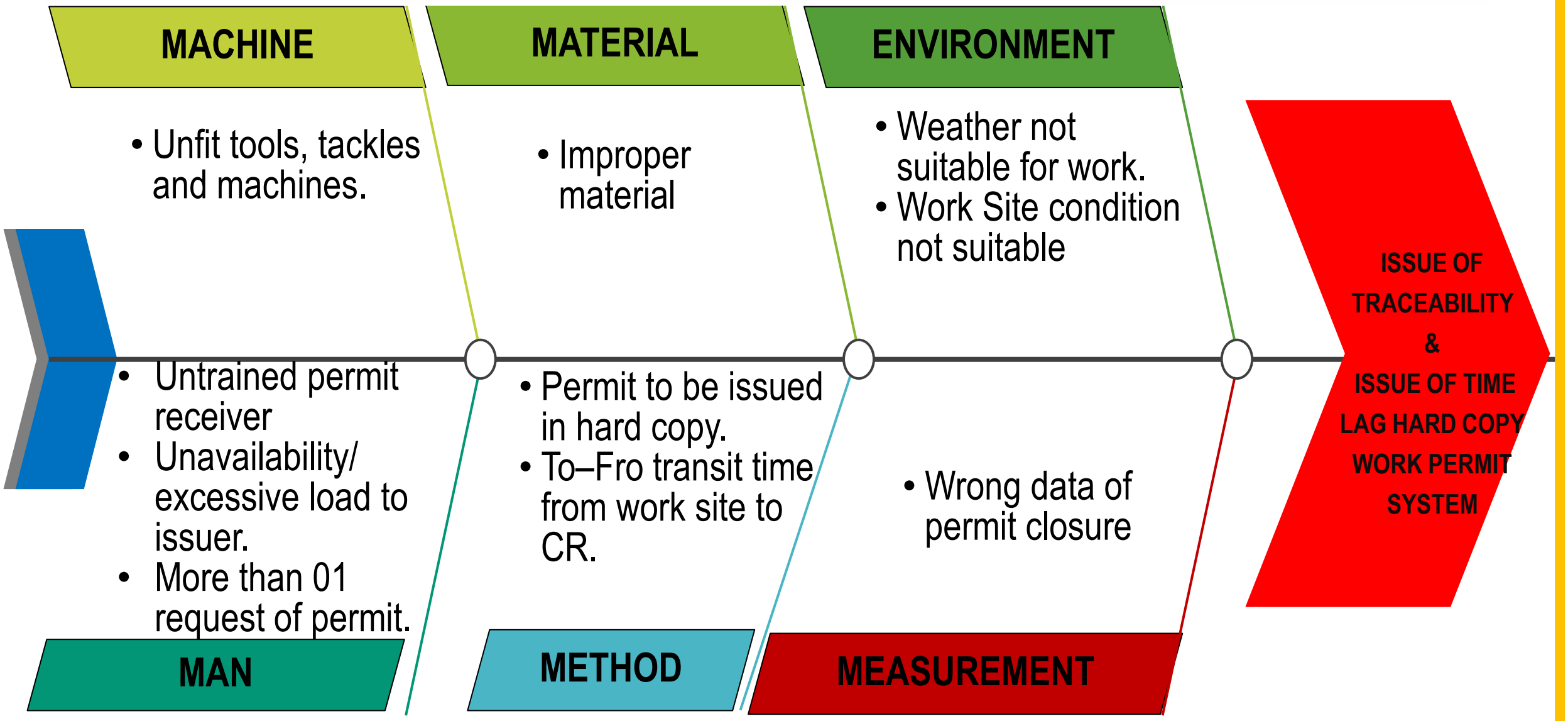
OISD 105

OISD 105 is designed keeping plant like environment

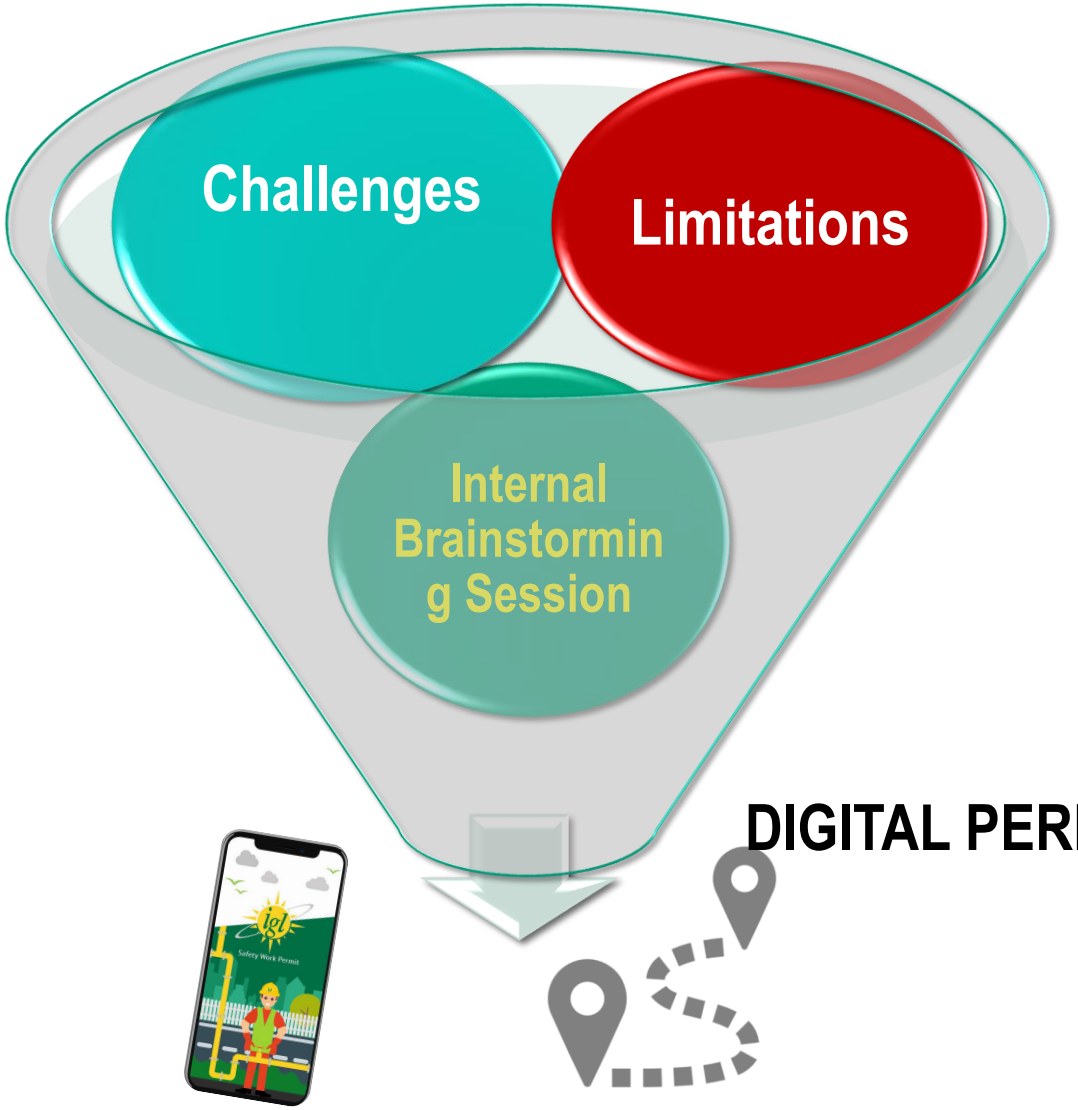
CHALLENGES

- Compliance to all applicable rules and standards.
- Enhancing and upgradation of existing safety work permit system.
- Avoid unnecessary delay in issuance of work permit by optimizing the existing resources.
- Ensuring real time tracking:
  - 100% site visits,
  - 100% compliance to usage of PPEs thereby ensuring the safety of staff.
  - Effective supervision to ensure compliance to Permit conditions.

