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| **Document Title** | **: Scope of supply and installation for wireless communication of Shiploader and Reclaimer package at U155** |
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**Signatures \***

Prepared By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
Name: Nguyen Minh Thong  
Title: Sr. Instrument Engineer

Reviewed By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
Name: Le Quang Hung  
Title: Instrument Leader

Reviewed By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
Name: Nguyen Song Binh  
Title: Deputy Section Manager Reliability Engineering

Approved By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
Name: Ben Alfrink  
Title: Division Manager Maintenance

\* These signatures apply to entire document

1. **General requirements**
   1. Service provider is to provide materials, installation, configuration and commissioning the wireless communication for Shiploader & Reclaimer package at U155 in Nghi Son Refinery and Petrochemical LLC (NSRP). The system architecture drawing and slightly material and quantity are specified in Appendix -1 in this document
   2. Service provider shall list material, provide detail data sheet clarify whether the provided specification is sufficient to quote or not
   3. If the required material is obsoleted and confirmed officially by manufacture, Service provider shall provide recommendation with equivalent material. Any technical deviation between required material and proposed material shall be clearly specified.
   4. Service provider shall provide technical document for NSRP’s review e.g. material manual, specification, datasheet, ordering information
   5. All materials to be supplied shall be from G7 and 100% new and in the best condition
   6. Instrument outside cabinet/Junction box shall be protected to IP 67 as a minimum
   7. Lightning protection requirements relating to both field mounted and Local Control Panel/PLC cabinet mounted surge protectors is required
   8. All materials shall be delivered to NSRP’s warehouse/NSRP’s maintenance building office at Service provider’s cost. All expenses including custom duties, transportation, and insurance shall be borne by Service provider
   9. The portable radios (walkie-talkie), PTW, scaffolding, man-lift inside the refinery shall be provided by NSRP. Tools, testing equipment, consumables, site surveys, shall be responsible by service provider.
   10. The installing works, configurating works, commissioning works (the Works) shall be responsible by service provider.
   11. Certificate of Origin (CO), Certificate of Quality (CQ) and other supporting documents shall be provided by Service provider when material is handed over to NSRP
2. **Warranty**

Service provider shall provide at least 12 (twelve) months warranty

1. **Service provider’s requirement experience and Technical support**
   1. The service provider’s personnel shall be suitably qualified and experienced to execute the Works; The service provider’s personnel shall be fluent in Vietnamese and English to ensure they fully understand the requirement in applicable legal documents and NSRP’s technical documents such as design specifications, P&ID, data sheet, etc.
   2. Service provider shall have experience in industrial communication network as well as PLC
   3. Service provider shall provide the procedure to carry out the Works inside the refinery
   4. Service provider shall confirm that Service provider will support NSRP after sale services e.g. guidance for material installation and maintenance