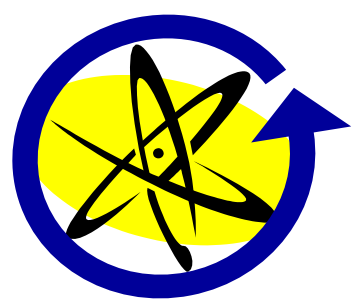


^{241}Pu Working Group Update

Presented by Ted Giltz

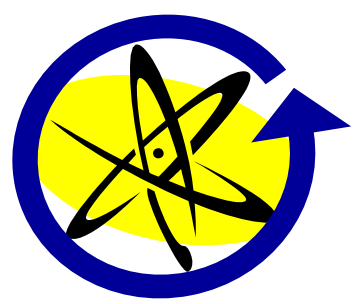
***Fluor Hanford
Radiation Protection***

March 2008



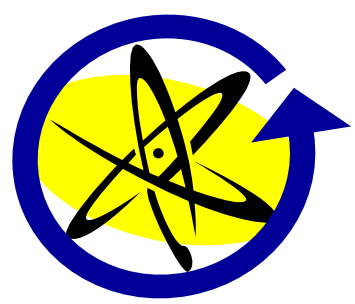
Scope

- The scope of the task group is the development of the technical justification and recommended documentation to support future DOE direction for management of ^{241}Pu as a member of other than the transuranic row.
- The task group will evaluate the available options and develop either:
 - A draft DOE technical position document, for DOE consideration, that would provide clarification on the management of ^{241}Pu .
 - The technical justification necessary to obtain relief from the current 10 CFR 835, Appendix D content through an exemption request, as well as a DOE Order 5400.5 Authorized Limit.
 - Other suitable recommendations.



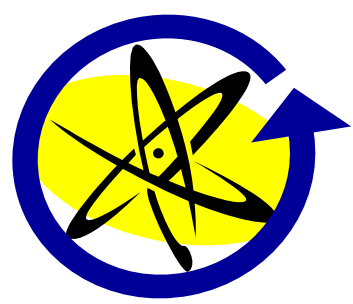
Working Group Members

- Ted Giltz, Fluor Hanford (Chair)
- Dr. Hung Cheng Chiou, Waste Isolation Pilot Plant
- Dr. Kenneth Crase, Savannah River Site
- Ken McLain, CH2M Hill Hanford
- Robert Ford, Pacific Northwest Laboratory
- Mark Ledoux, EnergySolutions, Inc.



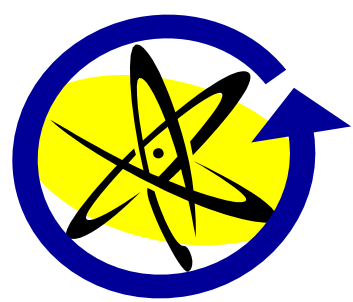
Approach

- Completed two conference calls.
- Discussed expectations and needs with HQ General Counsel.
- Developed three proposed approaches supporting a technical argument on why ^{241}Pu should not be managed as a member of the transuranic row.



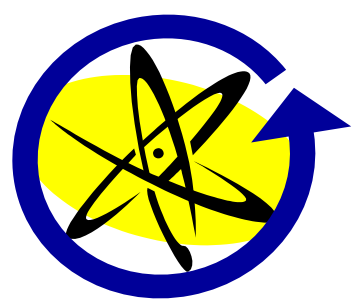
Six Options Identified

Option	Comment
1. Do nothing	<p>Contractors have been managing ^{241}Pu as a HTD beta for over 40 years; safety or compliance risk has not changed.</p> <ul style="list-style-type: none">■ Use normal DOE processes for any changes.■ Preamble already says DOE will be working.■ Working group to revise DOE O 5400.5 (Table 4-1) has been initiated.
2. HQ issue technical document	<p>Revise or modify the definition of transuranic based on other published definitions to allow ^{241}Pu relocation from transuranic row.</p> <p>(Working group has determined that this option is not appropriate and should not be pursued.)</p>



