U.S. Environmental Protection Agency
2015 Multi-Sector General Permit for Stormwater Discharges
Associated with Industrial Activity (MSGP) – Fact Sheet

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I. Background

Congress passed the Federal Water Pollution Control Act of 1972 (Public Law 92-500, October 18, 1972) (hereinafter the Clean Water Act or CWA), 33 U.S.C. 1251 et seq., with the stated objectives to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Section 101(a), 33 U.S.C. 1251(a). To achieve this goal, the CWA provides that "the discharge of any pollutant by any person shall be unlawful" except in compliance with other provisions of the statute. CWA section 301(a). 33 U.S.C. 1311. The CWA defines "discharge of a pollutant" broadly to include "any addition of any pollutant to navigable waters from any point source." CWA section 502(12). 33 U.S.C. 1362(12). EPA is authorized under CWA section 402(a) to issue a National Pollutant Discharge Elimination System (NPDES) permit for the discharge of any pollutant from a point source. These NPDES permits are issued by EPA or NPDES-authorized state or tribal agencies. Since 1972, EPA and the authorized states have issued NPDES permits to thousands of dischargers, both industrial (e.g., manufacturing, energy and mining facilities) and municipal (e.g., sewage treatment plants). As required under Title III of the CWA, EPA has promulgated Effluent Limitations Guidelines (ELGs) and New Source Performance Standards (NSPS) for many industrial point source categories and these requirements are incorporated into NPDES permits. The Water Quality Act (WQA) of 1987 (Public Law 100-4, February 4, 1987) amended the CWA, adding CWA section 402(p), requiring implementation of a comprehensive program for addressing stormwater discharges. 33 U.S.C. 1342(p).

Section 405 of the WQA of 1987 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). EPA is issuing the Multi-Sector General Permit (MSGP) under this statutory and regulatory authority.

The Regional Administrators of EPA Regions 1, 2, 3, 5, 6, 7, 8, 9, and 10 are today reissuing EPA's NPDES Stormwater MSGP. The 2015 MSGP replaces the 2008 MSGP, which was issued on September 29, 2008 (73 FR 56572), and expired on September 29, 2013. The 2015 MSGP is actually 44 separate general permits covering either areas within an individual state, tribal land, or U.S. territory, or federal facilities. These 44 general permits contain provisions that require industrial facilities in 29 different industrial sectors to, among other things, implement control measures and develop site-specific stormwater pollution prevention plans (SWPPPs) to comply with NPDES requirements. In addition, the MSGP includes a thirtieth sector, available for EPA to permit additional industrial activities that the Agency determines require permit coverage for industrial stormwater discharges not included in the other 29 industrial sectors. Currently, an estimated 2,365 facilities are authorized to discharge (or are "covered") by the MSGP.

II. Summary of Changes from the 2008 MSGP

The 2015 MSGP includes a number of new or modified requirements, and thus differs from the 2008 MSGP in various ways. The following list summarizes the more significant changes to the MSGP.

NEPA Review

For the issuance of the 2015 MSGP, EPA prepared an Environmental Assessment (EA) that analyzed the potential environmental impacts of the permit and a finding of no significant impact (FONSI). The EA considered the potential environmental impacts from the discharge of pollutants in stormwater discharges from new sources associated with industrial facilities where EPA is the permitting authority (see the permit's docket for a copy of EPA's EA and FONSI).

Information Required for Notices of Intent (NOIs)

The 2015 MSGP revises the information required in NOIs to provide EPA with adequate information to determine eligibility, to determine whether additional water quality-based control measures are necessary to comply with the permit's effluent limits, and to enable EPA to inform the operator of its specific monitoring requirements. Operators now need to include location information for each stormwater outfall they discharge from, identify if the facility discharges to saltwater and the hardness of the receiving waterbody (if subject to benchmark monitoring for metals), indicate whether the facility discharges to a federal CERCLA site identified in Appendix P, as well as provide general information from their SWPPP if the SWPPP is not posted online. The EPA NPDES Electronic Reporting Tool (NeT) will use outfall latitude and longitude information for each outfall to automatically determine the receiving waters that the site discharges to and the receiving waters' impairment status.

Electronic Reporting Requirements

Electronic reporting is required in the 2015 MSGP. Electronic reporting is necessary to create efficiencies and reduce the burden of submitting information to the Agency. Recognizing there may be cases that make electronic submittals of information impossible, EPA has included a paper option that operators may use after they ask for and are granted a waiver by their EPA Region. EPA intends for the waiver to be case-by-case and not be a blanket waiver that covers the remaining term of the permit for other required information submittals.

Endangered Species Requirements

EPA has finalized changes to the procedures operators must follow to establish their eligibility with regard to protection of threatened and endangered species and critical habitat (Appendix E) as a result of EPA's consultation under Section 7 of the Endangered Species Act (ESA). These changes are necessary to ensure that the endangered and threatened species eligibility criteria in Part 1.1.4.5 are adequately protective of such species, and to ensure the operators are making accurate eligibility determinations.

Effluent Limit Clarifications

Several of the effluent limits in Part 2 of the 2015 MSGP include a greater level of specificity in order to make the requirements more clear and to enable permittees to better comply with the effluent limits. The effluent limits for which EPA has made clarifications include requirements for minimizing exposure, good housekeeping, maintenance, spill prevention and response procedures, and employee training.

Inspections

EPA consolidated the comprehensive site inspection and routine facility inspection procedures into one set of procedures to eliminate redundancies and reduce burden.

Corrective Actions

Although the 2008 MSGP required corrective actions, EPA has clarified in the 2015 MSGP which conditions for corrective actions require a SWPPP review, included and sometimes modified the deadlines to clearly identify what actions must be taken by the deadlines, and rewritten and clarified the reporting requirements following corrective actions.

SWPPP Availability

The 2015 MSGP requires permittees to provide on the NOI form either a URL for their SWPPP or selected information from the SWPPP. The purpose of this is to provide greater SWPPP access to the

public, EPA, and the Fish and Wildlife Service and National Marine Fisheries Services (the Services). The selected information from the SWPPP that would have to be included in the NOI form includes: onsite industrial activities that are exposed to stormwater, including potential spill and leak areas (see Parts 5.2.3.1, 5.2.3.3 and 5.2.3.5); pollutants or pollutant constituents associated with each industrial activity exposed to stormwater that could be discharged in stormwater, and any authorized non-stormwater discharges listed in Part 1.1.3; control measures employed to comply with the non-numeric technology-based effluent limits required in Part 2.1.2 and Part 8, and any other measures taken to comply with the requirements in Part 2.2 Water Quality-Based Effluent Limitations (see Part 5.2.4); a schedule for good housekeeping and maintenance (see Part 5.2.5.1); and a schedule for all inspections required in Part 4 (see Part 5.2.5.2).

Benchmark Monitoring

For the 2015 MSGP, EPA has included additional non-hardness dependent metals benchmarks for facilities that discharge into saline waters. The addition of these benchmarks was necessary to provide an appropriate indicator of the performance of the measures undertaken to meet the effluent limitations contained in the permit where stormwater is discharged into saline waters. Benchmark values in the 2008 MSGP for these metals were based on acute or chronic aquatic life freshwater criteria. These additional saline benchmark values are based on available acute ambient water quality criteria for arsenic, cadmium, copper, cyanide, lead, mercury, nickel, selenium, silver and zinc.

Industry Sector-specific Requirements

The following changes were made to Part 8 of the MSGP, which describes requirements tailored to specific industry sectors:

Sector A, Timber Products – Discharges resulting from uncontaminated spray down or intentional wetting of logs at wet deck storage areas is an allowed non-stormwater discharge, providing the effluent limitation in Part 8.A.7 is met. To accommodate situations where facilities use water from a waterbody that operators intend to return to the waterbody following spraying/wetting, the permit contains an allowance or credit for pollutants originally in the waterbody prior to use and discharge.

Sector G, Metal Mining – As with the 2008 MSGP, this permit provides coverage to operators for earth-disturbing activities conducted prior to active mining activities. Before 2008 those activities were required to be covered separately under the Construction General Permit (CGP) or an individual construction stormwater permit. To facilitate such coverage, additional requirements have been added that are consistent with limits from the Construction & Development (C&D) ELG (for earth-disturbing activities associated with the construction of staging roads and the construction of access roads conducted prior to active mining), and for mine site preparation earth disturbances, revised limits based on EPA's best professional judgement (BPJ).

Sector H, Coal Mining – Additional requirements have been added that are consistent with changes made to Sector G.

Sector J, Mineral Mining and Dressing – Additional requirements have been added that are consistent with changes made to Sector G.

Sector S, Air Transportation – Requirements have been added based on the final ELG for jet and airport deicing operations. Also, the 2015 MSGP clarifies airport operators' responsibilities and permit requirements that airport authorities may conduct on behalf of airport tenants.

III. Geographic Coverage of this Permit

The 2015 MSGP provides coverage for classes of point source discharges that occur in areas not covered by an approved state NPDES program. EPA notes that facilities located in EPA Region 4 are not covered by the 2015 MSGP; any dischargers needing coverage in Region 4 must be covered by an individual permit. The areas of geographic coverage of the 2015 MSGP are listed in Appendix C, and include the states of Idaho, Massachusetts, New Hampshire, and New Mexico, as well as all Indian country lands, and federal operators in selected states. Permit coverage is also provided in Puerto Rico, the District of Columbia, and the Pacific Island territories.

Industrial activities operated by a federal operator in Colorado, Indian country lands located in Colorado, Iowa, Kansas, Montana, Nebraska, North Dakota, South Dakota, Utah (except for the Goshute and Navajo Reservation lands), and Wyoming, as well as the portion of the Ute Mountain Reservation located in New Mexico, the portion of the Pine Ridge Reservation located in Nebraska, and the portion of the lands within the former boundaries of the Lake Traverse Reservation located in North Dakota, were not included in the 2008 MSGP, but are included in the 2015 MSGP. In addition, industrial activities within the State of Alaska, except for Indian country lands as defined in 18 U.S.C. 1151 and areas in the Denali National Park and Preserve, are no longer covered under EPA's MSGP due to the delegation of NPDES program responsibilities to the State.

IV. Categories of Facilities That Can Be Covered Under this Permit

The 2015 MSGP is available for stormwater discharges from the following 29 sectors of industrial activity (Sector A – Sector AC), as well as any discharge not covered under the 29 sectors (Sector AD) that has been identified by EPA as appropriate for coverage. 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 D in the 2015 MSGP 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 – Metal Mining (Ore Mining and Dressing)	**Sector V** – Textile Mills, Apparel, and other Fabric Products Manufacturing
Sector H – Coal Mines and Coal Mining-Related Facilities	**Sector W** – Furniture and Fixtures
Sector I – Oil and Gas Extraction	**Sector X** – Printing and Publishing
Sector J – Mineral Mining and Dressing	**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 Director

V. Coverage under this Permit

V.A. Eligibility (Part 1.1).

As with previous permits, to be eligible for coverage under the 2015 MSGP, operators of industrial facilities must meet the eligibility provisions described in Part 1.1 of the permit. If they do not meet all the eligibility requirements, operators must not submit a Notice of Intent (NOI) to be covered by the MSGP, and, unless they obtained coverage for those discharges under another permit, those discharges of stormwater associated with industrial activity needing permit coverage will be in violation of the CWA.

V.A.1. Allowable Stormwater Discharges (Part 1.1.2).

Part 1.1.2 specifies which stormwater discharges are eligible for coverage under the permit. As described in Section V.A.3 of this Fact Sheet, not all stormwater discharges associated with industrial activity are eligible for coverage under the 2015 MSGP (e.g., stormwater discharges regulated by certain national effluent limitations guidelines). Dischargers must refer to this Part of the permit to determine whether a particular stormwater discharge from their site can be covered under the MSGP. For example, Part 1.1.2.3 specifies that discharges that are not otherwise required to obtain NPDES permit authorization, but are mixed with discharges that are authorized under the 2015 MSGP, are eligible for coverage under the 2015 MSGP. Additionally, EPA has updated the Table 1-1 in Part 1.1.2.4 to incorporate the Airport Deicing ELG for the discharge of urea in stormwater from deicing operations.

V.A.2. Allowable Non-Stormwater Discharges (Part 1.1.3).

This provision lists the non-stormwater discharges authorized under the permit. Allowable non-stormwater discharges that were listed in specific sectors in previous versions of the MSGP were added to Part 1.3 for completeness and clarity, including discharges in Sector A for spray water and in Sectors G, H, and J for earth-disturbing activities conducted prior to active mining activities. The changes to the list of allowable non-stormwater discharges in Part 1.1.3 were made to ensure consistency with the corresponding effluent limit requirements in Part 2 and Part 8 of the permit and to ensure that pollutant discharges from allowable non-stormwater discharges are minimized.

