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To: Rulemakings and Adjudications Staff

OFFICE OF SECRETARY  
RULEMAKINGS AND  
ADJUDICATIONS STAFF

Regarding: Proposed 10 CFR Part 73 Rulemaking (NRC-2008-0619)

The Penn State Breazeale Reactor (PSBR) would like to provide input on the proposed 10 CFR Part 73 Rulemaking (NRC-2008-0619) as published in the Federal Register Vol. 75 No.138 - Tuesday, July 20, 2010.

As stated in our previous comments on the proposed 10 CFR Part 73 Rule (as published in the Federal Register Vol. 74 No. 7- Tuesday, April 14 2009), PSBR finds the existing security orders as implemented and inspected at our facilities workable and acceptable to codify. The National Organization of Test, Research, and Training Reactors (TRTR) provided that feedback along with concern that any codification reflect the existing orders.

In review of the wording of the July 20, 2010 publication, we find that many of the proposed changes meet the principle of codifying the existing orders. Additionally, paralleling some processes - such as clearance sharing - with the power reactor based regulation simplifies the process at the NRC and has benefit to PSBR and the TRTR membership.

However, the proposed wording also expands the existing orders without adequate justification of risk or citing a statutory basis which requires the expansion. Therefore portions of the proposed rule are not in keeping with the Atomic Energy Act (AEA) Section 104(c) and publically stated NRC philosophy of risk-informed regulation.

Of particular concern is the removal of "public health and safety" and "common defense and security" significance from the requirements for protection of special nuclear material (SNM). These concepts were in the security orders and are the basis for authority in the AEA. Also of concern is the addition of the "Vital Area" philosophy which the NRC states in the discussion section, may require a "significant amount of interpretation" and "clear documentation" on the part of licensees. . These two items may represent a significant burden on the PSBR and the "risk-informed" basis is not supplied.

Attached are more detailed comments for consideration, some suggested improvements, and feedback on the topic of further codifying background investigations.

We appreciate the opportunity to provide comment on this important proposal.

Please feel free to contact me with questions.

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**Comment 73.57(g)(2)(ii)**

The original orders implemented security enhancements (fingerprinting and background checks) to protect special nuclear material (SNM) materials of “*significance to the common defense and security or would adversely affect the health and safety of the public*”. The proposed rule section 73.57(g)(2)(ii) removes this risk assessment and requires fingerprinting and background checks to protect any/all SNM regardless of significance to defense, security or affect on public health and safety.

**Impact**

Existing RTR Physical Security Plans and or procedures provide protection guidance for SNM that varies with its significance and effect on public health consistent with existing regulations and orders. Plans and procedures will have to be re-written to protect all material at the same levels without regard to significance. Access to research facilities will be further restricted and additional financial burden incurred without an increase in public health and safety.

**Example**

A single fission foil moved to a laboratory for sample preparation would require control at the “unescorted access” level since any individual who had “knowledge” that it was there could “remove” it. This was likely not the intent of the rule authors. While existing procedures require accounting and control, there is no common defense or public health affect risk presented by this material to warrant background check and fingerprinting. Removal of this material would be treated as a theft of SNM and would be dealt with by applicable procedure and regulation.

**Comment 73.57(g)(2)(ii)**

The original orders implemented security enhancements (fingerprinting and background checks) to prevent unauthorized use or removal of significant SNM (see above) “*without detection, assessment or response by systems or persons*”. The proposed rule removes this detection and response concept and requires fingerprinting and background checks for individuals who are granted access to an “area” regardless of whether such access would allow unauthorized use or removal without detection, assessment or response. The removal of the “*detection, assessment or response....*” is not consistent with the background discussion of the issue (FR 42003) which states the rule would make use of this clause and flexibility.

**Recommended Solution**

Insert the original order wording into section 73.57(g)(2)(ii)

(ii) Unescorted access to special nuclear material, *which would be of significance to the common defense and security or would adversely affect the health and safety of the public* in the nonpower reactor facility provided the individual who is seeking or permitted unescorted access possesses the capability and knowledge to make unauthorized use of the special nuclear material in the nonpower reactor facility or to remove the special nuclear material from the nonpower reactor in an unauthorized manner *without detection, assessment, or response by systems or persons designated to detect, assess or respond to such unauthorized use or removal.*

**Comment 73.57(g)(2)(i)**

The proposed rule adds a new requirement to establish, define and control unescorted access to “vital areas” defined per section 73.2. The need for this additional regulation was not adequately justified in the proposed rule basis when it stated the new rule uses definitions that “*already apply to all provisions within 10CFR Part 73 and accordingly apply to RTR licensees whose security requirements are governed by 10CFR Part 73.....the AEA is properly implemented in the NRC’s regulations.*”

Furthermore the basis for the section indicates a significant burden on for licensees when it states “*....that implementation of this proposed revision may involve a significant amount of interpretation on the part of RTR licensees, the NRC expects that RTR licensees would have clear documentation to support their decisions.*” (FR 42008) Stating that the AEA Section 149 provides the Commission authority to establish regulation (for fingerprinting and criminal history checks) does not in itself justify the need for specific regulatory expansion. By stated policy and statute the NRC seeks, wherever possible, to establish “risk-informed regulation” and to “impose only such minimum amount of regulation.” This new regulation does not seem in keeping with those goals.

