

RESPONSE TO COMMENTS

United States Department of Defense, Department of the Navy Naval Radio Station (Transmitter (T)) Jim Creek NPDES Permit WA0020354 March 31, 2015

On February 21, 2015, the U.S. Environmental Protection Agency (EPA) issued a public notice for the issuance of the United States Department of Defense, Department of the Navy, Naval Radio Station (Transmitter (T)) Jim Creek (Jim Creek) National Pollutant Discharge Elimination System (NPDES) Permit No. WA0026573. This Response to Comments provides a summary of significant comments and provides corresponding EPA responses. The comments resulted in the following changes to the permit:

- Increasing from 120 days to 180 days the time to submit written notification that the Quality Assurance Plan has been developed and implemented
- Adding the Temperature Annual Report to the Schedule of Submissions on page 2 of the permit.
- Adding the specification of one hour intervals for recording flow

Comments were received from the following:

B.L. Foster, Lieutenant Commander, U.S. Navy, Pubic Works Officer, by Direction of the Commanding Officer

1. **Comment:** Page 2, Schedule of Submission and Condition II.A. states “The permittee shall provide EPA with written notification that the Plan has been developed and implemented within 120 days...” Page 15 of the Fact Sheet specifies 180 days to “update the Quality Assurance Plan.” The permit allows six months (page 5) to begin continuous effluent monitoring. By allowing 180 days for the QAP we can ensure the QAP incorporates the specific monitoring equipment we install.

Response: Page 2 and Condition II.A. are changed to requiring the permittee to submit written notice to EPA that the Plan has been developed and implemented within 180 days of the effective date of this permit.

2. **Comment:** The Temperature Annual Report and Compliance Schedule Report of Progress should be added to the Table of Submittals on page 2.

Response: The requirement to submit a Temperature Annual Report is added to the Table of Submissions on page 2.

The Schedule of Submissions does include the Report of Progress:

“Reports of compliance or noncompliance with, or any *progress reports* on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date (see III.J.) (emphasis added).

3. **Comment:** The draft permit specifies that effluent limitations apply at “all times.” The navy request permit limitations apply June through November only. We would like the option to bypass to the old Outfall 001 during the colder months (December through May) to allow the

infiltration system to “rest”. During these colder months Jim Creek stream flow increases dramatically. Based on historic USGS stream flow data, colder month average daily flow exceeds 300 cfs. Along with the increase in flow the temperature of Jim Creek decreases so there is no reasonable potential to exceed the temperature water quality standards.

The Navy requests an approved on-going anticipated bypass under Condition IV.F. starting the beginning of December through the end of May the following year. During this period the Navy may want to bypass effluent to the old Outfall 001 to allow the infiltration system to “rest”

Response: The permit authorizes discharges only to Outfall 67 and does not authorize discharge to Outfall 001. The effluent limits apply year round.

As discussed in the Fact Sheet the CWA requires that the effluent limits for a particular pollutant be the more stringent of either technology-based limits or water quality-based limits.

Technology-based limits are set according to the level of treatment that is achievable using available technology. A water quality-based effluent limit is designed to ensure that the water quality standards applicable to a waterbody are being met and may be more stringent than technology-based effluent limits.

The technology-based limits in this permit were developed from the Navy’s study of all known, available, and reasonable methods of prevention, control, and treatment (AKART). EPA concluded from that study that the Flat Road Area infiltration/bioswale system is AKART for this facility. If the facility were to intentionally divert the flow around infiltration/bioswale system, the bypass provision in Part IV.F of the Permit applies.

A bypass is prohibited unless the bypass does not cause the effluent to exceed limits and is for essential maintenance to assure efficient operation. Ongoing diversion of the treatment system from December to May to allow the system time to “rest”, does not appear to be essential maintenance. Further the bypass through the old Outfall 001 would likely cause the effluent to exceed effluent limits. Therefore, the bypass would be prohibited. As such, the EPA may take enforcement action against the Permittee unless the conditions of Part IV.F.3 are met, which include a showing of no feasible alternatives to the bypass.

Regarding the request that permit limitations apply only from June through November. The limits are water quality-based limits and were developed from the Washington Stillaquamish River Watershed Temperature Total Maximum Daily Load: Water Quality Improvement Report, Vol. 2: Implementation Strategy, July 2006 (TMDL) as interpreted by the Department of Ecology. The TMDL and the temperature allocation apply year round. The NPDES regulations at §122.44(d)(1)(vii)(B) require that NPDES permits include effluent limitations developed consistent with the assumptions and requirements of any WLA that has been assigned to the discharge as part of an approved TMDL. The allocation applies all year with no periods of “rest”. Further, under Section 401(d) Ecology affirms requirements in permits that are necessary to assure that discharges comply with any applicable water quality standards and AKART. The Department of Ecology’s 401 Certification is only for effluent limits for temperature that apply year round.

The permit is not changed.

