

SECRETARY

UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

June 9, 2006

COMMISSION VOTING RECORD

DECISION ITEM: SECY-06-0094

TITLE:

TRACKING OR PROVIDING ENHANCED CONTROLS FOR

CATEGORY 3 SOURCES

The Commission (with Chairman Diaz and Commissioners McGaffigan, Jaczko and Lyons approving in part and disapproving in part and Commissioner Merrifield approving) acted on the subject paper as recorded in the Staff Requirements Memorandum (SRM) of June 9, 2006.

This Record contains a summary of voting on this matter together with the individual vote sheets, views and comments of the Commission.

Annette L. Vietti-Cook Secretary of the Commission

Attachments:

- 1. Voting Summary
- 2. Commissioner Vote Sheets

cc: Chairman Diaz

Commissioner McGaffigan Commissioner Merrifield Commissioner Jaczko Commissioner Lyons

OGC EDO PDR

VOTING SUMMARY - SECY-06-0094

RECORDED VOTES

| | NOT | | | | |
|------------------|-------|----------|------------------|----------|---------|
| | APRVD | DISAPRVD | ABSTAIN PARTICIP | COMMENTS | DATE |
| CHRM. DIAZ | X | X | | X | 5/3/06 |
| COMR. McGAFFIGAN | Χ | Χ | | X | 5/31/06 |
| COMR. MERRIFIELD | Χ | | | X | 5/3/06 |
| COMR. JACZKO | Χ | X | | Χ | 5/2/06 |
| COMR. LYONS | Χ | X | | Х | 5/1/06 |

COMMENT RESOLUTION

In their vote sheets, Chairman Diaz and Commissioners McGaffigan, Jaczko and Lyons approved in part and disapproved in part and Commissioner Merrifield approved the staff's recommendation and provided some additional comments. Subsequently, the comments of the Commission were incorporated into the guidance to staff as reflected in the SRM issued on June 9, 2006.

| TO: | Annette Vietti-Cook, Secretary |
|-------------------|---|
| FROM: | CHAIRMAN DIAZ |
| SUBJECT: | SECY-06-0094 - TRACKING OR PROVIDING ENHANCED CONTROLS FOR CATEGORY 3 SOURCES |
| Approved XX in | Disapproved XX in part Abstain |
| Not Participating | |
| COMMENTS: | See attached comments. |
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| | 5/3 /2006 |
| | DATE |
| Entered on "STA | RS" Yes V No |

Chairman Diaz's Comments on SECY-06-0094, Tracking or Providing Enhanced Controls for Category 3 Sources

I commend the staff for its diligence in continuing to work with other agencies and stakeholders to evaluate approaches to address possible enhanced controls for sources below Category 2. As elaborated in the following paragraphs, I approve in part, and disapprove in part the staff's recommendations in SECY-06-0094.

The Commission made a very well considered decision to focus its enhanced source control efforts on Category 1 and 2 sources as defined by the IAEA Code of Conduct. The appropriateness of Category 2 as the lower threshold of concern has been affirmed both by the results of the staff's security assessments and, currently, by the initial findings of the interagency Radiation Protection and Security Task Force. Section 651 of the Energy Policy Act of 2005, which required establishment of the interagency Task Force, defines radiation sources as IAEA Code of Conduct Category 1 or 2 sources, and any other material that poses a threat, as determined by the Commission. In its draft initial report to the President and Congress, the Task Force does not recommend that any additional radiation sources be added for protection and security purposes. The Task Force does recommend that the U.S. Government periodically revisit the list of radioactive sources that warrant security and protection based on potential attractiveness of the source to terrorists and the extent of the threat to the public health and safety. I believe that it would be proper and prudent for the Commission to follow the Task Force's recommendations and thereby fulfill the intent of the Energy Policy Act.

Consistent with the above, I approve the staff's recommended Option 2 to perform a one-time data collection and analysis of Category 3 sources. As the staff states in the paper, the primary objective of this activity would be to determine the numbers of Category 3 licensees, sources, and transactions. Such information and analysis will be necessary to support future Commission decisions concerning the addition of sources needing enhanced controls. Consequently, in the absence of this analysis, I disapprove the staff's recommended Option 3 to institute activity limits for general licenses at the "Category 2.5" level. Rather, in keeping with the recommendations of the interagency Task Force, activity limits should be established at a level corresponding to Category 2. Any regulatory enhancements the staff undertakes in this regard, including rulemaking or issuing orders, should be directed toward establishing consistent requirements across the spectrum of both specific and general licensees.

