Message

**From**: Jones, Aaryn [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=C2BED08A5BD54DC5A9D59C5A345C9892-JONES, AARYN]
**Sent**: 1/8/2018 10:15:46 PM
**To**: Coughlan, Laura [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3e6fa5ffa7fb40d6908781a1eb5bb656-LCOUGHLA]; Annicella, Alan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6b6b72f981734f81b6bbcc0de5a6835f-Annicella, Alan]; Newman, Alan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ed9a025b947e4ad295f8b5e6b7b4e02b-Newman, Alan]
**CC**: Shaw, Jean [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a451fd0ebcdc479ebdff25f4194afd3e-JShaw]; Lamberth, Larry [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d76744d344414e8d884e9fa4e3633ea3-Lamberth, Larry]; Buso, Roberto X [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3130a0460095427da8b850e5585e36c7-Buso, Roberto X]; Picardi, Rick [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=15e2dc5d6f3748f98905c93a1037d158-RPICARDI]; Kreisler, Eva [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=862bbaae4d2c4b339e68790b2dbb1e94-EKreisle]; Shaw, Jean [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a451fd0ebcdc479ebdff25f4194afd3e-JShaw]; Tatum, Jana [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=22bb24b3008e4ea6827a186666f4877b-Tatum, Yanna]; Helms, Greg [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dcf1c80e0c28421ea97431a05caf6188-GHELMS]; Fagnant, Daniel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=03444b1da5e34bac88e40565e283128e-Fagnant, Da]; Yohannes, Lia [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=89264c93fc9242e9b14eaed070cf65f7-Yohannes, L]
**Subject**: RE: EPA Request for information (The Chemours Fayetteville, NC)

R4 – and we've had an unusual day in R4, with a delayed opening (weather) and the national college football championship game is tonight a few blocks from the building and we were all encouraged to telework. I will be asking folks tomorrow and will let you all know.

Thanks for all your input today!

Aaryn Jones
Environmental Scientist
U.S. Environmental Protection Agency
61 Forsyth St, S.W.
Atlanta, GA 30303
(404) 562-8969
jones.aaryn@epa.gov

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**From:** Coughlan, Laura
**Sent:** Monday, January 08, 2018 5:11 PM
**To:** Jones, Aaryn <Jones.Aaryn@epa.gov>; Annicella, Alan <Annicella.Alan@epa.gov>; Newman, Alan <Newman.Alan@epa.gov>
**Cc:** Shaw, Jean <Shaw.Jean@epa.gov>; Lamberth, Larry <Lamberth.Larry@epa.gov>; Buso, Roberto X <Buso.Roberto@epa.gov>; Picardi, Rick <Picardi.Rick@epa.gov>; Kreisler, Eva <Kreisler.Eva@epa.gov>; Shaw, Jean

<Shaw.Jean@epa.gov>; Tatum, Jana <Tatum.Jana@epa.gov>; Helms, Greg <Helms.Greg@epa.gov>; Fagnant, Daniel <fagnant.daniel@epa.gov>; Yohannes, Lia <Yohannes.Lia@epa.gov>
**Subject:** RE: EPA Request for information (The Chemours Fayetteville, NC)

Sounds like the TSCA guys who know the amounts need to weigh in on whether or not we could point to those limitations in a response to the country of export – that is if the TSCA order limits imports to X pounds per year (month?) then the response could be conditional consent limited to that amount based on that limitation. Or if they already have gotten consent to import over that amount, that could be cited in objecting to the latest notice. Are these TSCA guys in Region 4? In HQ?

