Environmental Compliance Management Services

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Subject: Recommendations for the Revision of the Industrial General Permit, Water Quality Order No. 97-03-DWQ

On behalf of Environmental Compliance Management Services (ECMS) and our clients, thank you for the opportunity to provide comments regarding the renewal of the current General Permit for Storm Water Discharges Associated with Industrial Activities, Water Quality Order No. 97-03-DWQ (General Permit). *First and foremost*, we commend, and sincerely appreciate, the State Water Resources Control Board staff's efforts in the development of the latest 2013 draft Industrial General Permit, issued July 19, 2013. It has been an exhaustive endeavor to say the least.

I have had the opportunity to participate in the series of open dialog meetings with Water Board staff organized by the WATER Coalition in 2012, as well the draft permit's public workshops and webinars in 2012 and 2013. Additionally I have be an active participant on CASQA's Industrial Subcommittee since about 1995, chairing the Subcommittee from 2000 to 2011. Moreover, since at least 1997 ECMS has developed, managed the implementation of, and evaluated the effectiveness of over 800 Industrial Stormwater Pollution Prevention Plans (SWPPPs) and Monitoring and Reporting Programs (MRPs) for a range of industrial activities including construction; auto parts manufacturing; scrap recycling including auto dismantling and scrap metal; chemical batch manufacturing; paint manufacturing; cement processing plants; metal fabrication; wood products manufacturing; trucking and transportation operations; bulk fuel storage terminals; port authorities; and food product manufacturing.

While staff's goals for a revised Industrial General Permit are well intentioned, it is evident that in an effort to be responsive to the diverse, and often conflicting, expectations of a host of stakeholders and special interest groups, that the stakeholder group whose needs have not been adequately or sufficiently addressed in this latest effort are regulated industrial stormwater dischargers. The result is that the 2013 draft permit continues to be unorganized, incomplete, confusing and, after more than 20 years, still does not provide a clear and achievable path to demonstrated permit compliance.

We belief, however, with additional clarification and consideration through continued open collaboration with the regulated community, staff can craft a well-balanced permit that can still go into effective January 2015, and that achieves the following objectives:

- Identify achievable improvements in storm water program elements;
- Simplify and streamline the permit format;
- Clarify the compliance obligations;

- Provide sufficient flexibility to accommodate the diversity of the industrial activities covered by the general permit; and
- Adequately address the concern and criticism of regional board staff and citizen groups regarding the current 1997 permit.

The following comments present our recommendations that we feel will improve interpretation and implementation of the 2013 Industrial General Permit:

1) Clear and Transparent Permit Language

Based on staff comments at the 2012 and 2013 workshops, staff's intentions regarding permit compliance expectations, while well intentioned, have not been effectively communicated in this lasted draft IGP. Staff have reiterated, repeatedly, the draft permit's intent and compliance expectations. However this most current draft permit language continues to fail to define and describe the permit's intent, compliance obligations and expectations in a clear, transparent and organized manner. It *cannot be the burden of the industrial discharger to have to continue to defend either the intent or compliance expectations of the Industrial General Permit in federal and state courts*. It is imperative that the revised Industrial General Permit identifies and describes, in an attainable and defendable manner, the permit's intent and objectives, and defines permit compliance obligations and expectations in a measurable format so that there can be no rationale for misinterpretation, including but not limited to the following:

a) Ensure that the permit language does not paraphrase or restate the promulgating regulatory definitions and/or narrative. Specifically:

   i) Incorporate into the Industrial General Permit explanation of critical terminology necessary to define/describe permit compliance criteria that is consistent with USEPA interpretation/guidance including, but not limited to:

      (1) The definition of direct (stormwater) discharge and indirect (stormwater) discharge subject to the Industrial General Permit, and when WQBELs apply;

      (2) Waters of United States: Attachment C the draft permit incorrectly defines Waters of the United States;

      (3) Non-Visible Pollutants: Attachment C of the draft permit incorrectly states that the discharge of Non-Visible Pollutants are not authorized;

b) While staff has stated, informally, that compliance with the 2013 draft permit is intended to demonstrate comply with the BAT/BCT standard, this intent is not firmly established in the permit's language. Provide clear and concise permit language that reaffirms the permit's intent and describe and/or demonstrate, through formal guidance that is made a part of the permit and/or in the permit's fact sheet the mechanism or process that the intent is demonstrated;

c) Remove all narrative in the permit and fact sheet that represents, at best, an opinion of the permit writer(s) but fails to meet the Best Professional Judgment (BPJ) threshold, as defined in Attachment C of the permit. Specifically, remove all statements and comments that imply that licensed professional engineers and geologists *"have licenses that have professional overlap with the topics of this General Permit"*, including Findings # 53 and Footnote #12. Based on Title 16:*Professional and Vocational Regulations,* no professional overlap exists.

