

AN ACT establishing a commission to investigate and analyze the environmental and health impacts relating to releases of perfluorinated chemicals in the air, soil, and groundwater in Merrimack, Bedford and Litchfield.

HB737, Chapter 335:1, RSA Chapter 126-A: 79-a, Laws of 2019

Regular Meeting

MINUTES

APPROVED

Friday, November 12, 2021 10 am, 301-303 LOB

Committee attendees: Rep. Rosemarie Rung (Chair), Sen. Gary Daniels, Rep. Ralph Boehm, Rep. Bob Healey, Rep. Maureen Mooney, Rep. Jacqueline Chretien, Rep. Gary Woods, Mr. Chris Bandazian (Town of Bedford), Dr. Mindi Messmer (phone), Ms. Nancy Murphy (Town of Merrimack), Mr. Michael Wimsatt (NHDES), Ms. Abby Rogers (DHHS, in lieu of Dr. Kathleen Bush)

The meeting was called to order at 10 a.m.

Rep. Woods moved to approve the October minutes as submitted. Ms. Murphy seconded the motion. Several changes were suggested by Mr. Wimsatt, related to the PFAS remediation rules passed by JLCAR and note of \$100M from ARPA for investments in drinking water and wastewater infrastructure. Vote to accept with the abovementioned amendments on a voice vote passed. Sen. Daniels and Rep. Chretien abstained.

The committee received a presentation from DES toxicologist Dr. Jonathan Petali (formerly Dr. Ali) on the establishment of a fish consumption advisory for high levels of PFAS. Presentation slides are available. Risk assessment: PFAS is primarily ingested; dermal contact not considered significant (high concentrations, as in firefighting foam, may increase risk via dermal transfer); inhalation is poorly understood as route of PFAS exposure (under investigation). Noting that novel chemistries replacing the four PFOAs that MCLs have been set for may have different risk levels, continuing to evaluate whether rules etc. need to be set for related new chemicals (also being considered by EPA). Important to note that chemicals even within the same class can behave substantially differently. Bioaccumulation an important consideration. Rep. Rung notes that PFBA is breaking through filters in Merrimack and asks if this is a major concern. Dr. Petali says this is a shorter-chain PFAS that doesn't accumulate as much, so (drafted) levels of concern are on the order of 1000 parts per trillion, not 1-100 ppt as for other PFAS.

Risk of contaminated soils to agricultural products not well understood at the moment (research ongoing). Dept. of Agriculture would be relevant department for related rules.

Dr. Petali highlights collaboration with Dartmouth College for sampling shellfish; separately, looking at freshwater fish tissues. Full publications available (hyperlinks in slides). Note that measurements of PFAS levels in sediment, water and tissues were performed at external laboratories, had to submit to a second lab because first one had levels of detection (LODs) that were too high (≥ 34 ppb). Mainly focused on southern portion of state. Most results were not detectable (nd). One lake had strange pattern for HFPO-DA (very high in middle level of water but zero below; possible that a natural compound is producing a signal). Rep. Woods asks if it is possible that inflow caused the different levels. Dr. Petali notes that sampling was performed after inversion to avoid issues of water stratification by temperature; also highlights that all concentrations are considered safe for swimming.

Only 10/34 assessed PFAS were detected; PFOS detected in all fish tissues (not surprising as known to be very bioaccumulative). Reminder that numbers presented are averages of 5 fish/species/site, since analysis is expensive (\$400/sample). There is already an advisory to limit consumption of wild-caught fish (4/month for typical adults, 1/month for children or women who can become pregnant) due to mercury. Several sites crossed threshold for needing a more stringent limit (1/mo in Merrimack Horseshoe Pond, 2 in Windham and Hudson, and 3 in Salem and Derry). Important to note that these are not regulations (i.e., nobody will get in legal trouble for not following), simply an advisory for health information only. How much PFAS is absorbed by body from food is less well understood (vs. in water, where it is known to be well taken up).

Rep. Mooney: When will the 5 bodies of water with advisories be tested next? Dr. Petali: We are still trying to decide what is best way to collect information and what data will be most informative. We are collaborating with other states that are also testing fish and NGOs (aligning collection strategies to allow comparisons). For example, studies of loon eggs have shown extremely high levels of PFOS. We might be able to collect data that can help answer the question of why as well as our questions of interest.

Rep. Woods: Site selection was random, are there plans to extend? Dr. Petali: It was not quite random; we selected two North Country sites that we expected would not have PFAS, and 10 sites in more populated areas (noting that other research has shown links between population density and PFAS, not necessarily requiring a specific industrial site), also tried to target places where game fishing does occur; some sites were actually swapped because we couldn't access/catch fish. There is a program set up to collaborate with anglers to collect samples for mercury; we could consider doing something similar with PFAS but don't have equipment at NHDES and would be expensive. There could also be issues of contamination (PFAS in water-repellent gear, mainly).

