

Red Hill Flowable Tank Bottoms Draining

Tank Bottoms Draining – RH Tank (b) (3) (A)

Concept of Operation (Date:TBD)

Operations Summary

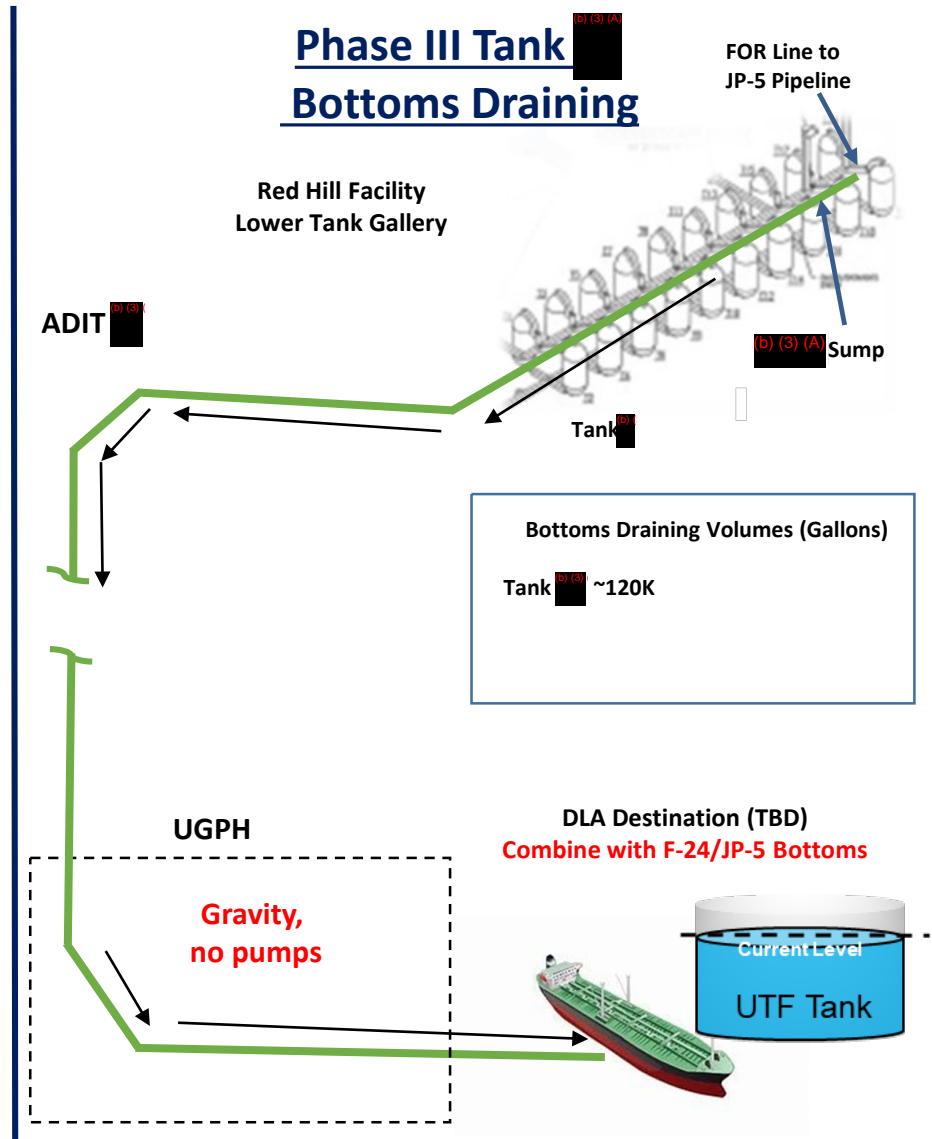
- Phase I: JP-5 Pipeline, FOR Line Verification, jumper on FOR line at (b) (3) (A) Sump, jumper at Tank (b) (3) (A)
- Phase II: Tank (b) (3) (A) Bottoms Draining Alignments (from Tank (b) (3) (A) to JP-5 Pipeline IVO Tank (b) (3) (A) via FOR Line to DLA Destination TBD)
- Phase III: Tank (b) (3) (A) Bottoms Draining

