# STYRENE PARK OFFSITE

## Document Title:

## PROGRESS REPORT NO.02

| Rev. | Issued Date | DESCRIPTION | PREPARED | CHECKED | APPROVED |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| 00 | 1-Oct-24 | IFA | S.Baitar | H.Zahiri | H.Zahiri |
| 00 | 14-Sep-24 | IFA | S.Baitar | H.Zahiri | H.Zahiri |

**Toase-ehe Park Sanati Gohar Ofogh Petrochemical Co.**

**CONCEPTUAL, BASIC and DETAIL DESIGN ENGINEERING OF STYRENE PARK OFFSITE**

Document Title:

**Document Title: PROGRESS REPORT NO.02**

| WBS Level | WBS ID | WBS Level Description | Weight Factor | Weight Value | Cumulative | | |
|---|---|---|---|---|---|---|---|
| | | | | | Plan | Actual | Variance |
| **1** | **1** | **Shell & Tube Heat exchanger** | | **100.00** | **32%** | **23.4%** | **-9%** |
| **2** | **1.1** | **Engineering** | **100%** | **10.00** | **84%** | **71%** | **-13%** |
| 3 | 1.1.1 | Vendor Print Index & Schedule (VPIS) | 3% | 0.30 | 100% | 100% | |
| 3 | 1.1.2 | Sub-Vendor List (SVL) | 5% | 0.50 | 100% | 100% | |
| 3 | 1.1.3 | Final vendor Data Book Index | 3% | 0.30 | | | |
| 3 | 1.1.4 | Final vendor Data Book | 5% | 0.50 | | | |
| 3 | 1.1.5 | HSE Plan | 4% | 0.40 | 100% | 90% | -10% |
| 3 | 1.1.6 | WBS for Shell & Tube Heat Exchangers | 5% | 0.50 | 100% | 100% | |
| 3 | 1.1.7 | Time Schedule for Shell & Tube Heat Exchangers | 7% | 0.70 | 100% | 90% | -10% |
| 3 | 1.1.8 | Monthly Progress Report for Shell & Tube Heat Exchangers | 5% | 0.50 | 100% | 100% | |
| 3 | 1.1.9 | As Built Drawing | 13% | 1.30 | 100% | | -100% |
| 3 | 1.1.10 | Inspection & Test Plan (ITP) | 5% | 0.50 | 100% | 100% | |
| 3 | 1.1.11 | Welding Document (WPS & PQR) | 8% | 0.80 | 100% | 100% | |
| 3 | 1.1.12 | Welding & NDT Map | 7% | 0.70 | 100% | 100% | |
| 3 | 1.1.13 | NDT Operator Qualification | 7% | 0.70 | 100% | 90% | -10% |
| 3 | 1.1.14 | Welder Performance Qualification | 5% | 0.50 | 100% | 100% | |
| 3 | 1.1.15 | NDT Procedure (RT, UT, PT, MT) | 6% | 0.60 | 100% | 90% | -10% |
| 3 | 1.1.16 | Hydrostatic Test Procedure | 7% | 0.70 | 54% | 90% | 36% |
| 3 | 1.1.17 | Surface Preparation & Painting Procedure | 5% | 0.50 | | | |
| **2** | **1.2** | **Procurement** | **100%** | **40.00** | **59%** | **41%** | **-18%** |
| 3 | 1.2.1 | Plate | 23% | 9.20 | 61% | 58% | -4% |
