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Via E-mail (PHAL461@ECY.WA.GOV)

Mr. Pat Hallinan, Water Quality Permit Coordinator Washington State Department of Ecology Eastern Regional Office 4601 N. Monroe Street Spokane, WA 99205-1295

Subject: IEP NPDES Permit No. WA 000082-5, Draft Permit and Fact Sheet

Dear Pat:

Please accept this comment letter on behalf of Inland Empire Paper Company (IEP) to Washington State Department of Ecology's (Ecology) Draft NPDES Permit No. WA 000082-5 and Fact Sheet. A complete compilation of comments with references are provided in Attachment "A" for the draft NPDES Permit and Attachment "B" for the Fact Sheet. Note that there are some comments in Attachments "A" & "B" that are not detailed below and will require Ecology response (these are highlighted in yellow in the attachments). The following provides a more detailed explanation of IEP's comments to specific areas of the Permit and Fact Sheet:

Comment No. 1 – Permit Conditions S1 & S2, Outfalls 001, 003 and 004

Due to interim limits associated with an extension to the compliance schedule, IEP suggests continuing with the use of only Outfall #001 to measure compliance for this permit cycle. This will greatly simplify implementation of the permit (sampling, monitoring, etc.), the Discharge Monitoring Reports (DMRs) and avoid any confusion throughout this permit cycle with the use of Outfalls #003 and #004. Compliance with interim limits is most effectively measured at the location of existing Outfall #001. IEP suggests revisiting compliance measurement at Outfalls #003 and #004 during the next permit cycle when the final effluent limits go into full effect.

Comment No. 2 – Permit Condition S1, Table 2, Effluent Limits for Cadmium

The Spokane River is currently meeting the water quality standard for Cadmium and therefore can be removed from the 303(d) listing of impairments. Furthermore, IEP has a long history of non-detectable values for Cadmium through permit monitoring and requests that Cadmium be removed as a permit limit. Can Ecology please describe how Cadmium will be removed from the 303(d) listing and subsequently from IEP's NPDES permit?

Comment No. 3 – Permit Condition S1, Table 5, Effluent Limits for CBOD₅

CBOD₅ limits in the draft permit are not representative of IEP operations with tertiary Ultrafiltration Membrane treatment (UF Membranes) that were installed in January, 2020. The following provides the basis for this misrepresentation and a proposed analysis to more accurately characterize CBOD performance that is typical of IEP operations with the UF Membranes:

The approach taken by Ecology does not accurately capture representative wastewater treatment system (WWTS) performance and deviates from the usual approach outlined in the Permit Writer's Manual. The primary reasons for these discrepancies are due to the fact that IEP CBOD data are not "log-normal" since CBOD is sampled very infrequently compared to BOD. The data also contains a significant number of non-detects that were obtained during business curtailment and mill outages at the height of the COVID pandemic. During the period of February to July 2020 the mill only operated intermittently (i.e.: 3 days/week) and at lower production rates, therefore operations during this time are not indicative of normal operations and should not be included in any data analyses.

Ecology should use an approach that provides a more accurate assessment of CBOD performance during typical operations and one that comports much better with the statistical analysis favored by the Permit Writer's Manual. This approach is detailed in the attached MS Excel spreadsheet (Attachment "C") and is summarized below:

CBOD/BOD Ratio: the current permit only requires CBOD testing once per month, however it is possible to establish a more accurate relationship using a CBOD/BOD Ratio over a longer period of time:

- Data is compiled from 2016-2022 when both CBOD and BOD were measured on the same sample
- Eliminate any data points when either CBOD or BOD were non-detect
- The remaining dataset is both normally and log-normally distributed
- The population mean was calculated from the sample mean and sample standard deviation using a 95% confidence interval

■ The population mean (@ 95% confidence) for the CBOD/BOD ratio is between 87-92%, with an average of 90%

Compilation of a subset of representative and defensible BOD data is derived from the larger dataset based on the following:

- Only data from January 2020 or later is included to account for UF membrane operation.
- Data from February 2020 to July 2020 is excluded due to unrepresentative mill operations resulting from the COVID pandemic described above.
 Wastewater characteristics were significantly altered, especially BOD and CBOD, during this time and are not representative of typical operations or performance.
- The balance of data from August 2020 to April 2022 are included in the analysis. January 2020, November 2020 to February 2021, and November 2021 to February 2022 are all included in the dataset despite being "offseason." IEP did not alter operations of the WWTS during these periods as we were continuing to evaluate and optimize the UF membranes, therefore these months are representative of typical WWTS operations and performance. Furthermore, the inclusion of this data provides a larger data set resulting in a more representative and defensible analysis.