INTERNAL BRAIN STORMING CAUSE ANALYSIS



ARRIVING AT DIGITAL SOLUTION

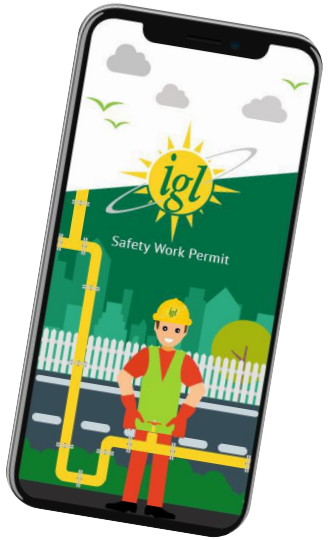


DIGITAL PERMIT TO WORK SYSTEM

Benefits of App based PTW system

Benefits	Hard Copy	App Based
Environmental Aspect (reduced carbon footprint): • Reduction in use of papers. • Fuel saving by reducing the transit period,	NO	YES
Safety Aspects: • Digital recordkeeping helps in reducing the Fire Hazard – easy traceability. • Road Safety due to reduction in travelling time. • Generating documentary evidence. • Supervision of persons who are properly trained, competent and authorised. • 100 % compliance of work permit system. • 100% compliance to usage of PPEs. • Compliance to all applicable rules and standards	NO	YES
Operation Aspect: • Improved utilization of resources and effective supervision. • Ease of reach to worksite. • Improved productivity & overall reduction in cost of work. • Ensuring real time tracking and avoid unnecessary delay in issuance of work permit by optimizing the existing resources.	NO	YES

IDEAL PROCESS FLOW



WARNING TO AVOID DISTRACTION HAZARD WHILST USING MOBILE PHONE

1. PERMIT REQUESTOR

Reach Pre-prepared Site Directly Check surrounding area look for obvious hazards and Open the SWP Mobile App in his/her smartphone for . and sign in using his unique allotted STC number .

* # Once logged in App automatically captures the Site geocordinates

2. PERMIT REQUESTOR

Identify, hazards and do site risk assessment & select type of permit for request and fill the checkpoints of the selected permit

e.g.

- Location:
- Date:
- Duration:
- Job Description:

3. PERMIT REQUESTOR

Wherever required in Permit checklist capture real time Photographs of site conditions to demonstrate and depicting Risk controls and Safety measures at taken at Job Site

e.g.

- Equipment/work area inspected.
- Atmosphere checked for gas percentage.

4. PERMIT REQUESTOR

If permit requestor considers that his evaluated hazards are up to acceptable level and:

all site conditions including trained and competent workforce with required PPEs are OK . Press Submit button in the SWP Mobile App and forward it to concerned Permit Issuer

SUBMIT

5. PERMIT ISSUER

Permit issuer : On receipt of Message in Mobile App should sign in his app and review all filled details including the type of permit selected by requestor. If Ok continue to review all the filled checkpoints

6. PERMIT ISSUER

- Case –I Cold Work Permit: If all site photographs are Ok and checkpoints correctly filled then Permit issuer can directly issue the permit and if not He can directly reject the same for updation by requestor.

- Case –II Hot Work Permit :Permit issuer can assign the competent Permit reviewer to cross verify the site by forwarding the permit request to reviewer in Mobile App.

7. PERMIT REVIEWER

On Receipt of request Site reviewer will reach the job site for verification of site conditions vis a vis check points and photos mapped in permit request forwarded by issuer for review. Based on verified site conditions submit OK / NOT OK in the app with comments for Issuer to take further action.

**# At this stage the geocordinates of requestor and permit reviewer should match in app to ensure both are at same location.*

REVIEWER AND REQUESTOR SHOULD BE WITHIN 50 METER RADIUS TO ACTIVATE THE APP.

8. PERMIT ISSUER

Based on input from site reviewer Permit issuer takes decision to issue or reject the permit in mobile app.

9. PERMIT REQUESTOR

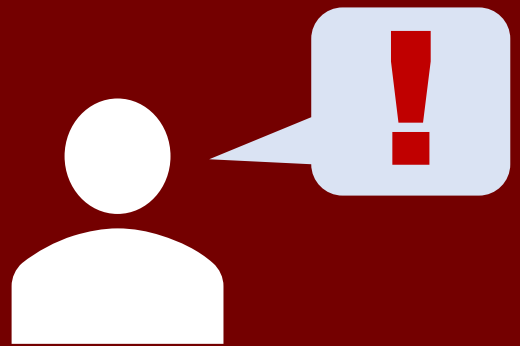
On receipt of all OK and go ahead in app from Permit Issuer. Permit requestor will Press the start in the APP and proceed for the job,

IF permit requestor thinks that job may extend beyond allotted time than he should request for time extension in the app as per permit policy else submit the closure request in app after completing job and Submitting post job safe site condition photographs in app.

10. PERMIT ISSUER

ON receipt of closure request in app, issuer will check the post job photos and either

- *close the permit directly if finds it satisfactory* ***or***
- *may ask the permit reviewer to visit site for reviewing and take decision accordingly to close or reject the closure request.*



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Thank you!