YN ERWM Comments on *Draft Supplemental Environmental Impact Statement (SEIS) for the Perma-Fix Northwest (PFNW) Mixed Waste Facility (MWF) Dangerous Waste Permit Renewal*

Specific Comments

1. Page 34. §2.9.1.1. Paragraph 3. "*In addition to a segmented rolling road closure, USDOE provides a driver that is a federal employee as per 49 CFR 171.1(d)(5) for TRU and TRUM shipments to and from both Hanford site and PFNW. By providing a federal driver, the TRUM and TRU waste transportation is considered as solely for noncommercial use and therefore is exempt from USDOT's Hazardous Material Regulations per 49 CFR Part 171.1(d)(5) (PFNW 2018b).*" This statement is inaccurate. Per 49 CFR Part 171.1(d)(5), if the transportation of a hazardous material in a motor vehicle "*operated by a Federal … government employee solely for noncommercial federal … government purposes*", then the transportation is not subject to the Hazardous Material Regulations (HMR) requirements. In other words, both "*Federal employee*" and "sole noncommercial federal purposes" conditions have to be met to qualify for the HMR exemption. Please rephrase the sentence.
2. Pages 41–42. §2.10.3, "*the MWF has a total treatment capacity of 140,267 metric tons (140,267 short tons) based on the design capacity for the currently permitted and operated treatment units.*" From Page 28, the capacity is 140,267 metric tons (154,618 short tons). Please correct the number.
3. Page 72, Table 16. (i) Please clarify why PFNW discharged much more C-14 (1.31 Ci) than the Hanford Site (0.00011 Ci), when it discharged less other radionuclides than Hanford. (ii) Table 16 shows 0.123 Ci tritium emission by PFNW for year 2018. This value is much less than the 11.9 Ci listed in Table 4.1.4 of the Annual Environmental Monitoring Report for 2018 (PFNW, 2019, Table 4.1.4, attached below for convenience). Please correct the numbers in Table 16. (iii) Based on Table 4.1.4 of PFNW (2019), the low-level thermal (LLTH) stack emitted 10.2 Ci tritium in 10 days during March 19–29, 2018. This was over 86% of its total tritium emission in 2018. Please clarify whether the elevated emission exceeded the concentration limit in WAC 246-221-290 Appendix A, Table II.

Table 4.1.4 2018 Stack Emission Data for Tritium and Carbon-14 (Ci).

