

**From:** [Boyle, Patrick](#)  
**To:** [Boyle, Patrick](#)  
**Subject:** revised wording for proposed TS 5.3  
**Date:** Friday, October 14, 2016 7:19:11 AM

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**From:** Sean M. McDeavitt [mailto:mcdeavitt@tamu.edu]  
**Sent:** Thursday, October 13, 2016 7:25 PM  
**To:** Boyle, Patrick <Patrick.Boyle@nrc.gov>; rich@renuke.com; John Stang <jamjz@comcast.net>  
**Cc:** Osborn, Jeremy M <jeremyosborn11@tamu.edu>; Newhouse, Jerry E <newhouse@tamu.edu>; Adams, Alexander <Alexander.Adams@nrc.gov>  
**Subject:** [External\_Sender] RE: revised wording for proposed TS 5.3

Patrick,

I have reviewed your comments from your email today concerning the AGN-201M Technical Special (TS) Section 5.3. I have discussed it with my staff and we agree with, accept, and affirm the required changes. I have attached an updated version of TS page 15 for your use in finalizing this document. Please proceed accordingly.

Oath of Affirmation

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sean M. McDeavitt  
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- c. The core, reflector, and lead shielding are enclosed in and supported by a fluid-tight steel reactor tank. An upper or "thermal column tank" may serve as a shield tank when filled with water or a thermal column when filled with graphite.
- d. The 6 ½ foot diameter, fluid-tight shield tank is filled with water constituting a 55 cm thick fast neutron shield. The fast neutron shield is formed by filling the tank with approximately 1000 gallons of water. The complete reactor shield shall limit doses to operating personnel in unrestricted areas to levels less than permitted by 10 CFR 20 under operating conditions.
- e. Two safety rods and one control rod (identical in size) contain less than 15

grams of U 235 each in the same form as the core material. These rods are lifted into the core by electromagnets, driven by reversible DC motors through lead screw assemblies. Deenergizing the magnets causes a spring-driven, gravity-assisted scram. The fourth rod or fine control rod (approximately one-half the diameter of the other rods) is driven directly by a lead screw. This rod may contain fueled or unfueled polyethylene.

## 5.2 Fuel Storage

Fuel, including fueled experiments and fuel devices not in the reactor, shall be stored in locked rooms in the nuclear engineering department laboratories. The storage array shall be such that  $K_{\text{eff}}$  is no greater than 0.8 for all conditions of moderation and reflection.

## 5.3 AGN-201M Reactor and Associated Components Storage Locations

The AGN-201M reactor and associated components shall be stored in either of the following locations:

- Zachry Engineering Center
  - Reactor Room
  - Control Room
  - Accelerator Room
- Texas A&M Engineering Experiment Station Nuclear Science Center Facility
  - Accelerator Building
  - Cargo Container

## 6.0 ADMINISTRATIVE CONTROLS

### 6.1 Organization

The administrative organization for control of the reactor facility and its operation shall be as set forth in Figure 1 attached hereto. The authorities and responsibilities set forth below are designed to comply with the intent and requirements for administrative controls of the reactor facility as set forth by the Nuclear Regulatory Commission.