

NEI 13-02 NMP2 Overall Integrated Plan Template for NRC OrderEA-13-109

NRC Public Meeting

March 26, 2014



Agenda

- Meeting Objectives
- OIP Template Development Schedule
- NMP2 OIP Development/Staff Comments
- Open Discussion
- Follow-up

Meeting Objectives

- Review of NRC Staff comments
 - Proposed responses
 - Clarifications

Template Development Information and Key Dates

- Template Development
 - *Pilot plant(s) identified – Hatch as MK I & NMP2 as MK II*
 - *Draft template by January 20, 2014 – Presented on Jan 15*
 - *Final Draft template March 15, 2014 – After Pilots*
 - NEI 13-02 Revision for OIP template and FAQs by April 21, 2014
- NRC-NEI Joint Template Meetings
 - *January 15, 2014 – Complete (Draft Template & 3 FAQ)*
 - *January 29, 2014 – (Template Elements & FAQs)*
 - *February 19, 2014 (Pilot Plant Hatch, FAQs & White Papers)*
 - *March 5, 2014 (NMP2 Pilot Differences, FAQ & White Paper)*
 - March 26, 2014 (NRC Feedback on OIP Pilots/Workshop Prep)
- Industry Template Workshop, April 9-10 in Baltimore
- **NRC-NEI Check-up Conference Call Proposed for May 7**

Nine Mile Point Unit 2

SA HCVS Pilot OIP Comment

Discussion and Responses

Containment Ventilation Branch

Applicable EA-12-049 Assumptions

Assumption 049-8 “All activities associated with EA-12-049 (FLEX) that are not specific to implementation of the HCVS (i.e., HCVS valves, instruments and motive force) can be credited as having been accomplished.”

The assumption is not clear in the context of its need or its intended usage. The activities associated with EA-12-049 that are not specific to the implementation of the HCVS have no bearing on the HCVS implementation, except when credit is taken for such actions after 24 hours, in which case the actions should be shown to be accomplishable under severe accident conditions. If there are any actions that are relied upon, beyond what were described in the OIP, they should be spelled out.

Containment Ventilation Branch

Response – assumption 049-8 addresses FLEX actions associated with debris removal, communication, notifications, SFP level and makeup, security response, opening doors for cooling and plant condition assumptions applicable to FLEX. Assumption 049-8 will be revised to make this clarification. A plant specific NMP2 assumption will be added to the OIP to address the assumption that FLEX strategies will provide power to HCVS support instrumentation shown on Page 18 of the OIP

Plant Specific Assumption: “EA-12-049 (FLEX) actions to restore power are sufficient to ensure continuous operation of non-dedicated containment instrumentation shown on Page 18 of the OIP”

<u>Key Parameter</u>	<u>Component Identifier</u>	<u>Indication Location</u>
Drywell pressure	2CMS*PI2A 2CMS*PR2B	MCR
Suppression Chamber pressure	2CMS*PI7A 2CMS*PR7B	MCR
Suppression Pool level	2CMS*LI9A 2CMS*LR9B 2CMS*LI11A 2CMS*LI11B	MCR

Containment Ventilation Branch

Assumption 109-10 Permanent modifications installed per EA-12-049 are assumed implemented and may be credited for use in Order EA-13-109 response.

What are permanent modifications are being referenced here? In order to take credit, the OIP needs to list the specific modifications, for staff to review and concur

Containment Ventilation Branch

Response – This assumption addresses the fact that plant modifications will be made to support FLEX implementation that may not be reflected in plant design documents reviewed for the HCVS order, but the assumed plant configuration includes all of the modifications made under the FLEX order. These modifications will be part of the existing plant with the HCVS order is required to be completed. Assumption 109-10 will be revised to make this clarification

Where specific FLEX modifications will be used to support HCVS implementation, these relationships will be explained in the OIP. For the NMP2 OIP example, the only FLEX modification that will directly support the HCVS function is to allow a FLEX generator to be connected to a 600 volt safety related bus, and it is assumed to be installed such that a FLEX generator can be credited for HCVS operation beyond the initial 24 hour sustained operational period. The ability to use of this modification and equipment during severe accident conditions to support HCVS functions will be confirmed.

