The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES

Robert R. Scott, Commissioner

EMAIL ONLY

January 31, 2018

Melissa Taylor, Chief
NH/RI Superfund Section
Office of Site Remediation and Restoration
USEPA - New England, Region 1
5 Post Office Square, Suite 100
Boston, MA 02109-3912

Subject: **North Hampton** – Coakley Superfund Site, Breakfast Hill Road
DES Site **#198712001**, Project #431

Newly Adopted State ARARs, Post ROD

Dear Ms. Taylor:

The New Hampshire Department of Environmental Services (NHDES) would like to request some clarification from EPA regarding three emerging contaminants at the above referenced site.

Based on a phone call with EPA on September 19 and follow-up correspondence from EPA it was unclear if EPA would embrace new cleanup levels for the site using NHDES' Ambient Groundwater Quality Standards (AGQS) for 1,4-dioxane (adoption pending) and two Per- and Polyfluoroalkyl Substances (PFAS), perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA) recently adopted in October 2016. In addition, it has been suggested that EPA may not be able to enforce a cleanup level for PFAS compounds because they are not listed hazardous substances.

In EPA's CERCLA Compliance with Other Laws Manual dated August 1989 it states the following:

> *"CERCLA §121 provides that for any hazardous substance,* ***pollutant, or contaminant (emphasis added)*** *that will remain on site, remedial actions undertaken pursuant to §§104, 106, 120, or 122 must satisfy any applicable or relevant and appropriate Federal requirement and any applicable or relevant and appropriate promulgated State standard…"*

It further states that:

> *"After the ROD has been signed, newly promulgated State ARARs may be identified that could potentially cause EPA to change the remedy selected in the ROD. EPA will incorporate the new State ARAR into the remedial action if it is based on* ***new scientific information (emphasis added)*** *that demonstrates that the proposed remedy is no longer protective."*

In October 2016, NHDES adopted AGQS for both PFOS and PFOA at a standard of 70 parts per trillion individually or total when the two compounds are found together. These values are taken directly from EPA's Drinking Water Health Advisory for each of the chemicals dated May 2016[(1)].

Further, we are providing EPA with notice that we plan to adopt a new 1,4-dioxane AGQS in the coming months. The new AGQS for 1,4-dioxane will be 0.32 parts per billion. The revised 1,4-

dioxane AGQS value is based on EPA's oral cancer slope factor noted in the 2013 Toxicological Review of 1,4-dioxane[2] published on EPA's Integrated Risk Information System. The new AGQS for PFOS and PFOA, as well as the soon to be adopted AGQS for 1,4-dioxane, are based on new scientific information based on EPA documents published post ROD.

These values for PFOA, PFOS and 1,4-dioxane are required by State statute. RSA Chapter 485-C:6 states, in part, the following:

> "*485-C:6 Ambient Groundwater Quality Standards.*
>
> *I. The commissioner shall establish and adopt ambient groundwater quality standards for regulated contaminants which adversely affect human health or the environment. Ambient groundwater standards shall apply to all regulated contaminants which result from human operations or activities, but do not apply to naturally occurring contaminants. Where federal maximum contaminant level or health advisories have been promulgated under the Federal Safe Drinking Water Act or rules relevant to such act, ambient groundwater quality standards shall be equivalent to such standards. Where such standards are based upon cancer risks, the ambient groundwater quality standards shall be equivalent to that exposure which causes a lifetime exposure risk of one cancer in 1,000,000 exposed population. Where no federal maximum contaminant level or health advisory has been issued, the commissioner may adopt ambient groundwater quality standards on a basis which provides for an adequate margin of safety to protect human health and safety."*

In addition to the statute noted above, our Contaminated Site Management Rules Env-Or 600 states:

> *"Groundwater shall be suitable for use as drinking water without treatment" and "Groundwater shall not contain any regulated contaminant at a concentration greater than the ambient groundwater quality standards"*

The next sets of paragraphs are taken directly out of Decision Documents for the site.

9/30/1994 OU-2 ROD

> *"The remedial measures included in the remedy* ***will restore the aquifer to drinking water quality (emphasis added)*** *by allowing natural attenuation of the contaminated groundwater, and will eliminate threats posed by the future ingestion of the contaminated groundwater by implementing controls restricting the use of the groundwater."*

OU-2 ROD ICL's

> *"In situations where a promulgated State standard is more stringent than values established under the Safe Drinking Water Act,* ***the State standard was used as the interim cleanup level (emphasis added)****. In the absence of an MCLG, an MCL, a proposed MCLG, proposed MCL, State standard, or other suitable criteria to be considered (i.e., health advisory, state guideline) an interim cleanup level was derived for each compound having carcinogenic potential '(Classes A, B, and C compounds) based on a 10-6 excess cancer risk level per compound considering the ingestion of ground water."*

6/28/1990 OU-1 ROD

> *"**Because the aquifer at and beyond the compliance boundary of the Site is a potential source of drinking water, it is a Class IIA aquifer and the MCLs and non-zero MCLGs established under the Safe Drinking Water Act are ARARs. (emphasis added)***
>
> *Cleanup levels for known and probable carcinogenic compounds (Class A & B) have been set at the appropriate MCL or non-zero MCLG. Cleanup levels for the Class C, D and E compounds (possible carcinogens not classified and no evidence of carcinogenicity) have been set at the MCLG. In the absence of a MCLG, a MCL, or a proposed drinking water standard or other suitable criteria to be considered (i.e. health advisory, state standard), a cleanup level was derived for carcinogenic effects based on a 10^{-6} excess cancer risk level considering the ingestion of groundwater.*
>
> *Cleanup levels for compounds in groundwater exhibiting noncarcinogenic effects have been set at the MCLG. In the absence of a MCLG or a proposed drinking water standard or other suitable criteria to be considered (i.e. health advisory, state standard), cleanup levels for noncarcinogenic effects have been set at a level thought to be without appreciable risk of an adverse effect when exposure occurs over lifetime (hazard index= 1)."*

8/4/2015 ESD

> *"**Formal incorporation of 1,4-dioxane as a Site COC in groundwater with the NHDES AGQS (3 µg/L) (emphasis added)** as a performance standard for monitoring the protectiveness of the remedy at OU-1 and as a CL at OU-2."*

It is clear that both the original RODs for OU-1 and OU-2 as well as the more recent ESD took into consideration that groundwater cleanup levels would be drinking water quality as required by State groundwater statute and rule because the aquifer is a potential drinking water source.

Based on the above information, NHDES requests that EPA:

- Revise the cleanup levels to include the newly adopted AGQS for PFOA, PFOS and upon adoption 1,4-dioxane,
- Compel the Coakley Landfill Group to provide alternate water immediately where the public is drinking contaminated water over these standards, and
- Conduct a remedy review, incorporating findings of the pending bedrock investigation, taking into account the revised cleanup levels in order to determine if the current remedy remains protective, or if a revised remedy is appropriate.

(1) Drinking Water Health Advisory for Perfluorooctanoic Acid (PFOA). USEPA, Office of Water. EPA 822-R16-005, May 2016, and Drinking Water Health Advisory for Perfluorooctane Sulfonate (PFOS). USEPA, Office of Water. EPA 822-R-16-004, May 2016

(2) TOXICOLOGICAL REVIEW OF 1,4-DIOXANE September 2013, USEPA

Should you have any questions or concerns that you would like to discuss regarding this letter, please feel free to contact me directly at (603) 271-7378.

Sincerely,

Waste Management Division

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