



TMI-2 *SOLUTIONS*

PA LLRW Advisory Committee
9/30/2022

Project Director TMI2 Solutions - Frank Helin

Agenda:

- Regulatory Overview
- LLRW Overview
- Core Debris Overview
- Project Performance & Milestone Progress

Regulatory Overview

PDMS to DECON License Amendment Request (LAR) Status

- Original LAR Submitted February 2021
- Responded to RAIs and provided updated calculations to NRC
- Received Acceptance Letter from NRC
 - NRC has communicated that they should be able to support 12/31/22 approval date
 - Dependent upon NRC approval of the Emergency Plan LAR
- Emergency Plan revision with TMI-2 and CEG for review

TMI-2 Security License Amendment Request Status

- Original Submittal May 2021
 - Maintain proper security controls for radiological material
- Several supplements provided to NRC after discussions
 - Revised License Condition to reflect TMI-2 implementing a Materials Security Plan
 - TMI-2 contracted with CEG to provide Security services to implement the Materials Security Plan
- NRC acceptance Letter received for the LAR with implementation date of 30 August 2022

NRC Inspection Status

NRC Inspection on 6 June 2022 was for PDMS.

- No issues or concerns noted.

Previous Inspection:

- ML22027A154 – 27 Jan 22
- Results were no violations or findings

LLRW Overview

Waste Management (LLRW)

Key Activities Completed for 1H 2022:

- Shipped Unit 1 RCP Motor to Clive for Disposal
- Shipped Unit 1 RCP Pump to Framatome on behalf of Farley
- Drafted 3 additional waste packaging plans
 - Asbestos (Rail or Road)
 - General Large Component - >10,000 lbs., <200,000 lbs.
 - Pressurizer
- Issued Purchase Orders for two specialty transport containers

Key Activities for 2H 2022:

- Plan to draft 3 more waste packaging plans
 - Steam Generators
 - RPV Segments (packaged in shielded boxes)
 - Debris and Oversized Debris in Gondolas (Rail)
- Hiring 1 additional person to assist with characterization/planning efforts
- Finalize LLRW Procedure Control procedure
- Issue LLRW procedures for review/approval

