

12SW - General Permit for Stormwater Discharges Associated with Industrial Activity Fact Sheet

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UPDATE: Changes made for the Final Determination

This fact sheet supported the tentative determination version of the permit. To address feedback (from the public hearing process, received throughout the comment period and from an additional request for comments) the Department has created an extensive response to comments document. The response document gives the rationale for any changes made from the tentative permit to derive the final permit. Consequently, in any conflict in rationale between the fact sheet and the response document, the response document rationale supersedes the fact sheet.

1. BACKGROUND

The Clean Water Act (CWA or the Act) establishes a comprehensive program “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” 33 U.S.C. § 1251(a). The CWA “also seeks to attain ‘water quality which provides for the protection and propagation of fish, shellfish and wildlife.’” P.U.D. No. 1 of *Jefferson City v. Washington Dep’t of Ecology*, 511 U.S. 700, 704 (1994) (quoting 33 U.S.C. § 1251(a)(2)). To achieve these goals, the CWA requires U.S. Environmental Protection Agency (EPA) to authorize discharges through issuance of National Pollution Discharge Elimination System (“NPDES”) permits. As a delegated state, Maryland is authorized to issue NPDES permits. The Code of Maryland Regulations (COMAR) Title 26, subtitle 08, require that all discharges of wastes or wastewater shall be authorized by a discharge NPDES permit. State permits include discharges to surface and/or ground waters.

Section 405 of the Water Quality Act of 1987 (WQA) added section 402(p) of the CWA, which directed the EPA to develop a phased approach to regulate stormwater discharges under the NPDES program. EPA published a final regulation on the first phase of this program on November 16, 1990, establishing permit application requirements for “stormwater discharges associated with industrial activity”. See 55 FR 47990. EPA defined the term “stormwater discharge associated with industrial activity” in a comprehensive manner to cover a wide variety of facilities. See 40 CFR 122.26(b)(14). Maryland Department of the Environment (the Department) is issuing the General Permit Number 12-SW under this statutory and regulatory authority. The Department has chosen to base the state’s permit on the EPA’s Multi-Sector General Permit (MSGP) <http://cfpub.epa.gov/npdes/stormwater/msgp.cfm> and notes that the issuance of this permit, including the requirements to submit information in the Notice of Intent (NOI) to be covered, is based, in addition, on the Agency’s authority under section 308(a) of the CWA. See e.g., *NRDC v. EPA*, 822 F.2d 104, 119-120 (DC Cir. 1987) (finding EPA’s NPDES permit application regulations at 40 CFR 122.21(g) can seek information on what “could” be discharged.)

This permit replaces the General Permit Number 02-SW that was issued for a five-year term on December 1, 2002. The General Permit 02-SW expired on November 30, 2007 but is administratively continued for facilities that were covered under the permit at the time it expired. In 2012, over 800 facilities held 02-SW permits in the state, and over 100 facilities were exempted as having industrial activity but verified none exposure. A conservative estimate of 900 facilities then are addressed by this permit, with an average acreage of 6.1 acre per facility, represent 16.7 millions of gallons per day of precipitation falling on these facilities.

Stormwater runoff is a result of precipitation on a property, where the capacity of the soil to accept more moisture is exceeded, or when soil has been replaced with impervious surfaces and water runs off the property. Therefore the quantity of stormwater is largely a function of the

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quantity of precipitation and the land use. The quantity of rain estimated for an average year in Maryland is roughly 41" per year. This precipitation is either infiltrated into the ground, evaporates, is taken up by plants, or results in runoff. Industrial or commercial properties covered by this permit are characterized by impervious surfaces, including parking lots and buildings, supporting industrial processes. In addition to the pollution that is channeled by these impervious surfaces, the runoff also results in sediment loads when the stream channels erode during storm events. Disturbed sediments are associated with phosphorus; a nutrient the State is concerned with, that readily binds to soils. Precipitation also carries nitrogen as a result of atmospheric mixing with air pollution.

1.1 Impaired waters addressed by Restoration of Impervious Surfaces

Since 1972, Section 303(d) of the federal Clean Water Act has required states to identify waters that do not meet water quality standards and publicly report them on a list published every two years. For each of the listed waters, states are to determine the maximum amount of pollution that the waters can withstand and still meet water quality standards. This maximum amount of pollution is called a Total Maximum Daily Load or TMDL.

In 1996, the U.S. Environmental Protection Agency (EPA) listed certain sections of the Virginia portion of the Chesapeake Bay as "impaired." That is, water quality, most notably dissolved oxygen, was insufficient to fully support aquatic life. Recognizing the low dissolved oxygen in portions of the Upper Bay, Maryland listed all of the upper Chesapeake Bay tidal water segments as not meeting standards for phosphorus, nitrogen (nutrients) and sediments.

In 2000, the Bay watershed partners signed the Chesapeake 2000 Agreement to clearly identify the actions needed to achieve water quality standards. With this Agreement came the understanding that if the voluntary actions taken were not successful in reaching the water quality goals, EPA would complete a TMDL by the end of 2010. Although much progress has been accomplished, it has not been enough reach the pollution reduction goals. For the past several years, EPA has led a process to develop TMDLs for the Chesapeake Bay.

After the TMDL was published in December 2010, each state in the Chesapeake Bay watershed had to develop a plan for how they would reach the pollution load reductions required by the TMDL, called a Watershed Implementation Plan or WIP. This plan had to provide what EPA called "reasonable assurance" or a demonstration that achieving the pollution load reductions required by the TMDL can reasonably be met. In other words, that current or planned resources and commitments to reduce pollution are expected to be sufficient meet the required pollution load reductions.

Maryland's WIP included several required actions, including specific actions for quality and quantity control of stormwater regulated by the CWA. From this perspective, the permit supports the WIP and addresses stormwater concerns related to the TMDL through volume or quantity control for all facilities through restoration of impervious surfaces. The restoration requirement is not a surrogate for the Bay TMDL. The requirements for facilities to manage runoff from these industrial sites by reducing impervious surfaces and retrofitting using environmental site design practices will bring a broad range of benefits to local receiving waters, including, but not limited to, improving the hydrology of the local watershed by reducing runoff volumes, reducing nutrients, sediment and other pollutants, and allowing greater groundwater recharge. For this reason, these requirements are not limited to the Chesapeake and Coastal Bay watersheds.

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1.2 Coverage Requirements

Operators choosing to be covered by this new permit must submit a complete and accurate Notice of Intent (NOI) to be covered and certify in the NOI that they meet the requisite eligibility requirements, described in Part I of the permit, including the requirement to select, design, and install control measures to comply with the technology- and water quality-based effluent limits in Part III.A and Part III.B and to develop a SWPPP, pursuant to Part III.C. Once covered under this permit, a permittee is required to take corrective action if it determines through inspection, evaluation, or monitoring that the control measures chosen to meet the limits are not adequately reducing pollutants in the discharge. Permittees must, within one year of coverage, provide a plan of how they intend to complete restoration of impervious surfaces into their facilities and, within the time provided in the permit, implement restoration of impervious surfaces on 20% of their untreated impervious surfaces, or equivalent actions.

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby, unless, as a result of the remand, the permit would not meet the minimum legal requirements for NPDES permits under the CWA or its implementing regulations.

2. ORGANIZATION OF THE PERMIT AND SUMMARY OF CHANGE FROM 02-SW AND THE EPA'S MSGP

2.1. Development of Permit

Permits are developed through review of public comments, meetings with stakeholders, and consultations with the EPA. The Department intends to hold a public hearing in Baltimore, MD at our 1800 Washington Boulevard address during the late summer 2012, to answer stakeholder questions about the proposed permit.

2.2. Structure of This Permit / Terminology

2.2.1. General

This permit is divided into several parts: applicability (Part I), authorization (Part II), stormwater management requirements (including restoration of impervious surfaces, control measures and effluent limits and stormwater pollution prevention plan) (Part III), corrective actions (Part IV), inspections, monitoring, and reporting (Part V), and standard permit conditions (Part VI). Additionally, the permit includes reference codes for industry sectors covered (Appendix A), the quarterly visual monitoring form (Appendix B), the method for calculating hardness in receiving water for hardness dependent metals (Appendix C), industrial sector-specific permit conditions (Appendix D), and the definitions and acronyms (Appendix E).

This organization generally follows that of the MSGP which was designed to clarify permittee responsibilities. For instance, this permit separates into distinct parts those requirements dealing with the implementation of stormwater control measures to meet required technology-based and water quality-based limitations (Part III.A and Part III.B), corrective actions to address conditions at the site that are indicative of control measure deficiencies (Part IV), and the inspection and evaluation of the performance of existing stormwater control measures (Part V), from those addressing preparation of the SWPPP (Part III.C). In addition, the Department

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included a section for provisions which require the permittee to document activities demonstrating compliance with permit requirements (Part V).

Throughout this fact sheet, the Department uses consistent terms when referring to different responsible entities. For instance, the permit holder is referred to either as the “permittee” or “operator” in this fact sheet. Typically, the term “operator” will be used when discussing those actions required prior to permit authorization, while “permittee” will be used where the fact sheet is referring to provisions that affect a covered discharger. “You” and “Your” – as used in the permit are intended to refer to the permittee, the operator, or the discharger as the context indicates and that party’s facility or responsibilities. The use of “you” and “your” refers to a particular facility and not to all facilities operated by a particular entity. For example, “you must submit” means the permittee must submit something for that particular facility. Likewise, “all your discharges” would refer only to discharges at that one facility.

2.2.2. Regarding Conformance of this Permit to Recent Court Decisions

The EPA had restructured the MSGP as compared with prior permits to conform the MSGP to recent court decisions related to stormwater general permits. The Department followed this lead and format for 12-SW Permit. One of these cases held that because the terms of the Nutrient Management Plan (NMP) employed by concentrated animal feeding operations (CAFO) imposed restrictions on discharges, those restrictions amounted to effluent limitations that needed to be made part of the permit and to be subject to public and permit writer review. *Waterkeeper Alliance, Inc. v. EPA*, 399 F.3d 486 (2nd Cir. 2005). In another case, *Environmental Defense Center v. EPA*, 344 F.3d 832 (9th Cir. 2003), the court found that under the MS4 regulations, the “NOIs were functional equivalents of permits” and “EPA’s failure to make NOIs available to the public or subject to public hearings contravene the express requirements of the Clean Water Act.” EDC at 858¹. Consistent with these decisions, the Department followed EPA’s lead in explicitly establishing effluent limitations in Part III and Appendix D of 12-SW and clarified that the requirement to develop a SWPPP is an information gathering tool for dischargers to document, among other things, how control measures will be selected, designed, installed, and implemented to comply with the permit’s effluent limitations.

2.2.3 Effluent Limitations in the Permit

Parts III.B.1 and Appendix D of 12-SW contain the technology-based effluent limitations. Parts III.B.2.a – III.B.2.c and the eligibility criteria (specifically Part I.G.1) in the permit contain the water quality-based effluent limitations. These parts of the permit contain effluent limitations, defined in the CWA as restrictions on quantities, rates, and concentrations of constituents which are discharged. CWA section 502(11). Violation of any of these effluent limitations constitutes a violation of the permit.

The technology-based effluent limitations set forth in Part III.B.1.b require the permittee to minimize exposure of raw, final, or waste materials to rain, snow, snowmelt, and runoff. In doing so, the permittee is required, to the extent technologically available and economically practicable and achievable, to either locate industrial materials and activities inside or to protect them with storm resistant coverings. (See Part III.B.1.b.i). In addition, permittees are required to:

¹ In *Environmental Defense Center v. EPA*, 344 F.3d 832 (9th Cir. 2003), petitioners challenged EPA’s regulations addressing discharges from small municipal storm sewers and construction sites (“MS4 regulations”). These regulations allowed dischargers to seek permission to discharge under an individual or general permit.

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(1) use good housekeeping practices to keep exposed areas clean (See Part III.B.1.b.ii), (2) regularly inspect, test, maintain and repair all industrial equipment and systems to avoid situations that may result in leaks, spills, and other releases of pollutants in stormwater discharges (See Part III.B.1.b.iii), (3) minimize the potential for leaks, spills and other releases that may be exposed to stormwater and develop plans for effective response to such spills if or when they occur (See Part III.B.1.b.iv), (4) stabilize exposed area and contain runoff using structural and/or non-structural control measures to minimize onsite erosion and sedimentation, and the resulting discharge of pollutants (See Part III.B.1.b.v), (5) divert, infiltrate, reuse, contain or otherwise reduce stormwater runoff, to minimize pollutants in your discharges (See Part III.A and III.B.1.b.vi), (6) enclose or cover storage piles of salt or piles containing salt used for deicing or other commercial or industrial purposes, including maintenance of paved surfaces (See Part III.B.1.b.vii), (7) achieve any additional non-numeric limits stipulated in the relevant sector-specific section(s) of Part 8 of this permit (See Part III.B.1.b.viii), (8) train all employees who work in areas where industrial materials or activities are exposed to stormwater, or who are responsible for implementing activities necessary to meet the conditions of this permit (e.g., inspectors, maintenance personnel), including all members of your Pollution Prevention Team (See Part III.B.1.b.ix), (9) eliminate non-stormwater discharges not authorized by an NPDES permit (See Part III.B.1.b.x), (10) ensure that waste, garbage and floatable debris are not discharged to receiving waters by keeping exposed areas free of such materials or by intercepting them before they are discharged (See Part III.B.1.b.xi), and (11) minimize generation of dust and off-site tracking of raw, final or waste materials (see Part III.B.1.b.xii). Unlike the MSGP, any stormwater that is required to meet effluent limitation guidelines would require an individual permit and will not be covered by 12-SW. To meet the non-numeric effluent limitations in Part III.B.1.b, the permit requires dischargers to select control measures (including best management practices) to address the selection and design considerations in Part III.B.1.a.

In addition to the technology-based effluent limitations, Parts III.B.2.a – III.B.2.b and Part I.G.1 of the eligibility criteria contain the water quality-based effluent limitations in the permit. The permittee must control its discharge as necessary to meet applicable water quality standards. The Department expects that compliance with the technology-based effluent limitations and other terms and conditions in this permit will meet this effluent limitation. However, if at any time the permittee, or the Department, determines that the discharge causes or contributes to an exceedance of applicable water quality standards, the permittee must take corrective actions as required in Part IV.A to the satisfaction of the Department. Furthermore, the Department may impose additional water quality-based monitoring, controls or limitations on a site-specific basis, or require the discharger to obtain coverage under an individual permit, if information in an NOI, required reports, or from other sources indicates that, after meeting the water quality-based limitations in this section, the discharges are not controlled as necessary to meet applicable water quality standards. (See Part III.B.2.a). Part III.B.2.b describes the permit requirements that apply to discharges to water quality impaired waters. And, Part III.B.2.c contains antidegradation requirements.

2.2.4 “Term and Condition” to Provide Information in a SWPPP

Distinct from the effluent limitation provisions in the permit, Part III.C of the permit requires the discharger to prepare a Stormwater Pollution Prevention Plan (SWPPP) for its facility before

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submitting its Notice of Intent (NOI) for permit coverage². The SWPPP, together with the additional documentation requirements (see Part III.C.8), is intended to document the selection, design, installation, and implementation (including inspection, maintenance, monitoring, and corrective action) of control measures being used to comply with the effluent limits set forth in Part III.A and Part III.B.

In general, Part III.C requires that the following be documented in the SWPPP: (1) stormwater pollution prevention team (see Part III.C.1), (2) site description (see Part III.C.2), (3) summary of potential pollutant sources (see Part III.C.3), (4) description of control measures (see Part III.C.4), (5) schedules and procedures (see Part III.C.5), (6) and documentation to support eligibility considerations under other federal laws (see Part III.C.6). The SWPPP must be signed in accordance with the requirements in the permit. Additionally, there are additional documentation requirements in Part III.C.8. In general, the SWPPP must be kept up-to-date, and modified whenever necessary to document that any of the triggering conditions for corrective action in Part IV.A have occurred, or to document any changes in control measures that were found to be necessary following the triggering conditions in Part IV.B to meet the effluent limitations in this permit.

The requirement to prepare a SWPPP is not an effluent limitation, instead it documents what practices the discharger is implementing to meet the effluent limitations in the permit. The SWPPP is not an effluent limitation because it does not restrict quantities, rates, and concentrations of constituents which are discharged. CWA section 502(11). Instead, the requirement to develop a SWPPP is a permit “term or condition” authorized under sections 402(a)(2) and 308 of the Act. Section 402(a)(2) states, “[t]he Administrator shall prescribe conditions for [NPDES] permits to assure compliance with the requirements of paragraph (1) of this subsection, including conditions on data and information collection, reporting, and such other requirements as he deems appropriate.” The SWPPP requirements set forth in 12-SW are terms or conditions under the CWA because the discharger is documenting information on how it intends to comply with the effluent limitations (and inspection and evaluation requirements) contained elsewhere in the permit. Thus, the requirement to develop a SWPPP and keep it updated is no different than other information collection conditions, as authorized by section 402(a)(2), in other permits.

Like the MSGP, 12-SW is consistent with the decision in *Texas Independent Producers and Royalty Owners Assoc., et. al. v. EPA*, 410 F.3d 964 (7th Cir. 2005), where petitioners challenged EPA’s issuance of the construction general permit (“CGP”) that covers stormwater discharges. In this case, the only one to specifically address SWPPPs, the court found that neither the SWPPP nor the NOIs are permits or permit applications because they do not amount to limits. 410 F.3d at 978. Further, the court found that the permit requirement to develop a SWPPP is not an effluent limit.

While the permit at Part III.B.1 requires the discharger to select control measures to meet the effluent limitations in this permit, the control measures themselves described in the SWPPP are not effluent limitations because the permit does not impose on the permittee the obligation to comply with the SWPPP; rather, the permit imposes on the permittee the obligation to meet the effluent limitations prescribed in Part III.B. Therefore, the discharger is free to change at any time the control measures used in order to meet the effluent limitations contained in the permit.

² If a SWPPP was prepared for coverage under a previous NPDES permit, it must be reviewed and updated to implement all provisions of this permit prior to submitting the NOI.

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This flexibility helps ensure that the permittee is able to adjust its practices as necessary to ensure continued compliance with the permit's effluent limitations. However, the permit also contains a recordkeeping condition that requires that the SWPPP be updated with any such changes in the permittee's practices. See Part III.C.7. Thus, if a permittee's on the ground practices differ from what is in the SWPPP, this would constitute a violation of the permit's recordkeeping requirement to keep the SWPPP kept up-to-date, but not a violation of the permit's effluent limitations, which are distinct from the SWPPP and contained in Part III.B of the permit. EPA recognizes, however, that because the SWPPP documents how the discharger is meeting the effluent limitations contained in the permit, not following through with actions identified by the discharger in the SWPPP as the method of complying with the effluent limitations in the permit may be relevant to evaluating whether the permittee is complying with the permit's effluent limitations.

2.2.5 Public Notice

Once the EDC and Waterkeeper courts found that the plan or NOI contained effluent limitations, they stated that the plan or NOI must be available for public comment. The CWA contains provisions that relate to public participation in the issuance of permits. For instance, section 402(j) states, in relevant part: "A copy of each permit application and each permit issued under this section shall be available to the public." Consistent with these rulings and in compliance with the CWA, EPA proposed the permit for public comment, including the effluent limitations, and provided an opportunity to request a public hearing on the permit when it issued the MSGP. The Department will similarly make 12-SW available for public comment.

2.2.6 Public availability of documents

Part III.C.8 of the permit requires that the permittee retain a copy of the current SWPPP at the facility and it must be immediately available, at the time of an onsite inspection or upon request, to the Department. Additionally, interested persons can request a copy of the SWPPP through the Department.

2.2.7 Conclusion

The discussion above demonstrates that unlike the cases where courts found plans such as the NMP and the SWMP to be functional equivalents of effluent limitations (because compliance with the plan constituted compliance with the permit or the statutory standard), under 12-SW, the permittee must comply with the effluent limitations and other requirements contained in the permit; the permittee is not required to comply with the SWPPP itself. However, the permittee is required to comply with the permit requirement to develop a SWPPP (Part III.C), to modify the SWPPP from time to time as required (Part III.C.7), to make the SWPPP available as required (Part III.C.8), and to retain documentation with the SWPPP (III.C.8). The SWPPP is not an effluent limitation itself, nor does it not contain effluent limitations, only information about the discharger and the receiving water and documentation of how the discharger is complying with the effluent limitations.

2.3. Summary of Major Changes from the 02-SW

There are a few departures from the MSGP that are noted below:

2.3.1 Reorganization to Align with the MSGP

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Basing 12-SW on the MSGP allows the Department to reference and utilize much of the published guidance provided by the EPA. The Department felt that this alignment will help strengthen permittee ability to achieve compliance with the permit while improving water quality objectives.

2.3.2 The Design Manual as Guidance in Restoration of Impervious Surfaces

The permit also references specific Design Manual for Stormwater Management and additional implementation guidance. Including updated stormwater management principles, methods and practices: The “Maryland Stormwater Design Manual, Volumes I & II (Design Manual)” serves as the Department’s guide for storm water management principles, methods, and practices for new development, redevelopment, retrofits and restoration. Modifications were made to the Design Manual in 2009, to include Environmental Site Design (ESD) in addition to the established Best Management Practices (BMPs). The latest edition of the Design Manual is available on the Departments website as part of Programs in Water Management for Sediment, Stormwater and Dam Safety.

Permittees are required to implement the restoration of impervious surfaces on 20% of the untreated impervious surface at their facility, or equivalent actions, per the Design Manual. This excludes any control measures for the containment of stormwater required by this or previous permits from the Department. The practices to reduce the quantity and improve the quality of stormwater leaving the site are referred to in the Design Manual as Green Infrastructure. The Design Manual is intended to provide design guidance for practices that mimic the runoff of undisturbed forested land. Reducing the flow of the water using Green Infrastructure, that is keeping as much of the water on the property as possible, is an important step in reducing the quantity of water carrying pollutants from the facility into waters of the state.

Equivalent actions indicate that though the priority for restoration activities would be restoration at the facility where the industrial activity is taking place, in cases where this is not possible due to constraints on the site, all practical alternatives should be pursued. For example, the permittee can retrofit within the facility's site an area equal to 20% of the regulated area; retrofit within the regulated area, the facility's site, and an off site location equal to 20% of the regulated area; or partner with jurisdiction. The goal is to manage stormwater or to reduce flow by the same volume that would be addressed by the 20% restoration requirement.