Performance-based limits are then calculated for BOD and converted to CBOD:

- The larger BOD dataset discussed above is log-normally distributed. The only minor exception is on the left tail which is populated with a significant number of non-detect values due to exemplary performance with the UF Membranes. Permit limits are based on the right tail so this is not an issue.
- The 95th and 99th percentile values for BOD are then calculated and multiplied by the CBOD/BOD ratio (90%), resulting in the following limits:

Monthly average limit (based on 95th percentile) is 699 pounds/day Maximum Daily limit (based on 99th percentile) is 1,093 pounds/day

Comment No. 4 – Permit Condition S1, Table 5, Effluent Limits for BOD₅

IEP requests that BOD₅ be replaced with CBOD₅ for all permit conditions and seasons to be consistent with DO TMDL WQBELs, simplify permit and DMR reporting requirements, and reduce laboratory resources. Limits for CBOD₅ during the "off-season" (November thru March) can be established using the same analysis outlined in Comment No. 3 above that resulted in a an average CBOD/BOD ratio of 90% and the following limits:

Monthly average limit is 1,020 pounds/day Maximum Daily limit is 1,677 pounds/day

Comment No. 5 – Permit Condition S2.A. Monitoring Schedule, Tables 9 through 11

In accordance with Comment #2 above, Tables 9 through 11 should be modified and simplified to monitoring at Outfall #001 only for this permit cycle. Monitoring frequencies can be greatly reduced and seasonal calculations can be eliminated with elimination of Outfalls #003 & #004. Additionally, Outfall #004 is Non-Contact Cooling Water (fresh water) and therefore does not require a frequent monitoring schedule considering it will not result in detectable values for TSS, BOD, CBOD and ammonia. IEP requests a monitoring frequency of 1/month maximum if Ecology requires any testing of NCCW. Outfall #004 monitoring requirements should be for TP only to establish the phosphorus credit to be used for compliance. Additionally, IEP requests that any sampling/monitoring at Outfall #004 be through "grab sampling" methods, in lieu of "composite sampling," due to logistical challenges that preclude effective composite sampling.

Comment No. 6 – Permit Condition S2.A. Monitoring Schedule, Tables 10 & 11

Reporting requirements for running and seasonal averages for Ammonia, CBOD and TP need clarification. The "Units and Specification" column should be "lbs/day, running average." The seasonal average is not necessary since it is redundant with the running average at the end of the season (i.e.: October). If Ecology insists upon keeping the seasonal average requirement, then the "Units and Specification" column should be "lbs/day, seasonal average" in lieu of the "lbs/season."

Comment No. 7 – Permit Condition S2.A. Table 9, Hardness vs. Alkalinity

The draft permit has eliminated the monitoring requirement for Hardness and now requires Alkalinity testing. How will Ecology make future determinations for end-of-pipe metals calculations without continued Hardness data and can Ecology explain why the draft permit now requires Alkalinity testing?

Comment No. 8 – Permit Condition S4, Table 15, Compliance Schedule:

IEP requests that the compliance schedule provided in Condition S4, Table 15, be extended for the entire permit term due to the following concerns with the proposed two-year extension of the compliance schedule to November 1, 2024.

a. IEP supports the compliance schedule as proposed in the entity review draft permit:

Item	Task	Due Date
1.	Annual Status Reports	November 1 of each year
2.	Scope of Work for Ecology Review and Acceptance – Updated Engineering Report for Treatment Technology	within six months after permit effective date
3.	Approvable Engineering Report for Ecology Review and Approval – Updated Engineering Report for Treatment	within 18 months after permit effective date

