ATTACHMENT 4

Comment – State of Nevada

November 5, 2002

Subject: Construction Authorization May Not Be Granted to DOE by NRC Absent Full Compliance with 10 C.F.R. Section 63.31

The State of Nevada wishes to submit the following observations with respect to DOE's anticipated application for authorization to construct a repository at the Yucca Mountain site. We make these observations because during the past few years, and with growing intensity recently, DOE and contractor personnel have said that the Yucca Mountain License Application will resemble a nuclear reactor license application in its initial level of detail. This is not acceptable under 10 CFR Part 63, and NRC staff should so inform DOE prior to its submittal of a Yucca Mountain license application.

1. In its regulations at 10 C.F.R. 50, *et seq.*, the Nuclear Regulatory Commission prescribes the circumstances under which an applicant may receive a construction permit allowing the applicant to build production and utilization facilities (e.g., a commercial nuclear power plant). While in the case of a commercial nuclear power plant, a permit to construct may be issued on the basis of a **Preliminary** Safety Analysis Report ("PSAR"), such a plant will not be licensed to operate unless and until the applicant has submitted a complete and acceptable **Final** Safety Analysis Report ("FSAR"). There may be several policy reasons to permit a commercial entity to expend millions of dollars of its shareholders' money when, conceivably, the plant may never operate because it never achieves a complete and satisfactory FSAR. Among these may be the fact that since well over 100 commercial nuclear power plants have been successfully built and operated, the assumption is that the expertise is readily available

to successfully establish the basis for receipt of an operating license by a nuclear utility. Another reason may be that, should problems arise during construction of a commercial nuclear power plant, they can be fairly readily addressed by redesign or reconstruction; and should problems occur during actual operation, the plant can be shut down in order not to jeopardize public health and safety. In any event, because the construction of such a nuclear power plant is a commercial venture, it is the utility, its investors, and its ratepayers who are "at risk" should the plant not be licensed, as they are the individuals who would benefit, should the plant succeed.

2. In the case of DOE's effort to construct the nation's first centralized repository for high-level nuclear waste and spent nuclear fuel, the circumstances (as well as the regulatory scheme) are much different. First of all, the proposed nuclear waste repository at Yucca Mountain would be a first-of-its-kind undertaking, and predictably, the last-of-its-kind undertaking as well. Second, it is not millions of dollars or even hundreds of millions of dollars at stake, should construction be commenced and then unsuccessfully terminated, but rather tens of billions of dollars. Moreover, DOE is playing with taxpayer dollars, now and in the future, and not the dollars of financial investors willing to take a risk in anticipation of a profitable outcome should the venture succeed. Most of all, however, given the severity and duration of the toxicity of the substances planned to be stored at a Yucca Mountain repository, such a repository presents public health and safety questions which are both unique and of a duration far longer than any previously dealt with by human science.

3. In recognition of some of these distinctions, and the enormity of the YMP undertaking, NRC has adopted a regulatory scheme far different from that employed with respect to commercial nuclear power plants. The basic provision (10 C.F.R. 63.3(b)) is simple: "DOE

may not begin construction of a geologic repository operations area at the Yucca Mountain site unless it has filed an application with the Commission and has obtained construction authorization as provided in this part. Failure to comply with this requirement is grounds for denial of a license." NRC's prerequisites for DOE to receive authorization for construction are set out at 10 C.F.R. 63.31. Perusal of its provisions makes clear that the level of readiness which must be demonstrated by DOE and the evidence which DOE must establish with respect to the public health and safety consequences of its proposed action are far different from the two-step, PSAR/FSAR scenario for commercial nuclear power plants.

4. The requirements of 10 C.F.R. Part 63, and particularly 63.31, are far different from the requirements of 10 C.F.R. 50. While it may be the case that additional information may be learned in the future by DOE with respect to performance of the site or of the proposed repository system at Yucca Mountain by 2010 (or whenever DOE is ready to seek authorization to receive and possess the nuclear waste) additional information does not in any way lessen the threshold DOE must first establish before it can **begin** construction. By way of example, 10 C.F.R. 63.31 requires that before the Commission may authorize construction of a geologic repository operations area at Yucca Mountain, it must determine:

- That there is reasonable assurance radioactive material can be received and possessed without unreasonable risk to the health and safety of the public.
- That there is reasonable expectation that the materials can be disposed of without unreasonable risk to the health and safety of the public.
- That the site and design comply with the performance objectives and requirements of subpart E.

- That DOE's quality assurance program complies with the requirements of subpart G.
- That DOE's personnel training program complies with the criteria of subpart H.
- That DOE's emergency plan complies with the criteria of subpart I.
- That DOE's proposed operating procedures to protect health and to minimize danger to life or property are adequate.
- (And most significantly) that DOE has described the proposed geologic repository as specified at Section 63.21.

5. For its part, Section 63.21 sets out a very substantial list of requirements regarding the description of the repository, security measures, quality control and accounting, site characterization work, and most of all: the Safety Analysis Report, the detailed requirements of which comprise several pages of the NRC's regulation containing dozens of required component parts. The requirement for a single, complete SAR, rather than a sequence of PSAR followed by a FSAR was originally in10 CFR Part 60, and was repeated when the Commission adopted Part 63. If the Commission had intended that the Part 50 track be followed, it had the opportunity to make this change when it promulgated Part 63. Apparently the Commission chose the complete SAR approach, which now requires DOE's compliance.

6. In a number of recent DOE presentations in various fora, one discernable theme has been that DOE will not be ready in December of 2004 or within any reasonable time thereafter to put on evidence in support of an application for construction authorization which meets the requirements of the NRC's regulations; that theme continues by suggesting that due to

the fact that it will be nearly a decade before DOE is ready to receive and possess nuclear waste at Yucca Mountain anyway, the Commission ought to be satisfied with "half a loaf" at the time of License Application, and merely await the full evidence necessary to evoke confidence in DOE's ability to protect the public health and safety at some later date, before the facility actually begins operating. This scenario would not be in accordance with the law, nor with the Commission's applicable regulations. Full compliance with the requirements of 10 C.F.R. 63.31 and 63.21, in general, and of the Safety Analysis Report, in particular, is vital to the protection of the health and safety of the citizens of the United States, in general, and of Nevada, in particular. Nothing less may be accepted as grounds for the Commission's issuance of a construction authorization for a Yucca Mountain repository.