Laura L. Coughlan, P.E.
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Office of Resource Conservation and Recovery
U.S. EPA (5304P)
Potomac Yard South(PYS)-6984
phone: 703-308-0005
fax: 703-308-0514

***Have a question about your notice after looking in WIETS at https://cfext.epa.gov/wiets/? Still confused about requirements after checking https://www.epa.gov/hwgenerators/basic-information-resource-conservation-and-recovery-act-rcra-export-and-import? Email RCRAnotifications@epa.gov ***

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**From:** Jones, Aaryn
**Sent:** Monday, January 08, 2018 5:06 PM
**To:** Coughlan, Laura <Coughlan.Laura@epa.gov>; Annicella, Alan <Annicella.Alan@epa.gov>; Newman, Alan <Newman.Alan@epa.gov>
**Cc:** Shaw, Jean <Shaw.Jean@epa.gov>; Lamberth, Larry <Lamberth.Larry@epa.gov>; Buso, Roberto X <Buso.Roberto@epa.gov>; Picardi, Rick <Picardi.Rick@epa.gov>; Kreisler, Eva <Kreisler.Eva@epa.gov>; Shaw, Jean <Shaw.Jean@epa.gov>; Tatum, Jana <Tatum.Jana@epa.gov>; Helms, Greg <Helms.Greg@epa.gov>; Fagnant, Daniel <fagnant.daniel@epa.gov>; Yohannes, Lia <Yohannes.Lia@epa.gov>
**Subject:** RE: EPA Request for information (The Chemours Fayetteville, NC)

There are two instances where volumes/amounts are mentioned. One is on page 3, where submission of certain testing is required prior to manufacturing or importing an amount of the compounds. There is also a maximum production volume of the compounds listed on page 5. In both cases, the amounts were deleted from the sanitized document. I would defer to our TSCA program to determine if there has been any kind of violation here, but the amount imported might be a part of their determination.

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---

**From:** Coughlan, Laura
**Sent:** Monday, January 08, 2018 4:41 PM
**To:** Jones, Aaryn <Jones.Aaryn@epa.gov>; Annicella, Alan <Annicella.Alan@epa.gov>; Newman, Alan <Newman.Alan@epa.gov>

**Cc:** Shaw, Jean <Shaw.Jean@epa.gov>; Lamberth, Larry <Lamberth.Larry@epa.gov>; Buso, Roberto X <Buso.Roberto@epa.gov>; Picardi, Rick <Picardi.Rick@epa.gov>; Kreisler, Eva <Kreisler.Eva@epa.gov>; Shaw, Jean <Shaw.Jean@epa.gov>; Tatum, Jana <Tatum.Jana@epa.gov>; Helms, Greg <Helms.Greg@epa.gov>; Fagnant, Daniel <fagnant.daniel@epa.gov>; Yohannes, Lia <Yohannes.Lia@epa.gov>
**Subject:** RE: EPA Request for information (The Chemours Fayetteville, NC)

I started reading the 72 page document, but got stuck in TSCA verbiage. It seems to be requiring worker safety, testing, but I was not sure where it explicitly prohibits the import of the Gen-X materials. Can you point me to the germane citations/page numbers?

As for the import/export process – we usually get a notice from the country of export detailing the estimated total quantity to be shipped over a 12-month period, the waste description, receiving facility, expected management, ports to be used and transporters to be used. For RCRA hazardous waste that is not controlled as a hazardous waste export by the country of export, we require that the US importer submit a notice to EPA requesting our direct consent. This notice is from the country of export but does not appear to be RCRA hazardous.

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fax: 703-308-0514

***Have a question about your notice after looking in WIETS at https://cfext.epa.gov/wiets/? Still confused about requirements after checking https://www.epa.gov/hwgenerators/basic-information-resource-conservation-and-recovery-act-rcra-export-and-import? Email RCRAnotifications@epa.gov ***

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**From:** Jones, Aaryn
**Sent:** Monday, January 08, 2018 4:11 PM
**To:** Coughlan, Laura <Coughlan.Laura@epa.gov>; Annicella, Alan <Annicella.Alan@epa.gov>; Newman, Alan <Newman.Alan@epa.gov>
**Cc:** Shaw, Jean <Shaw.Jean@epa.gov>; Lamberth, Larry <Lamberth.Larry@epa.gov>; Buso, Roberto X <Buso.Roberto@epa.gov>; Picardi, Rick <Picardi.Rick@epa.gov>; Kreisler, Eva <Kreisler.Eva@epa.gov>; Shaw, Jean <Shaw.Jean@epa.gov>; Tatum, Jana <Tatum.Jana@epa.gov>; Helms, Greg <Helms.Greg@epa.gov>; Fagnant, Daniel <fagnant.daniel@epa.gov>; Yohannes, Lia <Yohannes.Lia@epa.gov>
**Subject:** RE: EPA Request for information (The Chemours Fayetteville, NC)