| 4 | 1.2.1.1 | PO placement | 25% | 2.30 | 100% | 100% | |
| 4 | 1.2.1.2 | Fabrication | 65% | 5.98 | 56% | 50% | -6% |
| 4 | 1.2.1.3 | Shipping | 7% | 0.64 | | | |
| 4 | 1.2.1.4 | Custom clearance | 3% | 0.28 | | | |
| 3 | 1.2.2 | Head | 20% | 8.00 | 61% | 51% | -10% |
| 4 | 1.2.2.1 | PO placement | 25% | 2.00 | 100% | 100% | |
| 4 | 1.2.2.2 | Fabrication | 65% | 5.20 | 56% | 40% | -16% |
| 4 | 1.2.2.3 | Shipping | 7% | 0.56 | | | |
| 4 | 1.2.2.4 | Custom clearance | 3% | 0.24 | | | |
| 3 | 1.2.3 | U-Tube | 19% | 7.60 | 61% | 51% | -10% |
| 4 | 1.2.3.1 | PO placement | 25% | 1.90 | 100% | 100% | |
| 4 | 1.2.3.2 | Fabrication | 65% | 4.94 | 56% | 40% | -16% |
| 4 | 1.2.3.3 | Shipping | 7% | 0.53 | | | |
| 4 | 1.2.3.4 | Custom clearance | 3% | 0.23 | | | |
| 3 | 1.2.4 | Tube sheet | 7% | 2.80 | 55% | 51% | -4% |
| 4 | 1.2.4.1 | PO placement | 25% | 0.70 | 100% | 100% | |
| 4 | 1.2.4.2 | Fabrication | 65% | 1.82 | 46% | 40% | -6% |
| 4 | 1.2.4.3 | Shipping | 7% | 0.20 | | | |
| 4 | 1.2.4.4 | Custom clearance | 3% | 0.08 | | | |
| 3 | 1.2.5 | Baffle | 5% | 2.00 | 55% | 51% | -4% |
| 4 | 1.2.5.1 | PO placement | 25% | 0.50 | 100% | 100% | |
| 4 | 1.2.5.2 | Fabrication | 65% | 1.30 | 46% | 40% | -6% |
| 4 | 1.2.5.3 | Shipping | 7% | 0.14 | | | |
| 4 | 1.2.5.4 | Custom clearance | 3% | 0.06 | | | |
| 3 | 1.2.6 | Elbow | 2% | 0.80 | 61% | 51% | -10% |
| 4 | 1.2.6.1 | PO placement | 25% | 0.20 | 100% | 100% | |
| 4 | 1.2.6.2 | Fabrication | 65% | 0.52 | 56% | 40% | -16% |
| 4 | 1.2.6.3 | Shipping | 7% | 0.06 | | | |
| 4 | 1.2.6.4 | Custom clearance | 3% | 0.02 | | | |
| 3 | 1.2.7 | Pipe | 9% | 3.60 | 61% | 71% | 9% |
| 4 | 1.2.7.1 | PO placement | 25% | 0.90 | 100% | 100% | |
| 4 | 1.2.7.2 | Fabrication | 65% | 2.34 | 56% | 70% | 14% |
| 4 | 1.2.7.3 | Shipping | 7% | 0.25 | | | |
| 4 | 1.2.7.4 | Custom clearance | 3% | 0.11 | | | |
| 3 | 1.2.8 | Flange | 7% | 2.80 | 61% | 51% | -10% |
| 4 | 1.2.8.1 | PO placement | 25% | 0.70 | 100% | 100% | |
| 4 | 1.2.8.2 | Fabrication | 65% | 1.82 | 56% | 40% | -16% |
| 4 | 1.2.8.3 | Shipping | 7% | 0.20 | | | |
| 4 | 1.2.8.4 | Custom clearance | 3% | 0.08 | | | |
| 3 | 1.2.9 | Spacer | 3% | 1.20 | 55% | 51% | -4% |
| 4 | 1.2.9.1 | PO placement | 25% | 0.30 | 100% | 100% | |

