

Inspector General

How a site is inspected under the California Construction General Permit

By Ken Kristoffersen

In the state of California, the Construction General Permit requirements are similar to the Federal Construction General Permit with a few exceptions. All projects 1 acre or greater are required to have a storm water pollution prevention plan (SWPPP); must be permitted through the storm water multiple application report tracking system; and must receive a waste discharge identification (WDID) number.

The SWPPP must be prepared by a Qualified SWPPP Developer (QSD), including an initial risk assessment, which uses a modified Revised Universal Soil Loss Equation calculation to determine a project's sediment risk in tons per acre per year, and a receiving water risk, which identifies if project site runoff will run into a designated "Spawn, Cold or Migratory" water body. The risk assessment takes into consideration what is

coming off the site as well as what is downstream of it, and assigns a Risk Level 1, 2 or 3 designation—Risk Level 1 having the lowest potential impact. Inspectors must understand the Risk Levels, as there are different minimum requirements for each; e.g., as the Risk Level increases, additional minimum BMPs are required.

Inspector Credentials

In the state of California, inspectors are required to hold a QSP certificate designating them as Qualified SWPPP Practitioners, the qualifications for which include 16 hours of California Construction General Permit training followed by an online state-approved exam. They also are required to hold a national certification from one of the following programs: CISEC, CESSWI, CPESC or CPSWQ. A California licensed engineer, architect or

landscape designer also will meet the underlying certification requirement.

Inspection Requirements

The volume of inspections—weekly, pre-rain, post-rain, during rain after 24 hours and quarterly—are the same regardless of Risk Levels.

Other requirements dictate that:

- Weekly inspections will be performed by a QSP inspector, or someone adequately trained and under the direct supervision of a QSP.
- A pre-rain inspection (Risk Level 1) must be performed by a QSP, or someone adequately trained and under the direct supervision of a QSP. A rain event action plan (REAP) is a more sophisticated version of the pre-rain inspection used for Risk Level 2 and 3 sites. A REAP must be performed 48 hours prior to a predicted rain event that has 50%-plus probability of precipitation, per the National Oceanic & Atmospheric Agency.
- A post-rain inspection must occur within 48 hours of the cessation of rain by a QSP, or someone adequately trained and under the direct supervision of a QSP.
- During-rain inspections must occur every 24 hours during a rain event.
- Risk Level 1 sites need to have all outflow points observed to ensure that BMPs are working adequately.
- Risk Level 2 and 3 sites must have turbidity and pH testing performed on site at all outflow points once the site has reached a qualifying rain event (½ in. for California) during normal business hours. Turbidity testing requires a minimum of three samples per outflow point, and the nephelometric turbidity unit (ntu) average must be below the numeric



The volume of site inspections is the same regardless of the risk level designation.

action level (NAL) limit of 250 ntu, or for pH, between 6.5 and 8.5. If the average of the turbidity samples exceeds the NAL limit, action must be taken, e.g., additional bag berms, wattles, etc.

- The requirements for pH sampling are the same: three samples per outflow point within two hours of reaching a qualifying event of ½ in. during normal business hours. Using a pH scale of 14, the pH NALs must be between 6.5 and 8.5. Although arithmetic averaging for pH is not entirely accurate, it still provides sufficient data to understand a site's pH value, as long as the numbers averaged lay either above or below 7. As an NAL example, a high pH indicator—e.g., 8.7—might indicate an uncovered concrete wash-out that is now overflowing from the rain event, and the action to be taken to reduce the pH is to cover the wash-out and retest.
- Quarterly inspections for non-storm water discharges, authorized and



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unauthorized, are primarily visual, and are used to identify non-storm water discharges that may have caused erosion and sediment issues, as well as flows through materials storage areas that might carry

pollutants to a storm drain or water body.

A Day in the Life

The inspectors that work for CAL-Storm Compliance must visit numerous project



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sites on any given day. Their schedules are somewhat fixed, as they are required to visit each project site at least once a week. Inspectors dress in the standard safety gear required on active construction sites, which includes long pants, long-sleeve shirts, safety shoes, safety vests, hardhats, safety glasses and gloves, if needed. Inspectors are trained to drive around a project's outer perimeter when possible to ensure the site's external integrity. They then enter the site, driving slowly, and check in with site management. Key items checked in the office include the posted notice of intent/WDID number, and a review of the SWPPP and inspection documentation and filing system. The site map reflecting the BMP deployment is reviewed to ensure that it reflects the status of BMPs that day, as well as updates with dates and initials. The inspector will ensure that the daily weather forecast is printed and filed in the state-required format. Part of an inspector's responsibility is to understand current site conditions and construction activity through discussion with the superintendent or project manager.

The inspector then will walk or drive around the site, either alone or with a designated individual. Key issues to be observed include indications of erosion, sediment deposition and waste management issues. The two biggest red flags for any site are tracking or track-out issues and housekeeping. The inspector will check BMPs to ensure that they meet minimum requirements based on that Risk Level. Indications of erosion, sediment or compromised BMPs will be photographed to aid in communication with site management. Urgent issues will be verbally communicated with site management prior to leaving the site. The final step in the weekly inspection process is the generation of formal written report with site photos. All other inspections are weather driven; pre- and post-rain inspections can be combined with the weekly inspections if timed correctly.

In Summary

A well-trained inspector working for an owner, general contractor or agency has one primary responsibility: to identify potential problems that might cause

a pollutant discharge into a storm drain or receiving water. Communication, training and followup are the keys to effective compliance. If we keep that in mind and realize that everything else is designed to support that goal, we can effectively impact water quality, and will not have as many contaminated water issues. **SWS**

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