Rep. Boehm: What is the source of the mercury contamination? Dr. Petali: Air emissions, often from other states.

Mr. Bandazian: Are there any studies or advisories for water fowl? Dr. Petali: Not that I'm aware of, although I think Michigan was investigating this. Australia has detected some from firefighting foam in ducks. Loon eggs have high levels of PFAS, probably because they eat a lot of fish. But we don't totally understand how PFAS moves through the food web and differences in bioaccumulation across species. The main research concern has been human health risk; there has been less study of ecological risk.

Dr. Messmer: How were the surface/sediment sample locations selected (only one per water body)? Were the fish samples collected from same general area and same time? Dr. Petali: Site selection depended on the lake size and depth. Not practical to catch the fish from exact same spot; mainly tried to collect on same day, but in a few cases sediments or fish were collected on different days. Probably not going to make a huge difference at least for fish (represents weeks/months of accumulation). There certainly might be some differences among sites within the lake based on temperatures or film formation, sediment deposition and composition (gravel/sand vs. organic material; organic material is a lot harder to analyze because of its complexity and the presence of chemically similar compounds) – this was just a first effort.

Rep. Rung: Is there a standard procedure for testing PFAS levels in fish tissues? Dr. Petali: No, no standard for detecting PFAS in fish tissues, or in food media; methods can vary from lab to lab. Again, the challenge with these matrices is that there are a lot of other natural compounds (typically fatty acids) that have similar properties and can give you false positives. Some academic labs (e.g., at Clarkson University) have very good capabilities, but it is not feasible to run an entire state sampling program through a single academic lab.

Rep. Rung: Any conclusions about the sources of PFAS in these water bodies? Dr. Petali: No, the data were not detailed enough. Also, because these chemicals have such long half-lives, they could have been deposited decades ago, so it is very difficult to definitively determine the source.

Rep: Rung: Have there been any studies of filter feeders that might be able to accumulate as remediators? Curious about using biological remediation instead of just chemical filters Dr. Petali: That is an interesting idea, but it's unclear what you would do with those organisms afterward – couldn't feed them to anything. There could also be issues where an organism accumulates a lot of one thing but not really another, so it would be difficult to design a comprehensive system. This is part of why we are working closely with EPA and others to design systems.

Mr. Wimsatt provided an update from NHDES:

NHDES issued a comment letter on the Limited Soil Sampling Submittal and the Soil Management Plan for the Flatley Property on 10/21/21.

NHDES issued a comment letter on the 2020 Residential Groundwater Monitoring Report on 11/4/21.

NHDES issued a letter on Addendum 12 to the Workplan for Residential Well Sampling on 11/4/21.

NHDES and NHDOJ continue their negotiations with Saint-Gobain relative to plans for provision of permanent alternate water and other outstanding NHDES requests.

On October 27, 2021, the Governor and Executive Council approved a NHDES request to accept and expend \$100M in federal funds under the American Rescue Plan Act (ARPA) to fund investments in drinking water and wastewater infrastructure. (This followed approval by the Joint Fiscal Committee on October 22.)

Last week, the Infrastructure Investment and Jobs Act was passed by Congress and will be soon be signed by the President. This will enable even further significant and critical investments in drinking water and wastewater infrastructure over a ten-year period, and includes specific funding to address PFAS contamination of water systems.

Taken together, these federal funding programs will provide substantial opportunities to address PFAS contamination in NH communities.

On November 9, 2021, Saint-Gobain submitted the required report conveying the results of the September stack test of their Regenerative Thermal Oxidizer (RTO). NHDES' Air Resources Division staff are reviewing the report and will plan to brief the Commission at a future meeting.

Saint-Gobain submitted a Supplemental Site Investigation Report that includes a preliminary screening of potential remedial alternatives. This plan is currently under NHDES review.

SGPP presented a Work Plan for Residential Well Sampling and **TWELVE** Addenda to the sampling Plan relative to the 2019 AGQS. Golder is using 500' buffer on wells >AGQS to identify proximal properties for addition to the sampling list.

Currently, Golder is retesting wells with PFOA results between 10 and 12 ng/L.

Within the CD Area, as of 10/29/21 (date of last tally):

- 3,166 properties identified for sampling (*Note: Addendum 12 not included in count*)
- 3,159 access agreements sent (*Return Rate ~ 66%*)

- 1,871 samples collected from water supply wells (104 more than October report)
- 875 properties offered bottled water (40 more than October report)

Ms. Murphy: Merrimack Town Council has questions about well testing, how many private wells have been tested to date, 488 wells (not including monitoring) 225 inside CD area; 199 exceeded AGQs for one or more PFAS, 121 inside CD areas. Notifications of neighboring wells are currently being handled by several different agencies, reported within 45 days of receipt of information. Town of Merrimack is pursuing injunctions against Saint-Gobain and DES due to failure to install RTO, claim DES lacks authority to permit Saint-Gobain to operate. Nov. 8, court dismissed town's complaint; Air Resources Council or NH Supreme Court are next opportunities.