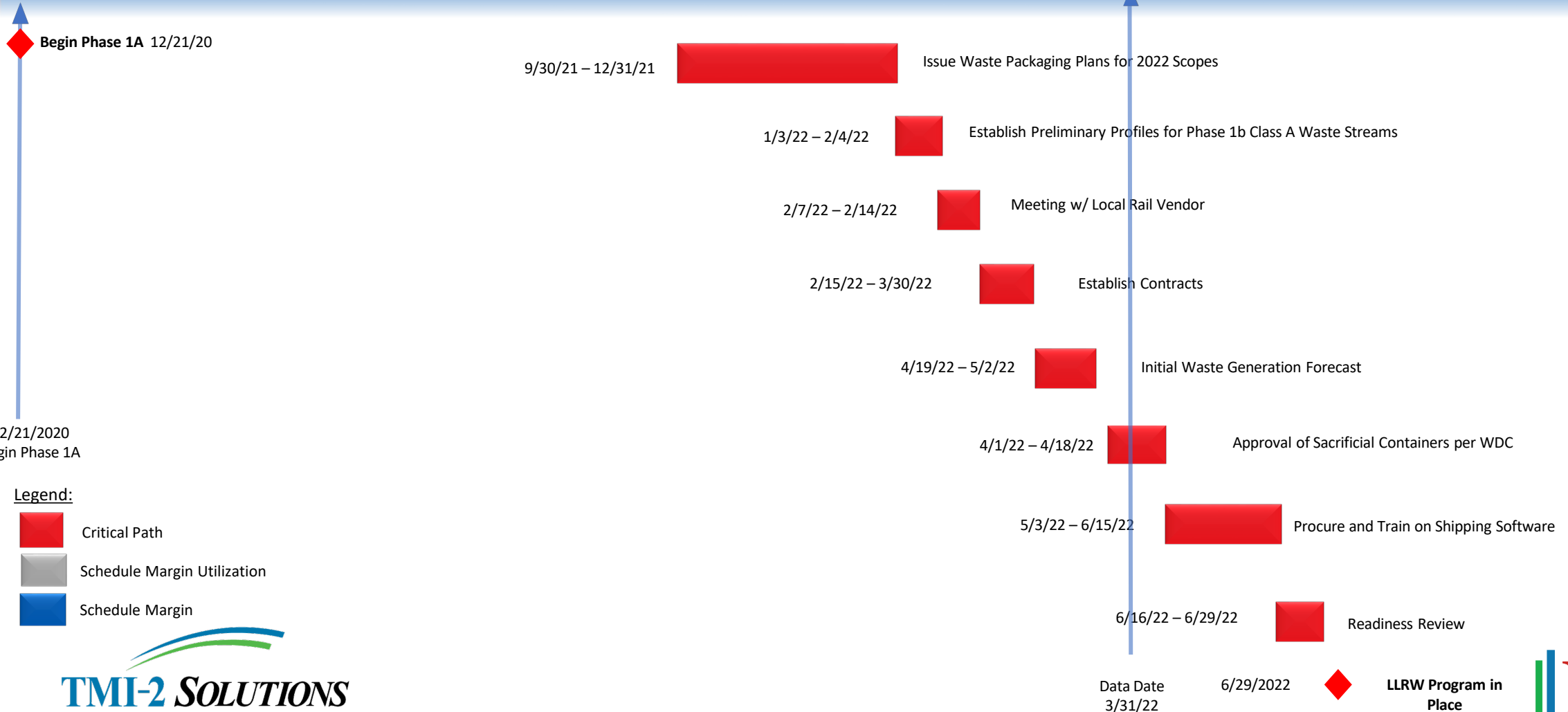
LLRW Schedule

2020

05/16/22
NRC LAR Approval

End Phase 1A

Dec 2020 | 1 Qtr. 2021 | 2 Qtr. 2021 | 3 Qtr. 2021 | 4 Qtr. 2021 | 1 Qtr. 2022 | 2 Qtr. 2022 | 3 Qtr. 2022



12/21/2020
Begin Phase 1A



Data Date
3/31/22

6/29/2022



LLRW Program in Place



Core Debris Overview

Waste Management – Core Debris

Key Activities Completed for 1H 2022:

- Major material procurements for FBM Canisters
- Design and drawings for FBM Canisters
- Established Engineering Assessment Template and commenced work on Engineering Assessments
 - Completed CFT 1B
 - Completed OSTG B

Key Activities for 2H 2022:

- NAC document reviews and Submitting Part 72 CoC LA to NAC's MAGNASTOR system to the NRC
- Continuing Engineering Assessment activities
- Commencing work on INL Engineering Assessment review and measurement contract
- Starting fabrication of FBM canisters

Issues and Concerns:

- Evaluating potential filter media as acceptable FBM Canister cargo
- Navigating potential NRC position that FBM is Part 50 material
- Evaluating dry loading of FBM Canister cargo

Dry Canister Storage System

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NAC Engineering and Licensing

