# Amman Strategic Reserve Terminal for Petroleum Products

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| B | 10/10/2014 | Issued for Review | CLOB | MAPM | PBB | IGC |
| Rev. | Date | Issue Purpose / Description | Prepared | Checked | Approved | Accepted |

Client

Ministry Of Energy & Mineral Resources

THE HASHEMITE KINGDOM OF JORDAN
MINISTRY OF ENERGY AND MINERAL RESOURCES

Owner's Engineer

CONSULTING ENGINEERS

Document Title

**TANKS SRT-T-25-041 / 042**
**JET FUEL STORAGE DATA SHEET**

| Contractor | Contractor's Doc. No. | Official Document Number | Rev. Code |
|---|---|---|---|
| OHL Industrial<br>OHLI - MID Joint Venture for ASTPP Project - Amman, Jordan | **P40341-EE-126-ME-HE-00G001** | **OMJ-DAT-SRT-ST-0025** | **B** |

| API | **API Std 650 Storage Tank**<br>**Data Sheet** | PAGE 1 OF 8 |
|---|---|---|

* For boxes marked with *, if blank, Mfr. Shall determine and submit as per Appendix L. For all lines, see Appendix L for line-by-line instructions.

**GENERAL** Special Documentation Package Requirements: _____

Measurement Units to be used in API Std 650: SI [X] US Customary [ ]

1. Manufacturer* _____ Contract No.* _____

   Address* _____

   Mfg. Serial No.* _____ Year Built* _____ Edition & Addendum to *API 650* * **12th Edition, 2013**

2. Purchaser _____ Contract No. _____

   Address _____

   Tank Designation **Storage Tanks for Jet Fuel, Tag No. SRT-T-25-041, 042**

3. Owner/Operator _____ Location **Amman Strategic Reserve Terminal for Petro**

4. Size Limitations* _____ Tank Diameter* **37.0 m** Shell Height* **22.8 m**

   Capacity: Maximum* **22,000 m³** Net Working* _____ Criteria* **See Tank Specification**

5. Products Stored: **Jet Fuel**

   Liquid _____ Max. S.G.: **0,84** at **15** °

   Blanketing Gas **N/A** Vapor Pressure **0,04** PSIA at Max. Operating Temp.

   % Aromatic _____ Suppl. Spec. _____ $H_2S$ Service? Yes [ ] No [X] Suppl. Spec. _____

   Other Special Service Conditions? Yes [ ] No [X] Suppl. Spec. _____

**DESIGN AND TESTING** Purchaser to Review Design Prior to Ordering Material? Yes [X] No [ ]

6. Applicable API Standard 650 Appendices:* A [ ] B [ ] C [ ] F [X] G [ ] H [ ] I [ ] J [ ] L [ ] M [ ] O [ ] P [X] S [ ] U [ ] V [ ] W [ ]

7. Max. Design. Temp. **60** ° Design Metal Temp.* **(MIN) -10** ° Design Liquid Level* **21,04 m**

   Design Pressure **20.0 mbar** External Pressure **5.0 mbar** Maximum Fill Rate **400 m³/h** Maximum Emptying Rate **275 m³/h**

   Floatation Considerations? Yes [ ] No [X] Flot. Suppl. Spec:* _____ Applied Supplemental Load Spec. _____

8. Seismic Design? Yes [X] No [ ] Appendix E [X] Alternate Seismic Criteria **See Tank Spec** Seismic Use Group **III**

   MBE Site Class _____ Vertical Seismic Design? Yes [X] No [ ] Vertical Ground Motion Accelerator $A_V$: **0,32 (g)**

   Basis of Lateral Acceleration (Select one): [ ] Mapped Seismic Parameters? $S_s$ _____ $S_1$ _____ $S_0$ _____ ; [ ] Site-Specific Procedures: MCE

   Design Required? Yes [X] No [ ] ; [X] Other (Non-ASCE) Methods **See Tank Specification**

   [ ] Freeboard Required for SUG I Design Roof Tie Rods @ Outer Ring?* Yes [ ] No [ ]

9. Wind Velocity for non-U.S. sites, 50-yr. wind speed (3-sec. Gust)* **160 km/h**

   Top Wind Girder Style* **N/A** Dimensions* _____ Use Top Wind Girder as Walkway? Yes [ ] No [X]

   Intermediate Wind Girders?* Yes [X] No [ ] Intermediate Wind Girder Style* **Detail "e" Fig 5.24** Dimensions* **350 x 6 mm**

   Check Buckling in Corroded Cond.? Yes [X] No [ ]

