

FAQ Number 08-0052 FAQ Revision 0

FAQ Title Transient Fire Growth Rate and Control Room Non-Suppression

Plant: ABWR Date: May 13, 2008

Contact: Dennis Henneke Phone: (910) 675-6780

Email: Dennis.Henneke@ge.com

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805 TF FPWG RATF RIRWG BWROG PWROG

Purpose of FAQ:

The purpose of this FAQ is to provide additional guidance on the fire growth rate for transient fires within the plant and the treatment of transient fires within the control room.

Is this Interpretation of guidance? Yes / No

Proposed new guidance not in NEI 04-02? Yes / No

Details:

NEI 04-02 guidance needing interpretation (include section, paragraph, and line numbers as applicable):

N/A

Circumstances requiring guidance interpretation or new guidance:

Lessons have been learned from pilot review of the Fire PRA Standard indicates confusing guidance within NUREG/CR-6850 (EPRI TR-1011989) on the treatment of transient fires, including the growth rate and the estimation for suppression within the control room.

Detail contentious points if licensee and NRC have not reached consensus on the facts and circumstances:

None.

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Potentially relevant existing FAQ numbers

Response Section:

Proposed resolution of FAQ and the basis for the proposal:

NUREG/CR-6850, including Appendix G, does not provide an estimate for the fire growth rate for transient fires assumed to occur within the plant. Many PRAs are using 2-3 minute growth times (ignition to peak HRR), which is extremely conservative based on testing and actual transient fires.

It is recommended that the growth time for transient fires in the FPRA be estimated from NUREG/CR-4680, figure 11a (small trash can fire). Based on this figure, the HRR reaches its peak at around 6 minutes.

Additionally, there is no guidance in NUREG/CR-6850 regarding non-suppression for transient fires in the control room. Application of the general transient fire non-suppression curve would not be accurate, since the control room is occupied 100% of the time. Therefore, transient fires assumed in the control room should have the control room non-suppression curve from NUREG/Cr-6850 applied.

If appropriate, provide proposed rewording of guidance for inclusion in the next

Revision:

Revised NEI 04-02 per the above guidance.