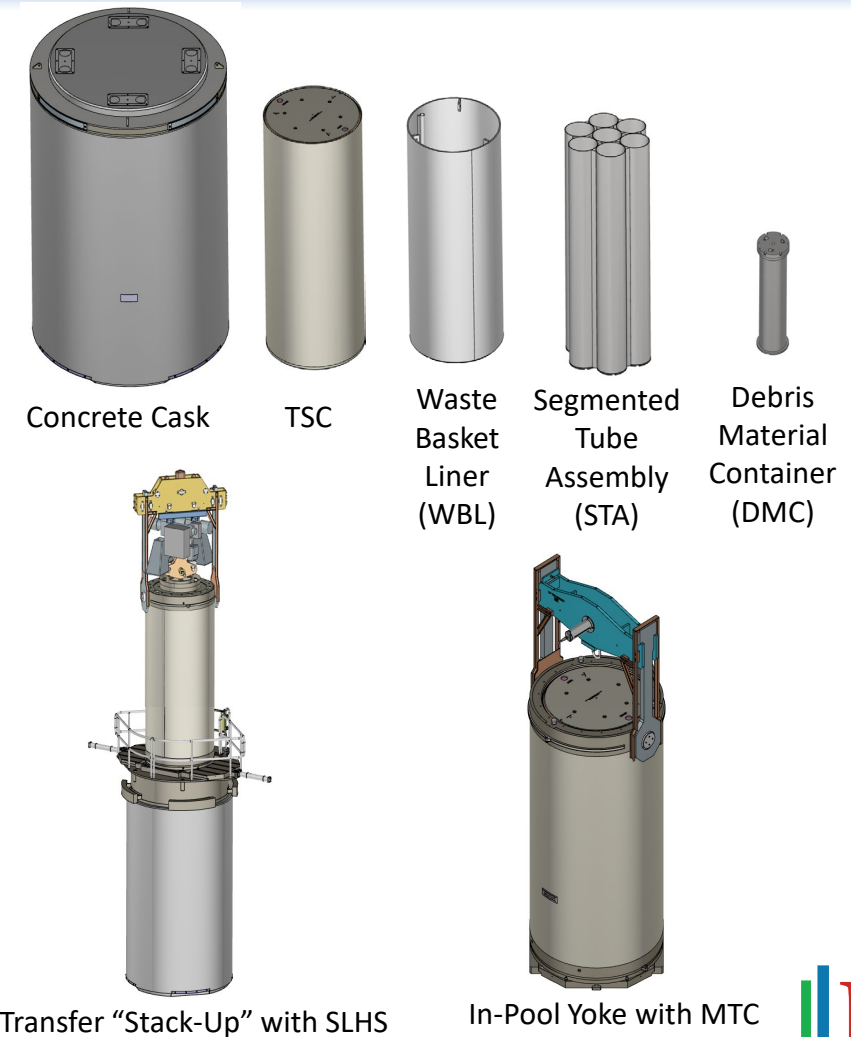
- All Final Design deliverables provided to ESJ / TMI2S review and acceptance
- License Amendment for TMI2 FBM submittal in June 2022
- Expect CoC in November 2023

NAC Fabrication

- Canister Shell at Hitachi-Zosen expected to start in August 2022
- Remaining components at Peterson and Doosan also expected to start in August 2022
- First equipment delivery on site expected to be September 2023 – May be revisited due to dose reduction delay

Cut and Packaging Plans still need development

- Draft Cut and Packaging Plans developed for RVI predict 11 canisters
- Further development included as scope for segmentation vendor
- Canisters 1-8 tied to RVI segmentation activities
- Canister loading beyond RVI are included in schedule, but not yet tied to FBM loading activities (primarily AFHB and smaller RB components)
- ISFSI design to accommodate up to 30 canisters



Radiation Characterization

Reactor Building Characterization

- Purpose
 - Obtain isotopic analysis of contaminants and dose rate information
 - Data will be used by Radiation Protection, Waste Management and Construction PMs
 - Sampling will include sludge samples, core bores and dose rate surveys.

Environmental Overview

Environmental

Constellation maintains and administers the site-wide Permits & Programs:

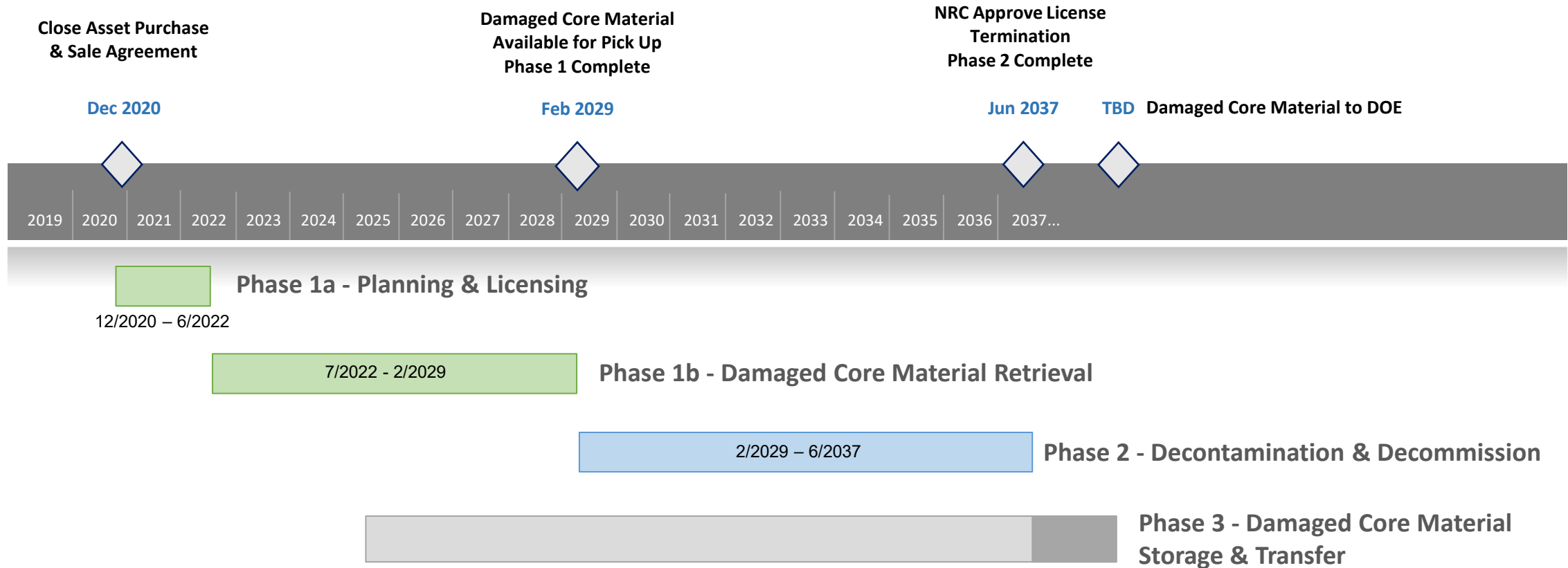
- Offsite Dose Calculation Manual (OCDM)
- TMI Radiological Environmental Monitoring Program (REMP)
- Groundwater Protection Program including Monitoring
- NPDES Discharge Permit - Environmental Emergency Response Plan (EERP), Spill Prevention and Countermeasure Plan (SPCC), Stormwater Management Plan (which include Erosion and Sediment Control)
- All Task-Specific Permits/Plans (e.g. Building, Demolition, Air Permits) are acquired by TMI2S as needed.
- Soil Tracking Process is being developed to support final FSSS.