10. Shell Design: 1-Ft Mthd?* Yes [X] No [ ] ; Variable-Des-Pt Mthd?* Yes [ ] No [X] Alternate [ ] ; Elastic Anal. Mthd?* Yes [ ] No [X] Alternate [ ]

    Plate Stacking Criteria* Centerline-Stacked? Yes [ ] No [ ] Flush-Stacked? Yes [ ] No [ ] Inside [ ] Outside [ ]

    Plate Widths (Shell course heights) and Thicknesses * Numbers below Indicate Course Number.

| | | | | |
|---|---|---|---|---|
| 1. **2280 x 20 mm** | 2. **2280 x 18 mm** | 3. **2280 x 16 mm** | 4. **2280 x 14 mm** | 5. **2280 x 12 mm** |
| 6. **2280 x 10 mm** | 7. **2280 x 10 mm** | 8. **2280 x 9 mm** | 9. **2280 x 9 mm** | 10. **2280 x 9 mm** |
| 11. | 12. | 13. | 14. | 15. |

Joint Efficiency* _____ % Shell-to-Bottom Weld Type* _____ Shell-to-Bottom Weld Insp. Mthd* _____

| Approvals: | Revisions: | Title: Jet Fuel Tanks |
|---|---|---|
| | | By: Ck'd: Date: 10/10/2014 |
| | | Drawing No.: Sheet ___ of ___ |

* If box is blank, Manufacturer shall determine and submit as per Appendix L.

11. Open-Top and Fixed Roofs: (See Sheet 6 for Floating Roofs) Open Top?* Yes [ ] No [X]

Fixed Roof Type* **Dome Rafters Supported** Roof Support Columns*: Pipe [ ] Or Structural Shape [ ] _____

Cone Slope* _____ Dome or Umbrella Radius* **55,5 m (R=1.5D)** Weld Joints* **Lap joints**

(Lap, Butt, Other)

Seal Weld Underside of: Lap Joints? Yes [ ] No [X] ; Seal Weld Underside of Wind Girder Joints? Yes [ ] No [X]

Gas-tight? Yes [ ] No [ ] Joint Efficiency* _____ %

Thickness* **6.0 mm** In. Snow Load* **N/A** App. Suppl. Load Spec.* _____ Column Lateral Load _____

Normal Venting Devices* **Yes** Emergency Venting Devices* **N/A**

For Non-Frangible Roofs: Seal Weld Roof Plates to Top Angle on the Inside? Yes [ ] No [X] ; Weld Rafters to Roof Plates? Yes [ ] No [X]

Roof-to-Shell Detail* API 650 Fig F.2 Detail "b" Radial Projection of Horizontal Component of Top Angle* Inward [ ] Outward [X]

12. Bottom: Thickness* **INNER 6; OUT** Style* **Cone down** Slope* **1:30** Weld Joint Type* _____

Provide Drip Ring? Yes [ ] No [X] Alternate Spec. _____

Annular Ring? Yes [X] No [ ] Annular Ring: Minimum Radial Width* **1400 mm** Thickness* **14,0 mm**

13. Foundation: Furnished by* **Contractor** Type* _____

Soil Allow: Bearing Pressure _____ Per Spec.* _____ Anchors: Size* _____ Qty.* _____

Foundation Design Loads: Base Shear Force: Wind _____ Seismic* _____ Overturning Moment: Wind* _____ Seismic* _____

Ring Forces: Weight of Shell + Roof New _____ Corroded* _____ Roof Live Load* _____ Internal Pressure* _____

Partial Vacuum* _____ Wind* _____ Seismic* _____

Bottom Forces: Floor Wt. New _____ Corroded* _____ Product Wt.* _____ Water Wt.* _____ Internal Pressure* _____

Partial Vacuum _____ Other Foundation Loads* _____ Min. Projection of Fdn. Above Grade: _____

14. Responsibility for Heating Water, if Required: Purchaser [ ] Manufacturer [ ]

Hydro-Test Fill Height* **22,8 m** Settlement Measurements Required? Yes [X] No [ ] Extended Duration of Hydro-Test: _____

[ ] Predicted Settlement Profile is Attached

Responsibility for Setting Water Quality: Purchaser [X] Manufacturer [ ] Supplemental Test Water Quality Spec. _____

Test Water Source & Disposal Tie-In Location **Contractor** Hydro-Test Appendix J Tank? Yes [ ] No [X]

Post-Pressure-Test Activities Required of the Manufacturer: Broom Clean [ ] Potable Water Rinse [ ] Dry Interior [X]