| WBS Level | WBS ID | WBS Level Description | Weight Factor | Weight Value | Cumulative | | |
|---|---|---|---|---|---|---|---|
| | | | | | Plan | Actual | Variance |
| 4 | 1.2.9.2 | Fabrication | 65% | 0.78 | 46% | 40% | -6% |
| 4 | 1.2.9.3 | Shipping | 7% | 0.08 | | | |
| 4 | 1.2.9.4 | Custom clearance | 3% | 0.04 | | | |
| 3 | 1.2.10 | Nut & bolt | 2% | 0.80 | 55% | 51% | -4% |
| 4 | 1.2.10.1 | PO placement | 25% | 0.20 | 100% | 100% | |
| 4 | 1.2.10.2 | Fabrication | 65% | 0.52 | 46% | 40% | -6% |
| 4 | 1.2.10.3 | Shipping | 7% | 0.06 | | | |
| 4 | 1.2.10.4 | Custom clearance | 3% | 0.02 | | | |
| 3 | 1.2.11 | Gasket | 1% | 0.40 | 55% | 51% | -4% |
| 4 | 1.2.11.1 | PO placement | 25% | 0.10 | 100% | 100% | |
| 4 | 1.2.11.2 | Fabrication | 65% | 0.26 | 46% | 40% | -6% |
| 4 | 1.2.11.3 | Shipping | 7% | 0.03 | | | |
| 4 | 1.2.11.4 | Custom clearance | 3% | 0.01 | | | |
| 3 | 1.2.12 | Paint | 1% | 0.40 | | | |
| 4 | 1.2.12.1 | PO placement | 25% | 0.10 | | | |
| 4 | 1.2.12.2 | Fabrication | 65% | 0.26 | | | |
| 4 | 1.2.12.3 | Shipping | 7% | 0.03 | | | |
| 4 | 1.2.12.4 | Custom clearance | 3% | 0.01 | | | |
| 3 | 1.2.13 | Name plate | 1% | 0.40 | | | |
| 4 | 1.2.13.1 | PO placement | 25% | 0.10 | | | |
| 4 | 1.2.13.2 | Fabrication | 65% | 0.26 | | | |
| 4 | 1.2.13.3 | Shipping | 7% | 0.03 | | | |
| 4 | 1.2.13.4 | Custom clearance | 3% | 0.01 | | | |
| **2** | **1.3** | **Fabrication** | **100%** | **50.00** | | | |
| 3 | 1.3.1 | RU-0001A-E-02 | 50% | 25.00 | | | |
| 4 | 1.3.1.1 | Prefabrication | 40% | 10.00 | | | |
| 5 | 1.3.1.1.1 | Shell | 35% | 3.50 | | | |
| 6 | 1.3.1.1.1.1 | Cutting | 10% | 0.35 | | | |
| 6 | 1.3.1.1.1.2 | Beveling | 10% | 0.35 | | | |
| 6 | 1.3.1.1.1.3 | Rolling | 15% | 0.53 | | | |
| 6 | 1.3.1.1.1.4 | Assembly (LW) | 25% | 0.88 | | | |
| 6 | 1.3.1.1.1.5 | Welding (LW) | 35% | 1.23 | | | |
| 6 | 1.3.1.1.1.6 | Reroll | 5% | 0.18 | | | |
| 5 | 1.3.1.1.2 | Channel | 15% | 1.50 | | | |
| 6 | 1.3.1.1.2.1 | Cutting | 10% | 0.15 | | | |
| 6 | 1.3.1.1.2.2 | Beveling | 10% | 0.15 | | | |
| 6 | 1.3.1.1.2.3 | Rolling | 15% | 0.23 | | | |
| 6 | 1.3.1.1.2.4 | Assembly (LW) | 25% | 0.38 | | | |
| 6 | 1.3.1.1.2.5 | Welding (LW) | 35% | 0.53 | | | |
| 6 | 1.3.1.1.2.6 | Reroll | 5% | 0.08 | | | |
| 5 | 1.3.1.1.3 | Cone | 20% | 2.00 | | | |
| 6 | 1.3.1.1.3.1 | Cutting | 10% | 0.20 | | | |
| 6 | 1.3.1.1.3.2 | Beveling | 10% | 0.20 | | | |
| 6 | 1.3.1.1.3.3 | Rolling | 15% | 0.30 | | | |
| 6 | 1.3.1.1.3.4 | Assembly (LW) | 25% | 0.50 | | | |
| 6 | 1.3.1.1.3.5 | Welding (LW) | 35% | 0.70 | | | |
| 6 | 1.3.1.1.3.6 | Reroll | 5% | 0.10 | | | |
| 5 | 1.3.1.1.4 | Saddle fabrication | 10% | 1.00 | | | |
| 6 | 1.3.1.1.4.1 | Cutting | 10% | 0.10 | | | |
| 6 | 1.3.1.1.4.2 | Beveling | 10% | 0.10 | | | |
| 6 | 1.3.1.1.4.3 | Rolling | 15% | 0.15 | | | |
| 6 | 1.3.1.1.4.4 | Assembly (LW) | 25% | 0.25 | | | |
| 6 | 1.3.1.1.4.5 | Welding (LW) | 35% | 0.35 | | | |
| 6 | 1.3.1.1.4.6 | Reroll | 5% | 0.05 | | | |
| 5 | 1.3.1.1.5 | Nozzle fabrication (part 1) | 8% | 0.80 | | | |
| 6 | 1.3.1.1.5.1 | Pipe cutting | 15% | 0.12 | | | |
| 6 | 1.3.1.1.5.2 | Pipe beveling | 15% | 0.12 | | | |
| 6 | 1.3.1.1.5.3 | Assembly pipe to flange | 25% | 0.20 | | | |
| 6 | 1.3.1.1.5.4 | Welding pipe to flange | 45% | 0.36 | | | |
| 5 | 1.3.1.1.6 | Nozzle fabrication (part 2) | 12% | 1.20 | | | |
| 6 | 1.3.1.1.6.1 | Pipe cutting | 5% | 0.06 | | | |
| 6 | 1.3.1.1.6.2 | Pipe beveling | 5% | 0.06 | | | |

