FINDING/SUGGESTION (F&O)			ACCEPTABLE TO STAFF VIA		
			Review of FNP Plant Disposition (A/B/C)	RAI Response	
InEv	Fire	ID		Not Discussed in SE	Discussed in SE
x		IE-A5	A		
x		IE-A7		See PRA-RAI-26(a) in 9/16/13 response. The licensee indicates that this was indeed more than just a documentation issue in that the internal events PRA was modified to reflect removal of two reactor trip events that occurred at zero power as inapplicable to the at-power PRA. While there is no effect on the Fire PRA, the removal of these events is appropriately reflected in the total plant CDF, which is the acceptable approach.	
x		IE-A9	A		
x		IE-A10	B		
x		IE-B1	A		
x		IE-C1	A		
x		IE-C5	A		
x		IE-C15	A		
x		IE-D1	C		
x		AS-C2	C		
x		SC-A2		See PRA-RAI-26(b) in 9/16/13 response. The licensee clarifies that the F&O was specific to an internal events medium LOCA which exceeds the maximum medium LOCA break size that can be fire induced. Therefore, the change in the success criteria discussed in the F&O does not affect the Fire PRA. Further, the licensee confirmed that, for fire scenarios including fire-induced LOCA, any combination of fire-induced single component failures and or common-cause failures are correctly incorporated and propagated through the fault tree analysis. This licensee approach is correct and, therefore, acceptable.	
x		SC-A5	A		
x		SC-B3	A		
x		SC-B5	C		

FINDING/SUGGESTION (F&O)			ACCEPTABLE TO STAFF VIA		
			Review of FNP Plant Disposition (A/B/C)	RAI Response	
InEv	Fire	ID		Not Discussed in SE	Discussed in SE
x		SY-A8		See PRA-RAI-26(c) in 9/16/13 response. The licensee explains that cable selection and circuit analysis for a diesel generator are performed separately for diesel generator constituent components, particularly the Fuel Oil Transfer Pumps and Load Sequencer, i.e., cable failures are mapped to distinct basic events for these sub-components. A global "super-component" is not modeled. This is acceptable because the approach assures that cable failures related to sub-components of the diesel generator will trigger fire-induced sequences in the Fire PRA.	
x		SY-A9	C		
x		SY-A23	C		
x		SY-B6	C		
x		SY-C1	C		
x		HR-D2		See PRA-RAI-26(d) in 9/16/13 response. The licensee clarifies that any "very low: screening criteria for internal events HFEs were applied only to pre-initiator operator actions, none of which are affected by fire. Post-initiator HFEs were subjected to their own unique screening criteria in the Fire PRA, so any screening criteria applied to these in the internal events PRA were not repeated. This is acceptable as the licensee confirms no HFEs potentially relevant to the Fire PRA were inadvertently screened out.	
x		HR-G1	A		
x		HR-G7		See PRA-RAI-26(e) in 10/30/13 response. The licensee indicates that the dependency analysis performed for fire HFEs was, in general, consistent with the methods of NUREG-1921. Some clarifications and enhancements to the nodal definitions of the EPRI HRA Calculator's version of NUREG -1921, Figure 6-1, were made. Since NUREG-1921 cites Figure 6-1 as "one approach to assigning a level of dependency," it allows for changes. The licensee response indicates that the latest guidance on HRA dependency per NUREG-1921 was, in general, followed; thus the response is acceptable.	

FINDING/SUGGESTION (F&O)			ACCEPTABLE TO STAFF VIA		
			Review of FNP Plant Disposition (A/B/C)	RAI Response	
InEv	Fire	ID		Not Discussed in SE	Discussed in SE
x		HR-I3	C		
x		DA-C14	A		
x		IFPP-B2	C		
x		IFSN-A2	C		
x		IFSN-A4	C		
x		IFSN-B3	C		
x		IFEV-B3	C		
x		IFQU-A6	C		
x		IFQU-A7	C		
x		IFQU-A11	C		
x		IFQU-B3	C		
x		QU-F1	C		
x		QU-F4	C		
x		LE-C2	A		
x		LE-C9	A		
x		LE-C11	A		
x		LE-C12	A		
x		MU-B4	C		
	x	CS-B1	A		
	x	FQ-A3		See PRA-01(b), (f) and (h) in 11/12/13 response. For (b), the licensee indicates that removal of credit for VEWFDS in the MCR will be evaluated in conjunction with additional refinements for fire risk and delta-risk associated with MCB fires, as per App. L of NUREG/CR-6850. Since this is an accepted method, the response is acceptable. For (f), conservative assumptions that the total location risk equaled the delta-risk, including setting the CLERP to the CCDP, resulted in CDF = LERF and delta-CDF = delta-LERF. Re-analysis using App. L of NUREG/CR-6850, an accepted method, in lieu of crediting VEWFDS in the MCR, plus a revised method for estimating CCDP for MCR abandonment, will result in CDF differing	See PRA-RAI-01, 01(a) and 01.01

