ONTARIO POWER GENERATION

Report

Internal Use Only		
Document Number: I-REF-00120-00001		Usage Classification: N/A
Retention: T10	Revision Number: R00	Page: 1 of 12

Title:
IRI Project Management Oversight Committee (PMOC) Terms of Reference

© Ontario Power Generation Inc., 2018. This document has been produced and distributed for Ontario Power Generation Inc. purposes only. No part of this document may be reproduced, published, converted, or stored in any data retrieval system, or transmitted in any form or by any means (electronic, mechanical, photocopying, recording, or otherwise) without the prior written permission of Ontario Power Generation Inc.

Inspection and Reactor Innovation Project Management Oversight Committee

I-REF-00120-00001

2018-01-12

Order Number: N/A
Other Reference Number:

Internal Use Only

Prepared By: _____
T. Harduwar — Date
Manager, Projects & Innovation, IRI

Approved By: _____
Ryan Howard — Date
Director, Innovation, IRI

Table of Contents

Page

1.0 OBJECTIVE 3

2.0 MEMBERSHIP AND QUORUM 3

3.0 MEETING FREQUENCY AND CONDUCT 3

4.0 DISPUTE RESOLUTION 4

5.0 GATE REVIEW REQUIREMENTS 5

5.1 Gate 0 Identification 5
5.2 Gate 1 Initiation Stage 5
5.3 Gate 2 Development Stage 5
5.3.1 Scope Review Board 5
5.3.2 Gate 2 Approval 5
5.4 Gate 3 6
5.5 Gate 3a 6
5.6 Gate 4 6
5.7 Gate 5 7

6.0 PORTFOLIO REVIEW REQUIREMENTS 7

7.0 TRANSITION PLAN FROM PAC TO PMOC 7

Appendix A: PMOC Overview Note: CWM Milestones may replace MA-13 milestones 8

Appendix B: PMOC/AMOC Information Flow Note: SHOC may replace Site PHC 9

Appendix C: Modification Timelines Integrated with Station Planning Milestones 10

Appendix D: PMOC Rapid Decision Criteria 11

Appendix E: PAC to PMOC Transition 12

1.0 OBJECTIVE

The Project Management Oversight Committee (PMOC) will fulfill the requirements of the "Governing Body" (Gate Review Board) under OPG-STD-0147 "Project Life Cycle Management" and is accountable to;

- provide oversight to ensure projects approved by Asset Management Oversight Committee (AMOC) are executed within the approved timelines
- manage offsets based on relative priority and business need to stay within the AMOC funding element
- Ensure major deviations from plan have lessons learned and corrective actions to prevent occurrence.

This document defines membership and quorum requirements for the IRI PMOC and specifies any requirements unique to Nuclear. An overview of the PMOC role, and the interface with AMOCs is provided in Appendix A.

2.0 MEMBERSHIP AND QUORUM

The IRI PMOC shall consist of a chairperson (Director of Innovation) and a quorum of senior management:

- Director, Innovation (Chair) – Voting Member*
- Director, Site execution – Voting Member*
- Vice President, IRI – Voting Member*
- Controller, IRI (Co-Chair)– Voting Member *
- Manager, IRI NDE Innovation
- Manager, IRI Reactor Maintenance Innovation
- Manager, IRI Fuel Channels Innovation
- Other Managers as required

(* indicates quorum however an empowered delegate may be sent)

Decisions are based on majority voting. In the event of a 50/50 vote, the Vice President's decision will prevail.

3.0 MEETING FREQUENCY AND CONDUCT

PMOC meetings will be held at a frequency determined by the Chair (usually monthly for IRI). Adhoc PMOC meetings may be called as required to support project decision making.

The yearly schedule which includes meeting dates and freeze dates for submission of materials shall be published on a forum visible to all project personnel.

The Nuclear PMO will upload the site portfolio dashboard (typically a SharePoint site) on or prior to the freeze date. Project Managers required to present (typically with

CPI/SPI <0.9 or, as required by gate review and approval or, at the request of the Chair) must also provide presentation material by the freeze date. Material submitted after freeze date requires advance Chair approval.