In the definition of Treatment, we include equivalent practice(s) used to comply with the control measures of this permit if they result in the capture and treatment of the volume from one inch of rainfall. The critical element of these equivalent practices is that they must be designed with the same requirement, to handle at a minimum the flow for a 24 hour rainstorm with 1 inch. If these discharge, they must be controlled so that they mimic the natural hydrology considered in the Design manual. The reason these measures are included are that they may not be included in the Design manual but are important for pollution control of that industry; we don't want to penalize the applicants for following the Department guidance in this very permit. The following are examples from the permit where containment is encouraged:

- a) Minimize Exposure: “locate materials, equipment, and activities so that leaks are contained in existing containment and diversion systems (confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to protected areas);”

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b) Stockpiling of Turnings Exposed to Cutting Fluids (Outdoor Storage): “Any containment areas must be constructed of concrete, asphalt, or other equivalent types of impermeable material and include a barrier (e.g., berms, curbing, elevated pads) to prevent contact with stormwater run-on.”

c) For oil storage, best management practices for containment of potential spills require that liquids be captured. Again, if the discharges from such structures is limited so that it mimics the natural hydrology of the Design manual, these wouldn't be part of the impervious surfaces that the Department is seeking for the restoration requirements.

2.3.3 Distinction Between Effluent Limits and SWPPP Requirements

In 02-SW the Department combined SWPPP requirements with the effluent limitations. In 12-SW, we approach this similarly to the MSGP and separate “Control Measures and Effluent Limits” from requirements for the SWPPP. This should improve our ability to explain what the "effluent limitations" are in the permit and separate them from what the requirements are for the SWPPP.

Effluent limits (in Part III.B of the 12-SW) are narrative and quantitative control requirements to which all permittees are subject, while the SWPPP (in Part III.C of the 12-SW) is a document that must be prepared by facility operators to describe the site and the pollutants potentially discharged in stormwater and to document the control measures selected, designed, installed, and implemented to meet the effluent limit. In prior permits, many of the effluent limits and SWPPP requirements were combined in one section although the limits and SWPPP requirements were intended to be two distinct sets of permit conditions. That organization led to confusion about the distinction between substantive control requirements and planning and documentation requirements. The new permit now clearly delineates effluent limits and SWPPP requirements.

Finally, the effluent limits themselves were reorganized to more clearly distinguish those that are technology-based from those that are water quality-based.

2.3.4 Electronic Systems for Reporting Monitoring Data

Permittees required to perform the quarterly benchmark monitoring are required to submit Discharge Monitoring Reports (DMRs) to the Department electronically through NetDMR. Therefore, those permittees will need to have access to a computer and to be willing to get trained.

2.3.5 Water Quality-Based Effluent Limits

EPA's approach requiring water quality-based effluent limits (WQBELs) was followed to better ensure that discharges are controlled as necessary to meet water quality standards. This permit contains new, specific WQBEL requirements applicable to impaired waters and antidegradation policies. The Department retains authority to assess each operator's discharge to determine if more stringent requirements are necessary to achieve water quality standards, including the option of requiring an operator to obtain coverage under an individual permit. The following is a more specific breakdown of the permit's new WQBEL requirements:

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- *Discharges to Impaired Waters* – The permit contains requirements for new and existing discharges to impaired waters with or without EPA approved or established TMDLs. New dischargers are only eligible for discharge authorization if they demonstrate (and document) that there is either no exposure of stormwater to the pollutant for which the water is impaired, or the impairment pollutant is not present at the facility, or that the discharge is not expected to cause or contribute to a water quality standards exceedance. In the latter case, the operator must provide data to the Department showing that any discharge of the pollutant will meet in-stream water quality criteria at the point of discharge or that there are sufficient remaining wasteload allocations (WLAs) in a TMDL to allow the discharge, and that the existing dischargers to the waterbody are subject to compliance schedules to bring them into attainment of the water quality standards consistent with 40 CFR 122.4(i) requirements.

For existing discharges to impaired waters with State approved or established TMDLs, the Department will determine if more stringent requirements are necessary to ensure that the permittee is discharging consistent with the TMDL and applicable WLA. If the water is impaired but there is no completed TMDL, the discharger is required to control its discharge as necessary to meet applicable water quality standards and may be required to conduct routine monitoring for the pollutants for which the waterbody is impaired.

- *Antidegradation Requirements* – The Department has clarified its expectation of operators to meet antidegradation requirements as part of the permit authorization process as well as to comply with these provisions after authorization to discharge is received. If an NOI indicates that an operator is seeking coverage for a new discharge to a Tier 2 water, the Department will determine if additional requirements are necessary to be consistent with the applicable antidegradation requirements, or if alternatively, an individual permit application is necessary. Furthermore, new dischargers are no longer eligible for coverage under this permit for discharges to waters designated as Tier 3 for antidegradation purposes.

2.3.6 Corrective Actions

Based on the MSGP, 12-SW strengthens the corrective actions required, including establishing two tiers of actions based on the condition identified. The provisions in Part IV specify the types of conditions at the site that trigger corrective action requirements, what must be done to eliminate such conditions or conduct further inquiries into their cause, and the deadlines for completing corrective action. The permit also clarifies that not conducting required corrective action is a permit violation in and of itself, in addition to any underlying violation that may have triggered the initial requirement for corrective action. (Note: Not all conditions triggering corrective action review are permit violations, but even where the triggering event is not itself a permit violation, failing to conduct required corrective action is.) A summary of all corrective actions initiated and/or completed each year must be documented in the annual comprehensive site inspection report and kept with the SWPPP.

2.3.7 Monitoring

Benchmark Monitoring verses Volume Reduction

Based on a report from the National Research Council (NRC), the Department chose to focus on reducing stormwater volume rather than on benchmark monitoring for specific pollutants. In 2009, at EPA's request, the National Research Council (NRC) of the U.S. National Academy of

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Sciences released a report titled Urban Stormwater Management in the United States³. NRC reported that the amount of stormwater volume or the degree of impervious cover serve as proxies for pollutant loading. NRC further recommended that permittees address a wider distribution of stormwater volume over time, not just effluent peak flows. The report also called for better monitoring methods and more BMP data. These findings indicate to the Department that reducing the volume of stormwater will ultimately provide the best result in water quality goals. Therefore, the Department evaluated the full list of benchmark monitoring requirements in the MSGP, and narrowed the selection down to three industries, as follows, that have the highest potential for metals in their stormwater, which is not addressed by the Bay TMDL. This focus allows the Department to better evaluate BMPs specifically for metals while using targeted volume reduction to meet the Bay TMDL for nutrients and total suspended solids.

- 1) Subsector C1 – Agricultural Chemicals for (SIC 2873-2879), part of Sector C - Chemical and Allied Products Manufacturing, and Refining (Nitrate plus Nitrite Nitrogen at 0.68 mg/L, Total Lead at 0.014, Total Iron at 1.0 mg/L, Total Zinc at 0.04 mg/L and Phosphorus at 2.0 mg/L).
- 2) Sector M – Automobile Salvage Yards (Total Suspended Solids (TSS) at 100 mg/L, Total Aluminum at 0.75 mg/L, Total Iron at 1.0 mg/L, Total Lead at 0.014 mg/L).
- 3) Sector N – Scrap Recycling and Waste Recycling Facilities (Chemical Oxygen Demand (COD) at 120 mg/L, Total Suspended Solids (TSS) at 100 mg/L, Total Recoverable Aluminum at 0.75 mg/L, Total Recoverable Iron at 1.0 mg/L, Total Recoverable Lead at 0.014 mg/L, Total Zinc at 0.04 mg/L, Total Recoverable Copper at 0.0038 mg/L).
- 4) Sector AA – Fabricated Metal Products (Nitrate plus Nitrite Nitrogen at 0.68 mg/L, Total Zinc at 0.04 mg/L)

For the four sectors identified above, the benchmark monitoring is per the Benchmark Monitoring Schedule. If benchmarks are met, then the permittee is done, otherwise, they continue to monitor until benchmarks are met.

Benchmark Monitoring Schedule

Benchmark monitoring must occur during the first 4 full quarters of permit coverage after the permittee is granted access to NetDMR. Following 4 quarters of benchmark monitoring, if the average of the 4 monitoring values does not exceed the benchmark for that specific parameter, the permittee has fulfilled his/her monitoring requirements for that parameter for the permit term. If the average of the 4 quarters of monitoring values exceeds the benchmark, the permittee is required to either:

- 1) perform corrective actions, and conduct an additional 4 quarters of monitoring until the average value is below the benchmark, or
- 2) determine that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice to meet applicable effluent limits, and continue to monitor once-per-year.

At any time prior to completion of the first 4 quarters of monitoring the permittee determines that it is mathematically certain that his/her average after 4 quarters will exceed the benchmark (e.g.,

³ National Academy of Sciences (Urban Stormwater Management in the United States, Committee on Reducing Stormwater Discharge Contributions to Water Pollution, Water Science and Technology Board, Division on Earth and Life Studies, National Research Council of the National Academies).

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the sum of results to date exceeds 4 times the benchmark), the permittee must review its control measures and perform any required corrective action immediately (or document why no corrective action is required), without waiting for the full 4 quarters of monitoring data.

Monitoring for Discharges to Impaired Waters: A permittee who discharges to an impaired waterbody may be required to apply for an individual permit, which will require them to monitor once-per-year for the pollutant causing an impairment.

Natural Background Pollutant Levels: The Department has taken similar approach as EPA and has added provisions enabling dischargers to eliminate corrective action and subsequent monitoring requirements if the exceedance of benchmarks is attributable solely to natural background levels of that pollutant. To use this provision, the discharger must: (1) have benchmark results that show pollutant levels are less than or equal to the concentration of that pollutant in the natural background; (2) document the supporting rationale for concluding that benchmark exceedances are attributable solely to natural background pollutant levels; and (3) notify the Department in the final quarterly benchmark monitoring report that benchmark exceedances are attributable solely to natural background pollutant levels.

2.3.8 Annual Report

Permittees are required to evaluate the stormwater runoff from their facility in an annual report that includes the findings from their annual comprehensive site inspection report and a report detailing any conditions triggering corrective action and the status of those actions taken in response. This updated report is to be kept with their SWPPP. The Department believes that results from the annual comprehensive site inspection and information on corrective actions will provide a better basis on which to the permittee can gauge and improve their own performance.

2.3.9 Industry Sector-specific Requirements

This permit contains provisions that require industrial facilities in 26 different industrial sectors to, among other things, implement control measures and develop site-specific stormwater pollution prevention plans (SWPPP) to comply with NPDES requirements. In addition to the EPA list of industries covered, MDE has added Operations with Fleets in the Industry Sector of Land Transportation as a clarification of Industry Standard Practice.

Specific practices for each industry sector are included in Appendix D. This includes very specific activities and best practices for the industry as identified in the MSGP. As in the MSGP, 12-SW includes an additional sector, Sector AD, for the Department to permit additional industrial activities which are determined to require permit coverage for industrial stormwater discharges not included in the other 26 industrial sectors.

The following changes were the most recent changes by EPA in the MSGP, and are reflected in the 12-SW Appendix D, which describes requirements specific to particular industry sectors:

- For many sectors, general requirements to address pollutant discharges from material handling areas, fueling areas, etc. were pulled out of the sector-specific requirements and consolidated in the technology-based effluent limits in Part III.B.1 that are applicable to all sectors. Requirements that remain are specified as additional, sector-specific effluent limits, SWPPP requirements, and/or inspection requirements.
- Sector P, Land Transportation – Text has been added to include illicit plumbing connections among the potential pollutant sources addressed, and a requirement has been added to

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document specific good housekeeping control measures used in each of the facility areas. In a departure from the MSGP, businesses whose operations involve maintaining a fleet of vehicles which are either involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, or airport deicing operations are also covered as “Fleet” services.

- Sector S, Air Transportation – Requirements have been added emphasizing control measures, facility inspections, good housekeeping, vehicle and equipment washwater, and monitoring during the deicing season and for implementing controls to collect or contain contaminated melt water from collection areas used for disposal of contaminated snow.

3. APPLICABILITY (Part I)

Consistent with previous permits, to be eligible for coverage under this permit, operators of industrial facilities must meet the eligibility provisions described in Part I of the permit. If they do not meet the eligibility requirement, discharges of stormwater associated with industrial activity that require permit coverage will be in violation of the CWA, unless the operator has obtained coverage under another permit.

3.1 Geographic Coverage (Part I.A)

This permit provides coverage for classes of point source discharges that occur in the state of Maryland.

3.2 Facilities Covered (Part I.B)

This permit is available for stormwater discharges from the following 26 sectors of industrial activity (Sector A – Sector AC), excluding those marked as not covered, as well as any discharge not covered under the 26 sectors (Sector AD) that has been identified by the Department as appropriate for coverage. Sectors marked as “not covered in this permit” are covered under the MSGP, but not under 12-SW because they are covered by the Departments industry specific general permits. The sector descriptions are based on Standard Industrial Classification (SIC) Codes and Industrial Activity Codes consistent with the definition of stormwater discharge associated with industrial activity at 40 CFR 122.26(b)(14)(i-ix, xi). See Appendix A in this permit for specific information on each sector. The sectors are listed below:

Sector A – Timber Products	Sector P – Land Transportation
Sector B – Paper and Allied Products Manufacturing	Sector Q – Water Transportation
Sector C – Chemical and Allied Products Manufacturing	Sector R – Ship and Boat Building or Repairing Yards
Sector D – Asphalt Paving and Roofing Materials Manufactures and Lubricant Manufacturers	Sector S – Air Transportation Facilities
Sector E – Glass, Clay, Cement, Concrete, and Gypsum Product Manufacturing	Sector T – Treatment Works
Sector F – Primary Metals	Sector U – Food and Kindred Products
Sector G – Not currently covered in this permit.	Sector V – Textile Mills, Apparel, and other Fabric Products Manufacturing
Sector H – Not currently covered in this	Sector W – Furniture and Fixtures

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permit.	
Sector I – Oil and Gas Extraction and Refining	Sector X – Printing and Publishing
Sector J – Not currently covered in this permit.	Sector Y – Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries
Sector K – Hazardous Waste Treatment Storage or Disposal	Sector Z – Leather Tanning and Finishing
Sector L – Landfills and Land Application Sites	Sector AA – Fabricated Metal Products
Sector M – Automobile Salvage Yards	Sector AB – Transportation Equipment, Industrial or Commercial Machinery
Sector N – Scrap Recycling Facilities	Sector AC – Electronic, Electrical, Photographic and Optical Goods
Sector O – Steam Electric Generating Facilities	Sector AD – Reserved for Facilities Not Covered Under Other Sectors and Designated by the Department

3.3 Limitations on Coverage (Part I.C)

For this permit, the Department has modified the eligibility requirements for many of the criteria in this section to match the MSGP. The rationale for these changes and for limitations on coverage under this permit is described below.

3.3.1 Stormwater Discharges Associated with Construction Activity. This permit does not apply to stormwater discharges associated with construction activity, defined in 40 CFR 122.26(b)(14)(x) and (b)(15).

3.3.2 Discharges Subject to Effluent Limitations Guidelines. Unlike the MSGP, discharges subject to stormwater-specific effluent limitations guidelines (ELGs) that are not eligible for coverage under this permit. All stormwater and non-stormwater discharges subject to effluent limitation guidelines must be covered under any applicable alternate general permit or an individual permit. Several industrial sectors which have published ELGs are provided coverage through the MSGP. However, the Department requires an individual permit when ELGs exist related to stormwater.

3.3.3 Discharges Mixed with Non-Stormwater. The 12-SW does not authorize stormwater discharges that are mixed with non-stormwater other than those non-stormwater discharges listed in Part I.E.3.

3.3.4 Stormwater Discharges containing Listed Toxic Pollutants.

3.3.5 New Discharges to Water Quality Impaired Waters. Part I.C.6 of the permit requires any new discharger to demonstrate its ability to comply with 40 CFR 122.4(i) (prohibiting the issuance of permits to new dischargers that will cause or contribute to the violation of water quality standards) prior to coverage under the permit. To satisfy the requirements of 40 CFR 122.4(i), an operator must (a) eliminate all exposure to stormwater of the pollutant(s) for which the waterbody is impaired, and document no exposure and retain such documentation with the SWPPP; or (b) demonstrate that the pollutant for which the waterbody is impaired is not present at the site, and retain documentation of this finding with the SWPPP; or (c) submit data to the

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Department documenting that the pollutant discharge will not cause or contribute to an excursion of water quality standards because the discharge will meet in-stream water quality standards at the point of discharge or because there are sufficient remaining wasteload allocations in an approved TMDL and the discharge is controlled at least as stringently as similar discharges subject to that TMDL.

Purpose: This part, which applies to new dischargers and not to existing dischargers, is designed to comply with 40 CFR 122.4(i) requirements that address new discharges to waterbodies not meeting in-stream water quality standards.

Comparison to 02-SW: This permit provides greater guidance for the potential permittees, explaining the Department's approach for ensuring consistency with 40 CFR 122.4(i).

3.4 Prohibited Stormwater Discharges (Part I.D)

If you are covered under this permit you are in violation for these cases, and are required to take corrective action to address the issues.

3.5 Eligible Discharges (Part I.E)

Part I.E specifies which stormwater and non-stormwater discharges are eligible for coverage under the permit. As described in section V.A.2 of this fact sheet, not all stormwater discharges associated with industrial activity are eligible for coverage under this permit (e.g., stormwater discharges regulated by national effluent limitations guidelines).

- Part I.E.1 clarifies that co-located activities are eligible for coverage in addition to the primary industrial activity; and
- Part I.E.3 clarifies which non-stormwater discharges are allowed to co-mingle with stormwater and are therefore authorized under this permit.

Purpose: This provision lists the type of stormwater discharges eligible for coverage under the permit. Dischargers should use this section to determine which stormwater discharges from their site can be covered under the MSGP. This provision also species which non-stormwater discharges are covered under the permit as exceptions to the general exclusion of non-stormwater discharge from eligibility. To be authorized under this permit, any sources of non-stormwater (except flows from fire fighting activities) must be identified in the SWPPP.

3.6 Certification Required to be Exempt from Permit Requirement (Part I.F)

Part I.F states that after submitting certification certified that there is no potential for the stormwater discharged from their facility to waters of the State to be exposed to pollutants a permittee is no longer authorized by, nor required to comply with, 12-SW. To receive this exemption the permittee must submit form MDE/WMA/PER.067 found on <http://www/mde/state/md/us/>. This exemption is non-transferable, does not require a fee, and is valid for five years or until conditions change.

Purpose: This provision allows permittees who become eligible for an exemption for no exposure from permitting under 40 CFR 122.26(g) to certify their eligibility for exemption. For background, under the conditional no exposure exclusion, operators of industrial facilities have the opportunity to certify to a condition of "no exposure" if their industrial materials and

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operations are not exposed to stormwater. As long as the condition of "no exposure" exists at a certified facility, the operator is excluded from NPDES industrial stormwater permit requirements provided that the operator notifies the permitting authority at least every five years consistent with 40 CFR 122.26(g) requirements. This section also notifies that permittee that their MS4 may require restoration of impervious surfaces at their facility.

Comparison to 02-SW: No significant changes were made.

3.7 Alternative Permit Coverage (Part I.G)

Purpose: Part I.G.2 clarifies that the Department may require any discharger covered under this general permit to apply for and obtain coverage under an individual permit or an alternative general permit. The permittee may request the same.

Comparison to 02-SW: No significant changes were made.

3.7.1 The Department Requiring Coverage Under an Individual Permit due to Water Quality Standards Exceeded (Part I.G.1).

The Department may require an individual permit (in accordance with 40 CFR 122.28(b)(3)(ii)) or coverage under an alternative NPDES general permit instead of the 12-SW. In this case the Department may require a permittee to apply for an individual permit only if the Department notifies the owner or operator in writing that a permit application is required.

3.7.2 The Department Requiring Coverage Under an Alternative Permit (Part I.G.2).

The Department may require an individual permit (in accordance with 40 CFR 122.28(b)(3)(ii)) or coverage under an alternative NPDES general permit instead of the 12-SW if any stormwater discharges from a permittee's facility are subject to effluent limitations guidelines or new source performance standards under 40 CFR Subchapter N. The issuance of the individual permit or alternative NPDES general permit is in accordance with 40 CFR Part 124 and provides for public comment and appeal of any final permit decision. The circumstances in which such an action would be taken are set forth at 40 CFR 122.28(b)(3).

3.7.3 Permittee Requesting Coverage Under an Alternative Permit (Part I.G.3).

After being covered by this permit, the permittee may request to be excluded from such coverage by applying for an individual permit or industry specific general permit. In this case, the permittee must submit an individual permit application in accordance with 40 CFR 122.28(b)(3)(iii) or apply for coverage under an industry specific general permit, along with a statement of reasons supporting the request, to the Department. The request may be granted by issuance of an individual permit or authorization of coverage under an alternative general permit if the reasons are adequate to support the request. Under this scenario, if an individual permit is issued, or authorization to discharge under an alternative general permit is granted, coverage under this permit is automatically terminated under 40 CFR 122.28(b)(3)(iv) on the effective date of the individual permit or the date of authorization of coverage under the alternative general permit.

Purpose: Part I.G.3 reminds permittees of their ability to apply for coverage under an individual permit in lieu of coverage under this general permit and describes the steps they must take to

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exclude themselves from this permit after being authorized under this permit. Cases where an individual NPDES permit may be required, are described in 122.28(b)(3)(iii) and include the following:

(A) The discharger or “treatment works treating domestic sewage” is not in compliance with the conditions of the general NPDES permit;

(B) A change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollutants applicable to the point source or treatment works treating domestic sewage;

(C) Effluent limitation guidelines are promulgated for point sources covered by the general NPDES permit;

(D) A Water Quality Management plan containing requirements applicable to such point sources is approved;

(E) Circumstances have changed since the time of the request to be covered so that the discharger is no longer appropriately controlled under the general permit, or either a temporary or permanent reduction or elimination of the authorized discharge is necessary;

(F) Standards for sewage sludge use or disposal have been promulgated for the sludge use and disposal practice covered by the general NPDES permit; or

When an individual NPDES permit is issued to an owner or operator otherwise subject to a general NPDES permit, the applicability of the general permit to the individual NPDES permittee is automatically terminated on the effective date of the individual permit.

