

## RESPONSE TO COMMENTS

### Idaho Groundwater Remediation Facilities General Permit NPDES Permit # IDG911000 August 4, 2014

On April 3, 2014, the U.S. Environmental Protection Agency (EPA) issued a 45-day public notice for the reissuance of the Idaho Groundwater Remediation Facilities General National Pollutant Discharge Elimination System (NPDES) Permit, No. IDG911000 (the GWGP). This Response to Comments document provides a summary of the significant comments on the GWGP and provides the corresponding EPA responses. As a result of comments received during the public comment period, the following revisions/clarifications were made to the Permit:

- The continuous effluent temperature monitoring requirement was changed to monthly grab sample monitoring.
- A clarification was added to Part IV.B to allow for the reduction from monthly monitoring to annual monitoring for any chemical of concern (COC) after 12 months of samples show that the particular COC is not present in the effluent. Language was added to that provision clarifying the required annual reporting of the results of all the COCs in a facility's category, even for those COCs that are only monitored annually.
- A correction was made in the whole effluent toxicity (WET) testing section at Part II.B.4 to clarify that the WET testing requirement for smaller facilities with no concerns after the first annual test from "semi-annually" to "bi-annually (i.e., one test every two years).
- Part IV.B was also revised to include a provision clarifying the sampling point at a facility.

EPA also made minor grammatical changes to the GWGP and corrected typographical errors. In addition, a table of the other language changes made to the GWGP, outside of the requests of commenters, is included in this Response to Comments.

Comments were received from the following individuals, and are paraphrased below:

Derek Young, P.E., URS Corporation on behalf of Univar USA; and,  
Jeff Tucker, Principal Engineer, PacifiCorp Energy

Comments from Derek Young, P.E., URS Corporation

**Comment 1 - Continuous Temperature Monitoring Requirement:** The draft permit requires continuous temperature monitoring in minimum 1-hour intervals be collected from effluent at each site. The draft continuous temperature monitoring requirement will provide little value to EPA beyond the current quarterly temperature monitoring requirement. Influent groundwater temperature readings from the Univar extraction wells are not known to be variable, and the treatment systems do not substantially change, if at all, the influent temperature prior to effluent discharge. As such, Univar requests this requirement for continuous temperature measurements be removed from the final permit.

**EPA Response:** The quarterly monitoring for facilities covered under the previous GWGP (i.e., from 2007-2012) has shown to provide insufficient data for characterizing the potential impacts on receiving waters around Idaho from the covered facilities' discharges. However, EPA agrees with the commenter that continuous temperature monitoring of the groundwater effluent may not provide a value to EPA and the Idaho Department of Environmental Quality (IDEQ) that is commensurate with the costs to the facility of installing continuous temperature monitoring devices, as the temperature of groundwater is known to be fairly constant. Further, the discharge monitoring report (DMR) data from currently covered facilities show that general effluent temperatures fall below the 19° C maximum daily average temperature criteria for aquatic life use designations in the State of Idaho water quality standards (WQS) found at Idaho Administrative Procedures Act (IDAPA) 58.01.02.250.b.

However, the GWGP is a General Permit covering a number of facilities in Idaho, and additional facilities could request coverage during this permit cycle. Also due to the fact that all the possible beneficial uses of the receiving waters for any covered facility must be protected, and that it is important for future permit development to collect temperature data at a regular frequency, the EPA has **changed the final Permit to require monthly effluent temperature grab samples**, similar to the other monthly sampling required in the GWGP.

**Comment 2 – Other Monitoring Requirements:** a.) The draft permit proposes that weekly pH monitoring be performed, as well as monthly monitoring for the chemicals of concern (COCs) in the category. Univar requests that the weekly pH monitoring be removed, and that other monitoring be required quarterly instead of monthly. b.) Table 4 of the draft permit includes more COCs than those identified in the influent at the three Univar treatment systems. Univar requests that the list of COCs to be limited and monitored include only those identified in the influent at each facility. c.) Univar also requests that [total petroleum hydrocarbons] TPH be removed from the final permit, as TPH does not apply to the Univar release under remediation. d.) The draft requirement for 24-hour composite total suspended solids (TSS) sampling is excessive and not supported by past data collection. TSS has not been detected in Univar effluent samples outside the current (and draft) permit daily maximum of 30 mg/L. This draft requirement will again push undo cost and burden onto Univar while providing little if any value to the EPA beyond the current grab sample TSS monitoring. Univar therefore requests that grab sampling replace 24-hour composite sampling in the final permit.