- 4. Comment:** Recommend changing the Sample Frequency from “continuous” to “hourly log” for both flow and temperature limits. Paragraph 2 specifies a one-hour recording frequency for

temperature. No recording (log) frequency is specified for flow. The Navy suggests a one-hour frequency. .

Response: Continuous monitoring is the term commonly used to describe the monitoring required in the permit (see pages 4-15, 8-7 and 8-9 of the EPA Permit Writers Manual).

One hour recording intervals will be specified for flow.

5. **Comment:** Reporting of the 7-DADMax temperature may prove difficult if, as anticipated, 100% infiltration is achieved on most days. There may not be 7 consecutive days of discharge into Jim Creek. The Navy requests not reporting 7-DADMax. The basis for this information will be included in the annual report to EPA.

Response: The 7-DADMax temperature is required to be monitored and reported to insure compliance with the 7-DADMax temperature effluent limitation. If discharges do not occur for seven consecutive days then only the highest maximum daily temperature must be reported.

The permit is not changed.

6. **Comment:** Condition I.B.2. requires the Navy to report the 1-day maximum temperature on the DMR. Is the 1-day temperature (1) the maximum of the one-hour readings recorded during the month or (2) the maximum of the daily average values?

Response: Condition I.B.2. requires reporting the maximum of the daily average values.

The permit is not changed.

7. **Comment:** The highest 7-DADMax flow and the maximum daily flow will not likely correspond with the equivalent temperature values. For instance the 7-DADMax temperature could occur during a dry week and the 7-DADMax flow could be during a week of rain. The Navy is ok to report these values but is concerned that in the future the values will be falsely logically/mathematically linked.

Response: EPA procedures do not try to estimate when the 7-DADMax temperature “could occur” or will “not likely correspond” with the 7-DADMax flow. Worst case critical temperatures and worst case critical flows are used to determine reasonable potential consistent with the Technical Support Document (TSD) and are not linked on a week by week basis. See Fact Sheet Appendix E: Reasonable Potential and Water Quality-Based Effluent Limit Calculations.

The permit is unchanged.

8. **Comment:** Condition I.B.7. “The permittee shall collect effluent samples at Outfall 67...” The Navy’s AKART work has resulted in significant infiltration of effluent into the ground. Our long-term goal is 100% infiltration during the warmer months. In accordance with that goal, in the future we may re-route the effluent for increased infiltration and Outfall 67 may no longer be used. The Navy requests the paragraph include this eventuality as follows:

The permittee shall collect effluent samples at Outfall 67, or at any point preceding the outfall within the discharge line, before the discharge from the facility contacts the receiving stream. The permittee may modify the effluent discharge line to increase infiltration per Section IV.I., Planned Changes. If the planned change results in an outfall other than 67 the

permittee shall collect effluent samples at the new outfall or at any point preceding the outfall within the discharge line.

Response: The EPA recognizes in the fact sheet and allows the Navy to make adjustments to the infiltration area within the compliance schedule to meet the effluent limitation. However the discharge is only authorized through Outfall 67. If a different outfall is used a new permit or permit modification is required. The permit allows effluent samples “at any point preceding the outfall within the discharge line, before the discharge from the facility contacts the receiving stream.” The discharge line is downstream of the last prevention, control or treatment method before the discharge contacts Jim Creek through Outfall 67.

The permit is not changed.

- 9. Comment:** Some of the required QAP elements are not applicable for this permit. The Navy recommends changing the first sentence to:

The QAP shall include the following, if applicable:

Response: The Navy may note in the QAP which elements are and are not required.

The permit is unchanged

- 10. Comment:** The Navy appreciates the EPA incorporating a temperature Compliance Schedule into the permit. As you know the Navy has been working to minimize the environmental impact of the discharge. The compliance schedule provides us with time to continue this work prudently as/if needed.

Response: The EPA agrees a compliance schedule is necessary.

The permit is unchanged.

- 11. Comment:** Some of the required records of monitoring in Condition III.E. are not applicable for this permit. For example, there will be no “individuals(s) who performed the sampling or measurements” since it will be electronic. Recommend deleting this section since the QAP will incorporate the applicable aspects specified here.

Response: All the records of monitoring in Condition III.E. are required. Individuals will be performing installation, calibration, maintenance and quality assurance of the continuous monitors for the required measurements and must be listed.

The permit is not changed.

- 12. Comment:** Please delete “all original strip chart recordings for continuous monitoring.” In Condition III.F. While the Navy will conduct continuous (one-hour log frequency) monitoring we will not use strip charts.

Response: If the Navy uses strip charts the originals must be retained as a record. If data loggers are used the data must be retained as a record.

The permit is not changed.

- 13. Comment:** For Condition V.G. - Inspection and Entry, please understand that access to Naval Radio Station Jim Creek is limited for national security reasons. Advance notification of a visit, to allow time to arrange for access, would be appreciated and will make the visit more productive.