| WBS Level | WBS ID | WBS Level Description | Weight Factor | Weight Value | Cumulative | | |
|---|---|---|---|---|---|---|---|
| | | | | | Plan | Actual | Variance |
| 6 | 1.3.1.1.6.3 | Assembly pipe to flange | 15% | 0.18 | | | |
| 6 | 1.3.1.1.6.4 | Welding pipe to flange | 35% | 0.42 | | | |
| 6 | 1.3.1.1.6.5 | Assembly elbow to pipe | 10% | 0.12 | | | |
| 6 | 1.3.1.1.6.6 | Welding elbow to pipe | 30% | 0.36 | | | |
| 4 | 1.3.1.2 | Final assembly | 50% | 12.50 | | | |
| 5 | 1.3.1.2.1 | Shell | 40% | 5.00 | | | |
| 6 | 1.3.1.2.1.1 | Assembly shell segments (CW) | 12% | 0.60 | | | |
| 6 | 1.3.1.2.1.2 | Welding shell segments (CW) | 27% | 1.35 | | | |
| 6 | 1.3.1.2.1.3 | Opening for nozzle assembly | 5% | 0.25 | | | |
| 6 | 1.3.1.2.1.4 | Nozzle assembly to shell | 5% | 0.25 | | | |
| 6 | 1.3.1.2.1.5 | Nozzle welding to shell | 10% | 0.50 | | | |
| 6 | 1.3.1.2.1.6 | Assembly head to shell | 3% | 0.15 | | | |
| 6 | 1.3.1.2.1.7 | Welding head to shell | 7% | 0.35 | | | |
| 6 | 1.3.1.2.1.8 | Assembly cone to shell | 3% | 0.15 | | | |
| 6 | 1.3.1.2.1.9 | Welding cone to shell | 7% | 0.35 | | | |
| 6 | 1.3.1.2.1.10 | Assembly segment shell to cone | 3% | 0.15 | | | |
| 6 | 1.3.1.2.1.11 | Welding segment shell to cone | 8% | 0.40 | | | |
| 6 | 1.3.1.2.1.12 | Assembly body flange to shell | 3% | 0.15 | | | |
| 6 | 1.3.1.2.1.13 | Welding body flange to shell | 7% | 0.35 | | | |
| 5 | 1.3.1.2.2 | Channel | 15% | 1.88 | | | |
| 6 | 1.3.1.2.2.1 | Assembly head to channel | 10% | 0.19 | | | |
| 6 | 1.3.1.2.2.2 | Welding head to channel | 20% | 0.38 | | | |
| 6 | 1.3.1.2.2.3 | Assembly body flange to channel | 10% | 0.19 | | | |
| 6 | 1.3.1.2.2.4 | Welding body flange to channel | 20% | 0.38 | | | |
| 6 | 1.3.1.2.2.5 | Opening for nozzle assembly | 10% | 0.19 | | | |
| 6 | 1.3.1.2.2.6 | Assembly nozzle to channel | 10% | 0.19 | | | |
| 6 | 1.3.1.2.2.7 | Welding nozzle to channel | 20% | 0.38 | | | |
| 5 | 1.3.1.2.3 | Bundle structure | 45% | 5.63 | | | |
| 6 | 1.3.1.2.3.1 | Assembly bundle structure | 15% | 0.84 | | | |
| 6 | 1.3.1.2.3.2 | Insert tube to bundle structure | 10% | 0.56 | | | |
| 6 | 1.3.1.2.3.3 | Tube to tube sheet welding | 30% | 1.69 | | | |
| 6 | 1.3.1.2.3.4 | Expanding | 5% | 0.28 | | | |
| 6 | 1.3.1.2.3.5 | Insert bundle to shell | 2% | 0.11 | | | |
| 6 | 1.3.1.2.3.6 | Assembly tube sheet to shell | 5% | 0.28 | | | |
| 6 | 1.3.1.2.3.7 | Welding tube sheet to shell | 10% | 0.56 | | | |
| 6 | 1.3.1.2.3.8 | Assembly saddle to shell | 5% | 0.28 | | | |
| 6 | 1.3.1.2.3.9 | Welding saddle to shell | 10% | 0.56 | | | |
| 6 | 1.3.1.2.3.10 | Assembly external part to shell& channel | 2% | 0.11 | | | |
| 6 | 1.3.1.2.3.11 | Welding external part to shell& channel | 4% | 0.23 | | | |
| 6 | 1.3.1.2.3.12 | Final NDT | 2% | 0.11 | | | |
| 4 | 1.3.1.3 | Test | 5% | 1.25 | | | |
| 5 | 1.3.1.3.1 | Hydrostatic Test | 100% | 1.25 | | | |
| 4 | 1.3.1.4 | Sandblast & paint | 5% | 1.25 | | | |
| 5 | 1.3.1.4.1 | Sandblast | 50% | 0.63 | | | |
| 5 | 1.3.1.4.2 | Painting | 50% | 0.63 | | | |
| 3 | 1.3.2 | RU-0001A-E-02 | 50% | 25.00 | | | |
| 4 | 1.3.2.1 | Prefabrication | 40% | 10.00 | | | |
| 5 | 1.3.2.1.1 | Shell | 35% | 3.50 | | | |
| 6 | 1.3.2.1.1.1 | Cutting | 10% | 0.35 | | | |
| 6 | 1.3.2.1.1.2 | Beveling | 10% | 0.35 | | | |
| 6 | 1.3.2.1.1.3 | Rolling | 15% | 0.53 | | | |
| 6 | 1.3.2.1.1.4 | Assembly (LW) | 25% | 0.88 | | | |
| 6 | 1.3.2.1.1.5 | Welding (LW) | 35% | 1.23 | | | |
| 6 | 1.3.2.1.1.6 | Reroll | 5% | 0.18 | | | |
| 5 | 1.3.2.1.2 | Channel | 15% | 1.50 | | | |
| 6 | 1.3.2.1.2.1 | Cutting | 10% | 0.15 | | | |
| 6 | 1.3.2.1.2.2 | Beveling | 10% | 0.15 | | | |
| 6 | 1.3.2.1.2.3 | Rolling | 15% | 0.23 | | | |
| 6 | 1.3.2.1.2.4 | Assembly (LW) | 25% | 0.38 | | | |
| 6 | 1.3.2.1.2.5 | Welding (LW) | 35% | 0.53 | | | |
| 6 | 1.3.2.1.2.6 | Reroll | 5% | 0.08 | | | |
| 5 | 1.3.2.1.3 | Cone | 20% | 2.00 | | | |