- *Comparison to 02-SW:* Changed per MSGP.

3.8 Terminating Coverage (Part I.H)

Comparison to 02-SW: The previous permit had limited guidance for submitting a Notice of Termination, and was more specific as to why the Department would terminate coverage. In this case, the Department chose to use the process recommended by the EPA with the MSGP.

3.8.1 Submitting a Notice of Termination (Part I.H.1). Part I.H.1 indicates that permittees should use the paper form to file Notices of Termination. The permittee’s authorization to discharge under the permit terminates at midnight of the day that a complete Notice of Termination is processed and acknowledged by the Department.

Purpose: The Department requires permittees to file a Notice of Termination to notify the Department that its obligation to manage industrial stormwater no longer is necessary for one of the approved reasons (as described in Part I.H.2). Once a valid Notice of Termination is submitted, this permit no longer applies to stormwater discharges associated with industrial activities at the site. If the Department determines that the Notice of Termination is incomplete or the permittee has not satisfied one of the conditions in Part I.H.2 for being able to submit a Notice of Termination, then the notice is not valid; the permittee must continue to comply with the conditions of the permit.

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3.8.2 When to Submit a Notice of Termination (Part I.H.2). Once a stormwater discharge associated with industrial activity is eliminated from a facility, the permittee must submit a Notice of Termination, as described in Part I.H.1, within 30 days after one or more of the following conditions have been met: (1) a new owner or operator has assumed responsibility for the facility; (2) operations have ceased at the facility and there no longer are discharges of stormwater associated with industrial activity and necessary sediment and erosion controls have already been implemented at the facility as required by Part III.B.1.b.v; or (3) permit coverage has been obtained under an individual or alternative general permit for all discharges requiring NPDES permit coverage, either because the Department required you to obtain such coverage or you petitioned the Department requesting coverage under an alternative permit.

Purpose: Part I.H.2 specifies when and under what conditions a Notice of Termination must be filed.

Comparison to 02-SW: The previous permit had limited guidance for when to submit a notice of termination. Again, the Department chose to use the process recommended by the EPA in the MSGP.

3.8.3 The Department Terminating Coverage (Part I.H.3). The Department may terminate a permittee's under this general permit if the Department finds good cause to do so.

Comparison to 02-SW: Unlike 02-SW, in 12-SW the main consequences for the instances previously listed in which the Department could terminate coverage would be the penalties for violated permit conditions as explained in Part VI.

3.9 Authorization (Part I.I)

No significant changes to this Part.

3.10 Continuation of an Expired General Permit (Part I.J)

If this permit is not reissued or replaced (or revoked or terminated) prior to its expiration date, dischargers are covered under an administrative continuance, in accordance with 40 CFR § 122.26.

Purpose: Where the Department fails to issue a final general permit prior to the expiration of a previous general permit, the Department has the authority to administratively extend the permit for permittees authorized to discharge under the prior general permit.

4. AUTHORIZATION UNDER THIS PERMIT (Part II)

4.1 How to Obtain Authorization (Part II.A)

To obtain authorization under this permit, operators must be located in the State; meet the Part I.A-I.E eligibility requirements; select, design, install, and implement control measures in accordance with Part III.B.1 to meet numeric and non-numeric effluent limits; submit a complete an accurate NOI according to the instructions with that document; pay the applicable fee as specified in COMAR 26.08.04.09-1(C) and develop a SWPPP according to the requirements of Part III.C of the permit. These requirements apply to operators previously covered by the 02-SW, as well as new facilities seeking coverage. The Operators will also be responsible for

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identifying those parts of the facility requiring restoration as described in Part III.A, and must commit to and follow the Schedule of Compliance as described in Part III.A.2.

SWPPP Availability (Part II.A.3)

This permit requires that a copy of the SWPPP be kept at the facility and be immediately available to representatives of the State, or a local stormwater agency (e.g., MS4 operator), as well as representatives of the Services at the time of an on-site inspection or upon request.

4.2 Deadlines for Notification of Intent (NOI) (Part II.B)

4.2.1 For permittees who have an individual permit to discharge stormwater associated with industrial activity:

The Department may notify existing permittees holding individual permits to apply for coverage under the 12-SW, and would require an NOI, fee and updated SWPPP within 60 days to be considered for authorization under this permit.

4.2.2 For permittees who are covered under the General Permit number 02-SW (MDE/WMA/PER.004):

The permittee will be given 60 days after the effective date of this permit to submit a new NOI, fee, and SWPPP to the Department in order to obtain coverage. Failure to do so will result in termination of coverage under General Permit 02-SW and will be subject to enforcement by the Department for discharging without a permit. You will be exempt from this enforcement only if you have provided notice that your discharge has been terminated, in accordance with PART I.H, above. If they submit timely notification for continued permit coverage, they may operate under the administratively extended permit number 02-SW until receiving notification from the Department of coverage (or denial of coverage) under the new permit.

4.2.3 For new permittees without an existing permit:

They must submit an NOI, fee, and SWPPP to the Department at least 60 days prior to the date they intend to discharge stormwater eligible for coverage under this general permit.

Purpose: This part informs the permittee that if they fail to submit a required NOI in a timely manner or if they discharge prior to obtaining authorization the Department may take enforcement action.

4.3 Required Signatures (Part II.C)

4.4 Failure to Notify (Part II.D)

4.5 Additional Notification (Part II.E)

4.6 Change in Discharge (Part II.F)

5. STORMWATER MANAGEMENT REQUIREMENTS

5.1 Restoration of Impervious Surfaces (Part III.A)

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The stormwater management requirement for the restoration of impervious surfaces is a significant change from the MSGP and the Department's 02SW. The requirement is to provide for treatment of 20% of the impervious surfaces not currently treated to the standards of the Department's Design Manual (untreated impervious surface) for the first inch of runoff, or equivalent, to be accomplished within the 4 years of the permit term. Specific requirements include the following.

1. The permittee must report the total untreated impervious surface to the Department in the NOI. By submitting the NOI the permittee will be committing to restore an additional 20% of their impervious surfaces by the next permit term.
2. Within the time allotted, the permittee will send a Restoration Plan to the department detailing the plans to meet this requirement.
3. Yearly reporting of progress is required, and an appropriate form is provided in Appendix F.
4. The permittee will be required to provide proof of the 20% restoration. The proof may be from a professional engineer certification or may be from their own municipality or local stormwater authority indicating they have provided some treatment offset within their jurisdiction.

Purpose: The requirements for facilities to manage runoff from these industrial sites by reducing impervious surfaces and retrofitting using environmental site design practices will bring a broad range of benefits to local receiving waters, including, but not limited to, improving the hydrology of the local watershed by reducing runoff volumes, reducing nutrients, sediment and other pollutants, and allowing greater groundwater recharge.

Comparison to 02-SW: Restoration of impervious surfaces was not required in 02-SW.

5.2. Control Measures and Effluent Limits (Part III.B)

5.2.1 Control Measures and Technology-Based Effluent Limits – Definition of “Minimize” (Part III.B)

This permit contains effluent limits that correspond to required levels of technology-based control (BPT, BCT, BAT) for various discharges under the CWA. Where an effluent limitation guideline or NSPS applies, the permittee may be notified by the Department to apply for an individual permit with appropriate numeric effluent limitations. Where EPA has not yet issued an effluent limitation guideline, EPA has determined, and the Department has accepted, an appropriate technology-based level of control based on best professional judgment. CWA section 402(a)(1); 40 CFR § 125.6. Because of the nature of stormwater discharges, it is infeasible to use numeric effluent limits to demonstrate the appropriate levels of control. (Refer to more detailed discussion below under “EPA’s Authority To Include Non-Numeric Technology-Based Effluent Limits In NPDES Permits” and “EPA’s Decision To Include Non-Numeric Technology-Based Effluent Limits In This Permit”.) In such situations, the CWA authorizes EPA, and in turn the Department, to include non-numeric effluent limits in NPDES permits⁴. The 12-

⁴ *Natural Res. Def. Council, Inc. v. EPA*, 673 F.2d 400, 403 (D.C. Cir. 1982) (noting that "section 502(11) defines 'effluent limitation' as 'any restriction' on the amounts of pollutants discharged, not just a numerical restriction"; holding that section of CWA authorizing courts of appeals to review promulgation of "any effluent limitation or other limitation" did not confine the court's review to the EPA's establishment of numerical limitations on pollutant discharges, but instead authorized review of other limitations under the definition) (emphasis added). In *Natural Res. Def. Council, Inc. v. Costle*, 568 F.2d 1369 (D.C. Cir. 1977), the D.C. Circuit stressed that when numerical

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SW includes a number of such non-numeric effluent limits. Several of these require facilities to “minimize” various types of pollutant discharges. Consistent with the control level requirements of the CWA, EPA in the MSGP, and the Department with the 12-SW, is clarifying in this permit that the term “minimize” means to reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically achievable (BAT) and practicable (BPT) in light of best industry practice. EPA has determined that the technology-based numeric and non-numeric effluent limits in this permit, taken as a whole, constitute BPT for all pollutants, BCT for conventional pollutants, and BAT for toxic and nonconventional pollutants that may be discharged in industrial stormwater.

Purpose: This permit defines the term “minimize” to provide a clear definition as to what is required of the discharger under this permit. To meet the effluent limits that require the discharger to “minimize” pollutants,” permittees are required to select, design, install and implement control measures that reduce or eliminate discharges of pollutants in stormwater to the extent achievable. These control measures must reflect best industry practice considering their technological availability and economic practicability (BPT) and achievability (BAT). Because toxic and nonconventional pollutants are controlled in the first step by BPT and in the second step by BAT, and the second level of control is “increasingly stringent” {EPA v. National Crushed Stone, 449 U.S. 64, 69 (1980)}, for simplicity of discussion, the rest of this discussion will focus on BAT. Similarly, because the BAT levels of control are BMPs and pollution prevention measures, they will also control conventional pollutants. Therefore this discussion will focus on BAT rather than BCT or BPT for conventional pollutants. To determine technological availability and economic achievability, operators need to consider what control measures are considered “best” for their industry, and then select and design control measures for their site that are viable in terms of cost and technology. EPA believes that for many facilities minimization of pollutants in stormwater discharges can be achieved without using highly engineered, complex treatment systems. The specific limits included in Part III.B.1 emphasize effective “low-tech” controls, such as minimizing exposure to stormwater (albeit, without significantly increasing impervious surfaces), regular cleaning of outdoor areas where industrial activities may take place, proper maintenance of equipment, diversion of stormwater around areas where pollutants may be picked up, minimization of runoff through infiltration and flow dissipation practices, and effective advanced planning and training (e.g., for spill prevention and response).

Comparison to 02-SW: The 02-SW added a definition of “minimize”. The current 12-SW reflects changes to the MSGP intended to clarify, rather than change, the meaning of “minimize” as used in 02-SW. The non-numeric effluent limits themselves also provide greater specificity as to what is required to minimize pollutant discharges. The revisions made to the permit language were intended to clarify the requirements. The Department included what EPA defined as the term “minimize” to establish greater consistency throughout the effluent limit section. The permit uses the phrase “technologically and economically practicable and achievable”. The final permit also uses the term “best industry practice.” Together, EPA believes, and the Department agrees, that these changes emphasize the need to consider the best available control measures that are economically and technologically practicable and achievable when selecting stormwater controls to meet the permit limits.

The Department also followed EPA lead with regards to water quality-based effluent limits. EPA determined that further specificity was needed to clarify what is meant by “more

effluent limitations are infeasible, EPA may issue permits with conditions designed to reduce the level of effluent discharges to acceptable levels.

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stringent measures necessary to meet water quality standards” since the specific control measures necessary to meet such standards, beyond the controls required to meet technology-based limits, may not be evident to permittees. Therefore, EPA reorganized the final permit to address and provide greater specificity for applicable water quality-based effluent limits in a different section (Part III.B.2) separate from the technology-based effluent limits of the permit (Part III.B.1).

Introduction to CWA Requirements to Control Pollutants in Discharges

The CWA requires that discharges from existing facilities, at a minimum, must meet technology-based effluent limitations reflecting, among other things, the technological capability of permittees to control pollutants in their discharges. Water quality-based effluent limitations (WQBELs) are required by CWA Section 301(b)(1)(C). Water quality-based requirements will be discussed in greater depth later. Both technology-based and water quality-based effluent limitations are implemented through NPDES permits. CWA sections 301(a) and (b).

Types of Technology-Based Effluent Limitations

Technology-based effluent limitations are in many cases established by EPA in regulations known as effluent limitations guidelines, or “ELGs.” EPA establishes these regulations for specific industry categories or subcategories after conducting an in-depth analysis of that industry⁵. The Act sets forth different standards for the effluent limitations based upon the type of pollutant or the type of permittee involved.

The CWA establishes two levels of pollution control for existing sources. In the first stage, existing sources that discharge pollutants directly to receiving waters were initially subject to effluent limitations based on the “best practicable control technology currently available” or “BPT.” 33 U.S.C. § 1314(b)(1)(B). BPT applies to all pollutants. In the second stage, existing sources that discharge conventional pollutants are subject to effluent limitations based on the “best conventional pollutant control technology,” or “BCT.” 33 U.S.C. §1314(b)(4)(A); see also 40 C.F.R. §401.16 (list of conventional pollutants) while existing sources that discharge toxic pollutants or “nonconventional” pollutants (*i.e.*, pollutants that are neither “toxic” nor “conventional”) are subject to effluent limitations based on “best available technology economically achievable,” or “BAT.” 33 U.S.C. §1311(b)(2)(A); see also 40 C.F.R. §401.15 (list of toxic pollutants). The factors to be considered in establishing the levels of these control technologies are specified in section 304(b) of the CWA and EPA’s regulations at 40 CFR §125.3.

All NPDES permits are required to contain technology-based limitations. 40 CFR §§122.44(a)(1) and 125.3. CWA sections 301(b)(1)(A) for (BPT); 301(b)(2)(A) for (BAT); and 301(b)(2)(E) for (BCT). Technology-based limits in this permit represent the BPT (for conventional, toxic, and non-conventional pollutants), BCT (for conventional pollutants), and BAT (for toxic pollutants and non-conventional) levels of control for the applicable pollutants. When EPA has not promulgated effluent limitation guidelines for an industry, or if an operator is discharging a pollutant not covered by the effluent guideline, permit limitations may be based on the best professional judgment (BPJ, sometimes also referred to as “best engineering judgment”) of the

⁵ Where EPA has not issued effluent guidelines for an industry, EPA and State permitting authorities establish effluent limitations for NPDES permits on a case-by-case basis based on their best professional judgment. See 33 U.S.C. § 1342(a)(1); 40 C.F.R. § 125.3(c)(2).

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permit writer. 33 U.S.C. § 1342(a)(1); 40 CFR 125.3(c). See *Student Public Interest Group v. Fritzsche, Dodge & Olcott*, 759 F.2d 1131, 1134 (3d Cir. 1985); *American Petroleum Inst. v. EPA*, 787 F.2d 965, 971 (5th Cir. 1986). For this permit, most of the technology-based limits are based on BPJ decision-making because no ELG applies. However, the permit also excludes technology-based limits based on the stormwater-specific ELGs listed, where applicable. This exclusion is specific to the 12-SW and is not consistent with the MSGP. In these cases, the Department prefers to issue individual permits to include these ELG specific to the facility.

The Department's Authority to Include Non-Numeric Technology-Based Limits in NPDES Permits

The BPJ limits in this permit are in the form of non-numeric requirements. Under EPA's regulations, non-numeric effluent limits are authorized in lieu of numeric limits, where "[n]umeric effluent limitations are infeasible." 40 CFR 122.44(k)(3). As far back as 1977, courts have recognized that there are circumstances when numeric effluent limitations are infeasible and have held that EPA may issue permits with conditions (e.g., BMPs) designed to reduce the level of effluent discharges to acceptable levels. *Natural Res. Def. Council, Inc. v. Costle*, 568 F.2d 1369 (D.C.Cir.1977).

Through the Agency's NPDES permit regulations, EPA interpreted the CWA to allow BMPs to take the place of numeric effluent limitations under certain circumstances. 40 C.F.R. §122.44(k), entitled "Establishing limitations, standards, and other permit conditions (applicable to State NPDES programs ...)," provides that permits may include BMPs to control or abate the discharge of pollutants when: (1) "[a]uthorized under section 402(p) of the CWA for the control of stormwater discharges"; or (2) "[n]umeric effluent limitations are infeasible." 40 C.F.R. § 122.44(k).

The EPA has further justified the approach of non-numeric standards by referencing the Sixth Circuit cited to *Natural Res. Def. Council, Inc. v. EPA*, 673 F.2d 400, 403 (D.C.Cir.1982) noting that "section 502(11) [of the CWA] defines 'effluent limitation' as 'any restriction' on the amounts of pollutants discharged, not just a numerical restriction."

EPA, and in turn the Department, have substantial discretion to impose non-quantitative permit requirements pursuant to Section 402(a)(1)), especially when the use of numeric limits is infeasible. See *NRDC v. EPA*, 822 F.2d 104, 122-24 (D.C. Cir. 1987) and 40 CFR 122.44(k)(3).

EPA's Decision to Include Non-Numeric Technology-Based Effluent Limits in MSGP Permit

Numeric effluent limitations are not always feasible for industrial stormwater discharges as such discharges pose challenges not presented by the vast majority of NPDES-regulated discharges. Stormwater discharges can be highly intermittent, are usually characterized by very high flows occurring over relatively short time intervals, and carry a variety of pollutants whose source, nature and extent varies. See 55 FR at 48,038; 53 FR at 49,443. This is in contrast to process discharges from a particular industrial or commercial facility where the effluent is more predictable and can be more effectively analyzed to develop numeric effluent limitations. To develop numeric technology-based effluent limitations, EPA generally obtains efficacy data concerning removals achieved from representative facilities employing the technology viewed as representing the BAT level of control. Even in this situation, there is some variability in performance at facilities properly using the BAT levels of control and EPA is often subject to

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challenge that it did not sufficiently take into account the variability that occurs even in a well-controlled discharge. In other words, facilities argue that the numeric effluent limits cannot be met even when they are properly operating BAT levels of control.

The variability of effluent and efficacy of appropriate control measures makes setting uniform effluent limits for stormwater extremely difficult. The record for this permit indicates that there is a high level of variability among discharges, in terms of both flow rates and volumes and levels of pollutants, since the volume and quality of stormwater discharges associated with industrial activity depend on a number of factors, including the industrial activities occurring at the facility, the nature of precipitation, and the degree of surface imperviousness. Due to the dissimilarity among the 26 different industrial sectors covered by this permit, and among the individual facilities within the different industrial sectors, the sources of pollutants in stormwater discharges differ with the type of industry operation and specific facility features. For example, material storage operations may be a significant source of pollutants at some facilities, shipping and receiving areas at others, while runoff from such areas at other facilities may result in insignificant levels of pollutants. Additionally, because it is often not reasonable to use traditional wastewater treatment technologies to control industrial stormwater discharges due to the absence of a steady flow of wastewater, control measures for such discharges tend to focus on pollution prevention and BMPs. In addition, the same set of pollution prevention measures or BMPs typically is not appropriate for all the different types of facilities and discharges covered by this permit. The pollutant removal/reduction efficacies of these pollution prevention and BMP-based control measures are not amenable to the type of comparative analyses conducted for non-stormwater treatment technologies and used to set numeric limits. While EPA continues to study the efficacy of various types of pollution prevention measures and BMPs, EPA at this time does not have a record basis for developing numeric limits that would reasonably represent a well-run application of BMPs. Because the flow and content is so variable, if EPA had tried to base numeric limits on a few sites, it is likely that any number it would develop would not be technologically available and economically achievable by all well-run facilities.

These factors create a situation where, at this time, it is generally not feasible for the Department or the EPA, to calculate numeric effluent limitations, with the limited exception of certain effluent limitations guidelines that have already been established through national rulemaking. For example, covering exposed areas where feasible and cleaning them regularly where they are not covered may be an effective way of significantly reducing stormwater pollutant discharges, but the degree of pollutant reduction will be highly site-specific and cannot be generally quantified. Therefore, EPA had determined that it is not feasible for the Agency to calculate numeric, technology-based limits for many of the discharges covered under their MSGP permit and, based on the authority of 40 CFR 122.44(k), had chosen to adopt non-numeric effluent limits. The Department agrees with this approach and has followed suit with this permit.

The BAT/BPT/BCT effluent limits in this permit are expressed as specific pollution prevention requirements for minimizing the pollutant levels in the discharge. In the context of this general permit, these requirements represent the best technologically available and economically practicable and achievable controls. EPA has long maintained that the combination of pollution prevention approaches and structural management practices required by these limits are the most environmentally sound way to control the discharge of pollutants in stormwater runoff from industrial facilities to meet the effluent limits. This approach is supported by the results of a

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comprehensive technical survey⁶ EPA completed in 1979. Pollution prevention continues to be the cornerstone of the NPDES stormwater program.

Control Measures Used to Meet the Technology-Based Effluent Limits

The Department generally does not mandate the specific control measures operators must select, design, install and implement. It is up to the operator to determine what must be done to meet the applicable effluent limits. For example, Part III.B.1.i requires operators to minimize the exposure of raw, final and waste materials to stormwater and runoff. How this is achieved will vary by facility: For some facilities, some or all activities may be moved indoors, while for others this will not be feasible. However, even for the latter, many activities may be moved indoors, others may be “covered” by roofing or tarps, while still other activities may be limited to times when exposure to precipitation is not likely. Each of these control measures is acceptable and appropriate in some circumstances. In this respect, the non-numeric effluent limits in this permit are analogous to more traditional numeric effluent limits, which also do not require specific control technologies as long as the limits are met.