Attached is the 2009 TSCA order for the GenX acid and the ammonium salt (FRD-902). I got this off the internet, so it should be ok to share. I have TSCA CBI clearance, but I try to steer clear of the TSCA aspects of this because I'm not working on that case. As I've learned, the quantities of these compounds generated and where they get shipped is typically considered TSCA CBI.

As part of the RCRA import/export process, does the facility notify as to the estimated quantity to be imported?

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**From:** Coughlan, Laura
**Sent:** Monday, January 08, 2018 3:49 PM
**To:** Jones, Aaryn <Jones.Aaryn@epa.gov>; Annicella, Alan <Annicella.Alan@epa.gov>; Newman, Alan <Newman.Alan@epa.gov>
**Cc:** Shaw, Jean <Shaw.Jean@epa.gov>; Lamberth, Larry <Lamberth.Larry@epa.gov>; Buso, Roberto X <Buso.Roberto@epa.gov>; Picardi, Rick <Picardi.Rick@epa.gov>; Kreisler, Eva <Kreisler.Eva@epa.gov>; Shaw, Jean <Shaw.Jean@epa.gov>; Tatum, Jana <Tatum.Jana@epa.gov>; Helms, Greg <Helms.Greg@epa.gov>; Fagnant, Daniel

<fagnant.daniel@epa.gov>; Yohannes, Lia <Yohannes.Lia@epa.gov>
**Subject:** RE: EPA Request for information (The Chemours Fayetteville, NC)

I'm not sure what you mean by TSCA order. Does it prohibit the facility from receiving any offsite shipments of Gen-X?

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***Have a question about your notice after looking in WIETS at https://cfext.epa.gov/wiets/? Still confused about requirements after checking https://www.epa.gov/hwgenerators/basic-information-resource-conservation-and-recovery-act-rcra-export-and-import? Email RCRAnotifications@epa.gov ***

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**From:** Jones, Aaryn
**Sent:** Monday, January 08, 2018 3:00 PM
**To:** Coughlan, Laura <Coughlan.Laura@epa.gov>; Annicella, Alan <Annicella.Alan@epa.gov>; Newman, Alan <Newman.Alan@epa.gov>
**Cc:** Shaw, Jean <Shaw.Jean@epa.gov>; Lamberth, Larry <Lamberth.Larry@epa.gov>; Buso, Roberto X <Buso.Roberto@epa.gov>; Picardi, Rick <Picardi.Rick@epa.gov>; Kreisler, Eva <Kreisler.Eva@epa.gov>; Shaw, Jean <Shaw.Jean@epa.gov>; Tatum, Jana <Tatum.Jana@epa.gov>; Helms, Greg <Helms.Greg@epa.gov>; Fagnant, Daniel <fagnant.daniel@epa.gov>; Yohannes, Lia <Yohannes.Lia@epa.gov>
**Subject:** RE: EPA Request for information (The Chemours Fayetteville, NC)

Hi all,

Yes, if you google "GenX contamination" you will find a lot of information. The Netherlands and NC have been in conversation and comparing notes on health goals and environmental findings.

The governor and senators from NC have requested EPA assist the state with toxicity determinations and Senator Burr specifically asked for a review of the NPDES permit issuance.

