

August 18, 2000

COMMISSION VOTING RECORD

DECISION SECY-00-0070
ITEM:

TITLE: CONTROL OF SOLID MATERIALS: RESULTS OF PUBLIC MEETINGS, STATUS OF TECHNICAL ANALYSES, AND RECOMMENDATIONS FOR PROCEEDING

The Commission (with Chairman Meserve and Commissioners Dicus, McGaffigan, and Merrifield agreeing and Commissioner Diaz agreeing in part and disagreeing in part) approved the subject paper as recorded in the Staff Requirements Memorandum (SRM) of August 18, 2000.

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

Annette Vietti-Cook
Secretary of the Commission

Attachments: 1. Voting Summary
2. Commissioner Vote Sheets

cc: Chairman Meserve
Commissioner Dicus
Commissioner Diaz
Commissioner McGaffigan
Commissioner Merrifield
OGC
EDO
PDR

VOTING SUMMARY - SECY-00-0070

RECORDED VOTES

	APRVD	DISAPRVD	ABSTAIN	NOT PARTICIP	COMMENTS	DATE
CHRM. MESERVE	X				X	6/13/00
COMR. DICUS	X				X	5/9/00
COMR. DIAZ	X	X			X	6/14/00
COMR. MCGAFFIGAN	X				X	6/29/00
COMR. MERRIFIELD	X				X	5/30/00

COMMENT RESOLUTION

In their vote sheets, Chairman Meserve and Commissioners Dicus, McGaffigan, and Merrifield approved the staff's recommendation and provided some additional comments. Commissioner Diaz approved in part and disapproved in part the staff's recommendation and provided some additional comments. Commissioner Diaz disapproved the part of the staff's recommendation that defers a final decision on whether to proceed with rulemaking at this time. Commissioner Diaz would have preferred that the staff provide the Commission with a rulemaking plan for establishing a national standard. Subsequently, the comments of the Commission were incorporated into the guidance to staff as reflected in the SRM issued on August 18, 2000.

Commissioner Comments on SECY-00-0070

Chairman Meserve

I approve the staff proposal to: 1) defer a final decision on whether to proceed with rulemaking; 2) proceed with

implementation of the March 8, 2000 SRM concerning a study by and recommendations from the National Academy of Sciences; 3) continue the planned development of the technical information base, as described in Attachment 3; and 4) continue to stay informed on international initiatives in this area, related EPA and DOS activities, and potential import and trade issues.

Staff should report as to next steps on the status of its work on the technical base and provide its recommendations approximately 3 months after completion of the NAS study.

Commissioner Dicus

While I agree that there is a need for a national standard in this area because of lack of consistency in criteria and implementation, I am concerned with the vast number of commentators that are opposed to such a proposed rulemaking effort. Radiation is as old as the universe itself and is a normal part of everyday life. The majority of radiation received daily originates in nature and is totally independent of what people do in their everyday lives. The levels proposed by the European Community and those that were discussed in the Issues Paper are at levels that are less than one-hundredth of what we received naturally on Earth. However, in the same way that radiation surrounds us, we constantly hear about radiation in the newspapers, television, on the Internet, and in daily conversations. Because of this, I believe it is essential that as many of us as possible learn more about radiation and how to deal with it. I therefore support the staff proposal to proceed first with the National Academy of Sciences (NAS) study to determine if there can be a sound scientific basis upon which the NRC can make a decision regarding the alternatives for release of slightly contaminated solid materials. I would further recommend that the NAS consider the issue of recycling this type of material as a separate issue from clearance. It is my sincere hope that the NAS study can shed light on the vast majority of concerns that our stakeholders have raised and provide the Commission with sound options for the future.