**EPA Response:**

a) The GWGP is a General NPDES Permit for the entire State of Idaho, and as such, Univar is not the only facility covered under the GWGP. In addition, as stated in the EPA Response to Comment 1, the potential exists for additional facilities to apply for coverage under the GWGP during this permit cycle. The EPA determined that the previous monitoring requirements of one sample per quarter for all COCs did not provide enough data, nor enough representative data, to accurately characterize the effluent discharge coming from facilities that are discharging continuously to surface waters of the U.S. Indeed, it is EPA policy and practice to include monitoring requirements for both technology-based and water-quality based effluent limits in an effort to better characterize the effluent and assess treatment efficiency of the various treatment systems in operation under NPDES permits [40 CFR 122.44(i) and 122.48]. In addition, pursuant

to CWA Section 308, EPA has the authority to require monitoring in NPDES permits and to adjust monitoring frequencies as deemed to be necessary. The DMR data for each of the currently covered facilities showed that violations have occurred for different COCs, and it is impossible to know if the violations occurred once, during the day of the sampling event, or for as long as the entire quarter. In addition, weekly pH monitoring is a relatively inexpensive and easy test to perform in the field and is a standard requirement in EPA-issued permits in Idaho. For all of these reasons, there is **no change to the weekly pH monitoring requirement or the monthly monitoring for the COCs in each category in the final GWGP.**

- b) Regarding the list of COCs for each facility category, the commenter is correct that in the previous GWGP, the list of COCs could be reduced for a facility that could demonstrate, with historical data, that a certain COC was not present in the effluent. That provision has been removed from the GWGP for this permit cycle. The NPDES implementing regulations for General Permits at 40 CFR 122.28 authorize the permitting authority to issue General Permits to facilities when they require the same or similar effluent limits or operating conditions, among other criteria. See the GWGP Fact Sheet Section I.A for more information on this issue. Therefore, EPA is requiring that each facility that falls within each of the facility categories is required to have the same or similar set of limits and monitoring requirements. Note that the GWGP allows for reduced monitoring of a particular COC, after the first 12 months of monitoring, if the COC has not been detected during that first year. This is discussed in more detail below.

During the development of this response, EPA noted that the Fact Sheet to the GWGP mentions the reduction in monitoring frequency after 12 months of samples showing non-detect for a specific COC, but the draft GWGP itself had omitted that provision.

**Therefore, EPA has corrected this omission in the final GWGP.** The COCs listed in each facility category have effluent limits with which they are associated. The federal NPDES regulation found at 40 CFR 122.44(i) requires a minimum monitoring and reporting frequency of once per year. The GWGP Part IV.B.3 now allows for the reduction of monitoring for a specific COC (to annually) for the duration of Permit coverage if, after the first 12 months of monitoring, that specific COC has not been detected in the effluent. The **GWGP Part IV.B now also specifies** that annual reporting of the results on all the COCs in a facility's category is required under the GWGP, even for those COCs that are only monitored annually.

- c) The TPH requirements in the GWGP are consistent with the previous GWGP, as such, TPH monitoring is not a new requirement. EPA established technology-based effluent limits for TPH using best professional judgment (BPJ) (See the GWGP Fact Sheet pages 56-57 for the rationale behind the limits). The facilities authorized to discharge under the previously issued GWGP did not provide any TPH data during the last permit cycle, therefore EPA cannot make the determination that no impairment of a receiving water's designated beneficial uses is taking place, pursuant to the Idaho WQS narrative general surface water criteria found at IDAPA 58.01.02.200. EPA retains this permit limit and monitoring requirement in efforts to acquire the necessary data to inform the next permit issuance process. As noted above, the GWGP is a General NPDES Permit for the entire State of Idaho, and as such, Univar is not the only facility covered under the GWGP. The potential also exists for additional facilities to apply for coverage under the GWGP

during this permit cycle. **No change to the Permit has been made as a result of this comment.**

- d) The parameters requiring 24-hour composite sampling within the GWGP include TSS and all the metals. Again, this is a NPDES General Permit that will provide authorization to a number of facilities, which may have different treatment processes and discharge to very different surface water systems. Based on the DMR data for TSS, one facility covered by the previous GWGP was in violation of the TSS limit for one quarter in the last Permit, and another facility did not submit any TSS data as required.