This came under RCRA's radar here in the Region when we got a Notice of Intent to Sue under RCRA (and CWA) from one of the downstream public water authorities in Aug 2017. Then in September, it was discovered that the onsite groundwater was impacted at levels as high as 63,000 parts per trillion, while the state's public health goal for drinking water was set at 140 ppt. Then it was discovered offsite in private wells, and the investigations continue in that regard as we speak. There is now some evidence that air deposition could be playing a role in the observed groundwater contamination (higher concentrations and higher frequency of detections in the primary directions of the area wind rose). There are currently 115 private residences being supplied with bottled water by Chemours within 2-3 miles of the facility due to GenX detections above the 140 ppt health goal – and the edge of contamination has yet to be discovered.

I am interested in the amount of this waste being received at Fayetteville Works, as it may be something of interest to our TSCA program. The FRD-902 compound is subject to a TSCA order, as this substance was designated to replace PFOA as a fluoropolymer processing aid. If you're not familiar with PFOA, DuPont stopped using that material due to persistence and toxicity concerns, mainly at their West Virginia Washington Works site. And similar to the PCB ban mentioned below, if FRD-902 is subject to a TSCA order, could we potentially object to its import even though it is not a hazardous waste (if its import appears to violate the TSCA order?)

In regards to the question below concerning the discharge permit, yes, the facility is bound by a court order not to release GenX and several other fluorinated compounds, and NCDEQ has started the process of revoking the NPDES

permit. The facility is currently containerizing process waste water and shipping it off-site for disposal. Air emissions are also to be tested this month.

This is a state-led effort under the existing state delegated permits (NPDES, Air, RCRA). EPA's involvement has been sampling assistance from ORD (both at RTP and our R4 Athens lab) and of course, the TSCA investigations are federal lead.

In case they are of interest, I attached some recent visuals – a map of the groundwater contamination by parcel, the proposed sampling plan that is ongoing, and a presentation that was given by NCDEQ at a public meeting (attended by 400+) in December. NCDEQ also maintains a webpage with GenX information:

https://deq.nc.gov/news/hot-topics/genx-investigation

Thanks,

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**From:** Coughlan, Laura
**Sent:** Monday, January 08, 2018 1:54 PM
**To:** Jones, Aaryn <Jones.Aaryn@epa.gov>; Annicella, Alan <Annicella.Alan@epa.gov>; Newman, Alan <Newman.Alan@epa.gov>
**Cc:** Shaw, Jean <Shaw.Jean@epa.gov>; Lamberth, Larry <Lamberth.Larry@epa.gov>; Buso, Roberto X <Buso.Roberto@epa.gov>; Picardi, Rick <Picardi.Rick@epa.gov>; Kreisler, Eva <Kreisler.Eva@epa.gov>; Shaw, Jean <Shaw.Jean@epa.gov>; Tatum, Jana <Tatum.Jana@epa.gov>; Helms, Greg <Helms.Greg@epa.gov>; Fagnant, Daniel <fagnant.daniel@epa.gov>; Yohannes, Lia <Yohannes.Lia@epa.gov>
**Subject:** RE: EPA Request for information (The Chemours Fayetteville, NC)

Hey Alan and Alan and Aaryn:

I am adding Jean, Jana, Lia and Rick to this discussion re the import angle, and Greg and Dan re the waste status angle.

It sounds like FRD-902 has been found in tap water in the Netherlands as well:
https://nltimes.nl/2017/08/15/hazardous-genx-hague-zoetermeer-leiden-tap-water
Europe generally has more hazardous characteristics than the US does, as does the Basel Convention. But we are limited to RCRA hazardous waste regulations.

That said, based on Arryn's info below, and the email they sent to Stanley Tam back in 2014, I am not sure what options we would have to object to the proposed import if the waste to be imported is not characteristically hazardous (D-), or a F-, K-, P- or U- listed RCRA hazardous waste. In the email, they stated that based on a sample taken in 2013 that the waste was not characteristically ignitable, corrosive, reactive or toxic. Since it has been roughly 4 years since the sample was analyzed, we could maybe ask for them to update their analysis to see if anything has changed. But as far as I know, RCRA allows for generator knowledge in place of testing to be the basis for their RCRA waste determination.

