## GEHitachiUELAPEm Resource

**From:** Davis (FSME), Jennifer
**Sent:** Wednesday, November 25, 2009 3:24 PM
**To:** GEHitachiHrgFile Resource
**Subject:** FW: Question about GLE RAI submittal (ambient radiation)
**Attachments:** att4f91c.gif

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**From:** Davis (FSME), Jennifer
**Sent:** Wednesday, November 25, 2009 3:24 PM
**To:** 'Olivier, Julie A (GE Infra, Energy)'
**Subject:** FW: Question about GLE RAI submittal (ambient radiation)

Hi Julie,

One of the ANL reviewers has a question regarding your submittal discussing ambient radiation. I will be back in the office on Monday, November 30th.

Thank you,

Jennifer

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**From:** Fischer, Karl W. [mailto:kfischer@anl.gov]
**Sent:** Tuesday, November 24, 2009 4:12 PM
**To:** Davis (FSME), Jennifer
**Cc:** Avci, Halil I.; Kamboj, Sunita
**Subject:** Question about GLE RAI submittal (ambient radiation)

Jennifer,

In her analysis of the RAI responses, Sunita Kamboj has noted a potential discrepancy in Table 3.1 (A-6). Unlike the other five tables of ambient air measurements in the RAI response (and similar tables in the ER), the concentrations of U-235 and U-238 exceed the associated gross alpha values (see below). Since these two radionuclides are components of gross alpha, one would expect gross alpha to be higher. Furthermore, the magnitude of the values is significantly higher than in previous years (as well as the other tables). Perhaps the data were simply entered incorrectly, but we'd like to request clarification from GLE as soon as possible.

Thank you,

Karl W. Fischer, M.Eng., CHP
Radiological Health Risk Section
Environmental Science Division
Argonne National Laboratory
(630) 252-8650
kfischer@anl.gov

*Table 3.1(A-6). Onsite Air Quality Measurements Northeast of FET (AAFE)*

| Year | Gross Alpha ($x\ 10^{-15}$ µCi/cc) | | U-234 ($x\ 10^{-15}$ µCi/cc) | | U-235 ($x\ 10^{-15}$ µCi/cc) | | U-238 ($x\ 10^{-15}$ µCi/cc) | |
|---|---|---|---|---|---|---|---|---|
| | Ave | Max | Ave | Max | Ave | Max | Ave | Max |
| 2005 | 3.8 | 9.7 | 0.06 | 0.10 | 0.9 | 12 | 19 | 250 |
| 2006 | 2.9 | 6.4 | 0.02 | 0.02 | 9.8 | 44 | 23. | 120 |
| 2007 | 9.9 | 5.4 | 0.07 | 0.08 | <0.01 | 0.01 | 0.07 | 0.2 |
| 2008 | 2.5 | 6.0 | 0.06 | 0.08 | 6.1 | 24 | 15 | 60.0 |

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**Subject:** FW: Question about GLE RAI submittal (ambient radiation)
**Sent Date:** 11/25/2009 3:24:27 PM
**Received Date:** 11/25/2009 3:24:29 PM
**From:** Davis (FSME), Jennifer

**Created By:** Jennifer.Davis@nrc.gov

**Recipients:**
"GEHitachiHrgFile Resource" <GEHitachiHrgFile.Resource@nrc.gov>
Tracking Status: None

**Post Office:** HQCLSTR01.nrc.gov

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*Table 3.1(A-6). Onsite Air Quality Measurements Northeast of FET (AAFE)*

| Year | Gross Alpha ($x\ 10^{-15}$ µCi/cc) | | U-234 ($x\ 10^{-15}$ µCi/cc) | | U-235 ($x\ 10^{-15}$ µCi/cc) | | U-238 ($x\ 10^{-15}$ µCi/cc) | |
|---|---|---|---|---|---|---|---|---|
| | Ave | Max | Ave | Max | Ave | Max | Ave | Max |
| 2005 | 3.8 | 9.7 | 0.06 | 0.10 | 0.9 | 12 | 19 | 250 |
| 2006 | 2.9 | 6.4 | 0.02 | 0.02 | 9.8 | 44 | 23. | 120 |
| 2007 | 9.9 | 5.4 | 0.07 | 0.08 | <0.01 | 0.01 | 0.07 | 0.2 |
| 2008 | 2.5 | 6.0 | 0.06 | 0.08 | 6.1 | 24 | 15 | 60.0 |