Other [X] **INTERIOR COATING AS REQUIRED**

15. Inspection by **Third Party; Requirements acc. to specification** in Shop; _____ in Field

Supplemental NDE Responsibility _____ Supplemental NDE Spec. _____

(Purch., Mfg., Other)

Positive Material Identification? Yes [ ] No [ ] PMI Requirements: _____

Max. Plate Thickness for Shearing _____

Must Welds not exceeding 6 mm ($^1/_4$ in.) Be Multi-Pass? Yes [ ] No [ ] Must Welds greater than 6 mm ($^1/_4$ in.) Be Multi-Pass? Yes [ ] No [ ]

Leak Test Mthd: Roof _____ Shell* _____ Shell Noz./Manhole Reinf. Plt* _____

Bottom* _____ Floating Roof Components* _____

Modify or Waive API Dimensional Tolerances (see 7.5)? No [ ] Yes [X] Specify: **Acc to specification**

Specify Additional Tolerances, if any, and Circumferential and Vertical Measurement Locations:

- Allowable Plumbness: _____ Measure and Record at a Minimum of _____ Locations or Every _____ m (ft) around the Tank, at the Following Shell Heights: (select one box): [ ] $^1/_3$ H, $^2/_3$ H and H [ ] Top of Each Shell Course [ ] Other: _____
- Allowable Roundness:** _____ Measure Radius and Record at a Minimum of _____ Locations or Every _____ m (ft) around the Tank, at the Following Shell Heights (select one box):

[ ] Top of Tank, H [ ] $^1/_3$ H, $^2/_3$ H and H [ ] Top of Each Shell Course [ ] Other: _____

**See Data Sheet Instructions for the Maximum Allowable Additional Radial Tolerance.

| Approvals: | Revisions: | Title: Jet Fuel Tanks |
|---|---|---|
| | | By: Ck'd: Date: ######## |
| | | Drawing No.: Sheet of |

16. Coatings:

Internal Coatings by: **Manufacturer** Per Spec.* **Vertical Storage Tanks Specification OHL-SPC-SRT-ST-**
(Not Req'd., Others, Tank Mfg.)

External Coating by: **Manufacturer** Per Spec.* **Vertical Storage Tanks Specification OHL-SPC-SRT-ST-**
(Not Req'd., Others, Tank Mfg.)

Under-Bottom Coating by: **Manufacturer** Per Spec.* **Vertical Storage Tanks Specification OHL-SPC-SRT-ST-**
(Not Req'd., Others, Tank Mfg.)

17. Cathodic Protection System? Yes [X] No [ ] Per Spec.* **OHL-SPC-SRT-EL-0032**

18. Leak Detection System? Yes [X] No [ ] Per Spec.* **OHL-SPC-SRT-IN-0021**

19. Release Prevention Barrier? Yes [ ] No [ ] Per Spec.*

20. Tank Measurement System: Required? Yes [X] No [ ] Remote Capability Required? Yes [ ] No [ ]

By:* **Manufacturer** Per Spec.*

21. Weight of Tank: Full of Water* 25014,0 t Empty* 499,0 t Shipping* Brace/Lift Spec.*

22. References:* *API Std 650, Appendix L*
Other references: *OHL-SPC-SRT-ST-0021 Design Basis for Storage Tanks*

23. Remarks:*

1) THE DESIGN OF THESE TANKS SHALL BE IN ACCORDANCE WITH **IATA/JIG3 GUIDE LINES.**

2) ALL TANKS SHALL HAVE DOUBLE BOTTOM WITH ACTIVE LEAK DETECTION SYSTEM. DOUBLE BOTTOM SHALL BE MATERIAL ASTM A 283 Gr C A
WITH WIRE MESH AS PER ILF-DWG-SRT-C1-014.
INNER BOTTOM SHALL BE 6m THK. OUTER BOTTOM SHALL BE 8mm THK.
OUTER BOTTOM SHALL HAVE AN ANNULAR RING MATERIAL ASTM A 573 Gr 70 GROUP V , 1400mm WIDTH x 14mm THK.

3) ALL TANKS SHALL HAVE AN AUTOMATIC BOTTOM WATER DRAIN SYSTEM.

4) ALL TANKS SHALL BE PROVIDED WITH FLOATING SUCTION ARTICULATED PIPE INCLUDING ITS POSITION INDICATOR AND SS CHECK CABLES.
ARMS TO BE BOUNDED TO TANK SHELL.

