OISD-STD-186 SIMOPS in E&P industry

Presented by:

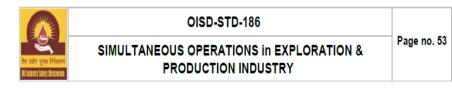
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SIMOPS MANAGEMENT PROCESS

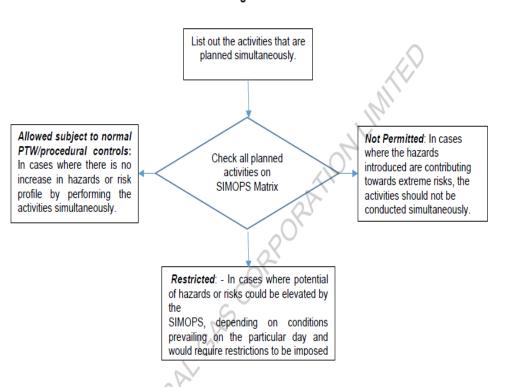
CATEGORIES OF SIMOPS

- ➤ Allowed subject to normal PTW/ procedural controls: In cases where there is no increase in hazards or risk profile by performing the activities simultaneously.
- > Restricted: Potential of hazards or risks could be elevated by the SIMOPS, would require restrictions to be imposed and planning for contingencies.
- Allowed at the discretion of SIMOPS controller with more stringent controls over and above work permit.
- > Not Permitted: Hazards introduced are contributing towards extreme risk, the activities should not be conducted simultaneously.



Annexure-J (Informative)

Flow chart for categories of SIMOPS



SIMULTANEOUS OPERATIONS INVOLVING DRILLING RIG/ WORKOVER RIG



When the rig is operating inside an installation

- oil/ gas processing plant
- producing cluster well in the vicinity of the well under drilling/ workover
- both the facilities shall be defined and considered as a single combined installation.



Do's and don'ts, Safety Precautions

- Roles and responsibilities
- Accountable (Owner): Installation Manager (Rig/Plant)
- Responsible: Safety Officer
- Operations which have to be stopped/ can be continued / require approval for operations
- Emergency Response Plan



Approvals

- The person responsible for SIMOPS shall be the custodian of the SIMOPS document
- Custodian to seek approval from the appropriate authority for any deviation/ amendment.



Some Examples

- Movement/Skidding of rig in cluster location
- Drilling/workover on one well and Activation / wireline job / CTU / Stimulation job on another well in the cluster
- Drilling rig/ workover rig operating inside the installation.
- One well is under production and the rig building is in progress for drilling second well.
- One or more wells are on **production and** the drilling/workover operation is in progress on another well.

PREPARATORY WORK DURING SIMOPS



Display charts/ drawings should be available for ready reckoning for all pipelines to and from the cluster location/ installation (identified and tagged) before commencing SIMOPS



The SIMOPS checklist is to be filled up by company man/ installation manager (Rig) and installation manager (Production) as shown as Annexure G, to ensure that all preparatory works have been completed prior to rig movement.





All Wells shall be checked for annulus pressure build up and checked for integrity, any repair work should be taken prior to commencement of SIMOPS



The escape routes of drilling rig/ workover rig shall be free from any obstruction.



Hazardous zone classification around cluster wells shall be done as per latest guidelines of DGMS



The Xmas tree of cluster wells and flow lines/ injection lines shall be protected by means of temporary physical barrier above and around it



Minimum three 25 Kg DCP trolley mounted fire extinguishers should be placed in the cluster area

PRECAUTIONS TO BE TAKEN DURING SIMOPS

Precautions shall be taken while preparing well programme (well profile) to avoid below surface collision of the well with the neighbouring well otherwise consequences can be serious when the producing well is hit.

The cluster wells falling in the movement zone during transportation, rig building, rig dismantling of drilling/ work over well site area shall not be permitted to flow. The cluster wells should be permitted to be flown only after taking approval from SIMOPS in charge.

Around the producing wells in the cluster, presence of gas should be monitored at predefined intervals and records maintained.

In case of major leakage of oil/gas at the plinth, the company man/ rig installation manager (Rig), as the case may be, shall stop drilling operation till the leakage is rectified and the well has been brought to the safe condition.