2) Support of the Adaptive BMP Management Strategy to Regulate Industrial Stormwater Discharges

ECMS supports the continued approach of regulating storm water discharges from industrial facilities through the use of Storm Water Pollution Prevention Plans (SWPPPs) and Best management Practices (BMPs), combined with appropriate monitoring requirements. We strongly concur that industrial stormwater discharges can only be regulated effectively in a manner that is based upon an adaptive BMP-based approach, *consistent with USEPA guidance*.

USEPA promotes permit compliance though development, implementation and demonstration of effective BMPs through an adaptive management approach. USEPA continues to reaffirm that the vast majority of stormwater discharges can be adequately controlled to meet water quality standards by managing activities that have the potential to contribute pollutants through a BMP-based framework. The appropriateness and effectiveness of an adaptive management approach that relies on multiple lines of evidence to assess water quality impacts is well demonstrated in the management strategies developed for a range of emerging water quality issues, including irrigated land discharges and sediment quality objectives.

At both the 2012 and 2013 workshops, staff acknowledged the intent of the reissued General Permit is to mirror the 1997 permit and to limit the scope and authority of the reissued permit to the Federal Clean Water Act and NPDES regulations. There is no need or justification for staff to attempt to redefine what constitutes compliance with the CWA and NPDES stormwater permit requirements beyond what USEPA has established through policy and guidance.

It is recommended that staff rely substantially on the USEPA's 2008 Multi-Sector Industrial Permit (2008 MSP) as the foundation for California's reissued General Industrial Stormwater Discharge Permit. Doing so will mitigate allegations that the State Water Board has failed to comply with federal requirements. Since the 2008 MSP represents USEPA's expectations of industrial stormwater dischargers, limited to federal statute and regulations, strict reliance on, and efficient utilization of, the 2008 MSP and its associated guidance documents and compliance tools, can significantly reduce the cost, level of effort and timeline for implementation of California's reissued permit.

Compliance Groups

We are pleased and relieved to see that the Water Board has retained and embraced a group monitoring approach that takes advantage of industry-specific institutional knowledge that is unique to group monitoring. Through a group monitoring approach the intimate operational and empirical knowledge of a specific industrial activity can come together, in a proactive and co-operative forum, with the level of stormwater quality expertise that is fundamental and mandatory to develop and evaluate effective BMPs, specific to that industrial activity's operations and resources.

Group monitoring provides a mechanism by which the variability inherit to stormwater discharges can be isolated and evaluated to assess impacts to BMP effectiveness on a sector-specific basis and provides the unique opportunity of evaluating BMP performance over an array of varying site conditions so that effective sector-specific BMPs can be developed and validated in a time efficient manner. The unique opportunities achievable through a group monitoring strategy facilitates the generation of objective and scientifically supported and defendable stormwater quality data, centered on a specific industrial activity. Moreover, as a condition of permit compliance, compliance groups must be obligated to utilize that data in the manner intended by regulation to demonstrate BMP effectiveness.

To ensure that Compliance Groups (CG) achieve their fundamental objectives, CG leaders would be required to meet the QISP qualifications, with at least three (3) years of demonstrated expertise/experience within the compliance group's industrial sector, and;