Preparation for Execution

- Location: (b) (3) (A)
- Date: TBD
- Bottoms Draining Amounts: ~120K Gals
- Issuing Tanks: Red Hill Tank (b) (3) (A)

Execution

- Phase I: JP-5 Pipeline, FOR Line Verification, (b) (3) (A) Sump, Tank (b) (3) (A)
 - Planning – Condition Verification, QA, Op Order, HAZOP
 - Preparation – Remove LOTO from FOR Line, connect Tank (b) (3) (A) Line to JP-5 Pipeline IVO Tank (b) (3) (A) Isolate (b) (3) (A) Sump, align blinds
 - Training – To Op Order and Emergency Response
 - Evolution Walkthrough – All Scheduled Watch-Standers
- Phase II: Tank (b) (3) (A) Bottoms Draining Alignments (from Tank (b) (3) (A) to JP-5 Pipeline to DLA Destination TBD)
 - Tank (b) (3) (A) Bottoms Draining: Align Tank (b) (3) (A) to FOR Line to JP-5 Pipeline IVO Tank (b) (3) (A) to DLA Destination TBD, bypass Zone 7 Sump, use gravity, vent through aligned tank
 - Confirm Valve Alignment as identified in OPORD
- Phase III: Tank (b) (3) (A) Bottoms Draining
 - OPORD: Follow OPORD as written, trained and briefed
 - Emptying Tank: Continue Bottoms Draining until no flow is detected
 - Close relevant valves once Tank (b) (3) (A) has been Drained