| WBS Level | WBS ID | WBS Level Description | Weight Factor | Weight Value | Cumulative | | |
|---|---|---|---|---|---|---|---|
| | | | | | Plan | Actual | Variance |
| 6 | 1.3.2.1.3.1 | Cutting | 10% | 0.20 | | | |
| 6 | 1.3.2.1.3.2 | Beveling | 10% | 0.20 | | | |
| 6 | 1.3.2.1.3.3 | Rolling | 15% | 0.30 | | | |
| 6 | 1.3.2.1.3.4 | Assembly (LW) | 25% | 0.50 | | | |
| 6 | 1.3.2.1.3.5 | Welding (LW) | 35% | 0.70 | | | |
| 6 | 1.3.2.1.3.6 | Reroll | 5% | 0.10 | | | |
| 5 | 1.3.2.1.4 | Saddle fabrication | 10% | 1.00 | | | |
| 6 | 1.3.2.1.4.1 | Cutting | 10% | 0.10 | | | |
| 6 | 1.3.2.1.4.2 | Beveling | 10% | 0.10 | | | |
| 6 | 1.3.2.1.4.3 | Rolling | 15% | 0.15 | | | |
| 6 | 1.3.2.1.4.4 | Assembly (LW) | 25% | 0.25 | | | |
| 6 | 1.3.2.1.4.5 | Welding (LW) | 35% | 0.35 | | | |
| 6 | 1.3.2.1.4.6 | Reroll | 5% | 0.05 | | | |
| 5 | 1.3.2.1.5 | Nozzle fabrication (part 1) | 8% | 0.80 | | | |
| 6 | 1.3.2.1.5.1 | Pipe cutting | 15% | 0.12 | | | |
| 6 | 1.3.2.1.5.2 | Pipe beveling | 15% | 0.12 | | | |
| 6 | 1.3.2.1.5.3 | Assembly pipe to flange | 25% | 0.20 | | | |
| 6 | 1.3.2.1.5.4 | Welding pipe to flange | 45% | 0.36 | | | |
| 5 | 1.3.2.1.6 | Nozzle fabrication (part 2) | 12% | 1.20 | | | |
| 6 | 1.3.2.1.6.1 | Pipe cutting | 5% | 0.06 | | | |
| 6 | 1.3.2.1.6.2 | Pipe beveling | 5% | 0.06 | | | |
| 6 | 1.3.2.1.6.3 | Assembly pipe to flange | 15% | 0.18 | | | |
| 6 | 1.3.2.1.6.4 | Welding pipe to flange | 35% | 0.42 | | | |
| 6 | 1.3.2.1.6.5 | Assembly elbow to pipe | 10% | 0.12 | | | |
| 6 | 1.3.2.1.6.6 | Welding elbow to pipe | 30% | 0.36 | | | |
| 4 | 1.3.2.2 | Final assembly | 50% | 12.50 | | | |
| 5 | 1.3.2.2.1 | Shell | 40% | 5.00 | | | |
| 6 | 1.3.2.2.1.1 | Assembly shell segments (CW) | 12% | 0.60 | | | |
| 6 | 1.3.2.2.1.2 | Welding shell segments (CW) | 27% | 1.35 | | | |
| 6 | 1.3.2.2.1.3 | Opening for nozzle assembly | 5% | 0.25 | | | |
| 6 | 1.3.2.2.1.4 | Nozzle assembly to shell | 5% | 0.25 | | | |
| 6 | 1.3.2.2.1.5 | Nozzle welding to shell | 10% | 0.50 | | | |