I also support the staff continued actions in developing the technical information base as described in Attachment 3 of SECY-00-0070. Continuing these staff actions during this period will provide the staff with useful information no matter what the outcome of the NAS study. I believe that the development of the above items will allow NRC to gain further insights as to how best to proceed and will further develop its information base. Together, they will place NRC in a better position to make decisions on potential revisions to policy and upgraded technical approaches. Although I don't agree with the staff that it will be necessary to develop further information on inventories of material at facilities (licensees may choose not to have any of their material available for recycling and since there currently are no requirements currently for inventories at materials facilities, I am doubtful if obtaining this information will be cost-effective), I do agree that development of the technical bases with the international competent authorities will be beneficial for us all.

I would ask that the staff keep the Commission informed periodically while the NAS study is underway and provide its recommendations as to next steps for proceeding as well as the current status of the development of the technical bases approximately three months after completion of the NAS study.

Commissioner Diaz

I approve the staff continuing to develop the information base necessary to evaluate the control of solid materials and staying informed of international initiatives in this area. This information is necessary for the Commission to make a fully informed decision on how to continue to ensure adequate protection of public health and safety in regulating the control of solid materials.

In this regard, I believe that the most pressing technical issue that needs to be addressed is the measurement of radioactive doses and its application to the protection of public health and safety. Measurability, not detectability, is the fundamental health issue. Measurability, in all its forms, is central to the radiological protection mission of the Commission. The policy question for the NRC and the nation is how the measurement of radioactive dose is utilized for the purpose of regulation in the public interest. It cannot be focused on accepting very low detectability standards of a particular type of radioactive material, i.e., AEC material. This issue is a national and international issue that deserves a comprehensive and holistic solution.

I agree with the staff's conclusion that "[T]he diversity of public views expressed on this issue, as well as the various actions being explored by private and public organizations, underscore the need to develop a national standard to provide a clear and uniform approach to the control of solid materials." In addition, as I stated during the May 9, 2000, Commission meeting with stakeholders, I believe that, without a national standard, licensees will continue to release solid materials using de facto standards. De facto standards will continue to be defined by the sensitivity of radioactivity detection equipment and arbitrary decisions on "alarms." Allowing this practice to continue would perpetuate the application of undefined standards and inconsistencies in radiological protection practices.

I note that the representative from the Metals Industry Recycling Coalition (MIRC) stated that each industry uses a detectability standard for accepting recycled materials. He also stated that the equipment would not normally detect alpha or beta radiation and the "alarm" is dependent on above background detection, with background itself a variable. I fully understand the commercial concerns of the recycling industry, and I believe the Commission needs to be responsive to these concerns. However, this cannot be used as a reason to delay or not have a radiation standard.

I believe that the levels of radioactive material being released under these industrial-use standards are protective of public health and safety. However, I also believe that we must ensure consistent application of standards that protect the public's health and safety, without imposing unnecessary regulatory burden. Therefore, I must disapprove the staff's recommendation to defer a final decision on whether to proceed with rulemaking at this time. Instead, the staff should provide the Commission

a rulemaking plan for establishing a national standard.

The Commission must move forward and establish regulations for the continued control and, where appropriate, release of solid materials in order to ensure the consistent application of safety standards. We should not continue to allow the inconsistent application of de facto standards. I believe that the most credible and established manner to address this issue is for the Commission to use the rulemaking process. This process not only allows, but requires, solicitation, evaluation, and consideration of stakeholders' views, concerns, suggestions, and recommendations. It also allows complete and open evaluation of all risks, including actual and perceived risks, impacts on health, safety, and the environment, and economic considerations of affected entities. I believe that initiation of the rulemaking process will allow the information already provided in response to the issues paper and expressed during the May 9, 2000, meeting to be adequately addressed.

Based on comments that NRC has received on this issue, I believe it is necessary to point out that a decision to initiate rulemaking does not mean that the Commission has made a final decision on the final scope or details of a regulation, or criteria to be included in such a regulation. The rulemaking process is designed to gather, evaluate, and consider relevant information in order to develop and establish necessary criteria and requirements. I must also point out that many times information obtained as a result of the rulemaking process has changed, sometimes significantly, the final criteria of a regulation. Therefore, a decision to initiate rulemaking in no way predetermines the outcome. In fact, it ensures just the opposite.