FINDING/SUGGESTION (F&O)			ACCEPTABLE TO STAFF VIA		
			Review of FNP Plant Disposition (A/B/C)	RAI Response	
InEv	Fire	ID		Not Discussed in SE	Discussed in SE
				from LERF. Since the licensee clarified that conservative assumptions were employed when equating LERF and delta-LERF to their CDF counterparts, and employs an accepted method in its re-analysis for MRC abandonment, the response is acceptable. For (h), the licensee explains that the NSP of 0.02 arose from crediting VEWFDS in the MCR as if FAQ 46 applied. The 0.1 value is an assumed value for continuous occupation. MCR fire scenarios will be re-evaluated using App. L of NUREG/CR-6850, an accepted method. Since this re-evaluation will include revised NSPs, the licensee response is acceptable.	
	x	FQ-C1	A		
	x	FQ-F1	A		
	x	FQ-D1			See PRA-RAI-28(a)
	x	FQ-E1	A		
	x	FSS-A2		See PRA-28(b) in 9/16/13 response. The licensee clarifies that no targets outside the fire compartment for full room burnout were excluded during the MCA. If no barrier were present, “failure” (spread of fire effects) at probability = 1.0 was assumed. Otherwise, appropriate barrier failure probabilities from NUREG/CR-6850 were employed. Also, full room burnout was modeled for rooms where the adjacent “room” was open to the initial one, including direct effects from fires in one room on targets in the other. This ensures proper treatment of fire spread to adjacent rooms, the acceptable approach.	
	x	FSS-B2	B		
	x	FSS-C1	B		
	x	FSS-C2			See PRA-RAI-28(c)
	x	FSS-D1	B		
	x	FSS-D7			See PRA-RAI-28(d)
	x	FSS-D8			See PRA-RAI-28(e)
	x	FSS-E3			See PRA-RAI-28(f)

FINDING/SUGGESTION (F&O)			ACCEPTABLE TO STAFF VIA		
			Review of FNP Plant Disposition (A/B/C)	RAI Response	
InEv	Fire	ID		Not Discussed in SE	Discussed in SE
	x	FSS-F1	B		
	x	FSS-G6	A		
	x	FSS-H1	A		
	x	FSS-H5			See PRA-RAI-28(g)
	x	IGN-A7		See PRA-28(h/i) in 11/12/13 response. The licensee explains that the F&O relates only to Ignition Bin 15 fire sources, of which there are 1472 “electrical equivalent units” (EEUs) identified. Addition of a small number of EEUs solely for apportioning the frequency, i.e., not as additional fire sources, will minimally impact the frequency estimates for the Bin. The licensee further confirmed that only Bin 15 was affected, i.e., not medium voltage switchgear for which only HEAF ignition frequencies would be applicable. Since the licensee evaluated the effect from the potential non-conservatism and found it to be minimal, this response is acceptable.	
	x	IGN-A9	A		
	x	PP-B3	A		
	x	PP-C3	A		
	X	PRM-B2	A		
	x	PRM-C1	A		
	x	UNC-A1	B		

A: The staff finds that the disposition of the F&O as described by the licensee in the LAR provides confidence that the issues raised by the F&O have been addressed and, if needed, the PRA has been modified, and therefore the resolution of the F&O is acceptable for this application.

B: The staff finds that the disposition of the F&O as described by the licensee in the LAR and further clarified during the audit provides confidence that the issues raised by the F&O have been addressed and, if needed, the PRA has been modified, and therefore the resolution of the F&O is acceptable for this application.

C: The staff finds that the resolution of the F&O would have a negligible effect on the evaluations relied upon to support fire risk evaluations and has no impact on the conclusions of the risk assessment and therefore the resolution of the F&O is acceptable for this application. Examples of such F&Os may be suggestions, as well as those F&Os that don't affect the fire PRA. Documentation issues may fall into this category as well.