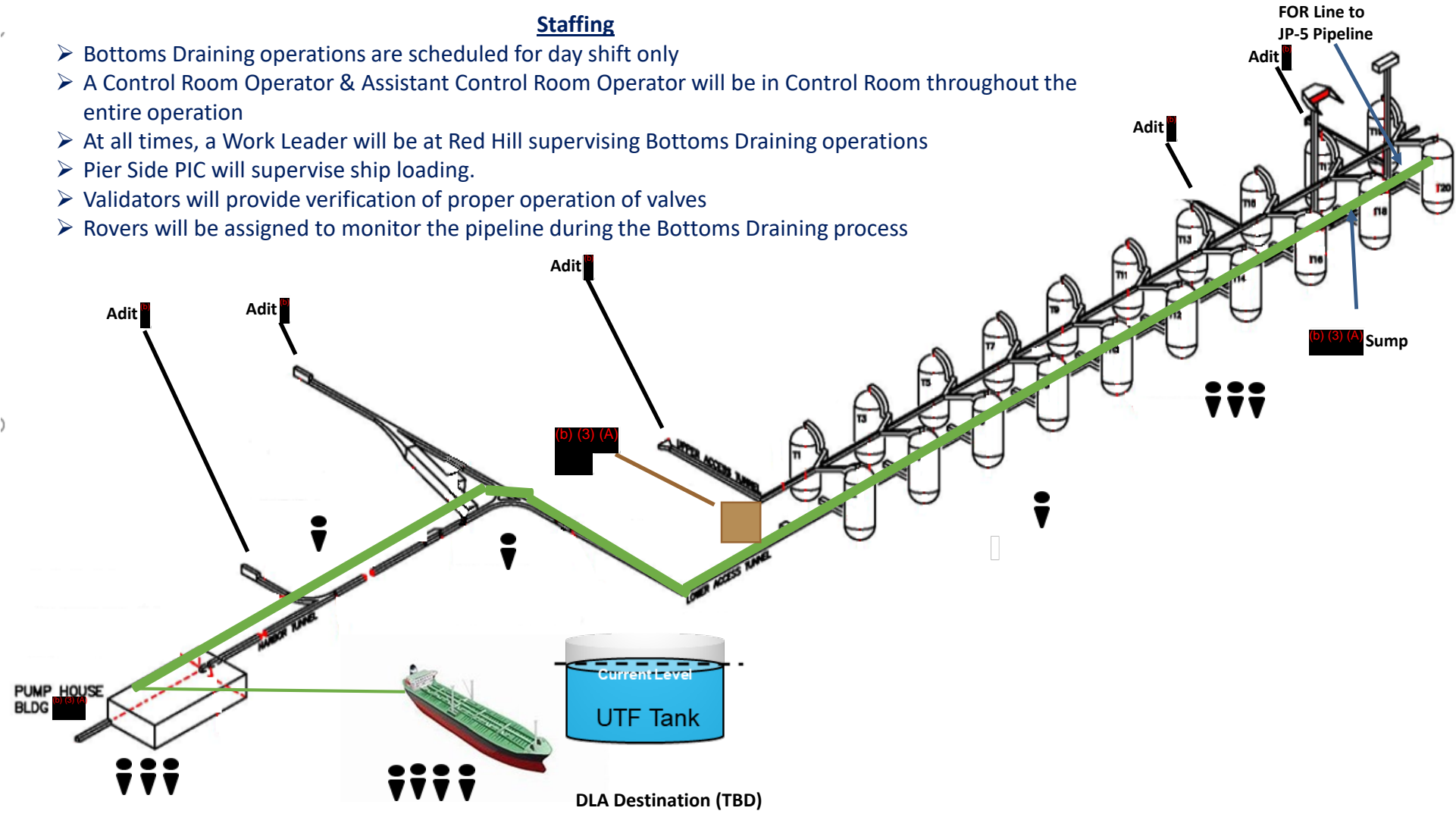


Bottoms Draining – Tank Flow Path

(b) (3) (A)

Staffing

- Bottoms Draining operations are scheduled for day shift only
- A Control Room Operator & Assistant Control Room Operator will be in Control Room throughout the entire operation
- At all times, a Work Leader will be at Red Hill supervising Bottoms Draining operations
- Pier Side PIC will supervise ship loading.
- Validators will provide verification of proper operation of valves
- Rovers will be assigned to monitor the pipeline during the Bottoms Draining process



Bottoms Draining – All RH Tanks, except Tank (b) (3) (A)

Concept of Operation (Date:TBD)

Operations Summary

- Phase I: JP-5 Pipeline and FOR Line Verification
- Phase II: RH Tanks Bottoms Draining Alignments (from RH Tanks to JP-5 Pipeline IVO Tank (b) (3) (A) to DLA Destination TBD)
- Phase III: RH Tanks Bottoms Draining