| 6 | 1.3.2.2.1.6 | Assembly head to shell | 3% | 0.15 | | | |
| 6 | 1.3.2.2.1.7 | Welding head to shell | 7% | 0.35 | | | |
| 6 | 1.3.2.2.1.8 | Assembly cone to shell | 3% | 0.15 | | | |
| 6 | 1.3.2.2.1.9 | Welding cone to shell | 7% | 0.35 | | | |
| 6 | 1.3.2.2.1.10 | Assembly segment shell to cone | 3% | 0.15 | | | |
| 6 | 1.3.2.2.1.11 | Welding segment shell to cone | 8% | 0.40 | | | |
| 6 | 1.3.2.2.1.12 | Assembly body flange to shell | 3% | 0.15 | | | |
| 6 | 1.3.2.2.1.13 | Welding body flange to shell | 7% | 0.35 | | | |
| 5 | 1.3.2.2.2 | Channel | 15% | 1.88 | | | |
| 6 | 1.3.2.2.2.1 | Assembly head to channel | 10% | 0.19 | | | |
| 6 | 1.3.2.2.2.2 | Welding head to channel | 20% | 0.38 | | | |
| 6 | 1.3.2.2.2.3 | Assembly body flange to channel | 10% | 0.19 | | | |
| 6 | 1.3.2.2.2.4 | Welding body flange to channel | 20% | 0.38 | | | |
| 6 | 1.3.2.2.2.5 | Opening for nozzle assembly | 10% | 0.19 | | | |
| 6 | 1.3.2.2.2.6 | Assembly nozzle to channel | 10% | 0.19 | | | |
| 6 | 1.3.2.2.2.7 | Welding nozzle to channel | 20% | 0.38 | | | |
| 5 | 1.3.2.2.3 | Bundle structure | 45% | 5.63 | | | |
| 6 | 1.3.2.2.3.1 | Assembly bundle structure | 15% | 0.84 | | | |
| 6 | 1.3.2.2.3.2 | Insert tube to bundle structure | 10% | 0.56 | | | |
| 6 | 1.3.2.2.3.3 | Tube to tube sheet welding | 30% | 1.69 | | | |
| 6 | 1.3.2.2.3.4 | Expanding | 5% | 0.28 | | | |
| 6 | 1.3.2.2.3.5 | Insert bundle to shell | 2% | 0.11 | | | |
| 6 | 1.3.2.2.3.6 | Assembly tube sheet to shell | 5% | 0.28 | | | |
| 6 | 1.3.2.2.3.7 | Welding tube sheet to shell | 10% | 0.56 | | | |
| 6 | 1.3.2.2.3.8 | Assembly saddle to shell | 5% | 0.28 | | | |
| 6 | 1.3.2.2.3.9 | Welding saddle to shell | 10% | 0.56 | | | |
| 6 | 1.3.2.2.3.10 | Assembly external part to shell& channel | 2% | 0.11 | | | |
| 6 | 1.3.2.2.3.11 | Welding external part to shell& channel | 4% | 0.23 | | | |
| 6 | 1.3.2.2.3.12 | Final NDT | 2% | 0.11 | | | |
| 4 | 1.3.2.3 | Test | 5% | 1.25 | | | |

