

CCNPPEISCommentsResource

From: J Sevilla [qmakeda@chesapeake.net]
Sent: Friday, July 09, 2010 7:36 PM
To: CalvertCliffsCOLAEIS Resource; Quinn, Laura; woody.francis@USACE.ARMY.MIL; Steckel, James; Arora, Surinder
Cc: Peter Saar; Peter Vogt; Michael Mariotte; Allison Fisher; Paul Gunter; Bruce Gordon; Chris Bush; William Johnston; fabiada@yahoo.com; Timothy Flaherty
Subject: June Sevilla submission to DEIS (DRAFT NUREG 1936) and FSAR - #3 of 3 emails
Attachments: JuneSevilla - Input to DEIS 070910.pdf
Importance: High

TO: NRC - NUREG 1936 DEIS Staff Reviewers
NRC - FSAR Staff
NRC- Geological and Geotechnical Staff
US Army Corps of Engineers - Woody Francis
Laura Quinn - NRC
James Steckel - NRC

From: June Sevilla in behalf of self and Southern Maryland CARES

This is the 3rd of 3 emails submitted for consideration and ACTION, both on the DEIS and FSAR components of CCNPP Unit 3's application with NRC and USACE. The attached document covers issues related to the other 2 emails as well as additional issues on water quality, water resources, air quality and noise.

All 3 email submissions should be considered in total as they are inter-related.

Please forward this information to all other NRC staff and US gov't agencies reviewing the DEIS and FSAR.

Thank you,

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Federal Register Notice: 75FR20867
Comment Number: 9

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From: J Sevilla

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July 09, 2010

To: NRC - NUREG 1936 DEIS Staff Reviewers
NRC - FSAR Staff
NRC- Geological and Geotechnical Staff
US Army Corps of Engineers - Woody Francis
Laura Quinn - NRC
James Steckel - NRC

From: June Sevilla on behalf of self and So. MD CARES

RE: **INPUT TO DEIS**

There are many issues that impact the decisions drawn from DEIS. These issues which I am submitting cover geological, water quality, air quality, desalination plant, and noise calculations as they affect our environment and public safety. Until these issues are adequately investigated and resolved, the DEIS for CC3 contains errors and omissions caused by the Applicant and the pressures exerted on gov't agencies to grant permits even if the scientific evidence and reports show otherwise.

June Sevilla DEIS input #1:

Dr. Susan Kidwell's expert scientific analysis of the Applicant's FSAR Rev 6 is part of this submission which has relevant and critical impact to the decisions made in this Draft NUREG-1936 (DEIS). Please review Dr. Kidwell's expert scientific analysis of the Applicant's FSAR Rev 6 and all related documentation submitted today, July 9, 2010, including analysis done by Dr. Peter Vogt, another expert geologist who has collaborated with Dr. Kidwell and Dr. Curt Larsen, another local tenured geologist. Dr. Vogt's and Dr. Larsen's submissions were previously submitted to NRC via my (3/29/10) email to James Steckel, recorded by NRC on 04/07/10, ADAMS # ML 101140123. Another submission by Dr. Vogt on PROOF OF SOIL LIQUEFACTION at Calvert Cliffs area was submitted to NRC via my email to James Steckel on 05/04/10, ADAMS # ML 101460467.

The geological conditions in CCNPP property have been misrepresented by the Applicant in their FSAR and cover-ups have been discovered as apparent, by outside volunteer scientific sources. We are appealing to the NRC and to the USACE to take seriously this geologic condition and drainage by demanding that the Applicant conduct scientifically recommended steps (investigation and testing to determine the depth and direction of the Moran Landing

Fault Line) so that appropriate actions may be taken to ensure the public safety and the safety of ground and surface water resources.

Complacency and *ignoring readily discernible warning signs* caused the United States to go to war with the bombing of Pearl Harbor on December 7, 1941 and for the loss of lives during the 9-11 terrorist attacks on the twin towers of the World Trade Center and the Pentagon. As heinous as the consequences are of these historic events, they were man-made catastrophes. So what would be our defense against the forces of nature, like an earthquake or soil liquefaction because of fractures and inherent weakness in the soil beneath CCNPP, when this condition is exacerbated by massive structures and man-made hazards at Ground Zero? Common sense counsels us that scientific INVESTIGATION AND TESTING of the plausibly active fault site is the absolutely prudent first step in the PREVENTION of potential catastrophes, especially when such geological condition is the critical geological foundation ***upon which the proposed construction of a nuclear power plant***, and a yet uncertified *double reactor* at that, is being authorized by the Nuclear Regulatory Commission, Maryland State agencies, and the US Army Corps of Engineers.