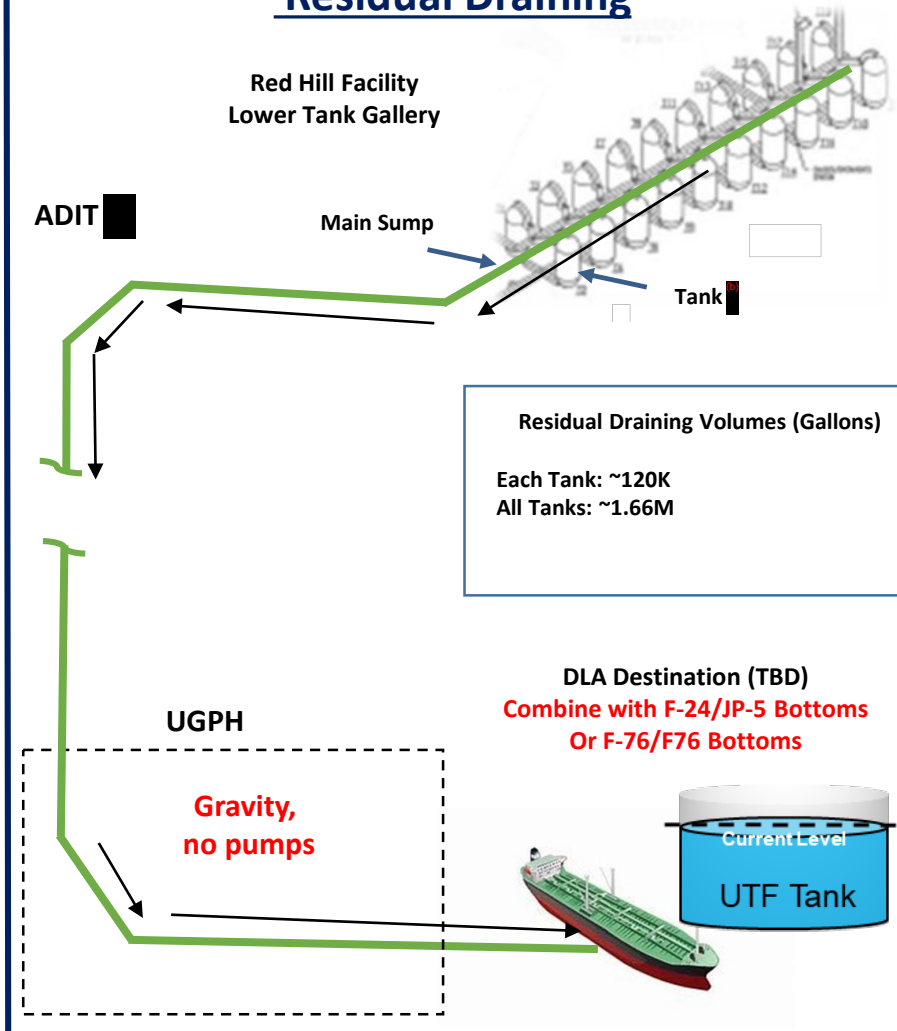
Preparation for Execution

- Location: RH JP-5 Pipeline and FOR Line IVO Tank (b) (3) (A) FOR Line IVO RH Tanks
- Date: TBD
- Bottoms Draining Amounts: ~120K Gals per tank
- Issuing Tanks: Red Hill Tanks, except Tank (b) (3) (A)

Execution

- Phase I: JP-5 Pipeline and FOR Line Verification
 - Planning – Condition Verification, QA, Op Order, HAZOP
 - Preparation – Remove LOTO from FOR Line, connect Tank (b) (3) (A) Line to JP-5 Pipeline IVO Tank (b) (3) (A), Isolate Main Sump, align blinds
 - Training – To Op Order and Emergency Response
 - Evolution Walkthrough – All Scheduled Watch-Standers
- Phase II: RH Tanks Bottoms Draining Alignments (from RH Tanks to JP-5 Pipeline to DLA Destination TBD)
 - Tank Bottoms Draining: Align RH Tanks to FOR Line to JP-5 Pipeline to DLA Destination TBD, use gravity, vent through aligned tank
 - Confirm Valve Alignment as identified in OPORD
- Phase III: RH Tanks Bottoms Draining
 - OPORD: Follow OPORD as written, trained and briefed
 - Emptying Tank: Continue Bottoms Draining until no flow is detected
 - Close relevant valves once RH Tanks have been Drained

Phase III All RH Tanks, except Tank (b) (3) (A) Residual Draining



Bottoms Draining - All RH Tanks, except Tank (b) (3) (A) Flow Path

Staffing

- Bottoms Draining operations are scheduled for day shift only
- A Control Room Operator & Assistant Control Room Operator will be in Control Room throughout the entire operation
- At all times, a Work Leader will be at Red Hill supervising Bottoms Draining operations
- Pier Side PIC will supervise ship loading.
- Validators will provide verification of proper operation of valves
- Rovers will be assigned to monitor the pipeline during the Bottoms Draining process