Item	Task	Due Date
	Technology	
4.	Confirmation of Implementation of Recommendations of Approved Engineering Report	within 30 months after permit effective date
5.	Meet Final Water Quality Based Effluent Limits for CBOD₅ and Total Phosphorus (as P)	November 1, 2026

- b. In response to these comments can Ecology explain why it shortened the compliance schedule to two years? This is not sufficient time for IEP to operate under a bubble permit for nutrients and to optimize its treatment systems to meet the final effluent limits. It is also insufficient time for IEP to evaluate and implement additional treatment if necessary to meet the final effluent limits.
- c. The draft permit, unlike the entity review draft permit, includes no allowance for submission of an engineering report. In response to these comments, can Ecology explain why this provision was removed from the draft permit? Section S4 should provide a reasonable schedule for submittal of a revised engineering report no sooner than eighteen (18) months from the permit effective date. This amount of time is minimally necessary to evaluate the performance of the WWTS and make recommendations on system improvements necessary to attain compliance with the final effluent limits.
- d. IEP requests that Ecology likewise restore the additional eighteen (18) months for submittal of the Engineering report and the thirty (30) months for implementation of the approved engineering report, both due from the permit effective date. This will provide sufficient time for Ecology approval of an engineering report. Upon approval of the Engineering Report by Ecology, sufficient time may be needed for WWTS upgrades that includes equipment specifications, request for proposals, proposal evaluation, contract award, engineering design, procurement, equipment/systems manufacture, delivery of equipment, installation, commissioning, optimization and assessment for compliance with the DO TMDL WQBELs. In response to these comments, can Ecology explain why this was deleted from the entity review draft permit?

IEP believes that an extension to the compliance schedule throughout this permit cycle as stated in the version of Section S4 above is reasonable to provide IEP and Ecology with the confidence that the final nutrient effluent limits can be achieved, in lieu of having to reopen the permit for modification during this cycle. It is important to note that IEP will be making every effort to meet the effluent limits as soon as is practicable and that attainment of the limits during the permit cycle may be possible.

Comment No. 9 – Permit Condition S8.A.5. PCB PMP, Incoming Materials

Please delete this condition, as this is an unreasonable requirement for a private business to undertake and is a regulatory matter for Ecology or the EPA. It is also irrelevant for reducing PCB loading to the Spokane River. The 2015 source identification study has already documented the overwhelming source of PCBs coming into IEP are from TSCA allowable inks and pigments in recycled paper, and not from other products entering its facility. Furthermore, this requirement is an unreasonable request, particularly as the Permit requires the use of EPA Method 1668 for which samples from nearly any source can be shown to contain detectable levels of PCB congeners. This condition could be construed to require IEP to eliminate the use of recycled paper and other raw materials as PCBs are detectable in all matrices when EPA Method 1668 is applied.

Comment No. 10 – Permit Condition S8.C. Spokane River Regional Task Force

IEP respectfully requests that Ecology remove the mandatory requirement for continued participation in the task force in Condition S8.C. EPA has now agreed under the terms of a consent decree with the Sierra Club and Spokane Tribe of Indians to prepare a PCB TMDL. The role of the task force as an alternative process to identify and remove PCB loading to the river is evidently not supported by EPA, environmental groups, or tribes and is subsequently no longer relevant. Furthermore, it is inappropriate to delegate to IEP the obligation to implement regulatory reform of the federal Toxic Substance Control Act (TSCA). IEP has no authority to effect amendment of the TSCA regulations. This is a matter solely within the discretion of EPA and Ecology. Rather than imposing an impractical permit condition on IEP for "regulatory reform" of TSCA, Ecology should commit to pressing EPA to amend TSCA or undertake state rulemaking to limit the presence of PCBs in commercial and consumer products.

Comment No. 11 – Fact Sheet, New Source

The "Effluent Guidelines and Standards" listed in the Fact Sheet are for new sources (NSPS technology-based limits). IEP should not be characterized as a new source simply because of the addition of new effluent treatment technology. Ecology needs to provide the reasons for using NSPS for IEP consideration and if IEP is more accurately characterized as an existing source, the Fact Sheet should be corrected.