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June Sevilla DEIS input #2:

The comment below was given to the NRC several months ago. Yet, the current version (Rev 6) of the CC3 FSAR that addresses these geological issues reflects the same unacceptable condition without additional investigation and appropriate testing. To my knowledge, the NRC has not required the Applicant, UniStar, to conduct the required bore hole and other tests to determine the depth and direction of the Moran Landing Fault Line, as recommended by Drs. Kidwell and Vogt. The ***drainage patterns in CCNPP property where this fault line traverses on the south side***, would not require an earthquake for the radioactive and non-radioactive effluents to leak into the aquifers that supply public drinking water, which is within the scope of the DEIS. Even *without an earthquake* (emphasis added), irreversible damage to the state's water supplies will occur through *cooling water irradiation contamination*, because of the fractures in the soil, even if just a slight shift of the soil foundation beneath CCNPP were to occur, considering the drainage patterns. How will CC3 supply electricity to the grid when the soil supporting the cooling water piping network and the CWS Cooling Tower, were to liquefy and damage the cooling water system because the soil was weak to begin with? Prevention of such catastrophic consequences are possible, if proper testing, validation, and other measures are undertaken regarding this undesirable and unsafe geological condition at the CCNPP site .

The NRC response that this issue is being addressed in the SER is not apparent to this writer’s knowledge. In fact, it appears that the NRC has accepted the “armchair” analysis that the Applicant has presented in the FSAR and based on Dr Susan Kidwell’s expert analysis of FSAR Rev 6 (which is part of this DEIS and FSAR submission), there is evidence that the **Applicant has done a clever cover-up this geological condition that has far reaching effects both in public safety and environmental impacts covered in this DEIS.**

Draft NUREG-1936 (DEIS), Appendix D April 2010 p. D-42, D-43:

24 6. Comments Concerning Geology

25 **Comment:** Careful mapping of the Miocene-aged sediment layers outcropping along the
26 Calvert Cliffs has been done and published subsequent to the construction of the existing power
27 plant in the mid-1970s. This new mapping shows--more accurately than was known before-- he
28 layers to be gently dipping (tilted) down to the southeast, and not disrupted by faults—except at
29 one site, located about 1 mile south of the Calvert Cliffs Nuclear Power Plant, just north of
30 Rocky Point. At this place along the cliffs, the layers appear to be offset a couple meters—that
31 is, the layers are not continuous. The offset is such that the layers to the south are higher than
32 those on the north. Detailed geological examination is needed to prove that the offset is not due
33 to mapping errors--unlikely--, and, if a fault is indicated, boreholes will be needed to establish its
34 strike (trend) and dip. (0019-35 [Mariotte, Michael])

1 **Response:** *The EIS will contain a short description of local geology. Geotechnical and seismic*
2 *issues are addressed in Chapter 2.5 [Section 2.8] of the staff's Safety Evaluation Report.*

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June Sevilla DEIS input #3:

The US Army Corps of Engineers relies upon facts and evidence presented by the Applicant and if the Applicant’s input such as geologic conditions and drainage patterns are presented with errors and omissions, and in this case of CC3, a clever cover-up and misrepresentation of the scientific evidence (see Dr. Kidwell’s expert scientific analysis included in this submission to NRC and USACE), then the conclusions made by USACE are based upon erroneous information, therefore cannot be relied upon to issue any permit without further investigation and review of the appropriate test results, after these investigations and testing have been conducted by the Applicant.

Draft NUREG-1936 DEIS Appendix J, p.J-9

26 basins; optimizing the switchyard; and refining the wetland delineation (UniStar 2008). Decision
27 options available to the Corps (which embraces all of the applicant's alternatives) are issue the
28 permit; issue with modifications or conditions; or deny the permit.

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June Sevilla DEIS input #4:

According to Draft NUREG-1936 DEIS Appendix D, p. D-43:

3 7. Comments Concerning Water Resources

4 **Comment:** What will be done with the salt and other minerals extracted by the desalination
5 plant? Returning these to the bay will have a disturbing effect on the salinity and ecology of the
6 area. (0006-4 [Baummer, Thomas])

7 **Response:** *Water quality impacts of operation of the plant will be evaluated by the staff and
8 described in Chapter 5 of the EIS. This assessment will include consideration of the impacts of
9 the effluents from the desalination system and its effect on aquatic ecology.*

The Applicant to date, has not presented sufficient details regarding the Desalination System, other than an initial study done several years ago which I located on the MD PSC website when the Applicant applied for CPCN 9127. UniStar has systematically and incrementally increased their demand for ground water use and that UniStar would use water from the desalination plant during the 5th year of construction. John Grace, the Chief of the Source Protection and Appropriations Division, which is part of the Maryland Department of the Environment Water Management Administration (MDE WMA) has granted a six year extension to UniStar on their permit to draw water from the already oversubscribed Aquia aquifer (normal is 2 years). UniStar's piece meal process of increasing ground water drawdown and demands for inordinately long extensions on their permit is an excessive bending over backwards by gov't agencies for a merchant plant that is also asking for federal loan guarantees at taxpayer expense. Currently, there are already HIGH LEVELS OF ARSENIC in the Aquia aquifer in 9 counties in Maryland (Coastal Western and Eastern shores), which has affected the water quality for the public water supply and the private residence wells of those residents like myself whose drinking and potable water supply comes from the Aquia. Aside from high arsenic levels, our residential wells could run dry for those of us who are at, or near sea level when we, the people, are competing with a privileged merchant plant like CCNPP Unit 3. The water demands of the residents and the current condition of the Aquia aquifer (low levels and continually decreasing, hence, also results in the high levels of arsenic) which I draw my potable well water supply is already oversubscribed TODAY; so how can the water quality and public potable water supply environmental impact be adequately assessed by the DEIS when UniStar's permit is still valid years from now and the water resources for the public are already low today and decreasing?