Previous MSGP versions authorized any pavement and building washwater to be discharged as long as there were no detergents or toxic/hazardous spill material present in the discharge. But cleaning agents other than detergents could also be utilized and could clearly have the potential to cause water quality issues if discharged. Therefore, in addition to detergents, hazardous cleaning products have been specifically prohibited from being discharged under the 2015 MSGP. The 2015 permit also prohibits the discharge of wash waters that have come into contact with oil and grease deposits, sources of pollutants

associated with industrial activities, or any other toxic or hazardous materials, unless the residues have been cleaned up using dry clean-up methods. Additionally, because the act of washing (especially power washing) mobilizes particulates and other substances present on pavement, specific effluent limits have been newly included to ensure such mobilized particulates are controlled before they are discharged. EPA now requires pavement wash waters to be treated appropriate control measures to minimize discharges of mobilized solids and other pollutants. EPA encourages that other control measures be considered when doing such cleaning including vacuuming, using the least amount of water in pressure washing to reduce the quantity of discharge, and running the wash water through a filter to remove pollutants prior to discharge. Other options are to direct the wash water flow through a green infrastructure feature(s) (or some similar treatment), or to capture and infiltrate the flow so there is no discharge. EPA reminds operators using green infrastructure features that proper operation and maintenance of the features is vital. In any case, if there are doubts regarding the presence of contaminants in the washwater, even after treatment, operators should not discharge it to be safe.

Part 1.1.3 also lists additional authorized non-stormwater discharges Sector A and for earth-disturbing activities conducted prior to active mining activities for Sectors G, H, and J only. Because the mining sectors can choose to have stormwater discharges from pre-active mining earth disturbances covered under the MSGP, instead of getting separate coverage under the CGP, EPA has included these additional non-stormwater discharges that would otherwise be authorized under the CGP.

Also specifically identified as being authorized are discharges of stormwater listed in Parts 1.1.2 or authorized non-stormwater discharges in Part 1.1.3, mixed with a discharge authorized by a different NPDES permit and/or a discharge that does not require NPDES permit authorization. EPA notes that all other non-stormwater discharges requiring NPDES permit coverage that are not listed in Part 1.1.3 are not authorized under this permit. If non-stormwater discharges requiring NPDES permit coverage other than those specifically authorized in Part 1.1.3 will be discharged, such non-stormwater discharges are not authorized by the permit and must either be eliminated or covered under another NPDES permit.

V.A.3. Limitations on Coverage (Part 1.1.4).

Part 1.1.4 describes the limitations on what is covered under this permit. Any discharges not expressly authorized under the MSGP cannot become authorized or shielded from liability under CWA Section 402(k) by disclosure to EPA, state, or local authorities after issuance of the MSGP via any means, including the NOI to be covered by the permit, the SWPPP, or during an inspection. This is consistent with EPA's long-standing interpretation of the scope of the MSGP.

Discharges Mixed with Non-Stormwater (Part 1.1.4.1). The MSGP does not authorize stormwater discharges that are mixed with non-stormwater discharges, other than those mixed with allowable non-stormwater discharges listed in Part 1.1.3 and/or those mixed with a discharge authorized by a different NPDES permit and/or a discharge that does not require NPDES authorization. Where a stormwater discharge is commingled with non-stormwater that is not authorized by the MSGP, the operator must obtain authorization under another NPDES permit to discharge the commingled discharge.

Stormwater Discharges Associated with Construction Activity (Part 1.1.4.2). The 2015 MSGP does not apply to stormwater discharges associated with construction activity, defined in 40 CFR 122.26(b)(14)(x) and (b)(15), which acknowledges the distinction between construction and other types of stormwater discharges associated with industrial activity. An exception to this is for construction associated with mining activities, where operators in Sectors G, H and J are able to cover earth-disturbing activities in the MSGP in lieu of obtaining separate coverage under the CGP (EPA included the salient earth disturbance-related requirements for the mining sectors in Part 8). However, for mining-related construction that disturbs less than one acre in size, such discharges are covered by the regular MSGP

(i.e., the requirements that are not expressly for earth-disturbances). The mining-related construction exception provides a more streamlined approach for mining operators preferring to be covered by one permit, instead of two.

Discharges Currently or Previously Covered by Another Permit (Part 1.1.4.3). This provision describes cases where an operator is ineligible for coverage under the MSGP because of coverage under another permit. The objective is to avoid conflict with the anti-backsliding provisions of the CWA. The cases this applies to include operators currently covered under an individual permit or an alternative NPDES general permit; operators covered by a permit within the past five years prior to the effective date of the 2015 MSGP, which established site-specific numeric water quality-based limitations developed for the stormwater component of the discharge; and/or operators with discharges from facilities where the associated NPDES permit has been or is in the process of being denied, terminated (permit termination does not refer to the routine expiration and reissuance of permits every five years), or revoked by EPA.

Stormwater Discharges Subject to Effluent Limitations Guidelines (Part 1.1.4.4). This section specifies that only the discharges from facilities subject to the stormwater-specific effluent limitations guidelines in Table 1-1 of the permit are eligible for coverage under this permit. All other stormwater and non-stormwater discharges subject to effluent limitations guidelines must be covered under any applicable alternate general permit or an individual permit.

Endangered and Threatened Species and Critical Habitat Protection (Part 1.1.4.5). The ESA of 1973 requires all Federal Agencies to ensure, in consultation with the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) (the "Services"), that any federal action carried out by the Agency is not likely to jeopardize the continued existence of any species that is federally-listed as endangered or threatened ("listed"), or result in the adverse modification or destruction of habitat of such species determined to be critical ("critical habitat"). See 16 U.S.C. 1536(a)(2), 50 CFR 402 and 40 CFR 122.49(c).

The criteria in Part 1.1.4.5 were developed in consultation with the Services to ensure that discharges covered under the permit are protective of listed species and their critical habitats. The criteria in Part 1.1.4.5 require the operator to determine, prior to submitting the NOI for permit coverage, that their facility's stormwater discharges, allowable non-stormwater discharges, and stormwater discharge-related activities were either the subject of a separate ESA consultation or an ESA Section 10 permit, or are not likely to adversely affect any listed species or critical habitat under the ESA. To make this determination, operators must follow the steps in Appendix E.

EPA revised the criteria in Part 1.1.4.5 to better ensure that the criteria are adequately protective of listed species and their critical habitats. Because the permit eligibility criteria and the associated procedures in Appendix E have changed somewhat, all operators seeking coverage under the 2015 MSGP must make their Part 1.1.4.5 eligibility determination in accordance with the requirements in the new permit (i.e., operators cannot check the same criteria they selected in the 2008 MSGP without following the procedures in Appendix E). The changes to the Part 1.1.4.5 criteria are summarized as follows:

Criterion A (listed species in the action area) – No substantial changes.

Criterion B (eligibility certified by other operator; formally criterion F in the 2008 MSGP) – In the 2015 MSGP, operators may only choose Part 1.1.4.5 criterion B if another operator has already established their eligibility under Part 1.1.4.5 for the facility's discharges and discharge-related activities under the 2015 MSGP; this criterion may not be selected based on a determination made under the 2008 MSGP because of the changes to the eligibility process in the new permit. This criterion can be selected if there are multiple operators for a single facility where one

operator has completed the Part 1.1.4.5 eligibility determination for all discharges from the facility, or for facilities that have changed operators during the 2015 MSGP term.

Criterion C (discharges not likely to adversely affect listed species; formally criterion E in the 2008 MSGP) – In the 2015 MSGP, operators may only make a determination that their discharges are not likely to adversely affect listed species and their critical habitats after following all the steps in Appendix E, which requires the submission of a worksheet to EPA a minimum of 30 days prior to filing an NOI for permit coverage. The worksheet requires the operator to evaluate their site's discharges and discharge-related activities and to determine, document, and implement any specific controls necessary to ensure no likely adverse effects. During the 30-day review period of the worksheet, EPA, in coordination with the Services, may determine that additional measures are necessary in order to be consistent with a not likely to adversely affect determination, or that an individual permit is necessary. While filling out and submitting a worksheet is a new requirement, the content of the worksheet and steps it requires operators to complete were required in the 2008 MSGP. Additionally the criterion C eligibility worksheet provides clarity and guidance for existing requirements.

Criterion D (separate section 7 consultation completed; formally criterion B in the 2008 MSGP) – Permittees can obtain coverage under Part 1.1.4.5 Criterion D if a separate section 7 consultation has been completed, either formal or informal. Section 7 consultations would have occurred if there was a separate federal action associated with the facility. This criterion is substantially similar to the corresponding criterion in the 2008 MSGP. However, in the 2015 MSGP, dischargers certifying under this criterion are required to ensure that a separate section 7 consultation remains valid.

Criterion E (activities authorized under ESA section 10 permit; formerly criterion C in the 2008 MSGP) – No significant changes.

In the 2015 MSGP, EPA has removed the eligibility criterion D from the 2008 MSGP that required coordination between the operator and the Service office and a written statement of a not likely to adversely affect determination.

Historic Properties Preservation (Part 1.1.4.6). Coverage under the 2015 MSGP is available only if operators certify that they meet one of the eligibility criteria related to compliance with historic properties protection pursuant to the National Historic Preservation Act (NHPA). These criteria are used to identify whether land disturbances associated with the installation or revision of subsurface stormwater control measures would affect properties listed in, or eligible for listing in, the National Register of Historic Properties; and, if so, to determine the measures that will prevent or mitigate adverse effects to the properties.

EPA does not anticipate any effects on historic properties from the pollutants in the stormwater discharges covered by the 2015 MSGP. However, existing and new operators could undertake activities in connection with the 2015 MSGP that might affect historic properties if they install new or modify control measures that involve subsurface disturbance. The overwhelming majority of sources covered under the 2015 MSGP will be operators that are seeking renewal of previous permit coverage. If these existing dischargers are not planning to construct new stormwater controls or conveyance systems, they have already addressed NHPA issues. In the 2008 MSGP, they were required to certify that they were either not affecting historic properties or they had obtained written agreement from the applicable State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (THPO), or other tribal representative regarding methods of mitigating potential impacts. EPA is not aware of any adverse

effects on historic properties under the 2008 MSGP, nor the need for a written agreement. Therefore, to the extent the 2015 MSGP authorizes renewal of prior coverage without relevant changes in operation, it has no potential to affect historic properties.

Where operators install or modify control measures that involve subsurface disturbance, the area of potential effect (APE) for the activities performed to comply with the permit, for historic preservation purposes, is limited to the location and depth of the earth disturbance associated with the installation or modification of the stormwater control measures. Operators need only consider the APE when doing the historic properties screening procedures to determine their eligibility criteria in Appendix F. This is the only scenario where activities authorized or undertaken in connection with the 2015 MSGP may affect historic properties. Since both new and existing dischargers could undertake such activities, all operators are required to follow the historic property screening procedures to document eligibility. Historic preservation requirements are unchanged from 2008.

Eligibility for New Dischargers and New Sources: Based on Water Quality Standards (Part 1.1.4.7). This is a new provision that describes permit eligibility for operators of facilities classified as new sources and/or new dischargers (as defined in Appendix A), pursuant to 40 CFR 122.4(i). Facilities classified as "new source" or "new discharger" are not eligible for coverage under the MSGP for any discharges that EPA determines will not meet an applicable water quality standard (i.e., discharges that will cause or contribute to a violation of a water quality standard). EPA may notify such operators that an individual permit application is necessary in accordance with Part 1.2.3, or, alternatively, EPA may authorize coverage under the MSGP after the operators have implemented measures designed to ensure the discharge meets water quality standards. EPA notes that while Part 1.1.4.7 is designed to specifically implement 40 CFR 122.4(i), other water quality-based requirements apply to new and existing dischargers. Part 2.2 of the permit includes water quality-based effluent limits applicable to all dischargers, which are designed to ensure that discharges from both new and existing permittees are controlled as necessary to meet water quality standards.

