

## **NRR-PMDAPEm Resource**

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**From:** Paige, Jason  
**Sent:** Thursday, August 01, 2013 3:03 PM  
**To:** Hentz, Lee A (Lee.Hentz@duke-energy.com)  
**Cc:** Robertson, Jeffrey N (Jeffrey.Robertson@duke-energy.com); Vu, Phong T (Phong.Vu@duke-energy.com)  
**Subject:** Request for Additional Information - McGuire Units 1 and 2 - License Amendment Request RE Atmospheric Relative Concentration Values for Use in Control Room Envelop Radiological Dose Analysis (ME9716 and ME9717)

Lee,

By application dated September 25, 2012, Duke Energy submitted a License Amendment Request (LAR) for the McGuire Nuclear Station, Units 1 and 2 (McGuire). The proposed LAR provides selected atmospheric relative concentration values for use in control room radiological dose analysis that were withdrawn during McGuire's request for full scope implementation of the Alternate Source Term (AST). McGuire received U. S. Nuclear Regulatory Commission (NRC) approval for full scope implementation of the AST on March 31, 2009.

The NRC staff has reviewed the licensee's submittal and determined that additional information is needed in order to complete our review. On August 1, 2013, the NRC staff and Duke Energy discussed the draft RAI to gain a common understanding of the question. The below RAI reflects the question discussed during the August 1, 2013, call. Duke Energy agreed upon providing its responses within 30 days of the date of this email. If you have any questions, feel free to contact me.

1. The first two paragraphs of the "Duke Response" on Page 10 of Attachment 1 to the Duke February 12, 2009, response to a request for additional information (ML090540682) concerning a prior licensing action state that the control room air intakes/inlets are 3.6 meters above plant grade and that the source/release heights were supplied to the ARCON96 computer code with respect to their height above plant grade. The third paragraph states that "[t]he receptor/inlets are 1.5 meters above the roof of the Auxiliary Building. The Auxiliary Building roof is represented in ARCON96 as the base elevation of the receptor/intake, because, the intakes protrude above the roof in a 'candy-cane' shape, with the inlets hooked over to face downward." Source and receptor heights are typically based on plant grade, but in this case the source heights were based on plant grade and the receptor heights were evidently based on the Auxiliary Building roof.

With regard to the current, September 25, 2012, McGuire license amendment request (ML12272A343), are the base elevation(s) of the release heights listed in Table 1 of Attachment 1, and Table 1.b-1 of Attachment 1 to the June 12, 2013, response to a request for additional information (ML13165A321), based on plant grade, the height of the Auxiliary Building roof, or on some other elevation(s)? Please confirm that the receptor heights are based on the Auxiliary Building roof.

**Jason Paige**, Catawba and McGuire Project Manager  
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Office of Nuclear Reactor Regulation  
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**From:** Paige, Jason

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Tracking Status: None

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