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Hon. James Curtiss, Commissioner
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Jim:

When I testified on non-prescriptive regulation, I promised to write to with an explanation of one particular point. This relates to the concept of "partitioning the safety goal".

Roger Mattson described the approach NRC took on ATWS. The staff came up with what they believed would be a way to get system improvements where they were needed, but to allow licensees to decide how to do it. They set sub-goals which were to be met and verified by PRA. It did not succeed because it is technically unsound.

To sub-divide the safety goal is to substitute arbitrary judgment for engineering design. The whole idea is to make an integrated design that provides the required level of safety. PRA provides a way of checking it and of finding weaknesses or soft spots. It serves those purposes very well. But when the designer tries to design individual systems to arbitrary goals, that undermines any sound, integrated design process. What Mattson's people did on ATWS was to substitute arbitrary orders of magnitude round numbers for integrated design. It was backwards.

We have the identical problem with the unrealistic and unsound criteria for the high-level waste repository (10CFR Part 61). These were adopted against Joe Hendrie's better judgment because of pressures that forced him to do so or hopelessly delay other matters before the Commission. The result is the current almost hopeless impasse that the National Academy of Sciences report points up.

Sorry to be so slow with this response.

Sincerely,



A. David Rossin

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