LLTH Stack				MWTH Stack[1]		
Start Date	Stop Date[2]	Tritium (Ci)	C-14 (Ci)	Start Date	Stop Date[2]	Tritium (Ci)
01/03/2018	01/17/2018	8.29E-03	4.58E-05	01/02/2018	01/19/2018	3.01E-03
01/17/2018	01/31/2018	3.76E-03	1.80E-04	01/19/2018	02/05/2018	1.06E-02
01/31/2018	02/11/2018	7.83E-03	3.81E-04	02/05/2018	02/19/2018	4.31E-02
02/11/2018	02/24/2018	2.71E-03	-1.80E-05	02/19/2018	03/12/2018	8.46E-03
02/24/2018	03/09/2018	3.80E-03	3.58E-05	03/12/2018	03/28/2018	5.13E-04
03/09/2018	03/19/2018	3.40E-03	-6.93E-05	03/28/2018	04/09/2018	8.25E-03
03/19/2018	03/29/2018	1.02E+01	1.03E+00	04/09/2018	04/24/2018	5.62E-03
03/29/2018	04/19/2018	2.19E-01	1.11E-02	04/24/2018	05/10/2018	3.48E-03
04/19/2018	05/06/2018	7.31E-03	1.18E-04	05/10/2018	05/25/2018	3.80E-03
05/06/2018	05/21/2018	1.16E-02	2.42E-04	05/25/2018	06/08/2018	9.05E-03
05/21/2018	05/31/2018	1.49E-02	8.25E-03	06/08/2018	06/26/2018	1.19E-02
05/31/2018	06/18/2018	7.72E-03	1.64E-04	06/26/2018	07/11/2018	1.25E-02
06/18/2018	07/02/2018	6.78E-03	8.59E-06	07/11/2018	07/20/2018	2.85E-03
07/02/2018	07/12/2018	1.31E-02	-2.05E-05	07/20/2018	07/30/2018	1.48E-03
07/12/2018	07/23/2018	4.90E-03	7.86E-04	07/30/2018	08/08/2018	5.29E-02
07/23/2018	08/01/2018	2.02E-03	7.93E-04	08/08/2018	08/17/2018	3.68E-02
08/01/2018	08/13/2018	3.85E-02	1.47E-04	08/17/2018	08/31/2018	3.79E-02
08/13/2018	08/24/2018	4.43E-02	1.65E-04	08/31/2018	09/17/2018	4.81E-02
08/24/2018	09/03/2018	4.53E-03	1.79E-04	09/17/2018	10/08/2018	2.72E-04
09/03/2018	09/14/2018	6.09E-03	8.93E-05	10/08/2018	10/24/2018	7.09E-04
09/14/2018	09/24/2018	1.49E-03	8.39E-05	10/24/2018	11/09/2018	-1.46E-03
09/24/2018	10/07/2018	2.02E-03	1.04E-04	11/09/2018	12/03/2018	1.40E-02
10/07/2018	10/18/2018	8.43E-02	4.32E-03	12/03/2018	01/02/2019	2.48E-03
10/18/2018	10/31/2018	1.20E+00	2.50E-01			
10/31/2018	11/13/2018	1.63E-02	2.09E-03			
11/13/2018	11/26/2018	7.16E-03	1.37E-04			
11/26/2018	12/12/2018	4.16E-03	-3.62E-05			
12/12/2018	12/27/2018	6.08E-04	3.34E-05			
Stack Totals		1.19E+01	1.31E+00	Stack Totals		3.16E-01

1. Mixed waste thermal processing began December 2018.
2. Sampling ended January 2nd 2019.

Source: PFNW, 2019. Annual Environmental Monitoring Report for 2018, Perma-Fix Northwest Richland, Inc., Richland, Washington.

4. Page 94. §5.4.3. "*Following the decontamination activities, the water used for decontamination would be analyzed for waste characterization before treated as a waste or secondary waste as required under the current DWR Permit. Any water use associated with the MWF operation would not go to the drain for the city sewer line.*" Please clarify where the decontamination wastewater is treated and disposed of.
5. Page 101, §5.7.1.3. "*Based on U.S. Census population data of 2012, the population within an 80-km (50-mi) radius of the PNNL Site, approximately 1.0 km (0.6 mile) east to the MWF, was estimated to be approximately 466,000 (USDOE 2013).*" Recent information should be used in assessing the MWF impacts on human health considering population growth and new developments nearby (Alvarez and Hanford Challenge, 2020).
6. Pages 107–108. "*The increase of 4 truck deliveries would represent less than 1 percent increase to the current traffic counts in the vicinity of the PFNW site, as described in section 4.8. Therefore, there would be a minor impact on the current traffic volume from routine waste transportation associated with the MWF operation under Alternative 2.*" Transport of TRUM needs rolling road closures, and it should not be counted as normal traffic volume.
7. Page 121, Table 32, Column of "*1 mi. radius of PFNW*". If the number of people over age 5 who "speak English less than very well" is 0, then the number of people over age 14 who speaks English less than very well should be 0 too. Please clarify why the Percent in linguistic isolation within "*1 mi. radius of PFNW*" is 2%.

References

Alvarez, R. and Hanford Challenge. 2020. *Risky Business at Perma-Fix Northwest—The Inside Story on Hanford's Off-Site Radioactive Treatment Facility*. Available at: https://ananuclear.org/wp-content/uploads/2022/03/2020-12.04-PermaFix-Report-updated.pdf.

PFNW, 2019. Annual Environmental Monitoring Report for 2018, Perma-Fix Northwest Richland, Inc., Richland, Washington.