1. Group Leaders would serve as the participants' designated QISP, including:
    a. Development and implementation of a group-wide SWPPP in accordance with the 2013 draft IGP;
    b. Development and implementation of a group-wide Monitoring Implementation Plan (MIP)an in accordance with 2013draft IGP, including development and implementation of a group-wide and site-specific Sample and Analysis Plans (SAP) which includes:
        i. Quality Assurance Program Plan (QAPP) consistent with the USEPA and State Board guidelines; and
        ii. Sampling and analysis frequency; a list of constituents, analytical methods and method detection limits
2. Group Leaders would be required to prepare both Level 1 and Level 2 ERAs for group participants and facilitate implementation of corrective actions by participating members;
3. Group Leaders would be responsible for establishing and justifying the Compliance Group's BMPs' performance criteria sufficient to demonstrate BMP's effectiveness, as well as protocols for monitoring BMP performance;
4. Group Leaders would be required to schedule stormwater sampling and analysis to ensure that:
    a. Each year, each group participant collects stormwater samples from the minimum of storm events that are most representative of that facility's stormwater quality in both flow volume and pollutant loading; and
    b. That each year, a sufficient number of stormwater samples are collected that reflect the variability among group members' site and operating conditions
5. The group leader would be responsible for training any facility personnel involved in the sample collection, handling and sample preservation protocols;
6. Group Leaders would be responsible for training site personnel in proper BMP installation, maintenance, inspection and performance monitoring;
7. Group Leaders would be required to conduct detailed site assessments of each Baseline status group participant at least every other year, and each of Level 1 and Level 2 status group participant annually; and
8. When applicable Group Leaders would be required to develop site-specific Corrective Action Plans and Schedules based the site assessments
9. **Intent of Stormwater Sampling and Expanded NOI SMARTs Application**

Of particular concern is the subversive attempt by both governmental and non-governmental organizations and agencies to redefine the intent of stormwater sampling. We are concerned with the 2013 drat permit's mis-application of analytical monitoring of stormwater discharges as compliance monitoring.

As the federal and state courts have repeatedly affirmed, the intent of sampling stormwater discharges from industrial sites is to assess the effectiveness of the sites' BMPs. The nexus between stormwater discharge analysis and water quality standards is that if, through stormwater discharge analysis it can be demonstrated that the BMPs are effective in eliminating or reducing pollutants, then the BMPs are meeting the BAT/BCT standard established to protect water quality.

USEPA's adaptive BMP-based approach is described and demonstrated through the development of a site specific Stormwater Pollution Prevention Plan and Monitoring and Report Program in accordance with USEPA Guidance. Integral to evaluation of BMP effectiveness is monitoring of the BMP design, development and implementation process.

To facilitate the evaluation of BMP effectiveness USEPA relies on multiple lines of evidence[1]. As many as three different and distinct types of monitoring of stormwater discharges are required to assess BMP effectiveness; visual examination, analytical monitoring, and compliance monitoring. Visual examinations provide a simple and inexpensive means of obtaining a rough assessment of storm water quality. Analytical monitoring provides feedback to the facility operator to assess the effectiveness of the site's stormwater Pollution Prevention Plan and BMPs. Compliance Monitoring is required for discharges subject to numeric stormwater effluent limitations to determine compliance with those types of limits.

Analytical monitoring of stormwater discharges is not designed nor intended to satisfy compliance monitoring obligations. Analytical monitoring is designed and intended to be used by the discharger, in conjunction with other monitoring data and tools specific to the discharger's SWPPP and MIP, to evaluate BMP effectiveness on a industry/site specific basis. USEPA describes two separate and distinct sampling plan approaches for analytical monitoring and compliance monitoring[2]. It is inappropriate to apply data generated under the analytical monitoring protocols to determine compliance with water quality based effluent limitations (WQBELs). USEPA's NPDES guidance makes it clear that WQBELs are generally intended to apply at the point of (direct) discharge to the receiving water and not at the point of (indirect) discharge to a municipal sewer system. The reissued General Industrial Permit must be consistent with USEPA's guidance.

The regulatory intent of stormwater analysis has been, and continues to be to evaluate BMP effectiveness, in conjunction with additional lines of evidence. At issue is not the volume of stormwater samples, but rather the quality of the data generated and, more importantly, how that data is applied to determine BMP effectiveness. Since 1992 tens of thousands, if not hundreds of thousands of industrial stormwater quality data sets have been generated. Yet to date, this massive amount of data has not been utilized in any meaningful manner as intended by regulation.

The 2013 General Permit must develop a system that will ensure that stormwater quality data is generated in a standardized manner reflecting acceptable good laboratory practices . The Water Board can rely on USEPA's *March 2009 Industrial Stormwater Monitoring and Sampling Guide*, EPA 832-B-09-003 to achieve this objective.