5) DOME ROOF SHALL BE SUPPORTED BY Nº 64 IPE 200 RADIAL RAFTERS PLUS Nº 5 L 100x10 INTERMEDIATE RINGS (NO COLUMNS REQUIRED).
(TO BE CONFIRMED BY MANUFACTURER)

6) ALL THICKNESS MENTIONED ON THIS DATA SHEET ARE TO BE TAKEN AS MINIMUM THICNESSES AFTER FORMING. **NO UNDERTOLERANCES** S
ALLOWED.

**MATERIAL NOTES**

a) MAT ASTM A 573 Gr 70 GROUP V SHALL BE NORMALIZED, FULLY KILLED AND MADE TO FINE-GRAIN PRACTISE WITH CARBON CONTENT 0,23% I
AND CE MAX 0.43% (see Storage Tanks Specification)

b) MAT ASTM A 573 Gr 70 GROUP IVA SHALL BE NORMALIZED, FULLY KILLED AND MADE TO FINE-GRAIN PRACTISE WITH CARBON CONTENT 0,2%
AND MAX Mn 1.6% (see API 650 para 4,2,7,4) IN ADDITION CE MAX SHALL BE 0.43% (see Storage Tanks Specification)

c) MAT ASTM A 573 Gr 70 GROUP IV SHALL BE FULLY KILLED AND MADE TO FINE-GRAIN PRACTISE WITH CARBON CONTENT 0,23% MAX, IN ADDIT
CE MAX SHALL BE 0.43% (see Storage Tanks Specification)

d) MAT ASTM A 283 Gr C GROUP I SHALL BE FULLY KILLED AND MADE TO FINE-GRAIN PRACTISE WITH CARBON CONTENT 0,23% MAX AND CE MA
Storage Tanks Specification)

e) NO COPPER OR CADMIUM ALLOYS, CADMIUM PLATING, GALVANIZED STEEL OR PLASTIC MATERIALS ARE PERMITTED WITHIN THE TANK FOR
ARTICULATED OR MAIN PIPING.

f) THE DRAIN LINE SHOULD PREFERABLY BE A NON-RUSTING MATERIAL, SELECTED TO AVOID GALVANIC ACTION CREATED BY DISSIMILAR META
OMJ-DAT-SRT-ST-0025

* If box is blank, Manufacturer shall determine and submit as per Appendix L.

**Table 1 MATERIALS OF CONSTRUCTION**

| Component | Material*/Thickness* | C.A. | Component | Material* | C.A. |
|---|---|---|---|---|---|
| Shell, Course _**1**__ to __ | **A573 Gr. 70 Group V** | **1 mm** | Reinforcing Pads | Acc to Shell Material | |
| Shell, Course _2__ to _5__ | **A573 Gr. 70 Group IVA** | **1 mm** | Manhole/Nozzle Necks | Acc to shell / A 106 Gr B | **1 mm** |
| Shell, Course _6__ to _7__ | **A573 Gr. 70 Group IVA** | **1 mm** | Manhole/Nozzle Flanges | Acc to shell / A 105 | **1 mm** |
| Shell, Course _8__ to _10__ | **A 283 Gr C Group I killed** | **1 mm** | Flange Covers | A 105 | |
| Shell, Course ___ to ___ | | | Anchor Attachments | | |
| Roof | **A283 Gr. C Group I** | **1 mm** | Submerged Piping | A 106 Gr B | |
| Bottom | **A283 Gr. C Group I** | **0 mm / 2 mm** | Wetted Structurals | A 36 OR SIMILAR | **0,5 mm** + |
| Annular Ring | **A573 Gr. 70 Group V** | **2 mm** | Non-wetted Structurals | A 36 OR SIMILAR | **0,5 mm** + |

+ Check here if C.A. is to apply to each exposed surface ☒

**Table 2 BOLTS and ANCHORS**

| Component | Head Type* | Bolt or Anchor Material* | Nut Material* | Thread Series* | C.A. |
|---|---|---|---|---|---|
| Flange Bolting | | A 193 GR B7 | A 194 GR 2H | | ++ |
| Structural Bolting | | | | | ++ |
| Anchor Bolts | | | | | ++ |
| | | | | | |

++ Total C.A., on the nominal diameter.