Control measures can be actions (including processes, procedures, schedules of activities, prohibitions on practices and other management practices), or structural or installed devices to prevent or reduce water pollution. They can be just about anything that “does the job” of preventing deleterious substances from entering the environment, and of meeting applicable limits. In this permit, industrial facility operators are required to select, design, install, and implement site-specific control measures to meet these limits. Most industrial facilities already have such control measures in place for product loss prevention, accident and fire prevention, worker health and safety or to comply with other environmental regulations. The permit along with this fact sheet provides examples of control measures, but operators must tailor these to their facilities as well as improve upon them as necessary to meet permit limits. The examples emphasize prevention over treatment. However, sometimes more traditional end-of-pipe treatment may be necessary, particularly where a facility might otherwise cause or contribute to a violation of water quality standards.

There are many control measures that could be used to meet the limits in this permit. In addition to the Department’s Design Manual, the following are helpful resources for developing and implementing control measures for a facility:

Sector-specific Industrial Stormwater Fact Sheet Series,
(www.epa.gov/npdes/stormwater/msgp);

National Menu of Stormwater BMPs (www.epa.gov/npdes/stormwater/menuofbmps);
National Management Measures to Control Nonpoint Source Pollution from Urban Areas
(www.epa.gov/owow/nps/urbanmm/index.html); and

⁶ This survey found that two classes of management practices are generally employed at industrial facilities to control the non-routine discharge of pollutants from sources such as stormwater runoff, drainage from raw material storage and waste disposal areas, and discharges from places where spills or leaks have occurred. The first class of management practices includes those that are low in cost, applicable to a broad class of industries and substances, and widely considered essential to a good pollution control program. Some examples of practices in this class are good housekeeping, employee training, and spill response and prevention procedures. The second class includes management practices that provide a second line of defense against the release of pollutants. This class addresses containment, mitigation, and cleanup.

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Stormwater Management for Industrial Activities: Developing Pollution Prevention Plans and Best Management Practices
(http://cfpub2.epa.gov/npdes/pkeyword.cfm?keywords=industrial+activities&program_id=0).

Control Measures (Part III.B.1)

Part III.B.1 requires the operator to select, design, install and implement control measures to meet the technology-based effluent limits listed in Part III.B.1.b. Meeting the Bay TMDL requires similar technology-based limits through restoration of impervious surfaces per the Design Manual. The selection, design and implementation of these other control measures must be in accordance with good engineering practices and manufacturer's specifications. Regulated stormwater discharges from the facility include stormwater run-on that commingles with stormwater discharges associated with industrial activity at the facility. If operators find their control measures are not reducing pollutant discharges adequately, the control measures must be modified as expeditiously as practicable.

Purpose: Part III.B.1 establishes the requirements for selecting, designing and implementing control measure practices to meet the technology-based effluent limitations in this permit.

Changes from the 02-SW: This Part clarifies the requirements for selecting, designing and implementing controls. Similar to the EPA's MSGP, the Department is not requiring documentation of why certain control options provided were not selected. The requirement to document any deviation from the manufacturer's specifications for a pollutant control device is a new requirement in this permit, although the use of such manufactured devices is expected to be comparatively rare.

As stated above in the discussion of the "distinction between effluent limits and SWPPP requirements," the Department has followed EPA example in reorganizing this permit to clarify for the permittee and the public what constitutes limits versus what constitutes other permit conditions (e.g., planning and documentation requirements). The Department made this change so that permittees and the public recognize the difference between "control measures", which are used to meet the effluent limits, but do not constitute the limits, and the effluent limits themselves.

As defined in this permit, control measures include best management practices (BMPs), which are used to meet a permit limit but which are not, themselves, limits. In some permits BMPs are the effluent limits, while in other permits BMPs are measures implemented to meet effluent limits (EPA's Permit Writers Manual, defines a BMP as a "Permit condition used in place of or conjunction with effluent limitations . . ."). In this version of the 12-SW, effluent limits are defined in Parts III.B.1.b, Parts III.B.2. Parts III.A, III.B.1, and III.B.1.a contain the requirements for selecting control measures (including BMPs) to meet the effluent limits in Part III.B.

The approach to control measures in the permit is consistent with the CWA as well as its implementing regulations at 40 CFR 122.44(k)(4). Section 402(a)(2) of the CWA states: "The administrator shall prescribe conditions for such permits to assure compliance with the requirements in paragraph (1) . . . including conditions on data and information collection, reporting and such other requirements as he deems appropriate." (Section 402(a)(1) includes effluent limitation requirements.) This statutory provision is reflected in the CWA implementing regulations, which state that control measures can be included in permits when, "[t]he practices are reasonably necessary to achieve effluent limitations and standards or to carry out the

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purposes and intent of the CWA.” 40 CFR 122.44(k)(4). In this permit, and as contemplated by the statute and regulations, requirements that pertain to the selection, design and implementation of control measures are practices necessary to meet limits, but are not limits themselves.

Control Measure Selection and Design Considerations (Part III.B.1.a)

In Part III.B.1.a and III.A operators are required to consider certain factors when selecting control measures, including:

- guidance in the Departments Design Manual,
- preventing stormwater from coming into contact with polluting materials is generally more effective and less costly than trying to remove pollutants from stormwater;
- using combinations of control measures is more effective than using control measures in isolation for minimizing pollutants;
- assessing the type and quantity of pollutants, including their potential to impact receiving water quality, is critical to determining which control measures will achieve the limits in this permit;
- minimizing impervious areas at your facility and infiltrating runoff onsite (via bioretention cells, green roofs, pervious pavement, etc.) can reduce runoff, and improve groundwater recharge and stream base flows in local streams (although care must be taken to avoid groundwater contamination);
- attenuating flow using open vegetated swales and natural depressions to reduce in-stream impacts of erosive flows;
- conserving and restoring riparian buffers will help protect streams from stormwater runoff and improve water quality; and
- using treatment interceptors (e.g., swirl separators, oil-water separators, sand filters) may be appropriate in some instances to minimize the discharge of pollutants.

Purpose: **III.B.1.a**, similar to Part III.A provides permittees with important considerations for the selection of control measures.

Comparison to 02-SW: This permit expands upon the general considerations for selecting and designing control measures included in the 02-SW. Additional considerations were added to reflect the advances and expectations of stormwater programs nationwide. In addition, the Department utilized the EPA’s modified provision to make the consideration of these factors mandatory to better emphasize the importance of proper selection and design of control measures for the particular site. The Department recognizes that not all of these considerations will be applicable to every site nor will they always affect the choice of control measures. However, operators must still document that these factors were considered when developing their control measures.

Technology-Based Effluent Limits (BPT/BAT/BCT): Non-Numeric Effluent Limits (Part III.B.1.b).

This permit requires permittees to comply with non-numeric technology-based effluent limits (found in Parts III.B.1.b and Appendix D of the permit) by implementing control measures. The achievement of these non-numeric limits will result in the reduction or elimination of pollutants from the operator’s stormwater discharge. Such limits constitute this permit’s technology-based

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limits, expressed narratively per 40 CFR 122.44(k), and are developed using best professional judgment (BPJ).

This permit uses the term “control measures” more often than “best management practices” and “BMPs”. This change was adopted to better describe the range of pollutant reduction practices that may be employed, whether they are structural, non-structural or procedural. In addition, the definition of “control measures” in Appendix E of this permit includes both BMPs and “other methods” used to prevent or reduce the discharge of pollutants to receiving waters. The greater breadth of meaning for control measures vis-à-vis BMPs is why EPA uses this term in Part III.B.1, and throughout the permit.

The permit requires the operator to achieve all of the non-numeric effluent limits delineated in Part III.B.1.b. The following is a summary of the permit’s non-numeric technology-based effluent limits:

Minimize Exposure to Stormwater (Part III.B.1.b.i). To the extent technologically available and economically practicable and achievable, locate industrial materials and activities inside or protect them with storm-resistant coverings. This is one of the most important control options. Minimizing exposure prevents pollutants from coming into contact with precipitation and can reduce the need for control measures to treat or otherwise reduce pollutants in stormwater runoff. Examples include covering materials or activities with temporary structures (e.g., tarps) when wet weather is expected or moving materials or activities to existing or new permanent structures (e.g., buildings, silos, sheds). Even the simple practice of keeping a dumpster lid closed can be very effective. While the permit requires consideration of exposure minimization, EPA does not recommend significantly increasing impervious surfaces to achieve it. In minimizing exposure, the permittee should pay particular attention to manufacturing, processing, and material storage areas (including loading and unloading, storage, disposal, and cleaning, maintenance, and fueling operations).

Good Housekeeping (Part III.B.1.b.ii). Keep all exposed areas that are potential pollutant sources clean. Good housekeeping is an inexpensive way to maintain a clean and orderly facility and keep contaminants out of stormwater discharges. Often the most effective first step towards preventing pollution in stormwater from industrial sites simply involves using common sense to improve the facility’s basic housekeeping methods. Poor housekeeping can result in more stormwater running off a site than necessary and an increased potential for stormwater contamination. A clean and orderly work area reduces the possibility of accidental spills caused by mishandling of chemicals and equipment. Well-maintained material and chemical storage areas will reduce the possibility of stormwater mixing with pollutants.

There are some simple procedures a facility can use to meet the good housekeeping effluent limit, including improved operation and maintenance of industrial machinery and processes, improved materials storage practices, better materials inventory controls, more frequent and regular clean-up schedules, maintaining well organized work areas, and education programs for employees about all of these practices.

Examples of control measures that a permittee may implement to meet the good housekeeping effluent limit include containerizing materials appropriately, storing chemicals neatly and orderly; maintaining packaging in good condition; promptly cleaning up spilled liquids; sweeping, vacuuming or other cleanup of dry chemicals and wastes to prevent them from reaching

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receiving waters, and using designated storage areas for containers or drums to keep them from protruding where they can be ruptured or spilled. Proper storage techniques can include:

- Providing adequate aisle space to facilitate material transfer and easy access for inspections;
- Storing containers, drums, and bags away from direct traffic routes to prevent accidental spills;
- Stacking containers according to manufacturers' instructions to avoid damaging the containers from improper weight distribution;
- Storing containers on pallets or similar devices to prevent corrosion of the containers, which can result when containers come in contact with moisture on the ground; and
- Assigning the responsibility of hazardous material inventory to a limited number of people who are trained to handle hazardous materials.

Maintenance (Part III.B.1.b.iii). Regularly inspect, test, maintain and repair or replace all industrial equipment and systems to prevent releases of pollutants to stormwater. Maintain all control measures in effective operating condition. Nonstructural control measures must also be diligently maintained (e.g., spill response supplies available, personnel trained).

Most facilities will already have preventive maintenance programs (PMPs) that provide some environmental protection. Preventive maintenance involves regular inspection and testing of equipment and operational systems to uncover conditions such as cracks or slow leaks that could cause breakdowns or failures that result in discharges of pollutants to storm sewers and surface water. To prevent breakdowns and failures operators should adjust, repair or replace equipment.

As part of a typical PMP, operators must include regular inspection and maintenance of stormwater management devices and other equipment and systems. Operators should identify the devices, equipment and systems that will be inspected; provide a schedule for inspections and tests; and address appropriate adjustment, cleaning, repair or replacement of devices, equipment and systems. For stormwater management devices such as catch basins and oil-water separators, PMPs should include the periodic removal of debris to ensure that the devices are operating efficiently. For other equipment and systems, there should be procedures to reveal and correct conditions that could cause breakdowns or failures that may result in the release of pollutants.

The PMP should include a suitable records system for scheduling tests and inspections, recording test results and facilitating corrective action. The program should be developed by qualified plant personnel who evaluate the existing plant and recommend changes as necessary to protect water quality.

Spill Prevention and Response Procedures (Part Part III.B.1.b.iv). Minimize the potential for leaks, spills and other releases, which are major sources of stormwater pollution, to be exposed to stormwater. The purpose of this effluent limit is not only to prevent spills and leaks but, in the event one does occur, to limit environmental damage via development of spill prevention and response procedures. Operators should identify potential spill areas and keep an inventory of materials handled, used and disposed of. Based on an assessment of possible spill scenarios, permittees must specify appropriate material handling procedures, storage requirements, containment or diversion equipment, and spill cleanup procedures that will minimize the potential for spills and, in the event of a spill, ensure proper and timely response.

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Areas and activities that typically pose a high risk for spills include loading and unloading areas, storage areas, process activities, and waste disposal activities. These activities and areas, and their accompanying drainage points, must be addressed in the procedures. For a spill prevention and response program to be effective, employees should clearly understand the proper procedures and requirements and have the equipment necessary to respond to spills.

The following are suggestions to incorporate into spill prevention and response procedures:

- Install leak detection devices, overflow controls and diversion berms;
- Perform visual inspections and identify signs of wear;
- Perform preventive maintenance on storage tanks, valves, pumps, pipes and other equipment;
- Use filling procedures for tanks and other equipment that minimize spills;
- Use material transfer procedures that reduce the chance of leaks or spills;
- Substitute less toxic materials;
- Ensure that clean-up materials are available where and when needed;
- Ensure appropriate security;
- Notify emergency response agencies where necessary as specified.

In the event of a spill, it is important that the facility have clear, concise, step-by-step instructions for responding to spills. The approach will depend on the specific conditions at the facility such as size, number of employees and the spill potential of the site.

Erosion and Sediment Controls (Part III.B.1.b.v). Stabilize and contain runoff from exposed areas to minimize onsite erosion and sediment creation, and the accompanying discharge of pollutants (other pollutants can bind to soil and other particles and be discharged along with the sediment).

There may be exposed areas of industrial sites that, due to construction activities, steep slopes, sandy soils or other factors, are prone to soil erosion. Construction activities typically remove grass and other protective ground covers resulting in the exposure of underlying soil to wind and rain. Similarly, steep slopes or sandy soils may not be able to hold plant life so that soils are exposed. Because the soil surface is unprotected, dirt and sand particles are easily picked up by wind or washed away by rain. This erosion process can be controlled or prevented through the use of certain control measures.

To meet this limit, operators must select, design, install and implement controls to address the on-site exposed areas prone to soil erosion. Erosion control practices such as seeding, mulching and sodding prevent soil from becoming dislodged and should be considered first. Sediment control practices such as silt fences, sediment ponds, and stabilized entrances trap sediment after it has eroded. Sediment control practices, such as flow velocity dissipaters and sediment catchers, should be used to back-up erosion control practices.

Management of Runoff (Part III.B.1.b.vi). Operators must divert, infiltrate, reuse, contain or otherwise reduce stormwater runoff to minimize pollutants in the discharge. Employ practices that direct the flow of stormwater away from areas of exposed materials or pollutant sources. Such practices can also be used to divert runoff that contains pollutants to natural areas or other types of treatment locations.

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To meet this effluent limit, operators may consider vegetative swales, collection and reuse of stormwater, inlet controls, snow management, infiltration devices, and wet detention/retention basins. If infiltration is a selected control, permittees should pay special attention to the discussion at the end of this section of the fact sheet entitled: *Stormwater infiltration control measures that meet the definition of a Class V Injection Well could be subject to the Underground Injection Control (UIC) Regulations.*

Salt Storage Piles or Pile Containing Salt (Part III.B.1.b.vii). Enclose or cover piles of salt or piles containing salt used for deicing or other industrial purposes. Implement appropriate measures to minimize the exposure of the piles during the adding to or removing from processes.

Options for meeting the salt pile effluent limit include covering the piles or eliminating the discharge from such areas of the facility. Preventing exposure of piles to stormwater or run-on also eliminates the economic loss from materials being dissolved and washed away. A permanent under-roof storage facility is the best way to protect chemicals from precipitation and runoff, but where this is not possible, salt piles can be located on impermeable bituminous pads and covered with a waterproof cover.

Sector-Specific Effluent Limits (Part III.B.1.b.viii). Achieve any additional non-numeric limits stipulated in the relevant sector-specific controls in Part 8.

Employee Training (Part III.B.1.b.vix). Operators must train all employees who work in areas where industrial materials or activities are exposed to stormwater, or who are responsible for implementing activities necessary to meet the conditions of this permit.

Employee training programs should thoroughly educate members of the Stormwater Pollution Prevention Team (see Part III.C.1) on their roles in implementing the control measures employed to meet the limits in the permit. Training should address the processes and materials on the plant site, good housekeeping practices for preventing discharges, and procedures for responding properly and rapidly to spills or other incidents. The training program should also address other requirements in the permit such as inspections and record-keeping.

Training sessions should be conducted at least annually to assure adequate understanding of the objectives of the control measures and the individual responsibilities of each employee. More frequent training may be necessary at facilities with high employee turnover or where stormwater programs are involved or multi-faceted. Often, training could be a part of routine employee meetings for safety or fire protection. Where appropriate, contractor personnel also must be trained in relevant aspects of stormwater pollution prevention.

Training sessions should review all aspects of the control measures and associated procedures. Facilities should conduct spill or incidence drills on a regular basis which can serve to evaluate the employee's knowledge of the control measures and spill procedures and are a fundamental part of employee training. Such meetings should highlight previous spill events or failures, malfunctioning equipment and new or modified control measures.

Non-Stormwater Discharges (Part III.B.1.b.x). Eliminate non-stormwater discharges that are not authorized by an NPDES permit. This limit is intended to reinforce the fact that, with the exception of the allowable non-stormwater discharges listed in Part I.E.3, non-stormwater discharges are ineligible for coverage, pursuant to Part I.C. Operators needing help in finding

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and eliminating unauthorized discharges may find the following guidance helpful: *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments*, Chapters 7, 8, 9 at:
http://www.epa.gov/npdes/pubs/idde_manualwithappendices.pdf

Waste, Garbage, and Floatable Debris (Part III.B.1.b.xi). Operators must ensure that waste, garbage and floatable debris are not discharged to receiving waters.

Trash and floating debris in waterways have become significant pollutants, especially near areas where a large volume of trash can be generated in a concentrated area. Trash can cause physical impairments in waterbodies to aquatic species and birds and is also visual pollution and detracts from the aesthetic qualities of receiving waters.

This effluent limit can be met through the implementation of a variety of control measures. For instance, to prevent garbage from being carried in runoff to receiving waters, there are essentially two methods of control: source control and structural control. Source control includes personnel education, improved infrastructure and cleanup campaigns. Education, such as informing employees about options for recycling and waste disposal and about the consequences of littering, is one of the best ways. Another topic that should be emphasized is proper trash storage and disposal. Improved infrastructure can include optimizing the location, number, and size of trash receptacles, recycling bins, and cigarette butt receptacles based on expected need. Clean-up campaigns are an effective way to reduce trash. Facilities should determine whether the number and placement of receptacles are adequate and if regular maintenance activities (e.g., sweeping, receptacle servicing) are preventing litter from entering receiving waters. Structural controls include physical filtering structures and continuous deflection separation. Filtering structures concentrate diffuse, floating debris and prevent it from traveling downstream. Some examples are trash racks, mesh nets, bar screens and trash booms. Continuous deflection separation targets trash from storm flows during and after heavy precipitation.

Dust Generation and Vehicle Tracking of Industrial Materials (Part III.B.1.b.xii). Operators must minimize generation of dust and off-site tracking of raw, final or waste materials.

Dust control practices can reduce the activities and air movement that cause dust to be generated. Airborne particles pose a dual threat to the environment and human health. Dust carried off-site increases the likelihood of water pollution. Control measures to minimize the generation of dust include:

Vegetative Cover. In areas not expected to handle vehicle traffic, vegetative stabilization of disturbed soil is often desirable. By establishing a vegetative cover, exposed soil is stabilized and wind velocity at ground level can be reduced, thus reducing the potential for dust to become airborne.

Mulch. Mulching can be a quick and effective means of dust control for a recently disturbed area.

Wind Breaks. Wind breaks are barriers (either natural or constructed) that reduce wind velocity through a site which then reduces the possibility of suspended particles. Wind breaks can be trees or shrubs left in place during site clearing or constructed barriers such as a wind fence, snow fence, tarp curtain, hay bale, crate wall or sediment wall.

Stone. Stone can be an effective dust deterrent in areas where vegetation cannot be established.

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Spray-on Chemical Soil Treatments (Palliatives). Examples of chemical adhesives include anionic asphalt emulsion, latex emulsion, resin-water emulsions and calcium chloride. Chemical palliatives should be used only on mineral soils. When considering chemical application to suppress dust, determine whether the chemical is biodegradable or water-soluble and what effect its application could have on the surrounding environment, including waterbodies and wildlife.

To reduce vehicle tracking of materials, the operator should keep stored or spilled materials away from all roads within the site. Specific measures such as setting up a wash site or separate pad to clean vehicles prior to their leaving the site may be effective as well.

Purpose: Part III.B.1.b requires all operators to meet certain technology-based effluent limits through the implementation of control measures that minimize pollutants from the discharge.

Comparison to MSGP 2000: The 02-SW provided less specificity regarding the limits that had to be met, whereas this version provides more detailed explanations of specific non-numeric effluent limits. EPA believes this greater specificity will facilitate operator understanding of and compliance with the limits. The final permit also requires operators to evaluate the impact of run-on to the facility's site that commingles with industrial stormwater discharges. This requirement was not included in the 02-SW. The Department does encourage permittees to consider new control measures or new applications of existing practices at times during permit coverage when adjustments to their selection, design and implementation are being considered (e.g., when corrective action is triggered). This will help ensure that control measures continue to reflect best industry practice.

Stormwater infiltration control measures that meet the definition of a Class V Injection Well could be subject to the Underground Injection Control (UIC) Regulations

Infiltration of stormwater is generally highly recommended because of its pollutant mitigation and hydrological benefits, but care must be taken when using such control measures at industrial sites so as to not degrade underground sources of drinking water. The Safe Drinking Water Act (SDWA) was established to protect drinking water supplies of the U.S. It requires EPA to regulate underground injection of fluids through subsurface disposal systems that discharge wastes or other fluids that may endanger sources of drinking water (see 40 CFR Part 144). These regulations (often referred to as UIC regulations) may apply to industrial operators if their stormwater is treated by an infiltration control measure that can be classified as a Class V Injection Well (eg, a stormwater drainage well).