| WBS Level | WBS ID | WBS Level Description | Weight Factor | Weight Value | Cumulative | | |
|---|---|---|---|---|---|---|---|
| | | | | | Plan | Actual | Variance |
| 5 | 1.3.2.3.1 | Hydrostatic Test | 100% | 1.25 | | | |
| 4 | 1.3.2.4 | Sandblast & paint | 5% | 1.25 | | | |
| 5 | 1.3.2.4.1 | Sandblast | 50% | 0.63 | | | |
| 5 | 1.3.2.4.2 | Painting | 50% | 0.63 | | | |

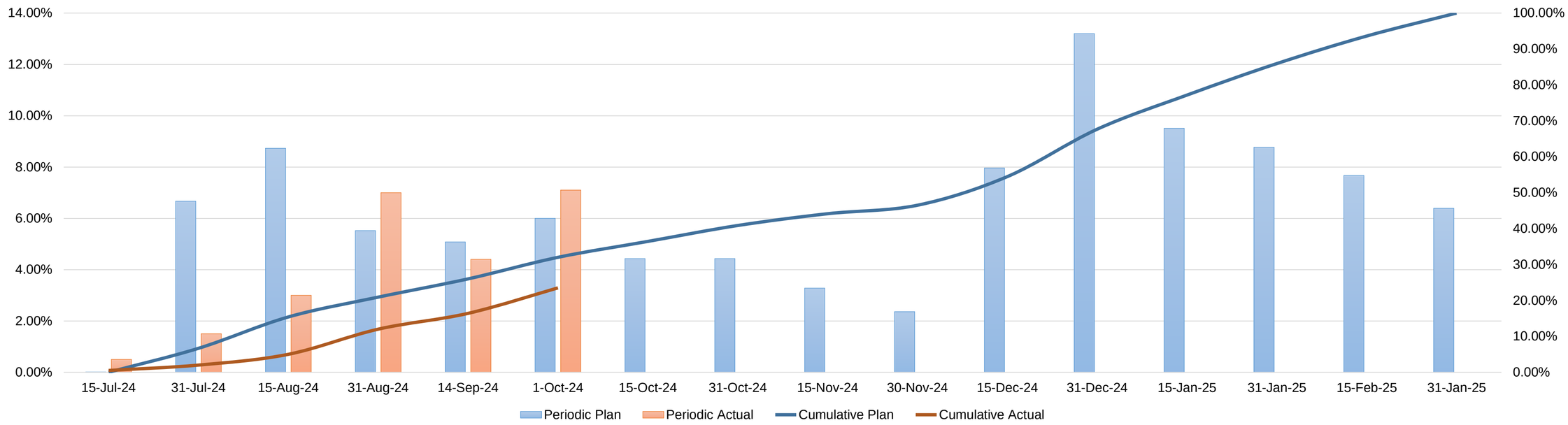
| | |
|---|---|
| **This Period Highlights:** | **Qc documents have been issued but not all have been replied yet.**<br>**Fabrication process is under progress.**<br>**The inspection date for the plate and material in Korea will be forecasted to be November 15.** |