**Table 3 NOZZLE and MANHOLE SCHEDULE* (for Fixed Roof, Shell, and Bottom)**

| Mark | Service | Size, NPS, or Dia. (in.) | Neck Sch or Wall Thick. | Reinf. Plate Dimensions | Full Pen. On Open. (Y/N) | Flange Type | Flange Class or Thick. | Gasket Bearing Surf. Dimen. and Finish | Gasket Thick. and Dimen. | Gasket Mat'l and Descript. | Proj. to FF or CL or from Datum Lines |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **M01** | **Shell manway** | **24"** | API 650 | | | API 650 | | | | | |
| **M02** | **Shell manway** | **24"** | API 650 | | | API 650 | | | | | |
| **M03** | **Clean-out door** | **900x1200** | API 650 | | | API 650 | | | | | |
| **N01** | **Product inlet** | **10"** | SCH 40 | | | SO | 150 # RF | | | | |
| **N02** | **Product oulet** | **10"** | SCH 40 | | | SO | 150 # RF | | | | |
| **N03** | **Product draw-off** | | | | | | | | | | |
| **N04** | **Water draw-off** | **4"** | SCH 40 | | | SO | 150 # RF | | | | |
| **N05** | **LSHH A/B/C** | **3 X 2"** | SCH 80 | | | WN | 150 # RF | | | | |
| **N06** | **LSLL A/B/C** | **3 X 2"** | SCH 80 | | | WN | 150 # RF | | | | |
| **N07** | **Leak Detection A/B** | **2 X 2"** | SCH 80 | | | WN | 150 # RF | | | | |
| **N08** | **Level Transmitter** | **10"** | | | | SO | 150 # RF | | | | |
| **N09** | **Gauge hatch** | **8"** | | | | SO | 150# RF | | | | |
| **N10** | **Vent** | | | | | SO | 150# RF | | | | |
| **N11** | **Foam Chamber A/B/C/D** | | | | | SO | 150# RF | | | | |
| **N12** | **Tank Mixers A/B/C** | **MFR** | **MFR** | | | API 650 | | | | | |
| **M04** | **Roof Manway** | 1200 | API 650 | | | API 650 | | | | | |
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| Approvals: | Revisions: | Title: Jet Fuel Tanks |
|---|---|---|
| | | By: Ckd: Date: 10/10/2014 |
| | | Drawing No.: Sheet ____ of ____ |

* If box is blank, Manufacturer shall determine and submit as per Appendix L.

**OTHER TANK APPURTENANCES**

24. Platform, Stairway, and Railing: Galvanizing Req'd?* Yes ☒ No ☐ Stairway Style* Helical (Straight or Helical) Walk Surf. Type* _____

Stair and Walkway Clear Width* **Min. 1000 mm** National Safety Standards* _____

Architectural/Structural Specification* _____

Gauger's Platform Req'd? Yes ☐ No ☐ Qty. Req'd* _____ Per Spec.* _____

25. Jacket Required?* Yes ☐ No ☒ Other Heaters/Coolers Required?* Yes ☐ No ☒

Supplemental Jacket, Heater, or Cooler Specifications* _____

26. Mixer/Agitator: Quantity **Min. 3** Size* MFR Per Spec.* _____

27. Insulation: Required? Yes ☐ No ☒ Thickness* _____ Material* _____

Per Specs* _____ Responsibility for Insulation and Installation _____ (Purchaser, Manufacturer, Others)

28. Structural Attachments: Lift Lugs?* Yes ☐ No ☐ Desc.* _____

Shell Anchorage?* Yes ☐ No ☒ Type* _____ Scaffold Cable Support? Yes ☐ No ☐

29. Various Other Items: Welded Flush-Type: Shell Connection ☐ Cleanout Fitting ☒ Waive Application of Appendix P? Yes ☐ No ☐

Miscellany #1 _____ Miscellany #2 _____

Miscellany #3 _____ Miscellany #4 _____

Miscellany #5 _____ Miscellany #6 _____

**Table 4 OTHER TANK APPURTENANCES***

| Mark | Quantity | Service or Description | Size | Orientation | Height from Datum | Material | Remarks |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
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| | | Drawing No.: Sheet ____ of ____ |

* If box is blank, Manufacturer shall determine and submit as per Appendix L.

**FLOATING ROOF DATA** **N/A**

30. **Floating Roof Selection**

Design Basis: Appendix C ☐ Or Appendix H ☐

Type of Roof: (External or Internal): Single Deck Pontoon* ☐ Double Deck* ☐

(Internal Only): Tubular Pontoon* ☐ Metallic Sandwich Panel* ☐

Other ☐ _____ Supplemental Spec.: _____

31. **Seals**

Primary Seal: Shoe ☐ Envelope ☐ Wiper/Compression Plate ☐ Other ☐ _____ Supplemental Spec.: _____

Shoe Mechanism: Mfg. Std. ☐ Other ☐ _____

Electrically Isolate Mechanism from Shoes? Yes ☐ No ☐ Wax Scrapers Required? Yes ☐ No ☐