All mandatory requirements must be met prior to submitting gate approval requests, including sign-off of gate submission package indicating readiness to proceed by the Director, PMO. When conditional approvals are given based on member feedback, the Chair will make it clear who has approval authority to clear the condition.

A PMOC decision and action log will be maintained and issued 3 business days following each meeting.

The proposed meeting agenda will be as follows:

1. Quorum Confirmation and Assign Critique
2. Review Previous Month Critique
3. Review Action Log
4. Review IRI Project Portfolio Status (Finance)
   a. Portfolio dashboard/Risk Map dashboard overview
   b. Financial Performance
   c. Project Dashboard/Lessons Learned (by exception or by request)
5. Change Control Forms (CCF's)
   a. Budget Change reviews
   b. Contingency Drawdowns
6. Recovery Plans (SPI/CPI < 0.9 for current phase)
7. Business Case Summary Review (BCSs)
   a. Scope Review Board (scope approval by PMOC required for > 10m$ or graded high or A or B complexity)
8. AMOC Items (Scope Dispute, Cost and Schedule Outside Pre-Approved Limits, etc...)
9. Other Business
10. Review New Actions and Meeting Critique

4.0 DISPUTE RESOLUTION

In situations where projects are stalled awaiting decision and normal escalation has not resolved the issue in a timely matter, the Strat IV Manager of the IRI Project Department will identify the issue to the chair of PMOC. This would normally happen off line from a PMOC meeting. The PMOC chair, having reviewed the issue and the RAPID decision criteria in Appendix B, will decide what decision making forum is required to resolve the issue (ODM, EDM, adhoc PMOC or escalate higher) and will arrange the appropriate forum. The Project Manager / Department Manager must then meet all the requirements of the ultimate decision maker.

5.0 GATE REVIEW REQUIREMENTS

Below are Nuclear expectations for each gate review specific to plant modifications. Note that it is expected all plant modifications (that are not minor mods) will be graded A, B, C or D per OPG-STD-0147 Appendix C. The requirements below are intended to augment the requirements of OPG-STD-0147 Appendix B.

5.1 Gate 0 Identification

The approval for project start (initiation phase) will be granted by the IRI or Nuclear Asset Management Oversight Committee and as such is not a PMOC function. The project manager should notify PMOC work has started and when G1 approval is expected. The PM should also grade the modification complexity, and set initial timelines for the project based on the table in Appendix C. The PM should also establish the project sponsor and stakeholders by name, including IRI Site Execution, MTL, DTL, System Engineer, and those external to IRI.

5.2 Gate 1 Initiation Stage

The following shall be performed prior to progressing to G1:

- Initiation Phase activities as identified in Appendix B of OPG-STD-0147
- The initial schedule conforms to timelines outlined in the table in Appendix C, based on modification complexity. Differences must be rationalized by the PM with concurrence from the design team.
- The initial schedule meets all applicable Campaign Work Management (I-PROC-AS-0004) milestones. Careful attention must be paid to projects linked to a particular outage, and the schedule must align with N-PROC-MA-0013 milestones. Any exceptions require specific plans, budget and resourcing that can support parallel work activities and the appropriate approvals.

5.3 Gate 2 Development Stage

5.3.1 Scope Review Board

For all projects > $10M, or graded high or mega complexity (A or B), the PMOC will review and approve project scope.

The purpose is to ensure that the project scope meets the expectations of the sponsor and stakeholders and should include a review of the installation/commissioning strategy and ensure that the interfacing systems and conditions are well understood.

Non-Project stakeholders shall have had input to the scope, and either agree with the scope as written or seek resolution via a dispute resolution process (see above).

5.3.2 Gate 2 Approval

The following shall be performed prior to progressing to G2:

- Development Phase activities as identified in Appendix B of OPG-STD-0147.
- If applicable, engineering activities as described in Sections 1.2 and 1.3 of N-PROC-MP-0090, Modification Process.
- All remaining estimating assumptions have been converted to risks and documented in the Project Management Plan and approved Risk Register.