In formulating recommendations to revise the thresholds for enhanced regulatory control and oversight of radioactive sources, the staff should consider measures to prevent "regulatory creep." Establishing a new threshold of concern, be it Category 2.5 or Category 3, will inevitably give rise to the question of how to address the aggregation of smaller sources to amounts that exceed the new threshold. Related to this issue, the staff notes that there could be a prohibitively large number of Category 3 sources relative to Category 1 and 2 sources, and that there is the possibility that expanding the National Source Tracking System to include Category 3 sources could divert resources from oversight of Category 1 and 2 sources. Such an outcome would, of course, be unacceptable. Therefore, in conducting the one-time data collection and analysis of Category 3 sources, the staff should assess the public health and safety benefits that would result from enhanced controls to this level, along with the potential impacts on licensees and NRC resources. Commensurate with the results of this cost-benefit analysis, in lieu of establishing a lower threshold, the staff should consider applying graded measures over a band of activity (e.g., in the range of Category 2 to 2.5) as a means to avoid unnecessary regulatory burden and regulatory creep.

| TO: | Annette Vietti-Cook, Secretary |
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| FROM: | COMMISSIONER MCGAFFIGAN |
| SUBJECT: | SECY-06-0094 - TRACKING OR PROVIDING ENHANCED CONTROLS FOR CATEGORY 3 SOURCES |
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| Not Participating | |
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| Entered on "STA | RS" Yes <u>X</u> No |

Commissioner McGaffigan's Comments on SECY-06-0094

I agree with my colleagues that the staff has produced a solid analysis and a rich range of options for Commission consideration. I approve in part and disapprove in part the staff's recommendations in this paper. All areas of disapproval involve my desire to do more than the staff recommends.

I agree with Chairman Diaz that the Commission was right to focus all of its initial efforts on Category 1 and 2 sources containing radionuclides of concern as defined in the IAEA Code of Conduct. This approach has allowed the United States to be a world leader in putting in place a highly useful interim database of such sources, additional security measures for licensees possessing or transporting such sources, and export and import controls on such sources, and in designing a national source tracking system (NSTS) for such sources and four additional radionuclides (polonium-210, actinium-227, thorium-228, and thorium-229) identified by our Department of Energy (DOE) colleagues to replace the interim database. Premature efforts to broaden our focus would have delayed and diluted these efforts. But with these measures in place, or in the case of NSTS scheduled to be in place next year, it is now appropriate to broaden our focus.

I have long felt that we need to ensure that a broader array of sources containing radionuclides of concern is specifically licensed. GAO raised this issue with us in 2003 and our IG has subsequently done so. Before 9/11, the Commission instituted a general license tracking system (at 10 CFR 31.5) and annual registration of sources containing more than 10 mCi of cesium-137, 0.1 mCi of strontium-90, 1 mCi of cobalt-60, and 1 mCi of americium-241 or any other transuranic radionuclide. These are four of the five IAEA Code of Conduct radionuclides most widely utilized in civilian applications (the fifth, iridium-192, has a 74-day half-life so that it rapidly decays away). But our general licensing system has holes in it, and we are far from having universal annual registration of such sources.

Specific licensing brings with it far more control (and of course burden) for licensees. I believe that we should be specifically licensing all Category 3.5 sources (a factor of 10 below the Category 3 lower limit and a factor of 10 above Category 4 lower limit) containing IAEA Code of Conduct radionuclides of concern. Some States already do this (and more). I would only include Category 3 sources in the NSTS, but through specific licensing of Category 3.5 sources and inclusion of all IAEA radionuclides of concern in the general license registration system, as proposed by staff, NRC would have a much greater degree of control over these radionuclides with margin against any terrorist attempt to aggregate radionuclides of concern.

With this background in mind, let me comment specifically on the staff recommendations.

I approve the staff's recommendation to pursue Option 2, a one-time, one-year data collection and analysis of Category 3 sources that is similar to the process used to develop the Interim Inventory of Category 1 and 2 sources, except that it would extend the data collection to Category 3.5 sources to help NRC to decide whether to specifically license such sources in a post-9/11 world. I disapprove, in part, the staff's recommendation to pursue Option 3, which is to amend certain general licenses (10 CFR 31.5 and 40.22) and their associated manufacturer requirements (Parts 32 and 40) to limit general licenses to sources smaller than one-half the Category 2 threshold, also known as Category 2.5. Rather, with regard to Option 3, I believe the staff should limit general licenses to sources and devices with quantities smaller than the Category 3.5 threshold value.

