

2

12/29/2011
76 FR 81996

Fax to RADB 301-492-3446

3 pages following from

**Jan Hillegas
Green Party of MS
PO Box 3234
Jackson, MS 39207**

RECEIVED

2012 FEB 27 PM 5:15

RULES AND DIRECTIVES
FBI/DOJ
FEB 27 2012

February 27, 2012

*SUNSI Review Complete
Template = ADM-013*

*E-RISS = ADM-03
Call = J. Drucker (dnd3)*

Questions and Concerns of Jan Hillegas, Acting Chair of the Green Party of Mississippi, for consideration in the Supplemental Environmental Impact Statement (SEIS) to the Generic Environmental Impact Statement (GEIS) for License Renewal of Nuclear Plants, regarding the proposed renewal of the operating license for Grand Gulf Nuclear Station. Submitted to the Nuclear Regulatory Commission February 27, 2012, and incorporating by reference questions raised but not answered at the public meetings held in Port Gibson, MS, January 31, 2012.

1 – In a news release January 31, 2012 for Earthquake Awareness Week, the Mississippi Emergency Management Agency said in part: “The New Madrid seismic zone stretches 40 miles wide and 200 miles long and affects parts of Illinois, Missouri, Ohio, Indiana, Kentucky, Tennessee, Mississippi and Arkansas. Between 1811 and 1812, a series of earthquakes near New Madrid, Missouri were felt as far south as the Mississippi Gulf Coast, according to the U.S. Geological Service. River banks on the Mississippi River caved in as far south as Vicksburg, even though Vicksburg is more than 300 miles from the epicenter.” (www.msema.org) Vicksburg is about 200 miles north of the Mississippi Gulf Coast and about 25 miles north of Grand Gulf.

After noting that “The New Madrid seismic zone ... is the most seismically active area of the United States east of the Rockies,” the U.S. Geological Survey “estimates the chance of having an earthquake similar to one of the 1811-12 sequence in the next 50 years is about 7 to 10 percent, and the chance of having a magnitude 6 or larger earthquake in 50 years is 25 to 40 percent.... the New Madrid region has high earthquake hazard.” (<http://geology.com/usgs/new-madrid-seismic-zone/>)

A U.S. Geological Survey report on Gulf Coast faults summarized that, “the belt of gulf-margin normal faults from Florida through Texas has strikingly low historical seismicity; the stress field and seismogenic potential of the underlying crust are unknown; and, therefore, the ability of the fault belt to generate significant seismic ruptures that could cause damaging ground motion is unclear. [emphasis added] Accordingly, the fault belt is assigned to class B.” However, it also noted that, “some of the sparse seismicity in the normal-fault belt may be artificially induced. Earthquakes of m bLg 3.4 and 3.9 in southeastern Texas and M 4.9 in southwestern Alabama may have been induced by extraction of oil and gas or injection of fluids for secondary recovery.” (http://geohazards.usgs.gov/cfusion/qfault/qf_web_disp.cfm?qfault_or=1237&qfault_id=2655) [emphasis added] While Claiborne County, where Grand Gulf NS is located, apparently has no oil wells, Jefferson County adjacent to the south has at least 23 major or minor wells, and there are hundreds in other counties of southwest Mississippi.

The NRC’s Environmental Review needs to evaluate each of these factors and report all findings.

2 – At the evening meeting in Port Gibson on January 31, 2012, I noted that in past years, there “has been quite [a] small number of fire departments, vehicles, [and] personnel in the county” and asked, “what assurance could people in this community have that ... fire could be put out before it caused a problem?” (Transcript, pp. 31-32) Rich Smith, NRC resident inspector, said that, “the state would bring as many people in as possible or try to mitigate it. As far as the plant itself, they have their procedures and ... they would take the appropriate actions to protect the plant and also protect the public.... What you have is a fire brigade made up of operators that respond ... and then they have agreements with the local fire departments to come and assist them if needed.... there would be ample amount of response from both state and even federal agencies,

if necessary, to protect the plant.” When I asked about “the status of fire stations and personnel at this time,” no one present knew the answer. Please provide an answer to that. And the NRC’s Environmental Review needs to evaluate local, state and federal resources available to handle a major fire with high winds, as I asked (Transcript, pp. 33-34), and include an evaluation of that scenario taking place early on a Sunday morning on a holiday weekend and other possible times.

3 – I did not receive an answer to my question (Transcript, p. 35) about “the approximate square footage or cubic yards” of radioactive waste now on site and “how much more accumulates every year.” Mr. Smith’s answer (Transcript, pp. 36-38) in terms of bundles, canisters, and so on, gave no dimensions. Please provide the dimensions and capacities of the containers and of the stored waste. And the NRC’s Environmental Review needs to calculate and evaluate the on-site storage of spent fuel under current and other possible conditions through at least 2044.

4 – Mayor Fred Reeves asked “what effect would the current upgrade at Grand Gulf have to do with the process?” (Transcript, p. 39) The only answer he was given was that “The EPU process that [is] currently ongoing is its own independent process. There are aspect[s] of the plant modifications that are going on that could impact our review, but we have processes in place to account for that.” (Transcript, pp. 39-40) Please provide Mayor Reeves and me with an actual answer to his question: What effect will the upgrade have on the processing of the application for license renewal? The NRC’s Environmental Review needs to evaluate all aspects of the upgraded plant, after it has been operating at the upgraded capacity, before being able to make a credible report on the environmental impacts of consuming more land and water, having more personnel on-site, storing more spent fuel, transporting low-level waste, etc.

