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SPECIAL HEARING
2/3/05
cc: BD, DI, DWQ
E-cys: BD, CC HMS, TH, CMW

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February 2, 2005

Ms. Debbie Irvin
Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
P.O. Box 100
Sacramento, CA 95812-0100

RE: Comments on Renewal of the National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Associated with Industrial Activities (Industrial General Permit)

Dear Ms. Irvin:

The Department of Transportation (Department) appreciates the opportunity to provide comments on the proposed language of the revised Industrial General Permit. Our comments are intended to help improve the Permit by clarifying compliance requirements and identifying achievable improvements in storm water quality.

The Department's general and specific comments on the proposed General Industrial Permit are enclosed. I hope you find these comments helpful. If you have any questions, please call Mike Rogers at (916) 653-3738.

Sincerely,

MICHAEL FLAKE, Chief
Stormwater Policy

Enclosure

Comments – Department of Transportation

Comments on Water Quality Order 05-01-DWQ
Industrial General Permit

No.	Section	Text in Question	Comment
1	All	General comment.	Areas of Special Biological Significance (ASBS) – For consistency with the Board's prohibition of discharges to ASBS, the permit should include a provision to require that current discharges into ASBS be terminated (or request an exception) and to prevent any new discharges into ASBS.
2	III. Receiving Water Limitations, page 3	Item 1. Storm water discharges and authorized non-storm water discharges to any surface or ground water shall not contain pollutants that cause a nuisance.	A "nuisance" requirement is too general and vulnerable to subjective enforcement. This requirement should not be extended to groundwater unless the permit clearly defines "nuisance" in the context of industrial site runoff. For example, does any change in groundwater chemistry due to infiltration constitute a nuisance?
3	V. Provisions, page 5	Item 4. Dischargers shall request termination of their coverage under this General permit when their facility is no longer required to be permitted…Should the Regional Board deny approval of the NOT, dischargers shall continue to comply with the requirements of the General Permit.	The submittal of the NOT is notification that the discharger no longer requires coverage of activities under the General Permit; as such, approval of the Board does not apply. The NOT form and instructions are missing from the draft Permit; however, we assume that a discharger would sign a certification statement that essentially confirms that the industrial activity is no longer in place and that discharges from the activity site are no longer needed under the General Permit. If for some reason the Board doesn't remove the statement regarding approval of the NOT, then we request that the Board identify how they procedurally handle the matter of placing the approval or denial of the NOT on the Board Agenda for its consideration.
4	V. Provisions, page 6	Item 6g. Within 14 days following approval of the report described above by the RWQCB, dischargers shall revise the SWPPP and monitoring program to incorporate the approved BMPs and corrective actions that have been and will be implemented, implementation schedule, and any additional monitoring required.	The text is unclear. Board approval is not described in the earlier items. How does a discharger know when the approval action is to take place? Certification of the submitted information implies that the discharger attests that the information is valid and is a sufficient plan. If approval is needed before undertaking the actions in the report, then the Board will need to place the matter on it's agenda for consideration. If the approval is not received in 14 days, the discharger should be allowed to implement the plan of action.
5	V. Provisions, page 6	Item 7. When analytical results exceed the USEPA benchmark values in Table VIII.2 dischargers shall implement corrective actions that include: …	General Comment on the benchmark approach: The selected benchmark values should be based on either environmental or public health risk. It is not clear, however, that there are such risks for all the constituents on the list. Unfortunately, the draft permit provides no information on why the individual constituents and threshold numbers were selected, and whether the selected numbers are appropriate. Some benchmarks appear unrealistic and without a clear environmental or public health basis.

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			We suggest that the Board examine the typical concentrations in site runoff from a cross-section of well-managed industrial activities and use this as the basis for the benchmarks in combination with information on acute aquatic toxicity for the constituents. The intermittent nature of these discharges should be taken into account in this assessment. We looked at two constituents that will likely have frequent exceedances at many sites because they are naturally present in soils at relatively high concentrations – aluminum and iron. We calculated their likely concentration in runoff and compared these results with the benchmarks from the Multi-Sector General Permit (MSGP). The MSGP lists 100 mg/l for Total Suspended Solids, a value that is equivalent to the mean for maintenance yard runoff. However, even if a site meets the TSS value of 100 mg/l, it will likely exceed the benchmark values for constituents that are naturally present in soils.

Constituent	Background Conc. in CA soils - Avg (UC Riverside, 1996)	Natural Runoff Concentration - if TSS = 100 mg/l	Benchmarks EPA Multi-Sector General Permit
Iron	3.7%	3.7 mg/l	1 mg/l
Aluminum	7.3%	7.3 mg/l	0.75 mg/l

As shown in the table, dust from natural soils at a TSS concentration of 100 mg/l will significantly exceed the benchmarks. In fact, runoff carrying nothing but natural soils would have to achieve a TSS concentration of around 10 mg/l to not exceed the aluminum benchmark.