Eligibility for New Dischargers and New Sources to Water Quality-Impaired Waters (Part 1.1.4.8). Part 1.1.4.8 of the permit requires any new source or new discharger to demonstrate its ability to comply with 40 CFR 122.4(i) (i.e., prohibiting the issuance of permits to new sources and 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 complete one of the following: (a) prevent all exposure to stormwater of the pollutant(s) for which the waterbody is impaired, and retain documentation with the SWPPP on how this was accomplished; (b) submit technical information or other documentation to the appropriate EPA Regional Office, in advance of submitting an NOI, to support a claim that the pollutant(s) for which the waterbody is impaired is not present at the site ; or (c) prior to submitting the NOI, submit data or other technical documentation to the appropriate EPA Regional Office to support a conclusion that the discharge will meet applicable water quality standards (i.e., that pollutants of concern will not be discharged at levels that will cause or contribute to a violation of water quality standards). For discharges to waters without a TMDL, the information must demonstrate that the discharge of the pollutant for which the water is impaired will meet water quality criteria at the point of discharge to the waterbody. For discharges to waters with a TMDL, the information must demonstrate that there are sufficient remaining wasteload allocations in the TMDL to allow the discharge and that existing dischargers to the waterbody are subject to compliance schedules designed to bring the waterbody into attainment with water quality standards (e.g., a reserve allocation for future growth). In order to be eligible under Part 1.1.4.8.c, the operator must receive a determination from the EPA Regional Office that the discharge will meet applicable water quality

standards. If the EPA Regional Office fails to respond within 30 days after submission of data, the operator is eligible for coverage. This Part also has been updated to include an existing category of impaired waters to which the MSGP impaired waters requirements apply, but which was not included in previous versions of the MSGP. This category includes waters that are not on 303(d) list and do not have a TMDL, but the waterbody is covered by pollution control requirements that meet the requirements of 40 CFR 130.7(b)(1). This newly included type of impaired water is known as a "Category 4b" water, which is defined as "TMDL is not needed because other pollution control requirements are expected to result in the attainment of an applicable water quality standard (WQS) in a reasonable period of time." USEPA's supporting regulations recognize that alternative pollution control requirements may obviate the need for a TMDL. Specifically, impaired waters are not required to be included on a state's Section 303(d) list if technology-based effluent limitations required by the CWA, more stringent effluent limitations required by state, local, or federal authority, or "[o]ther pollution control requirements (e.g., best management practices) required by local, [s]tate or [f]ederal TMDL 2007 authority" are stringent enough to implement applicable water quality standards (see 40 CFR 130.7(b)(1)) within a reasonable period of time (USEPA 2005a, 2006). Category 4b waters are alternatives to TMDLs, as described in USEPA's Integrated Reporting Guidance (IRG) for Sections 303(d), 305(b), and 314 of the CWA (USEPA 2005a, 2006). EPA Regional Offices are responsible for alerting operators when there are discharges to Category 4b waters.

Eligibility for New Dischargers and New Sources to Waters with High Water Quality (Part 1.1.4.9). Part 1.1.4.9 includes the eligibility requirements for new dischargers or new sources discharging to a Tier 2, 2.5, or 3 water. Operators discharging to Tier 2 or Tier 2.5 waters must not lower the water quality of the water. Coverage under the permit is not available to new dischargers or new sources who discharge to a state- or tribe-designated Tier 3 water (outstanding national resource waters or "ONRW") for antidegradation purposes. Any such discharges must, therefore, apply for coverage under an individual permit.

The need for such a provision is that state/tribal water quality standards must include an antidegradation policy. In addition, each state/tribe must identify implementation methods for their policy that, at a minimum, provide a level of protection that is consistent with the three-tiered approach of the federal antidegradation regulation. Tier 3 maintains and protects water quality in ONRWs. Waters classified as ONRWs by states and tribes are generally the highest quality waters of the U.S. However, the ONRW classification also offers special protection for waters of exceptional ecological significance, i.e., those that are important, unique, or sensitive ecologically, but do not necessarily have high water quality. Except for certain temporary changes, water quality cannot be lowered in such waters. 40 CFR 131.12(a)(3). Because of their high quality or ecological significance, EPA expects few industrial stormwater discharges into ONRWs will be covered under an NPDES permit. See list of Tier 2, Tier 2.5 and Tier 3 waters in Appendix L.

The requirements in Part 1.1.4.9 correspond to Part 2.2.2 and 2.2.3 of the 2008 MSGP, but in the new permit have been moved to Part 1 to ensure that antidegradation requirements are met as a condition for establishing eligibility for permit coverage. By making these requirements a condition for permit eligibility, new dischargers are provided greater assurance that their discharges are in compliance with the antidegradation requirements.

Eligibility for Stormwater Discharges to Federal CERCLA Sites (Part 1.1.4.10). The 2015 MSGP does not authorize stormwater discharges to certain specified sites that have undergone or are undergoing remedial cleanup actions pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) in EPA Region 10 states and Indian country unless first approved by the EPA Region 10 Office. For this permit, a permittee is considered to discharge to a federal CERCLA Site if the

discharge flows directly into the site through its own conveyance, or a through a conveyance owned by others, such as a municipal separate storm sewer system. This does not include discharges to a tributary that flows into a CERCLA Site. “CERCLA Site” means a facility as defined in Section 101(9) of CERCLA, 42 U.S.C. § 9601(9), that is undergoing a remedial investigation and feasibility study, or for which a Record of Decision for remedial action has been issued in accordance with the National Contingency Plan at 40 CFR 300. This definition includes sites that have been listed on the National Priorities List in accordance with Section 105 of CERCLA, 42 U.S.C. §9605, or that are being addressed using CERCLA authority, including use of an agreement consistent with the Superfund Alternative Approach Guidance. The federal CERCLA sites to which Part 1.1.4.10 applies are listed in Appendix P. Operators seeking authorization to discharge stormwater to one of these identified CERCLA Sites would be required to first notify the EPA Region 10 Office prior to submitting their NOI for permit coverage.

To determine eligibility for coverage under this Part, the EPA Regional Office may evaluate whether the discharger has in place sufficient controls and implementation procedures (e.g., enhanced controls, corrective actions, monitoring requirements, and/or numeric benchmarks or effluent limits) to ensure that the proposed discharge will not recontaminate sediments or other aquatic media being remediated under CERCLA, such that it causes or contributes to an exceedances of a water quality standard. If it is determined, following authorization to discharge under the 2015 MSGP, that a permittee discharges stormwater to a CERCLA Site listed in Appendix P, the permittee must notify the EPA Region 10 Office. Upon notification, the Region 10 Office may impose additional monitoring requirements, controls, or other actions to prevent recontamination of the CERCLA Site such that it does not cause or contribute to an exceedance of a water quality standard. In order to become eligible, the permittee must confirm in writing that they agree to implement the additional requirements. There are a variety of scenarios under which an MSGP-permitted discharger could subsequently determine that it is discharging to an Appendix P CERCLA Site. For example, the discharger could become aware of new information regarding the location of its stormwater outfall or the fate of the stormwater it discharges into a municipal stormwater system. Or the permittee could be notified of the fact that it is discharging to an Appendix P CERCLA Site by a potentially responsible party, EPA, or another government agency.

NPDES-permitted stormwater discharges may occur within the bounds of sites remediated or undergoing remediation under CERCLA. Source sampling and sediment data from some NPDES outfalls have indicated exceedances of sediment cleanup goals established for CERCLA Sites. NPDES permits, particularly general permits, may not control discharges sufficiently to avoid sediment recontamination because most effluent limits are written to protect the water column and not with particular regard to sediment impacts or contamination. Furthermore, NPDES permits, particularly general permits, may not require monitoring sufficient to determine the effects of discharges on sediment quality and the aquatic organisms that live in or feed on the bottom of waterbodies. As a result, after extensive and costly clean-up of federal CERCLA Sites, these sites can be recontaminated by NPDES discharges. Additionally, stormwater NPDES permits may act as a shield to liability for future cleanup of recontaminated Superfund sites.

Contaminated water and sediment can impair the designated uses of a waterbody, which are included in state/tribal water quality standards. Soils and sediments are "sinks" for contaminants because of the enormous quantities of soils/sediments and their abilities to pick up (sorb) large amounts of a wide variety of contaminants. Sorption to soils and sediments is probably the most influential factor on the transport and fate of organic contaminants in the environment (Chiou and Kile, 2000). Suspended sediment is well known as a major carrier of nutrients and metals (Schueler, 1997).

Aquatic organisms are exposed to contaminants through their contact with both water and sediment, and also through ingestion of food, according to The Stormwater Effects Handbook (Burton

and Pitt, 2002). Inorganic and organic chemicals can accumulate in organisms at levels that cause chronic toxicity or death. Sediment-associated contaminants are one of the most common sources of tissue contamination. Such contamination is linked to impacts to other biota higher in the food chain via the "food web transfer", an effect especially quantifiable with mercury and some organochlorines such as PCBs and DDT. This occurs in both freshwater and marine systems and is not limited to the aquatic environment, as it has been observed in terrestrial species, especially birds (Burton and Pitt, 2002).

Non-benthic organisms can also ingest contaminated sediment directly when the sediment at rest at the bottom of a waterbody is mobilized, which occurs when the boundary (or bed) shear stress exerted by the water exceeds the critical shear stress (i.e., the driving forces of particle motion [shear stress] exceed the resisting forces that would make the particles stationary [particle density and size]). Superfund sites generally seek to reduce risk to humans and other aquatic and terrestrial receptors from eating the fish and other aquatic organisms contaminated by pollutants and/or being directly exposed to contaminated water and sediment, which could cause adverse effects to their health and mortality.

The 2015 MSGP describes the steps that facilities discharging to a CERCLA Site identified in Appendix P must follow to obtain or maintain permit coverage, so that they avoid contamination/recontamination of the sites and subsequent exceedances of water quality standards. This provides an opportunity for the discharger and/or EPA to identify or develop the control measures that prevent contamination/recontamination. Once these measures are in place, the discharger to the CERCLA Site should be able to obtain MSGP coverage (or, if coverage was obtained prior to the commencement of the CERCLA remediation or determination of an applicable discharge, to continue operating under the MGSP). Alternatively, the discharger or EPA Region 10 may determine that coverage under the MSGP is not appropriate, and individual permit coverage may be sought or required per Part 1.2.3 of the 2015 MSGP. See 40 CFR 122.28(b)(3).

While EPA is concerned that CERCLA Site recontamination from MSGP-authorized discharges may be an issue in all the EPA Regions where the MSGP applies, EPA is limiting Part 1.1.4.10 to discharges to certain CERCLA sites in EPA Region 10 for this permit cycle. EPA has extensive information that stormwater discharges are a source of CERCLA Site recontamination in Region 10. EPA Region 10 has seen both the actual recontamination of Superfund Sites from stormwater outfalls and the potential for recontamination from source control information gathered at Superfund Sites not yet cleaned up. Recontamination (exceedances of sediment cleanup standards) has occurred at the Thea Foss Waterway in Tacoma, Washington, which is within the Commencement Bay/Nearshore Tideflats Superfund Site and was cleaned up in 2006. It is known that the source of the recontamination is stormwater from two 96-inch municipal storm drains that drain approximately 5,000 acres of commercial/residential property, state highways, and city roads. Source control information gathered at the Lower Duwamish Waterway Superfund Site and the Portland Harbor Superfund Site indicate there are facilities discharging stormwater containing suspended solids with polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and metals that exceed the preliminary remedial goals for sediment at those sites. Stormwater discharging from the municipal stormwater outfalls at the Thea Foss Waterway are covered by a Washington MS4 permit and have been since 1995. Many of the facilities discharging stormwater to the Lower Duwamish and Portland Harbor sites are covered by Washington and Oregon industrial stormwater general or MS4 permits. See EPA's docket for more information about CERCLA contamination/recontamination in Region 10 from permitted stormwater discharges. EPA's Region 10 Office also has expertise in determining site-specific measures that are necessary to ensure industrial stormwater discharges covered under the MSGP are not leading to recontamination of aquatic media at CERCLA Sites such that they cause or contribute to an exceedance of a water quality standard. During this permit cycle, EPA will assess the need for applying this provision to other Regions in a future version

of the MSGP. Other EPA Regions can also use information from the 2015 MSGP to enhance their ability to implement this provision in the future if they find they have CERCLA Sites with such contamination/recontamination concerns.

To identify which CERCLA Sites in Region 10 Part 1.1.4.10 applies, EPA started with the Tier 1 and 2 sediment sites, then overlaid them with areas of federal CWA authority in Region 10. The sediment site tiering system is based on national EPA Office of Solid Waste and Emergency Response (OSWER) guidance on managing sediment cleanups, which establishes the tiering system for sediment sites that will have enhanced input and oversight by EPA. These sites contain a large amount of contaminated sediment, are expensive to remediate, and often impact significant numbers of humans and other ecological receptors. Tier 1 sediment sites are the largest contaminated sediment sites the CERCLA program is addressing. The Tier 2 sediment sites are in the evaluation process and are anticipated to meet the Tier 1 site criteria. The size of these sites makes it more likely that there will be multiple sources of contamination, including NPDES permitted outfalls. EPA Region 10 is actively engaged in the clean-up process at these sites and anticipates that when cleanup efforts are complete, these sites could have a higher probability of recontamination from NPDES permitted outfalls.

V.B. Authorization Under This Permit (Part 1.2).

V.B.1. How to Obtain Authorization (Part 1.2.1).

This provision specifies conditions that must be met in order to obtain authorization under the 2015 MSGP. To obtain authorization under the MSGP, dischargers must be an operator of an industrial facility in a sector covered by the permit (see Appendix D); be located in a state, territory or Indian country, or be a federal operator identified in Appendix C where EPA is the permitting authority; meet the Part 1.1 eligibility requirements; select, design, install, and implement control measures in accordance with Part 2.1 to meet numeric and non-numeric effluent limits; develop a SWPPP according to the requirements of Part 5 of the permit or update the existing SWPPP consistent with Part 5 prior to submitting the NOI for permit coverage; and submit a complete and accurate NOI. A revision from previous MSGPs is the replacement of “Federal Facility” with “Federal Operator” because the existing definition of Federal Facility conflicts with the terms of the delegation of powers between EPA and Washington State, in that private entities operating on federal lands must get state permits. Further, Federal Operators working on non-federal lands must get an EPA permit. This change is intended to clarify that the permitting requirement is determined by the type of operator rather than the location of the project. It is also consistent with the 2012 CGP.