| | |
|---|---|
| **Forcasted activities for the next report period:** | **Sending for Surface Preparation & Painting Procedure will be issued.**<br>**Fabrication process for material will be continued.** |

## Overall Progress Table

| Phase | Weight Factor | Cumulative up to Last Period | | This Period | | Cumulative up to End of This Period | | |
|---|---|---|---|---|---|---|---|---|
| | | Plan | Actual | Plan | Actual | Plan | Actual | Variance |
| Engineering | 10.00% | 68.00% | 68.00% | 16.00% | 3.00% | 84.00% | 71.00% | **-13.00%** |
| Material Supply | 40.00% | 48.00% | 24.00% | 11.00% | 17.00% | 59.00% | 41.00% | **-18.00%** |
| Manufacturing | 50.00% | | | | | | | |
| **Total** | **100.00%** | **26.00%** | **16.40%** | **6.00%** | **7.10%** | **32.00%** | **23.50%** | **-8.50%** |

## S-Curve




| Interval | 15-Jul-24 | 31-Jul-24 | 15-Aug-24 | 31-Aug-24 | 14-Sep-24 | 1-Oct-24 | 15-Oct-24 | 31-Oct-24 | 15-Nov-24 | 30-Nov-24 | 15-Dec-24 | 31-Dec-24 | 15-Jan-25 | 31-Jan-25 | 15-Feb-25 | 31-Jan-25 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cumulative Plan | 0.00% | 6.67% | 15.40% | 20.92% | 26.00% | 32.00% | 36.43% | 40.86% | 44.14% | 46.50% | 54.46% | 67.66% | 77.17% | 85.94% | 93.61% | 100.00% |
| Periodic Plan | 0.00% | 6.67% | 8.73% | 5.52% | 5.08% | 6.00% | 4.43% | 4.43% | 3.28% | 2.36% | 7.96% | 13.20% | 9.51% | 8.77% | 7.67% | 6.39% |
| Cumulative Actual | 0.50% | 2.00% | 5.00% | 12.00% | 16.40% | 23.50% | | | | | | | | | | |
| Periodic Actual | 0.50% | 1.50% | 3.00% | 7.00% | 4.40% | 7.10% | | | | | | | | | | |