We question why there even needs to be benchmarks for these two constituents. Neither is regulated by the California Toxics Rule (CTR). We looked at EPA's original rationale for including them as benchmarks (from the July 11, 1997, Federal Register) and also assessed their potential impact on drinking water sources.

<u>Iron</u>

Iron is an essential nutrient and in some waters may be the limiting nutrient (generally nitrogen or phosphorous are limiting). The iron benchmark value is apparently based on EPA's "Gold Book", (AKA "Quality Criteria for Water – 1986). The Gold Book does not reference any toxicity but notes: "In some waters it [iron] may be a limiting factor for the growth of algae and other plants; this is especially true in some marl lakes where it is precipitated by the highly alkaline conditions." The Gold Book criteria is 1.0 mg/L for freshwater aquatic life.

EPA's "National Recommended Water Quality Criteria: 2002" includes iron on the non-priority pollutant list. The citation/source is the Gold Book. The table contains no criterion

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			maximum concentration (CMC), i.e., no acute, value for iron but does have a 1.0 mg/L criterion continuous concentration (CCC) value (for chronic exposure). Since an iron criterion is present for only chronic rather than short-term (CMC) exposure, it would seem inappropriate to use this chronic exposure value for storm water discharges, which, of course, are intermittent. In addition, it is difficult to imagine, that storm water runoff from a facility would measurably impact the receiving water concentration for this common element (naturally present in California soils at a range of 1 to 8.7 % (UC Riverside, 1996). Aluminum The aluminum benchmark is 0.75 mg/L. The Gold Book has no criteria for aluminum but criteria are included in EPA's "National Recommended Water Quality Criteria: 2002": CMC of 0.75 mg/L and CCC of 0.087 mg/L. A footnote to the list includes the following comment: l."(3) EPA is aware of field data indicating that many high quality waters in the U.S. contain more than 87 µg aluminum/L, when either total recoverable or dissolved is measured." The presence of aluminum in waterways would be expected since it is a common soil constituent. Aluminum in California soils ranged from 3 to 10.6 % (avg. – 7.3 %). Thus, a natural waterway containing only 10 mg/L of suspended sediment composed of natural soils (at average aluminum concentration) will contain 0.73 mg/L aluminum which is very close to the CMC criterion and much higher than the CCC criterion. For comparison purposes, stormwater runoff from roadways averages around 100 mg/L. Drinking water Both aluminum and iron have standards for drinking water. Both are considered nuisance chemicals and thus have secondary drinking water standards to address aesthetic effects. Aluminum is regulated because the potential for color problems. Iron is regulated because of it may potentially cause sediment; metallic taste; or staining. However, these drinking water standards are secondary standards and apply after treatment. In fact, most drinking water treatment plants actually add one or both of the constituents to promote coagulation, flocculation and precipitation. For example, aluminum sulfate (alum) is typically added in a 50% solution at about 20 mg/L. Summary Aluminum and iron are the third and fourth most common elements in the earth's crust (after oxygen and silica). Because of their relatively high concentration in natural soils, both of these chemicals are naturally present in waterways. It is extremely unlikely that runoff carrying these chemicals would have negative environmental or health affects. Their ubiquitous nature means that they will be present at industrial sites. The threshold values in EPA's multi-sector permit will result in many sites being considered as inadequately controlled even though the runoff may contain no more aluminum and iron than non-developed location.