Submitting Your Notice of Intent (NOI) (Part 1.2.1.1). This Part specifies that to be covered (i.e., authorized to discharge) under the MSGP, the operator must submit to EPA a complete and accurate NOI by the deadlines listed in Table 1-2 for: operators of industrial activities that were authorized for coverage under the 2008 MSGP; operators of industrial activities that commenced discharging between September 30, 2013 and [insert date 90 days after MSGP issuance date] and operating consistent with EPA’s no action assurance for the NPDES Stormwater MSGP for Industrial Activities; operators of industrial activities that commence discharging after September 2, 2015, or operators seeking coverage for dischargers previously covered under an individual permit or an alternative general permit; and new operators of existing industrial activities with discharges previously authorized under the 2015 MSGP. Permit authorization is not valid if the NOI upon which authorization is based is incomplete or inaccurate, or if the discharge is not eligible for permit coverage. Operators must also complete the development of a SWPPP or update their existing plan prior to submitting the NOI for coverage under the 2015 MSGP.

How to Submit Your NOI (Part 1.2.1.2). The requirements in Part 1.2.1.2 clarify that operators must submit their NOIs electronically, per Part 7.1, unless a waiver from electronic reporting has been granted. Previous acceptance of paper NOIs has been changed to mandatory use of NeT, unless the EPA Regional Office provides a waiver. Reporting electronically is compatible with the e-Reporting rule.

Deadlines for Submitting Your NOI and Your Official Date of Permit Coverage (Part 1.2.1.3). This Part provides the deadlines for submitting NOIs for permit coverage and the minimum timeframes following NOI submission for discharge authorization for the different discharge categories. All NOI submittals are subject to a 30-day review period. EPA may use the waiting period to determine whether any additional measures are necessary to meet applicable water quality standards, to be consistent with an applicable WLA, or to comply with state or tribal antidegradation requirements. Additionally, during this waiting period, the Fish and Wildlife Service or the National Marine Fisheries Service, or the SHPO or THPO or other tribal representative, may request EPA place a hold on an NOI authorization based on concerns about listed species and/or historic properties. Depending on the nature of the issue, EPA may require appropriate action either prior to or following discharge authorization. EPA may decide a delay in authorization is warranted, or that the discharge is not eligible for authorization under the 2015 MSGP, in which case an individual NPDES permit would be required.

For this permit, EPA has eliminated the 2008 MSGP's 60-day authorization wait period for new dischargers. The 2008 MSGP allowed new dischargers who posted their SWPPP online to wait only 30 days after submitting an NOI before receiving authorization, while those who did not post their SWPPP had to wait 60 days. The longer period was to provide sufficient time to address issues related to where SWPPP information was not readily available. Since the 2015 MSGP requires all operators to either post their SWPPP or provide salient SWPPP information with their NOI, the 60-day wait period is unnecessary.

V.B.2. Continuation of Coverage for Existing Permittees After the Permit Expires (Part 1.2.2).

This Part states that if the permit is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with section 558(c) of the Administrative Procedure Act (see 40 CFR 122.6) and remain in force and effect for discharges that were covered prior to its expiration. All permittees authorized to discharge prior to the expiration date of the 2015 MSGP will automatically remain covered under the 2015 MSGP until the earliest of:

1. Authorization under a new version of the MSGP following the timely submittal of a complete and accurate NOI. Note that if a timely NOI for coverage under the reissued or replacement permit is not submitted, coverage will terminate on the date that the NOI was due; or
2. The date of the submittal of a Notice of Termination; or
3. Issuance of an individual permit for the facility's discharges; or
4. A formal permit decision by EPA not to reissue this general permit, at which time EPA will identify a reasonable time period for covered dischargers to seek coverage under an alternative general permit or an individual permit. Coverage under the 2015 MSGP will cease at the end of this time period.

EPA reserves the right to modify or revoke and reissue the 2015 MSGP under 40 CFR 122.62 and 63, in which case permittees will be notified of any relevant changes or procedures to which they may be subject. Where EPA fails to issue another general permit prior to the expiration of a previous one, EPA does not have the authority to provide coverage to industrial operators not already covered under that prior general permit. Once the five-year expiration date for the 2015 MSGP has passed, new

operators seeking discharge authorization should contact EPA regarding the options available, such as applying for individual permit coverage.

V.B.3. Coverage Under Alternative Permits (Part 1.2.3).

This Part describes the procedures for obtaining an alternative permit. The following are scenarios in which an alternative permit may be required: 1) a new or previously permitted facility is denied coverage under the MSGP; 2) an existing facility covered under the 2015 MSGP loses their authorization under the MSGP; or 3) a permittee requests to be covered under an alternative permit.

Following submittal of a complete and accurate NOI, operators may be notified in writing by EPA that they are not covered under the 2015 MSGP, and that they must apply for and/or obtain coverage under either an individual NPDES permit or an alternate general NPDES permit. This notification will include a brief statement of the reasons for this decision and will provide application information or NOI requirements.

If an operator is currently covered under a previously issued MSGP or the 2015 MSGP, the notice will set a deadline to file the permit application or NOI for an individual permit or alternative general permit, and will include a statement that on the effective date of the individual NPDES permit or the date of coverage under an alternative general NPDES permit, coverage under this general permit will terminate. EPA may grant additional time to submit the application or NOI if the permittee requests it. If a permittee fails to submit an individual NPDES permit application or NOI as required by EPA, the applicability of the MSGP is terminated at the end of the day specified by EPA as the deadline for application or NOI submittal. EPA may take appropriate enforcement action for any unpermitted discharges. If a timely permit application or NOI is submitted, coverage under the MSGP is terminated on the effective date of the coverage under the alternative permit.

After obtaining coverage under the MSGP, an operator may request to be excluded from such coverage by applying for an individual permit. In this case, the permittee must submit an individual permit application per 40 CFR 122.28(b)(3)(iii), along with a statement of reasons supporting the request, to the applicable EPA Regional Office listed in Part 7.9 of the MSGP. The request for an individual permit may be granted (or an alternative general permit may be proffered) if the reasons are adequate to support the request. When an individual permit is issued or coverage under an alternative general permit is granted, MSGP coverage is automatically terminated on the effective date of the alternative permit, per 40 CFR 122.28(b)(3)(iv).

V.C. Terminating Coverage (Part 1.3).

V.C.1. Submitting a Notice of Termination (NOT) (Part 1.3.1).

Termination of MSGP coverage indicates that permittees no longer have an obligation to manage industrial stormwater per the MSGP's provisions, based on at least one of the reasons described in Part 1.3.3. To terminate MSGP coverage, permittees must submit a complete and accurate Notice of Termination, and their authorization to discharge terminates at midnight of the day that their complete NOT is processed. If EPA determines that the NOT is incomplete or that permittees have not satisfied one of the termination conditions in Part 1.3.3, then the notice is not valid and permittees must continue to comply with the conditions of the permit.

V.C.2. How to Submit Your NOT (Part 1.3.2).

Part 1.3.2 specifies the method by which operators are to submit their NOTs to terminate permit coverage. Previous acceptance of paper NOTs has been changed to mandatory use of NeT unless the EPA Regional Office grants a waiver. Electronic submittal requirements are detailed in Part 7.

V.C.3. When to Submit a Notice of Termination (Part 1.3.3).

If an operator desires to terminate MSGP coverage, it must submit a Notice of Termination, as described in Part 1.3.3, 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 (including facility closure) 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 2.1.2.5; (3) operators are covered under one of the three mining-related sectors in the permit (i.e., Sectors G, H, and J) and they have met the specific termination requirements described in the specific sector under which they are covered; or (4) permit coverage has been obtained under an individual or alternative general permit for all discharges requiring NPDES permit coverage.

V.D. Conditional Exclusion for No Exposure (Part 1.4).

Part 1.4 states that by submitting a No Exposure Certification, permittees are no longer required to comply with the MSGP (including the Notice of Termination requirements), providing the condition of "no exposure" (i.e., all industrial materials and operations are not exposed to stormwater) is maintained. A No Exposure Certification must be submitted once every five years per Part 7.2.

V.E. Permit Compliance (Part 1.5).

This part explains that any failure to comply with the conditions of the 2015 MSGP 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 MSGP and the CWA, and subsequent failure to remedy such deficiencies within the specified time periods constitutes an independent, additional violation of the 2015 MSGP 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 permittees take the required corrective action within the deadlines in Part 4.2. Also applicable to all permittees is the “duty to comply”, a standard NPDES permit condition listed in Appendix B.

V.F. Severability (Part 1.6).

Severability is a standard permit condition applicable to every NPDES permit. The term means that if any portion of the 2015 MSGP is deemed to be invalid, it does not necessarily render the whole permit invalid and the MSGP will remain in effect to the extent possible, pursuant to 40 CFR 124.16(a)(2) and 124.60. In the event that any part of the 2015 MSGP is invalidated, EPA will advise the regulated community as to the effect of such invalidation. EPA typically puts all standard permit conditions in an Appendix (Appendix B in 2015 MSGP), but the Agency put the severability requirement in Part 1 to make sure this provision is not overlooked by permittees.

VI. Control Measures and Effluent Limits (Part 2)

The 2015 MSGP contains effluent limits that correspond to required levels of technology-based control (BPT, BCT, BAT) for various discharges under the CWA. Where an ELG or NSPS applies to discharges authorized by this permit, the requirement must be incorporated into the permit as an effluent limitation. These limits are included, as applicable, in the sector-specific requirements of Part 8. Where EPA has not yet issued an effluent limitation guideline, EPA determines the appropriate technology-based level of control based on best professional judgment (BPJ, sometimes also referred to as "best engineering judgment") of the permit writer. CWA section 402(a)(1); 40 CFR 125.3. For the 2015 MSGP, most of the technology-based limits are based on BPJ decision-making because no ELG applies.

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. This is in contrast to process wastewater 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. EPA includes non-numeric effluent limits in NPDES permits[1], such as the MSGP, such as requirements mandating facilities to "minimize" various types of pollutant discharges, or to implement control measures unless "infeasible." Consistent with the control level requirements of the CWA, EPA has defined the term "minimize" as "for the purposes of this permit minimize means to reduce and/or eliminate to the extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practices." Similarly, "feasible" means "technologically possible and economically practicable and achievable in light of best industry practices. EPA notes that it does not intend for any permit requirement to conflict with state water rights law." EPA has determined that the technology-based numeric and non-numeric effluent limits in the 2015 MSGP, 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.

The BAT/BPT/BCT effluent limits in the 2015 MSGP are expressed as specific pollution prevention requirements for minimizing the pollutant levels in the discharge. EPA added greater clarity and specificity in some of the effluent limits because in past MSGPs they were written in very general terms, leaving operators wide latitude in interpreting what constituted compliance, which led to widely varying levels of stormwater program effectiveness. EPA continues to assert that the combination of pollution prevention and structural management practices required by these limits are the best technologically available and economically practicable and achievable controls, as well as the most environmentally sound way to control the discharge of pollutants in stormwater runoff from industrial facilities. This approach is supported by the results of a comprehensive technical survey EPA completed in 1979. Pollution prevention continues to be the cornerstone of the NPDES stormwater program.

Requirements are technologically available

EPA asserts that the requirements of the 2015 MSGP represent BPT, BCT and BAT. Most of the effluent limits in the 2015 MSGP have been permit requirements since EPA first issued the MSGP in 1995 (with minor modifications). Additionally, because most permittees covered under the permit are existing dischargers, control measures are already being implemented to meet the effluent limits in the permit.

Requirements meet the BPT and BAT economic tests set forth in the CWA

There are different economic considerations under BPT, BCT, and BAT. EPA finds that the limits in the 2015 MSGP meet the BPT and BAT economic tests. Essentially, the same types of controls are employed to minimize toxic, nonconventional and conventional pollutants. As a result, EPA is evaluating effluent limits using only the BPT and BAT standards. Since conventional pollutants will also be adequately controlled by these same effluent limits for which EPA applied the BPT and BAT tests, EPA has determined that it is not necessary to conduct separate BCT economic tests.