Effluent limits are assigned by facility category, and some categories are required to take more metals samples than others. EPA understands that the Univar facilities fall into Category B-1: VOC Only Sites. In that category, 24-hour composite sampling is currently required for TSS and for Iron. The other COCs listed for Category B-1 are required to be monitored using continuous recording or grab samples. Due to only receiving quarterly grab sample information on TSS in the previous GWGP, EPA determined that it was important to receive more representative sample information during this Permit cycle. Note that in the definitions section of the GWGP, *Composite sample* is defined in the GWGP as a flow-proportioned mixture of not less than four discrete representative samples collected within the same 24 hours. If the Univar facilities do not currently have a composite sampler installed as part of the treatment systems, and do not plan to install a composite sampler, then collecting four discrete representative samples within the same 24 hours and manually mixing the samples together for laboratory analysis will be sufficient to comply with the TSS monitoring requirement.

Note also that facilities in Category B-1 must also composite their monthly Iron samples within 24 hours in order to comply with the monitoring requirement for Iron. **No change to the Permit has been made as a result of this comment.**

**Comment 3 – WET Testing:** The draft permit requires whole effluent toxicity (WET) testing annually for each Univar discharge. Risk associated with the COCs in the discharge is already factored into the discharge limits set by the EPA in the permit. This draft WET requirement is excessive. The receiving water for the Univar facilities discharges is the Finch Lateral (aka South Slough) and is a drainage ditch for stormwater and agricultural drainage and is not a fishery. Univar requests that the draft requirement for WET testing be removed from the final permit. If the EPA continues with this requirement in the final permit, Univar requests that the WET testing be limited to a single annual event from the Boise Towne Square Mall treatment system to show that the effluent does not demonstrate toxicity.

**EPA Response:** WET tests are an integral tool in the assessment of water quality. Together with chemical-specific controls and bioassessment/biosurvey studies, WET testing is one of the three approaches available to the NPDES program for controlling the toxicity of effluent discharges to surface waters of the U.S. and protecting those waters. Unlike chemical-specific controls, WET testing directly measures the toxicity of an effluent to representative biological organisms, it can assess the aggregate toxic effect of all effluent parameters, and it takes into consideration all pertinent features of the facility's entire operation and production. Chemical-specific controls can only address individual chemicals, and cannot account for chemical interactions or chemicals that are not known to be in the effluent. While EPA has

established aquatic life criteria for a relatively small number (126) of chemical-specific pollutants, WET tests can evaluate toxicity caused by other compounds for which EPA does not have parameter-specific analytical methods. Given the nature of facility operations and the presence of toxic compounds in the effluent, EPA believes that WET monitoring pursuant to CWA Section 308 is warranted.

EPA does not believe that requiring annual WET testing for smaller facilities [i.e., discharging less than 1 million gallons per day (mgd)] will result in undue burden or hardship upon Permittees in that category. The GWGP currently requires annual WET testing for smaller facilities and quarterly WET testing for larger facilities discharging effluent volumes equal to, or greater than, 1.0 mgd.

The testing frequency for the smaller facilities can be further reduced to bi-annually after two successive annual tests demonstrate no toxicity in the effluent. The word “semi-annually” in the Draft GWGP Part II.B.4 was in error and has **since been corrected to read “bi-annually (i.e., one test every two years)...”** as a result of this comment. The WET testing frequency for the larger facilities is reduced to annually, after four successive quarters demonstrating no toxicity in Part II.B.3.

As far as the request from Univar to only do WET testing at one of the three facilities covered under the GWGP, See Response to Comment 2.c. The GWGP is a General Permit, and therefore every facility covered must have the same set of effluent limits and monitoring requirements. It is important to remember that one of the goals of WET testing is to evaluate the potential toxic effects of an effluent discharge on the receiving waterbody. Undesignated water bodies in the State of Idaho WQS are to be protected for cold water aquatic life and primary contact recreation uses as per IDAPA 58.01.02 101.01. Therefore, each facility covered under the GWGP must conduct the annual WET testing at first, with the possibility of a reduction to bi-annually in Years 3 and 5 of this Permit cycle and beyond, until the next GWGP is issued. **No change to the Permit has been made as a result of this comment.**

Jeff Tucker, Principal Engineer, PacifiCorp

**Comment 4- TPH:** PacifiCorp requests that the final permit not require TPH analysis. The contamination at our facility is from creosote. The PAH monitoring requirements more specifically assess the potential toxicity of dissolved coal tar creosote constituents. If TPH testing is required in the final permit, we request to use EPA methods 1664 (TRPH), SW-846 8015D, or a combination of 8015D and SW-846 8260C.