According to USGS Scientific Investigations Report 2007-5249: "Effects of Withdrawals on Ground-Water Levels in Southern Maryland and the Adjacent Eastern Shore, 1980-2005":

and found to be 20 ppm, yet the salinity or Total Dissolved Solids (TDS) for computation of Air Quality for the Bay cooling water for the CWS Cooling Tower was negotiated by the Applicant to be less than actual (17.5 ppm) This lower salinity value is estimated as opposed to the actual test results, which allows the Applicant to obtain the necessary “numbers” to meet air quality calculations for PM (especially PM2.5). This lower and estimated value affects Air Quality calculations and dispersion of air effluents because the amount of PM2.5 is under estimated. See below for some of the relevant sections in the DEIS:

Draft NUREG-1936 DEIS , p. 3-28:

2 3.4 Operational Activities

3 The operational activities considered in the review team’s environmental review are those
 4 associated with structures that interface with the environment, as described in Section 3.2.2.
 5 Examples of operational activities are withdrawing water for the cooling system, discharging
 6 blowdown water and sanitary effluent, and discharging waste heat to the atmosphere. Safety
 7 activities within the plant are discussed by the applicant in the FSAR portion of its application
 8 (UniStar 2009b) and are reviewed by the NRC as part of its safety evaluation report (SER) (in
 9 progress).

Affected Environment

Draft NUREG-1936 2-20 April 2010

1 Regional Chesapeake Bay temperature and salinity data are collected by participants in the
 2 CBP, which is a regional partnership that includes Maryland, Pennsylvania, Virginia, the District
 3 of Columbia (DC), the EPA, and citizen advisory groups. The CBP oversees monitoring at
 4 selected locations throughout the Bay. The CBP monitoring location CB4.4 is closest to the Unit
 5 3 site and is due east of the site. In 2005, the CBP measured water temperature extremes at
 6 location CB4.4 with a minimum and maximum of 35.1 and 85.3°F, respectively (UniStar 2009a).
 7 On a seasonal basis, the average temperature varied from 42.7°F in winter to 75.4°F in
 8 summer. Salinity extremes varied from 4.42 to 22.18 ppt.

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June Sevilla DEIS input #6:

MD Department of the Environment does not consider coordinated impact of dust and noise between construction phase and operational phase when computing impact to public health on PM, PM2.5.

NOISE Calculations and impact to public health when CC3 is in Operation:

The Applicant only conducted Leaf-on/Leaf-off scenarios in determining noise levels and the clearing of forests and shrubs which help alleviate noise were not considered in the calculations. Furthermore, the Applicant used only the CWS Cooling Tower noise as basis for these calculations. Noise from the ESWS Cooling Towers were not included in the study. All these omissions renders INCOMPLETE, the entire NOISE submission by the Applicant. See CPCN 9127 Noise submission of Applicant. http://webapp.psc.state.md.us/Intranet/Casenum/CaseAction_new.cfm?RequestTimeout=500? (enter case number 9127)

8 4.4.1 Physical Impacts

9 Construction and preconstruction activities can cause temporary and localized physical impacts
10 such as noise, odors, vehicle exhaust, and dust. Vibration and shock impacts are not expected
11 because of the strict control of blasting and other shock-producing activities. This section
12 addresses potential impacts that may affect people, buildings, and roads.

13 4.4.1.1 Workers and the Local Public

14 The land surrounding the Calvert Cliffs site is zoned for a combination of light industrial, farm,
15 forest, and residential uses, and is bounded by the Chesapeake Bay and to the west by forested
16 land. No significant industrial or commercial facilities other than the Calvert Cliffs site exist or
17 are planned in the vicinity. The recreational areas closest to the plant include the Flag Ponds
18 Nature Park to the north and the Calvert Cliffs State Park to the south, both of which are
19 adjacent to the plant site. Most construction and preconstruction activities take place during the
20 work week and most visitors use these parks on weekends. Also, the heavy forest cover of the
21 large Calvert Cliffs site itself is expected to buffer many effects of traffic, noise, and dust, and
22 therefore the increase in these attributes from construction and preconstruction activities is not
23 expected to significantly affect either Flag Ponds or Calvert Cliffs State Park (UniStar 2009a).