



Nuclear Energy Information Service

Illinois' Nuclear Power Watchdog since 1981

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12 April, 2017

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Region III
U.S. Nuclear Regulatory Commission
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RE: questions about Zion and other reactor decommissioning

Greetings John –

I hope this note finds you well. I have a few questions I'd like to run by you concerning reactor decommissioning. Hope you can assist with these:

1. NRC has maintained that there is no need to keep the wet SNF pools at decommissioned reactor sites, either for emergencies or normal transfer operations of SNF into/out of dry casks. NRC has maintained that portable "hot cells" would be the method used to conduct such transfers, should they be needed. Our questions are:
 - a.) Currently, who are the vendors/manufacturers of such portable hot cells in the U.S.? Please provide URLs to their corporate sites if you have them, since we will want to research the tech-specs for these units, something you may not have available. If you do, please provide them.
 - b.) How many such hot cells actually exist at this time?
 - c.) Where are they currently located?
 - d.) By what methods are they transported to sites in need? How long would it take one to get to Zion, if needed there?
 - e.) Are there different performance criteria for the hot cells for transfer of "high-burnup" fuel as opposed to "normal" SNF?

2. Given the absence of a permanent, deep-geologic disposal facility for HLRW, the NRC's revised "waste confidence" plan -- now labeled "continued storage of spent nuclear fuel" -- seems to allege that if necessary, reactor SNF can and will remain onsite in dry casks "for at least 60 years beyond the licensed life for operation of that reactor." However, the dry casks' licenses and probably actual physical capability to function, will expire prior to that milestone, requiring re-packaging even under normal operating, non-accident conditions. This will necessitate re-packaging of the SNF from old into new dry casks.
 - a.) How will these required SNF transfers be achieved in the absence of spent fuel pools?
 - b.) If hot cells are to be used, how many will be required for the U.S. reactor fleet of 116 reactors over that time period?

Thanks for your help with these questions. Stay well,

David A. Kraft, Director