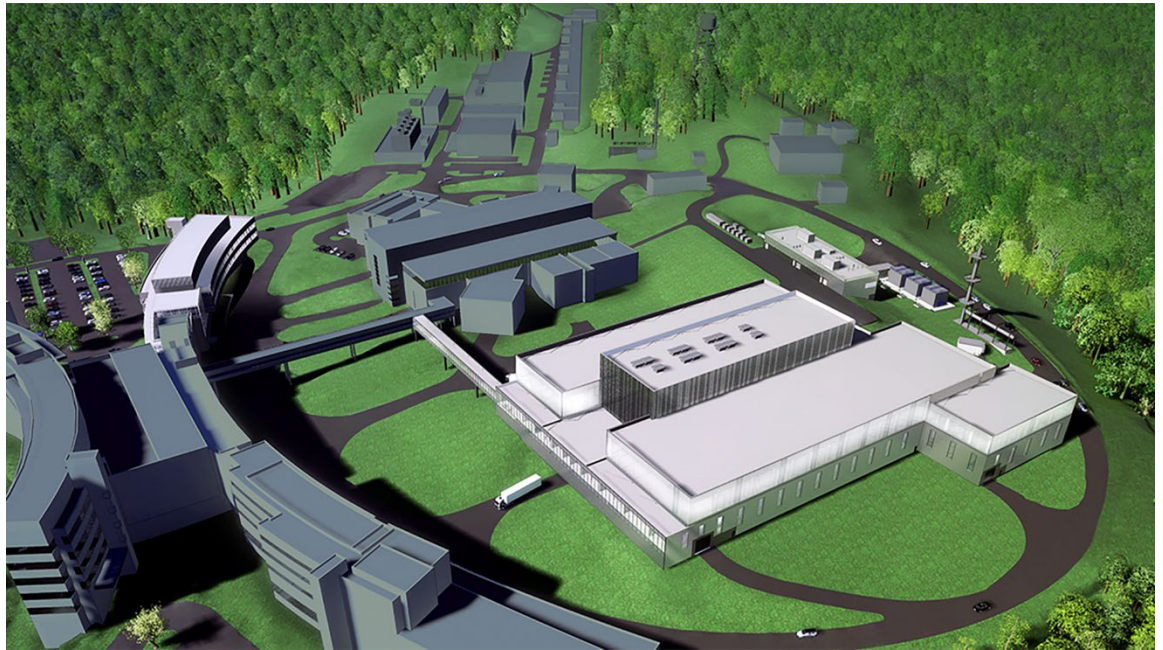


Second Target Station Project: Interface Sheet - Vessel Systems (S.03.06) to Remote Handling (S.03.10)



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March 2025



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Second Target Station Project

**INTERFACE SHEET – VESSEL SYSTEMS (S.03.06) TO REMOTE HANDLING
(S.03.10)**

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March 2025

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	Signature / Date					
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Target Systems Team Leader						
Revision	Description					
00	Initial Release					

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1. LIFTING INTERFACE DETAILS

The following Vessel Systems components require removal via Remote Handling during maintenance operations:

Target segment removal hatch

Creo model name: S03060200-A10297-68.prt

Drawing number: TBD

Lifting Interface: Hoist ring

Component mass: 208 kg

Lifting device: Jib crane inside Target Drive Room

Lifting point location (Target Systems global coordinates; x,y,z; mm): (1223.4, 4939.5, 0)

Component laydown area: Target Drive Room floor, High bay

Temporary storage cask required: No

Reason for removal: Target segment replacement (normal operations)

MRA removal hatch

Creo model name: S03060200-A10297-69.prt

Drawing number: TBD

Lifting Interface: Hoist ring

Component mass: 255 kg

Lifting device: Jib crane inside Target Drive Room

Lifting point location (Target Systems global coordinates; x,y,z; mm): (-268.1, 4969.7, 0)

Component laydown area: Target Drive Room floor, High bay

Temporary storage cask required: No

Reason for removal: MRA replacement (normal operations)