**Impact**

Existing RTR Physical Security Plans and or procedures provide guidance to protect SNM that varies with its significance and affect on public health consistent with existing regulations and orders. Plans and procedures will have to be re-written to define areas which contain systems or material which if destroyed “*could directly or indirectly endanger the public health and safety by exposure to radiation.*” Implicit in this definition - which was designed for power plants - is a source term that is hazardous to public. Design basis accident safety analysis for all but the highest power RTRs show that a source term that would endanger the public with a credible dispersion mechanism does not exist. The NRC confirmed this in response to the GAO Report on RTR Security. As such, few facilities rely on mitigation systems to reduce release levels during a maximum hypothetical accident. However, implicit in the definition of vital area and the basis is the requirement to perform an analysis in order to provide “*clear documentation*” that destruction of some or all “material” or systems in an area cannot directly or indirectly endanger the public. This is in essence an analysis of a new design basis event. The other, and perhaps only practical, choice for RTRs is to default to declaring any area with material or mitigation systems in them to be vital areas and further restricting access at RTR facilities.

**Recommended Solution**

Remove the requirement for RTRs to evaluate for “vital areas” as currently defined in section 73.2 for power reactors. Maintain the current definitions for unescorted access placed by the security order and defended by the staff as acceptable or adequately justify through analysis the need for additional regulation of “*vital areas*”.

### **Comment 73.57(b)(2)(i)**

Part 73.57(2)(i) appears subordinate and redundant to 10CFR 73.61. Part 10 CFR73.61 should be updated and referenced as opposed to adding new exceptions in the Part 73.57 and not referenced.

### **Comment**

In public meetings, stakeholders have requested relief from the requirement that the only basis for unescorted access is fingerprints submitted through the NRC to the Attorney General; instead allowing for other mechanisms to achieve the same end of providing criminal history check from the FBI. The NRC has previously stated that this is required by AEA Section 149. While Section 149.a does mandate this mechanism, Section 149.b states "*The Commission, by rule, may relieve persons from the obligations imposed by this section, under specified terms conditions and periods if the commission finds that such action is consistent with its obligations to promote the common defense and security and to protect the health and safety of the public.*" The NRC has made use of this exception in the proposed Part 73.57(b)(2)(i) and in existing Part 73.61. Therefore the mechanism for relief is within the statute, with the basis that the action (fingerprint and criminal history checks by other mechanisms) is equivalent to Section 149.a and therefore "*consistent with its (the NRC's) obligations to promote the common defense and security and to protect the health and safety of the public.*"

### **Process comment**

The essence of these comments was contained in previous stakeholder input and was not fully addressed. The proposed rule does not justify the expansion of requirements based on risk (risk informed) or performance issues (performance based) and therefore does not meet the staff's publicly stated basis for expanding regulatory requirements. Additionally the expansion of the requirements in the proposed rule run counter to previously issued NRC documents assessing the risk and security of RTRs operated under the existing security orders and the cited AEA Section 104.c provision on minimum regulation.

### **General Comment Readability**

10 CFR Part 73 is a complicated part with many facets that dictate stringent requirements on Nuclear Power Plants (NPP). Portions of the regulation are applicable to Research and Test Reactors (RTR). It is a difficult part to navigate and determine applicability. Adding more sections to this rule, using the definitions section of the part and using legalistic language does not (in our opinion) meet the intent of Presidential Direction on "Plain Language in Government Writing" or assist the Commission on meeting the Atomic Energy Act (AEA) direction on minimal regulation of RTRs.

Some improvements that could easily be incorporated include:

- A clear applicability statement (73.57(a)(1)). This section currently says (in essence) that 73.57 is applicable to all licensees engaged in any activity subject to Commission regulation. This does not seem correct and does not promote ease of use of the regulation.
- Clear applicability for each paragraph section.
- Shorter sentences and or bulleted lists to simplify paragraphs.
- Less use of references to other sections and/or short description of the section (example 73.2 (Definitions) or 73.61 (Relief from Fingerprinting)).

