

66 FR 13794
3/7/01

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Date: 5/17/01 4:37PM
Subject: support the "No Action Alternative" in the MOX EIS

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> Mark M Giese
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>
> May 17, 2001
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Please support the "No Action Alternative" in the MOX EIS, which would mean
> that NRC denies a license for the construction of the MOX fuel factory.
> This would throw it back to DOE as to what to do, since NRC has no
> jurisdiction over plutonium disposition. The immobilization track has
> been de-funded, but not officially canceled. Since DOE's Record of
> Decision states that the reason for a "dual track" is in case one track
> fails, it could be argued that the NRC no-action is a 100%
> immobilization route. It is also possible, however, that DOE would
> consider export of the surplus plutonium to Canada under the "Parallax
> Program," so it would be well to specify what alternatives you think
> they should analyze as part of their "No Action," and then tell them NO
> to MOX fuel!

>
Please reject any further consideration of the Duke Power ice condenser
> reactors. These reactors have an unacceptable risk level with the use of
> uranium fuel. Use of even more risky MOX should not even be
> contemplated.

>
Data should be shown on which NRC is calculating any of their projected
> impacts from the handling and use of weapon's grade plutonium as a
> reactor fuel. Where there is no data, all assumptions should be made plain
> and a statement of the degree of uncertainty associated with
> calculations intended to "model" weapons grade plutonium.

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> Evaluation of plutonium fuel use and reactor impacts must be site
> specific, not generic. NRC is proposing to do a generic analysis of
> reactor impacts, even though the contract states clearly which reactors
> will be used. They also did a generic "standard review plan" for the
> fuel factory license review and have revised 10 CFR part 70 to
> accommodate plutonium fuel production anywhere, any time. It must be
> ensured
> that this NEPA process is NOT transferable to the entire fleet of US
> reactors. The Duke ice condenser reactors are not appropriate as
> "reference reactors" for other types, nor is a more generic "reference
> reactor" a legitimate base for analysis of these unique systems.

>
> A Supplemental EIS (SEIS) should be done at the time that Duke or
> any other utility seeks a license amendment to use plutonium fuel. This
> SEIS should be specific to that reactor, and also include all of their
> ancillary contracts (again site-specific) such as nuclear laundry,
> so-called "low-level" waste storage, transport, incineration and
> disposal, high-level waste storage (on and off-site) transport and

Template = ADM-013

E-REDS = ADM-03
Add = T. HARRIS (TEH)

- > repository impacts--MOX high-level waste is hotter in temperature and
- > will have 2--4 times as much residual plutonium than uranium waste, so
- > there can be less per container, causing more storage space, more
- > shipments, more space in a repository.
- >
- > If a generic approach is taken to reactor use of plutonium fuel, the
- > EIS should also include the impacts of a return to the reprocessing of
- > nuclear fuel, since it is likely that the chosen location of the new
- > factory--the F Area at SRS which has a "canyon" for plutonium recovery
- > and high-level waste tanks--make it an ideal set up the reprocessing of
- > civilian reactor waste. This should also include a "Mobile Chernobyl"
- > scenario for nationwide irradiated fuel transport to South Carolina.
- >
- > The environmental records and operating histories of Duke, COGEMA,
- > Stone and Webster must be made publicly available, and openly cited in
- > NRC's analysis. To date, DCS has submitted the operating and
- > environmental record of Savannah River Site, which is not relevant.
- >
- > Making reactor fuel would require many more steps for purification
- > than immobilization would. One of these steps, called "plutonium
- > polishing," would generate millions of gallons of high-activity
- > alpha-emitting liquid waste. DCS has no plan for what to do with this
- > waste other than put it in one of SRS's tanks, many of which are already
- > leaking. NRC must include the disposition of all process wastes in their
- > analysis.
- >
- > The contract for the MOX fuel factory only specifies "de-activation"
- > at the end of 20 years. Other NRC licenses require provisions for
- > decommissioning. If NRC licenses this facility, they should have
- > regulatory responsibility for it through decommissioning.
- >
- > A complete environmental justice analysis must include not only the
- > communities adjacent to Savannah River Site, but also communities down
- > wind and down river, including subsistence fish consumers, and transport
- > routes for both the source material and the fuel transport, as well as
- > the reactor communities. Further consideration should be given to the
- > fact that this entire program has been located in the Southeastern
- > United States and whether it fits a pattern of "dumping on Dixie."
- >
- > If an analysis of MOX use is undertaken in this EIS, it must include
- > diminished reactor control due to the smaller number of delayed neutrons
- > rendering control rods less effective, and plutonium fission's
- > characteristic coefficient of heat where the hotter the reactor gets,
- > the easier it is to split plutonium, where uranium is the opposite.
- > There must also be assessment of acceleration in reactor component aging
- > due to more hard, fast neutrons. Higher levels of heat and fission
- > products should be assessed in terms of routine releases to air and
- > water, thermal impacts, worker exposure and all waste streams. All these
- > analysis should be straight reporting of real consequences, not modified
- > by "risk" factors. Risk analysis should be reported clearly and
- > separately.
- >
- > The source term (amount and type of radioactivity including
- > persistence) used in the analysis of a plutonium core accident must be

- > accurate, and the doses reported from projected accidents not modified
- > by risk factors. The DOE has validated the NCI finding by Dr. Ed Lyman
- > that there is an increased potential for cancer deaths from a core
- > breach accident with plutonium fuel in use A possible doubling in fatal
- > cancers associated with use of 100% MOX fuel, and the projected 25% or
- > more increase in cancer deaths associated with the DCS plan for a 40%
- > core is unacceptable and should be the basis for NRC to select the
- > no-action alternative and reject MOX license.

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- > Plutonium fuel increases all nuclear liabilities. The Price-Anderson
- > Act liability limits and insurance package must be evaluated, especially
- > with regard to increased taxpayer exposure.

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- > Substitution of plutonium for uranium in reactors is such a complex
- > prospect that the list goes on and on. NRC's own credentials for
- > regulation and oversight of weapons' grade plutonium are nil. This alone
- > should be the reason for them to select the No Action alternative.

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- > Thank you for your consideration in this matter.

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Sincerely,

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Mark M Giese

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