We could object based on a prohibition or limitation under other U.S. laws or regulations, like objecting to a proposed shipment of wastes containing PCBs due to the TSCA ban, or objecting to a proposed shipment of certain ODS compounds for recycling because of Air regulations allowing only import of those ODS compounds for destruction. But I don't see that their CWA requirements limit or prohibit the management of the FRD-902. Is that right or did I miss something? What is the governor asking EPA to do?

When I googled FRD-902 contamination the link to the Netherlands article popped, and then I found the following with respect to contamination in North Carolina:
Nov 22: https://cen.acs.org/articles/95/i47/North-Carolina-yank-Chemours-water-pollution-permit-for-fluorochemical-production.html
Nov 6: https://www.northcarolinahealthnews.org/2017/11/06/21525/
Aug 17: https://www.northcarolinahealthnews.org/2017/08/17/genx-pollution-what-happened-when/
June 17: https://theintercept.com/2017/06/17/new-teflon-toxin-found-in-north-carolina-drinking-water/

Did North Carolina pull the water permit like the Nov 22 article said it was going to do? Or was that article inaccurate?

With respect to Alan Annicella's questions #1 and #2, it looks like the company originally wrote in to Stanley Tam back in 2014 because Stanley originally objected to the import and they were explaining that the waste was not RCRA hazardous. I pulled up the 2014 notice number 008812/1I/14 in WIETS, and found that there was first an objection letter sent back to the country of export on February 20, 2014, followed by a "neither consent nor object" letter sent to the country of export on April 3, 2014. As you know, EPA sends a "neither consent nor object" when the waste in question is not regulated as RCRA hazardous waste and there is not another regulation applying to the import. It allows the shipment to proceed. When I checked for other notices listing that facility (E.I. DUPONT DE NEMOURS & CO. LTD), I found another notice from 2015 (011183/1I/15), that also resulted in a neither consent nor object response to the Netherlands. When I checked for notices listing THE CHEMOURS COMPANY at the same address (22828 NC 87 HIGHWAY WEST FAYETTEVILLE, NC United States 28306), I found the following notices, all of which listed FRD-902 and all of which ended in EPA sending a consent to the Netherlands:

013184/11I/15
014551/7I/16
018131/11I/17

So the latest consent to import FRD-902 was issued on Dec 7, 2017 and is good from 12/7/17 to 12/6/18. We could pull the consent if there was a clear operational issue, but again we need a clear basis on which to pull the consent.

I cannot answer Alan's other questions related to the management and associated discharges related to the imported waste.

Laura L. Coughlan, P.E.
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Office of Resource Conservation and Recovery
U.S. EPA (5304P)
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***Have a question about your notice after looking in WIETS at https://cfext.epa.gov/wiets/? Still confused about requirements after checking https://www.epa.gov/hwgenerators/basic-information-resource-conservation-and-recovery-act-rcra-export-and-import? Email RCRAnotifications@epa.gov ***

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**From:** Jones, Aaryn
**Sent:** Monday, January 08, 2018 10:06 AM
**To:** Annicella, Alan <Annicella.Alan@epa.gov>; Newman, Alan <Newman.Alan@epa.gov>; Kreisler, Eva

<Kreisler.Eva@epa.gov>; Coughlan, Laura <Coughlan.Laura@epa.gov>
**Cc:** Shaw, Jean <Shaw.Jean@epa.gov>; Lamberth, Larry <Lamberth.Larry@epa.gov>; Buso, Roberto X <Buso.Roberto@epa.gov>
**Subject:** RE: EPA Request for information (The Chemours Fayetteville, NC)

Hi Alan,

The EU did a study in 2016 on FRD-902 and FRD-903 (which we in the region are calling HFPO-dimer acid salt and HFPO-dimer acid, respectively) and concluded that the compounds were likely either persistent or "very persistent", and could not be ruled out as not having toxicity or bioaccumulative concerns based on the limited available studies. These two compounds are collectively being called "GenX" in the NC media, and they have been historically released to surface water (were not regulated under the NPDES permit) and were initially found in the Cape Fear River and finished tap water 100 miles downstream of the facility in the city of Wilmington, NC. The salt and the acid both dissociate in water to the same anion, so for environmental and toxicity purposes, FRD-902 and FRD-903 are essentially one in the same. There are also presently concerns that air deposition could also be a contamination mechanism as onsite and offsite groundwater has been impacted up to 3 miles away from the facility. The extent of the groundwater plume has yet to be determined.