I agree that the staff should move forward in requesting that the National Academy of Sciences (NAS [EXIT](#)) conduct a study and provide recommendations on possible alternatives for release of slightly contaminated materials. However, the issue of measurability should be given the highest priority during development of the information base and should not be deferred to NAS. The NAS study should be conducted in parallel to the rulemaking so as not to detract from the Commission's ongoing efforts. It should be clear that the results of the NAS study, as well as other relevant information, will be fully taken into consideration by the Commission during the process of rulemaking. The rulemaking plan should address how the NAS study will be integrated into the rulemaking process.

Commissioner McGaffigan

I approve the staff recommendation to proceed with the previous Commission direction to request that the National Academy of Sciences (NAS) conduct a study and provide recommendations on possible alternatives for controlling the release of slightly contaminated solid materials from NRC-licensed facilities. I also strongly support the staff recommendation to continue to develop the associated technical basis documents in parallel with the NAS study, e.g., the Draft Generic Environmental Impact Statement (GEIS), NUREG-1640, and the Regulatory Analysis. Based on discussions during the two recent public Commission briefings by the NRC staff and various stakeholders, I offer the following comments for the consideration of my fellow Commissioners and the staff.

The Commission directed the staff in June 1998 to initiate a rulemaking to address the release of slightly contaminated solid materials from licensed facilities. I fully supported the decision at the time and continue to believe that rulemaking, regardless of the outcome, is the most efficient and effective means to address the technical, economic, environmental and societal aspects of the release of solid materials. During the recent Commission briefings, it became apparent that none of the stakeholders participating (including the Department of Energy, industry and environmental groups) wants NRC to return to case-by-case reviews of requests for the release of solid materials since this approach can lead to inconsistencies in the selected release limits, and ultimately, in the resulting worker and public radiation doses. It has also become apparent that, through the efforts of the United States (NRC, the [Environmental Protection Agency](#) [EXIT](#)), and American National Standards Institute ([ANSI](#) [EXIT](#))), the International Atomic Energy Agency ([IAEA](#) [EXIT](#)), and the European Commission (EC), a sound technical basis essentially exists for identifying a level below which the control of slightly contaminated solid materials could be relinquished while still providing a very high degree of protection of public health and safety. The technical basis also exists for translating any selected dose-based clearance level to radionuclide-specific concentration limits for surface and volumetric contamination. Therefore, the staff should continue to work with EPA, IAEA and the EC to identify and "fine-tune" realistic potential exposure scenarios and narrow the remaining differences in dose methodologies used to calculate potential doses to individuals and demonstrate compliance with a regulatory limit.

Moreover, the staff needs to make their analyses and methodologies as transparent as possible to all stakeholders. The staff should describe how carefully and conservatively the various agencies here and abroad analyze the potential exposure pathways of released materials. The limiting scenarios tend to involve workers who are potentially exposed to huge volumes of material, and not consumers of forks, dental braces or automobiles. (Consumer doses tend to be a minute fraction of background). The staff also needs to put the potential doses from the various scenarios into context for stakeholders. All materials, steel or cement, Brazil nuts or bananas, are slightly radioactive. Members of the public (most without any detailed knowledge of radioactivity in the environment) routinely make choices that affect their exposure to radiation at levels far higher than any we are likely to set for clearance. The choices to live in a brick as opposed to wooden house, at altitude, in Denver or Santa Fe, as opposed to at sea level in New York, to test one's home for radon and take steps to reduce radon levels, and to take airline flights either for business or tourism all involve differences in radiation exposure at the tens or potentially hundreds of millirem per year level ⁽¹⁾.