By definition an *Injection Well* is any bored, drilled or driven shaft, or dug hole that is deeper than wide at its widest surface dimension; an improved sinkhole; or a subsurface fluid distribution system. *Subsurface fluid distribution system* means an assemblage of perforated pipes, drain tiles or other similar mechanisms intended to distribute fluids below the surface of the ground. *Improved sinkhole* means a naturally occurring karst depression or other natural crevice found in volcanic terrain and other geologic settings that has been modified by man for the purpose of directing and emplacing fluids into the subsurface. For example, surface grading to direct stormwater to a naturally occurring sinkhole results in an improved sinkhole. Therefore, a control measure designed to place rain water or snowmelt below the land surface that has been engineered or constructed in any of the ways listed above is a UIC Class V Injection Well.

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If an infiltration control measure can be classified as a Class V Injection Well, the operator is required to register it with the proper authority. If an underground source of drinking water is present, a State subsurface discharge permit may also be required. To avoid possible impacts on underground sources of drinking water, EPA recommends not implementing an infiltration control measure if it meets the definition of a Class V Injection Well. Alternatively, an operator could revise the design of the infiltration control measure to avoid impacts to underground sources of drinking water.

On June 13, 2008, EPA issued a policy memo that clarified which stormwater infiltration practices have the potential to be regulated as Class V wells by the UIC program and which would likely not be considered Class V wells. A copy of this memo is available on EPA's website at: www.epa.gov/npdes/greeninfrastructure (a copy is also provided in the record for this permit).

5.3 Water quality-based effluent limitations (Part III.B.2)

This permit specifies that water quality-based effluent limits (WQBELs) to control discharges as necessary to meet applicable water quality standards. The provisions of Part III.B.2 constitute the WQBELs of this permit, and supplement the permit's technology-based effluent limits in Part 2.1. The following is a list of the permit's WQBELs:

- Control the discharge as necessary to meet applicable water quality standards in the receiving waterbody (See Part III.B.2.a);
- Comply with any additional, more stringent requirements that the Department determines are necessary to meet an applicable wasteload allocation or to further control discharges to impaired waters that do not yet have an EPA approved TMDL (See Part III.B.2.b); and
- Comply with any additional, more stringent requirements that the Department determines are necessary to comply with applicable antidegradation conditions for discharges to Tier 2 waters (see Part III.B.2.c).

Prior to or after initial discharge authorization, the Department may require additional WQBELs on a site-specific basis, or require the permittee to obtain coverage under an individual permit, if information in the NOI, required reports, or from other sources indicates that, after meeting the technology-based limits in Part III.B.1 and the WQBELs in Part III.B.2, the facility is causing or contributing to an exceedance of water quality standards.

- *Purpose:* Part III.B.2 includes limits that are as stringent as necessary to achieve water quality standards, consistent with 40 CFR 122.44(d)(1). The Department expects that facilities that achieve the permit's technology-based limits through the careful selection, design, installation, and implementation of effective control measures are likely to already be controlling their stormwater discharges to a degree that would make additional water quality-based controls unnecessary. In addition, the Restoration of Impervious Surfaces in Chesapeake Bay Watershed will meet the requirements to achieve goals of the States WIP towards meeting the Bay TMDL. However, to ensure that this is the case, the permit contains additional conditions, which, in combination with the BAT/BPT/BCT limits in this permit, the Department expects to be as stringent as necessary to achieve water quality standards.

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EPA notes, as does the Department, that the WQBELs included in this permit are initially non-numeric. The Department relies on a narrative expression of the need to control discharges as necessary to meet applicable water quality standards, and to employ additional controls where necessary to be consistent with applicable WLAs in an approved TMDL or to comply with the State's antidegradation policies. This is a reasonable approach for this permit, based on the following considerations:

Limited waterbody information available about individual dischargers prior to authorization: The Department will not know prior to receiving NOIs from individual dischargers intending to be covered by this permit where these facilities are located and where they discharge. Facility operators must provide information in their NOIs identifying the receiving water into which they discharge. These questions are designed to help the Department determine what, if any, special protections apply to that water. As part of these NOI questions, EPA provided the *Water Locator* "<http://cfpub.epa.gov/npdes/stormwater/tmdltool.cfm>" and the Department has made Maryland's Searchable Integrated Report Database [Combined 303(d)/305(b) List] "<http://mde.maryland.gov/programs/Water/TMDL/Integrated303dReports/Pages/303d.aspx>" tools available to operators, which is intended to help facilities and the Department more accurately locate the waterbodies that are affected by stormwater discharges. The Department's receipt of the NOI will then trigger a more detailed screening process geared at determining if any waterbody-specific requirements are appropriate. Prior to this time though it is simply impracticable to anticipate these specific requirements, and include as specific detailed requirements in the general permit, without knowing more about where the facility is discharging.

- *Review of the NOI and applicable watershed documents is the appropriate forum for deriving facility-specific WQBELs:* Once the Department receives the NOI, an assessment whether any more stringent requirements are necessary can be made. For instance, if a particular NOI indicates that the facility will discharge to an impaired waterbody that has an approved TMDL, the Department will be able to review the applicable documents to determine if any additional effluent limits are necessary. Among other things, the Department will be analyzing the TMDL for applicable WLAs that were meant to apply to industrial stormwater discharges. After that determination has been made, the Department will determine how those allocations would translate into permit requirements and whether and to what extent the existing effluent limits are already controlling the discharge consistent with the WLA. If more stringent controls are necessary, EPA will notify the effected facility of the need to comply with stricter limits. EPA anticipates that similar assessments will occur if facilities indicate that they are discharging to a waterbody designated as Tier 2 for antidegradation purposes.

- *The Department may modify an operator's receiving water information based on further information:* The Department acknowledges that sole reliance by the operator on the *Water Locator* tool and the Searchable Integrated Report Database may lead to some inaccuracies, since the tools determines the closest waterbody and impairment to the facility, and is not based on the actual flow direction of runoff as determined by topographic conditions. The Department suggests that operators double-check the information generated by the *Water Locator* tool against local mapping resources (e.g., USGS quadrangle maps, or other topographic maps) or knowledge of the property and landscape.

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In addition, even where the operator correctly identifies its receiving water, and properly indicates that the discharge is not to an impaired segment, the Department may determine on further analysis that the discharge does in fact contribute to a downstream impairment. For instance, notwithstanding an operator's correct determination that its discharge is to an unimpaired stream segment, the Department may find, using available TMDL information, or other data, that discharges to the unimpaired segment are considered to contribute to a downstream impairment. In such an instance, the Department will inform the operator of this determination, and of any additional requirements that may result from the discharge to a downstream waterbody that is impaired. In conducting these analyses, the Department will consider looking at guidelines established by other NPDES permit authorities to determine what constitutes a contribution to a downstream impairment. For example, the waters that flow to the Chesapeake Bay are contributing to the Bay TMDL, however the stream segment closest to the facility may not be impaired. The Department believes such criteria may be helpful to the permittee because it establishes an objective criterion from which to define contributions to impaired waters and may use this as a guideline to help determine if particular discharges are contributing to downstream impairments.

Comparison to 02-SW: This permit, like the MSGP, includes these new provisions requiring that discharges are controlled as necessary to meet water quality standards. For clarity, the permit also groups the WQBELs together. EPA wording was adopted to support the water quality-based effluent limitation using the phrase "control[led] as necessary to meet applicable water quality standards,".

Water Quality Standards (Part III.B.2.a). Each permittee is required to control its discharge as necessary to meet applicable water quality standards. The Department expects that compliance with the other conditions in this permit (e.g., the technology-based limits, restoration of impervious surfaces, corrective actions, etc.) will result in discharges that are controlled as necessary to meet applicable water quality standards. If the permittee becomes aware, or the Department determines, that the discharge causes or contributes to a water quality standards exceedance, corrective actions are required. In addition, at any time the Department may impose additional, more stringent WQBELs on a site-specific basis, or require an individual permit, if information suggests that the discharge is not controlled as necessary to meet applicable water quality standards.

Purpose: The language in Part Part III.B.2.a affirms the permittee's requirement to control its discharges as necessary to meet applicable water quality standards. The Department reserves the authority to require more stringent requirements where necessary to meet applicable standards, or, alternatively, to require the permittee to apply for an individual permit.

In general, EPA and the Department believe that the effluent limits and restoration activities contained in this permit, combined with the other requirements concerning corrective actions, inspections, and monitoring, will control discharges as necessary to meet applicable water quality standards. For example, in waters that are not listed as "impaired," it is reasonable to conclude that permittee discharges are not causing or contributing to an exceedance of water quality standards because no exceedance of water quality standards has been identified. EPA had reviewed the 4,100 facilities covered under their MSGP 2000 and found the majority discharge to waters that are not impaired which confirms their basis

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for this logic for this type of industrial facility. In the case of impaired waters with an EPA approved TMDL, the permit must be consistent with the assumptions and requirements of any WLAs in the TMDL as required by 40 CFR 122.44(d)(1)(vii)(B). In impaired waters without an EPA approved TMDL, the request for coverage may be denied and coverage under an individual permit may be required. Additionally, regardless of whether a TMDL has been approved or established by EPA, if a discharge is found to cause or contribute to an excursion above water quality standards, the permittee is required to revise the selection, design, installation, and implementation of the facility's control measures to ensure that the conditions causing the problem are eliminated and will not be repeated. See Part V.A. The Department may require the discharger to get an individual permit in this situation.

Furthermore, prior to receiving authorization for a new discharge to an impaired waterbody, the permit requires the new discharger to meet additional eligibility requirements. See Part I.C.6. Only by certifying to compliance with one of the following eligibility criterion will the new discharger be considered for authorization:

- prevent all exposure to stormwater of the pollutants for which the waterbody is impaired; **or**
- show that the discharger does not have the pollutant for which the waterbody is impaired present at its facility; **or**
- provide to the Department prior to authorization, information and data showing that the discharge will meet applicable criteria; **or**
- provide to the Department prior to authorization, information showing that there are sufficient remaining wasteload allocations in an EPA approved TMDL and that existing dischargers to the waterbody are subject to compliance schedules designed to bring the waterbody into attainment with water quality standards.

By certifying its compliance with one of the Part I.C.6 eligibility criterion, the new discharger will thus be demonstrating that its discharge will not cause or contribute to an excursion above applicable water quality standards

The permit contains additional protections to ensure compliance with water quality standards in its corrective action requirements. For instance, a particularly intense storm event may overwhelm one or more of the control measures employed at the site, leading to a short-term violation of the effluent limits. Alternatively, the operator may discover that a control measure installed in good faith to meet a particular purpose is not functioning as anticipated (e.g., because it is incorrectly sized for the site). The 12-SW requires that permittees adjust their control measures during the permit term to respond to any such unanticipated event or deficiency. In this way, the operator may improve upon the initial selection, design, installation, or implementation of control measures to further ensure that its discharges are controlled as necessary to meet applicable water quality standards. Activities that may trigger a need for corrective action include:

Routine facility inspections (Part V.A.1);

Quarterly visual assessments (Part V.A.3);

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Comprehensive site inspections (Part V.A.2), including annual reports summarizing such inspections submitted pursuant to Part V.A.2.b. A copy of the documentation from all inspections and evaluations onsite must be kept with the SWPPP (Part III.C.8.g);

Required monitoring for benchmarks; or

Information suggestive that the control measures are not stringent enough meet the water quality standards.

Comparison to 02-SW: The provisions of the 02-SW were vague. “The permittee shall amend the plan whenever there is a change in design, construction, operation, or maintenance which creates a potential for the discharge of pollutants to the waters of the State or if the storm water pollution prevention plan proves to be ineffective in achieving the general objectives of controlling pollutants in storm water discharges associated with industrial activity.” Adoption of the language in the MSGP provides more comprehensive guidance for permittees in consideration water quality protection.

This new language clarifies the Department’s expectation that the other conditions in this permit will result in discharges being controlled as necessary to meet applicable standards. However, if through monitoring, inspections, reports, etc., the Department determines that stormwater discharges are not being controlled as necessary to meet water quality standards, the Agency may impose additional requirements or require the permittee to apply for an individual permit.

Discharges to Water Quality Impaired Waters (Part III.B.2.b). This provision defines “impaired waters” as those which have been identified by the State pursuant to Section 303(d) of the CWA as not meeting applicable State water quality standards. This may include both waters with EPA approved TMDLs, and those for which a TMDL has not yet been approved or established.

Purpose: To include consistent determination of additional requirements for discharges to “impaired waters” so that the scope of the requirements in Part III.B.2.b can be more readily understood by permittees.

Existing Discharge to an Impaired Water (Part III.B.2.b). The Department periodically reviews discharges to impaired waters, either with or without an approved TMDL. Where an operator indicates on its NOI that the discharge is to one of these waters and a TMDL isn’t established, the Department can use this information in process of addressing the impaired status of that waterbody. Where an operator indicates on its NOI that the discharge is to one of these waters and a TMDL is established, the Department will review the applicable TMDL to determine as a threshold matter whether the TMDL includes requirements that apply to the individual discharger or its industrial sector. The Department can determine whether any more stringent requirements are necessary to comply with the WLA, whether compliance with the existing permit limits is sufficient, or, alternatively, whether an individual permit application is necessary. If the Department determines that additional requirements are necessary, public comment would be sought on the proposed limits and either incorporated the final limits as site-specific terms in this general permit or issue a specific individual permit.

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Purpose: The purpose of Part Part III.B.2.b is to require compliance with applicable requirements in a TMDL and to clarify for the permittee how they will know when such requirements apply. These provisions are intended to implement the requirements of 40 CFR 122.44(d)(1)(vii)(B), which requires that water quality based effluent limits “are consistent with the assumptions and requirements of any available wasteload allocation for the discharge” Because WLAs for stormwater discharges may be specified in many different formats, the EPA believes that it has not always been clear to permittees in the past what they need to do to comply with applicable WLAs. The Department has thus included this Part to ensure that these requirements are properly interpreted and communicated to the permittee in way that can be implemented.

Tier 2 Antidegradation Requirements for New or Increased Discharges (Part III.B.2.c).

This provision requires that any new permittee with a discharge, or any existing permittee determined to have an increased discharge⁷, directly to waters designated by the State as Tier 2 as defined in Appendix E of the permit, for antidegradation purposes must comply with any additional requirements and procedures that the Department determines are necessary to comply with the applicable State or Federal antidegradation requirements. The Department may also notify the permittee that they cannot be covered under the 12-SW due to the unique characteristics of the discharge or the receiving waters, in light of the applicable antidegradation policy, and that they must apply for an individual permit. Conversely, if EPA does not notify the permittee that additional antidegradation requirements must be met, the permittee is authorized to discharge under the permit. At this time there are no waters designated as Tier 3, outstanding national resource waters, as defined in 40 CFR 131.12(a)(3), which are not eligible for coverage under the MSGP permit. This permit doesn't address Tier 3.

Purpose: This provision implements applicable antidegradation requirements. For background, State water quality standards are required to contain an antidegradation policy pursuant to 40 CFR 131.12. In addition, the State is required to identify implementation methods that, at a minimum, provide a level of protection that is consistent with the Federal antidegradation provisions. Waters designated as “Tier 2” by the State can generally be described as follows:

Tier 2 protects "high quality" waters -- water bodies where existing conditions are better than necessary to support CWA § 101(a)(2) "fishable/swimmable" uses. (Note that some States have designated waters using criteria that EPA considers to be more stringent than the Federal Tier 2 designation, but less stringent than the Federal Tier 3 designation. EPA uses the term “Tier 2.5” to describe such waters.) Water quality may be lowered in such Tier 2 or Tier 2.5 waters where “allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located.” 40 CFR 131.12(a)(2). The process for making this determination is what is commonly known as “Tier 2 review.” The essence of a Tier 2 review is an analysis of alternatives to the discharge. 63 Fed. Reg. 36, 742, 36,784 (col. 1)(July 8, 1998). In no case may water quality be lowered to a level that would interfere with existing or designated uses. 40 CFR 131.12(a)(1), 122.44(d). States have broad discretion in identifying Tier 2 waters. 63 Fed. Reg. at 36,782-83. In addition, States and Tribes may adopt what is known as a

⁷ In general, any existing discharger required to notify the Department of an increased discharge consistent with Part VI.B will be considered for the potential to have an increased discharge.

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“significance threshold.” A “significance threshold” is a *de minimis* level of lowering of water quality below which the effects on water quality do not require Tier 2 review. Id. at 36,783.

Comparison to 02-SW: This acknowledgement is new to the State’s permit. Tier 2 approach used in this permit relies on an expectation that the effluent limits and permit conditions in the 12-SW will be sufficient to protect the quality of Tier 2 waters. This is possible by supporting the EPA’s determination that compliance with the MSGP generally will be sufficient to satisfy Tier 2 antidegradation requirements because the controls will not result in a lowering of water quality, making individualized Tier 2 review unnecessary. Alternatively, the controls in the permit are sufficiently stringent that they satisfy the requirement at the heart of Tier 2 review, that the discharge is necessary to accommodate important economic and social development in the area where the discharge is located. However, in cases where information submitted with the NOI, or available from other sources, indicates that further Tier 2 review and/or conditions are necessary, the Department would conduct this review and require any appropriate additional controls.

The conclusion that compliance with the MSGP will generally meet the Tier 2 antidegradation requirements depends on several key aspects of the permit. First, all dischargers subject to this permit are required to meet the stringent technology-based effluent limits set out in Parts III.B.1. These effluent limits, which dischargers must comply with through the implementation of stormwater best management practices (BMPs) chosen in light of best industry practice and for the Bay TMDL through restoration of impervious surfaces as provided in the State’s Design Manual, are equivalent to the best available control technology economically achievable (BAT), best conventional control technology (BCT), and best practicable control technology (BPT) limits for discharges from the type of industrial activities covered by the 12-SW. All permittees are required to comply with these non-numeric effluent limits, set out in Part III.B.1.a, and all permittees within the Chesapeake Bay watershed additionally must comply with the requirements for restoration of impervious surfaces set out in Part III.A.

Through compliance with these limits alone, the Department expects that the discharge of pollutants will be reduced and/or eliminated so that there should not be a lowering of water quality. EPA bases this conclusion in part on the standard by which permittees are required to select, design, install, and implement the control measures to be used to meet these non-numeric effluent limits and restoration efforts. Parts III.A, III.B and III.B.1 of the permit require the selection, design, installation, and implementation of control measures that are technologically available and economically practicable and achievable in light of best industry practice to reduce and/or eliminate pollutants in the stormwater discharge. Furthermore, once installed and implemented, the permittee is obligated to maintain control measures regularly and to correct deficiencies where sampling or inspection determines that deficiencies exist. Lastly, where the Department determines through its oversight activities (e.g., onsite inspection) that a discharger is not meeting its Part III.B.1.a limits, such a deficiency will constitute a violation of the permit and will require follow-up corrective action pursuant to Part V.A.

Additionally, where the implementation of the technology-based requirements in this permit are not sufficient to protect the applicable receiving water’s water quality standards, the permittee is subject to further water quality-based effluent limits (WQBELs). See generally

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Part III.B.2. Also, the Department may inform the permittee that an individual permit is necessary. Both the technology-based effluent limitation guidelines-based limits and the WQBELs serve as additional layers of protection.

Third, there may very well be individual cases where the Department determines that further controls are necessary or that coverage under the MSGP is no longer appropriate to protect the Tier 2 status of the receiving water. For this reason, the Department has included the following language in Part III.B.2.c: “EPA may notify you that additional analyses, control measures, or other permit conditions are necessary to comply with the applicable antidegradation requirements, or notify you that an individual permit application is necessary in accordance with Part I.G.” It is anticipated that if the Department decides to either change the terms of coverage or terminate 12-SW coverage for a particular new or increased discharger, that facility may be required to undergo Tier 2 review.

6. Stormwater Pollution Prevention Plan (SWPPP) (Part III.C)

Part III.C of the permit requires the discharger to develop a SWPPP to document the specific control measures dischargers will use to meet the limits contained in Part III.A and Part III.B of the permit, as well as documenting compliance with other permit requirements (e.g., monitoring, recordkeeping, reporting). The SWPPP itself does not contain effluent limits; rather it constitutes a tool to assist both the permittee and inspectors in ensuring and documenting that effluent limits are met. This documentation must be kept up-to-date. Where control measures are modified or replaced, for instance in response to a Part IV.A triggering condition, such changes must be documented in the SWPPP. See Part III.C.8. If permittees fail to develop and maintain an up-to-date SWPPP, they will have violated the permit. This recordkeeping violation is separate and distinct from a violation of any of the other substantive requirements in the permit (e.g., effluent limits, corrective action, inspections, monitoring, reporting, and sector-specific requirements).

To be covered under this permit, the initial SWPPP must be completed prior to submitting an NOI for permit coverage. Doing so helps to ensure that permittees have (1) taken steps to identify all sources of pollutant discharges in stormwater and (2) implemented appropriate control measures to control these discharges in advance of permit coverage. Part III.C of the permit contains most of the required elements to be documented in the SWPPP; however, sector-specific requirements are also included in Appendix D of this permit.

Generally, permittees must document the following: (1) the establishment of a stormwater pollution prevention team; (2) a description of the site; (3) summary of potential pollutant sources; (4) description of control measures; and (5) monitoring and inspection procedures (including schedules).

For permittees covered under a previous 12-SW, their existing SWPPP must be reviewed and modified, as necessary, to comply with the permit.

The SWPPP prepared under this permit must address specific requirements. In the 02-SW, the Department had combined the SWPPP documentation requirements and effluent limitations into one section leading to confusion over what was a documentation requirement and what was an effluent limitation. EPA believes, and the Department agrees,

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that separating the effluent limitations (Part III.A and III.B) and the SWPPP requirements (Part III.C) clarifies the distinction between them.

Permittees may choose to reference other documents in the SWPPP rather than recreating the same text in the SWPPP; however, when referencing other documents, the permittees are responsible for ensuring their SWPPP and the other documents together contain all the necessary elements for a complete SWPPP. In addition, permittees must ensure that a copy of the referenced document is located on-site.

For example, allowances apply to other program documents such as Spill Prevention, Control and Countermeasure (SPCC) Plans. The Department strongly recommends that, regardless of whether all required SWPPP components are combined into one document, an index be kept which identifies where individual SWPPP components are addressed.

