

No. 95-56
Tel. 301/415-8200
Internet:OPA@NRC.GOV

FOR IMMEDIATE RELEASE
(Tuesday, May 2, 1995)

NOTE TO EDITORS:

The Nuclear Regulatory Commission has received four reports from its independent Advisory Committee on Nuclear Waste. The attached reports, in the form of letters, comment on:

- 1) Department of Energy's program approach to waste containment and isolation at Yucca Mountain and activities related to the preparation of a license application;
- 2) NRC's waste management research program on an engineered barrier system;
- 3) Environmental Protection Agency's draft of a regulation that provides radiation protection standards for the management, storage and disposal of low-level radioactive waste and the NRC's proposed radiological criteria for decommissioning; and
- 4) Regulations pertaining to contaminated steel smelting facilities and disposal of contaminated dust.

Copies of the four reports are available for examination and copying at the NRC's Public Document Room located at 2120 L Street, N.W., Washington, D.C.

#

Attachments:
As stated

April 28, 1995

The Honorable Ivan Selin, Chairman
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Dear Chairman Selin:

SUBJECT: ADDITIONAL COMMENTS ON THE DOE PROGRAM APPROACH

As a continuation of our review, requested by the Commission, of the U.S. Department of Energy's (DOE) program approach, the Advisory Committee on Nuclear Waste held discussions with representatives of the DOE at its 72nd meeting (March 15-16, 1995) on aspects of the program approach related to waste containment and isolation at Yucca Mountain and the activities related to the preparation of the license application. The DOE presented a well-organized strategy of waste containment and isolation. We have not reviewed the details of the technical site suitability evaluation process that DOE is developing. Our discussions supplement those reported to you on September 30, 1994. The substance of the concerns expressed in that report remain unresolved. The absence of a repository reference design remains a problem affecting many aspects of the NRC regulatory program.

In this letter, we provide some additional conclusions by the Committee:

1. Continued emphasis by DOE on the two-stage licensing approach will pose serious difficulties for the Commission. A lack of sufficient data, the use of bounding assumptions, the likely absence of a detailed repository design or critical decisions about the design (e.g., thermal management), and the absence of other information needed for determining the quality of conclusions reached by DOE will unduly complicate the Commission's decisionmaking and at best, could lead to conditional decisions. The two-stage licensing process, while not necessarily faulty in principle, is in this instance relatively uncertain. In order to clarify the consequences of decisions to proceed with two-stage licensing as currently described, the Commission should ask the NRC staff to analyze the uncertainties that will be reflected in the response to the license application and to define, at an early stage, what limitations DOE can expect in the NRC decisions on the license application.
2. The NRC staff has stated that a much closer and more timely surveillance and tracking of DOE activities is necessary. We recommend that the NRC staff and the DOE discuss the

need, in light of the program approach and schedules, for more rapid access by the NRC staff to the DOE data and results. There will need to be adequate evaluation and analysis of the results by DOE and its contractors prior to their use by the NRC. The NRC staff needs to be proactive in obtaining early access to the data and results that will be contained in the license applications. However, the staff must also recognize the need for DOE to ensure the quality and validity of the data transmitted, and for the orderly management of their program.

3. The emphasis by DOE on the use of bounding assumptions in modeling with limited field and laboratory data makes evaluation and prioritizing by the NRC staff of parameters and phenomena more dependent on the staff's judgment than on the results of analytical processes. This dependence would be diminished if performance assessment is expedited. The staff will need to ensure that it is able to evaluate and prioritize the technical issues and bases for scenarios that are to be evaluated and for which data or reliable models will be required. We believe this assignment, although difficult, is vital to ensure that the staff resources are employed to meet the schedule requirements contemplated by the DOE program approach. We reemphasize the need of the NMSS and RES staffs to develop protocols for addressing, in the very near future, the potential deficiencies in the planned performance assessment. We are confident that the NRC staff can identify the high-priority issues and scenarios that relate directly to the regulations. The NRC should reorganize its license application review strategy and the PA programs in light of the expected deficiencies in the information supplied by DOE.
4. The NRC staff should formulate, as early as possible, the issues in the current DOE program approach that may be unresolved or difficult to resolve. One path would be to identify the anticipated results that would be available by the deadline for decisions on the site suitability. Owing to the complexity of the system and the descriptions of a suitable site, early awareness of the status of data and modeling related to the site characterization should be developed. The status of the data base and the quality of the models should be analyzed by the NRC staff, and this information should be made available for the Commission decision and comment process at the time that the technical site suitability is transformed into a recommendation to be made to the President.

