

WHODUNIT?

ADDING UP THE NON-VISIBLE EVIDENCE

COMPLIANCE SPECIALIST BOB BUCKLEY
GIVES HIS BEST IMPRESSION OF A DETECTIVE

The Monthly Dirt
a monthly newsletter on the California Construction General Permit
by WGR Southwest, Inc.

Sherlock Holmes, Nancy Drew, the Hardy Boys, and all the other famous sleuths, as hard as they tried – never were able to solve their mysteries in one fell swoop. Rather, they solved them clue by clue, and piece of evidence by piece of evidence, usually finally uncovering a wide-reaching crime ring that was involved in several other mysteries that were simultaneously occurring. Throughout the stories, these detectives would search high and low for clues of whodunit, and gradually expose the mastermind and his secret crimes, which would lead to victims being rescued and justice being restored. But what, you may ask, does sleuthing have to do with storm water? Well, the Construction General Permit requires that construction sites perform “Non-Visible Pollutant Monitoring” where construction materials are exposed to storm water and a discharge could contribute to an exceedance of a water quality objective. The monitoring process for these non-visible pollutants is similar to sleuthing in that it requires some investigating and mystery solving. Since you can’t immediately see a non-visible pollutant, your storm water monitoring will need to search for clues to detect the presence of these pollutants and solve the mystery of which pollutant is sneaking into your storm water runoff.

Non-visible pollutant monitoring is a Permit requirement common to all three risk levels of traditional and LUP projects. The requirements for Risk Level 1, 2, and 3 projects are found in Attachments C, D, and E, respectively. They include:

- 🔍 Dischargers shall collect one or more samples during any breach, malfunction, leakage, or spill observed during a visual inspection which could result in the discharge of pollutants to surface waters that would not be visually detectable in storm water.
- 🔍 Dischargers shall ensure that water samples are large enough to characterize the site conditions.
- 🔍 Dischargers shall collect samples at all discharge locations that can be safely accessed.
- 🔍 Dischargers shall collect samples during the first two hours of discharge from rain events that occur during business hours and which generate runoff.
- 🔍 Dischargers shall analyze samples for all non-visible pollutant parameters – parameters indicating the presence of pollutants identified in the required pollutant source assessment (dischargers shall modify

their monitoring program to address these additional parameters in accordance with any updated SWPPP pollutant source assessment).

- 🔍 Dischargers shall collect a sample of storm water that has not come in contact with the disturbed soil or the materials stored or used on-site (uncontaminated sample) for comparison with the discharge sample.
- 🔍 Dischargers shall compare the uncontaminated sample to the samples of the discharge using field analysis or through laboratory analysis.
- 🔍 Dischargers shall keep all field or analytical data in the SWPPP document.

Do you sample for non-visible pollutants only after there has been a spill? No, according to the Permit, you must sample for non-visible pollutants, not only after spills, but also after any time construction materials are exposed to storm water in a way that could cause an exceedance of a water quality objective. It is also important to note that the non-visible pollutant requirements are slightly different for LUP projects. See Attachment A in the CGP for a list of the LUP requirements.

So, what is a non-visible pollutant? The Permit gives a good definition in the Glossary (Appendix 5):

“Pollutants associated with a specific site or activity that can have a negative impact on water quality, but cannot be seen through observation (ex. chlorine). Such pollutants being discharged are not authorized.”

A visible pollutant is something that you can detect visually in a storm water discharge – such as a petroleum sheen, suspended solids, sawdust, or drywall dust. Some examples of non-visible pollutants would be things that you can't see in a discharge – fecal coliform bacteria from a portable toilet spill, insecticides and herbicides from landscaping activities, etc. According to the Permit, each discharger is responsible for developing a list of potential pollutants that are or could be present on the project site. This list should include all potential non-visible pollutants – so for instance, if you have portable toilets or landscaping activities, you will need to include bacteria and pesticides on the potential pollutant list. It gets a little more complicated because non-visible pollutants also include such things as soil amendments (lime treating, fertilizers, etc.) and historical pollutants. If there is contaminated soil on the project due to past industrial activities or a spill, non-visible pollutant monitoring will need to be performed.