Plant Specific Assumption: “Modifications that allow a FLEX generator to be connected to a 600 volt safety related bus are assumed to have been installed such that a FLEX generator can be credited for HCVS operation beyond the initial 24 hour sustained operational period”

Containment Ventilation Branch

Reactor Building Track Bay – Is this a qualified seismic structure? Include a discussion in the OIP

Response – The adjoining Reactor Building and Standby Gas Treatment rooms are Seismic Category 1 structures. The Reactor Building Track Bay is not classified as such but was built to the same standards as the adjoining buildings. This will be described in the OIP

Containment Ventilation Branch

Vent Path and Discharge – Include a sketch (simplified, non-dimensional) to depict the vent routing and discharge.

Response – NMP2 requests clarification of what is being requested. A sketch of the proposed HCVS system is provided on Sketch 2 on page 37 of the OIP.

Containment Ventilation Branch

General Comment: Provide open items at the end of each discussion, number them consecutively and capture them all in one of the Attachments at the end, similar to what was done in Hatch OIP template.

Response – There are three Open Items identified on the table in Attachment 7 like the Hatch OIP. There are four other activities to be completed during detailed design that are not considered to be open items

Containment Ventilation Branch

There is no condensation drain valve in NMP-2 vent line as in Hatch. Why is it not necessary?

Response – The NMP2 proposed HCVS design does include a condensate drain valve outside the Reactor Building. The purpose of this drain is to remove condensate downstream of the PCV at the piping low point. The HCVS piping is also sloped so that condensate in the system will drain back to the containment during operation.

I&C Branch

The 2nd last paragraph on page 17 states HCVS instrumentation accuracy qualifications need only be “gross values”, and yet the discussion at our previous meeting was the sites would select instruments of an easy procurement plant level quality. What would be a way to state the level of accuracy, which is best for the transmitter’s function and reflects the discussion?

Response – The instrument accuracy, in terms of % of full scale, will be defined during detailed design and will be available during the HCVS implementation audit. The % accuracy will be commensurate with similar instrumentation in similar applications for the plant (pressure, temperature and radiation). The radiation monitor accuracy may vary over the range of the instrument and % accuracy is not expected to be the same as it will be for pressure and temperature. HCVS instrumentation is for indication only and will not provide system control functions.

I&C Branch

On page 18 will the criteria for intrinsic safe barriers be added to the I&C table and show manufacture with specifications?

Response – new instrumentation installed for the HCVS Order will be procured as intrinsically safe. This will be added to the NMP2 OIP.

I&C Branch

Is this a cycle time typo between pages 15,(1), which says “twelve” and page 24,(i), which states “13?”

Response – NMP2 HCVS design is for at least 12 vent cycles in the first 24 hours.

I&C Branch

The first sentence on the last paragraph of page 20 needs some clarity, and possibly answer what the instrument requires after a potential seismic event. Can this sentence be improved?

Response – Proposed revised wording: “For the HCVS instruments that are required after a potential seismic event, the following methods will be used to verify that the design and installation is reliable / rugged and thus capable of ensuring HCVS functionality following a seismic event. “

I&C Branch

What instrument details will be provided for the “List instrumentation credited for the HCVS Actions?”

Response – location of instrument display, parameter being monitored and component identifier (when established during detailed design). It is not intended that instrument loop diagrams will be provided in the OIP. There is really no instrument loop since this is not a control system but a manual action system. The instrument string includes sensor, transmitter and indicator.

I&C Branch

Will all of the HCVS instrumentation component identifier's be included on page 41, Sketch 2.

Response – HCVS instrument component identifiers will be established later in the design process and included on plant P&ID drawings. They will be included on OIP Sketch 2 if available at the time of OIP submittal on June 30, 2014.

I&C Branch

Follow up: would the I&C functional loop design description of the design be provided separately from the operation of the HCVS, ERGO: Table 2-1 “HCVS Remote Manual Actions.”

Response – HCVS instrument loop diagrams will not be provided as part of the OIP. All HCVS instruments are indication only (e.g., pressure, temperature, radiation) and do not provide system control functions (e.g., alarms or valve modulating control). A functional diagram for how HCVS valves operate is provided on sketch 2. There is really no instrument loop since this is not a control system but a manual action system. The instrument string includes a sensor, transmitter and indicator.