

From: [John Sukosky](#)
To: [Kellner, Robert](#)
Subject: [External_Sender] RE: Dredging James River in Unrestricted Area Outside Surry Power Station Intake Canal
Date: Tuesday, August 15, 2017 1:02:28 PM

Thanks Bob. This answers my question and you have accurately described the information you provided to NRC Headquarters.

Thanks again for your help.

John

From: Kellner, Robert [Robert.Kellner@nrc.gov]
Sent: Tuesday, August 15, 2017 10:11 AM
To: John Sukosky (Generation - 3)
Cc: Bonser, Brian; Nielsen, Adam; Garry, Steven
Subject: [External] RE: Dredging James River in Unrestricted Area Outside Surry Power Station Intake Canal

John,

After your email, and our initial phone call, I contacted my radiation safety counterpart in NRR at headquarters to discuss your question concerning dredging activities in the unrestricted area of the James River adjacent to the Surry intake. The following pertinent information was conveyed to headquarters:

- 1) The area to be dredged is in the unrestricted area of the James River outside, but adjacent to, the Surry intake canal.
- 2) The dredged material will be placed in an unrestricted area downriver from the Surry plant site.
- 3) Gamma spectroscopy analysis of sediment samples obtained upriver and in the area to be dredged, indicates the presence of Cs-137 at the same nominal concentration level (i.e. background levels attributable to fallout from historic nuclear weapons testing). No other power plant radionuclides were detected (e.g. Cs-134, Co-60, transuranics, etc.).
- 4) Sample analysis from previous dredging activities at this location have indicated the presence of Cs-137 at the nominal background concentration level, with no other power plant radionuclides detected.
- 5) An independent assessment and evaluation of the sediment sample analysis data will be performed, documented, and retained in plant records.
- 6) Applicable permits have been, or will be, obtained from relevant state and local regulatory authorities.

Based on the above information, headquarters agrees with your conclusion that NRC does not have regulatory jurisdiction over the dredging activities in the unrestricted area and that pursuing disposal using the 10 CFR 20.2002 methodology is not needed. However, because Surry is an operating nuclear power plant, which has a "no detectable licensed material" free release criteria, Surry does need to demonstrate that there is no Cs-134, or other power plant nuclides present, in the unrestricted area, and that the Cs-137 levels are equivalent to background levels from weapons testing.

Based on your statement that historical sampling results from the same area have not

identified any power plant radionuclides present in the unrestricted area, and your intention to have an independent evaluation of the sediment sample analysis results performed to validate that the Cs-137 levels are equivalent to background levels from weapons testing, you have sufficient technical justification to support your position that the dredging activities in the unrestricted area at Surry does not require any approval from the NRC.

Please let me know if this does not answer your question, or if I inaccurately described any of the information that I conveyed to headquarters concerning the dredging activities as it could affect the final response.

Regards,

Bob

Robert Kellner

Senior Health Physicist
USNRC/Region II/DRS/PSB1
Marquis One Tower
245 Peachtree Center Ave, NE
Suite 1200
Atlanta, GA 30303-1257
(404) 997-4508

From: John Sukosky [mailto:john.sukosky@dominionenergy.com]

Sent: Thursday, August 10, 2017 8:25 AM

To: Kellner, Robert <Robert.Kellner@nrc.gov>

Cc: Lee Ragland <lee.ragland@dominionenergy.com>; Paul Harris <paul.harris@dominionenergy.com>; William Terry <william.terry@dominionenergy.com>; Barry Garber <barry.garber@dominionenergy.com>

Subject: [External_Sender] Dredging James River in Unrestricted Area Outside Surry Power Station Intake Canal

Mr. Kellner,

Would you please provide guidance on any regulatory requirements for dredging sediment containing only Cs-137 in an unrestricted area of the James River outside the Surry Power Station Intake Canal? The sediment containing Cs-137 will be placed in another unrestricted area downriver on a piece of property recently purchased by Dominion.

We've taken representative samples of sediment in the Dredge Area as well as representative samples of background areas more than 10 miles upstream of the dredge area in the James (outside the influence of the plant). The radionuclide analysis shows no licensed material. The levels of Cs-137 observed in all sediment samples collected from the James River are consistent with environmental concentrations known to be attributable to fallout from historic nuclear weapons testing.

Since this concerns Cs-137 from fallout in unrestricted areas, I do not believe federal regulations apply in this case but I need the NRC to concur or provide further guidance.

The reason we need to dredge the river is that there is sediment buildup near the entrance to our intake canal that could start clogging intake pumps.

Thank you for your assistance.

John M. Sukosky, CHP
Health Physicist III
Radiological Protection, Surry Power Station

Dominion Energy
Phone: 757-365-2594; Internal: 8-798-2594
Fax: 757-365-2668
Pager: 804-273-3030 3636; E-mail: john.sukosky@dom.com

CONFIDENTIALITY NOTICE: This electronic message contains information which may be legally confidential and or privileged and does not in any case represent a firm ENERGY COMMODITY bid or offer relating thereto which binds the sender without an additional express written confirmation to that effect. The information is intended solely for the individual or entity named above and access by anyone else is unauthorized. If you are not the intended recipient, any disclosure, copying, distribution, or use of the contents of this information is prohibited and may be unlawful. If you have received this electronic transmission in error, please reply immediately to the sender that you have received the message in error, and delete it. Thank you.

CONFIDENTIALITY NOTICE: This electronic message contains information which may be legally confidential and or privileged and does not in any case represent a firm ENERGY COMMODITY bid or offer relating thereto which binds the sender without an additional express written confirmation to that effect. The information is intended solely for the individual or entity named above and access by anyone else is unauthorized. If you are not the intended recipient, any disclosure, copying, distribution, or use of the contents of this information is prohibited and may be unlawful. If you have received this electronic transmission in error, please reply immediately to the sender that you have received the message in error, and delete it. Thank you.