Sand & Gravel General Permit

Preliminary Draft Concrete Recycling Language

June 30, 2015

Note to Reviewers:

In the current Sand & Gravel General Permit, a concrete recycling wastewater discharge that has a pH higher than 8.5 is considered a permit violation. Ecology is **not** proposing to change the effluent limit, or monitoring frequency, or require groundwater monitoring wells, for discharges associated with concrete recycling.

Ecology is proposing to establish a defined response in the rare case that permittees have a concrete recycling wastewater discharge that has a pH higher than 8.5. This defined response will clearly set the expectations for permittees and establish consistency across the state.

On July 7, 2015 from 12:30 to 3:30, Ecology will hold a public meeting to explain this preliminary draft concrete recycling language. At the meeting, Ecology will provide the basis for the preliminary draft language and discuss the environmental concerns regarding recycled concrete. Ecology supports recycling of concrete and is committed to encouraging the recycling of concrete in a manner that also protects the environment and water quality.

The July 7th meeting can be attended via webinar (visit http://www.ecy.wa.gov/programs/wq/sand/index.html to attend) or in person at:

Department of Ecology
300 Desmond Drive
Lacey, WA 98503-1274

Ecology plans to issue the Formal Draft Sand & Gravel General Permit in September 2015. Ecology will accept public comments on the Formal Draft Permit. Ecology plans to reissue the final permit in December 2015, with an effective day of January 1, 2016.

Visit http://www.ecy.wa.gov/programs/wq/sand/index.html for additional information on the Sand & Gravel General Permit reissuance process or to attend the webinar.

S2. EFFLUENT LIMITS

Table 1: Effluent Limits and Monitoring Requirements for Process Water and Mine Dewatering Water.

Type	*NAICS* Code (see Appendix A)	Discharge to:	*pH*		*Turbidity* (*NTU*)		*Total Suspended Solids (TSS)*	Oil Sheen [3]	Discharge Flow (*gpm*)	*Total Dissolved Solids (TDS)*
			Min	Max	*Average Monthly*	Maximum Daily	*Average Quarterly*			
Process Water, Mine Dewatering Water	327320, 327331 327332, 327390, 327999, ECY002	Surface	One/Month		Two/Month[2]		Quarterly[1]	Daily when runoff occurs	see S12.A.6 and S12.A.7	
			6.5	8.5	50	50	40 mg/l	Visible Sheen	----	
		Ground	One/Month		----		----	Daily when runoff occurs	----	Monthly
			6.5	8.5[4]	----		----	Visible Sheen	----	500 mg/l

Notes for Tables 2 and 3

1. Quarterly means at least one sample in each of the periods of January to March, April to June, July to September, and October to December.
2. When required to sample *turbidity* twice a month, there must be at least 24 hours between sampling.

Table 2: Effluent Limits and Monitoring Requirements for Type 2 and Type 3 Stormwater

Type	*NAICS* Code (see Appendix A)	Discharge to:	*pH*		*Turbidity* (*NTU*)		Oil Sheen	Discharge Flow (*gpm*)
			Min	Max	*Average Monthly*	Maximum Daily		
Stormwater (Type 2 & 3) Type 2 monitoring only applicable during earth moving activities	327320, 327331, 327332, 327390, 327999, ECY002	Surface	One/Month		Two/Month[2]		Daily when runoff occurs	see S12.A.6 and S12.A.7
			6.5	8.5	50	50	No Discharge	----
		Ground	One/Month		----		Daily when runoff occurs	----
			6.5	8.5[4]	----		No Discharge[3]	----
			6.5	8.5	----		No Discharge[3]	----

Notes for Tables 2 and 3 (continued).

3. The discharge of sheen or petroleum products to *waters of the state* is a violation and must be reported as a violation. The presence of a visible sheen on *site* is not a violation if the Permittee corrects the problem in a timely manner, notes the occurrence in their Discharge Monitoring Report (DMR), and explains in the DMR the cause and describes the solution. (Also see conditions S4.F.4, S5.C, S9.C and S10.E.)
4. Permittees that have groundwater discharges associated with code ECY002 that exceed 8.5 must comply with the pollution prevention schedule in Appendix C.