Minimum Shoe Thickness* _____ Carbon Steel Shoes to be Galvanized? Yes ☐ No ☐

Secondary Seal: Shoe ☐ Envelope ☐ Wiper ☐ None ☐ Other ☐ _____ Supplemental Spec.: _____

32. **Data for All Floating Roofs:**

Overflow Openings in Shell Acceptable? Yes ☐ No ☐ Shell Extension? Yes ☐ No ☐

Roof-Drain Check Valves Required? Yes ☐ No ☐ Roof-Drain Isolation Valves Required? Yes ☐ No ☐

Freeze Protection for Roof Drains Required? No ☐ Yes ☐ Supplemental Requirements: _____

Roof-Drain Piping to External Nozzles: Mfg. Std. ☐ Armored Flexible Pipe ☐ Swivels in Rigid Pipe ☐ Other ☐ _____

Foam Dam? Yes ☐ No ☐ Supplemental Spec.: _____

Minimum Deck Thickness* _____

Bulkhead Top Edges to be Liquid-Tight? Yes ☐ No ☐ Seal-Weld Underside of Roof? Yes ☐ No ☐

Electrical Bonding: Shunts: Yes ☐ No ☐ Cables: Yes ☐ No ☐ Supplemental Spec.: _____

Qty. of Non-Guide-Pole Gauge Wells Required _____ Qty. of Sample Hatches Required _____

Guide Pole for Gauging? Yes ☐ No ☐ Slots in Guide Pole? Yes ☐ No ☐ Datum Plates? Yes ☐ No ☐ Striking Plates? Yes ☐ No ☐

Guide Pole Emissions-Limiting Devices: Sliding Cover ☐ Pole Wiper ☐ Pole Sleeve ☐ Float ☐ Float Wiper ☐ Pole Cap ☐

Qty. of Roof Manholes* _____ Minimum High-Roof Clearance Above Bottom: _____

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Removable Leg Storage Racks? Yes ☐ No ☐ ; Leg Sleeves ☐ or Fixed Low Legs ☐

33. **Additional Data for External Floating Roofs:**

Weather Shield? Yes ☐ No ☐ Supplemental Spec.: _____

Rolling Ladder Required? Yes ☐ No ☐ Field Adjustable Legs? Yes ☐ No ☐

Design Rainfall Intensity _____ in./hr. (mm/hr) Based on a _____ Minute Duration Associated with the _____ Storm

Design Accumulated 24-Hour Rainfall _____ in. Based on the _____ Storm

Distortion and Stability Determinations Required? Yes ☐ No ☐ Supplemental Specification _____

Landed Live Load* _____

34. **Additional Data for Internal Floating Roofs: N/A**

Two-Position Legs? Yes ☐ No ☐ Cable-Supported Roof? Yes ☐ No ☐ Fixed-Roof Inspection Hatches Required? Yes ☐ No ☐

Internal Roof Drain Required? Yes ☐ No ☐ Omit Distribution Pads Supporting Uniform Live Loads? Yes ☐ No ☐

Corrosion Gauge Required? Yes ☐ No ☐ Fixed Ladder Required? Yes ☐ No ☐ ; Type of Roof Vent:* _____

Modified Minimum Point Load? Yes ☐ No ☐ Supplemental Specification _____

Mfr. To Leak Test* _____ % of Compartments ☐ in Assembly Yard ☐ in Erected Position ☐ Unknown; see separate contract terms

Roof Erector's Flotation Test: w/ Tank Hydro ☐ at Completion of Roof ☐ at a Later Date ☐ _____ Not Required ☐

Flotation Test Media: Water ☐ Product ☐ (see H.6.6.1) Water Quality: Potable ☐ Other ☐ See Supplemental Spec. _____

Flotation Test: Duration _____ Fill Height: _____

Flotation Test Items Provided by Purchaser (see H.6.7): None ☐ List Attached ☐

Responsible Party for Inspecting Roof During Initial Fill: Purchaser ☐ Other ☐ _____