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

Under BPT, EPA has determined that the requirements of the 2015 MSGP are economically practicable. EPA has considered the reasonableness of the relationship between the costs of application of technology in relation to the effluent reduction benefit derived. CWA section 304(b)(1)(B); 40 CFR 125.3(d)(1). EPA estimates the total universe of dischargers that will be affected by the 2015 MSGP includes approximately 2,400 existing dischargers. Based on estimates provided in prior permits, updated to reflect minor changes to the permit and current dollars, EPA estimates the average annual cost of complying with the 2015 MSGP is around $2,752 for new facilities and $2,199 for existing facilities. The estimated costs of compliance have not changed between proposal and the issuance of the final 2015 MSGP. These numbers were developed by updating previous estimates to 2013 dollars by adjusting for the 10.52% inflation between average private sector hourly rates (which increased from the 2008 MSGP cost analysis from $45.84 per hour to $51.23 per hour).

EPA has determined that the requirements of the 2015 MSGP are economically achievable. In determining "economic achievability" under BAT, EPA has considered whether the costs of the controls can reasonably be borne by the industry. Because most permittees covered under the permit are existing dischargers and control measures are already being implemented to meet the effluent limits in the permit, and considering the relatively modest cost of compliance with the 2015 MSGP, EPA concludes that the technology-based effluent limitations in the MSGP are unlikely to result in a substantial economic impact to the permitted universe, including small businesses. Hence, EPA interprets this analysis to indicate that BAT limits are economically achievable. The economic analysis for the 2015 MSGP is available on the docket for the 2015 MSGP (EPA-HQ-OW-2012-0803).

Control Measures Used to Meet the Technology-Based Effluent Limits

Stormwater control measures can be actions (including processes, procedures, schedules of activities, prohibitions on practices and other management practices), or structural or installed devices to minimize or prevent water pollution. There are many options that accomplish the objective of preventing pollutants from entering waters of the U.S., and of meeting applicable limits. Industrial facility operators are required to select, design, install and implement site-specific control measures to meet these limits.

EPA generally does not mandate the specific stormwater control measures that operators must select, design, install and implement to meet the technology-based effluent limits in the permit. The permit provides operators the flexibility to determine their site-specific controls, taking into consideration what controls are most suited for their industry in terms of economic practicability and technology availability, and in some cases, considerations such as available space and safety. For example, Part 2.1.2.1 requires operators to minimize the exposure of raw, final and waste materials to stormwater and runoff. For some facilities, some or all activities and material storage may be moved indoors, while for others this will not be feasible. However, even when moving all activities/materials indoors is infeasible, some of them could be shielded by roofing or tarps, while still other activities may be limited to times when exposure to precipitation is not likely. Each of these stormwater control measures is acceptable and appropriate depending on the circumstances. In this respect the non-numeric effluent limits in the 2015 MSGP are analogous to more traditional numeric effluent limits, which also do not require specific control technologies to meet the limits.

For many facilities, controls already in place for product loss prevention, accident and fire prevention, worker health and safety or to comply with other environmental regulations may be sufficient to meet the stormwater effluent limits in the MSGP. For many facilities, the effluent limits can be achieved without using highly engineered or complex treatment systems. The specific limits in Part 2.1 of the MSGP emphasize "low-tech" controls, such as minimizing exposure to stormwater, regular

cleaning of outdoor areas where industrial activities may take place, proper maintenance, etc. However, sometimes treatment devices or constructed/installed controls may be necessary, particularly where a facility might otherwise cause or contribute to a violation of water quality standards.

The permit and Fact Sheet provide examples of stormwater control measures, but operators are expected to tailor these to their facilities as well as improve upon them as necessary to meet permit limits. The following are additional resources for developing and implementing stormwater control measures:

- Sector-specific Industrial Stormwater *Fact Sheet Series* (http://water.epa.gov/polwaste/npdes/stormwater/Industrial-Fact-Sheet-Series-for-Activities-Covered-by-EPAs-MSGP.cfm);
- National Menu of Stormwater BMPs (http://water.epa.gov/polwaste/npdes/swbmp/index.cfm); and
- National Management Measures to Control Nonpoint Source Pollution from Urban Areas (http://water.epa.gov/polwaste/nps/urban/)

VI.A. Control Measures (Part 2.1).

Part 2.1 requires operators to select, design, install, and implement control measures, in accordance with good engineering practices and manufacturer's specifications, to meet the technology-based effluent limits listed in Parts 2.1.2 and 2.1.3 and the water quality-based effluent limitations in Part 2.2. Note that compliance with the Part 2 effluent limits involving control measures does not compel permittees to undertake any activities that are considered unsafe. Operators must be aware that regulated stormwater discharges include stormwater run-on from outside sources that commingles with their own stormwater discharges associated with industrial activity, and they must account for the commingled runoff accordingly when selecting control measures. If operators find their stormwater control measures are not reducing pollutant discharges adequately, the control measures must be modified in accordance with the Part 4 corrective action requirements.

Some of the control measures required in this Part are straightforward and as a result, the associated Part 5 SWPPP documentation requirements may be minimal. This means that it is acceptable to copy and paste the language of the effluent limit in the SWPPP without any additional detail or selection of a control measure. The following documentation provision was added to provide for such convenience and burden reduction for permittees: "Effluent limit requirements in Part 2.1.2 that do not involve the site-specific selection of a control measure or are specific activity requirements (e.g., 'Cleaning catch basins when the depth of debris reaches two-thirds (2/3) of the sump depth and keeping the debris surface at least six inches below the outlet pipe') are marked with an asterisk (*). When documenting in your SWPPP, per Part 5, how you will comply with the requirements marked with an asterisk, you have the option of including additional information or you may just "cut-and-paste" those effluent limits verbatim into your SWPPP without providing additional documentation (see Part 5.2.4)." The relative lack of leeway or choices that operators have for compliance justifies the option of allowing operators to just reproduce verbatim the requirement as written in the MSGP into their SWPPPs. While minimal documentation may be sufficient and reduces some burden, operators may wish to add more information about such things as where, when and to which things at the site the effluent limit/control measure will be applied, if they deem this information useful.

The permit's approach to control measures is consistent with the CWA and 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 best management practices (BMPs), i.e., 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 purposes and intent of the CWA." 40 CFR 122.44(k)(4).

VI.A.1. Control Measure Selection and Design Considerations (Part 2.1.1).

In Part 2.1.1 operators are required to consider certain factors when selecting and designing control measures, including:

- 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 the permit;
- Minimizing impervious areas at the facility and infiltrating runoff onsite (via bioretention cells, green roofs, pervious pavement, etc.) can reduce runoff, and improve ground water recharge and stream base flows in local streams (although care must be taken to avoid ground water contamination);
- Attenuating flow using open vegetated swales and natural depressions can reduce in-stream impacts of erosive flows;
- Conserving and/or 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.

VI.A.2. Non-Numeric Technology-Based Effluent Limits (BPT/BAT/BCT) (Part 2.1.2).

The 2015 MSGP requires permittees to comply with non-numeric technology-based effluent limits, expressed narratively pursuant to 40 CFR 122.44(k), by implementing stormwater control measures. The achievement of these non-numeric limits will result in the reduction or elimination of pollutants from stormwater discharges. Such limits were developed using EPA's best professional judgment (BPJ). The requirements in Part 2 are the effluent limits applicable to all discharges associated with industrial activity for all sectors, while additional sector-specific effluent limits are found in Part 8.

Throughout Part 2.1 (and Part 8), the term "minimize" means" reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practice." The term "infeasible" means not technologically available or not economically practicable and achievable in light of best industry practices. EPA notes that it does not intend for any permit requirement to conflict with state water rights law. For clarity and consistency, the 2015 MSGP effluent limits and control measure options use the term "feasible" in place of "practicable", the term used in previous versions ("practicable" in this permit now has an economic connotation, but in the 2008 MSGP it was used as a synonym for "feasible").

The following is a summary of the permit's non-numeric technology-based effluent limits:

Minimize Exposure (Part 2.1.2.1). This Part requires permittees to limit the exposure of manufacturing, processing, and material storage areas to stormwater in order to minimize (per the definition of "minimize" in Appendix A) pollutant discharges by either locating industrial materials and activities inside or protecting them with storm-resistant coverings. Limiting contact with precipitation 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 a simple practice such as keeping a dumpster lid closed can be very effective. In minimizing exposure, permittees must also:

- Use grading, berming, or curbing to prevent runoff of contaminated flows and divert run-on away from these areas;
- Locate materials, equipment, and activities so that potential leaks and spills are contained or able to be contained or diverted before discharging;
- Clean up spills and leaks promptly using dry methods (e.g., absorbents) to prevent the discharge of pollutants;
- Store leaky vehicles and equipment indoors or, if stored outdoors, use drip pans and absorbents;
- Use spill/overflow protection equipment;
- Perform all vehicle and/or equipment cleaning operations indoors, under cover, or in bermed areas that prevent runoff and run-on and also that capture any overspray; and
- Drain fluids from equipment and vehicles that will be decommissioned, and, for any equipment and vehicles that will remain unused for extended periods of time, inspect at least monthly for leaks.*

Good Housekeeping (Part 2.1.2.2). This Part requires that all exposed areas that are potential pollutant sources be kept clean which should help a facility meet water quality standards. 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 minimizing pollution in stormwater from industrial sites simply involves commonsense improvements to a facility's basic housekeeping methods. A clean and orderly work area can reduce the possibility of accidental spills caused by mishandling of chemicals and equipment and well-maintained material and chemical storage areas can reduce the possibility of stormwater mixing with pollutants.

There are some simple procedures operators can implement 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 these practices. At a minimum, to comply with this effluent limit permittees must:

- Sweep or vacuum at regular intervals, or alternatively, wash down the area and collect and/or treat, and properly dispose of the washdown water;
- Store materials in appropriate containers;
- All dumpsters with a lid must remain closed when not in use. For dumpsters and roll off boxes that do not have lids and could leak, ensure that discharges have a control (e.g., secondary

containment, treatment). In no cases can there be dry weather discharges from dumpsters or roll off boxes;*

- Minimize the potential for waste, garbage, and floatable debris to be discharged by keeping exposed areas free of such materials or by intercepting them before they are discharged. (This provision was a separate effluent limit in the 2008 MSGP but was added to Part 2.1.2.2 for the 2015 MSGP, due to the similar nature of the limits.)

Part 2.1.2.2 also includes a new plastic materials requirement for facilities that handle pre-production plastic ("nurdles") to implement BMPs to eliminate such plastic discharges in stormwater. EPA added this language to identify and increase awareness of the potential for this type of pollution to occur.

EPA also recommends that containers that are potential sources of stormwater pollution be stored away from direct traffic routes, are stacked according to manufacturer's specifications, and are stored on pallets or other similar devices to prevent corrosion.

Maintenance (Part 2.1.2.3). This Part describes how permittees must maintain all stormwater control measures so they remain effective. Permittees must comply with the following maintenance requirements:

- Performing inspections and preventive maintenance of stormwater drainage, source controls, treatment systems, and plant equipment and systems that could fail and result in contamination of stormwater;
- Diligently maintaining nonstructural control measures (e.g., keep spill response supplies available, personnel appropriately trained);
- Inspecting and maintaining baghouses at least quarterly to prevent the escape of dust from the system and immediately removing accumulated dust at the base of the exterior bag house;*
- Cleaning catch basins when the depth of debris reaches two-thirds (2/3) of the sump depth and keeping the debris surface at least 6 inches below the outlet pipe;*

If permittees find that their control measures are in need of maintenance, they must conduct necessary maintenance immediately. If control measures need to be repaired or replaced, permittees must immediately take all reasonable steps to minimize or prevent the discharge of pollutants until the final repair or replacement can be implemented, including cleaning up any contaminated surfaces so that the material will not be discharged during subsequent storm events. Final repairs/replacement of stormwater controls should be completed as soon as feasible but must be no later than the timeframe established in Part 4.3.2 for corrective actions, i.e., within 14 days or, if that is infeasible, no longer than 45 days (or longer per notification of the Region). If a control measure was never installed, was installed incorrectly, or not in accordance with Parts 2 and/or 8, or is not being properly operated or maintained, permittees must conduct corrective action as specified in Part 4.

The 2015 MSGP now specifies that "immediately" means that all reasonable steps to minimize or prevent the discharge of pollutants must be taken on the same day the repair or replacement of a stormwater control is identified until a permanent solution is installed and made operational. However, if a problem is identified at a time in the work day when it is too late to take action, the initiation of action must begin no later than the following work day. "All reasonable steps" means that the permittee has undertaken initial actions to assess and address the condition causing the corrective action, including, for example, cleaning up any exposed materials that may be discharged in a storm event (e.g., through sweeping, vacuuming) or making arrangements (i.e., scheduling) for a new BMP to be installed

at a later date. EPA also clarifies that "all reasonable steps" does not mean taking action when it is unsafe to do so (e.g., due to inclement weather). "All reasonable steps" for purposes of complying with Part 4.2 Conditions Requiring SWPPP Review to Determine if Modifications Are Necessary, when you conclude a corrective action is, in fact, not necessary, could include documenting why a corrective action is unnecessary.