Project Performance & Milestone Progress

TMI-2 Overview Schedule

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PROJECT HIGHLIGHTS

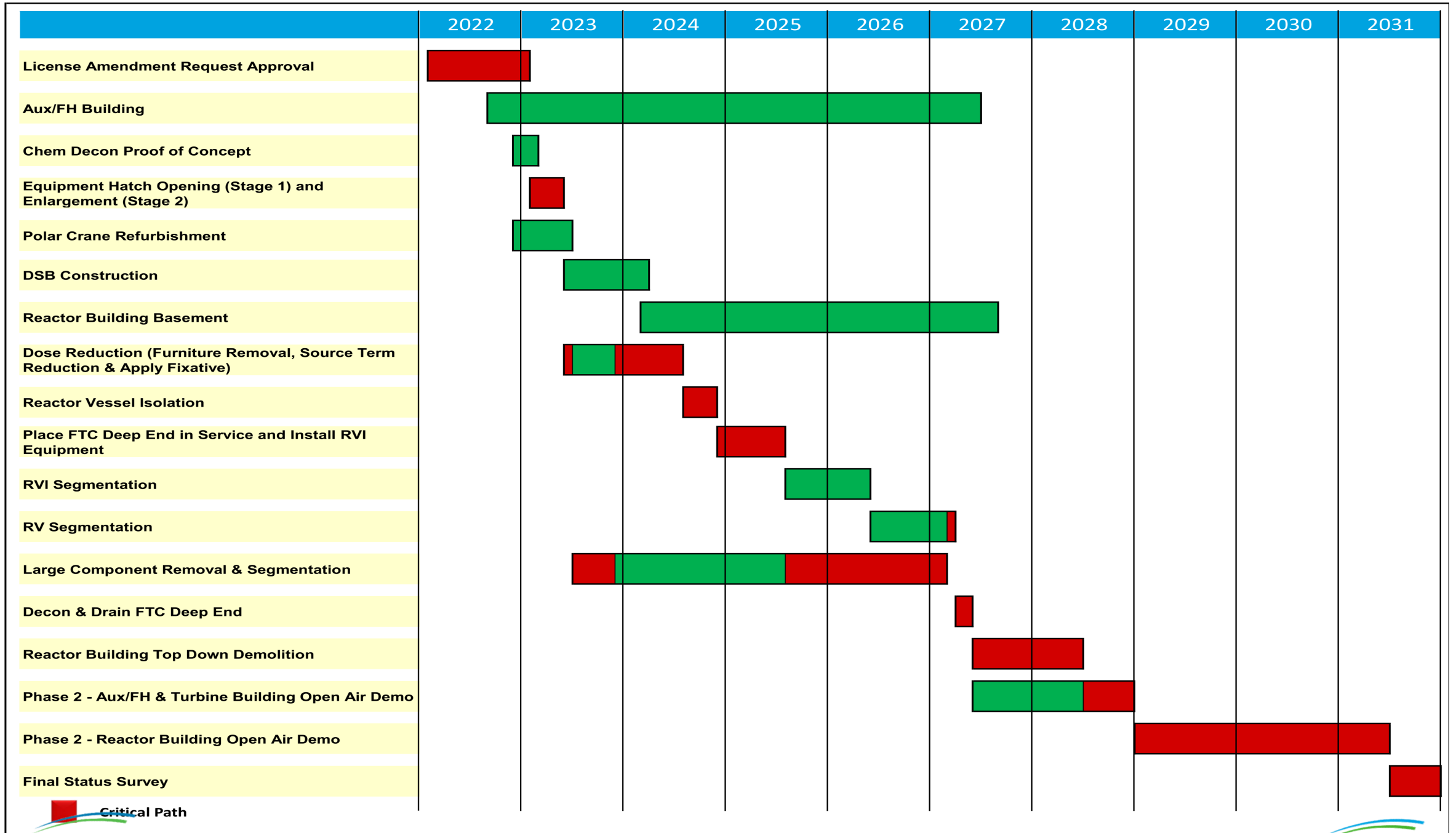
CURRENT PERIOD:

- ESJ Board Approval of Phase 1B Baseline
- TMI2 Solutions Approval of 2022 & 2023 Payment Milestones
- Issued Chemical Decon Proof of Concept Purchase Order
- Completed 90% Design Liquid Rad Waste System
- Received Telehandler at TMI-2
- Installed Tables, Desks & Chairs in Count Room
- Received High Capacity ForkLift, Reacher and Stacker at TMI-2
- Installed Monitor, Desks, Fire Proof Cabinets and 2nd Turnstile in RP Control Point
- Completed 90% Design Rail Upgrades

NEXT PERIOD:

- Transition Programs and Procedures to ESJ
- Start Reactor Building Purge
- Complete 90% Design ICC Engineering
- Inspect Existing RB Ventilation System
- Complete 60% Design TPU Engineering
- Complete Reconfiguration of OSB Office Furniture
- Complete 60% Design TPU Engineering
- Issue Demin Water Supply Service Purchase Order
- Install Temporary RB Lighting on Elev. 305' & 347'
- Start Reactor Building Initial Surveys

CRITICAL PATH SUMMARY



 Critical Path



Critical Path: The LAR was submitted on 3/18/21

Programs / Policies:

- Part 37 security plan LAR, working with Constellation on implementation details
- Using Compliance Matrix to validate PDMS Program readiness
- Independent Review programs selected (RP, Operations, Work Control, and Engineering)

Key Activities Completed for 1Q 2022:

- Debris Management Program final Draft
- Issued TMI2-RA-PR-010 – 50.59 Procedure
- Completed Preliminary Design of Lifting Equipment and Reactor Building Equipment Hatch
- Crane Vendor Prepare Initial Design for Polar Crane Refurbishment

Key Activities for 2Q 2022:

- E Plan supplement being drafted
- Security Agreement signed
- NRC License condition being established

Issues and Concerns:

- DECON LAR impact by E-Plan
- E-Plan and Security Plan coordination with Constellation
- Negotiating a Decommissioning Agreement with Constellation
- License Basis Configuration Management – efforts in progress to improve information access