When is non-visible pollutant monitoring required? You may have heard non-visible pollutant monitoring being referred to as **“Uh-oh sampling,”** meaning that it occurs after some sort of spill or mishap. While this is true, it isn't the whole picture. According to the Permit's Fact Sheet, non-visible pollutant monitoring is required whenever pollutants associated with construction activities may be discharged with storm water runoff due to a spill, BMP failure, or failure on the part of the discharger to adequately clean up the area of materials or pollutants. So, in other words, if someone on your site leaves out their used cutting oil after a pipe threading job and it rains, you may have succeeded in triggering non-visible pollutant monitoring, which will need to take place during the next qualifying rain event. This is good impetus to make sure the project stays neat and tidy. The process for collecting a sample for non-visible pollutants is pretty simple. Just remember **“2+2”** – **two** samples collected within **two** hours of the start of discharge. One of the samples will be collected downstream of the pollutant source, and the other **“control”** sample will be collected upstream (or cross-gradient) of the pollutant source. The results of the two samples can then be compared, and if the numbers are comparable, it's a good sign that the pollutant has been cleaned up or is not present. Usually, non-visible pollutant sampling is a one-time event for each pollutant exposure.

If a portable toilet tips over, you will need to sample for bacteria during the next rain event, but you won't have to sample for it again if your two samples are comparable – unless the porta-potty tips over again.

When it comes to non-visible pollutant sampling think of it as following the pollutant's clues to find out whodunit. You can't see these pollutants (like most of the criminals in the riveting mystery stories), so the Permit requires you to examine your project site to see if the pollutants are present in your storm water runoff. This gives you the opportunity to try out your amateur sleuthing techniques and discover the source of the pollutants. And remember, while non-visible pollutant sampling can be triggered by a spill, it can also be triggered by not properly handling construction materials. So, save yourself the extra money of sending samples to a lab by keeping your project sites and practices neat and tidy. **MD**

REMEMBER

2 + 2

NON-VISIBLE SAMPLING REQUIRES
2 samples collected within
2 hours of start of discharge

Upcoming Training

Got SWPPP? Classes coming to Lodi:

✓ QSP/QSD Training, January 15-17, 2019

○ Sign up at www.gotswppp.com

Need a SWPPP? Give us a call!

(209) 334-5363, ext. 110

Please contact us if you have any questions ...

The Monthly Dirt Newsletter Editor:

John Teravskis, QSP/QSD, CPESC, QISP, ToR

jteravskis@wgr-sw.com

(209) 334-5363 ext. 110 or (209) 649-0877

Technical Questions about Environmental Compliance?

Call ...

Mike Lewis, QSP, CESSWI (Northern California)

mlewis@wgr-sw.com, (209) 334-5363 ext. 116

Gray Martz, QSP/QSD, PG (Southern California)

gmartz@wgr-sw.com, (562) 799-8510 ext. 1002



this Christmas,
remember what really matters.

Merry Christmas
from The Monthly Dirt

*I have come that they may have
life, and have it to the full.*

John 10:10

COME SEE OUR SHOWROOM!

11780 N. HWY 99,
Lodi CA 95220

PRODUCT SPOTLIGHT

The Hornet's Nest Drain Inlet Filter is a unique, under-grate storm drain filter, perfect for locations looking for basic drain protection with a clean appearance. The oversized base allows the filter to be used with many different sizes and shapes of drain inlets. Simply insert the filter, replace the grate, and trim the excess material for a custom fit and clean appearance. The yellow webbing secures the filter to the grate and doubles as lifting straps allowing for quick and easy removal of the filter and grate. The sediment collection cone has four overflow portals to ease congestion during heavy storm events.

Product Specifications:

- Material: 8-ounce non-woven geotextile
- Strapping: Weather resistant 2" polypropylene webbing
- Flow Rate: 90 GPM/foot
- Dimensions: 48" x 36"



Only \$49.50
(bag only)

\$66.00
(with oil pillow)



BMP Outlet is a supply house for affordable erosion control products, drain inlet protection, sorbents, spill containment, and field instruments.

We have a large inventory of many different types of product, and can order whatever you need for your project.

Elima-Drip Pads

Eliminate drips underneath your vehicles and equipment with Elima-Drip drip containment pads. Elima-Drip pads are weighted absorbent pouches contained in heavy-duty vinyl sleeves, which protect the spill pads from accidental movement. The 50"x20" pad is capable of containing up to 50 ounces of oil, and the 30"x20" pad can contain up to 29 ounces. Best of all, these pads are reusable! Simply replace the pouch inside the vinyl sleeve.

Product Specifications:

Outside Material: Heavy-duty vinyl sleeve

Spill Containment Media: Absorbent pads

Dimensions: 50"x20" or 30"x20"



\$48.00
(30"x20")

\$58.00
(50"x20")



Check out our website!

shop.bmpoutlet.com

BMP Outlet • sales@bmpoutlet.com • (916) 918-0408