Moreover, the data must be reported and organized in a manner that it can be readily applied to assess BMP effectiveness, as required by regulation. ***This can be accommodated by developing an expanded Notice of Intent (NOI) module in SMARTs that associates the***

[1] Guidance Manual For The Monitoring And Reporting Requirements Of The NPDES Multi-Sector Storm Water General Permit, USEPA, January 1999

[2] NPDES Stormwater Sampling Guidance Document, USEPA, July 1992

industrial activity with identified pollutant and pollutant sources; BMPs to control or reduce stormwater exposure to identified industry specific pollutant/sources; and the stormwater quality parameter and performance benchmark to be monitored to assess the BMP's effectiveness. The Expanded NOI Module, which can also be designed and utilized to satisfy submittal of required PRD information in lieu of submitting SWPPPs, which staff had acknowledged in the 2012 Fact Sheet was not mandated, will provide the data system necessary for development of industry-specific numeric performance criteria for assessing permit compliance.

3) QISP Training and Certification

ECMS supports the intent and efforts of staff to formulate a system to identify and certify qualified industrial stormwater pollution prevention professionals and compliance managers. However, the approach described in the 2013 draft permit **will not** achieve the intended result and will violate the State of California's Professional Engineering Act (Act) and implementing regulations.

Section 404 of Title 16:*Professional and Vocational Regulations*, defines a Professional Engineer and Professional Engineering as the following:

- *"Professional engineer" refers to a person engaged in the practice of professional engineering as defined in Section 6701 of the Code;*
- *"Professional engineering" within the meaning of this chapter comprises the following branches: agricultural engineering, chemical engineering, civil engineering, control systems engineering, corrosion engineering, electrical engineering, fire protection engineering, industrial engineering, manufacturing engineering, mechanical engineering, metallurgical engineering, nuclear engineering, petroleum engineering, quality engineering, safety engineering, and traffic engineering.*

Of the branches of professional engineering regulated under the Act, only civil engineers, electrical engineers and mechanical engineers are required to be licensed in order to practice in California. The remaining engineering disciplines regulated in California do not require licensing. Additionally, the Professional Engineers Acts prohibits licensed professional engineers, including geologists, from practicing outside their area of expertise, as defined by regulation, and prohibits any public entity from preventing any qualified professional engineer from practicing within their area of expertise.

As defined in Title 16 of the California Code of Regulations, neither civil engineers or geologists are qualified to practice industrial pollution prevention or environmental regulatory compliance management simply by virtue of their licensing requirements. Moreover, as drafted, the 2013 ISP effectively prohibits otherwise qualified professional engineers from practicing in their area of expertise in violation of the Professional Engineering Act.

To avoid the confusion and uncertainty that continues to plague the QSD and QSP program requirements of 2009 Construction General Permit, it is recommended that the Water Board adopt DTSC's *Environmental Professionals* standard, revised to recognize the level and type of education and experience unique to stormwater water quality management and pollution prevention.

Specifically a QISP is any stormwater professional who meets any of the following minimum qualifications:

1. Licensed Professional Engineer (PE) with the equivalent of least two (2) years of relevant full-time work experience acquired within the previous 10 years and who passes a State Water Board sponsored or approved QISP Competency Exam with a score of 70% better; or
2. Any person with a Baccalaureate degree or higher in either science or engineering with the equivalent of least four (4) years of relevant full-time work experience acquired within the previous 10 years and who passes a State Water Board sponsored or approved QISP Competency Exam with a score of 70% better; or
3. Any person with a Baccalaureate degree or higher in either science or engineering with less than the equivalent of four (4) years of relevant full-time work experience acquired within the previous 10 years and who successfully completes a State Water Board sponsored or approved QISP Training Program and passes a State Water Board sponsored or approved QISP Competency Exam with a score of 70% better; or
4. Any person with the equivalent of least eight (8) years of relevant full-time work experience acquired within the previous 10 years and who successfully completes a State Water Board sponsored or approved QISP Training Program and passes a State Water Board sponsored or approved QISP Competency Exam with a score of 70% better.