Pollution Prevention Team (Part III.C.1)

Developing a SWPPP requires that a qualified individual or team of individuals be identified as responsible for developing and revising the facility's SWPPP. Additionally, this team is responsible for implementing and maintaining the control measures to meet effluent limits, and taking corrective action where necessary. Team members should be chosen for their expertise in the relevant departments at the facility to ensure that all aspects of facility operations are considered in developing the plan. The SWPPP must clearly describe the responsibilities of each team member to ensure that each aspect of the plan is addressed. The Department expects most permittees will have more than one individual on the team, except for small facilities with relatively simple plans and/or staff limitations. The permit requires that team members have ready access to any applicable portions of the SWPPP and the permit.

Purpose: Identification of a stormwater pollution prevention team ensures that appropriate persons (or positions) are identified as necessary for developing and implementing the plan. Inclusion of the team in the plan provides notice to facility staff and management (i.e., those responsible for signing and certifying the plan) of the responsibilities of certain key staff for following through on compliance with the permit's conditions and limits.

Site Description (Part III.C.2)

The SWPPP must describe activities, materials, and physical features of the facility that may contribute significant amounts of pollutants to stormwater runoff or, during periods of dry weather, result in pollutant discharges through the municipal separate storm sewers or stormwater drainage systems that drain the facility. The SWPPP must also contain both a general location map of the site that shows the location of the facility in relationship to receiving waters and other geographical features, and a more detailed site map that contains information on facility/site characteristics that affect stormwater runoff quality and quantity. For areas of the facility that generate stormwater discharges with a reasonable potential to contain significant amounts of pollutants, the map must indicate the probable

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direction of stormwater flow and the pollutants likely to be in the discharge. Flows with a significant potential to cause soil erosion also must be identified. The site map must also include locations of: existing structural control measures; receiving waters; stormwater conveyances, inlets and outfalls; potential pollutant sources; past significant spills or leaks; stormwater monitoring points; municipal separate storm sewer systems; and locations and sources of run-on to the operator's site (see permit language for complete list of required items). To improve readability of the map, some detailed information may be kept as an attachment to the site map and pictures may be included as deemed appropriate.

Purpose: A detailed site description assists permittees in subsequent efforts to identify and set priorities for the selection, design, and implementation of measures taken to meet effluent limits and in identifying necessary changes in materials, materials management practices, or site features.

Summary of Potential Pollutant Sources (Part III.C.3)

This permit requires permittees to identify potential sources of pollutants in stormwater resulting from exposure of industrial activities to stormwater. In addition, permittees must document in their SWPPP any allowable non-stormwater discharges that are released. The permit and the NPDES regulations at 122.26(b)(14) define "stormwater discharges associated with industrial activities" to include, but not be limited to: stormwater discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters (as defined at part 401 of this chapter); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and final products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to stormwater. The term "stormwater discharges associated with industrial activity" excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with stormwater drained from the above described areas.

Additionally, the term "material handling activities" is defined in the permit to include storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product, by-product or waste product.

Part III.C.3 is only applicable to those parts of the site for which the permittee is covered under this permit. For example, a site that discharges stormwater to an area of the site covered by a different NPDES permit, is not required to identify the specific activities occurring in that area. EPA does expect permittees to clearly identify those areas of the site and describe why they need not be covered under this permit.

When identifying potential pollutant sources at the site, permittees must consider industrial stormwater from the following sources:

Activities in the Area (Part III.C.3.a)

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This description must include a list of the industrial activities at the facility, including any co-located industrial activities that may be exposed to stormwater.

Pollutants (Part III.C.3.b)

For each of the industrial activities described above, operators must document the associated pollutants or pollutant constituents (e.g., biochemical oxygen demand, suspended solids). The pollutant list must include all significant materials that have been handled, treated, stored or disposed, and that have been exposed to stormwater in the 3 years prior to the date the permittee prepares or amends its SWPPP as well as any additional significant materials that the permittee plans to use during the life of the permit.

EPA defines “significant materials” at 122.26(b)(12) as including but not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical the permittee is required to report pursuant to section 313 of title III or SARA; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with stormwater discharges.

CERCLA section 101(14) defines “hazardous substance” to include: (A) any substance designated pursuant to section 311(b)(2)(A) of the Federal Water Pollution Control Act (also known as the Clean Water Act (CWA)); (B) any element, compound, mixture, solution, or substance designated pursuant to section 102 of CERCLA; (C) any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act (also known as the Resource Conservation and Recovery Act or RCRA); (D) any toxic pollutant listed under CWA section 307(a); (E) any hazardous air pollutant listed under section 112 of the Clean Air Act; and (F) any imminently hazardous chemical substance or mixture with respect to which the Administrator has taken action pursuant to section 7 of the Toxic Substances Control Act. The list of CERCLA hazardous substances is provided in 40 CFR 302.4.

Spills and Leaks (Part III.C.3.c)

The SWPPP must include a list of any significant spills and leaks of pollutants that occurred in the 3 years prior to the date the SWPPP was developed or amended. New owners of existing facilities should, to the extent practicable, identify any significant spills or leaks attributable to past owners. Significant spills include, but are not limited to, releases of oil or hazardous substances in excess of quantities that are reportable under section 311 of the CWA (see 40 CFR 110.10 and 40 CFR 117.21) or section 102 of CERCLA (see 40 CFR 302.4). Significant spills may also include releases of materials that are not classified as oil or hazardous substances. The list of significant spills and leaks should include a description of the causes of each spill or leak, the actions taken to respond to each release, and the actions taken to prevent similar spills or leaks in the future. This effort will aid operators in developing spill prevention and response procedures and any additional procedures necessary to fulfill the requirements set forth in Part III.B.1.b.iv of the permit.

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As required in Part III.C.8 of this permit, any spills or leaks that occur while covered under this permit must be documented.

Documenting spills does not relieve permittees of any reporting requirements established in 40 CFR 110, 40 CFR 117, and 40 CFR 302, or any other statutory requirements relating to spills or other releases of oils or hazardous substances.

Non-Stormwater Discharges (Part III.C.3.d)

Each SWPPP must include documentation that all unauthorized discharges have been eliminated. The documentation must include the date of any evaluation, and describe any test or evaluation conducted to detect such discharges, the results of those evaluations. Acceptable test or evaluation techniques include dye testing, television surveillance, visual observation of outfalls or other appropriate locations during dry weather, water balance calculations, and analysis of piping and drainage schematics. A combination of these mechanisms may be necessary to complete a thorough evaluation. In general, smoke tests should not be used for evaluating the discharge of non-stormwater to a municipal separate storm sewer as many sources of non-stormwater typically pass through a trap that may limit the effectiveness of the test. When unauthorized discharges are discovered, the documentation must also include a description of how those discharges were eliminated.

Common unauthorized discharges and common resolutions include: re-routing sanitary wastes (e.g., sinks, drinking fountains, toilets) to sanitary sewer systems; obtaining an appropriate NPDES permit for cooling water or industrial process wastewater discharges; capping or plugging floor drains; and prohibiting practices such as paint brush washing or wash bucket dumping into storm drain inlets.

Where an allowable non-stormwater discharge has been identified, the permittee must document in the SWPPP the location of that discharge and the appropriate control measures implemented to meet limits. In many cases, the same types of controls for contaminated stormwater would suffice, but the nature and volume of potential pollutants in the non-stormwater discharges must be taken into consideration in selecting controls.

Salt Storage (Part III.C.3.e)

The SWPPP must identify any storage piles containing salt, including piles that only contain salt as a portion of the mixture in the pile, used for deicing or other commercial or industrial purposes.

Sampling Data (Part III.C.3.f)

A summary of all existing data on the quality or quantity of stormwater discharges collected from the facility during the previous permit term must be described in the SWPPP. New dischargers must provide a summary of any available stormwater discharge sampling data they may have, including the methods used to collect the data and the sample collection location. These data may be useful for locating sources and causes of stormwater pollutants.

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Purpose: Identification of sources of pollutants in stormwater is critical for selecting source control practices at the site necessary for meeting permit limits. Information provided in this section of the SWPPP will help facility operators identify potential pollutants of concern on-site through a comprehensive assessment of existing conditions and available information.

Description of Measures Implemented to Meet Effluent Limits (Part III.C.4)

Control Measures to Meet Technology-Based and Water Quality-Based Effluent Limits (Part III.C.4). A permittee must describe in its SWPPP the control measures it has implemented at its site to achieve each of the effluent limits in Parts III.A, III.B.1, and III.B.2, and to address any stormwater run-on that commingles with discharges covered under this permit. The description of the control measures implemented to meet the effluent limits must include a brief explanation of the measures implemented at the site, including how the Part III.B.1.a selection and design considerations were followed.

Purpose: To demonstrate how the operator specifically plans to meet the applicable **Schedules and Procedures – Pertaining to Control Measures Used to Comply with the Effluent Limits in Part III.B (Part III.C.5.a)**

The permit identifies specific information that must be documented in the SWPPP. The Department emphasizes that ALL control measures implemented to meet the Part III.B limits must be documented in the SWPPP.

In addition to the description to the on-the-ground control measures implemented to meet the effluent limits, the permit requires certain schedules and procedures to be documented in the SWPPP. The following items are specifically identified in the Part III.C.4 permit language:

Good Housekeeping (see also Part III.B.1.b.ii or Appendix D). Include a schedule for pickup and disposal of waste materials, along with the frequency of inspections for leaks and conditions of drums, tanks and containers.

Maintenance (see also Part III.B.1.b.iii or Appendix D). Describe the preventive maintenance program, including how the following will be addressed: regular inspections, testing, maintenance, repair of all industrial equipment and systems to avoid situations that may result in leaks, spills, and other releases, and back-up practices in place should a runoff event occur while a control measure is off-line.

Spill Prevention and Response Procedures (see also Part III.B.1.b.iv or Appendix D). Describe areas and activities that typically pose a high risk for spills including loading and unloading areas, storage areas, process areas, and waste disposal activities and identify corresponding outfalls. Also, describe appropriate material handling procedures, storage requirements, containment or diversion equipment, and spill cleanup procedures that will minimize the potential for spills, or in the event of a spill, enable proper and timely response. Describe which employees are to be trained on proper procedures and requirements and which are responsible for ensuring that appropriate equipment is available to respond to spills.

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Erosion and Sediment Control (see also Part III.B.1.b.v or Appendix D). Describe areas that, due to topography, activities, soils, cover materials, or other factors have a high potential for significant soil erosion. The SWPPP must describe measures that are implemented to limit erosion in these areas.

Management of Runoff (see also Part III.B.1.b.vi or Appendix D). Describe the stormwater management practices that divert, infiltrate, reuse, or otherwise manage stormwater runoff that reduce the discharge of pollutants.

Employee Training (see also Part III.B.1.b.ix or Appendix D). Describe how personnel are to be trained and their responsibilities. The SWPPP must include a schedule for conducting this training.

Schedules and Procedures – Pertaining to Monitoring and Inspection Procedures (Part III.C.5.b)

This permit requires permittees to document in the SWPPP monitoring and inspection procedures that will be followed. For monitoring activities, the permittee must document in the SWPPP information such as locations where samples are to be collected, person(s) or position(s) responsible for collecting those samples, the frequency of sampling and the parameters to be sampled, applicable control values at each sample location, and procedures that will be followed to gather storm event data.

If an operator chooses to use the substantially identical outfall exception, he/she is required to describe in the SWPPP the locations of each of these outfalls, the general industrial activities conducted in the drainage area of each outfall, the control measures being implemented for each outfall, the exposed materials that are likely to be a significant contributor of pollutants to the stormwater discharge, an estimate of the runoff coefficient of the drainage area, and why the outfalls are expected to discharge substantially identical effluents.

For inspection activities, permittees must document procedures for performing the three types of inspections specified in the permit, namely, routine facility inspections (Part V.A.1), quarterly visual assessments (Part V.A.3), and Comprehensive Site Inspections (Part V.A.2). For each of these types of inspections, the SWPPP must include information such as person(s) or position(s) performing inspections, the inspection schedule, and specific items to be covered by the inspection.

Purpose: The Agency is requiring these documentation provisions to help ensure that appropriate monitoring and inspection procedures consistent with permit requirements are implemented. EPA believes documenting these activities will help to improve facility compliance with the requirements.

Signature Requirements (Part III.C.6)

This permit requires the permittee to sign and date the SWPPP consistent with procedures detailed in Part II.C.2 (standard permit condition for signatory requirements).

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Purpose: This requirement is consistent with standard NPDES permit conditions described in 40 CFR 122.22 and is intended to ensure that the permittee understands its responsibility to create and maintain a complete and accurate SWPPP. Permittees are allowed to appoint an authorized representative consistent with the regulations. Therefore, if a facility feels it is more appropriate for a member of the stormwater pollution prevention plan team to sign the documentation, that option is available under the permit. The signature requirement includes an acknowledgment that there are significant penalties for submitting false information.

Required Modifications (Part III.C.7)

This permit requires that the SWPPP be updated whenever any of the triggering conditions for corrective action in Part IV.A occur, or when a review following the triggering conditions in Part IV.B indicates that changes to the permittee's control measures are necessary to meet the effluent limits in this permit. The permit requires that the SWPPP be signed and dated by an authorized representative each time it is modified. Changes to the SWPPP must be made in accordance with Parts IV.C and IV.D.

It is important to note that failure to update the SWPPP in accordance with Part III.C.7 is a recordkeeping violation, not a violation of an effluent limit. For example, if the permittee changes its maintenance procedures, but fails to update its SWPPP to reflect these changes, a recordkeeping violation will result. The permittee must revise its SWPPP to reflect the new maintenance procedures and include documentation of the corrective action to return to full compliance.

Purpose: Part III.C.7 requires that the SWPPP document be modified, and signed and dated by the operator, whenever any of the listed scenarios occur. This requirement ensures that the SWPPP document will be kept up to date.

Recordkeeping (Part III.C.8)

Part III.C.8 of this permit describes recordkeeping requirements associated with activities covered under this permit. These include the original SWPPP and any modifications, so as to provide a traceable historical record of the SWPPP and its evolution, additional documentation, all reports and certifications required by the permit, monitoring data, and records of all data used to complete the NOI to be covered by this permit. Permittees must retain copies of these documents for a period of at least 5 years from the date that the permittee's coverage under this permit expires or is terminated.

Purpose: This permit requires permittees to maintain certain records to help them assess performance of control measures and as a way to document compliance with permit conditions. These requirements are consistent with Federal regulations at 40 CFR 122.41(j), but have been tailored to more closely reflect requirements of the 12-SW.

Additional Documentation Requirements (Part III.C.8)

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Part III.C.8 includes a list of documents, findings, activities, and information that must be kept with the permittee's SWPPP. See permit language for details.

Purpose: EPA requires documentation of various implementation activities, such as reports of routine facility inspections and descriptions of corrective actions, after facilities are authorized to discharge. This documentation is useful both for facility personnel and the Department (and other agencies) inspectors to assess overall performance of the control measures selected to meet the technology-based and water quality-based effluent limits in the permit.

7. Corrective Actions (Part IV)

Part IV explains that any failure to comply with the conditions of this permit constitutes a violation of the CWA. Where requirements and schedules for taking corrective actions are included, the time intervals are not grace periods, but are schedules considered reasonable for making repairs and improvements. For provisions specifying a time period to remedy noncompliance, the initial failure, such as a violation of a numeric or non-numeric effluent limit, constitutes a violation of the 12-SW and the CWA, and subsequent failure to remedy such deficiencies within the specified time periods constitutes an independent, additional violation of this permit and CWA. However, where corrective action is triggered by an event, which does not itself constitute permit noncompliance, such as an exceedance of an applicable benchmark, there is no permit violation provided the permittee takes the required corrective action within the deadlines in Part IV.C.

Conditions Requiring Review and Revision to Eliminate Problem (Part IV.A).

Permittees are required to review and revise the selection, design, installation, and implementation of their control measures in response to any of the following conditions:

- an unauthorized release or discharge occurs at the facility;
- a discharge violates a numeric effluent limit;
- the permittee becomes aware, or the Department determines, that control measures are not stringent enough for the discharge to meet applicable water quality standards;
- an inspection or evaluation of your facility by a Department official determines that modifications are necessary to meet the non-numeric effluent limits in Part 2.1.1; or
- a routine facility inspection, quarterly visual assessment, or comprehensive site inspection finds that control measures are not being properly operated and maintained.

The corrective action must ensure that any of the above conditions are eliminated and will not be repeated in the future.

Purpose: Part IV.A specifies conditions that, should they occur, trigger the need to review and modify existing control measures to resolve any deficiencies.

Comparison to 02-SW: The inclusion of this section from the EPA's MSGP provides better clarity as to what is expected of permittees covered by this permit. This improves upon the 02-SW's process for correcting deficiencies by providing greater specificity on the types of conditions that trigger the need for corrective actions and the required responses.

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Conditions Requiring Review to Determine if Modifications Are Necessary (Part IV.B). Permittees are required to review the selection, design, installation, and implementation of their control measures to determine if modifications are necessary to meet the Part III.B effluent limits if any of the following conditions occur:

construction or a change in design, operation or maintenance at the permittee's facility significantly changes the nature of pollutants discharged in stormwater from the facility, or increases the quantity of pollutants discharged; or
the average of quarterly sampling results exceeds an applicable benchmark.

If less than four benchmark samples have been taken, but the results are such that an exceedence by the quarterly average is mathematically certain (i.e., if the sum of quarterly sample results to date is more than four times the benchmark level) this is considered a benchmark exceedence, triggering this review.

Purpose: Part IV.B specifies conditions that, should they occur, require further review to determine whether revision of control measures is necessary.

Corrective Action Deadlines (Part IV.C). The permit includes specific deadlines for permittees to take corrective actions. Part IV.C requires that within 24 hours following identification or discovery of any of the conditions listed in Parts IV.A or IV.B, the permittee must document such discovery. Subsequently, within 14 days of the discovery, the permittee must document corrective actions taken or to be taken to eliminate the condition and any additional review necessary to further investigate the condition. If the permittee determines that changes are necessary following the review, any modifications to the control measures must be made before the next storm event if possible, or as soon as practicable following that storm event.

Purpose: This provision stipulates time limits for implementing corrective actions to remedy the Part IV.A or IV.B conditions. The time limits are those that EPA considered reasonable in the MSGP, for documenting that a problem has been identified and then conducting the required analysis and making any necessary repairs or modifications. These timeframes are included to ensure that deficiencies are corrected expeditiously. Failure to take the required corrective action within the stipulated time limit constitutes an independent permit violation. EPA does not expect the initial documentation to be detailed but merely to acknowledge the date of the finding and a general discussion of the findings of the review that necessitates corrective action. More detailed documentation, as described below, continues to be required within 14 days of the discovery.

Corrective Action Report (Part IV.D). For any event described in Parts IV.A or IV.B of the permit, permittees must document basic information describing the event and the permittees' response to that event. As described above, the permit establishes conditions for both 24-hour and 14-day response periods. EPA had developed a Corrective Action Form for use by permittees of the MSGP to clarify expectations for documentation of conditions triggering a response and the details of the response taken. Although permittees can make use of the format if they wish, the Department decided to allow for full flexibility by the permittee as long as they were acknowledging and addressing the problem. For triggering events in Part IV.B, where the permittee determines that revision to control

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measures is not necessary, the permittee should still document the review and the basis for this determination. As described elsewhere in the permit, permittees are required to maintain a copy of this documentation with their SWPPP as well as include this information in an annual report.

Effect of Corrective Action (Part IV.E). The permit clarifies that if the condition triggering the corrective action review is a permit violation (e.g., exceedance of an effluent limit), correcting it does not remove the original violation. Additionally, failure to take corrective action in accordance with Part IV is a separate, additional permit violation. The Department will consider the appropriateness and promptness of corrective action in determining enforcement responses to permit violations.

Purpose: Part IV.E clarifies the Department's intention with regard to the effects of taking appropriate corrective actions on the underlying violation.

8. Inspections (Part V.A)

This permit requires permittees to conduct three types of inspections: routine facility inspections, quarterly visual assessments, and comprehensive site inspections. Each is described in more detail below.

Routine Facility Inspections (Part V.A.1)

To clarify inspection requirements for permittees, the Department includes the routine facility inspections in this section along with the other types of site inspections required under this permit (i.e., quarterly visual assessments and comprehensive site inspections).

Permittees are required to conduct routine inspections, at least quarterly, of all areas of the facility where industrial materials or activities are exposed to stormwater, and of all stormwater control measures used to comply with the effluent limits required by the 12-SW. Qualified personnel must conduct the routine facility inspections with at least one member of the Pollution Prevention Team participating. Because some equipment, processes, and procedures may require more frequent inspections, the relevant inspection schedules must be documented in the SWPPP. For example, inspection of outdoor areas associated with regular industrial activity may require more frequent inspections to ensure that the site is swept, garbage picked up, drips and spills cleaned, etc. on a regular basis. The permit elaborates on the specific information to be documented for each routine inspection. Most importantly, this documentation must include when the inspection took place, who conducted the inspection, and any indication that controls may not be adequate or are not functioning properly. The findings of these routine inspections must be maintained on-site with the SWPPP.

Some industry sectors have more specific routine inspection requirements, which are described in more detail in Appendix D of the permit for the relevant sectors.

At least once each calendar year, the routine facility inspection must be conducted during a period when a stormwater discharge is occurring. As permittees are already required to perform visual monitoring, and benchmark monitoring during storm events, the Department

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does not believe this imposes significant additional burden on permittees. However, the Department does see this as a potentially important tool for the permittee to be able to better identify sources of pollutants discharged in stormwater runoff from the facility and to actively observe the effectiveness of control measures.

- *Purpose:* Routine inspections help ensure that stormwater control measures are adequate and are operated and maintained properly.

Comprehensive Site Inspections (Part V.A.2)

This permit requires that permittees conduct comprehensive site inspections at least once a year for the entire permit term, even if the permit were to be administratively extended.

Comprehensive site inspections may be conducted simultaneously with other site inspections (such as with the routine facility inspection described in permit section V.A.1), provided the scope is sufficient to address the minimum requirements of the comprehensive site inspection. Qualified personnel must conduct inspections, and the inspection team must include at least one member of the Pollution Prevention Team. Qualified personnel are those who possess the knowledge and skills to assess conditions and activities that could impact stormwater quality at the facility, and who can also evaluate the effectiveness of controls selected. Permittees may hire outside contractors to perform these inspections; however, signature and certification of inspection reports must be by a duly authorized representative of the facility, as defined in Part I.C.2.