I also approve, in part, the staff's recommendations in Enclosure 2 to: (1) revise §31.5(c)(10) so that §31.5 licensees with a generally licensed device that meets the criteria for source tracking in the proposed §20.2207 would be required to report transactions to the NSTS; and (2) expand the registration requirement to include all applicable radionuclides of concern, both IAEA and the four additional radionuclides monitored under NSTS, polonium-210, actinium-227, thorium-228, and thorium-229. In doing this I believe staff should use the Code of Conduct to rationalize the GLTS annual registration thresholds. The current thresholds for the four radionuclides of concern represent widely varying fractions of IAEA D values. I would suggest standardizing on 0.001 of the D value for each radionuclide, i.e., a factor of 10 below the Category 5 upper limit, and a factor of 100 below the specific licensing threshold I am recommending. However, with regard to the third recommendation in Enclosure 2, the staff should limit general licenses to sources and devices with quantities smaller than the Category 3.5 threshold value, rather than Category 2.5. After the regulatory provisions of these options become effective, there should be no grandfathered generally-licensed sources with quantities of radioactivity above the Category 3.5 threshold.

The staff believes that to further reduce the general license threshold from Category 2.5 to Category 3 will pose a risk that some of these devices will become unwanted and orphaned, without commensurate benefit. In going further than the staff, I obviously disagree. Some States already specifically license at least down to Category 3.5 levels. If sources become unwanted because of licensing costs, we can work with our colleagues in other federal agencies, particularly DOE, to provide disposal options. In a post-9/11 world, a greater degree of control of such sources is entirely warranted. The International Atomic Energy Agency has determined that Category 3 sources could cause permanent injury to a person who handled them, or were otherwise in contact with them, for some hours. Used in a radiological dispersal device (RDD), some Category 3 sources could theoretically contaminate up to a half square kilometer with radioactivity above the EPA and DHS 2 rem/year intermediate phase protective action guide (PAG). Some Category 3.5 sources used in an RDD could theoretically contaminate up to several city blocks above the EPA/DHS PAG. The benefit of averting such an event in an urban setting will far outweigh any licensing costs.

I believe that staff should proceed with the Category 3.5 inventory, and begin preparing a proposed rule, consistent with the staff's estimate to provide a final rule to the Commission in October 2008. I further believe that no rulemaking plan is needed.

Edward McGaffigah, Yr.\]

(Data)

| TO: | Annette Vietti-Cook, Secretary |
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| FROM: | COMMISSIONER MERRIFIELD |
| SUBJECT: | SECY-06-0094 - TRACKING OR PROVIDING ENHANCED CONTROLS FOR CATEGORY 3 SOURCES |
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Comments from Commissioner Merrifield on SECY-06-0094:

As discussed in the following paragraphs, I approve in part and disapprove in part the staff recommendations in SECY-06-0094. However, before I provide specific comments on the paper. I will provide some general concerns. I recognize that my concerns are based on Commission decisions reached years ago for valid reasons at that time and many of the materials being addressed were considered of lessor safety significance. However, it concerns me that we have major categories of licensees, some of which we allow to possess unlimited quantities of material, and we have no idea of the magnitude of what we have authorized. Also, the basis for our general license program must change. The existing program assumes devices will not be tampered with, they will be used properly or with no malicious intent, and that accidents are typical industrial type accidents. However, in today's environment, we need to assume that some individuals, either through legal or illegal methods, want to obtain radioactive devices to use the radioactive material for malevolent purposes, and it is easier to obtain radioactive material under a general license than under a specific license. I am not saying that all general licenses should be abolished. For example, I am not concerned with someone stockpiling an unlimited number of smoke detectors. But definitely I do not believe any general license should allow a person to possess the equivalent of category 1 or 2 sources, and I would consider extending this provision to the equivalent of category 3 sources as well. However, I recognize we need more definitive information on category 3 sources before a final determination is made on this issue.

I approve the staff's recommended Option 2 to collect data on category 3 sources to support an inventory system. Staff proposes it would take a year to collect the data and an additional six months to analyze the data. The staff proposes this schedule based on past experiences with implementing the general license registration system and the effort needed to establish an interim data base. I will accept this schedule providing the staff maintains this schedule. This means that after a year of data collection, staff will need to make recommendations based on whatever data is available at that time. I agree with Commissioners Lyons and Jaczko that category 3 sources or their equivalent (i.e., the summation of all sources in a single device) should be tracked in the National Source Tracking System. Therefore, when the staff submits its analysis of category 3 sources, staff should also submit a proposed rule to include the material in the National Source Tracking System. A formal rulemaking plan is not required for this effort. If staff believes that specific types of category 3 sources should be exempted from this requirement, staff may make such recommendations with appropriate justification in the paper forwarding the draft rule language to the Commission. Ideally, I would like a final rule on including category 3 sources in the National Source Tracking System in three years.