Obviously, there remains a wide gulf among stakeholders about where a standard should be set. Part of the problem may be a matter of communication with all stakeholders not having a common understanding of the basic facts underlying our policy choices. I am willing to use any avenue to try to bridge this gulf. The NAS study may help, but given some of the comments at the May 9 Commission briefing, it may not. An additional means of bridging the gulf (and at least fostering communication)

would be to pursue the metals recycling industry's suggestion, made during the May 9 Commission briefing, that NRC establish a task force or an advisory panel to provide input to the NRC on this issue. In my opinion, this would mean the establishment of an advisory panel chartered under the Federal Advisory Committee Act (FACA) that would include broad representation of the affected industries, Federal agencies, the States, environmental groups, the public, and professional organizations such as the Health Physics Society and ANSI. NRC could chair the FACA committee (as was done with the agency's recent advisory panel on the revised reactor oversight pilot program) but would not necessarily need to and, to some degree, it might be desirable if another entity, such as the proponent of the idea, chaired the committee.

The purpose of the FACA committee would be to provide a consensus recommendation to the Commission on what, if any, regulatory standard or limit would be supported by the stakeholders, collectively. This would be a forum for continued communication with the public and among stakeholders while the NAS study is underway over the next year. It should be made clear that this effort would not equate to a negotiated rulemaking since the ultimate decision of whether to promulgate an NRC rule, and the provisions of any such rule, would continue to rest solely with the Commission. But if a consensus among diverse stakeholders did emerge, it would be given great weight. As far as the timing of the committee's efforts, I would strongly suggest that it run in parallel with the NAS study and that NRC, through the charter, direct that the committee provide a consensus recommendation to the Commission about the same time as the conclusion of the NAS study (~July 2001). I would hope that the data and facts gathered and considered by the FACA committee (e.g., types and volumes of potentially affected metals, potential recipients, users and uses of slightly contaminated metals, potential worker and consumer doses, and potential economic impacts) could be made available to the staff as it continues to develop the GEIS which would be needed if the Commission ultimately decides to proceed with rulemaking. As a result, the FACA committee could serve as one additional opportunity for NRC to find a consensus approach on the release of solid materials while the NAS study is underway and while the staff continues its efforts to develop the technical basis documents. Even if the FACA committee's efforts fail, as they well may, at least we will have gathered additional data and information for consideration in development of the technical basis documents and, in particular, the GEIS.

One other issue associated with development of the GEIS warrants consideration. Specifically, while NRC does not have jurisdiction over DOE facilities, DOE-released solid materials can and do make their way into activities licensed by NRC or a State (e.g., recycling of metal contaminated with nickel at DOE-Oak Ridge). Given this potential, the staff should work more closely with DOE, including the DOE Task Force on metals recycling, to better understand and collect information and data on various aspects of DOE's current and future metals recycling program. This approach would allow NRC to better assess how various DOE scenarios might be considered in NRC's GEIS when estimating the potential doses to workers at NRC or State-licensed facilities and to members of the public.

Commissioner Merrifield

I approve the staff's recommendations as outlined in SECY-00-0070 to (1) request the National Academy of Sciences to conduct a study and provide recommendations on possible alternatives to release of slightly contaminated materials and, concurrent with the NAS study, (2) continue the development of a technical information base necessary to support a Commission policy decision in this area.

This is a very controversial issue with many public concerns. From my perspective, I have not made a determination of the final course of action the agency should take for this important issue. However, I do believe the Commission needs to address this complex, controversial issue in a consistent manner rather than our current practice of making case-by-case determinations. Therefore I support, at the appropriate time, using the NRC rulemaking process to derive a resolution to this matter. Before initiating the rulemaking effort, the staff should obtain additional technical input and the staff recommendations in SECY-00-0070 should provide the necessary data.

1. I choose to live in a brick house which I tested for radon, to eat bananas and nuts and to take airline flights. I would choose to live in Santa Fe but telecommuting from there might raise a few eyebrows.