5.4 Gate 3

The following shall be performed prior to progressing to G3:

- Definition Phase activities as identified in Appendix B of OPG-STD-0147
- Detailed engineering is complete and EC's are issued in asset suite. This includes all documentation externally produced be accepted and processed into AS7.
- The remaining schedule meet all applicable Campaign Work Management (I-PROC-AS-0004) milestones. Careful attention must be paid to projects linked to a particular outage, and the schedule must align with N-PROC-MA-0013 milestones. Any exceptions require specific plans, budget and resourcing that can support parallel work activities and the appropriate approvals.

5.5 Gate 3a

This gate is specific to projects that have a major site execution phase in a plant. At this gate the project needs to convince the site the project is "field ready".

The following shall be performed prior to progressing to G3a:

- All CWPs / ITPs and WPs are approved and all AS7 activities complete (WO, MR EC etc.)
- The installation sequence is known, agreed to by site Operations and Maintenance and the installation logic is in a state directly transportable to outage or cycle plan schedule requirements.

Once the Plant and IRI Project group agree the project is field ready, every effort will be made to support the project installation sequence and plans as written.

Going forward, project monitoring will be primarily done through IOP or Outage plans.

5.6 Gate 4

It is not intended that PMOC would review gate 4. Normal integration with site planning meetings, combined with the commitment agreed to at gate 3a should be sufficient. There may be discovery items in execution that require an adhoc PMOC, but again not likely as these would get resolved through normal IRI and site processes such as SIR teams and daily planning meetings.

Record of Equipment in Service (REIS) is a Gate 4 Outcome, and will be reviewed at PMOC as a standing agenda item.

5.7 Gate 5

PMOC will monitor metrics for outstanding Post Implementation Reports (PIRs) but is not expected to review each PIR.

6.0 PORTFOLIO REVIEW REQUIREMENTS

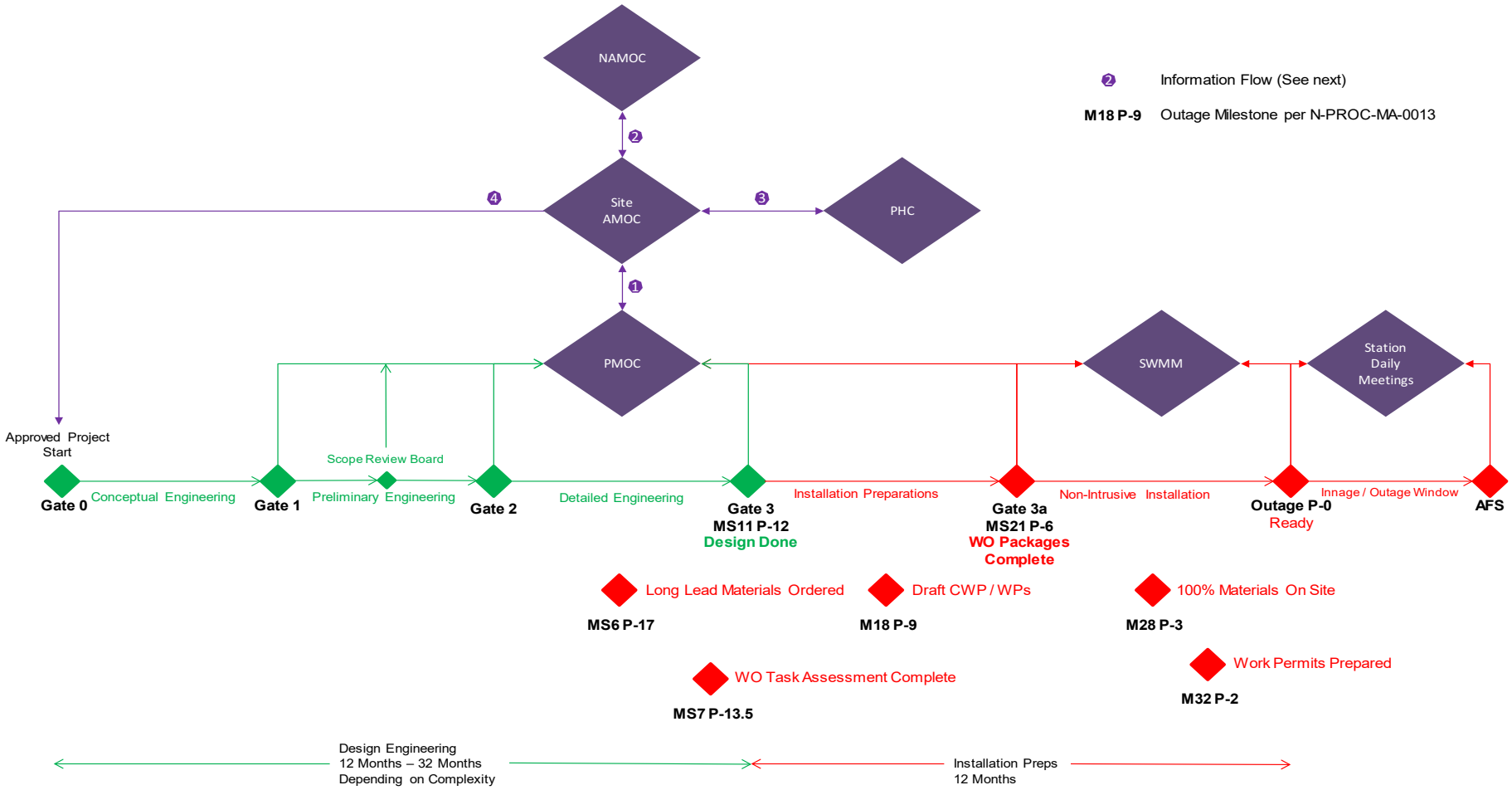
A dashboard monitoring all projects at site will be prepared by the Nuclear PMO and reviewed by PMOC. It is expected the dashboard and supporting metrics will identify any projects off normal performance. Projects not performing as expected (typically SPI / CPI < 0.9) need to either recover performance before the next PMOC, or present recovery plans to PMOC to bring performance back in line. These presentations must include lessons learned including behaviour elements which have prevented lower level decision making to not be successful, and documentation of these lessons learned in the corrective action system (they do not require corrective action plans as these are provided by the recovery plans; the intent is to document lessons learned for training purposes only).