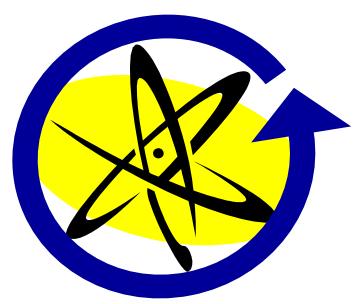
Six Options Identified

Option	Comment
3. Simultaneously revise Appendix D and Table 4-1	<p>Work with HQ to revise 10 CFR 835, Appendix D, and DOE O 5400.5 Table 4-1</p> <ul style="list-style-type: none">■ Supports language of June 07 preamble. DOE controls schedule.■ No exemption request/AL would be pursued unless effort stalls.■ EFCOG would support development of revision and rule making.
4. Revise DOE O 5400.5, Table 4-1, with follow-up exemption request	<p>Support revision of DOE O 5400.5 and, when available, use the revised Table 4-1 as primary basis for seeking exemption for Appendix D row assignment.</p> <ul style="list-style-type: none">■ This approach resolves the related release to controlled area vs. release to public issue.■ This approach requires that DOE O 5400.5 revision moves ²⁴¹Pu out of transuranic row.



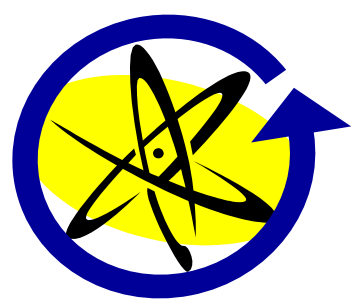
Six Options Identified

Option	Comment
5. Develop EFCOG sponsored packages to move ^{241}Pu from transuranic row	<p>Initiate simultaneous exemption requests and authorized limit requests based on an EFCOG recommendation for content and values.</p> <ul style="list-style-type: none">■ Causes additional work with no improvement in safety, but resolves potential compliance issue.■ Each contractor would submit separately, but would use same technical rationale.■ Results in use of same row and value requests.
6. Seek individual contractor exemption and authorized limit action	<p>Initiate simultaneous exemption request and authorized limit request based on individual contractor developed basis and approaches.</p> <ul style="list-style-type: none">■ Results would be contractor specific and proposed values likely recommend varying rows and value assignments.



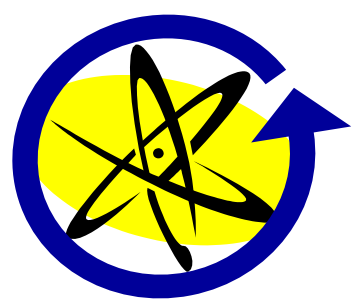
Options for Row Re-Alignment

- Appendix D row assignments.
 - Add a note that moves ^{241}Pu to the Beta-Gamma row;
 - Move ^{241}Pu to the U Row; and
 - Maintain existing Easy to Detect (ETD) row and new Hard to Detect (HTD) row that includes ^{241}Pu .
- Each option offers comparison to ANSI N13.12 and ICRP 60/68; determination of dose conversion factors or dose estimate; and ability to establish general scenarios.



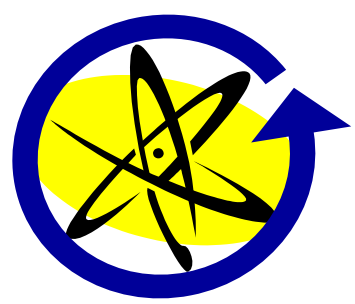
Potential Relief

- If options 3, 4, 5, or 6 are pursued, some type of relief and direction from HQ is recommended.
- For example, if we move forward with one of the exemption options, the contractors would have a period of time (e.g., 6 months) to develop and submit their requests, and potential enforcement would be unlikely.



Solutions

- “BEST” solution is fix Table 4-1 and Appendix D at the same time with the same values.
- Development of a clarification/definition of transuranic does not appear appropriate.
- If short term solution sought, then development of authorized limit requests and exemption requests must occur at the same time.



The Rest of the Story

- Discussion of EFCOG desires/direction.