Sincerely,

Martin J. Steindler
Chairman, ACRS

April 28, 1995

The Honorable Ivan Selin, Chairman
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Dear Chairman Selin:

SUBJECT: THE NRC RESEARCH PROGRAM ON THE ENGINEERED BARRIER
SYSTEM

As a part of its review of NRC waste management research programs, the Committee, at its 70th meeting (January 18-19, 1995), heard a presentation and held discussions with members of the NRC staff and the Center for Nuclear Waste Regulatory Analyses (Center) on work related to the engineered barrier system (EBS), including the waste package. The Committee was briefed by and held discussions during its 72nd meeting (March 15-16, 1995), with representatives of the DOE on its work on the waste package. This topic is included in the Committee's program plan of November 1993. The review is based on specific requests from several Commissioners.

These discussions focused on the waste package, particularly on the subsystem criterion of substantially complete containment as specified in 10 CFR Part 60, "Disposal of High-Level Radioactive Wastes in Geologic Repositories." The more than fifty key technical uncertainties (KTUs) and user needs that had been identified in 1993 still represent the bulk of the program guidance for this area of research. Under a technical assistance program, the Center staff had investigated scenarios for the proposed Yucca Mountain repository that would lead to predictions of the hydrochemistry and thermal environment of the waste package; such data were deemed critical to the identification of corrosion phenomena likely to be operative in the repository. In addition, the Center staff has been developing a model based on the concept of a repassivation potential that is aimed at the predictability of long-term corrosion behavior of metallic waste package components. The Committee was furnished with a list of relevant publications and presentations by the Center and the NRC staff. In addition, we heard a brief description of the next phase of the integrated waste package experiment (IWPE) that will be initiated in the beginning of Fiscal Year 1996.

The foundations for ranking research priorities were described as a sequence of studies that are first initiated by the staff under a technical assistance program where issues are evaluated to determine if a research program is warranted. Key technical uncertainties are developed from the results of the technical assistance programs, and on this basis research by the Center and the NRC's Office of Nuclear Regulatory Research (RES) is

initiated. Currently, prioritization of research topics/areas is based on the experience and judgment of the staff. Although the Committee believes that the use of staff expertise and insight is a fully acceptable means of identifying the scope and nature of unresolved issues, and hence identification of the bases for the KTUs, the Committee recommends that systematic performance assessment of the EBS should be employed to (a) ensure that the full scope of important problems has been identified and (b) define the priorities for research related to the importance of unresolved issues. The use of tools such as the performance assessment of the EBS should be made more visible. This visibility would aid in the comparison of facets of the new DOE program approach and would likely reveal information needs of the Office of Nuclear Materials Safety and Safeguards (NMSS) staff in the review of the expected license application.

In addition, broadly based KTUs have been used for defining user needs and these have been employed to educate the staff and Center personnel to issues expected in the management of the license application and development of the compliance demonstration methodology. Here, too, the exclusive reliance on staff may be adequate at present, but it is not clear how such a process will produce the necessary rigorous evaluation of the DOE documents that the evaluation process for the license application will require. The few (seven) broad KTUs result in almost ten times that many specific key uncertainties which may become initiators for research activities. The NMSS staff is planning for a future review of more than fifty KTUs to determine if they are necessary and relevant. Since the KTUs may only be redefined in the future, the basis of the present program is ill defined and may not be in concert with the new DOE program approach. The Committee urges that the bases for the EBS research program be sharply focused and that all KTUs and user needs be revised and consolidated very soon in order to present a coherent planning base for the implementation of the second phase of the IWPE to be started in the beginning of FY 1996.

The Committee heard the NRC staff and Center discuss the problems of extrapolating results from short-duration corrosion studies to the long-term performance required by the regulatory requirements. The Center staff has developed an approach of using a model based on the repassivation potential as a predictive tool. The identification of the problem of extrapolation of short-term data to long-term performance of the waste package containment system seems appropriate and will very likely be a major issue when the NMSS staff reviews the DOE license application. The rate at which the basic aspects of this model are being developed and tested, and the limited scope of the corrosion studies that fail to include radiation effects, microbial-induced corrosion or consideration of natural earth potentials all lead to our conclusion that this important subject should be placed on a more deliberate and planned strategic path. In addition, we urge that the strategy for understanding the

limitations and uncertainties of extrapolation of short-range data in the corrosion field requires that several approaches be pursued simultaneously. Early elicitation of advice from a wide range of experts in this field could be very useful. Finally, a much more integrated approach to defining program activities must be developed which include the interaction of earth scientists, material scientists, modelers, and performance assessment specialists.