## **Comment**

The NRC response to a comment requesting to waive fees states that AEA Section 149 “explicitly require” fees be collected and “the NRC does not have authority to waive the fee.” (FR42003) AEA Section 149.a “states the costs of any identification and records checks” - implying those of the Attorney General office – be paid by the licensee or applicant. AEA Section 149.d also states “the Commission **MAY** establish and collect fees to process fingerprints and criminal history checks”, it does not require it. The AEA Chapter 4 also directs the Commission “to exercise its powers in a manner to....insure the continued conduct of ....activities at support research facilities.....” Therefore waiver of any additional NRC administrative cost in 57(d)(3)(ii) for RTR institutions will promote both the implementation of the proposed rule and the intent of AEA Chapter 4.

## **Request for stakeholder feedback on additional topics - (paraphrased)**

### **A. - Implementation of 73.57**

1. *Is 120 days adequate time for implementation of the new rule following publication?*
  - 120 day is sufficient time provided that individual licensees may request extension based on other activities and limited staff resources.
2. *Are there other newly issued NRC regulations that have an aggregate impact to implement 73.57?*
  - Proposed rule for 10CFR37 will impact our ability to implement 73.57 as the same process and procedures are impacted by both rules. The actual impact of Part 37 (as with the final Part 73.57) is unknown as the rule is in draft.
3. *Are there other aggregate impacts? When is a good time to implement?*
  - We have identified no specific aggregate impact. If implemented as worded, multiple areas will be declared vital areas, facility access will be further restricted, SNM of no significance will be removed from temporary storage areas and moved into the Vital CAA areas and research/education activities using these materials will be halted if necessary to comply with the regulation until suitable protections can be evaluated, and clear documentation established. The NRC should ensure that regulatory discretion remains for individual licensees when implementing the new rule.

B. - Background Investigation Requirements (paraphrased)

1. *Should the NRC generate additional regulation to mandate content of background checks as required by 10CFR73.22 for RTRs?*
  - A review of the AEA did not reveal an obvious **statutory** mandate for the NRC to establish regulations to perform background investigations. 10CFR73.22 (b)(2) states “*background check or other means approved by the commission*”, therefore a regulatory basis exists. Absent performance based problems to resolve, additional regulation should not be the NRC tool of choice. Instead the NRC should develop “best practice” guidance to provide expertise for RTRs to model programs after or documents that could be directly implemented. This assistance would achieve the same end goal as new regulation and would provide a standard framework for procedures and inspection without expensive time consuming rule making.
2. *Given that FBI background checks will only identify criminal activity for individual over 18 in the US is this sufficient for an access determination? What could be added to increase the validity of these determinations?*
  - RTR management is not the correct audience for this question. This question should be asked of law-enforcement, State Department, and Homeland Security experts. The results of this consultation could be incorporated into a best practice process guide described above or be made available as a service when fingerprints are submitted to the NRC to support our joint mission of safe, secure RTR operation.
3. *What should be the historical time period for a background check 5, 10 years?*
  - Same answer as question 2.
4. *Are licensees aware of any conflicting requirements for privacy - either State, Federal or University?*
  - We know of no specific conflicts.

Regarding the rest of text (draft of possible rule proposal), our position remains one that is consistent with Section 104.c – minimum regulation – and NRC stated policy on risk-informed and performance based regulation. Absent a statutory requirement for regulation or a performance problem with background checks then no additional regulation is warranted. Other tools are available to the NRC that will support the research reactor programs (consistent with AEA Chapter 4) and security. Suggested tools include a DOE or NRC provided background check service, a DOE or NRC contract for all background checks for such facilities, and/or a standardized “procedure” for adoption or modification in support of RTRs background checks.

## Rulemaking Comments

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**Sent:** Monday, October 04, 2010 3:32 PM  
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**Cc:** Steve Miller; Kenan Unlu; Jere Jenkins; William G. Vernetson; bernardj@MIT.EDU; Leo\_Bobek@uml.edu; Andrew Kauffman; O'Kelly, Sean; Reese, Steve; Donald\_wall@wsu.edu; Ralph Butler; syweiss@verizon.net; Mark A. Trump  
**Subject:** Comments 10 CFR Part 73 RIN 3150-A125 (NRC-2008-0619)  
**Attachments:** mat16@psu.edu.vcf; 10CFR73.57 September 2010 PSBR comments.pdf

The attached PDF contains comments on 10 CFR Part 73 RIN 3150-A125 (NRC-2008-0619).

Please enter these comments into the system on behalf of the Pennsylvania State University Breazeale Nuclear Reactor. (Docket 50-005).

Thank you.

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