License Renewal Issues – Timely Responses to RAIs in an Environment Limited by the FAR and other challenges

27 March 2012

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Brief History

- ***First criticality in August 1962, licensed power 10kW.***
- ***Second license issued in August, 1984.***
- ***Current license renewal package submitted July 2004 for timely renewal.***
- ***To date, The AFRRI TRIGA has logged 50 years of safe and incident free operations.***

License Renewal Timeline

- ***August, 2005 - NRC/BNL visit AFRRI to discuss first round of 95 RAIs. All but 7 are answered verbally on the spot.***
- ***June, 2010 – 4 RAIs arrive with financial qualification questions. A full financial statement is prepared and submitted.***

License Renewal Timeline

- ***July 2010 - First round of 41 RAIs under focused review process.***
- ***Sept 2010 – Three of the original RAIs require modeling assistance from GA. The budget year is closed out, and no avenue to get funding until the next FY (October).***

License Renewal Timeline

- ***A budget was not approved in FY11. The entire year was handled under a CRA. No funding available to address the remaining 3 RAIs.***
- ***With the arrival of the Institute budget on 8 March 2012, the contracting process can commence to address the last three RAIs. Hopefully this will complete the process.***

Current Status

- ***To date, 143 RAIs have been exchanged. Some as simple as "are you government owned", many are multi part and require sophisticated modeling.***
- ***The estimated total cost of renewing the AFRRI license is in excess of $1M, excluding the cost to NRC.***

Current Status

- ***Estimated completion by the end of FY12***

The AFRRI Experience

- ***I personally have been involved in two relicensing activities for license R-84 over 30 years.***
- ***The first spanned 4 years, the license was issued in 1984.***
- ***The current effort began with timely renewal in 2004. The effort under the focused review process began June, 2010.***

The AFRRI Experience

- ***Without exception, all NRC staff and contractors involved were professional, helpful, and reasonable.***
- ***The NRC staff was always flexible and willing to discuss timelines for RAI responses.***

Discussion

- ***The Atomic Energy Act (as amended) stipulates that "the Commission shall impose the minimum amount of such regulations and terms of license as will permit the Commission to fulfill its obligations under this Act to promote the common defense and security and to protect the health and safety of the public"***

Discussion

- ***NUREG 1537 part 1, CH 13.1.1 states that for a TRIGA the MHA is a fuel element cladding failure in air after sustained continuous operations.***
- ***The analysis demonstrates that the resulting hypothetical release falls within part 20 public release constraints.***

Discussion

- ***Question: Once the licensee demonstrates that the reactor does not pose a risk to the heath and safety of the public, what is the benefit provided to the public by the expenditure of $1M to answer the additional 142 RAIs?***

Discussion

- ***Are the analyses that predict the safety margin more exact than the empirical data collected and published during destructive testing done in the 60's?***
- ***The analyzed safety margins provide no greater level of safety beyond what was determined 50 years ago.***

Discussion

- ***Is there a more efficient way to renew the RTR licenses?***