S7. SMP SECTION 3: STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

F. Concrete Recycling BMPs

Permittees that conduct concrete recycling (ECY002) must include the following BMPs within their SWPPP and implement them onsite. Permittees may omit individual *BMPs* below if *site* conditions render the *BMP* unnecessary or if the Permittee provides alternative and equally effective *BMPs*. The Permittee must note the rationale for omission or substitution in the *SWPPP*.

1. Do not place concrete recycling stockpile(s) in the following locations:
    a. Within 100 feet or less (horizontal distance) from the ordinary high water mark of surface water bodies (including streams, lakes, rivers, saltwater bodies, wetlands, etc.).
    b. Within 100 feet or less (horizontal distance) from drinking water and irrigation well(s).
    c. Within a *Wellhead Protection Area*.
    d. Where there is a discharge to ground associated with the concrete recycling stockpile and there is not a minimum of 10 feet of separation between the bottom of the recycled concrete stockpile(s) and groundwater.
2. Establish materials acceptance procedures to ensure that inbound recycled concrete materials are not a source of dangerous waste such as lead paint, asbestos, and joint sealants which contain Polychlorinated Biphenyls (PCBs).[1]

[1] Ecology's intent is for Permittees to implement materials acceptance procedures such as: approving incoming material sources, conducting visual inspections to look for painted surfaces, writing material acceptance lists, or getting certification from suppliers for source materials. Ecology does not intend for Permittees to sample / test inbound materials.

APPENDIX A —NAICS CODES, ECOLOGY CODES, SIC NUMBERS, AND DESCRIPTIONS FOR FACILITIES COVERED UNDER THIS PERMIT

Table 3: NAICS / Ecology Codes and Descriptions for Activities Covered by the Sand & Gravel General Permit

***NAICS* / Ecology Code**	***SIC* Number**	**CFR Reference**	**S8. Description**
ECY002 Concrete Recycling			The processing (including, but not limited to, crushing, fracturing, sorting, storing, stockpiling, grading, and washing) of hardened structural concrete to produce a reusable concrete product.

APPENDIX B — DEFINITIONS

Concrete Recycling means the processing (including, but not limited to, crushing, fracturing, sorting, storing, stockpiling, grading, and washing) of hardened structural concrete to produce a reusable concrete product.

APPENDIX C — Pollution Prevention Schedule for pH

Requirements for facilities with high pH discharges (> 8.5) to ground that conduct concrete recycling (ECY002)

Facilities that conduct concrete recycling (ECY002) that exceeds a pH of 8.5 in any discharge to ground are required to:

1. Resample the discharge within 10 days (or next available discharge). If the sample does not exceed a pH of 8.5, resume normal monthly sampling frequency. If the analysis indicates that the sample exceeds a pH of 8.5, the Permittee must:
    a. Notify the appropriate Ecology regional office within five days.
    b. Within 90 days from the first exceedance determine and implement appropriate pollution prevention opportunities to prevent exceedance of groundwater quality standards.
    c. If normal monthly sampling within 90 days from the first exceedance (or next available discharge) does not exceed a pH of 8.5, resume normal monthly sampling frequency.
2. If the resampling per Appendix C.1.c indicates that the pH is still above 8.5, the Permittee must (at its discretion) implement one of the following within 180 days of conducting the follow-up sample required in Appendix C.1.c above:
    a. Submit to Ecology, for review and approval, documentation that the hydrogeology of the site prevents exceedance of the groundwater quality standards from the discharges of high pH wastewater from the concrete recycling activities (for example, a hydraulic restrictive layer, such as thick till, hard rock, or compacted soils, prevents the discharge of wastewater from contacting groundwater).
    b. Implement a program with an Ecology approved schedule to provide treatment for the pH prior to discharge to ground (for example, develop a plan to place recycled concrete on an impervious surface with run-on and run-off controls, collect and treat the water prior to discharge).
    c. Conduct an Ecology-approved groundwater impact study. The study must be conducted in accordance with WAC 173-200-080 and chapters 4-6 in Ecology Publication 96-02 (Implementation Guidance for the Groundwater Quality Standards) and consider the point of compliance, the quantity of discharge, and the vulnerability of groundwater. The results of the study must be submitted to the appropriate regional Ecology office no later than 30 days after completion of the study.
    ~~a.~~d. Cease discharges to ground related to the recycled concrete (for example, remove the recycled concrete material from the facility).