7.0 TRANSITION PLAN FROM PAC TO PMOC

In order to transition from the current PAC structure to the PMOC structure, a transition plan is required. For PMOC, this is documented in appendix C. During the transition period and until all supporting governance is changed, certain PAC functions need to remain in place. Specific directives issued by Nuclear PMO will provide additional guidance during the transition period.

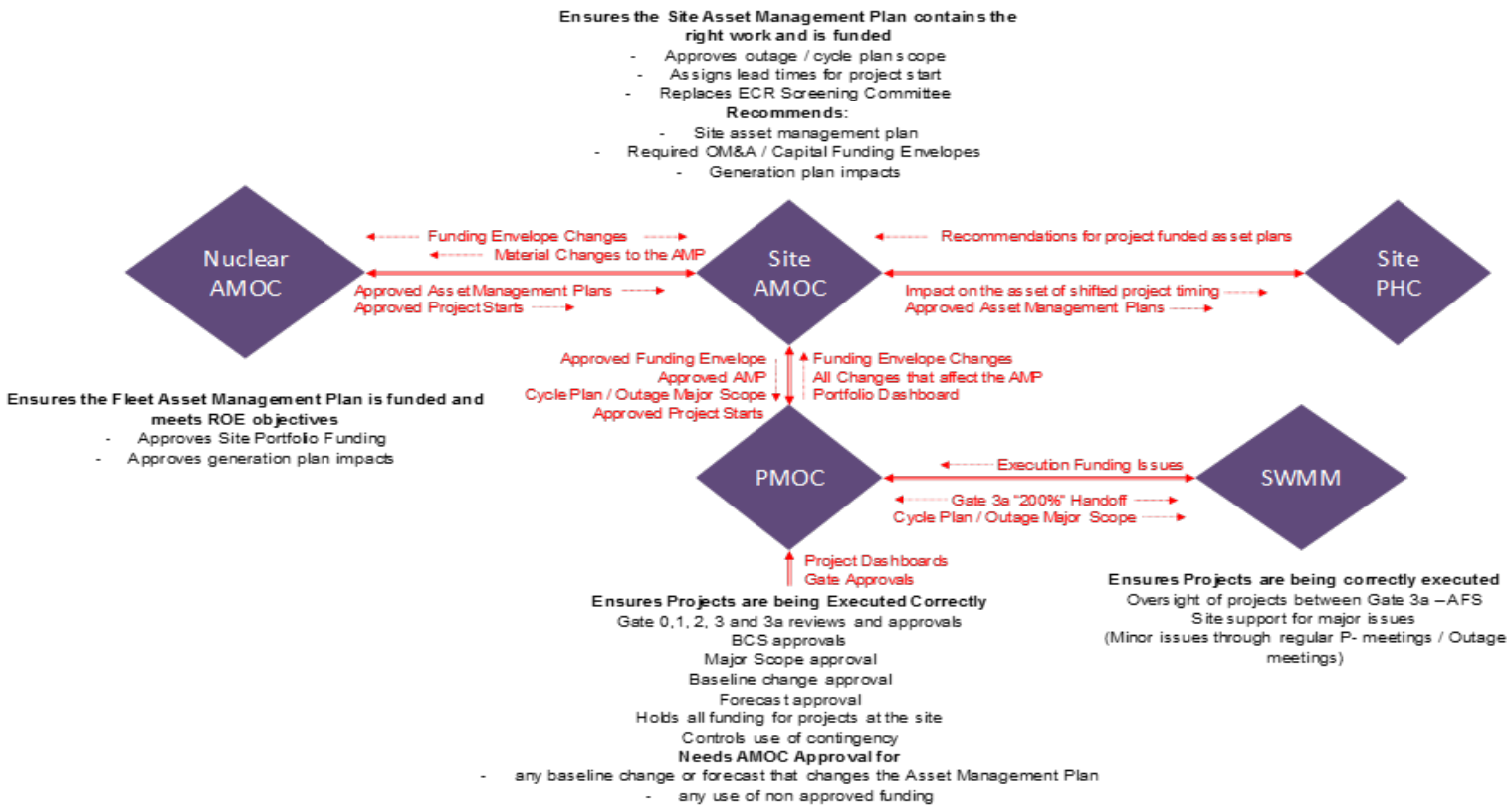
Appendix A: PMOC Overview

Note: CWM Milestones may replace MA-13 milestones

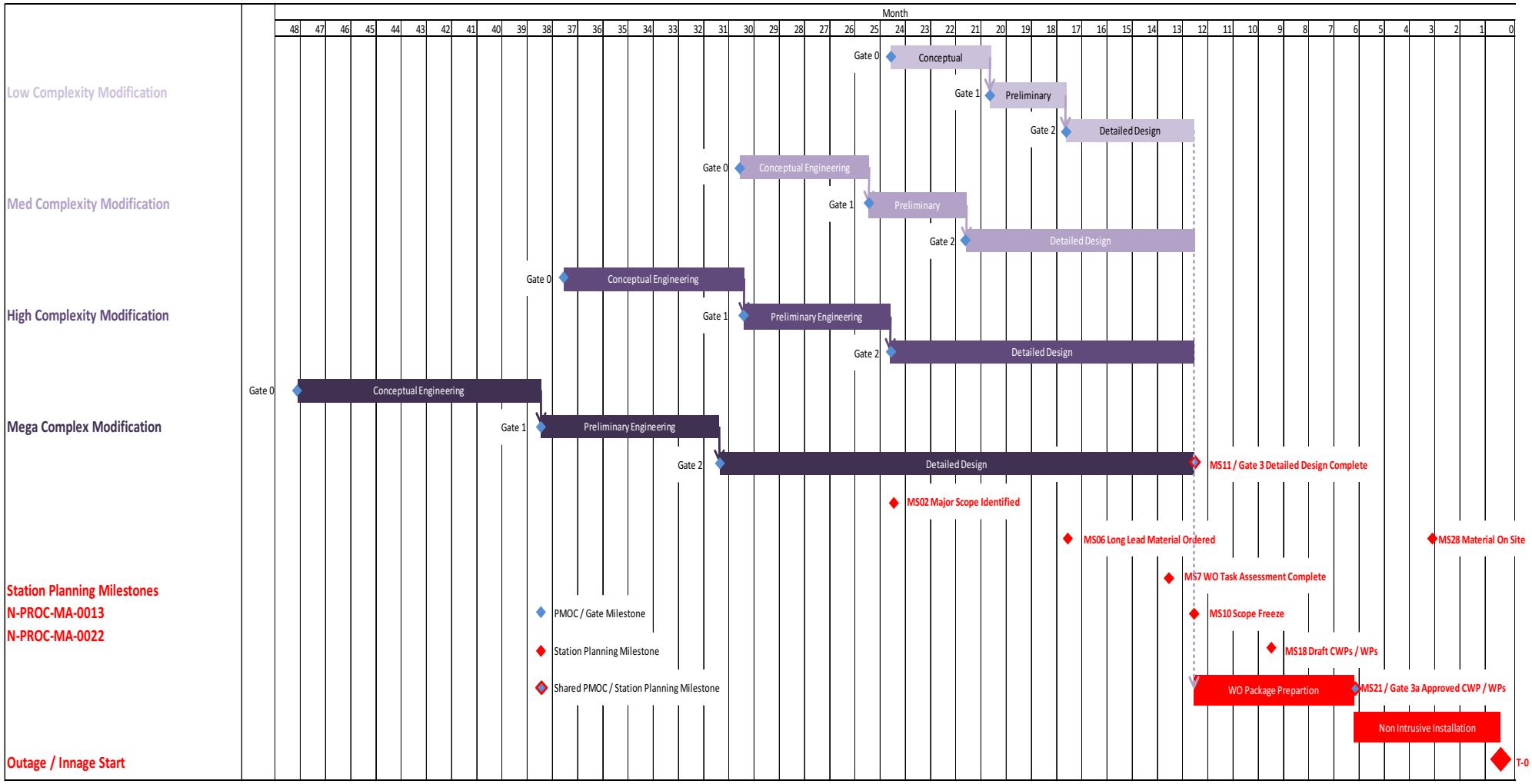


Appendix B: PMOC/AMOC Information Flow

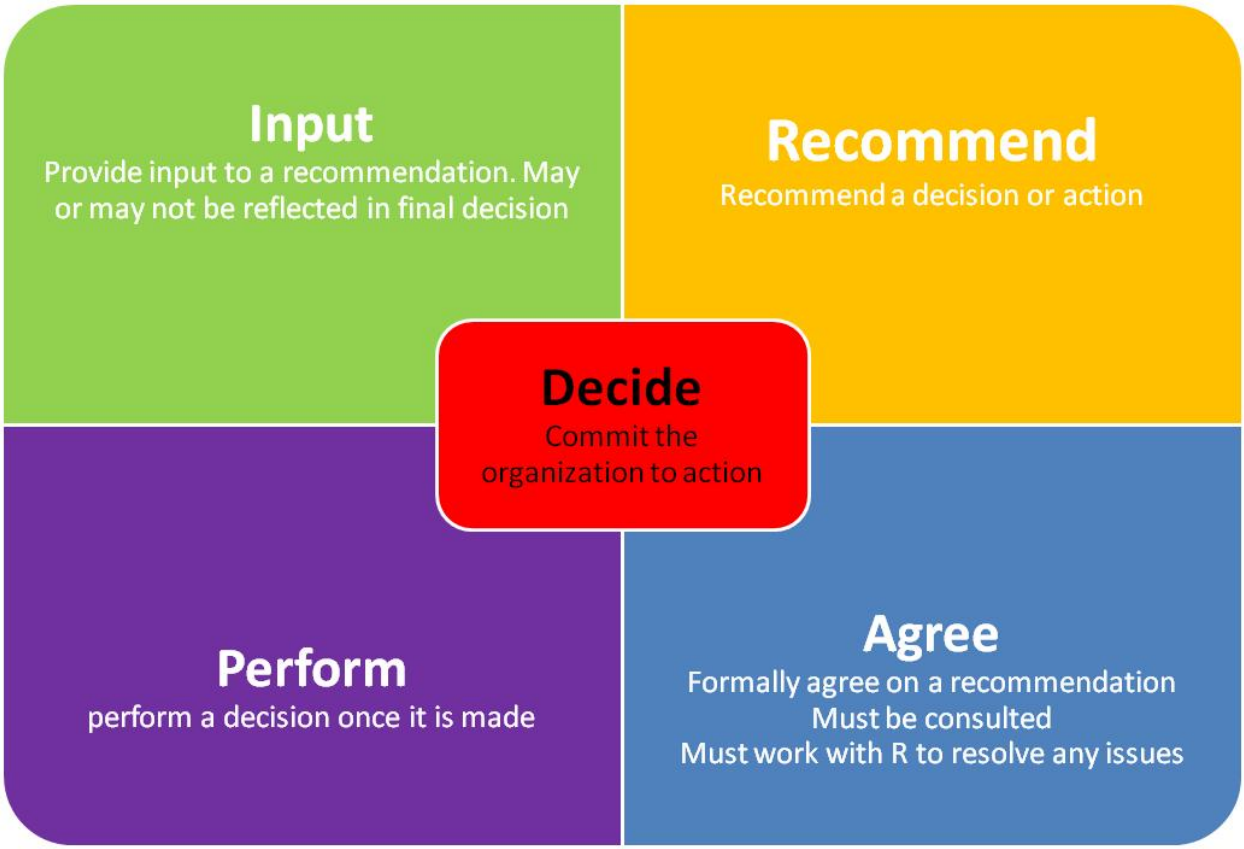
Note: SHOC may replace Site PHC



Appendix C: Modification Timelines Integrated with Station Planning Milestones



Appendix D: PMOC Rapid Decision Criteria



- **Recommend**
  - There is only one R
  - R must have credibility with I and D
  - R must have broad knowledge, access to information and high visibility
- **Agree**
  - A's should be limited in numbers
  - A must agree with R, otherwise D splits the baby
- **Perform**
  - May be multiple P's
  - Should be part of I in early stages