**Table 5 FLOATING ROOF MATERIALS**

| Component | Material*/Thickness* | C.A./Coating* | Component | Material*/Thickness* | C.A./Coating* |
|---|---|---|---|---|---|
| Deck Plate | | | Datum Plate | | |
| Inner Rim Plate | | | Tubular Pontoon | | |
| Outer Rim Plate | | | Pontoon Bulkhead | | |
| Foam Dam | | | Submerged Pipe | | |
| Sandwich Panel Face Plate | | | Guide Pole | | |
| Sandwich Panel Core | | | Secondary Seal | | |
| Gauge Well | | | Secondary Seal Fabric | | |
| Drain Sumps | | | Wiper Tip | | |
| Opening Sleeves | | | Wax Scraper | | |
| Floating Suction Lines | | | Weather Seal | | |
| Primary Fabric Seal | | | Envelope Fabric | | |
| Foam Log Core | | | Shoe Mechanisms | | |
| Landing Legs | | | Primary Seal Shoe | | |
| Landing Leg Bottom Pads | | | Removable Covers | | |
| Manhole Necks | | | Rolling Ladder | | |
| Vents | | | Inlet Diffusers | | |

| API | **API Std 650 Storage Tank**<br>**Data Sheet** | PAGE 8 OF 8 |
|---|---|---|

* If box is blank, Manufacturer shall determine and submit as per Appendix L.

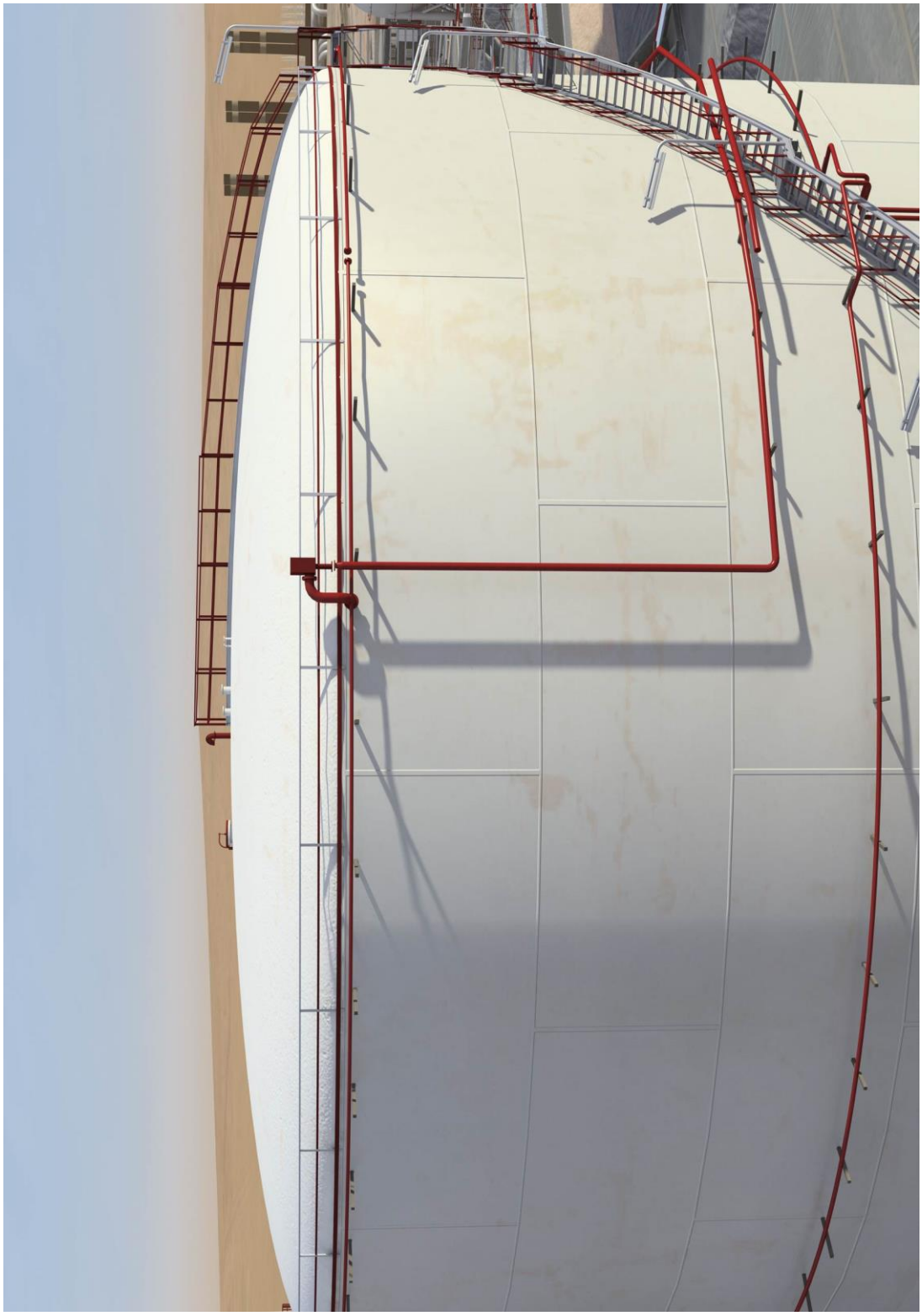
Tank Plan and Sketches:

OMJ-DWG-SRT-ST-0013 Storage Tank SRT-T-25-041 General Assembly
OMJ-DWG-SRT-ST-0014 Storage Tank SRT-T-25-042 General Assembly

Notes:

| Approvals: | Revisions: | Title: Jet Fuel Tanks |
|---|---|---|
| | | By: Ck'd: Date: 10/10/2014 |
| | | Drawing No.: Sheet ____ of ____ |

* If box is blank, Manufacturer shall determine and submit as per Appendix L.



