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September 21, 2005

TO: Nuclear Regulatory Commission Document Control Desk
US. Nuclear Regulatory Commission
Washington, DC 20555

RE: PULSTAR Nuclear Reactor License Amendment; Receive, Possess and Use of Byproduct
Materials.

License No. R-120
Docket No. 50-297

North Carolina State University is requesting that the license for the PULSTAR Nuclear Reactor be amended to allow for the receipt, possession and use of byproduct material to support the research and development applications of the facility by adding the following condition:

Section 2.b.(4)


"Pursuant of the Act and 10 CFR Part 30, "Rules of General Applicability to Domestic Licensing of Byproduct Material," to receive for irradiation in the reactor in the amounts as required any byproduct material without restriction to chemical or physical form having a definite research and development purpose."

The purpose of condition 2.b.4 is to allow the PULSTAR Reactor to receive byproduct material for irradiation that have definite research and development purposes under the reactor license and not other licenses held by the University. This will ensure that all material to be inserted into the reactor is covered by the reactor license and that intermingling of radioactive material across multiple licenses is avoided.

Licensing guidance in support for this amendment is contained in NUREG-1537 (1996) *Guidelines for Preparing and Reviewing Applications for the Licensing of Non-Power Reactors*. Specific guidance on the possession and use of byproduct, source and special nuclear material is contained in Section 9.5, *Possession and Use of Byproduct, Source and Special Nuclear Material* and Appendix 9.2 *License Condition for Byproduct Material to be Irradiated in a Non-Power Reactor*.

If you have any question please feel free to call me at (919) 515-4602.

I declare under penalty of perjury that the foregoing is true and correct. Executed on 21 September 2005.


Andrew T Cook
Associate Director, Nuclear Reactor Program

cc: Daniel Hughes, US NRC

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