The term *"relevant work experience*" means: Participation in the preparation and/or implementation of Industrial Stormwater Pollutant Prevention Plans that, at a minimum, demonstrate a functional knowledge of the following:

- The CWA and NPDES regulations' applicability to onsite industrial activities; and
- The process of conducting an effective site specific/operation specific Pollutant Source Assessment, which is fundamental to identification of appropriate BMPs and development and implementation of an effective SWPPP; and
- Identification and development of appropriate and adequate BMPs to minimize or eliminate the generation, and/or offsite discharge, of polluted industrial stormwater; and
- SWPPP development and implementation, including sample collection and analysis; BMP inspections and discharge monitoring and reporting; and site personnel training; and
- Evaluation of stormwater monitoring data to assess BMP effectiveness in protecting stormwater quality discharged offsite.

Without overburdening the Water Board Staff, this approach will accomplish all of the following objectives and would easily integrate into the current QSD-QSP training and certification programs and resources:

- Provides for an objective, measureable benchmark to assess and ensure QISP competency by requiring all QSIP candidates to pass the same Water Board sponsored or approved QISP Competency Exam with a score of 70% or better, regardless of the type or level of education, licensing or experience; and
- Acknowledge the unique technical skills being attributed to licensed professional engineers while still assuring verification of the minimum level of competency required to develop and implement effective and complaint Industrial SWPPPs; and
- Recognize stormwater professionals that are as qualified as licensed professional engineers and requiring the same level of competency verification as PEs; and
- Provides a mechanism for current and future stormwater managers, that either do not meet the education or experience minimum requirements, to obtain QISP certification by successfully

completing a Water Board sponsored or approved QISP Training Program, as well as passing the Competency Exam with a score of 70% or better.

QISPs would re-qualify every five (5) years by meeting the same set of criteria, with the Competency Exam and Training Program being updated on an ongoing basis to reflect the most current regulatory setting and stormwater pollution prevention and treatment technologies . Requiring QISPs to re-qualify every five years will ensure that QISPs, in order to retain the QISP certification, remain knowledgeable of current regulatory obligations and stormwater quality management technologies without burdening the Water Board with establishing and assessing continuing education requirements.

4) Level 3 Compliance Sites

ECMS supports staff's efforts to provide mechanisms within the 2013 draft permit to allow regulated dischargers who can effectively demonstrate that the site's inability to meet NALs is either beyond the operator's control (i.e., background conditions) or that the site's BMPs do meet the BAT/BCT standard. However, these sites that rely on the Technical Reports allowed in the draft permit, should not be allowed to "return to baseline status". Instead sites that cannot meet baseline conditions but can satisfy, the yet to be defined. technical report requirements should be delegated to a Level 3 compliance status. Doing so will clearly and effectively distinguish true baseline compliance sites from those site that cannot meet the same, and presumably, more strenuous NALs.

5) Design Storm Criteria Requirements

The Industrial General Permit program is nearly 20 years old. Many, if not the majority of permitted industrial dischargers have invested significant resources in identifying and implementing a suit of BMPs, including treatment BMPs as well as source control and administrative controls, that meet NALs (or more specifically, EPA MSP benchmarks). It is *absolutely unacceptable* for the State Water Board, at this point in time, 20 years into the permit program, to now mandate that treatment controls meet any design storm requirement. The design storm criteria must only be mandated for Level 2 sites that rely on Technical Reports to demonstrate permit compliance.

6) Development of Formal Guidance to the Revised General Permit

As CASQA's Industrial Subcommittee Chair from 2000-2011, I had the opportunity to work closely with staff regarding the revision and reissuance of the General Permit . It has became apparent that many of the issues and concerns arising out of the current General Permit are related to the misinterpretation of the General Permit's intent and assumptions, and mis-application of the General Permit's requirements. It is imperative that formal guidance be developed that standardizes the General Permit's intent, requirements, and the expected level of effort necessary to demonstrate compliance to the General Permit's requirements.

Development of formal standardized guidance addressing the application and implementation of the revised Industrial General Permit is critical to ensure fair and consistent enforcement of, and compliance to, the permit's intent and obligations. We strongly urge the Water Board establish an Compliance Guidance Stakeholder Group, made up of permittee representatives, industrial stormwater quality permitting and management experts, as well as water board staff, to facilitate development of practical and useful guidance in a competent and transparent manner.

Again, thank you for the opportunity to comment on the proposed revisions to the Industrial General Permit. If you have any questions about our comments, please contact me at 916-919-4768.

Sincerely,

Thank You

Maureen Daggett, CPESC, CPSWQ, CISEC, CHMM

ECM Services