As presented to the Committee, comprehensive plans for the new IWPE appeared to be based on sound planning. The bases for program planning were largely the judgments of the NRC and Center staffs. However, an attempt to make the results of the program useful and independent of the changes in direction of the DOE program, could make application of a rigorous performance assessment-based prioritization unwieldy. The Committee is also concerned that the results of activities of a program that will not be started until the next fiscal year and is to function for the five-year period during which the DOE plans to complete and submit its first license application will be far less timely than desirable. If resource restrictions do not allow a more aggressive pursuit of the various parts of the program, a much more deliberate prioritization of projects should be undertaken, being mindful of the time requirements of individual experimental activities.

In conclusion, the Committee believes that the EBS research and technical assistance programs have been able to pursue useful and, in accord with past schedules, timely activities. The changes in the DOE program and schedules may require modifications in the NRC staff approach to program planning, scope, and structure of research dealing with the EBS. These changes include the following:

1. An integrated research program on the EBS should be planned on the basis of performance assessment estimates that also allow evaluation of uncertainties and consequent prioritization of information needs. Such planning should take into account the experimental difficulties of obtaining reliable information, include contributions from sciences and technologies other than corrosion science, and should be scheduled to accommodate the needs of NMSS.
2. Deliberate planning, as described above, needs to include the performance of the entire EBS in comparison with both of the 10 CFR Part 60 subsystem criteria that affect the EBS; namely, the substantially complete containment requirement and the low-release-rate requirement. Little information was provided to the Committee on the latter, leading it to conclude that little attention is being devoted to this topic.

3. The problems of extrapolating short-term corrosion data to the long regulatory timespan fully warrants attention. The approach devised by the Center which will be subjected to expansion and testing may succeed, but should be modified to take into account aspects of the repository environment of the waste package that are currently missing, namely, microbial-induced corrosion, radiation, and earth potentials. Further, the reliance on a single model for this extrapolation appears sufficiently risky to warrant a parallel effort.
4. RES and the Center should ensure that improved coordination among the scientific specialties potentially involved in studying the EBS are brought into the planning process. We strongly recommend that realistic models based on earth science considerations be used to describe the chemical and electrochemical environment of the waste package.
5. Finally, there continues to be some uncertainty and lack of clear strategy on distinguishing between research to be accomplished by DOE and that to be done by the NRC staff and the Center. A clearer delineation of the scope of the KTUs as they are expressed by the user needs would aid in the optimization of staff and other resources in the execution of these and other research activities.

The Committee plans to follow the developments of the new IWPE and the impact of the results of this work on the performance assessment studies and their application. We will endeavor to evaluate the sufficiency of the program once the planning process has become more systematic.

Sincerely,

Martin J. Steindler
Chairman, ACRS

April 28, 1995

The Honorable Ivan Selin, Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Dear Chairman Selin:

SUBJECT: THE U.S. EPA PREPROPOSAL DRAFT OF 40 CFR PART 193 AND
THE NRC'S PROPOSED RADIOLOGICAL CRITERIA FOR
DECOMMISSIONING

At its 71st meeting, February 21-22, 1995, the Advisory Committee on Nuclear Waste had presentations from and held discussions with representatives from the U.S. EPA, the NRC staff, and the Nuclear Energy Institute on EPA's Preproposal Draft (hereinafter referred to as Draft) of 40 CFR Part 193, "Environmental Radiation Protection Standards for the Management, Storage and Disposal of Low-Level Radioactive Waste." We initiated this review at the request of a Commissioner and because of its relevance to the Committee charter and program plan. As an adjunct to the discussions of factors impacting the generation and disposal of LLW, the Committee heard at its 72nd meeting, March 15-16, 1995, a presentation by and discussed with the NRC staff issues on the residual contamination levels associated with the decontamination of facilities and sites used for activities regulated under the Atomic Energy Act. These discussions addressed the bases for and the impact of levels of residual contamination allowed under the proposed decommissioning rule.