New language in this Part also includes industry-standard catch basin cleaning requirements to prevent this maintenance action from being overlooked. Where possible, EPA encourages permittees to clean catch basins prior to the debris depth reaching 2/3 in order to avoid a BMP failure. EPA's BMP fact sheets recommend that catch basins be cleaned even earlier; i.e., when debris reaches 1/3 their depth: http://water.epa.gov/scitech/wastetech/upload/2002_06_28_mtb_catchbas.pdf. EPA has also added baghouses to this Part to highlight the need for their inspection and maintenance, because baghouses can be very significant sources of pollutants. The Agency encourages permittees to inspect and maintain baghouses more frequently than quarterly and encourages the use of baghouse leak detectors so that problems are detected as soon as possible.

Spill Prevention and Response Procedures (Part 2.1.2.4). This Part requires that the potential for stormwater exposure from leaks, spills and other releases, which are major sources of stormwater pollution, be minimized. As a reminder, the term "minimize" is defined, for the purposes of this permit, as "to reduce and/or eliminate to the extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practices." In addition to preventing spills and leaks, this effluent limit has requirements for after a spill/release occurs, to limit environmental damage. EPA encourages operators to identify potential spill areas and keep an inventory of materials handled, used, and disposed. This information would be valuable for complying with the requirement to specify the material handling procedures, storage requirements, containment or diversion equipment, and spill cleanup procedures that will minimize the potential for spills/releases and, in the event of a spill/release, ensure a proper and timely response. To comply with this effluent limit, permittees must:

- Plainly label containers (e.g., "Used Oil," "Spent Solvents," "Fertilizers and Pesticides") that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur;*
- Implement procedures for material storage and handling, including the use of secondary containment and barriers between material storage and traffic areas, or a similarly effective means designed to prevent the discharge of pollutants from these areas (e.g., curbing, spill diversion pond; double-walled tank; drip pan);
- Develop training on the procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases. When needed, execute such procedures as soon as possible;
- Keep spill kits on-site, located near areas where spills may occur or where a rapid response can be made; and
- Notify appropriate facility personnel when a leak, spill, or other release occurs.

Part 2.1.2.4 also specifies that when a leak, spill or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR 110, 40 CFR 117, or 40 CFR 302, occurs during a 24-hour period, the permittee must notify the National Response Center (NRC) at (800) 424-8802 or, in the Washington, DC, metropolitan area, call (202) 267-2675 as soon as there is knowledge of the discharge. State or local requirements may

necessitate reporting spills or discharges to local emergency response, public health, or drinking water supply agencies. Contact information must be in locations that are readily accessible and available.

Although this Part is essentially the same as the 2008 MSGP, EPA has added some specificity regarding the use of secondary containment and barriers or similarly effective means between material storage and traffic areas to ensure that pollutants in leaks or spills from these areas are adequately prevented from being discharged in stormwater. Part 2.1.2.4 also requires that spill kits be kept on-site to ensure that any spills are cleaned-up expeditiously.

In addition to implementing spill prevention and response measures to minimize stormwater contamination, EPA encourages permittees to implement controls that will minimize the potential for leaked or spilled material from storage tanks to be discharged into receiving waterbodies. Such discharges can and have caused water quality impairments and serious drinking water problems downstream from the tank release. One notable incident of drinking water contamination caused by direct discharges of spilled material at an industrial stormwater-permitted facility occurred January 9, 2014 at the Freedom Industries facility near Charleston, West Virginia. The spill was caused by a steel storage tank leak, which resulted in direct discharges of crude 4-methylcyclohexane methanol (MCHM) into the Elk River, leaving 300,000 residents, as well as businesses, hospitals, and schools without drinking water. To prevent future incidents like this, EPA encourages MSGP permittees with material storage tanks, especially those with chemical storage tanks, to implement controls such as the following to both minimize the potential for stormwater contamination and to minimize the potential for direct discharges from storage tank spills or leaks:

- *Secondary containment*: For all chemical liquids and petroleum products that are held in a storage area, tank or other container, store the fluids within an impermeable secondary containment area with a retention capacity of at least 110% of the volume of the largest tank or container, or 10% of the total volume of all tanks and containers in the area, whichever is larger. There should be no overflow from the secondary containment area, which should be designed, constructed, operated and maintained so that the materials can be recovered and so that polluting materials cannot escape directly or indirectly to any public sewer system or to surface waters or ground water. Records should be maintained that document all such tanks and stored materials and their associated secondary containment area.
- *Secondary containment valves*: Secondary containment area valves that could provide stormwater and retained fluids access to a stormwater conveyance system should be controlled by manually activated valves or other similar devices (these should be secured and remain closed with a locking mechanism). Stormwater that accumulates in the containment area should be visually inspected to ensure no leaks or spills have occurred before release of the accumulated stormwater. Records should be maintained that document the individual making the observation, the description of the accumulated stormwater, and the date and time of the release.

This effluent limit also requires that all industrial equipment and systems be kept in effective operating condition in order to minimize pollutant discharges. Therefore, regular maintenance and self-inspections (per Part 3) must be conducted for all storage tanks and secondary containment areas. Permittees must look for leaks/spills, cracks, corrosion, etc., to identify deficiencies and/or problem components such as fittings, pipe connections and valves. For any deficiencies identified, permittees must conduct the necessary maintenance, or if applicable, take corrective action in accordance with Part 4.

Erosion and Sediment Controls (Part 2.1.2.5). This Part requires operators to minimize pollutant discharges from erosion by stabilizing exposed soils at the facility in order to minimize pollutant discharges and placing flow velocity dissipation devices at discharge locations. Velocity dissipation should control channel and streambank erosion and scour in the immediate vicinity of discharge points. Part 2.1.2.5 also requires the use of structural and non-structural controls to minimize the discharge of sediment. EPA now requires that whenever polymers and/or other chemical treatment will be used for erosion control, the polymers and/or chemicals and their purpose must be identified in the SWPPP.

The purpose of this requirement is to prevent discharges of sediment from exposed areas of industrial sites that, due to construction activities, steep slopes, sandy soils or other causes, are prone to soil erosion. Construction and other earth-disturbing activities often result in the exposure of underlying soil to wind and precipitation, while steep slopes or sandy soils may not be able to hold plant life so that soils are exposed, leading to erosion and the need for erosion controls.

The types of erosion controls for exposed areas operators should consider first include seeding, mulching and sodding to prevent soil from becoming dislodged. 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, must be used to back up erosion control practices. There are many resources available to help operators select appropriate control measures for erosion and sediment, including EPA's Stormwater Discharges from Construction Activities website at: http://water.epa.gov/polwaste/npdes/stormwater/EPA-Construction-General-Permit.cfm.

EPA acknowledges that portions of some industrial facilities are intended to be left unvegetated or unstabilized. For example, sizable unpaved earthen areas are common at large steel mills. For such areas, compaction of the soil, covering with gravel, and/or application of a soil binder may be adequate erosion control measures for meeting Part 2.1.2.5.

Management of Runoff (Part 2.1.2.6). This Part requires operators to divert, infiltrate, reuse, contain, or otherwise reduce stormwater runoff to minimize pollutants in the discharge, and to 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 polluted runoff to natural areas or locations where other kinds of treatment occurs.

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 the 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*.

In selecting, designing, installing, and implementing appropriate control measures, operators are encouraged to consult with EPA's Internet-based resources relating to runoff management, including the sector-specific *Industrial Stormwater Fact Sheet Series*, (http://water.epa.gov/polwaste/npdes/stormwater/EPA-Multi-Sector-General-Permit-MSGP.cfm), *National Menu of Stormwater BMPs* (http://water.epa.gov/polwaste/npdes/swbmp/index.cfm), and *National Management Measures to Control Nonpoint Source Pollution from Urban Areas* (http://water.epa.gov/polwaste/nps/urban/). Many states, counties and tribes also have very fine guidance and standards.

Salt Storage Piles or Pile Containing Salt (Part 2.1.2.7). This Part requires that piles completely or partially comprised of salt be enclosed or covered in order to minimize pollutant discharges. Operators must also implement appropriate measures to minimize the exposure of the piles during the adding to or removing from processes. Piles do not need to be enclosed or covered per this permit if stormwater

runoff from the piles is not discharged or if discharges from the piles are authorized under another NPDES permit.

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.

Employee Training (Part 2.1.2.8). This Part requires operators to 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 limits and conditions of the permit. This includes all members of the stormwater pollution prevention team identified in Part 5.2.1. The permit specifies the types of personnel and the tasks they perform that must be trained, so that they understand the MSGP's requirements and their specific responsibilities with respect to those requirements (e.g., personnel who are responsible for the design, installation, maintenance, and/or repair of controls (including pollution prevention measures). For those personnel needing training, the following areas must be covered, if applicable to the person's duties:

- An overview of what is in the SWPPP;
- Spill response procedures, good housekeeping, maintenance requirements, and material management practices;
- The location of all controls on the site required by the permit, and how they are to be maintained;
- The proper procedures to follow with respect to the permit's pollution prevention requirements; and
- When and how to conduct inspections, record applicable findings, and take corrective actions.

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 appropriate at facilities with high employee turnover or where stormwater programs are more complicated or multi-faceted. Often, training could be a part of routine employee meetings for safety or fire protection. Contractor personnel also must be trained in relevant aspects of stormwater pollution prevention, as appropriate.

Additional specificity was added to the employee training requirements in the 2015 MSGP in order to provide clarity to permittees about the requirements of the effluent limit.

Non-Stormwater Discharges (Part 2.1.2.9). This Part specifies that the presence of non-stormwater discharges must be evaluated, and any non-stormwater discharges not explicitly authorized in Part 1.1.3 or covered by another NPDES permit must be eliminated. Other than the exclusive list of allowable non-stormwater discharges listed in Part 1.1.3 of the permit, non-stormwater discharges requiring NPDES permit coverage are not, per Part 1.1.4, authorized under the MSGP.

Additionally, Part 2.1.2.9 requires that all wash water, with the exception of discharges from pavement wash water and routine building washdown per Part 1.1.3, drain to a sanitary sewer, sump or other appropriate collection system (i.e., not the stormwater drainage system). Additionally, the discharge of vehicle and equipment wash water, including tank cleaning operations, is not authorized by the permit. These wastewaters must be covered under a separate NPDES permit, discharged to a

sanitary sewer in accordance with applicable industrial pretreatment requirements, or disposed of otherwise in accordance with applicable law. Operators needing help in finding 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://water.epa.gov/polwaste/npdes/stormwater/Illicit-Discharge-Detection-and-Elimination-IDDE.cfm.

Dust Generation and Vehicle Tracking of Industrial Materials (Part 2.1.2.10). This Part requires operators to control generation of dust and off-site tracking of raw, final, or waste materials in order to minimize pollutant discharges. 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. Such a practice reduces wind velocity at ground level, 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.
- 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 materials or materials that could be spilled 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 at minimizing pollutant discharges from vehicle tracking as well (provided the wash water is not discharged).

Stormwater Infiltration Control Measures Subject to the Underground Injection Control (UIC) Regulations

EPA promotes stormwater infiltration through green infrastructure as a cost-effective, sustainable, and environmentally friendly approach to stormwater management. The primary goals of this effort are to reduce runoff volumes and contaminants, and sewer overflow events by using vegetation, soils, natural processes, and infiltration technologies to soak, store, infiltrate and/or treat stormwater runoff. When implementing stormwater infiltration, operators should ensure that it is done in a way that is protective of ground water because under certain conditions, infiltration could allow contaminants to reach underground sources of drinking water. For example, certain geologic and hydrologic conditions could create ready pathways for pollutants in the stormwater to enter the receiving aquifers.

The Safe Drinking Water Act (SDWA) was established, in part, to protect the nation's drinking water. As required by SDWA, EPA established a regulatory program to prevent underground injection which endangers underground drinking water sources and promulgated regulations containing minimum requirements for state underground injection control (UIC) programs. (See 42 U.S.C. ' 300h-1; 40 C.F.R. Parts 144-146). Once EPA approves a state or tribal UIC program as meeting the requirements of SDWA and EPA's implementing regulations, the state or tribe has primary enforcement responsibility for the UIC program. If a state does not apply for primacy, EPA retains direct implementation authority. State, tribal, or federal UIC regulations would apply to any stormwater infiltration control measures that could be classified as an Injection Well.

EPA's regulations define "well injection" as the subsurface emplacement of fluids through a well. A "well" is defined as a bored, drilled or driven shaft, or dug hole whose depth is greater than its largest 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. Commercially manufactured or proprietary infiltration devices may fall into this category. *Improved sinkhole* means a naturally occurring karst depression or other natural crevice found in volcanic terrain and other geologic settings that has been engineered for the purpose of directing and emplacing fluids into the subsurface.

Infiltration control measures that are also injection wells would be subject to UIC regulations and would likely be classified as Class V Injection Wells. Most Class V wells are authorized by rule if operators submit inventory information to the proper authority (state, tribe, or EPA), do not endanger underground sources of drinking water, and are properly abandoned when no longer in use. An operator may also be required to get a Class V permit or take other actions to prevent potential degradation of underground sources of drinking water.