Note that the comprehensive site inspections are not the same as routine facility inspections. Routine facility inspections (Part V.A.1) are required more frequently and are meant to be less formal evaluations of the facility's exposed industrial activities so that permittees have a mechanism for ensuring that problems are not developing. Comprehensive site inspections, as the term implies, include a much more in-depth review of the site and all operations, as they relate to stormwater management and the requirements of this permit.

The comprehensive site inspection must cover all areas of the facility affected by the requirements in the permit including areas where industrial materials or activities are exposed to stormwater, stormwater control measures used to comply with the effluent limits, and areas where any leaks, spills, or other accidental discharge may have occurred in the last 3 years. EPA developed an Annual Report Form for the MSGP, which may be used by the permittee. However the Department relies on a flexible approach for the permittee to issue in the format that works best for them.

The permit identifies the specific activities that may occur at the facility that are to be inspected. Also, the comprehensive site inspection must include observation of stormwater control measures used to meet permit requirements to assess the adequacy of these control measures, including any measures in need of maintenance, repair, or replacement or where additional controls are needed.

The results of each comprehensive site inspection must be documented in a report signed and certified by an authorized company official in accordance with Part I.C.2 of the permit

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and kept with the SWPPP. In addition to documenting findings of the assessment and observations described above, the report must also include basic inspection information (e.g., inspectors, date, and NPDES permit number), must certify if the facility is in compliance with the permit, and must describe any corrective action initiated or completed during the reporting period or required as a result of the inspection.

Purpose: This provision requires a permittee to conduct an on-site inspection to ensure its facility is in compliance with all relevant requirements in the 12-SW. The comprehensive site inspection is intended to be more thorough and detailed than the routine inspections conducted at least quarterly. The Department does require that control measures be assessed during stormwater discharge for at least one of the routine inspections, but not necessarily during this comprehensive review.

Annual Report from Comprehensive Site Compliance Evaluation (Part V.A.2)

The permit requires all permittees to prepare an annual report that contains the results of the required comprehensive site inspection and a discussion of corrective actions required and/or taken at any time since the previous comprehensive site inspection or, for the first comprehensive inspection required under this permit, since permit authorization. These annual reports must be submitted (i.e., printed) and placed with the SWPPP within 45 days after conducting the comprehensive site inspection. In addition to the information required in the corrective action report (Part IV.D) and comprehensive site inspection report (Part V.A.2.b), the permittee is required to include the facility name, the NPDES permit tracking number, the facility physical address, and the contact person's name, title, and phone number. To simplify this reporting requirement, EPA had developed an annual report form, a copy of which is included in their MSGP as Appendix I. The Department is flexible in the format of the report, but Permittees certainly can use the EPA's form to conduct these inspections and report results of those inspections.

Purpose: The Department is requiring creation of an annual report to gather information from permitted facility to identify potential water quality concerns and to assess compliance with permit provisions. Prior to inclusion of this requirement, permittees (i.e., those with no benchmark) have little required documentation, other than an updated SWPPP. If the Department's inspector shows up on-site, there is now a basis to assess compliance with the permit.

Quarterly Visual Assessment of Stormwater Discharges (Part Part V.A.3)

This permit includes this requirement from the MSGP, to conduct quarterly visual examinations of stormwater discharges. All industrial sectors covered by this permit are required to conduct these examinations. This permit requires that grab samples of stormwater discharges be taken and examined visually for the presence of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of stormwater pollution. No analytical tests are required to be performed on these samples. The grab samples must be taken within the first 30 minutes or as soon as

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practicable after the occurrence of an actual discharge from your site (including documentation of why sampling was not practicable within the first 30 minutes). The trigger for visual monitoring is simply that the precipitation event causes an actual discharge to occur, and conditions specific to the monitoring of snowmelt. Specifically, in areas subject to snow, the 12-SW now requires that at least one of the quarterly samples be collected from snowmelt. For practical purposes, the permit does not require that these snowmelt samples be collected within the first 30 minutes of discharge as is the case for samples collected during rain events.

Permittees must document the results of their visual assessments in a report that includes the sample location, date and time, personnel collecting the sample and performing visual assessments, results of the observations, and probable sources of any observed stormwater contamination. The visual examination reports must be maintained onsite with the SWPPP. A reporting form with some guidance is provided in Appendix B.

When conducting a stormwater visual examination, the pollution prevention team, or individual team member, should attempt to relate the results of the examination to potential sources of stormwater contamination on the site. For example, should an oil sheen be observed, facility personnel (preferably members of the pollution prevention team) should conduct an inspection of the area of the site draining to the examined discharge to look for obvious sources of spilled oil, leaks, etc. If a source can be located, then this information would allow the facility operator to immediately conduct a clean-up of the pollutant source, and/or to revise control measures to minimize the contaminant source.

The permit includes exceptions to these requirements in order to account for circumstances during which conducting quarterly visual assessments may not be infeasible, namely during adverse (e.g., dangerous) weather conditions. Where these types of conditions prevent a facility from performing these assessments quarterly, permittees have the ability to modify their assessment schedule such that the four assessments are conducted over the course of the year during periods when discharges, be it from rain or snow, actually occur and can be safely observed.

Operators with two or more essentially identical outfalls may also elect to conduct a visual assessment at just one of these outfalls each quarter, but must perform their quarterly assessments on a rotating basis to ensure that each substantially identical outfall is periodically observed throughout the period of permit coverage. If stormwater contamination is identified through visual monitoring performed at a substantially identical outfall, the operator must assess and modify his/her control measures as appropriate for each outfall represented by the monitored outfall. This approach ensures that operators will assess discharges from the entire site over the term of the permit, and will address any identified problems at all substantially identical outfalls where the problem may be occurring.

- *Purpose:* These assessments provide a useful and inexpensive means for permittees to evaluate the effectiveness of their control measures. Although the visual examination cannot assess the chemical properties of the stormwater discharged from the site, the examination will provide meaningful results upon which the permittee may act quickly.

9. Benchmark Monitoring (Part V.B)

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The Department is implementing similar benchmark monitoring to the MSGP, however only for limited number of industries. Benchmark monitoring requirements described in Part V.B of this permit require permittees to collect stormwater samples for laboratory chemical analyses. Also included are the provisions for adjusting benchmarks based on hardness for certain metals, to provide additional protection for sensitive aquatic species.

Background on EPA's benchmarks.

During development of the MSGP, EPA received substantial public comment on the value of benchmark monitoring. EPA responded to those comments, in part, by indicating that "considering the small number of samples required per monitoring year (four), and the vagaries of stormwater discharges, it may be difficult to determine or confirm the existence of a discharge problem" EPA acknowledged that "when viewed as an indicator, analytic levels considerably above benchmark values can serve as a flag to the operator" that his/her control measures "need to be reevaluated and that pollutant loads may need to be reduced." Alternatively, the Agency indicated that analytic levels below or near benchmarks can confirm to the operator that his/her control measures are doing their intended job. EPA also stated that "there is presently no alternative that provides stakeholders with an equivalent indicator of program effectiveness." (see 65 Fed. Reg. 64796, October 20, 2000) This response, from the MSGP, continues to represent EPA's thinking regarding the appropriate use of analytical monitoring. Furthermore, EPA strengthened the benchmark monitoring requirements by requiring permittees to document any corrective action review of their control measures that is triggered by benchmark exceedances and to make modifications where these measures are inadequate. The Department adopted this approach by including the corrective action review at the same time the benchmark requirements are added.

EPA also committed to "...using data from the 1995 and 2000 permits to evaluate the effectiveness of management practices on an industry sector basis and to evaluate the need for changes in the monitoring protocols for the next permit." EPA prepared an analysis of benchmark data for this permit, which is available in the docket (see memorandum entitled "Review of Discharge Monitoring Report Data From the 2000 NPDES Industrial Stormwater Permit Program"). EPA determined, based on that analysis, that available analytic monitoring data indicate that many facilities report exceedances of benchmark values. To further EPA's understanding of the links between stormwater pollutant discharges and ambient water quality, and to assess the state of the science of stormwater management, the Agency began using collected data to study those eight to ten industrial sectors that they felt to be of highest priority in terms of pollutant discharges. Their intent was to:

1. Clarify the mechanisms by which pollutants in stormwater discharges affect ambient water quality criteria and define the elements of a protocol to link pollutants in stormwater discharges to ambient water quality criteria;
2. Consider how useful monitoring is for both determining the potential of a discharge to contribute to an exceedance of applicable water quality standards and for determining the adequacy of stormwater control measures;
3. Assess and evaluate the relationship between different levels of stormwater control and in-stream water quality, considering a broad suite of control measures;

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Ultimately the collection of Benchmark data would allow the Agency to assess the design of the stormwater permitting program implemented under the Clean Water Act. It is useful to understand the origin of the benchmarks established when considering which would ultimately be used for the Department's permit.

Changes to Applicability of Benchmark Monitoring Requirements (Part 6.2.1.1)

As described above, EPA is requiring benchmark monitoring; however, the Agency did make numerous improvements to this framework to enhance its usefulness overtime, in identifying potential water quality concerns and opportunities to improve the effectiveness of the measures taken to meet the effluent limits.

Also, while some provisions have changed overtime, the EPA did perform a more detailed analysis on the benchmark monitoring provisions generally. This analysis provided the basis for the following decisions regarding benchmark monitoring requirements:

- Not requiring TSS monitoring for all sectors
- Retaining TSS benchmark at 100 mg/L
- Adopting hardness-dependent benchmarks for certain metals
- Allowing for consideration of natural background pollutant levels.

A discussion of each of these areas follows.

Not Requiring TSS Monitoring for All Sectors.

Purpose: As noted above, EPA has revised their selection of benchmark. TSS is one of those changed due to expressed concern about the burden of additional TSS monitoring and questioned its value. Some asserted that it was either redundant with other benchmark parameters, or not applicable to particular facilities. As discussed above, EPA had charged the NRC with conducting a study of its stormwater program, with a special focus on benchmark monitoring, its effectiveness, and potential alternative approaches for identifying water quality concerns or verifying the effectiveness of stormwater control measures. EPA chose to not require all industrial sectors to monitor for TSS until both EPA and the public had an opportunity to interpret the results of the NRC study and identified appropriate steps to implement measures consistent with the findings of that report. In their issued permit, EPA had instead chosen to continue the amount of benchmark monitoring that was required in earlier MSGPs, and to enhance its usefulness by adjusting benchmarks where appropriate, and requiring more accountability from facilities in using benchmark results to assess the effectiveness of their stormwater programs and make appropriate changes. EPA expects that implementation of these changes, along with the results of the NRC study, will inform its evaluation as to whether benchmark monitoring should be continued, expanded, or replaced by an alternate method of assessing control measure effectiveness.

Retaining TSS Benchmark at 100 mg/L.

EPA is retaining the TSS benchmark at the level of 100 mg/L consistent with previous permits and as proposed. This decision is based on a number of factors, including recent

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scientific literature supporting this benchmark concentration and EPA's best professional judgment. EPA notes generally that reduction in TSS loading improves aquatic habitat and water quality.

Purpose: EPA has concluded that the 100 mg/l concentration is a reasonable benchmark. Alternative levels suggested by public comments ranged from 10 mg/L to 546 mg/L. In EPA's opinion, a benchmark of 10 mg/L, applied broadly across all the areas covered by this permit, is too burdensome for permittees to meet. Established effluent limits for TSS associated with industrial stormwater have been set at between 20 and 88 mg/L. These limits are generally established on an industry or site-specific basis, in contrast to the TSS benchmark in this permit, which should be set so as to be achievable by a range of facilities over a wide range of industries.

As described above, proper selection, design, installation, and implementation of control measures can reduce TSS concentrations in many cases. For example, good housekeeping practices, such as sweeping or diverting stormwater flows, can reduce TSS concentrations in stormwater. In other cases, TSS can be reduced by control measures such as bioretention, settling mechanisms, and other types of treatment devices. Most facilities have been able to meet the 100 mg/L benchmark in MSGP. In many cases, reported TSS concentrations in industrial stormwater runoff did not exceed the MSGP benchmark for TSS of 100 mg/L. In an analysis of discharge monitoring report (DMR) data from more than 775 facilities covered by the MSGP, approximately 63 percent of the TSS samples met the benchmark (Tetra Tech, 2006⁸).

Some State monitoring programs have shown that many industrial stormwater permittees are able to meet the TSS benchmark requirements. For example, the San Francisco Bay region requires TSS sampling for all facilities. Approximately 74% of samples met the 100 mg/l Benchmark between 2001, and 2002 and 86% of samples met the 100 mg/L Benchmark between 2003 and 2004.

In the cases where facilities exceed the 100 mg/L TSS benchmark, the final permit allows the permittee to document whether the exceedance is attributable to natural background contamination or if further reductions are not technologically available and economically practicable and achievable in light of best industry practice. However, except in these cases, the operator must undertake corrective action to reduce the pollutant concentration in its discharge.

Requiring Hardness Data for Certain Metals Benchmarks.

The benchmark values, based on water quality criteria of some metals, are dependent on water hardness. In their permit, EPA is requiring permittees to determine the hardness of their receiving water for these parameters. The Department agrees with this approach. Once the site-specific hardness data have been collected, benchmark values are calculated using a conversion table based on 25 mg/L incremental hardness ranges.

⁸ Tetra Tech, Inc. 2006. Review of Discharge Monitoring Report Data From the 2000 NPDES Industrial Stormwater Permit Program. Technical Memorandum to Jack Faulk, U.S. Environmental Protection Agency. Tetra Tech, Inc., Clemson, SC, and Fairfax, VA.

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Purpose: During consultation prior to the issuance of MSGP, the public's expressed concern that creating a benchmark value based on water quality standards with a hardness value of 100 mg/L would not be adequately protective of endangered species in receiving waters where the hardness is below 100 mg/L. Based on this concern, EPA opted to require permittees to collect hardness data to calculate the benchmark. Since many waters have hardness values of 100 mg/L or higher, EPA opted not to lower the hardness value for all dischargers as this would create unnecessarily stringent benchmarks for some dischargers. Rather, and for simplicity, EPA tabulated applicable hardness-dependent benchmarks using 25 mg/L hardness increments. For most metals, the benchmark level for a 0-25 mg/L hardness range is set at the water quality standard based on a hardness of 25 mg/L. (For silver, because of concerns with available analytical tests and detection limits, EPA used a low-end hardness level of 37.5 mg/L for calculating the applicable silver benchmark.) For every other hardness range, the benchmark is based on the mean hardness value (e.g., for a hardness range of 75-100 mg/L, benchmarks are based on a hardness of 87.5 mg/L). For calculating hardness-dependent benchmarks, EPA is limiting the maximum hardness to 250 mg/L to be protective of downstream receiving waters.

This approach addresses the public's concerns with minimal additional burden on permittees. Gathering data for hardness in the receiving stream provides an appropriate way to obtain representative benchmark values that are representative of local conditions and that provide a more meaningful assessment of potential impacts on endangered species.

Updated Benchmark Values

Based on DMR data reported under previous permits, EPA believed that most facilities with effective control measures can meet their targets. Monitoring data suggested that the proposed benchmarks were achievable in general for the industries to which they will apply, although some facilities may need to make improvements to their controls to meet these benchmarks. Facilities may also demonstrate that exceedances are due to natural background, or that discharges cannot be further minimized if they believe this is the case.

For their permit, EPA identified methods for all but one pollutant parameter (total magnesium) that have a ML below the applicable water quality criterion. Where there are no established EPA water quality criteria, EPA used other sources of data to determine the appropriate benchmark value. The process that EPA followed in selecting the benchmark values for their permit is as follows: Step 1: Use the promulgated acute criterion value; Step 2: If no EPA acute criterion exists, use the chronic criterion; Step 3: If neither acute nor chronic criteria exist, use data from runoff studies or technology-based standards to establish a benchmark.

For most parameters for which EPA used the basis of the benchmark as the water quality basis, the freshwater acute water quality criteria were selected. In general, the freshwater acute criteria are less restrictive than chronic water quality criteria. Because of the intermittent nature of wet weather discharges and the high ambient flows that generally result from precipitation events, EPA viewed acute criteria as generally more appropriate than chronic criteria. This approach is consistent with the Department's, and the MSGP benchmarks were used based on this sound criteria.

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Table 2 presents a comparison of the MSGP and 12-SW benchmark values, and the source of those values. Not all benchmarks were used in the 12-SW, in fact not all industries were selected. This was not viewed as backsliding, since exceeding benchmarks are not permit violations. However, collections and analysis of the industries selected will give the Department more information on certain metals and the effectiveness of control measures to address them.

In some cases (i.e., arsenic and selenium) EPA is using chronic freshwater criteria for setting benchmarks. In general, EPA prefers not to weaken a discharge requirement unless good scientific evidence exists that a pollutant is less toxic than previously believed. This is not the case with arsenic. Furthermore, arsenic toxicity increases substantially in saline waters (the saltwater acute criterion value is 0.069 mg/L). Since many permitted facilities are located in coastal states, and their discharge may reach saline waters quickly, EPA believed use of the chronic criteria for arsenic is warranted to protect these estuarine environments. Additionally, the revised benchmark for arsenic of 0.15 mg/L is not significantly different from their previous benchmark of 0.17 mg/L that had been based on 3.18 times the MDL. Hence, EPA selected the chronic criterion, but may revisit this benchmark in future permits.

The changes in methods and MDLs for cadmium, copper, cyanide, selenium, and silver are provided in Table 3. (Note: The source of the cost for each method was based on laboratories that specialize in effluent monitoring analysis). Additional supporting data are available in the EPA's docket for their permit.

Table 2. Comparison of MSGP and 12-SW Benchmark Values.		
Pollutant	MSGP Benchmark	Included in 12-SW
Ammonia*	2.14 mg/L	No
Biochemical Oxygen Demand (5 day)	30 mg/L	No
Chemical Oxygen Demand	120 mg/L	Yes
Total Suspended Solids	100 mg/L	Yes
Turbidity	50 NTU	No
Nitrate + Nitrite Nitrogen	0.68 mg/L	Yes
Total Phosphorus	2.0 mg/L	Yes
pH	6.0 – 9.0 s.u.	No
Aluminum (T)	0.75 mg/L	Yes
Antimony (T)	0.64 mg/L	No
Arsenic (T)	0.15 mg/L	No
Beryllium (T)	0.13 mg/L	No
Cadmium (T)†	0.0021 mg/L	No
Copper (T)*†	0.014 mg/L	Yes
Cyanide	0.022 mg/L	No
Iron (T)	1.0 mg/L	Yes
Lead (T)*†	0.082 mg/L	Yes
Magnesium (T)	0.064 mg/L	No
Mercury (T)	0.0014 mg/L	No
Nickel (T)†	0.47 mg/L	No
Selenium (T)*	0.005 mg/L	No

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Silver (T)*†	0.0038 mg/L	No
Zinc (T)†	0.12 mg/L	Yes

(T) Total recoverable

* New criteria are currently under development, but values are based on existing criteria.

† These pollutants are dependent on water hardness. The benchmark value listed is based on a hardness of 100 mg/L. When a facility analyzes water samples for hardness, the permittee must use the hardness ranges as described in Appendix C of the 12-SW permit to determine the applicable benchmark value for that facility.

Sources:

1. "National Recommended Water Quality Criteria." Acute Aquatic Life Freshwater (EPA-822-F-04-010 2006-CMC)
2. "EPA Recommended Ambient Water Quality Criteria for Beryllium." LOEL Acute Freshwater (EPA-440-5-80-024 October 1980)
3. "National Recommended Water Quality Criteria." Chronic Aquatic Life Freshwater (EPA-822-F-04-010 2006-CCC)
4. Secondary Treatment Regulations (40 CFR 133)
5. Factor of 4 times BOD5 (5 day biochemical oxygen demand) concentration - North Carolina Benchmark
6. North Carolina stormwater Benchmark derived from NC Water Quality Standards
7. National Urban Runoff Program (NURP) median concentration
8. Minimum Level (ML) based upon highest Method Detection Limit (MDL) times a factor of 3.18
9. Combination of simplified variations on Stormwater Effects Handbook, Burton and Pitt, 2001 and water quality standards in Idaho, in conjunction with review of DMR data.
10. "National Ambient Water Quality Criteria." Acute Aquatic Life Freshwater. This is an earlier version of the criteria document that has subsequently been updated. (See source #1)
11. "National Ambient Water Quality Criteria." Chronic Aquatic Life Freshwater. This is an earlier version of the criteria document that has subsequently been updated. (See source #3)
12. "National Ambient Water Quality Criteria." Human Health For the Consumption of Organism Only (EPA-822-F-01-010 2006)
13. Consistent with many state numeric Water Quality Criteria. This Benchmark was agreed to in negotiations for the 1998 modification to the 1995 MSGP (63 FR 42534).
14. "Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses." USEPA Office of Water (PB85-227049 January 1985).

Table 3. Methods, MDL, and Cost Table ¹ Pollutant	Previous Analytical Method			New Analytical Method		
	Method ID	MDL	Cost/sample	Method ID	MDL	Cost/Sample
Cadmium	200.7	4 ug/L	\$10	200.8	0.5 ug/L	\$12
Copper	220.1	20 ug/L	\$20	200.8	0.09 ug/L	\$12
Cyanide	335.2	20 ug/L	\$40	335.3	4 ug/L	\$40
Selenium	200.7	75 ug/L	\$10	270.2	2 ug/L	\$20
Silver	272.1	10 ug/L	\$20	200.8	0.11 ug/L	\$12

¹ Depending on the number of parameters analyzed, the laboratory may require a sample handling or digestion fee.

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Purpose: EPA recognized that use of the more sensitive methods involves somewhat higher analytical costs, and noted that the estimated cost increases are between \$2 (20 percent increase) and \$10 (100 percent increase) per sample. EPA believed these higher costs were justified because use of the more sensitive methods that have an ML below the applicable acute (or chronic) value will provide information to EPA that may be used to assess potential water quality problems. In the case of nickel, the acute water quality criterion that was the basis of the previous benchmark was revised downward in 1996, but the lower benchmark does not require use of a new analytical method.

Addressing Natural Background Pollutant Levels.