The Draft is divided into three subparts. Subparts A and B concern the management, storage and disposal of LLW and Subpart C concerns groundwater protection. Subparts A and B cite an upper limit to the annual committed effective dose (CED) of 0.15 mSv (15 millirem). Subpart C requires that the level of radioactivity from the disposal system in any underground source of drinking water be less than the maximum contaminant level (MCL) which, for radionuclides, is equivalent to an annual CED of 0.04 mSv (4 millirem).

The Committee could not evaluate the technical bases for the Draft or for many of the topics presented in the text accompanying the Draft since the background information documents, the regulatory impact analysis, and the environmental impact analysis in which such information is expected to be detailed are not yet available. Therefore, we focused our discussions and review on the apparent bases for the action recommended by the EPA and also estimated the potential impacts that were evident from the text that accompanied the Draft. The absence of detailed scientific analyses that lead to the standards in the Draft makes our conclusions less firmly based

than desirable. We plan to examine the technical issues as soon as the supporting documents become available.

We believe the Draft can be divided into two parts that can be considered separately. The first part deals with the protection of the health and safety of the public and is represented by Subparts A and B. The second concerns the application of the drinking water standards and is found in Subpart C. On that basis, we offer the following conclusions:

1. The standards in Subparts A and B dealing with the management, storage and disposal of LLW and its relation to public health and safety may effectively provide the same extent of protection as is obtained from provisions in 10 CFR Part 61 and 10 CFR Part 20 when these regulations are combined with application of the ALARA principle. Although there may be some differences in applicability of each of the NRC regulations, we conclude that the Draft provides protection that appears to be redundant with that provided by the NRC regulations. This conclusion is based on the NRC staff calculation that the 25/75/25 millirem regulation found in Section 61.41 is equivalent to the 0.15 mSv (15 millirem) in the Draft. In addition, in the absence of a clear intent in the Draft, we recommend that the limiting individual (or member of the public) subject to exposure from the LLW be clarified to mean "the average member of the critical group."
2. The selection of the 0.15 mSv (15 millirem) annual CED represents an unnecessarily conservative fraction of the 1 mSv (100 millirem) annual CED limitation recommended by the International Commission on Radiological Protection (ICRP) and the National Council on Radiation Protection and Measurements (NCRP) for the population. The need to partition the annual recommended limit among several sources from which a person is likely to be exposed appears justifiable. We have not found explicit guidance from the various national or international bodies, e.g., ICRP, on this subject.

Nevertheless, we believe that one-third (Reference 4) or one-fourth of the 1 mSv limitation is more easily justified, based on the likelihood that no more than three or four separate, regulated sources will affect the exposed person at any instance. The selection of one-seventh of the annual limit, i.e., the assumption that a person will encounter a simultaneous dose from seven different, regulated sources, appears to be unjustified, particularly since the application of the ALARA principle accompanies all such NRC regulatory actions. In addition, the nature of the partitioning of the annual effective dose limit is highlighted by the NCRP comment (Reference 3) that ". . . whenever the potential exists for exposure of an individual

member of the public to exceed 25 percent of the annual effective dose limit as a result of irradiation attributable to a single site, the site operator should ensure that the annual exposure of the maximally exposed individual, from all man-made exposures (excepting that individual's medical exposure), does not exceed 1 mSv on a continuous basis. Alternatively, if such an assessment is not conducted, no single source or set of sources under one control should result in an individual being exposed to more than 0.25 mSv annually."

We also have reservations about the applicability of this level to residual contamination following the decontamination of a site or facility. This is especially pertinent when it is noted that the permissible residual activity limit is further reduced by the dose attributable to drinking water. Thus, the net allowed exposure of a person in the most exposed group could actually be as low as 11 mrem annually, a level that, especially when in concert with the ALARA principle, becomes unnecessarily restrictive and without justification. The impact of such regulations on the volume of LLW generated by decommissioning and the risk associated with the generation, transport, and disposal of this LLW require a reevaluation of these regulations.