- **Input**
  - Usually multiple I's
  - Assign only to those who have relevant knowledge, experience and credibility or,
  - Are heavily impacted by the decision
  - Don't proliferate I or progress will be needlessly slowed
- **Decide**
  - There is only one D

Appendix E: PAC to PMOC Transition

1) Start by insisting that all project report out against the following milestones; these will be established in the standard milestone list by the Nuclear PMO and enforced through schedule development.
    a) Detailed Design done; all EC's issued in Asset Suite; must be at least 12 months prior to execution. Anything less does not meet MA-0022 or MA-0013 milestones.
    b) Installation Field ready; All CWPs, ITPs and WPs approved; must be at least 6 months prior to execution. Anything less does not meet MA-0022 or MA-0013 milestones
    c) Make it clear what the consequence will be for not meeting these milestones and enforce it.
    d) When recovery plans are appropriate, make certain that they are fully funded with additional resource that is capable of progressing design and installation work in parallel.
    e) Milestone date for all Gates, including Gate 3a, to allow planning support.
2) When a project is stalled for decision making immediately insist on a "RAPID" decision making framework (ref Appendix M). Insist on names for Input, Recommend, Agree and especially Decide. Make certain the "Decide" authority is one that is empowered to make a decision that support lowest total cost of ownership. (see the document body)
3) Ask when each project will have proper L3 schedules in place, correct baseline established and loaded into ECOSYS. It can be different dates for each project but the idea is to transition to proper dashboard reporting (Appendix D)
4) Formally establish gate 3a. This is critical to ensuring smooth installation and commissioning.
5) Formally implement all other gates for in flight projects (already done for new projects). Establish where each project is in each gate, then make it clear what the expectations will be for next gate and what the consequences are for not meeting expectations.

A period of six months will be required to fully transition PAC to Facility PMOC. There is no change proposed to membership in transition from PAC to PMOC.