5 – At the Port Gibson meeting, I asked “how far in advance the disaster at Fukushima was predicted” and “how the standards of the Japanese equivalent of the NRC compare with the standards of the US NRC in relation to the various safety and emergency preparedness things that were relevant to Fukushima” (Transcript, pp. 42, 45-46). When no one could answer, I said, “But you are the people who are in charge of figuring out whether Grand Gulf meets US standards... it seems to me that it’s very much within your job description to become familiar with how the standards compare and how the predictability of disasters figures into this and therefore the preparedness for the expected or the unexpected, all of those things. That’s why all of this is so important.” (Transcript, p. 46, emphasis added) The NRC’s Environmental Review needs to evaluate the relevance to Grand Gulf of US NRC standards for safety and preparedness vis-a-vis Japanese standards in light of the Fukushima challenge and response, including the radioactive water and waste continuing to spill into the Japanese environment a year later.

6 – When I asked at the Port Gibson meeting “about how many occasions or how many days was the level of the Mississippi River above flood stage?” (Transcript, p. 47), Mr. Smith responded with “feet mean sea level” and “buffer,” giving numbers from 132 feet to 53 feet. He also claimed that “a flooding event is not in the design base as an accident that is credible that could occur at Grand Gulf that would cause a core-damaging event.” (Transcript, pp. 48-52) I would appreciate a clear answer to my first question and to my followup question: “What was the historically highest level of the river, and then how many more feet would it have had to rise above what it has in 27 years or historically to cause a problem at the plant, and what kind of a problem would be caused by those additional feet[?]” (Transcript, p. 50) The NRC’s Environmental Review needs to evaluate the potential for flooding and the possible impacts at the historically highest level of the lower Mississippi River as well as a few feet above that level.

7 – I asked at the afternoon session (Afternoon Transcript, p. 28) whether the NRC considers it “safe to have an evacuation route that runs ... on the one road back past the plant.” I have raised the same concern several times in the past. The affirmative answer from NRC’s Nate Ferrer continues to defy logic, in my opinion. The NRC’s Environmental Review needs to evaluate the possible impacts on safe evacuation in scenarios including several dozen children visiting Grand Gulf Military Park, which is near but beyond the nuclear plant on the only road in or out, on a day when hard rains have made dirt or poorly paved roads impassable even on foot. And adequacy of the roads away from the plant, through and out of Port Gibson in case of emergency, needs to be evaluated considering potential numbers of permanent and temporary residents including construction workers, peak tourist numbers for local events, travelers who intend to pass through on local roads or the Natchez Trace Parkway, farm and domestic animals, etc.

8 – Ms. Debra Chambliss with the City of Port Gibson asked, “over the 27 years that Grand Gulf has been in operation, has there been any environmental or safety issues that the NRC has had to rectify at Grand Gulf?” (Transcript, p. 52) Mr. Smith’s response indicated that there have been some “white findings” in his four years at the plant but he gave no particulars. (Transcript, pp. 53-54) Please tell Ms. Chambliss and me the answer to her question about the 27 years of operation, with dates and summaries of the events or issues and the resolutions. And the NRC’s Environmental Review needs to evaluate whether the operator’s record for the 27 years shows sufficient attention to detail in prevention of “white findings” or worse that it can safely operate an expanded unit as it further ages over 20 more years beyond 2024, as proposed.

9 – I asked about the date of the announcement of what turns out to have been a “license amendment request” (Transcript, p. 61) to increase the capacity of Grand Gulf, which was granted without general public knowledge, and the expansion is now under construction. Please provide the date of that request and the steps in the process between the filing of the request and the commencement of expansion, including any required public notices, meetings or comment periods, and whether those included any news releases in addition to *Federal Register* publication or legal ads. The NRC’s Environmental Review needs to evaluate all aspects of the impacts of the additional capacity on Grand Gulf, the Mississippi River, and all people and properties possibly affected by any catastrophic events at the expanded plant.

10 – Please tell me the actions to date and any proposed or possible actions of the NRC staff regarding its recent discovery of “errors in GE Hitachi’s modeling of its ESBWR nuclear reactor design ... steam dryer ... when reviewing an application by Entergy to increase the power output of Grand Gulf nuclear plant.” NRC staff was to have met with GEH on January 31. (www.platts.com/RSSFeedDetailedNews/RSSFeed/ElectricPower/3908606) Please also tell me the staff’s evaluation of the potential consequences of the flawed design – which presumably had been reviewed extensively and approved by both GEH and Entergy – if the NRC staff had not in fact discovered the error and the flawed steam dryer had been installed at Grand Gulf and was operational. The NRC’s Environmental Review needs to evaluate how such design flaws got to the late stage of development without discovery, whether the design processes are sufficiently safe for other critical components, what corrective actions are needed to identify other possibly flawed designs in installed components, and the range of potential problems of any flawed designs.

Fax to RADB

301-492-3446

3 pages following from

**Jan Hillegas
Green Party of MS
PO Box 3234
Jackson, MS 39207**

February 27, 2012

NRC-2011-0262