Comment No. 12 – Fact Sheet Reasonable Potential Analysis for Metals

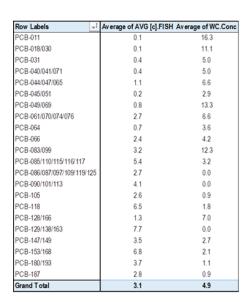
The Reasonable Potential (RP) calculations for Cadmium, Lead & Zinc in the Fact Sheet (Reasonable Potential Spreadsheet – No Mixing Zone; Part 2, page 74) have incorrect values for Effluent Concentrations. The data included in the spreadsheet do not represent currently available metals data and indicate that RP exists based on these inputs. Therefore, this spreadsheet should be revised to reflect actual IEP data that results in no RP for these metals.

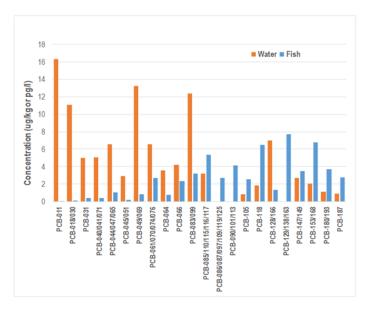
Comment No. 13 – Reasonable Potential Analysis for PCBs

Ecology has made a reasonable potential analysis on the determination that "based on the presence of PCBs in the effluent and the 303(d) listing for PCBs in fish tissue in the Spokane River at the point of discharge." The Fact Sheet is devoid of any analysis that PCBs in IEP's effluent actually contribute to elevated PCB concentrations in fish tissue. That is, there is no evidence or discussion in the Fact Sheet that PCBs in the effluent are actually causing or contributing to elevated fish tissue concentrations.

There is abundant data to the contrary. The advanced WWTS installed by IEP removes over 99.99% of PCBs entering the treatment system, including 100% of the heavier molecular weight congeners that are appreciably bio-accumulating in fish tissue. This is done in a manner that removes PCBs from the environment considering that IEP efficiently destroys the PCBs with its Fluidized Bed Combustion system. The remaining PCBs in the effluent are all lower molecular weight PCB congeners that are not present, with one exception, in fish tissue data. The one congener detected in fish tissues that is also present in the IEP effluent, PCB-31, is at very low concentrations in IEP's effluent and would therefore be a de minimis contribution to fish tissue. It appears that the remaining PCBs in IEP's effluent are not biologically available and do not contribute to the basis for the impairment listing in the river.

The following table illustrate the relationship between water column data and fish tissue data. It is apparent that PCB congeners from PCB-31 and below are not a factor in fish tissue concentrations of PCBs.





In response to these comments, can Ecology explain how it translates PCB congener data from IEP's final effluent to fish tissue concentrations?

Comment No. 14 - Fact Sheet, Unlawful use of test method 1668C data

Ecology has improperly used data from the unapproved test method 1668C to make a reasonable potential analysis. Ecology regulations are clear and unambiguous in the procedures under the state water quality standards for applying water quality criteria, that the "analytical testing methods for these numeric criteria must be in accordance with the "Guidelines Establishing Test Procedures for the Analysis of Pollutants" (40 C.F.R. Part 136)..." WAC 173-201A-260(3)(h). In response to these comments, can Ecology explain how it has authority to ignore this provision in state law?

EPA regulations similarly prohibit the use of data from an unapproved test method for any purpose in an NPDES permit. 40 CFR 136.1(a) provides that the "procedures [test methods] proscribed herein shall...be used to perform the measurements indicated whenever the waste constituent specified is required to be measured for:

- (1) An application...or reports required to be submitted under NPDES permits or other requests for quantitative or qualitative effluent data under parts 122 through 125 of this chapter; and
- (2) Reports required to be submitted by dischargers under the NPDES established by parts 124 and 125 of this chapter.

