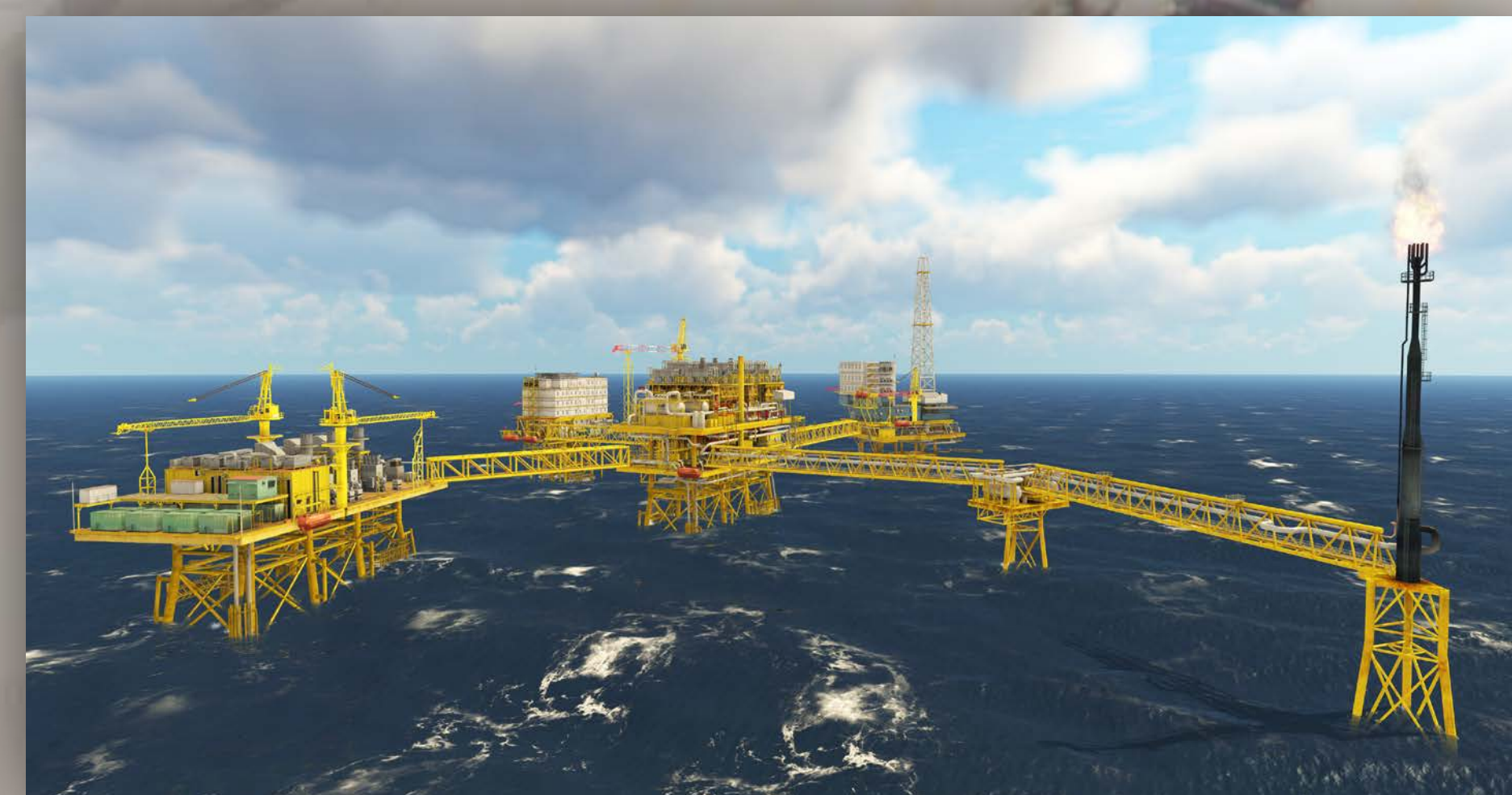# OIL & GAS **TRAINING CENTER**
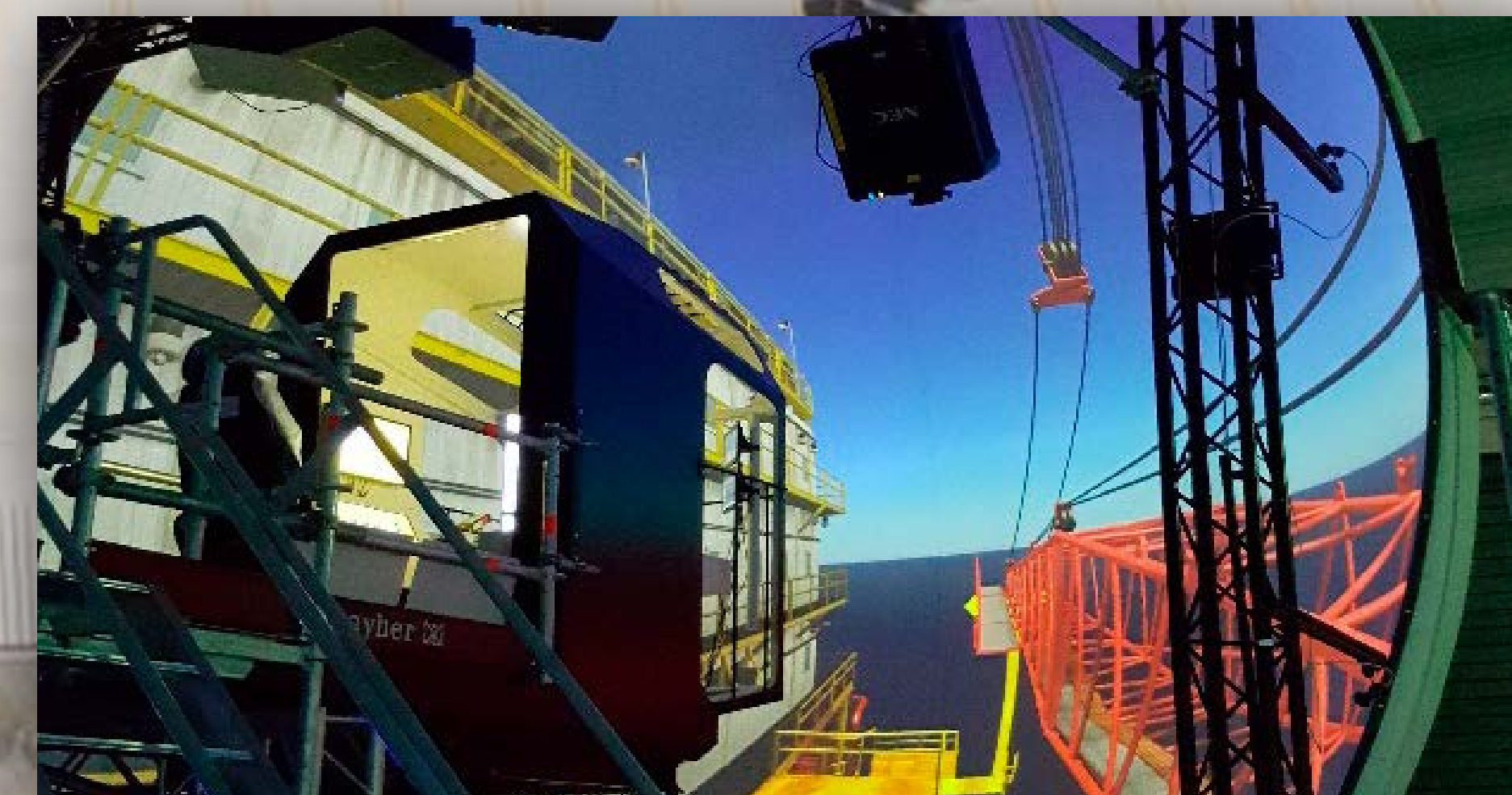## Centro de Adiestramiento en Procesos de Producción, Mexico