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			We propose that the Board develop benchmarks which are either effects-based or protection based.
6	V. Provisions, page 6	Item 7b. An assessment of the facility's SWPPP and implementation to determine whether additional BMPs or SWPPP implementation measures are necessary to prevent or reduce pollutants in storm water discharges in compliance with BAT/BCT; and Item 7c. A certification, based upon the facility evaluation and assessment required above, that either: i. Additional BMPs and/or SWPPP implementation measures have been identified and included in the SWPPP in compliance with BAT/BCT, or ii. No additional BMPs or SWPPP implementation measures are required to reduce or prevent pollutants in storm water discharges in compliance with BAT/BCT, or [...] iv. If a certification states that no additional BMPs or SWPPP implementation measures are required to reduce or prevent pollutants in storm water discharges in compliance with BAT/BCT, the certification must show why the exceedance occurred and why it will not occur again under similar circumstance.	The determination of BCT/BAT is a complex process and it is not realistic for the Board to require that facilities "certify" compliance with BCT/BAT. Rather the Board should identify specific procedures that constitute BCT/BAT for each category of facilities. As specified in the Clean Water Act, "BCT/BAT" is the minimum performance standard for industrial-type wastewater discharges stormwater runoff. BCT stands for Best Conventional Pollutant Control Technology and applies only to the following pollutants: suspended solids (TSS), BOD (a measure of oxygen demand), pH, fecal coliform bacteria, and oil & grease. Best available technology economically achievable (BAT) applies to toxic pollutants such as metals and pesticides, as well as "nonconventional pollutants," which includes everything else. Normally, both BCT and BAT are numeric limits (or BMPs) which are defined by EPA for the specific industry involved (these are called "effluent limitations guidelines"). The published guidelines usually provide either a concentration limit or a pound pollutant/per pound product type of limitation. In the absence of these guidelines, BCT/BAT is based on a case-by-case determination by the permit writer. These case-by-case determinations must be documented and must address specific criteria listed in the federal regulations. For BCT, the criteria specify that the costs should not be excessive when compared with the costs (per pound of pollutant) achieved by sewage treatment plants. The criteria for determining BCT/BAT are at 40 CFR 125.3 (d) [underlining added]: (2) For <u>BCT requirements</u>: (i) The reasonableness of the relationship between the costs of attaining a reduction in effluent and the effluent reduction benefits derived; (ii) The comparison of the cost and level of reduction of such pollutants from the discharge from publicly owned treatment works to the cost and level of reduction of such pollutants from a class or category of industrial sources; (iii) The age of equipment and facilities involved; (iv) The process employed; (v) The engineering aspects of the application of various types of control techniques; (vi) Process changes; and (vii) Non-water quality environmental impact (including energy requirements). (3) For <u>BAT requirements</u>: (i) The age of equipment and facilities involved; (ii) The process employed; (iii) The engineering aspects of the application of various types of control techniques; (iv) Process changes; (v) The cost of achieving such effluent reduction; and (vi) Non-water quality environmental impact (including energy requirements).

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			When EPA is preparing its effluent limitations guidelines, it typically takes at least several years to complete the BCT/BAT analysis for an industrial category. It is simply not feasible for individual facilities subject to the General Permit to complete this analysis as specified by the regulations. For example, the facility management will not likely have access to basic data required compare their costs to the "cost and level of reduction of such pollutants from the discharge from publicly owned treatment works." These proposed requirements place the facility management in the very difficult position of making a certification without completing the analysis required by the federal regulations. The liability exposure is significant. A better approach would be for the Board to, in effect, do the BCT/BAT assessment, and identify the appropriate control procedures for the individual industrial categories.
7	VII. SWPPP Requirements, page 12	Item 8a BMPs. There are several references to the need for weekly inspections.	Weekly inspections year round appears to be too aggressive. It would make more sense to conduct weekly inspections during the rainy season, and monthly inspections during the non-rainy season. Then also allow for inspections to be suspended during any time of year when there is no outdoor exposure of industrial activities or materials.
8	VII. SWPPP Requirements, page 13	Item 8aiii. Spill Response Procedures generally address incidents of spills or leaked material based upon the quantities and locations of significant materials that may spill or leak. Dischargers shall:...	Facilities should be allowed to utilize existing procedures already developed under the federal SPCC program, the H&S Code 6.95 (Business Plan), and similar requirements from federal and state law. Many of the requirements of the IGP are duplicative of requirements for SPCC compliance and requirements applicable to generators or storers of hazardous materials and hazardous waste,.e.g. Business Plan Requirements: "Any business which handles a hazardous material, or a mixture containing a hazardous material, which has a quantity at any one time during the reporting year, equal to, or greater than, 55 gallons, 500 pounds, or 200 cubic feet (at standard temperature and pressure) shall establish and implement a business plan for emergency response to a release or threatened release..."(Section 25503.5 CA Health and Safety Code).
9	VII. SWPPP Requirements, page 13	Item 8aiv. Material Handling/Waste Management: practices to minimize exposure of waste materials to storm water.	See comment above.
10	VII. SWPPP Requirements, page 15	Item 8c. BMP Descriptions Dischargers shall include in the SWPPP a narrative description of each BMP implemented at the facility that includes: i. The type of pollutants the BMP is designed to reduce or prevent; ii. The frequency, time(s) of day, or conditions when the BMP is	This list is overly prescriptive. A narrative description of the targeted pollutants, proposed BMPs, BMP location is sufficient for a SWPPP. Suggest to delete the following items: ~~ii. The frequency, time(s) of day, or conditions when the BMP is scheduled for implementation;~~ ~~iv. Identification of the individual and/or position responsible for implementing the BMP~~ ~~v. The procedures (including maintenance procedures) and/or instructions to implement the BMP; and~~ ~~vi. The equipment and tools necessary to implement the BMP.~~