40 CFR Part 122 covers the requirements for coverage under a NPDES permit including the derivation of technology based effluent limitations, 40 CFR 122.44(a), water quality based effluent limitations, 40 CFR 122.44(d), including a reasonable potential analysis under 40 CFR 122.44(d)(1). In response to this comment, can Ecology explain how it has authority to disregard these federal regulations?

40 CFR Part 123 governs requirements for delegated state water quality programs including requirements for NPDES permitting under 40 CFR 123.25. The requirements of a state program also include "procedures for receipt, evaluation, retention and investigation of all notices and reports required" in NPDES permits. 40 CFR 136.1(a)(1) expressly limits monitoring under Part 123 to approved test methods. In response to this comment, can Ecology explain how it has the authority to disregard the limitation in 40 CFR 136.1(a)(1) to use an unapproved test method for NPDES permitting?

40 CFR Part 124 governs the NPDES permitting process. Under 40 CFR 124.8(a) Ecology is required to prepare and publish a fact sheet to support a proposed NPDES permit. Under 40 CFR 136.1(a)(1) a fact sheet prepared under Part 124 must rely on data using an approved test method. In response to this comment, can Ecology explain how it has the authority to disregard the limitation in 40 CFR 136.1(a)(1) to use an unapproved test method for NPDES permitting?

Comment No. 15 – Fact Sheet, Ecology has improperly used unqualified 1668C data

The reasonable potential analysis for PCBs in Appendix D, Reasonable Potential Spreadsheet — No Mixing Zone Part 2, uses a receiving water value for PCBs that is apparently based on EPA Method 1668C data with a blank correction of 3X. If so, this is contrary to Ecology guidance in the Water Quality Program Permit Writers Manual. Section 4.5 of the manual expressly calls for a blank correction of 10X when using 1668C data in an NPDES permit:

Using 10x censoring for summation of the 209 PCB congeners removes false positives that are not significantly above (e.g. less than 2 standard deviations from the mean) the blank level. The value of 10x equates to a 95% confidence level that the congener is present in the sample and is also quantifiable. For the purposes of developing effluent limits, the process of applying the 10x laboratory blank censor is appropriate.

This is particularly true in circumstances where the PCB concentrations in the Spokane River are very low to non-existent. Research by Ecology has, for example, been unable to confirm the environmental presence of PCBs in the water column using high volume sampling methods. Ecology, Spokane River PCBs and other Toxics at the Spokane Tribal Boundary, Table 14, pg. 38 (December 2017)(Pub. No. 17-03-019). It is irrational to use a lower blank correction factor in these circumstances. If Ecology applied the guidance in its own manual, the reasonable potential calculations in Appendix D would likely have no PCB concentrations in the receiving water.

The manual further provides that any use of EPA Method 1668C data should be based on an approved Quality Assurance Project Plan (QAPP). Ecology does not have an approved QAPP for the purpose of the surface water monitoring data relied on for its reasonable potential analysis. The data provided by IEP is not supported by a QAPP. The same is true for any surface water data Ecology has relied on from the monitoring data collected by the Spokane River Regional Toxics Task Force. Approved QAPP's for the task force are clear that any data is collected for the purpose of providing semi-qualitative information on the sources of PCB loading to the river and not for any regulatory purposes:

QAPP - 3.2.4 Regulatory criteria or standards

In this study, PCB concentrations are being used to support future temporal trend assessments. Results will not be compared to regulatory criteria or standards

It is beyond the scope of the QAPP for Ecology to now use that data for NPDES permitting purposes. The task force QAPP typically uses a blank correction of 3x for the purpose of source identification, not for regulatory purposes. In some circumstances the task force has applied no blank correction in order to have any data to use in its analyses and efforts to reduce PCB loading. It is unreasonable for Ecology to use a similar approach for a NPDES permit reasonable potential analysis and deriving effluent limitations.

IEP appreciates the opportunity to conduct this review and requests that Ecology consider the above comments and recommendations in finalizing the permit and fact sheet.

