

**From:** [Yadav, Priya](mailto:Yadav.Priya)  
**To:** [Yadav, Priya](mailto:Yadav.Priya)  
**Subject:** RE: follow up on USGS flow rate data  
**Date:** Thursday, February 6, 2020 1:00:44 PM

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-----Original Message-----

From: Yadav, Priya [<mailto:Yadav.Priya@nrc.gov>]  
Sent: Thursday, December 5, 2019 12:29 PM  
To: 'Cherry, Robert N CIV USARMY IMCOM HQ (USA)' <[robert.n.cherry.civ@mail.mil](mailto:robert.n.cherry.civ@mail.mil)>; Evens, Andrew B CIV USARMY CELRL (USA) <[Andrew.B.Evens@usace.army.mil](mailto:Andrew.B.Evens@usace.army.mil)>  
Cc: Ridge, Christianne <[Christianne.Ridge@nrc.gov](mailto:Christianne.Ridge@nrc.gov)>  
Subject: [Non-DoD Source] RE: Amendment 4 to Davy Crockett SUC-1593

Brooks and Bob, I confirmed with Christianne that yes, the USGS flow rate data for the onsite streams would assist us in completing our review.

Thank you for your promptness,

Priya Yadav, P.E.  
Project Manager  
U.S. Nuclear Regulatory Commission  
Low-level Waste Branch  
Division of Decommissioning, Uranium Recovery, and Waste Programs Office of Nuclear Material Safety and Safeguards Office phone: 301-415-6667 Work at home phone: 650-274-9376

-----Original Message-----

From: Cherry, Robert N CIV USARMY IMCOM HQ (USA) <[robert.n.cherry.civ@mail.mil](mailto:robert.n.cherry.civ@mail.mil)>  
Sent: Thursday, December 5, 2019 11:27 AM  
To: Evens, Andrew B CIV USARMY CELRL (USA) <[Andrew.B.Evens@usace.army.mil](mailto:Andrew.B.Evens@usace.army.mil)>; Yadav, Priya <[Yadav.Priya@nrc.gov](mailto:Yadav.Priya@nrc.gov)>  
Cc: Valadez, Ernesto Jr CIV USARMY IMCOM HQ (USA) <[ernesto.valadez.civ@mail.mil](mailto:ernesto.valadez.civ@mail.mil)>  
Subject: [External\_Sender] RE: RE: RE: [Non-DoD Source] Amendment 4 to Davy Crockett SUC-1593

If it is not that hard for you to do this and it helps the NRC (Priya?), please go ahead. Thanks, Brooks.

Bob Cherry  
Health Physicist  
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Building 2261  
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-----Original Message-----

From: Evens, Andrew B CIV USARMY CELRL (USA) [<mailto:Andrew.B.Evens@usace.army.mil>]  
Sent: Thursday, December 5, 2019 10:15 AM  
To: Cherry, Robert N CIV USARMY IMCOM HQ (USA) <[robert.n.cherry.civ@mail.mil](mailto:robert.n.cherry.civ@mail.mil)>; Yadav, Priya <[Yadav.Priya@nrc.gov](mailto:Yadav.Priya@nrc.gov)>  
Cc: Valadez, Ernesto Jr CIV USARMY IMCOM HQ (USA) <[ernesto.valadez.civ@mail.mil](mailto:ernesto.valadez.civ@mail.mil)>  
Subject: RE: RE: RE: [Non-DoD Source] Amendment 4 to Davy Crockett SUC-1593

Yes I can gather information for you and break it apart by site and put that information onto a map.

-----Original Message-----

From: Cherry, Robert N CIV USARMY IMCOM HQ (USA) [<mailto:robert.n.cherry.civ@mail.mil>]  
Sent: Thursday, December 5, 2019 11:07 AM  
To: Yadav, Priya <Priya.Yadav@nrc.gov>  
Cc: Evens, Andrew B CIV USARMY CELRL (USA) <Andrew.B.Evens@usace.army.mil>; Valadez, Ernesto Jr CIV USARMY IMCOM HQ (USA) <ernesto.valadez.civ@mail.mil>  
Subject: FW: RE: RE: [Non-DoD Source] Amendment 4 to Davy Crockett SUC-1593

Ms. Yadav,

Below is my discussion with our USACE COR about flow rates.

Let me know what you think. If you want, Mr. Evens probably can point you to the USGS data, or maybe he would get it for you himself.

