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MITSUBISHI NUCLEAR ENERGY SYSTEMS, INC.

PRA Development and Review Plan for Risk-Informed Technical Specification

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Background (Extract from DCWG July 1st '08)

PRA Technical Adequacy for Risk-Informed Tech. Specs.

- **Initiative 4b (NEI-06-09 Rev.0)**

  List of 10 items including requirement to meet capability category 2 for the supporting requirements for the ASME internal events at power PRA standard.

- **Initiative 5b (NEI-04-10 Rev.1)**

  "The quality of the PRA must be compatible with the safety implications of the proposed TS changes and the role the PRA plays in justifying the change."

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Background (cont.)

Conformance with other requirements of NEI 06-09

	PRA Technical Adequacy Requirements in the NEI-06-09 (Initiative 4b)		DCD	COLA	Post COL
1	Modeling of removal of plant SSCs from service		NA	NA	X
2	Compliance with Capability Category 2 of ASME PRA std.	Standard Design	X	X	X
		Site-Specific	NA	X	X
		As-built/As-operated	NA	NA	X
3	Evaluation of CDF and LERF		NA	NA	X
	Assessment of external events		X	X	X
4	Capability to quantify configuration specific impact due to unavailability of equipments in CRM program		NA	NA	X
5	Consideration of current (i.e. Seasonal or time of cycle) configuration		NA	NA	X
6	Common cause treatment in CRM model		NA	NA	X
7	Maintain and update PRA		NA	NA	X
8	Satisfy software station software quality assurance requirements		NA	NA	X
8	Arguments on use of at-power PRA to low operating modes		NA	NA	X
10	Consideration of modeling uncertainty in the RMTS program		NA	NA	X

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Background (cont.)

PRA Development plan for Risk-Informed Tech. Specs.

Phased approach

Phase-a

COLA phase: develop PRA model for internal level-1 and level-2 PRA based on available plant specific information

Phase-b

Construction phase: reflect plant specific as built design, procedures, etc., including technical issues for internal flooding and internal fire

Phase-c

Operating phase: reflect plant performance for plant specific performance database --- As operated

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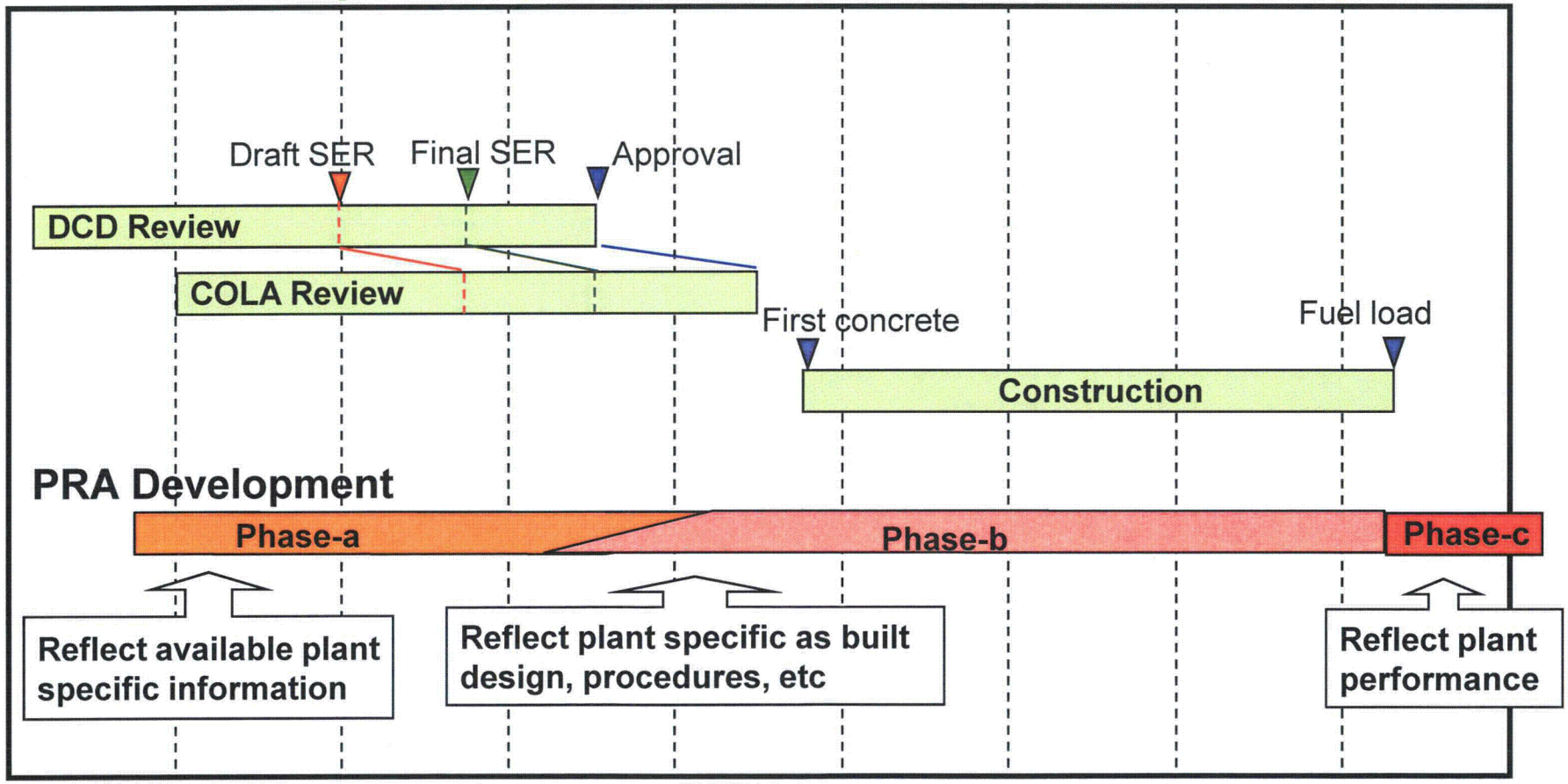
Background (cont.)