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		scheduled for implementation; iii. The locations within each area of industrial activity or industrial pollutant source where the BMP shall be implemented; iv. Identification of the individual and/or position responsible for implementing the BMP; v. The procedures (including maintenance procedures) and/or instructions to implement the BMP; and vi. The equipment and tools necessary to implement the BMP.	
11	VIII. Monitoring Program and Reporting Requirements, page 19	Item 4c. Dischargers shall analyze samples for: iv. Parameters indicating the presence of pollutants that may be causing or contributing to an existing exceedance of a WQS in the facility's receiving waters;	This is very difficult to implement in the absence of Board guidance concerning the meaning of "causing or contributing to an existing exceedance of a WQS." Are mixing zones allowed or is compliance to be assessed end-of-pipe? Are ubiquitous pollutants such as mercury and dioxin to be included? These pollutants may exceed standards if measured in stormwater runoff.
12	VIII. Monitoring Program and Reporting Requirements, page 19	Item 4fii. Collect and analyze samples in accordance with Section VIII.5.c from at least the next two consecutive qualifying storm events. This applies to all dischargers including participants in a group monitoring plan. Dischargers shall continue sample collection and analysis until two consecutive samples result in no further exceedances of the USEPA benchmarks.	This requirement is too onerous if this means that dischargers must continue sampling indefinitely for natural background pollutants such as aluminum and ubiquitous aerial fallout pollutants such as dioxin and some pesticides?
13	XI. Standard Provisions, Page 32	Item 8. Inspections and Entry. Upon the presentation of credentials and other documents as may be required by law, dischargers shall allow the RWQCB, SWRCB, USEPA, or municipal storm water management agency to: Enter upon the discharger's premises where a regulated facility or activity is located or conducted or where	The Department agrees in general with the need to have and Inspection and Entry protocol and encourages that such a protocol be followed when conducting inspections and entering facilities. Comment on items a, b, d: Please clarify what is meant by "reasonable times." Comment on item d: If samples or monitoring is conducted, the Inspector should provide a "split" sample to the facility owner or manager present at the facility. Split samples should be provided at the time of sampling.

No.	Section	Text in Question	Comment
		records are required to be kept under the conditions of this General Permit; Have access to and copy at reasonable times any records that must be kept under the conditions of this General Permit; and Inspect at reasonable times any facilities or equipment (including monitoring and control equipment) that are related to or may impact storm water discharge or authorized non-storm water discharge; and Conduct monitoring activities at reasonable times for ensuring General Permit compliance. Photograph or videotape outdoor areas of the facility to document compliance or non-compliance with this General Permit.	Comment on item e. The inspector should provide copies of photographs, videos, or other documentation to the facility owner or manager present at the facility. The Department proposes the use of the following Protocol: Inspection Protocol Applicable to All Visits by Regulatory Personnel Arrival: Upon arrival at a facility or site, the inspectors shall identify themselves and present credentials and other documents, as may be required by law. The inspector must ask to meet with the appropriate manager of the facility. Consent: The inspector shall identify to the facility manager which portions of the facility or activity are planned for inspection. The inspector may take photographs and video, conduct sampling activities, and review and copy documents. The inspector shall request and obtain consent to conduct the inspection from the facility manager before beginning the inspection; it is advisable that this consent be obtained at least 48 hours in advance of the inspection. Inspections must be conducted during a reasonable time period, such as normal business hours or when an activity is expected to take place. The facility manager may deny inspection on the grounds that the time is unreasonable or that the inspector has not adequately identified the activity or facility to be inspected. Health and Safety: The inspector must comply with all reasonable security, safety and precautionary measures specified by the facility manager. The inspector must be appropriately attired (boots, hard hat, safety glasses, long pants, etc.), and must follow the facility manager's instructions. Failure to follow instructions may result in the facility manager's removal of consent to further inspect a site. Discussion with Facility Manager: The inspector must discuss, with the facility manager, any violations, observations, unresolved issues, and/or discrepancies between information provided, or the compliance document applicable to the facility (i.e., SWPPP) and the activities observed. The inspector must inform the facility manager that a copy of the inspection report is sent to the facility within 60 days of the inspection. Sampling: If sampling is deemed necessary, then the inspector shall use appropriate sampling methods. Split samples must be provided to the facility manager. Inspection Report: A copy of the inspection shall be sent to the facility manager, within 60 days of the date of inspection. Laboratory data sheets resulting from sampling during the inspection and used in support of the report findings must be provided within the report, including chain-of-custody documentation and data from quality control/assurance samples. If sampling data is not available, then the inspection report will describe the status for providing the sample results to those receiving the report. The report will further describe why the results could not be provided with the inspection report. A copy of photographs, videos, and/or digital prints taken at the facility must be provided as part of the inspection report.