Dr. Messmer: 70 exceedances outside of CD area, is that correct? Can anyone provide updates on how we are addressing those properties? Ms. Murphy: I can follow up. Mr. Wimsatt: That is an issue in several places, we are working to develop solutions for those people.

Rep. Chretien: For those federal monies mentioned, do we need to prepare requests for specific projects to the federal government, or do we have discretion? Mr. Wimsatt: DES is already actively engaged in administering similar funds, and we are doing outreach to local facilities to help them understand how to access those funds. These monies are great because they are grants rather than loans; most of the time programs are coming to borrow money, sometimes there is loan forgiveness, but in this case we will be able to just grant the funds.

Mr. Wimsatt: Rainwater sampling is ongoing throughout the year.

Ms. Abby Rogers: DHHS. NH Cancer Program working on updated report for Merrimack (original published in 2018, adding another 5 years of data), will be happy to coordinate presentation once that is complete. NH Childhood Cancer Conference (links for reports will be shared). ASTR Pease PFAS study, recruitment is ongoing, seeking assistance in promoting participation.

Rep. Woods: Any red flags that have been noticed during that preliminary analysis? Dr. Rogers: I don't have that information as it is not my report, but I will ask Dr. Bush.

Rep. Rung presents a draft letter to Saint-Gobain to request expansion of consent decree area, given that many wells near but outside CD area are in exceedance of standards. Rep. Boehm: Letter doesn't specify how far it will extend. Rep. Rung: We would like to start the conversation between AG, DES and Saint-Gobain to establish an appropriate new outer boundary. Rep. Boehm: How far outside of the CD are people getting bottled water? Mr. Wimsatt: Saint-Gobain isn't required to (and so is not) providing bottled water outside of the boundaries. Rep. Boehm: How long have people been receiving bottled water? Years? Rep. Rung: Yes. DES has been working with them to identify solutions for remediation. Mr. Wimsatt: We have been trying to avoid a situation where we need to wait for 'final results' before pursuing remediation. Rep. Woods: We need to pursue/define endpoints. Rep. Rung: This doesn't necessarily have to be a final boundary; if we find more sites within the next few years, we should be able to expand the CD again, but I think we need to act on the information that we have now. Rep. Woods: I would recommend including some constraints on further expansion so that Saint-Gobain feels it is reasonable and not too open-ended. Rep. Rung: So, clarify that this change to a new or amended consent decree is based on existing information. Ms. Murphy: I would argue the outer boundary should be as far as the pollution reached and is responsible for. To Mr. Wimsatt, what information was Saint-Gobain waiting for before acting? Mr. Wimsatt: The consent decree was focused on significant contamination in a number of communities that would require an expansion of public water systems to be served, very specifically mapped out that Saint-Gobain would work to assist those expansions and continue work to

investigate pollution sources, didn't have a specific plan to address newly identified exceedances, but there is a responsibility to continue investigating. It became evident that there were additional locations that were impacted and could be incorporated into the resolution plan (get on public water), but Saint-Gobain has not been responsive to requests for such action. Ms. Murphy: In that case, this may be a good time to renegotiate the consent decree now that we have more information and communities are better informed and in a position to have a voice, which they did not really in the initial process. Rep. Mooney: Could we include with the letter draft sample language for the addendum that would provide a starting point? Rep Rung: I would look to DES to help us provide a suggestion for the boundary. Rep. Mooney: Yes, I think that would make more sense than allowing/asking Saint-Gobain to provide the first draft. Mr. Wimsatt: Think DES should wait for DOJ to weigh in, as letter should come from the commission alone, but happy to help draft. Rep. Rung: Really want to clarify that Saint-Gobain, not taxpayers, are responsible for funding investigation and remediation, not acceptable that the consent decree boundary is so greatly limiting the responsibility.

Rep. Rung notes that the December meeting will likely include an update on the cancer report and also the stack testing report; as we do not want to limit either of those reports, the meeting will likely go over the 2-hour time. Rep. Rung asks if the commission is amenable to going up to 1 pm on Dec. 10. Dr. Rogers: Not sure DHHS will be ready in time, Dr. Bush could communicate. Rep. Rung: Would really like it in Dec. as it's been delayed already. Will communicate with Dr. Bush. Rep. Boehm: Would like to have hard copies of the reports in front of us. Ms. Murphy: Would prefer not to delay letter to SGPP. Ms. Messmer: Can we have a copy of Ms. Murphy's report to the committee included in the minutes for today? Rep. Rung: Yes, those can be made available on the website. Ms. Murphy will email to the entire commission as well. Note that our legislative assistant (Ms. Stewart) has left, so there is some delay in getting minutes and documents up on our website, but we are working on it.

Rep. Boehm motions to adjourn, seconded by Ms. Murphy. Voice vote to adjourn passed.

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