

SUMMARY D
DECOMMISSIONING AND REGULATORY ISSUES

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The session was opened by the presentation of a position paper, "Decommissioning -- An Overview", by the workshop leader. This paper utilized about an hour and summarized the programs of the NRC, DOE, and international organizations.

At the conclusion of the paper, the leader presented 14 issues or questions to the workshop. These served to stimulate participation of those in attendance in discussions of the major issues in the area of decommissioning of nuclear facilities. The discussions were lively and were concluded on schedule at 5:00 p.m.

A brief summary of the major responses to the 14 issues is as follows:

- Q 1. The recent legislation on mill tailings requires cleanup and stabilization of the tailings and transfer of the associated land and tailings to the Government with continued licensing by NRC. Should this solution be applied to allow entombment of reactors and fuel cycle facilities with transfer of the land and radioactive materials to the Government?
 - A
 - a. Could be a last resort option.
 - b. Permanent commitment to waste disposal is objectionable.
 - c. Government care is not necessarily better than private.
 - d. Sites are too valuable to give to government.
 - e. Perhaps the government could charge a one time fee for take overs.

- Q 2. When a de minimis level has been defined for the unrestricted release of property should the ALARA principle be applied to it?

- A
- a. No. De minimis is not compatible with ALARA.
 - b. The de minimis levels are essentially satisfying ALARA.
 - c. De minimis level would have to be developed based on ALARA.
- Q 3. Should a lower allowable public dose from a decommissioned, rather than an operating facility be required since the property is no longer productive?
- A
- a. No. It's either safe or it isn't.
 - b. Bad question -- If decommissioned must be releasable and thus is safe.
- Q 4. Should a lower maximum allowable occupational dose be enforced during the decommissioning operations because the facility is no longer productive?
- A
- a. No. If it was safe before, it is still safe.
 - b. A basis will be needed if a change is to be made.
- Q 5. Should less stringent criteria concerning assuring the availability of decommissioning funds be applied to controlled facilities such as nuclear power stations under public utility commissions?
- A
- a. Some criteria should be applied to all facilities. Different emphasis might be applied for facilities controlled by public utility commissions.
 - b. Can't FERC impose uniform terms for power reactors?
 - c. Federal law may preempt state laws.
 - d. Different states and utilities have different circumstances. Will have to be handled on a case by case basis.
 - e. Some states are passing laws requiring decommissioning fund up front.
- Q 6. Should the threshold of detectability of radionuclides be a major factor in developing a de minimis level? If so, how?
- A
- a. No.
 - b. Primary consideration must be safety, but detectability cannot be ignored.

- Q 7. Should natural radiation background be a major factor in developing a de minimis level? If so, how?
- A
- Decontamination to original background level is impossible.
 - Yes, de minimis should be some fraction of natural background -- 5 to 10%.
 - Yes. Maybe one-half of natural background.
 - Yes. Perhaps in range of variations of natural background which varies by a factor of 2 in U.S.
 - ALARA forces one toward a small fraction of background.
 - Site should be returned to the background level before use for nuclear activity.
 - May depend on synergistic affect between radiation and other pollutants.
 - Make level low enough to remove problem from any synergisms
- Q 8. Most of the participants at NRC's State Workshops on Decommissioning believed that a dose of 1 mrem per year to the maximum individual was far too low to use as a de minimis level. Do you agree? If so, what is a better number? Why?
- A
- Yes. It is too low.
 - Scatter in background might be reasonable range to consider.
- Q 9. Is delay in dismantlement justified to a) reduce occupational exposure? b) save money?
- A
- Yes. If you can reduce dose and save money.
 - Depends upon potential future use of site.
- Q 10. What level of decommissioning planning should be completed at time of licensing? At time of decommissioning?
- A
- Detailed plan at time of licensing is not realistic.
 - Potential improvements in technology make detailed planning unrealistic.
 - Not knowing EPA requirements makes planning difficult.
 - Should plan during construction.
 - Some minimum plan is essential in order to plan for financing decommissioning.

- Q 11. Is entombment a viable decommissioning method for nuclides with long half lives, e.g. 20,000 to 80,000 years?
- A a. No.
 b. Should not proliferate waste disposal sites.
- Q 12. Is the NRC technical program adequate in terms of covering the right facilities?
- A a. No comments made.
- Q 13. Who should pay for decommissioning? When? How?
- A a. The owners.
 b. The users.
- Q 14. The States have advised NRC not to concern itself with the decommissioning of non-radioactive portions of nuclear facilities such as cooling towers at reactor power plants. Do you agree? Why?
- A a. Yes. Not RNC business.
 b. Someone may have to be concerned about NEPA relative to appearance of decommissioned sites.
 c. States should take care of this.