Response: The comment is noted. However, Condition V.G. allows EPA to enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of the permit and also inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under the permit.

The permit is not changed.

- 14. Comment:** The Navy requests a provision in the permit that would allow EPA to eliminate effluent limitations, monitoring, and reporting if we consistently achieve 100% infiltration for a duration of say 2 years. Maintaining flow, temperature, and rainfall monitoring equipment would be a burden if it had no purpose, Suggested provision:

If there is no flow for a consecutive two-year period EPA can, at the request of the permittee, eliminate the provisions in Condition I.B. and II.B. "No flow" is defined as flow equal to or less than 6 gpm during the period June thru November.

Response: The EPA will review the discharge flow volume and other information included in the application for permit reissuance to determine conditions in the reissued permit including Conditions I.B. and II.B.

Rainfall monitoring is not required by the permit.

The permit is not changed.

- 15. Comment:** Part IV.B. Penalties for Violations of Permit Conditions 1. Civil and Administrative Penalties and 2. Administrative Penalties There is no waiver of immunity for fines under the CWA against the federal government. Please delete paragraphs B.1 and B.2 as they are inapplicable to the U.S. Government.

Response: It is EPA's practice to include the language in question in all NPDES permits, as required by 40 CFR 122.41. EPA includes the language in NPDES permits regardless of whether the permittee is federal or private. The language does not change the fact that EPA does not assess punitive penalties against federal agencies for the reasoning set forth in *DOE v. Ohio*. However, since private contractors are "persons" under the CWA, EPA has the authority to assess penalties for NPDES violations by private contractors.

The permit is not changed.

- 16. Comment:** The Navy requests that EPA reconsider factors used to derive the worst case discharge flow value of 91. We request that the worst case effluent flow rate temporally corresponds to the Jim Creek low flow condition.

- The Navy has done two visual checks of combined flow (effluent, spring and runoff) post-reroute to Outfall 67. We observed 100% infiltration to ground.
- The 55 gpm value was measured before we rerouted the effluent to Outfall 67 which was done in the fall of 2014. As noted above, the summer dry period combined flow will likely be much lower than 55 gpm
- The Navy does not think the 2.2 flow peak factor captures the appropriate elements that relate to combined flow. When it rains combined flow is cooler due to the increase in runoff. At the same time the flow in Jim Creek is proportionally higher and would reasonably be above low flow condition (Fact Sheet, page 10)

- The 2.2 peak factor is a comparison between flow observed in June and January rainfall. The Jim Creek low flow condition, however, occurs in August/September based on USGS historic flow data. Jim Creek flow in January is well over 100 cfs based on USGS historic flow data. Based on Sedro Woolley climate summaries June and September rainfall is roughly equivalent.
- Hillside spring flow will decrease between the June and August/September when the Jim Creek low flow condition occurs.

Considering the above the Navy requests EPA use a combined flow of 50 gpm. We understand the flow uncertainty at this point and the Navy would consider a permit condition to modify the discharge course, or otherwise increase infiltration if flow during the critical period consistently exceeded 50 gpm.

Response: See Response to Comment 7. The derivation of the 50 gpm combined flow is not provided. The procedures the EPA used to determine reasonable potential and effluent limitations do not use temporal matching of effluent flow, receiving water flow, spring flow and temperature. It used the steady state procedures utilizing the Technical Support Document (TSD) to determine reasonable potential and to calculate the allocation and effluent limits based on critical flow of the receiving water and discharge. This procedure uses worst case (highest) discharge flow and highest temperature with worst case critical receiving flow (lowest 7DADmax) and worst case receiving water temperature to determine critical conditions to ensure water quality standards are always achieved. The flow measurement was in June therefore the spring flow was estimated for June. There were insufficient to use temporal matching of the flow.

As the fact sheet states the EPA and Ecology are providing a compliance schedule:

“Although non-contact cooling water flow from the Transmitter Building is steady state the infiltration rate on the Flats Road Area is variable and combined hillside spring flow is variable. Two years of continuous flow and temperature monitoring at the outfall will provide sufficient measurement of seasonal variability to verify the discharge flow rate, infiltration rate and allow the Navy to make adjustments to meet the effluent limitation.”

The permit is not changed.

- 17. Comment:** Table C-1 identifies a Jim Creek low flow of 6.43 cfs. Based on USGS Jim Creek flow data from 1937 to 1957 the lowest 7 day average flow is 6.80 cfs. We would be glad share the USGS data that we have.

Response: In subsequent conversation to clarify the comment the Navy agreed the USGS station used in the permit was more representative.

The permit is not changed.

- 18. Comment:** Using the 50 gpm discharge flow and the receiving water flow of 6.80 cfs results in a dilution factor of 16.0 and an effluent limitation of 20.5 °C.

Response: See Responses to Comments 3, 7, 16 and 17.

The permit is not changed.