OPTIONS FOR U.S. NUCLEAR REGULATORY COMMISSION'S AUTHORIZATION OF 10 CFR 20.2002 REQUESTS

The U.S. Nuclear Regulatory Commission (NRC) currently has two different methods for approving 10 CFR 20.2002 requests from licensees, using letter approvals in the reactor program and license amendments in the materials and fuel cycle programs. Listed below is a range of options, including several with risk considerations, for how the Agency could approve these requests in the future, and the pros and cons of each, as directed by the Commission in its Staff Requirements Memorandum (SRM) for SECY-06-0056.

Option 1--Letter authorizations for low-doses, license amendments for higher doses

This option would provide for letter approvals for all 10 CFR 20.2002 authorizations below the few millirem/year (mrem/yr) dose guidelines that the staff uses for these approvals, but would require license amendments for all approvals of disposals above that level.

Advantages:

This option would be risk-informed, in that the approval mechanism would be tied solely to risk for all NRC licensees. Having different approval methods based on risk is likely to be more easily understood by stakeholders than the current practice, which is based on efficiency and effectiveness goals of each office granting the approvals.

Disadvantages:

This approach would be detrimental to the efficiency and effectiveness goals of the Agency. Materials and fuel cycle licensees would no longer have their licenses amended, but instead would receive letter approvals and so, for example, inspectors would have to take extra steps in preparing for and conducting inspections. This approach would also require resources for the Office of Federal and State Materials and Environmental Management Programs and the Regions to transition to using letter approvals. There is also a small possibility that this change could potentially impact reactor program resources to the extent that staff needed to approve a request above a few mrem/year with a license amendment and a hearing was requested and granted. Finally, it is possible that some stakeholders would object to the elimination of an opportunity to request a hearing for materials and fuel cycle licensees when the projected dose for a request is less than a few mrem/year.

Option 2 -- Hybrid--risk informed for reactor licensee approvals, status quo (i.e. license amendments) for all materials and fuel cycle licensee approvals

This option would maintain the status quo, except that any 10 CFR 20.2002 requests from reactor licensees with a dose above a few millirem/year would be approved with a license amendment. All other requests would be approved, if they met the regulatory criteria, as they are now--letters for reactor licensees, and license amendments for materials and fuel cycle licensees. In practice, the staff expects very few or no requests from reactor licensees with projected doses above a few mrem/yr.

Advantages:

The procedure for reactor licensees would become risk-informed, while preserving the efficiency and effectiveness of current procedures.

Disadvantages:

This option would change current policy and procedures for reactor licensee requests, even though few or no such licensee requests greater than a few mrem/yr are expected. If such a request were to be received, it would raise the possibility of an adjudicatory proceeding with the attendant expenditure of resources. For the purposes of estimating resources for each option in the Resources section of this paper, the staff has assumed that there would be no reactor licensee requests above a few mrem/yr, because of the low likelihood of receiving such a request. Nevertheless, the possibility of receiving such a request cannot be ruled out.

Option 3 -- All letter authorizations

Under this option, NRC would approve all 10 CFR 20.2002 requests that met the regulatory standards with a letter from NRC. The type of NRC licensee making the 10 CFR 20.2002 request would not be a factor in determining how approvals were granted.

Advantages:

This approach, like Option 1, is simple and easily understood and there would be no need to explain to stakeholders why NRC has two procedures for implementing the same provision in the regulations.

Disadvantages:

This option would have the same disadvantages as Option 1, since in practice, all but one of the 10 CFR 20.2002 requests involved less than a few mrem/yr for the projected dose. Efficiency and effectiveness in the materials and fuel cycle programs would be adversely affected because the approval method would change from license amendments to letters in virtually all cases. It is not risk-informed to the extent that choice of procedure is not based on risk.

Option 4 -- Status quo

Under this option, staff would continue current practice (i.e., approve all reactor licensee 10 CFR 20.2002 requests with a letter, and all fuel cycle and materials licensee requests with a license amendment).

Advantages:

This option preserves the efficiency and effectiveness attained by use of letter approvals for reactor licensees and license amendments for materials and fuel cycle licensees. Because there appears to be little, if any, need to change current practice, this option saves staff resources needed to implement changes. There are relatively few 10 CFR 20.2002

requests received each year, and the doses involved are almost always less than a few mrem/yr and often much lower.

Disadvantages

Current practice precludes the opportunity for an adjudicatory hearing for reactor licensee requests. However, the staff is implementing the SRM for SECY-06-0056 which includes enhanced methods for public involvement in 10 CFR 20.2002 reviews. Thus, the agency goal of openness is being met.

Option 5 -- License amendments for all approvals

Approve all 10 CFR 20.2002 requests through amendments to licenses.

Advantages:

This option would eliminate potential confusion about why NRC uses two different procedures for the same type of approval. There is little evidence, however, that this has been a significant concern among the public. Some stakeholders would view the opportunity for a hearing for all reactor approvals to be an advantage.

Disadvantages:

Converting reactor approvals from letters to license amendments for 10 CFR 20.2002 requests from reactor licensees would be inconsistent with the hierarchy of commitments that the Office of Nuclear Reactor Regulation has established for operating reactors for such requests. In addition, approving reactor requests with an amendment could add several months to the review and, if a hearing were to be held, up to 1 year or more to complete action on the license amendment. Significant staff resources would be required for such a hearing. Furthermore, the staff's other efforts to seek public input for significant 10 CFR 20.2002 requests, consistent with direction provided by the Commission in its SRM for SECY-06-0056, will provide meaningful opportunities for stakeholders to identify concerns regarding any 10 CFR 20.2002 proposals, and thus provide an alternative to an adjudicatory hearing for identifying public concerns.