Digital Twin Simulator of Offshore Oil Field

- Complete oil field simulation incl. main production complex with separation train, gas compression train, and turbo-machinery, power generation and distribution, 5 different satellite platforms with oil wells and production facilities like ESPs, Gas Lift and Multi-Phase Pumps, sub-sea pipelines and oil/gas export lines
- Role play oriented scenarios
- Connection with Oil & Gas VR-/3D-Workshop to include field workers into the training scenarios
- Mastering of emergency situations

Oil & Gas VR-/3D-Workshop

- Interactive, avatar based VR-/3D-roll-play for field operations on an Oil & Gas production facility
- Inspection rounds including the following: taking readings of instruments, taking probes, operating manual valves and local panels, execute pipe cleaning operations like launching/receiving of pigs, check
- Interaction with control room operators from Digital Twin Simulator
- Various scenarios for normal and abnormal operation
- On-line connection to high fidelity process simulators

Offshore Crane Simulator

- Full mission subsea crane simulator with authentic cane controls and full size crane cabin, various scenarios for normal and abnormal crane operations with serval different crane modes
- Crane operator interactive with vessel operator, avatar vessel decks man/slinger and offshore platform bank man/slinger
- Perform planning, coordination of lifting operation with all personnel involved at offshore location, deck work and load/unload of supply vessels, instruct and carry out communication procedures.
- Safety checks of crane, lifting equipment and load, assessment of risks and hazards

Process Rig Operation & Maintenance Trainer

- Troubleshooting and error detection in process and control process circuits and devices
- Start up and shut down procedures of different processes
- Hands on of different processes
- Maintenance and troubleshooting of processes, equipment, controls and instrumentation
- Identification of malfunction of processes, equipment, controls and instrumentation
- Closed loop controls
- Bypassing of components in case of failure
- Isolation of process flow before removing plant items
- Working in narrow environments

Technical Know-How/Know-Why Courses

- Powerful e-learning based tool for process theory and procedure training including various dynamic part task process simulators (PTS) for the production processes to be trained
- Trainers: Separation train, gas compression train, and turbo-machinery, power generation and distribution, 5 different satellite platforms with oil wells and production facilities like ESPs, Gas Lift and Multi-Phase Pumps, sub-sea pipelines and oil/gas export lines
- Pass/not-pass tests via questionnaires' at the end of each TKH-Course and each simulator scenarios with automated trainee evaluation is mandatory

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