3. The application of the drinking water standard to the disposal of LLW (Subpart C of the EPA Draft) presents, for at least the several reasons cited below, an entirely different approach to the promulgation of generally applicable environmental standards. The material in the Draft and discussions during our meeting indicated that both the application of the drinking water standard and the level of that application is not now based on evident rationale, in part because the background information documents are not available.
 - a. There is no evident technical basis for the application of the drinking water standard (applied at the tap) to an underground aquifer at the boundary of the LLW disposal facility. In fact, the text accompanying the Draft indicates clearly that this application is a policy issue and not a technically driven standard. We believe that the EPA should provide the cost-benefit support for such a decision and, in the absence of documents supporting the Draft, we have seen no such support.
 - b. The application of the drinking water standard as in the Draft has the effect of moving the point of compliance from the water tap, as it is for the existing drinking water standard, to the fence of the disposal facility. An important factor included in this shift is the definition of drinking water adopted

by the EPA which includes waters containing concentrations of solids at levels significantly above those that can be used for human purposes without treatment. We believe that this change may severely limit, without providing an appropriate benefit, the use of any humid site, otherwise qualified, to serve as a LLW disposal facility.

- c. The introduction of a new standard, particularly the coupling of the exposure standards with the drinking water standard, may introduce confusion and delays in the siting of LLW disposal facilities. In the absence of substantial and necessary improvements in the protection of the health and safety of the public, the application of the Draft standard is likely to be detrimental to progress in siting LLW disposal facilities. A significant refocusing of the application of the Draft standard on the health and safety of the public may therefore be warranted.
 - d. We see little technical justification based on the protection of the health and safety of the public for a 0.04 mSv (4 millirem) annual CED for drinking water. In addition, the identification of nuclides that are to be compared to the standard and the relationship of the contributing nuclides to those that are naturally present point to the need to define requirements that modify the application of the standard to selected aquifers owing to the existing levels of certain nuclides. Hence, a level of radioactive contamination that is equivalent to the 0.04 mSv annual dose is not always acceptable as an expression of an environmental standard, and EPA is seeking alternatives to the application. The potential for shifting the drinking water standard depending on the nature of the background indicates clearly that the standard is not in concert with real situations. If the EPA is to protect resources, then other means, e.g., legislative provisions, must be devised to accomplish this goal.
4. We agree with one aspect of the motivation of the EPA to provide the Draft at this time. The standards and regulations pertaining to the management and disposal of LLW by the DOE and by commercial activities are scattered throughout the Federal regulations and are not consistently defined. A single source of standards, coupled to a set of uniform NRC regulations on the management of LLW, would represent a desirable alternative.
 5. We are aware of the communication from the EPA (Reference 5) offering to waive the application of the Draft standard to the NRC if the EPA drinking water protection standard were to be included in the NRC regulations. Since the general

protection afforded by existing NRC regulations already appears to be equivalent to those proposed in the Draft, and since the applicability of the groundwater standard to the LLW disposal site is apparently not technically justified, we recommend that the proposed waiver be studied further to ensure that there are benefits to the protection of the public that could only be obtained by its acceptance. We do not see such benefits at this time.

The Committee plans to continue the study of the Draft once the background information documents and other documents become available. We believe that at present there appears to be too little information for a complete technical evaluation of the Draft, and we recommend that the Commission defer its final decision. It is likely, however, that the impact of the Draft may be detrimental to the progress in implementing LLW disposal among the State compacts and, therefore, the EPA should be urged to complete the standards development process including issuance of the background information documents as soon as possible. Finally, in light of the similarities in the recommendations of the EPA regarding LLW and the NRC staff regarding residual contamination levels following decommissioning, the Commission is urged to foster a government-wide consistent and practical approach to the regulation of very low levels of contamination.

Sincerely,

Martin J. Steindler
Chairman, ACRS

References:

1. Preproposal Draft, "Environmental Radiation Protection Standards for the Management, Storage and Disposal of Low-Level Radioactive Waste (40 CFR 193)," November 30, 1994
2. Radiological Criteria for Decommissioning, Federal Register, Vol. 59, No. 161, pp. 43200-43232, August 22, 1994
3. National Council on Radiation Protection and Measurements, NCRP Report 116, "Limitation of Exposure to Ionizing Radiation," p.47, March 1993
4. Clarke, Roger H., "The ICRP Principles of Radiological Protection and their Application in Setting Limits and Constraints for the Public from Radiation Sources" (Presentation to the Nuclear Regulatory Commission, January 12, 1995)
5. Letter dated October 21, 1994, from Margo T. Oge, EPA, to Robert M. Bernero, Office of Nuclear Material Safety and Safeguards, NRC, regarding EPA's preferred option for dealing with groundwater protection at commercial LLW disposal sites