Operators can find out the status of their state's UIC program at http://water.epa.gov/type/groundwater/uic/primacy.cfm.

On June 13, 2008, EPA issued a policy memo that clarified which green infrastructure stormwater infiltration practices have the potential to be regulated as Class V wells by the UIC program. A copy of this memo is available on EPA's website at: http://water.epa.gov/infrastructure/greeninfrastructure/upload/memo_gi_classvwells.pdf.

VI.A.3. Numeric Effluent Limitations Based on Effluent Limitations Guidelines (Part 2.1.3).

This requirement provides the applicable federal effluent limitations guidelines that permittees are responsible for complying with, including the newly added Airport Deicing Effluent Limitation Guideline. The following table describes where these limits can be found in the permit.

Regulated Activity	**40 CFR Part/Subpart**	**Effluent Limitation**
Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	Part 429, Subpart I	See Part 8.A.7
Runoff from phosphate fertilizer manufacturing facilities	Part 418, Subpart A	See Part 8.C.4
Runoff from asphalt emulsion facilities	Part 443, Subpart A	See Part 8.D.4
Runoff from material storage piles at cement manufacturing facilities	Part 411, Subpart C	See Part 8.E.5

Regulated Activity	40 CFR Part/Subpart	Effluent Limitation
Mine dewatering discharges at crushed stone, construction sand and gravel, or industrial sand mining facilities	Part 436, Subparts B, C, or D	See Part 8.J.9
Runoff from hazardous waste landfills	Part 445, Subpart A	See Part 8.K.6
Runoff from non-hazardous waste landfills	Part 445, Subpart B	See Part 8.L.10
Runoff from coal storage piles at steam electric generating facilities	Part 423	See Part 8.O.8
Runoff containing urea from airfield pavement deicing at existing and new primary airports with 1,000 or more annual non-propeller aircraft departures	Part 449	See Part 8.S.8

Note: To correct an oversight in previous permits, the effluent limitation in Part 8.E.5 contains the following relief as quoted from the ELG at 40 CFR 411: "Any untreated overflow from facilities designed, constructed and operated to treat the volume of runoff from materials storage piles which is associated with a 10-year, 24-hour rainfall event shall not be subject to the pH and TSS limitations."

VI.B. Water Quality-Based Effluent Limitations (Part 2.2).

The 2015 MSGP includes water quality-based effluent limits (WQBELs) to ensure that MSGP-authorized discharges will be controlled as necessary to meet applicable water quality standards, pursuant to CWA section 301(b)(1)(C) and 40 CFR 122.44(d)(1). The provisions of Part 2.2 constitute the WQBELs of the 2015 MSGP, and supplement the permit's technology-based effluent limits in Part 2.1. The following is a list of the permit's WQBELs:

- Control discharges as necessary to meet applicable water quality standards of all affected states or tribes (i.e., discharges must not cause or contribute to a violation of applicable water quality standards) (See Part 2.2.1);
- Implement any additional measures that are necessary to be consistent with the assumptions and requirements of the applicable Total Maximum Daily Load (TMDL) and its wasteload allocation (See Part 2.2.2.1). For discharges to impaired waters without a TMDL, conduct impaired waters monitoring (See Part 2.2.2.2). Additionally, new discharges to impaired waters must implement any measures required per the Part 1.1.4.8 eligibility requirements;
- Implement any additional measures that EPA determines are necessary to comply with applicable antidegradation requirements for discharges to Tier 2 or 2.5 waters (see Part 2.2.3).

Prior to or after initial discharge authorization, EPA may require operators to implement additional measures on a facility-specific basis, or require permittees to obtain coverage under an individual permit, if information in the NOI, required reports, or other sources indicates that, after complying with the technology-based limits in Part 2.1 and the WQBELs in Part 2.2, discharges will not be controlled as necessary to meet water quality standards.

Facilities that achieve the permit's technology-based limits through the careful selection, design, installation, and implementation of effective control measures are likely to be controlling their stormwater discharges to a degree that would make additional water quality-based measures unnecessary. However, to ensure that this is so, the permit contains additional provisions in Part 2.2,

which, along with the BAT/BPT/BCT limits in the permit, are as stringent as necessary to achieve water quality standards.

The WQBELs included in the permit continue to be non-numeric. EPA relies on a narrative limit to ensure discharges are controlled as necessary to meet applicable water quality standards, and to ensure that additional measures are employed where necessary to meet the narrative WQBELs, or to be consistent with the assumptions and requirements of an applicable TMDL and its WLA, or to comply with a state or tribe's antidegradation requirements. This is a reasonable approach for the 2015 MSGP, based on the following considerations:

- Limited waterbody information available about individual dischargers: EPA will not know prior to receiving NOIs where any new facilities are located and where they will discharge. In addition, existing facilities' NOI data from earlier permits has typically been difficult to access, and this factor plus other NOI system limitations have restricted the number and quality of NOI reviews that EPA could do. Facility type and location, and receiving water information are necessary for EPA to determine what, if any, special protections apply to that water. To assist operators in determining their receiving water information, EPA has a tool in NeT that will automatically identify their receiving water(s) and impairment status. EPA's receipt of the NOI and receiving water information may then trigger a review. For now, however, it is not possible to know what specific requirements apply to facilities *a priori*, and to include any such requirements in a general permit.
- Review of the NOI and applicable watershed documents is the appropriate forum for deriving facility-specific WQBELs: Once EPA receives an NOI for the new permit, the Agency will be better able to assess whether any more protective control measures are necessary. For instance, if an NOI indicates that the facility will discharge to an impaired waterbody with an EPA-approved or established TMDL, EPA can analyze the relevant information to determine whether any additional control measures are necessary to meet the permit's effluent limits and whether discharges will be consistent with the TMDL and WLAs. If the operator is unwilling or unable to implement such additional control measures (or other measures that would yield the same results), EPA may notify the facility that it is not eligible for MSGP coverage and must instead apply for an individual permit. EPA may undertake a similar assessment process when facilities indicate that they are discharging to a waterbody designated as Tier 2 or 2.5 for antidegradation purposes.

VI.B.1. Water Quality Standards (Part 2.2.1).

This Part specifies that permittees must control their discharge as necessary to meet applicable water quality standards of all affected states (i.e., a discharge must not cause or contribute to a violation of applicable water quality standards). EPA expects that compliance with the other conditions in the 2015 MSGP (e.g., the technology-based limits, corrective actions) will result in discharges that are controlled as necessary to meet applicable water quality standards. However, if permittees become aware, or EPA determines, that a discharge does not meet applicable water quality standards, corrective actions are required per Part 4. In addition, any time EPA determines that the discharge is not meeting the WQBEL (i.e., the discharge is not controlled as necessary to meet applicable water quality standards), the Agency may inform the operator that additional measures are needed, or require that the operator instead apply for an individual permit. The same applies to situations where additional measures are necessary for discharges to be consistent with an available wasteload allocation in an EPA-established or approved TMDL (a new addition to the permit). In such situations, EPA will be available to help operators understand what they need to do to ensure that their discharges are consistent with any available wasteload allocations.

VI.B.2. Discharges to Water Quality-Impaired Waters (Part 2.2.2).

This Part includes the requirements applicable to discharges to impaired waters. Projects will be considered to discharge to an impaired water if the first water of the United States discharged to is:

- Identified by a state, tribe, or EPA, pursuant to Section 303(d) of the CWA, as not meeting an applicable water quality standard, or;
- Addressed by an EPA-approved or established TMDL, or;
- Not in either of the above categories but the waterbody is covered by a pollution control program that meets the requirements of 40 CFR 130.7(b)(1).

Existing Discharge to an Impaired Water with an EPA-Approved or Established TMDL (Part 2.2.2.1). This Part specifies EPA may inform permittees that additional requirements are necessary for the discharge to be consistent with the assumptions and requirements of an applicable TMDL and its wasteload allocation (WLA). Water quality-based effluent limits must be "consistent with the assumptions and requirements of any available wasteload allocation for the discharge", pursuant to 40 CFR 122.44(d)(1)(vii)(B). Where an operator indicates on its NOI that a discharge is to one of the types of waters this Part covers, EPA will review the applicable TMDL to determine whether it includes provisions that apply to the individual discharger or its industrial sector. If so, EPA will determine whether compliance with the existing permit limits is sufficient or what additional measures are necessary for the discharge to be consistent with the WLA. Alternatively, EPA may decide an individual permit application is necessary. Because WLAs for stormwater discharges may be specified in many different formats, it has not always been clear to permittees what they need to do to ensure that their discharge is consistent with available WLAs. EPA has thus established a new process to ensure that these requirements are properly interpreted and communicated by EPA to the permittee in a way that is implementable.

Existing Discharge to an Impaired Water without an EPA-Approved or Established TMDL (Part 2.2.2.2). This Part reiterates that facilities discharging to impaired waters without an EPA-approved or established TMDL must still control their discharges as necessary to meet water quality standards (as also required per Part 2.2.1). EPA expects they will achieve this if they comply with the other requirements in the permit, including monitoring requirements applicable to impaired waters discharges in Part 6.2.4. However, if information in the NOI, required reports, or from other sources indicates that discharges are not controlled as necessary to meet applicable water quality standards, EPA may inform operators of the need to implement additional measures on a site-specific basis to ensure the WQBEL is met, or, alternatively, of the need to apply for an individual permit.

New Discharger or New Source to an Impaired Water (Part 2.2.2.3). This Part requires permittees that are "new sources" or meet the definition of "new discharger" (see Appendix A) that discharge to impaired waters maintain for the permit term any control measures in good working order that have been implemented to meet the eligibility requirements of Part 1.1.4.8.

VI.B.3. Tier 2 Antidegradation Requirements for New Dischargers or Increased Discharges (Part 2.2.3).

This provision applies to new dischargers, new sources, and ongoing permittees whose discharges[1] directly to waters designated by a state or tribe as Tier 2 or 2.5 (defined in Appendix A) have increased. Such dischargers must, for antidegradation purposes implement any additional measures that EPA determines are necessary to comply with the permit's WQBEL, including the applicable state or federal antidegradation requirements (state and tribal water quality standards are required to contain

[1] In general, any existing discharger required to notify EPA of an increased discharge consistent with Part 7.1 (i.e., a "planned changes" report) will be considered to have an increased discharge.

an antidegradation policy pursuant to 40 CFR 131.12). EPA may also, per the applicable antidegradation policy, notify permittees that they cannot be covered under the MSGP due to the unique characteristics of the discharge or the receiving waters, and that they must apply for an individual permit. Conversely, if EPA does not notify a permittee that additional measures are needed to ensure compliance with antidegradation requirements, the permittee is authorized to discharge under the permit. New dischargers to waters designated as Tier 3, outstanding national resource waters, as defined in 40 CFR 131.12(a)(3), are not eligible for coverage under the 2015 MSGP (see Part 1.1.4.9) and must apply for an individual permit.

Waters designated as "Tier 2" by states and tribes can generally be described as follows: Tier 2 protects "high quality" waters -- waterbodies where existing conditions are better than necessary to support CWA § 101(a)(2) "fishable/swimmable" uses. Some states have designated waters using criteria which EPA considers to be more stringent than the federal Tier 2 designation, but less stringent than the federal Tier 3 designation. EPA calls such waters "Tier 2.5". Water quality may be lowered in 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 proposed new or increased 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 "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.

Note about alternate antidegradation designations used by some states: Some states have adopted alternative approaches to designating Tier 2 or Tier 3 waters. These are collectively referred to as "Tier 2.5" waters since they fall between Tiers 2 and 3 in terms of characteristics and regulations supporting them. Tier 2.5 waters are commonly described as providing protection more stringent than Tier 2 but allowing some added flexibility that a Tier 3-designated water (Outstanding National Resource Water) would not. Refer to *Memorandum from William Diamond* (Former Director, Standards and Applied Science Division) *to Victoria Binetti* (Chief, Region III, Program and Support Branch), June 13, 1991. Examples of Tier 2.5 waters exist in Massachusetts, which designates "outstanding resource waters" (ORWs). These waters have exceptional sociologic, recreational, ecological and/or aesthetic values and are subject to more stringent requirements under both the Massachusetts Water Quality Standards and the Massachusetts Stormwater Management Standards. ORWs include vernal pools certified by the Natural Heritage Program of the Massachusetts Department of Fisheries and Wildlife and Environmental Law Enforcement, all Class A designated public water supplies with their bordering vegetated wetlands, and other waters specifically designated. All of the provisions in the MSGP pertaining to Tier 2 waters apply equally to Tier 2.5 waters. And, where there is a reference in this Fact Sheet to Tier 2 waters, the reader should infer that EPA intends to include Tier 2.5 waters as well.

VI.C. Requirements Relating to Endangered Species, Historic Properties, and Federal CERCLA Sites (Part 2.3).