I approve the staff recommendations in Option 3 to initiate rulemaking to establish activity limits and other regulatory requirements on general licensees. These activity limits should be based on the threshold for category 3 sources and if used in a single device should include the summation of the activity of all sources in that device. Specifically, I am disapproving basing the category limits on a category 2.5 threshold (and I will recognize that the 2.5 threshold was a Commission initiated activity in a previous Staff Requirements Memorandum). Since this issue has been presented to the Commission, a formal rulemaking plan is not required for this effort. This rulemaking will address many of my concerns expressed in the first paragraph. Staff will need to go through the normal process for determining the priority of this effort and I do not propose to unilaterally declare it is a high priority rulemaking. But at the minimum, it is a medium priority effort and should be accomplished in a timely manner.

JAMB 05/05/06

| TO: | Annette Vietti-Cook, Secretary |
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| FROM: | COMMISSIONER JACZKO |
| SUBJECT: | SECY-06-0094 - TRACKING OR PROVIDING ENHANCED CONTROLS FOR CATEGORY 3 SOURCES |
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| Entered on "STA | ARS" Yes <u>X</u> No |

Commissioner Jaczko's Comments on SECY-06-0094 Tracking or Providing Enhanced Controls for Category 3 Sources

I approve in part and disapprove in part the staff's recommendation that the Commission approve the staff approach identified in SECY-06-0094. The staff recommended that the Commission approve two of four options aimed at potentially improving the accountability of certain Category 3 sources. The first option involved the staff completing, within one year, a one-time data collection of Category 3 sources to quantify the number of licensees, the number of sources, and the number of transactions. The second option seeks to amend certain general licenses and associated manufacturer requirements in 10 CFR Parts 32 and 40.

I approve of staff's Option 2, in part, to complete the one-time data collection of Category 3 sources. As I stated in my comments on SECY-06-0080 on the final rule for National Source Tracking System (NSTS), I believe that the threshold for reporting in the NSTS should include Category 3 sealed sources. Therefore, the staff effort to collect information regarding Category 3 sources should be done to support expanding the NSTS. While it is likely that the final rule for the NSTS to track Category 1 and 2 sources will be in place before the system can be expanded for Category 3 sources, the staff should develop a rule that would implement this expansion within three years. In developing this rule the staff should only amend the necessary portions of the regulations needed to accommodate the NSTS expansion.

I disapprove of the staff recommended Option 3 to the extent that it would focus on sources smaller than one-half the Category 2 threshold, also known as Category 2.5. I agree with the staff that introducing a new Category 2.5 is likely to be confusing and may not address all stakeholder concerns. Because I am concerned about licensees possessing a large number of Category 3 sources, that when aggregated present similar risks to the public at or above Category 2 threshold levels, I continue to believe that lowering the NSTS threshold to include Category 3 will avoid confusion and mitigate any potential security concerns.

Gregory B. Jaczko

Date

| 10: | Annette Vietti-Cook, Secretary |
|---|---|
| FROM: | COMMISSIONER LYONS |
| SUBJECT: | SECY-06-0094 - TRACKING OR PROVIDING ENHANCED CONTROLS FOR CATEGORY 3 SOURCES |
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Commissioner Lyons Comments on SECY-06-0094

I approve in part and disapprove in part the staff's recommendation that the Commission approve the staff approach identified in SECY-06-0094. The staff recommended that the Commission approve the staff option 2 to identify Category 3 sources and the licensees that possesses them and analyze their risks and the staff option 3 to amend certain general licenses and associated manufacturer requirements in 10 CFR Parts 32 and 40.

I approve for staff to complete the one-time data collection of Category 3 sources. I believe that the threshold for reporting in the NSTS should include Category 3 sealed sources. Therefore, the staff effort to collect information regarding Category 3 sources should be done to support expanding the NSTS. While it is likely that the final rule for the NSTS to track Category 1 and 2 sources will be in place before the system can be expanded for Category 3 sources, the staff should 1) ensure that the NSTS will be capable of being modified to incorporate Category 3 sources and 2) develop a rule that would implement this expansion within three years.

I disapprove, in part, of the staff recommended Option 3 to the extent that it would focus on sources smaller than one-half the Category 2 threshold, also known as Category 2.5. I agree with the staff that introducing a new Category 2.5 is likely to be confusing and may not address all stakeholder concerns. Because I am concerned with licensee's possessing a large number of Category 3 sources, which when aggregated could exceed Category 2 threshold levels, I believe lowering the NSTS threshold to include Category 3 will avoid confusion and mitigate any potential security concerns.

Therefore 5/1/06