As far as controls on the reclamation process, it appears that Chemours handles any waste streams that are hazardous as appropriate under federal RCRA requirements, however, waste streams containing FRD-902 that were not otherwise "hazardous" were likely discharged to the onsite wastewater treatment plant and discharged to the river. I am less certain of the overall air controls in the processing area, although some parts of the facility are subject to BB and CC requirements and appeared to be monitored appropriately, but again, that was only for equipment that is holding/conveying a RCRA hazardous waste. Thanks,

Aaryn Jones
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**From:** Annicella, Alan
**Sent:** Monday, January 08, 2018 7:16 AM
**To:** Newman, Alan <Newman.Alan@epa.gov>; Kreisler, Eva <Kreisler.Eva@epa.gov>; Coughlan, Laura <Coughlan.Laura@epa.gov>
**Cc:** Shaw, Jean <Shaw.Jean@epa.gov>; Jones, Aaryn <Jones.Aaryn@epa.gov>; Lamberth, Larry <Lamberth.Larry@epa.gov>
**Subject:** RE: EPA Request for information (The Chemours Fayetteville, NC)

Hi Alan,

I feel the Import/Export folks will have some better insights about the global perspective of what has been allowed in the past, but immediate questions I have.

1. Did EPA ever "approve" importation?

2. If Chemours is saying it is not a US regulated waste, why did they write us to begin with?

3. How does the reclamation happen? What controls are in place to prevent pollution from the reclamation process?

4. What happens to the salts and water removed from the process in NC?

5. Why does the EU consider it a hazardous waste? (e.g. listed due to toxicity?)

Thank you,
Alan

Alan A. Annicella, Chief
Hazardous Waste Enforcement and Compliance Section
Resource Conservation and Restoration Division
The US EPA - Region 4 - Sam Nunn Atlanta Federal Center
61 Forsyth St, SW
Atlanta, Georgia 30303
Office phone: 404.562.8610
Fax 404.562.8566

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**From:** Newman, Alan
**Sent:** Friday, January 05, 2018 4:36 PM
**To:** Kreisler, Eva <Kreisler.Eva@epa.gov>; Coughlan, Laura <Coughlan.Laura@epa.gov>
**Cc:** Shaw, Jean <Shaw.Jean@epa.gov>; Annicella, Alan <Annicella.Alan@epa.gov>; Jones, Aaryn <Jones.Aaryn@epa.gov>; Lamberth, Larry <Lamberth.Larry@epa.gov>
**Subject:** FW: EPA Request for information (The Chemours Fayetteville, NC)

Hey all,

So...
I am hearing that this material mentioned below may be causing a public health concern in NC. Apparently there is some news coverage and some public outcry including the governor and the senators from NC. Since this material is not "hazardous waste" in the USA, can we still object to it coming into the country? (I just heard about this outcry today) The facility is regulated by federal TSCA and some state permits for the facility (NPDES, Air, RCRA).

What would you recommend as a potential path forward? What grounds have we objected before for imports?

Region 4 apparently briefed Susan Bodine last month in the broader contamination issue.

Thanks.

Alan Newman
Kentucky and Tennessee State Coordinator
Import/Export Contact for Region 4
Hazardous Waste Enforcement and Compliance Section
Environmental Protection Agency

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(404) 562 – 8589
newman.alan@epa.gov

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**From:** JOHNSON, MICHAEL E [mailto:MICHAEL.E.JOHNSON@chemours.com]
**Sent:** Thursday, August 04, 2016 2:21 PM
**To:** Newman, Alan <Newman.Alan@epa.gov>
**Cc:** Movius, Richard D <RICHARD-D-RICK.MOVIUS@chemours.com>
**Subject:** RE: EPA Request for information

Alan:

Rick Movius forwarded the emails you and he have been exchanging.