PRA Development plan for Risk-Informed Tech. Specs.



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PRA development and review plan

- Crystallized plan for Phase-a, b
  - Phase-a

    Further develop PRA as possible base on available information. NRC can inspect as necessary to confirm progression.
  - Phase-b

    Complete the as-built PRA one year prior to fuel load. Results will be available to NRC.
- Peer review will be performed in a timely manner.
- In Phase-c, PRA will be updated as required.

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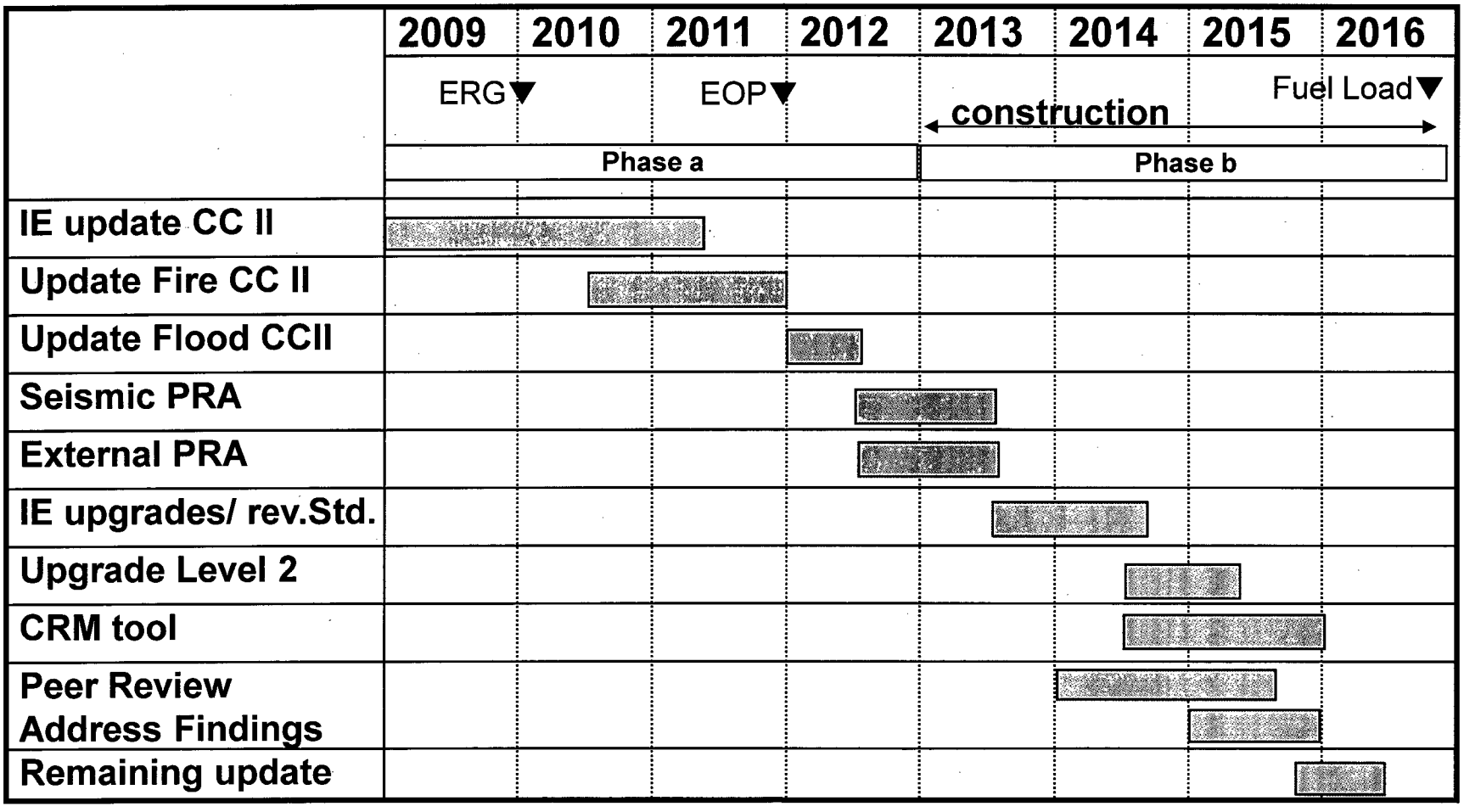
PRA development plan for phase a and b



IE:Internal Events CC II: Capability Category II of the PRA std.
CRM:Configuration Risk Management

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Summary of PRA review plan

- NRC can inspect PRA during phase-a and b to confirm PRA progression.
- As-built PRA will be made available one year prior to fuel load for review.
- Changes in the risk metrics will not affect the PRA.
- If the risk metrics are revised, the program can be revised at that time.