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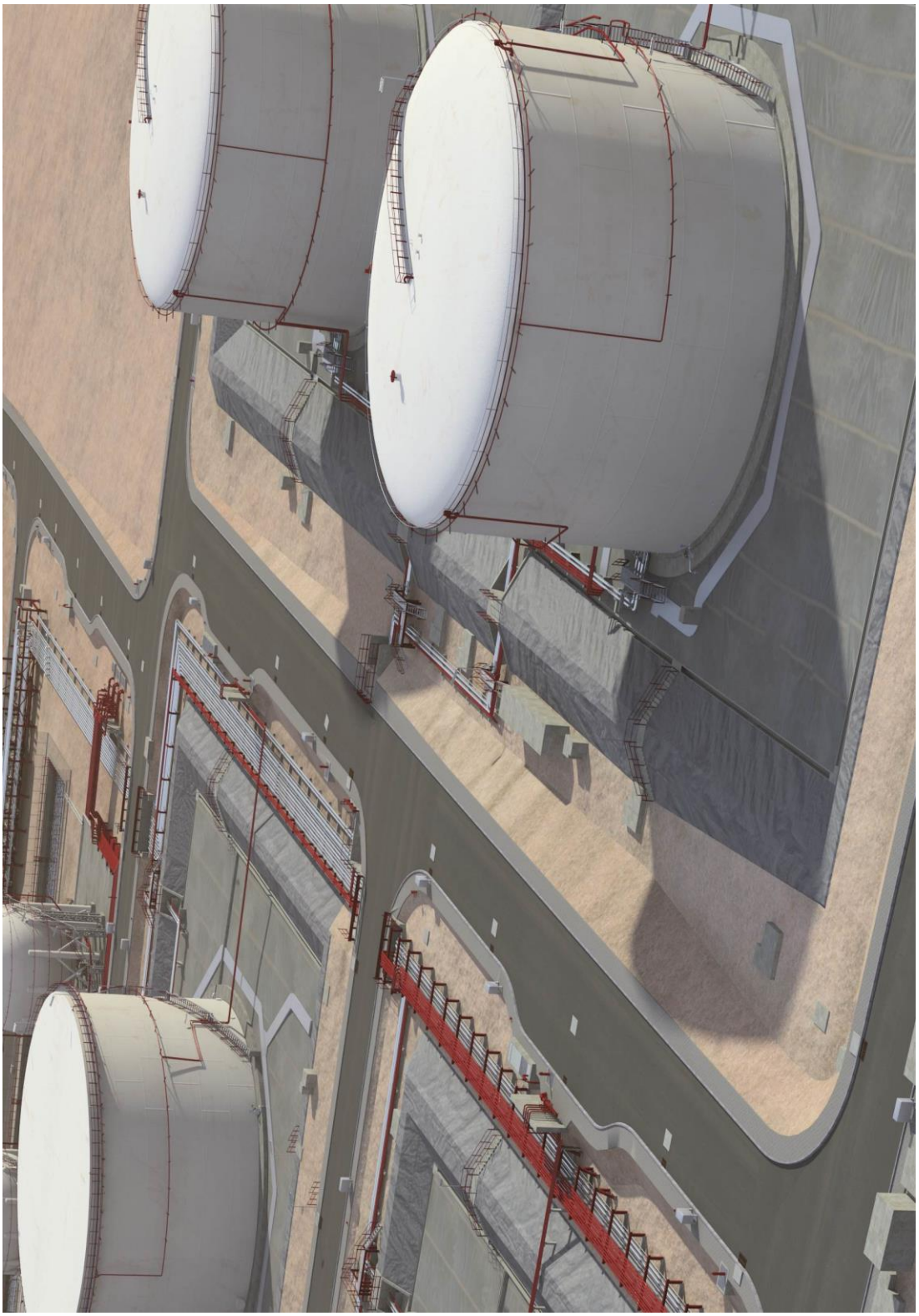

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