Below is an email that I sent you on December 14, 2105, which includes a March 2014 email to Stanley Tam. The email to Stanley should answer your questions.

Mike

Michael E. Johnson, PE
Environmental Manager
Chemours Company – Fayetteville Works
(910) 678-1155

**The Chemours Company FC, LLC**
22828 NC Highway 87 W
Fayetteville, NC 28306-7332

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**From:** Newman, Alan [mailto:Newman.Alan@epa.gov]
**Sent:** Wednesday, August 03, 2016 10:27 AM
**To:** Movius, Richard D <RICHARD-D-RICK.MOVIUS@chemours.com>
**Subject:** RE: SDS for FRD-902NL

Mr. Movius,

Thank you for the quick response to my request.

How will this material be recycled/reclaimed? What usable material will be realized from this reclamation process? What is the end use of this reclaimed material?

Thank you,

Alan Newman
Kentucky and Tennessee State Coordinator
Import/Export Contact for Region 4
Hazardous Waste Enforcement and Compliance Section
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61 Forsyth Street
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(404) 562 – 8589
newman.alan@epa.gov

RECYCLING/RECLAMATION OF ORGANIC SUBSTANCES

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**From:** Movius, Richard D [mailto:RICHARD-D-RICK.MOVIUS@chemours.com]
**Sent:** Wednesday, August 03, 2016 10:14 AM
**To:** Newman, Alan <Newman.Alan@epa.gov>
**Subject:** SDS for FRD-902NL

Alan,

Attached you will find the SDS for the above material.

Let me know if there are any questions.

Rick Movius

**From:** JOHNSON, MICHAEL E
**Sent:** Monday, December 14, 2015 9:00 AM
**To:** newman.alan@epa.gov
**Cc:** Movius, Richard D <RICHARD-D-RICK.MOVIUS@chemours.com>; MAISCH, JOHN J <john.j.maisch@chemours.com>
**Subject:** Approval of Importation of Waste (EVOA Notification NL603825)

Alan:

As promised, attached is the March 2014 email to Stanley Tam that resolved the importation issue with the surfactant from The Netherlands.

As I mentioned to you, I believe the request you have in front of you is the third importation of the spent surfactant from The Netherlands to my Fayetteville, North Carolina facility.

One clarification for you: On July 1, 2015, the Fluoroproducts business segment of the DuPont Company was separated into a new publicly traded company called The Chemours Company. Therefore you will see in the

attached email that both the Fayetteville, NC and the Dordrect, Netherlands facilities are referred to as being "DuPont" whereas now the documents will likely refer to them as "Chemours".

Thank you for your assistance with this request, and do not hesitate to contact me if you have additional questions.

PS – I am working today (12-14) and tomorrow (12-15), and then will be on vacation until January 4, 2106. If you have any questions regarding the EVOA Notification (NL603825), you can contact Rick Movius at 910-678-1515 or John Maisch at 910-678-1597, or email them at their respective addresses (both are cc'd on this email).

Mike

Michael E. Johnson, PE
Environmental Manager
Chemours Company – Fayetteville Works
(910) 678-1155

**The Chemours Company FC, LLC**
22828 NC Highway 87 W
Fayetteville, NC 28306-7332

**From:** Johnson, Michael E
**Sent:** Tuesday, March 11, 2014 10:40 AM
**To:** tam.stanley@epa.gov
**Subject:** Notice of Objection (EPA Notice ID: 008812/11/14) of Foreign Notice ID: NL 603282

**VIA EMAIL**

March 11, 2014

Mr. Stanley Tam
Regional Coordinator
USEPA Region 4

SUBJECT: Notice of Objection (EPA Notice ID: 008812/11/14) of Foreign Notice ID: NL 603282

Dear Mr. Tam:

Thank you for discussing the subject Notice of Objection regarding the DuPont Company's intent to export spent FRD-902 (ammonium or potassium salt of perfluorinated ether carbonic acid) from the DuPont Dordrecht Netherlands facility to the DuPont Company – Fayetteville, North Carolina facility for reclamation.