Bob

Bob Cherry  
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-----Original Message-----

From: Evens, Andrew B CIV USARMY CELRL (USA) [<mailto:Andrew.B.Evens@usace.army.mil>]  
Sent: Thursday, December 5, 2019 9:16 AM  
To: Cherry, Robert N CIV USARMY IMCOM HQ (USA) <[robert.n.cherry.civ@mail.mil](mailto:robert.n.cherry.civ@mail.mil)>  
Cc: Cerar, Randall J CIV USARMY IMCOM AEC (USA) <[randall.j.cerar.civ@mail.mil](mailto:randall.j.cerar.civ@mail.mil)>; Johnson, Jamie R. <[JAMIE.R.JOHNSON@leidos.com](mailto:JAMIE.R.JOHNSON@leidos.com)>; Valadez, Ernesto Jr CIV USARMY IMCOM HQ (USA) <[ernesto.valadez.civ@mail.mil](mailto:ernesto.valadez.civ@mail.mil)>  
Subject: RE: RE: RE: [Non-DoD Source] Amendment 4 to Davy Crockett SUC-1593

Yes please

-----Original Message-----

From: Cherry, Robert N CIV USARMY IMCOM HQ (USA) [<mailto:robert.n.cherry.civ@mail.mil>]  
Sent: Thursday, December 5, 2019 9:18 AM  
To: Evens, Andrew B CIV USARMY CELRL (USA) <Andrew.B.Evens@usace.army.mil>  
Cc: Cerar, Randall J. <[Randall.J.Cerar.civ@mail.mil](mailto:Randall.J.Cerar.civ@mail.mil)>; Johnson, Jamie R. <[JAMIE.R.JOHNSON@leidos.com](mailto:JAMIE.R.JOHNSON@leidos.com)>; Valadez, Ernesto Jr CIV USARMY IMCOM HQ (USA) <[ernesto.valadez.civ@mail.mil](mailto:ernesto.valadez.civ@mail.mil)>  
Subject: RE: RE: RE: [Non-DoD Source] Amendment 4 to Davy Crockett SUC-1593

Brooks,

I would like to pass your words on to Ms. Yadav at the NRC. It seems to me that the NRC could go with your option #1 themselves if they want to.

Option #2 has the problem that even if we have flowing water at the sampling time, it is a "grab" measurement. We have no way of knowing if it is indicative of the "true" or average flow rate. We would have to take many more measurements to assure ourselves we have a reasonable result. For that reason, I think option #1 is best, because the USGS results are authoritative.

So, is it OK with you for me to forward this thread "as is" to the NRC?

Bob

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-----Original Message-----

From: Evens, Andrew B CIV USARMY CELRL (USA) [<mailto:Andrew.B.Evens@usace.army.mil>]  
Sent: Thursday, December 5, 2019 7:41 AM  
To: Cherry, Robert N CIV USARMY IMCOM HQ (USA) <robert.n.cherry.civ@mail.mil>  
Cc: Cerar, Randall J CIV USARMY IMCOM AEC (USA) <randall.j.cerar.civ@mail.mil>; Johnson, Jamie R. <JAMIE.R.JOHNSON@leidos.com>; Valadez, Ernesto Jr CIV USARMY IMCOM HQ (USA) <ernesto.valadez.civ@mail.mil>  
Subject: RE: RE: RE: [Non-DoD Source] Amendment 4 to Davy Crockett SUC-1593

I guess we can go about collecting stream flow two ways

- 1) USGS Stream Gage Review. The USGS stream gage information available online could be reviewed. The measurements collected from nearby gage stations could be tabulated. While the measurements may not be located at the exact sampling location or stream, it is likely information is available from the watershed.
- 2) Measuring the Flowrate with an Instrument. There are many portable, handheld instruments available that could collect the flowrate or velocity of the streams at the sampling points during each sampling event.

many of the streams or sampling locations contain no surface water during the sampling events.

So my suggestion is to go with number 1 and report it in this upcoming report and provide it to NRC as support for the amendment, an amended amendment if that is doable.

-----Original Message-----

From: Cherry, Robert N CIV USARMY IMCOM HQ (USA) [<mailto:robert.n.cherry.civ@mail.mil>]  
Sent: Wednesday, December 4, 2019 10:50 AM  
To: Evens, Andrew B CIV USARMY CELRL (USA) <Andrew.B.Evens@usace.army.mil>  
Cc: Cerar, Randall J. <Randall.J.Cerar.civ@mail.mil>; Johnson, Jamie R. <JAMIE.R.JOHNSON@leidos.com>; Valadez, Ernesto Jr CIV USARMY IMCOM HQ (USA) <ernesto.valadez.civ@mail.mil>  
Subject: FW: RE: RE: [Non-DoD Source] Amendment 4 to Davy Crockett SUC-1593

Brooks,

One of the things I talked about with the NRC just now was our request to reduce environmental sampling to semiannual and to eliminate water sampling. They did not want to respond with a formal "request for additional information" (RAI) because they think they can work with the information I already provided. However, they said it

would be helpful in answering possible future questions if they had the flow rates for the streams from which we have been taking water samples. Does the contractor have that information, perhaps from the ARAP studies?

Regarding our question about transferring DU to the contractor's license for decommissioning, they think that item 16c of our license (attached) might allow the decommissioning without amending the license. So we may already be good to go. What do you think? My original interpretation was that we had to amend the license first because of what LC 16A says, but maybe that is not the case. They will let us know what they figure out; they are still studying it.

Bob

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