

January 4, 2007

Comments on DOE/RW-0585- Preliminary Transportation, Aging, and Disposal Canister System Performance Specification (Rev A)

1. The main flaw in this document is that it infers that it can be used in an NRC license application as a performance specification for a “system”, yet it references only a few parts of the system. These few parts are treated as if they can be isolated as parts not dependent on how the total system intergrates with utilities and other owners of spent fuel and HLW. The highly important disposal over pack specifications are not described at all! Yet (p4) says the vendor is not responsible for showing compliance with 10 CFR part 63, the DOE is. That leaves taxpayers liable doesn't it? Page one infers that the requirements are unique to DOE, but “may have to perform similar functions at purchaser sites” and “are expected to be similar to commercially available canister-based systems”. Problem is, you can't take parts of a whole and act as if they are separate. This is exactly what has happened in NRC certification of cask systems in the past when all components were not treated as part of an interrelated system.

TAD is not new. It is the reviving of the old multipurpose canister system discussed for years. The faults with it were that reactors all had different specifications for handling, transport and storage at their plant. The result was a lot of so called “generic” casks (given NRC generic certification) that were really “site specific” in a lot of respects. Also no site for disposal had been designated, so no criteria for a disposal canister, much less the over pack, could be developed. And here we are at the same stage again. A big concern always was that a canister certified for storage and transport could not be used also for disposal unless the contents and canister itself could be checked after all the handling and transportation. What shape would that “contents” be in upon arrival at the disposal site really? Could it just be sealed at the plant and then bounced all across the country – stored vertically – travel horizontally etc. and then put in a hole in the ground without rechecking the contents? How could repository criteria be met if canisters weren't opened and checked? This concern is as relevant today as it was years ago. If the TAD is to be used at waste producer sites for “storage”, then that is the same as “aging” and should be clearly stated as such. And shouldn't the “aging” be done at producer sites? It is my understanding that “storage” is not legal at a repository site. Isn't that so?

You can't say the TAD canister is for “storage” at reactors, but is really the same canister and only for “aging” at Yucca Mountain. If this standardized, integrated system is to work (and all of us working on dry cask storage all these years have been asking for standardization and integration) then DOE has to clearly explain to the waste producers how they plan to deal with all their different present ISFSI storage and handling systems. Who pays for what? Who owns what? Who is liable for what?

Is the TAD canister going to be applied to NRC for generic use at all reactors? That needs to be done under 10 CFR part 72, doesn't it? Shouldn't that be done by the vendor 1st? However to have criteria for this canister, you need criteria for the waste disposal over pack to be sure the canister is integrated with it. Yet the disposal over pack is not described. Seems that should be the first thing to be certified as site specific for Yucca Mountain, under 10 CFR part

72. This can't be done as apart of repository licensing. This is a dry cask system under 10 CFR part 72 and the transport overpack is part of 10 CFR part 71.

This document "expects" a lot if it infers that TAD canisters can easily be used everywhere. Pools have different size cask loading areas, different pool water chemicals, different lifting devices etc. a lot of which has already been changed to suit the casks they already have loaded for their own ISFSIs. Will a TAD canister really be able to be loaded at the plants (and military waste sites etc.)? Can it really be stored there? Can it be loaded in rail cars there? What happens at these sites is crucial to the whole waste system working at all.

Some decisions need to be made about ISFSI's exiting now. That fuel is aged already. Shouldn't that waste be the first to go to the repository? In an ideal world it would be taken out of those casks on pads and put in TAD canisters and shipped to Nevada to be put right in the repository. However, how can a plant with one cask loading area, already rigged for loading and unloading the casks designed for their use, unload all the cask on their ISFSI first, when spent fuel keeps filling up their pool? Looking at the real specifics – they would have to be able to load and unload their own cask and TAD canisters. Take Pt. Beach, for example, in Wisconsin we have several different casks on our pad and rigging for all this gets pretty specialized. I don't think any cask has ever been unloaded-which is a very complicated procedure. So will WEPCO, or the possible new owner (FPL energy) be obligated under the contract of either one (?) to unload their storage inner canister and transfer that waste to a TAD canister at their plant 1st? If not, why not? That is the oldest fuel. Shouldn't that go to the repository first since it would not require "aging" for such a long time, and would less radioactive and less dangerous to people on the transport route (as well as to waste handlers).

So waste already in storage at waste sites should go into TAD canisters first. This, then, surely sets some criteria for the canister itself and its performance criteria. Can it be loaded at the plant with the "aged" waste? How will this be done? For example, the VSC-24 casks at Pt Beach, Palisades, Arkansas – (and others – Trojan?) holds 24 assemblies – but TAD's hold only 21. So will the VSC-24 canister be unloaded in the pool and 3 assemblies put back in the pool (will there be room?) each time? Then the fuel loaded right into a TAD canister? Then what happens to the VSC-24 canister and storage over pack? Does that all remain at the reactor site as waste until decommissioning? And once the pad is emptied of all other casks, will the pad fit the criteria for a storage overpack, and TAD canister in the future? And then will the TAD storage overpacks remain at the site as waste too? States need to know what waste will be left when reactors close down and decommission costs need consideration. It seems that if present ISFSI's are not unloaded first, states might get stuck with that ISFSI for a long time. Reactors should not be allowed to load a TAD canister with newer spent fuel from the pool until all casks on the pad are unloaded first. Just how is this really to be done? Utilities observations are clearly needed here.

The lineup for placement of utilities as to which can send fuel to Nevada first can be rearranged by utilities trading places as I understand it. The contrast for lineup and which waste goes first needs to be reviewed so utilities clearly understand if, and when, they need to get set up to use a TAD canister. They need to know if that design performance specification will work for them as well as for Nevada. Integration of the system is of main importance.

Also, a limit needs to be set for “aging” time in Nevada – one year? “Storage” is to be done at plants. And no contracts to any new plant considerations should be allowed. What is the legal capacity of Yucca Mountain? What is the legal limit allowed on the surface at any time? Will a second repository be necessary? Certainly if that is the case already, no new plants should be built until a second repository is sited and built or we will have the same mess with all kinds of casks systems and ISFSI’s to deal with again in the future. Just how much spent fuel are present reactors licensed to produce? When will all pools be filled? What plans has this country to replace nuclear energy? Yucca Mountain may never open, so how many TAD canisters will DOE pay for before some loaded canisters of the certified design are tested over time in the drift? If Yucca Mountain plans are in such a mess that a disposal container can’t even be designed now, then its time to consider a real pile up of waste in the states of the reactor sites. Producing more spent nuclear fuel in hopes of a second repository is folly.