April 28, 1995

The Honorable Ivan Selin, Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Dear Chairman Selin:

SUBJECT: REGULATIONS PERTAINING TO CONTAMINATED STEEL SMELTING
FACILITIES AND DISPOSAL OF CONTAMINATED BAGHOUSE DUST

At its 72nd meeting, March 15-16, 1995, the Advisory Committee on Nuclear Waste had discussions with representatives of the Steel Manufacturers Association, Florida Steel Corporation, the NRC staff, and others concerning the problems faced by the industry from contamination introduced into their facilities from uncontrolled radioactive sources. This topic was reviewed at the request of the NRC staff. However, the Committee realized that the issues surrounding the problem may be better addressed by consideration of basic causes and, therefore, in this letter we make specific recommendations and also identify more general courses of action.

The sources, usually ^{137}Cs , arrive without detection in the scrap steel used as feed to the smelters. The failure to detect these sources cannot be attributed to a lack of effort exerted by the various groups handling scrap steel from its generation to the smelter plant. The radioactive sources are licensed by the NRC or by Agreement States but were illegally disposed of, lost by, or stolen from the licensees. The inadvertent introduction of such sources into the scrap steel smelting operations contaminates the smelting facilities and, owing to the volatilization of cesium, contaminates the dust from the smelter that is usually collected by bag filters. Since the filters also contain volatilized and condensed cadmium, lead, and zinc in fine dust form, the contamination of these dusts results in the formation of slightly contaminated hazardous material that is designated as mixed waste. Means of disposal of such mixed waste is not readily available. In addition, normal practice of recovery of the zinc in the dust effluent would become an operation with radioactive material and, thus, the economic value usually derived from zinc recovery is lost. Disposal or replacement of contaminated smelting facilities is clearly a significant economic burden to the industries involved and may represent a modest risk to workers.

The Committee is aware of the Draft BTP on the disposition of ^{137}Cs contaminated baghouse dust. The proposed recycle/reuse criteria developed for a second enhanced participatory rulemaking (SECY-94-221 dated August 19, 1994), in response to the March 10, 1994 SRM (COMFR-94-001), specifically call for examination of the

issues brought to the Committee in our review. We believe that the general regulatory position in the Draft fails to address the specific, underlying causes of the problem with sufficient focus to be effective in the near term.

We believe that this problem requires additional action by the NRC. If, as seems likely, the Agreement State or NRC surveillance of the programs of licensees that own and use such sources does not detect weaknesses that lead to loss of sources and inability to trace lost or stolen sources, the NRC should require a quick and effective remedy of such deficiencies. Further, the Committee believes that the NRC should ensure that specific deficiencies in Agreement State or NRC programs that could lead to a lack of control of radioactive sources by licensees be corrected as quickly as possible. We are aware of the gradual but minor increase in radioactive background from the introduction of sources into the steel smelting and production operations and believe that this trend should be slowed or stopped. Although illegally disposed of, lost, or stolen sources largely represent a significant economic issue, they could also have health and safety implications indicative of an inadequate regulatory program.

Industry and the staff may urge the Commission to enact regulations that would defer or make unnecessary the labeling of contaminated baghouse dust or parts of smelting facilities as LLW or mixed waste. We urge the Commission to proceed in this matter with considerable care. The Commission should take into account: (a) the justification for considering a level of radioactive contamination as below the level of concern regarding health and safety of the public and (b) the need, based on a reasonable risk/benefit consideration, to manage wastes that may contain radioactive contamination at trivial levels.

The resolution of the steel smelter's concerns with regard to the disposal of contaminated material should be addressed with an appropriate eye to the lessons learned from past endeavors in this general area. For example, DOE could dispose of or store the generated mixed waste and material with low levels of contamination, particularly since the DOE intends to provide processes for some of the wastes of a similar type generated by DOE defense operations.

In summary, the baghouse dust issue is symptomatic of a continuing problem of low level contamination of waste or recycled material that has concerned us for some time. The staff should review the current Agreement State and NRC programs with regard to the accountability of radioactive sources to ensure

that they adequately address issues which could adversely impact public health and safety.

Sincerely,

Martin J. Steindler
Chairman, ACRS