



- Project Title** : **INSTALL NEW VAPOR RECOVERY UNIT**
For [Dhahran, S & N Riyadh, Qassim, Jeddah] Skid, E-Container, Switch Rack, Transformer, Electrical / Instruments and all associated piping, equipment's & accessories - Project No. BI-10-01036
- Client Name & Address** : **SAUDI ARAMCO**
- Brief Description** : **MAJOR SCOPE OF WORK COVERS:**
- **DEMOLITION WORK**
 - **MECHANICAL (PIPING / STRUCTURE)**
Construction, inspection & testing, vendor support, pre-commissioning, assistance to commissioning and start-up, mechanical completion and turnover for the installation of a VRU Skid & its equipment's:
 - Erection of VRU Skid
 - Erection of Loose Materials on VRU Skid such as Pumps, Vessel and Connected Piping, Instruments, etc.
 - Installation of structural support
 - Demolishing of existing Vent Line.
 - Installation of main header on the piping rack & installation of branch connections to loading arm & VRU
 - Install new vent line on Tie-ins with K.O. pot vapor vent outlet as per sequence during shutdown of each loading arm.
 - **CIVIL /STRUCTURAL WORK**
Procurement perform QC/QA documentation, Construction, inspection, testing, pre-commissioning and support to commissioning for all Civil & Structural and Architectural items associated with VRU Skid.
 - VRU skid equipment foundation including Pumps, vessels etc.
 - Switch Rack Foundation
 - E-Container Foundation
 - Transformer Foundation
 - Foundation for new pipe supports, operating platforms
 - Excavation & backfilling for Electrical, instrument, control & fiber optic cable trenches
 - **ELECTRICAL WORK**
Procurement, perform QC/QA with documentation, Construction, inspection & testing, pre-commissioning, and support to commissioning for all Electrical items associated with VRU Skid:
 - Installation of Electrical Equipment's/Power Transformer
 - Install, testing & Commissioning of free issue Outdoor Switch rack
 - Offloading of free issue E-Container complete with lighting, HVAC, fire alarm & detection system, auxiliary power and UPS power supply
 - Supply & Installation of Power / Control cables from Substation to Switch rack & from Switch rack to VRU skid and E-container
- Supply & Installation of new fire alarm CABLES from new FACP of E-container to existing FACP.
 - Supply and installation of any required relay cards in the Existing Master Fire Alarm Control Panel.



- Provide and Install ALL external fire alarm CABLES from the VRU Skids to the VRU Vendor supplied Fire Alarm Control Panel.
 - Provide and Install New Lighting at VRU skid & E-Container area.
 - Provide and Install New Grounding System for all new Equipment's
 - Provide and install cabling to connect 2 fire detectors furnished loose by VRU Vendor.
- **INSTRUMENT WORK**
Procurement, Perform QAQC, Construction, Inspection, Testing, Pre-Commissioning and Commissioning Support for VRU Skid
Includes:
 - Supply & Installation of Pressure Relief Valves (PRV)
 - Supply & Installation of Level switches (LSH).
 - Supply & install new flow switches (FS).
 - Disconnect and re-connect existing flow switches signal cables.
 - Supply and install the ESD push button
 - Installation of free issue instruments, MOVs & ESD valves with Skid under VRU skid vendor supervision
 - Supply & Installation of instrument cables from VRU skid to E-container.
- **AUTOMATION**
Procurement, configuration, graphic modifications, testing, pre-commissioning, and commissioning for all Instrumentation items associated with VRU Skid
Includes:
 - Supply & Installation of Fiber Optic cable from E-container to Control Room
 - TMS/ESD/PLC Configuration & graphic modification work (SIEMENS)

Man-hours (Direct / In Direct) : N/A
 Contract Award Date : Dec. 2017
 Project Commencement Date : Immediate
 Completion Date : July 2019