North side utility hatch

Creo model name: 1_TARGET_VESSEL_LID_COVER.prt

Drawing number: TBD

Lifting Interface: Hoist Ring

Component mass: 265 kg

Lifting device: Jib crane inside Target Drive Room

Lifting point location (Target Systems global coordinates; x,y,z; mm): TBD

Component laydown area: Target Drive Room floor, High bay

Temporary storage cask required: No

Reason for removal: Utility jumper gasket replacement (uncommon)

South side utility hatch

Creo model name: 1_TARGET_VESSEL_LID_COVER_B.prt

Drawing number: TBD

Lifting Interface: Hoist Ring

Component mass: 225 kg

Lifting device: Jib crane inside Target Drive Room

Lifting point location (Target Systems global coordinates; x,y,z; mm): TBD

Component laydown area: Target Drive Room floor, High bay

Temporary storage cask required: No

Reason for removal: Utility jumper gasket replacement (uncommon)

Target Removable Shield Block

Creo model name: S03060000-CV-SLD_BLK_23A.prt

Drawing number: TBD

Lifting Interface: Ziplift stud – 1.5’’-8UN male thread

Component mass: 1230.5 kg

Lifting device: Ziplift grapple coupled to High Bay Crane or Portable hoist

Lifting point location (Target Systems global coordinates; x,y,z; mm): (1019.24, 3835.4, 0)

Component laydown area: High bay

TDR roof hatch opening dimensions: N-S = 500mm, E-W = 350 mm

Temporary storage cask required: Yes

Reason for removal: Target segment replacement (normal operations)

MRA Removable Shield Block

Creo model name: S03060300-M8U-8800-A10285.prt

Drawing number: TBD

Lifting Interface: Ziplift stud – 1.5’’-8UN male thread

Component mass: 6226.7 kg

Lifting device: Ziplift grapple coupled to High Bay Crane or Portable hoist

Lifting point location (Target Systems global coordinates; x,y,z; mm): (-178.4, 3937, 0)

Component laydown area: High bay

TDR roof hatch opening dimensions: N-S = 920mm, E-W = 700mm

Temporary storage cask required: Yes

Reason for removal: MRA replacement (normal operations)

Gamma Gate Shield Block

Creo model name: S03060200-M8U-8800-A10296_BLK1.asm

Drawing number: TBD

Lifting Interface: Ziplift stud – 1.5’’-8UN male thread

Component mass: 1105.7 kg

Lifting device: Ziplift grapple coupled to High Bay Crane or Portable hoist

Lifting point location (Target Systems global coordinates; x,y,z; mm): (993, 4520, 0)

Component laydown area: High bay

TDR roof hatch opening dimensions: N-S = 790mm, E-W = 450 mm

Temporary storage cask required: No

Reason for removal: Gamma gate malfunction/service (uncommon)

Gamma Gate Drive Assembly

Creo model name: TBD

Drawing number: TBD

Lifting Interface: Hoist rings

Component mass: TBD (<1000 kg)

Lifting device: TDR Jib Crane, high bay crane

Lifting point location (Target Systems global coordinates; x,y,z; mm): TBD

Component laydown area: TDR floor or high bay

Temporary storage cask required: No

Reason for removal: East pipe pan access (Uncommon)

2. GAMMA GATE ACTUATION INTERFACE

Horizontal translation of the gamma gate is required for target segment removal and maintenance activities. During target maintenance activities it will be necessary to remotely translate the gamma gate from outside of the Target Drive Room. The scope breakdown shall be as follows:

Vessel Systems scope:

1. Specify and procure linear actuator
2. Design and procure linear actuator to gamma gate linkage
3. Design and procure gamma gate rail system
4. Design and procure gamma gate
5. Design and procure gamma gate positional locking system

Remote Handling scope:

1. Collaborate with Integrated Control Systems to procure and install a remote control system that allows for gamma gate actuation outside of the Target Drive Room
2. Collaborate with Integrated Control Systems to procure and install a position verification system that allows for gamma gate position to be verified from outside of the Target Drive Room