Sincerely,

Douglas P. Krapas

Environmental Manager

Attachments

ATTACHMENT "A" IEP Comments to Draft NPDES Permit

IEP Commentary	Revise Compliance Schedule Annual Status Report Submittal Date based on issuance date	Use only Outfall 001 for this permit cycle (see Comment #1 for details)	Remove PCB limits (see Comment #13 for details)	Remove Cadmium limit & monitoring requirements (see Comment #2 for details)			Revise CBOD Limits based on representative data & analysis (See Comment #3 for details)	Use only Outfall 001 for this permit cycle (see Comment #1 for details)	Use only Outfall 001 for this permit cycle (see Comment #1 for details)	Use only Outfall 001 for this permit cycle (see Comment #1 for details)	Use only Outfall 001 for this permit cycle (see Comment #1 for details)	Replace BOD ₅ with CBOD ₅ (see Comment #4 for details)	Remove Cadmium limit & monitoring requirements (see Comment #2 for details)	Remove PCB limits (see Comment #13 for details)	Why Alkalinity, historically Hardness (see Comment #7 for details)?	Replace BOD ₅ with CBOD ₅ (see Comment #4 for details)	Reduce TSS testing to 1/month due to non-detects from membranes	Consolidate Tables 10 & 11 into Table 9 for this permit cycle (see Comment #5 for details)	Reduce monitoring frequencies & eliminate seasonal calculations (see Comment #5 for details)	Ammonia, CBOD & TP running & seasonal averages need correction (See Comment #6)	Eliminate monitoring for TRP - can be added later if IEP elects to pursue bioavailability	Grab sampling in lieu of composite sampling for all parameters of NCCW (see Comment #5)	Revise Compliance Schedule (see Comment #8 for details)	Delete this requirement of the PCB PMP (see Comment #9 for details)	SRRTTF voluntary not mandatory (see Comment #10 for details)	Delete Demonstrate Company (1990)
Reference	Table 1, S4 Item 1	S.1.A.1.	S1.A., Table 2	S1.A., Table 2	S1.A.1., Table 4, Footnote a.	S1.A.1., Table 4, Footnote b.	S1.A.1., Table 5	S1.A.1., CBOD ₅ , Item d.	S1.A.1., TP, Item e.	S1.A.2., Outfall 003	S1.A.2., Tables 6 & 7	S1.A.2., Table 7, BOD ₅	S.2.A, Table 9, Cadmium	S.2.A, Table 9, PCBs	S.2.A, Table 9, Alkalinity	S.2.A, Table 10	S.2.A, Table 10	S.2.A, Tables 10 & 11	S.2.A, Tables 10 & 11	S.2.A, Tables 10 & 11	S.2.A, Tables 10 & 11	S.2.A, Table 11	S4, Table 15	S.8.A.5.	S8.C	7 00
Page	5	7	7	7	00	00	00	6	10	10	10	10	11	11	12	12	12	12-15	12-15	12-15	12-15	14	24	29	32	33

^{*}Note that Comment #'s referenced under the IEP Commentary column reference IEP's Comment Letter associated with this submittal Comments highlighted in yellow are not referenced/detailed in IEP's Comment letter, and require Ecology's separate response

ATTACHMENT "B" IEP Comments to Draft Fact Sheet

Page 16 39 44 44 45		Why is IEP conside Revise CBOD Limi Reasonable Potentia Unlawful use of EP Delete PMP Purcha
16 39 44 44 45 46 49		
49	Table 28	Revise CBOD Limits based on representative data & analysis (See Comment +
49	Table 30	Replace BOD ₅ with CBOD ₅ (see Comment #4 for details)
50	Monitoring Requirements, A.	Use only Outfall 001 for this permit cycle (see Comment #1 for details)
54	Compliance Schedule	Revise Compliance Schedule (see Comment #8 for details)
71	Reasonable Potential	RPA shows RP for Manganese & needs to be updated with the latest data
74	RPA for Metals	Effluent Concentrations for Pb, Cd & Zn are incorrect (see Comment #12 for details)
74		Use of unaualified EPA Method 1668 data for RPA (see Comment #15 for details)

Comments highlighted in yellow are not referenced/detailed in IEP's Comment letter, and require Ecology's separate response *Note that Comment #'s referenced under the IEP Commentary column reference IEP's Comment Letter associated with this submittal