As background, FRD-902 is a surfactant that is used as a processing aid in the production of fluoropolymers, and as such is not consumed in the process. The FRD-902 is separated from the finished product and recovered as a side stream from the process. As a result of its use, the recovered FRD-902 no longer meets the acceptable water content specification and there is also an undesired collection of organic salts from the process, which

results in the surfactant no longer performing satisfactorily as a direct recycle stream back into the polymerization process.

The high value of the FRD-902 makes it economically imperative to reclaim this surfactant. There is also the environmental benefit from recycling a material versus the disposal of that material. The spent FRD-902 is to be reclaimed at the DuPont Company – Fayetteville, North Carolina facility where the unwanted salts are removed and the water content level is returned to within the finished product specification.

EPA has indicated that its objection to the requested importation of the spent FRD-902 for reclamation is that the DuPont Company – Fayetteville, North Carolina facility is not authorized to receive a hazardous waste or hazardous recyclable material from off-site.

The issue at hand is the pronounced differences in the definition of a hazardous waste under the European Union's Waste Management Act of 1996 and the definition of a hazardous waste under 40 CFR Part 261, as is described below.

The spent FRD-902 has been given the European Waste List code 070201*. The "0702" category is for "wastes from the manufacture, formulation, supply and use of plastics, synthetic rubber and man-made fibers". The "070201" subcategory is for "aqueous washing liquids and mother liquors" and the "*" means that subcategory is considered hazardous under the EU's Waste Management Act.

While the spent FRD-902 does meet the broad definition of a hazardous waste under the European Union's regulations, this material does not meet the definition of a hazardous waste under 40 CFR Part 261 as is demonstrated below.

Since the spent FRD-902 is a "spent material" that is being reclaimed, it meets the definition of a "solid waste" under 40 CFR 261.2(c)(3).

On 09-18-2013 a sample of the spent FRD-902 was submitted to a commercial laboratory for analysis of the RCRA hazardous characteristics. The results from this analysis are attached and are explained in the following:

- The spent FRD-902 had no observed flashpoint, therefore the material is not characteristically hazardous for ignitability.

- The pH of the spent FRD-902 was 3.3 SU, therefore the material is not characteristically hazardous for corrosivity.

- All forty of the toxicity characteristic contaminants were less than their maximum concentrations as listed in Table 1 of 40 CFR 261.24(b). Therefore the material is not characteristically hazardous for toxicity.

Since the spent FRD-902 is a water based product, it cannot undergo any reactions with water. The surfactant is stable; it contains neither cyanides nor sulfides; and it is not capable of detonation or explosive reaction. Therefore the material is not characteristically hazardous for reactivity.

The spent FRD-902 is not one of the "F" listed hazardous wastes from non-specific sources per 40 CFR 261.31(a).

The spent FRD-902 is not one of the "K" listed hazardous wastes specific sources per 40 CFR 261.32(a).

The spent FRD-902 is not one of the "P" or "U" listed commercial chemical products or manufacturing chemical intermediates per 40 CFR 261.33(e) and 33(f) respectively.

In conclusion, since the spent FRD-902 is neither a characteristic hazardous waste nor a listed hazardous waste, it is therefore classified as a non-hazardous waste. The DuPont Company – Fayetteville, North Carolina facility is not prohibited from receiving a non-hazardous waste or non-hazardous recyclable material from off-site.

Therefore, DuPont respectfully requests that EPA rescind the subject Notice of Objection as quickly as possible so that the needed import permits can be issued and the reclamation of the spent FRD-902 can begin.

If you have any questions regarding this matter, please let me know.

Sincerely,

Michael E. Johnson
Environmental Manager
DuPont Company – Fayetteville Works
(910) 678-1155

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