EPA has included in the MSGP, as has the Department in 12-SW, an option for permittees to justify benchmark exceedances based on local natural background concentrations. EPA recognized that there may be circumstances where benchmark values reasonably may not be achieved. For example, high natural background levels of iron in soils or groundwater could cause exceedances of a benchmark value.

Part V.B.3.c of the permit allows for an exception from evaluation of control measures and further benchmark monitoring when natural background levels are solely responsible for the exceedance of a benchmark value. This can be determined if (1) natural background pollutant concentrations are greater than the corresponding benchmark value, and (2) there is *no* net facility contribution of the pollutant (i.e., average concentration detected in runoff from all facility outfalls required to be monitored under the 12-SW for 4 separate events minus the average natural concentration of the parameter for 4 separate events does not exceed zero). For example, if a facility determines that the natural background concentration of TSS from an undisturbed watershed is 200 mg/L, they can claim an exemption from further benchmark monitoring if the average of their four benchmark samples is equal to or lower than 200 mg/L. In this example, if the average of their four benchmark samples is greater than 200 mg/L, the facility could not claim this exception.

This natural background exception could apply to parameters such as metals derived from natural mineral deposits and nutrients attributable to background soil, vegetation, or wildlife sources. If background concentrations are not responsible for the benchmark exceedance, the facility will need to review its control measures and take further action where necessary as required in Part III.B.2 III.B.2 of this permit. Facilities must use the same sample collection, preservation, and analysis methods for natural background monitoring as required for benchmark monitoring.

After monitoring for 4 quarters and adequately determining that exceedances are the result of pollutants present in the natural background, permittees must notify the Department of these findings to claim the natural background exception. The exception allows the permittee to avoid the requirement for further evaluation of the effectiveness of control measures and to discontinue further benchmark sampling after the first year of permit coverage. To do this, the permittee must document the basis for concluding that benchmark exceedances are attributable solely to natural background pollutant levels. This explanation must include any data previously collected by the facility staff or others that describe the levels of natural background pollutants in the facility's receiving waters. The permittee must notify the Department when submitting its monitoring data that it is claiming the exception

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for natural background pollutant levels and provide a summary of the natural background conditions that justify the exception. The full justification for this exception must be kept on-site with the facility's additional documentation (see Part III.C.8), and made available to the Department on request.

The following information, describing the rationale for claiming the natural background exception, must be documented and kept onsite with the facility's SWPPP:

Map showing the reference site location in relation to facility along with available land cover information

- Reference site and test site elevation

- Available geology and soil information for reference and test sites

- Photographs showing site vegetation

- Site reconnaissance survey data regarding presence of roads, outfalls, or other human-made structures

- Records from relevant state or federal agencies indicating no known mining, forestry, or other human activities upstream of the proposed reference site

The background concentration of a pollutant in runoff from a non-human impacted reference site in the same watershed should be determined by evaluation of ambient monitoring data or by using information from a peer-reviewed publication or a local, state, or federal government publication specific to runoff or stormwater in the immediate region. Studies that are in other geographic areas, or are based on clearly different topographies or soils, are not eligible. When no data are available, and there are no known sources of the pollutant, the background concentration should be assumed to be zero.

In cases where historic monitoring data from a site are used for generating a natural background value, and the site is no longer accessible or able to meet reference site acceptability criteria, then there must be documentation (e.g., historic land use maps) that the site did meet reference site criteria (indicating absence of human activity) during the time data collection occurred⁹.

The Department may review a permittee's determination that a benchmark exceedence is based solely on natural background concentrations, and disallow the exception if it finds the documentation inadequate

Purpose: EPA's experience found that natural background levels were the specific cause of several permittee's benchmark exceedences. In these instances, when industrial activity was not contributing to the pollutant concentrations causing these exceedences, EPA provided permittees an option to discontinue benchmark monitoring. This waiver was only available for benchmark monitoring.

Benchmark Monitoring Schedule (Part V.B.2)

Facilities required to conduct benchmark monitoring must do so in each of the first 4 quarters of permit coverage, starting once access to NetDMR is provided.

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Following the first 12 months (4 quarterly or otherwise consecutive monitoring events) of monitoring, if the average of the 4 monitoring values for any parameter does not exceed the benchmark, the permittee has fulfilled the benchmark monitoring requirements for that parameter for the duration of the permit term for that pollutant.

However, if the average of the 4 quarters of monitoring values exceeds any benchmark for a parameter, the permittee must evaluate his/her control measures to determine if modifications are necessary to meet the effluent limits in the permit. If so, the facility must either:

Make the necessary modifications and monitor the pollutant for 4 additional quarters. Quarterly sampling must be continued until the discharger has completed 4 quarters of monitoring of that pollutant for which the average does not exceed the benchmark; or

Make a determination that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice to meet the permit's technology-based effluent limits, or necessary to meet the permit's water quality-based effluent limits. If the permittee makes this determination, the accompanying rationale must be included in the post-SWPPP documentation. No further corrective action is required, but the permittee must monitor annually for the pollutant for the remainder of the permit term and notify the Department in the first monitoring report of the permittee's determination.

If the permittee determines after 4 quarters of monitoring that a benchmark was exceeded solely as a result of natural background levels, the permittee may document this determination and discontinue further benchmark monitoring.

For averaging purposes, any parameter determined to be less than the method detection limit (MDL) can be assumed to be zero. For sample results that fall between the MDL and the quantitation level (i.e., detected but not quantifiable with certainty), use a value halfway between zero and the quantitation level. In any case, reports provided to the Department must provide either the detected value, notice that the concentration is below the method detection level, or notice that the pollutant is present but not quantifiable (and the quantitation level).

Purpose: The Department is requiring quarterly monitoring over the course of a year, with the average of the 4 samples of any parameter to be compared with benchmark values for that pollutant. Based on an evaluation of discharge monitoring data collected under the MSGP, EPA believed that it is most appropriate to commence monitoring soon after obtaining authorization to discharge, rather than in the second year of permit coverage. Thus the Department will be motivated to provide access to NetDMR as quickly as possible.

Benchmarks are not effluent limits, and exceedances of benchmarks are not permit violations. Rather, exceedance of a benchmark is an indicator to the operator that there may be a problem with his/her control measures, or the discharge may be adversely affecting water quality. Dischargers are thus required to evaluate their control measures when benchmarks are exceeded to determine if further minimization of the pollutant of concern is possible. If so, corrective action must be undertaken, and additional monitoring of the benchmark parameter must be conducted to allow the facility to assess the

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effectiveness of the revised control measures. If the operator determines that no further minimization is possible, this must be documented and benchmark monitoring continued on an annual basis. This will provide the Department with additional data to support its re-evaluation of benchmarks for the next permit cycle. The Department may choose to inspect such facilities to assess the validity of the operator's determination that no further pollutant minimization is possible.

Reporting Monitoring Data (Part V.B.4)

All monitoring data must be submitted to the Department using EPA's online NetDMR no later than 30 days after a permittee has received their complete laboratory results for all monitored outfalls for the reporting period. The online system will allow permittees to easily submit monitoring results to the Department.

10. Monitoring Procedures (Part V.C)

This permit requires certain permittees to sample and analyze their stormwater discharges as a way to assess the effectiveness of control measures in meeting the effluent limitations. Analytical monitoring is a means by which to measure the concentration of a pollutant in a stormwater discharge. Analytical results are quantitative and therefore can be used to compare discharge results and to quantify the effectiveness of stormwater control measures, including identifying pollutants that are not being successfully controlled. Part V.C of the permit identifies procedures for collecting samples and identifies where to sample, when to sample, and what to sample.

10.1 Monitored Outfalls (Part V.C.1)

The monitoring requirements in the permit apply to each outfall discharging stormwater associated with industrial activity, unless the permittee qualifies for the substantially identical outfalls exemption as described in this section. To be considered substantially identical, outfalls must have generally similar industrial activities, control measures, exposed materials that may significantly contribute pollutants to stormwater, and runoff coefficients of their drainage areas. When a permittee believes its facility has two or more outfalls that qualify as substantially identical, the permittee may monitor one of these outfalls and report that the quantitative data also apply to the other substantially identical outfalls. The permittee must also document the location of each of the outfalls and explain why the outfalls are expected to discharge substantially identical effluent, addressing each of the factors to be considered in this determination (industrial activities, control measures, exposed materials and runoff coefficients). Operators do not need advance the Department approval for this determination, however, the Department may subsequently determine that outfalls are not substantially identical and require sampling of additional outfalls.

Purpose: This substantially identical outfall provision provides facilities that have multiple stormwater outfalls with a means to reduce the number of outfalls that must be sampled and analyzed while still providing monitoring data that are indicative of discharges from each outfall. This may result in a substantial reduction of the resources required for a facility to comply with analytical monitoring requirements.

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10.2 Commingled Discharges (Part V.C.2)

If stormwater discharges associated with industrial activity commingle with discharges not authorized by this permit (e.g., unregulated stormwater or other permitted wastewater), then permittees must sample the stormwater discharge before it mixes with the other discharges when practicable.

Purpose: The commingled discharge provision is intended to ensure that monitoring results are representative of discharges covered under this permit and not indicative of other discharges from the site. EPA acknowledges that in certain instances, such as when authorized discharges are commingled with other waste streams prior to on-site treatment, sampling only authorized waste streams may be inappropriate or infeasible.

10.3 Measurable Storm Events (Part V.C.3)

This permit specifies the characteristics of a measurable storm event as an event that results in a discharge from the permitted facility. Samples must be collected from the discharge resulting from a storm event that occurs at least 72 hours (3 days) after a previous measurable storm event. The 72-hour (3-day) requirement may be waived by the permittee where the permittee documents that less than a 72-hour (3-day) interval is representative for local storm events during the season when sampling is being conducted. This permit adds a provision that allows for sampling of snowmelt in addition to stormwater runoff. The 72-hour (3-day) requirement does not apply to snowmelt as the actual discharge is not clearly tied to a specific snow event (i.e., may be the accumulation from multiple events). The permit also specifies the type of documentation required to show consistency with this requirement.

Purpose: The measurable storm event provision in the permit requires only that a storm event **results in a discharge** from the permitted facility, and that it follows a period of greater than or equal to 72-hours (3-days) when no stormwater discharge occurred. The 72-hour (3-day) period is included in an attempt to eliminate monitoring discharges soon after a previous storm event washed away residual pollutants. By defining a storm event as one that *results in discharge*, rather than prescribing a minimum magnitude, it affords the permittee flexibility to sample during any storm event that produces a discharge, rather than having to ensure that minimum magnitude is reached. The purpose of be consistent with the EPA on what the measurable event is to capture and characterize actual stormwater discharge. The provision also provides flexibility to address snowmelt discharges when they occur, rather than based on when the storm producing the snowfall occurred.

The Department used EPA's MSGP provision for monitoring snowmelt since there may be occasions when facilities covered under this permit may have extended periods of freezing temperatures and snow events that do not meet the Department's definition of measurable storm events. The referenced EPA definition is a measurable storm event for snowmelt to be an event which at some point in time produces a measurable discharge at the site, though not necessarily during the storm event itself. The permit also clarifies that monitoring such discharges is acceptable.

10.4 Sample Type (Part V.C.4)

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The permit specifies that a minimum of one grab sample must be taken from the measurable storm event being monitored. The grab sample must be taken during the first 30 minutes of the discharge, except for snowmelt monitoring which has no 30 minute requirement. If more than one grab sample or a composite sample is collected, only those samples collected during the first 30 minutes of discharge are to be used for performing any necessary analyses. If the collection of a grab sample during the first 30 minutes is impractical, a grab sample can be taken during the first hour of the discharge, but the permittee must document and keep with the SWPPP an explanation of why a grab sample during the first 30 minutes was impractical.

The Department is requiring a sample during the first 30 minutes to account for any first flush effects that may result from a precipitation event. The highest pollutant concentrations generally occur during these first flush events. The first 30 minutes of the discharge is also the time when receiving stream flows are the lowest during wet weather events and thereby presents the greatest potential pollutant impacts to aquatic species.

Purpose: This permit identifies the type of samples and when these samples are to be collected. This will allow facilities to make accurate comparisons of monitoring results to the corresponding benchmark or effluent limitations to determine whether additional action may be needed to reduce concentrations of pollutants detected in stormwater discharges. Grab samples of discharges resulting from snowmelt that have been exposed to industrial activities, materials storage, or materials handling areas are to be collected from each outfall for characterization, but they do not have to be collected within 30 minutes of discharge since (1) runoff typically does not occur during a snow event (2) collecting a snowmelt sample within 30 minutes of commencement of discharge is impractical, and (3) the “first flush” effects of snowmelt are not as well defined.

10.5 Adverse Weather Conditions (Part V.C.5)

When adverse weather conditions make sampling dangerous, storm event monitoring may be postponed until the next runoff event. This provision applies to serious weather conditions such as: lightning, flash flooding, and high winds. This provision should not be used as an excuse for not conducting sampling under conditions associated with more typical storm events. Adverse weather conditions do not exempt the permittee from having to file a benchmark monitoring report in accordance with the corresponding reporting period. In many cases, sampling during a subsequent non-hazardous storm event may still be possible during the reporting period. Where this is not possible, operators are still required to report the inability to monitor indicating the basis for not sampling during the reporting period. This provision applies to all monitoring requirements of this permit.

10.6 Representative Sampling

10.7 Monitoring Periods (Part V.C.7)

Certain monitoring must be conducted quarterly (e.g., benchmark monitoring). For such monitoring, the Department is defining the calendar quarters during which monitoring must occur and also describing when the first monitoring quarter is to commence based on the date of permit coverage. This section specifies that the monitoring requirements commence

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during the first full calendar quarter following six months after the publication date of this permit, or following the date of your authorization to discharge, whichever date comes later.

11. Hazardous Substances or Oil in Stormwater Discharge(s) Reporting (Part V.D)

Permittees must comply with a number of different reporting requirements described throughout this permit. Specific reporting requirements are included; however, additional reporting requirements are described in Part V.D for reporting of spills of especial concern.

12. Standard Permit Conditions (Part VI)

Standard Permit Conditions These standard permit conditions have been carried forward from our 02-SW. All terms are important for the permittee. The severability is one that is especially important as overtime the conditions may change based on challenges to the permit by interested parties.

Severability (Part VI.S). Invalidation of a portion of this permit does not necessarily render the whole permit invalid. The Department's intent is that the permit remain in effect to the extent possible; in the event any part of this permit is invalidated, the Department will advise the regulated community as to the effect of such invalidation.

13. Appendices

Industry Sectors (Appendix A)

A detailed listing of SICs covered by this permit are provided in Appendix A, and are categorized by Sectors of Industry. These sectors are referred to in Appendix D with specific requirements for that industry.

Quarterly Visual Monitoring Form (Appendix B)

Dischargers are strongly encouraged in Part V.I to use the Annual Reporting Form provided in Appendix B. This form asks for general information on the facility, summary findings from the comprehensive site inspection, and a description of corrective actions taken and the status of follow-up repairs, maintenance activities, or new BMP installations.

Purpose: To establish a consistent reporting form for permittees to provide guidance in understanding the characteristics required to be monitored by the permit and to use for the annual report.

Calculating Hardness in Receiving Waters for Hardness-Dependent Metals (Appendix C)

Appendix C describes the alternatives for establishing the hardness level for an operator's receiving water.

Sector Specific Requirements (Appendix D)

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Appendix D of the permit contain the specific requirements for the various industry sectors. The Appendix A contains a cross reference of SIC codes per industry and the Sectors as broken out in Appendix D (i.e. SIC code 2421 for General Sawmills and Planing Mills falls under Sector A – Timber Products). These requirements and breakdown of Sectors is consistent with the MSGP.

SECTOR A – TIMBER PRODUCTS.

SECTOR B – PAPER AND ALLIED PRODUCTS.

SECTOR C – CHEMICAL AND ALLIED PRODUCTS MANUFACTURING, AND REFINING.

SECTOR D – ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANT MANUFACTURING.

SECTOR E – GLASS, CLAY, CEMENT, CONCRETE, AND GYPSUM PRODUCTS.

SECTOR F – PRIMARY METALS.

SECTOR I – OIL AND GAS EXTRACTION.

SECTOR K – HAZARDOUS WASTE TREATMENT, STORAGE, OR DISPOSAL FACILITIES.

SECTOR L – LANDFILLS, LAND APPLICATION SITES, AND OPEN DUMPS.

SECTOR M – AUTOMOBILE SALVAGE YARDS.

SECTOR N – SCRAP RECYCLING AND WASTE RECYCLING FACILITIES.

SECTOR O – STEAM ELECTRIC GENERATING FACILITIES.

SECTOR P – LAND TRANSPORTATION AND WAREHOUSING.

SECTOR Q – WATER TRANSPORTATION.

SECTOR R – SHIP AND BOAT BUILDING AND REPAIR YARDS.

SECTOR S – AIR TRANSPORTATION.

SECTOR T – TREATMENT WORKS.

SECTOR U – FOOD AND KINDRED PRODUCTS.

SECTOR V – TEXTILE MILLS, APPAREL, AND OTHER FABRIC PRODUCTS.

SECTOR W – FURNITURE AND FIXTURES.

SECTOR X – PRINTING AND PUBLISHING.

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SECTOR Y – RUBBER, MISCELLANEOUS PLASTIC PRODUCTS, AND MISCELLANEOUS MANUFACTURING INDUSTRIES.

SECTOR Z – LEATHER TANNING AND FINISHING.

SECTOR AA – FABRICATED METAL PRODUCTS.

SECTOR AB – TRANSPORTATION EQUIPMENT, INDUSTRIAL OR COMMERCIAL MACHINERY FACILITIES.

SECTOR AC –ELECTRONIC AND ELECTRICAL EQUIPMENT AND COMPONENTS, PHOTOGRAPHIC AND OPTICAL GOODS.

SECTOR AD – STORMWATER DISCHARGES DESIGNATED BY THE DEPARTMENT AS REQUIRING PERMITS.

Three industry sectors were excluded from 12-SW, because they have been issued more specific general permits. These are:

1. SECTOR G: METAL MINING (ORE MINING AND DRESSING) which is covered by the General Permit for Discharges from Surface Coal Mines and Related Facilities: (General Discharge Permit No. 06-CM or replacement),
2. SECTOR H: COAL MINES AND COAL MINING-RELATED FACILITIES which is covered by the General Permit for Discharges from Surface Coal Mines and Related Facilities: (General Discharge Permit No. 06-CM or replacement),
3. and SECTOR J: MINERAL MINING AND DRESSING which is covered by the General Discharge Permit For Discharges from Mineral Quarries, Borrow Pits, and Concrete and Asphalt Plants: (General Permit No. 10-MM or replacement).

Several other SICs were excluded because they are included in specific general permits. These are:

1. SIC 4493 for Marinas, covered by the General Permit for General Permit for Discharges from Marinas including Boat Yards and Yacht Basins (Maryland General Permit No. 10-MA or replacement), and
2. those industries which produce bituminous concrete from SIC 2951/2952 (Asphalt Paving and Roofing Materials) which are also covered by the General Discharge Permit For Discharges from Mineral Quarries, Borrow Pits, and Concrete and Asphalt Plants: (General Permit No. 10-MM or replacement).

Industry sectors with benchmark monitoring requirements have potential metals. With the 4 chosen, the Department will gain a better understanding for the potential of these types of facilities to control discharges of metals.

Subsector C1 – Agricultural Chemicals for (SIC 2873-2879), part of Sector C - Chemical and Allied Products Manufacturing, and Refining (Nitrate plus Nitrite Nitrogen at 0.68 mg/L, Total Lead at 0.014, Total Iron at 1.0 mg/L, Total Zinc at 0.04 mg/L and Phosphorus at 2.0 mg/L).

Sector M – Automobile Salvage Yards (Total Suspended Solids (TSS) at 100 mg/L, Total Aluminum at 0.75 mg/L, Total Iron at 1.0 mg/L, Total Lead at 0.014 mg/L).

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Sector N – Scrap Recycling and Waste Recycling Facilities (Chemical Oxygen Demand (COD) at 120 mg/L, Total Suspended Solids (TSS) at 100 mg/L, Total Recoverable Aluminum at 0.75 mg/L, Total Recoverable Iron at 1.0 mg/L, Total Recoverable Lead at 0.014 mg/L, Total Zinc at 0.04 mg/L, Total Recoverable Copper at 0.0038 mg/L).

Sector AA – Fabricated Metal Products (Nitrate plus Nitrite Nitrogen at 0.68 mg/L, Total Zinc at 0.04 mg/L)

Specific ELGs were not included in this permit and would require an individual permit to be issued. This is consistent with the Department's policy and noted here as a departure from the MSGP.

Definitions and Acronyms (Appendix E)

Definitions (Appendix E). Appendix E of this permit provides definitions for permit-specific terms used in this permit.

Restoration of Impervious Surfaces Progress Report (Appendix F)

Provides a specific reporting form for providing the Department with updated status of restoration efforts.

14. Notice of Intent (Maintained as a separate document)

The NOI form has been updated and expanded from previous versions. If you operate multiple facilities you must submit an NOI for each noncontiguous site. Permittees must provide the following types of information on the NOI form: your name, address, email address, and telephone number; the facility location, including address and latitude and longitude; any preexisting NPDES permit number; the receiving water body(s) for each outfall/discharge; the primary and any subsequent Standard Industrial Classification (SIC) codes subject to this permit; and information for your SWPPP primary contact.

If your facility is in the Chesapeake Bay Watershed you must quantify the property at the facility as follows and specified on the NOI:

- a. acres in total,
- b. square feet of impervious surfaces with current treatment (as defined in Appendix E), and
- c. square feet of impervious surfaces without current treatment, which will be referred to as the untreated impervious surface.
- d. square feet of untreated impervious surfaces that you will treat to meet the requirements for restoration of impervious surfaces per PART III.A.

• *Purpose:* The NOI form provides the Department with the information necessary to determine an industrial operator's eligibility to discharge under this permit, to record requirements for restoration of impervious surfaces and enables the Department to better match up permittees with their respective monitoring requirements and to prioritize oversight activities.

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The Department asks clarifying questions about the receiving water including whether the water is impaired, the name of the impaired water, the pollutants for which the water is impaired. For new or increased dischargers, the Department may further verify if the receiving water is considered a Tier 2 waterbody.

15. Notice of Termination (Maintained as separate document).

Found on MDE's website.