**EPA Response:** See Response to Comment 2.d above for why TPH is required in the GWGP. NPDES permits require the use of EPA-approved analytical laboratory methods; specifically those promulgated at 40 CFR Part 136 for use for Clean Water Act (CWA) purposes. See 40 CFR 122.44(h)(iv). Both of the SW-846 methods mentioned above by the commenter are methods for use under the Resource Conservation and Recovery Act (RCRA) for organics extraction and gas chromatography (GC); they are not included in the list of approved CWA methods at 40 CFR 136. Therefore, for TPH analysis under this final GWGP, EPA requires the use of a method found at 40 CFR Part 136, which includes Method 1664 for Total TPH. The results of this analysis would be reported as Total TPH on the discharge monitoring report (DMR).

A Permittee may request approval for the use of an alternate test procedure, pursuant to 40 CFR 136.5. This request must be submitted formally to EPA.

Note that Washington and Oregon use the Northwest TPH Method (NWTPH) developed by the Washington State Department of Ecology. The NWTPH Method extracts the gas, diesel, or heavy oil range organics and would be much more specific than EPA Method 1664. As the GWGP is a General Permit for the State of Idaho, EPA determined that a broader analysis for TPH is appropriate at covered facilities.

It was EPA’s intent to include a provision under GWGP Part IV.B that would allow for a reduction of the monitoring frequency for a particular COC after 12 consecutive months of monitoring data demonstrates that the specific COC is not present in the facility’s effluent stream. See EPA’s response to Comment 2.c, above. Also see the requirement in the GWGP Part IV.C that specifies EPA-approved laboratory test procedures. **No change to the Permit has been made as a result of this comment.**

**Comment 5 – Sampling point:** The PacifiCorp Idaho Falls Pole Yard (IFPY) monitoring and sampling point has historically been from the discharge of the treatment building as opposed to the discharge point into the Snake River. Water flows from the plant to the Snake River via a buried pipe. The discharge into the river is subsurface, so sampling at the river is not practical. PacifiCorp requests that the current sampling location remains in the new permit.

**EPA Response:** The Fact Sheet to the GWGP discusses monitoring locations; however, in preparing the response to this comment, EPA noted that a provision regarding monitoring location should be added to the GWGP Part IV.B as well. **The final GWGP now clarifies where the monitoring point should be in order to be representative of the effluent.**

The GWGP does not require that the sampling location for the IFPY be at the Snake River. A location within or just outside the treatment building is acceptable, provided the sampling location meets the provisions in the GWGP Part IV.A and B. The sampling point selected must provide a representative sample of the effluent, and be located prior to the point at which the effluent meets the Snake River. **No change to the Permit was made as a result of this comment.**

**Table of additional changes made to the GWGP**

Location in the GWGP	Change or Correction Made	Justification
Cover Page	The footer was removed	The GWGP is now final; it is not a preliminary draft permit at this time.
Page 10; Part I.D.2	The sentence “See also Undesignated Waters at IDAPA 58.01.02.101.01”	Not all water bodies across the State of Idaho are specifically designated in the Idaho WQS. Therefore, there may be receiving waters that are determined to be “undesignated” waters for the purposes of identifying receiving water(s) beneficial uses on the

		required Notice of Intent (NOI) for coverage under this General Permit
Page 34; Part II.2.b	The reference in this provision was changed to read “tables in Part II.A”	There was an error previously with the reference to “Part IIV.B/Table 1” that was corrected.
Page 36; Part III.A	The sentence in the first paragraph was changed to read “within 60 days of the effective date of the Permit” from “within 60 days of the receipt of the EPA authorization to discharge letter”	EPA recognized the discrepancy between Part III.A and the Schedule of Submissions language at the beginning of the Permit and corrected the statement in Part III.A to match.
Page 37; Part III.B	Provision #2 was split into two parts, Provisions #2 and #3, and the provisions following were renumbered accordingly.	EPA determined that it was important to separate the BMP Plan requirements for Existing Permittees from the BMP Plan requirements for New Permittees; as they are different.
Page 42; Part IV.B.2	The statement that the maximum daily limit (MDL) for the COCs in the facility category applies to non-continuous dischargers was added to Provision #2.	This clarification was in the Fact Sheet Section V.G and EPA determined that it should be added to the GWGP.
Page 42; Part IV. B.4	Provision #4 was added to clarify that seasonal discharges are considered to be continuous, with the applicable limits and monitoring requirements of continuous discharges.	This clarification was in the Fact Sheet Section V.G and EPA determined that it should be added to the GWGP.