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OFFICE OF SECRETARY  
RULEMAKINGS AND  
ADJUDICATIONS STAFF



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**DOCKET NUMBER**  
**PROPOSED RULE** 40  
**(67FR55175)**

Secretary,  
U. S. Nuclear Regulatory Commission  
Washington D.C. 20555-0001

Attention: Rulemakings and Adjudications Staff

Comments on NRC Proposed Rule:

10 CFR Part 40  
RIN 3150-AG64

Transfers of Certain Source Materials by Specific Licensees

#### Justification for Concern:

Wah Chang, an Allegheny Technologies Company, is a manufacturer of specialty metals and chemicals, used in energy production, chemical and mineral processing, aerospace, medical, research, and consumer products. Wah Chang materials include hafnium, niobium, titanium, vanadium, zirconium, silicon tetrachloride, and zirconium and hafnium chemicals.

In the production of hafnium, zirconium, and silicon tetrachloride, Wah Chang uses a substantial quantity of zircon sand, a natural mineral that contains uranium and thorium at concentrations less than one-twentieth of 1 percent (0.05 percent). Some of the operations are performed under the conditions of a Broad Scope Radioactive Materials License in the State of Oregon, an Agreement State.

Wah Chang has managed residual radioactive material resulting from the chemical extraction of zirconium, hafnium, and silicon tetrachloride since 1968 using off-site waste disposal at licensed and/or permitted disposal facilities. Disposal services for this waste have been very limited and growingly expensive over the years.

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SECY-02

Several products, mostly as solid metal primary shapes, contain uranium and/or thorium in extremely low concentrations in the range of a few parts per million parts. Wah Chang is concerned that, in the absence of a limit at which the content of uranium and thorium are considered to be of no consequence and in the event that the commission adopts this proposed rule change, Wah Chang would ultimately be required by the Agreement State regulatory agency and/or the NRC to apply for approvals to distribute metal products and chemical products with trace quantities of uranium and thorium to persons exempt from licensing or general licensees. This would be an enormous and expensive burden and would not result in any benefit to the health and safety of the public or to the persons receiving the materials.

### Specific Problems:

- (1) The stated object of the proposed rule is "to ensure that the regulations regarding the transfers of materials containing low concentrations of source material are adequate to protect public health and safety". The question of the adequacy of the current rules is based on estimates that are found in a draft NUREG-1717 that is known to be in error. It is not clear what other recent estimates might be relied upon. NRC should re-assess the need for this proposed rule change based on measurements of exposure to real persons performing these operations and real persons in the general public that could have been affected by these operations. It is currently not apparent that any person has been or is likely to be exposed to radiation and/or radioactive material so as to receive an additional total dose in the range of 25 to 100 milli-Rem per year.
- (2) The cost estimates for implementation of the rule include only the number of licensees holding NRC licenses. Each Agreement State has source material licensees that would require an assessment for approval of the transfer of low concentrations of source material. This will result in additional expense to Agreement State programs. An estimate of these additional costs has not been provided for or included in preparing this proposed rule. In addition, since there is no limit set for diminutive quantities of uranium and/or thorium that could not possibly be of concern in relation to the public health and safety there is the potential for substantial costs to industry for which there is no benefit.
- (3) The proposed rule as printed in the Federal Register (August 28, 2002) at 40.51 (e) appears to allow written approval from the NRC only. It seems reasonable that this should be rewritten to specifically allow the equivalent approval from an Agreement State regulatory agency.

**Request for the Commission's Action:**

- (1) If the proposed rule is implemented, Wah Chang requests the commission clarify that a transfer of previously exempt quantities of uranium and thorium authorized by an Agreement State agency would not require a duplicate authorization from the NRC.
- (2) As noted in the Regulatory Analysis of Amendment to 10 CFR Part 40, August 2002, in the identification of regulatory options, "No Action" is a option. Since the commission is currently enabled to require of licensees everything that is specifically provided for by the proposed amendment would the NRC choose "No Action"?
- (3) In relation to the "limited types and quantities of materials" that are exempted from licensing and that could potentially cause exposure limits to be exceeded, does it seem that it would be more efficient and effective to deal with these specific cases directly rather than require action on the part of the entire regulated community?

Thank you for the opportunity to comment.

Sincerely,

Jim Denham  
Wah Chang Legal Counsel