This Part requires permittees to continue to implement any agreed-upon measures that were imposed as a condition or prerequisite for becoming eligible under Parts 1.1.4.5, 1.1.4.6, and/or 1.1.4.10 throughout the permit term. Any time permittees become aware, or EPA determines, that discharges and/or discharge-related activities are likely to adversely affect listed species and/or critical habitat, or cause water quality violations at federal CERCLA Sites, EPA may impose additional measures on a site-specific basis, or require permittees to obtain coverage under an individual permit.

VII. Inspections (Part 3)

VII.A. Routine Facility Inspections (Part 3.1).

Part 3.1 of the 2015 MSGP requires inspections to be conducted at least quarterly in the following areas:

- Areas where industrial materials or activities are exposed to stormwater;
- Areas identified in the SWPPP that are potential pollutant sources (see Part 5.2.3);
- Areas where spills and leaks have occurred in the past 3 years;
- Discharge points; and
- Control measures used to comply with the effluent limits contained in the permit.

Increased frequency (i.e., more than quarterly) may be appropriate for some types of equipment, processes and stormwater control measures, or areas of the facility with significant activities and materials exposed to stormwater. For instance, because vehicle and equipment maintenance and cleaning are particularly dirty activities, EPA recommends that they are inspected more frequently. In addition, properly functioning controls for these activities, such as oil-water separators, are very important for an effective stormwater program, and should also be inspected more frequently (but in no case may be inspected less than quarterly). In another example, inspection of outdoor areas associated with regular industrial activity may benefit from more frequent inspections to ensure that the site is swept, garbage is picked up, drips and spills are cleaned, etc., on a regular basis. The relevant inspection schedules must be documented in the SWPPP. During each calendar year, at least one of the routine inspections must be conducted during a period when a stormwater discharge is occurring. This inspection will enable permittees to better identify sources of pollutants discharged in stormwater runoff from the facility and to actively observe the effectiveness of control measures implemented to comply with effluent limits. Discharge points, as defined in Appendix A, must also be observed during this inspection. If such discharge locations are inaccessible, nearby downstream locations must be inspected.

Qualified personnel must conduct the routine facility inspections, with at least one member of the stormwater pollution prevention team participating. Inspectors must consider the results of visual and analytical monitoring (if any) from the past year when planning and conducting inspections. Part 3.1 requires that all the following be examined during an inspection:

- Industrial materials, residue or trash that may have or could come into contact with stormwater;
- Leaks or spills from industrial equipment, drums, tanks and other containers;
- Offsite tracking of industrial or waste materials, or sediment where vehicles enter or exit the site;
- Tracking or blowing of raw, final or waste materials from areas of no exposure to exposed areas;
- Control measures needing replacement, maintenance or repair.

The 2015 MSGP consolidates the different and separate documentation requirements in the Comprehensive Site Inspection Procedures and Routine Facility Inspection Procedures in the 2008 MSGP, while the timing, scope, and requirements for a yearly cycle of inspections remain the same.

VII.A.1. Exceptions to Routine Facility Inspections for Inactive and Unstaffed Sites (Part 3.1.1).

Operators of inactive and unstaffed sites may invoke an exception from routine inspections if they eliminate all exposure of industrial activities and materials to stormwater, and document this in the SWPPP. This waiver is available to all sectors covered under the 2015 MSGP. In addition, inactive and unstaffed mines covered under Sectors G, H, and J are eligible for this waiver even if all exposure has not been eliminated, due to the unique issues affecting such facilities, such as the remoteness of many mining sites. Facilities that make use of this waiver must still implement any necessary control measures to comply with applicable permit requirements and must still conduct an annual inspection.

VII.A.2. Routine Facility Inspection Documentation (Part 3.1.2).

Part 3.1.2 of the 2015 MSGP describes the specific information to be documented for each routine inspection. Additionally, some industry sectors have specific routine inspection requirements, which are described in Part 8 of the permit for the relevant sectors. At a minimum, the permit requires the following documentation for each routine inspection:

- The inspection date and time;
- The name(s) and signature(s) of the inspector(s);
- Weather information;
- All observations relating to the implementation of control measures at the facility, including:
  - A description of any discharges occurring at the time of the inspection;
  - Any previously unidentified discharges from and/or pollutant sources at the site;
  - Any evidence of, or the potential for, pollutants entering the drainage system;
  - Observations regarding the physical condition of and around all outfalls, including any flow dissipation devices, and evidence of pollutants in discharges and/or the receiving water;
  - Any control measures needing maintenance, repairs, or replacement.
- Any additional control measures needed to comply with the permit requirements;
- Any incidents of noncompliance; and
- A statement, signed and certified in accordance with Appendix B, Subsection 11.

Part 3.1.2 specifies that any corrective action required as a result of a routine facility inspection must be performed consistent with Part 4 of the permit. Part 3.1.2 also clarifies that if a discharge visual assessment is performed during a routine facility inspection, the results of this assessment may be included in the same report as the routine facility inspection report.

VII.B. Quarterly Visual Assessment of Stormwater Discharges (Part 3.2).

Quarterly visual assessments of stormwater discharges 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. All industrial sectors covered by the 2015 MSGP are required to conduct these examinations.

Part 3.2.1 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 a soon as practicable after the occurrence of an actual discharge from the site (including documentation of why sampling was not practicable within the first 30 minutes, if applicable). Whenever the visual assessment shows evidence of stormwater pollution, corrective action procedures must be initiated per Part 4.

Part 3.2.2 requires permittees to 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, nature of the discharge (i.e., runoff or snowmelt), results of the observations, and probable sources of any observed stormwater contamination. The visual examination reports must be maintained onsite with the SWPPP.

When conducting a stormwater visual examination, the pollution prevention team, or individual team member, must 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) must conduct an inspection of the area of the site draining to the examined discharge to look for sources of spilled oil, leaks, etc. If a source can be located, then this information would necessitate that the facility operator immediately conduct a clean-up of the pollutant source, and/or to revise control measures to minimize the contaminant source.

Part 3.2.3 of the permit includes the same exceptions from the 2008 MSGP to these requirements in order to account for circumstances during which conducting quarterly visual assessments may not be feasible, namely during adverse (e.g., dangerous) weather conditions, or in parts of the country subject to climates with irregular stormwater runoff or to large amounts of snowfall. Where these types of conditions prevent a facility from performing these assessments quarterly, permittees may 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 of inactive and unstaffed sites may invoke a visual assessment exception if they eliminate all exposure of industrial activities and materials to stormwater, and document this in the SWPPP. This waiver is available to all sectors covered under the 2015 MSGP. In addition, inactive and unstaffed mines covered under Sectors G, H, and J are eligible for this waiver even if all exposure has not been eliminated due to the unique issues affecting such facilities, such as the remoteness of many mining sites. Facilities that make use of this waiver must still implement any necessary control measures to comply with applicable permit requirements.

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.

VIII. Corrective Actions (Part 4)

For the 2015 MSGP, EPA has differentiated conditions that trigger a corrective action based on whether the condition needs to be eliminated (e.g., if water quality standards are not met), or if a SWPPP review is required to determine if a SWPPP modification is needed (e.g., the four quarterly average of benchmark samples has exceeded the benchmark). The requirements for these two types of corrective action triggering conditions are summarized in VIII.A and VIII.B below.

VIII.A. Conditions Requiring SWPPP Review and Revision to Ensure Effluent Limits are Met (Part 4.1).

If operators find that any of the conditions in Part 4.1 of the 2015 MSGP have occurred, they are required to review and revise their SWPPP to eliminate the condition so that the permit's effluent limits are met and pollutant discharges are minimized. Operators may become aware of these conditions through an inspection, monitoring, or other means, or if EPA informs the operator of the condition(s). The SWPPP review should focus on sources of pollution, spill and leak procedures, non-stormwater discharges, selection, design, installation and implementation of control measures. Part 4.1 of the 2015 MSGP specifies the following conditions requiring review and revision to ensure effluent limits are met, which are substantially similar to the correction action triggering conditions in the 2008 MSGP:

- An unauthorized release or discharge (e.g., spill, leak, or discharge of non-stormwater not authorized by the MSGP or another NPDES permit) occurring at the facility.
- A discharge that violates a numeric effluent limitation listed in Table 2-1 and in the Part 8 sector-specific requirements.
- Control measures that are not stringent enough for the discharge to meet applicable water quality standards or the non-numeric effluent limits in the permit.
- Where a required control measure was never installed, was installed incorrectly, or not in accordance with Parts 2 and/or 8, or is not being properly operated or maintained.
- Whenever a visual assessment shows evidence of stormwater pollution (e.g., color, odor, floating solids, settled solids, suspended solids, foam).

VIII.B. Conditions Requiring SWPPP Review to Determine if Modifications Are Necessary (Part 4.2).

The corrective action triggering conditions in Part 4.2 require a SWPPP review to determine if any modifications are necessary to meet the effluent limits in the permit. These conditions, which are substantially similar to the 2008 MSGP, include:

- Construction or a change in design, operation or maintenance at the facility that significantly changes the nature of pollutants discharged in stormwater from the facility, or significantly increases the quantity of pollutants discharged.
- The average of four quarterly sampling results exceeds an applicable benchmark (see Part 6.2.1.2). If fewer than four benchmark samples have been taken, but the results are such that an exceedance of the four-quarter 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 exceedance, triggering this review.

EPA notes that a benchmark exceedance does not trigger a corrective action if it is determined that the exceedance is solely attributable to natural background sources or if a finding is made that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice (see Part 6.2.1.2). EPA also notes that when run-on to your facility causes a benchmark exceedance, in addition to reviewing and revising, as appropriate, the SWPPP, permittees should notify the other operators contributing run-on to discharges to abate their pollutant contribution. Where doing so proves unsuccessful, permittees should contact the EPA Regional Office.

VIII.C. Corrective Action Deadlines (Part 4.3).

The 2015 MSGP includes specific deadlines for taking corrective actions to remedy deficiencies. The time limits in Part 4 are those that EPA considers reasonable for making the necessary repairs or modifications, and are included specifically so that inadequacies are not allowed to persist indefinitely.

The corrective action deadlines in the 2015 MSGP are similar to the corresponding deadlines in Part 3.3 of the 2008 MSGP, but have been modified to further specify what actions must be taken by the deadlines.

When conditions exist that trigger corrective action, permittees must take immediate action to minimize or prevent pollutant discharges until a permanent solution is implemented. This is similar to the 2008 MSGP requirement that corrective actions be documented within 24 hours. The 2015 MSGP requires that all reasonable steps be taken immediately (i.e., on the same day the condition was found) to minimize pollutant discharges until a permanent solution is implemented. "All reasonable steps" means that the permittee has undertaken initial actions to assess and address the condition causing the corrective action, including, for example, cleaning up any exposed materials that may be discharged in a storm event (e.g., through sweeping, vacuuming) or making arrangements (i.e., scheduling) for a new BMP to be installed at a later date. The permit also states that if a problem is identified at a time in the work day when it is too late to initiate corrective action, the initiation of corrective action must begin no later than the following work day.

The 2015 MSGP requires that subsequent action to implement a permanent solution must be taken by no later than 14 calendar days from discovering the corrective action-triggering condition (e.g., by installing a new or modifying an existing control or by completing any needed stormwater control repairs). This requirement is similar to the 2008 MSGP, except that, while the 2008 MSGP required that within 14 days the corrective action plan be documented, the 2015 MSGP specifies that corrective action must be taken within 14 days (and before the next storm event if possible), unless infeasible. The additional specificity regarding the timeframe for completing the corrective action is necessary in order to ensure that corrective actions are taken expeditiously, which will minimize pollutant discharges from the site.

EPA does recognize that there may be circumstances in which immediate action to initiate corrective action may not be possible within the same day a corrective action condition is found. "All reasonable steps" does not necessitate taking action when it is unsafe to do so (e.g., due to inclement weather). EPA also recognizes that there may be circumstances where it is not feasible to complete needed corrective actions within 14 days, and therefore provides that permittees may modify the schedule for completing the corrective action so that corrective action is taken as soon as practicable after the 14-day timeframe, and is completed no later than 45 days after discovery of the triggering condition. If the completion of corrective action will exceed the 45 day timeframe, the permit also allows permittees to take the minimum additional time necessary to complete the corrective action, provided that the permittee notifies the EPA Regional Office. Permittees must provide a rationale for an extension of the timeframe, and a corrective action completion date to the EPA Regional Office, and also include this in their corrective action documentation.

EPA recognizes that identifying both the need to take corrective action and the appropriate modifications to the control measures will, in some cases, be an iterative process. Several storm events may be needed to determine how to fully resolve the triggering issue(s). For example, if a visual assessment indicates that the facility is discharging suspended solids in stormwater, an appropriate corrective action may be to immediately clean up any signs of visible sources of the pollutants on the site (e.g., through immediate sweeping or vacuuming of exposed surfaces), and then review the SWPPP to identify additional potential deficiencies or pollutant sources. If poor housekeeping is suspected to be the cause, permittees may decide, in accordance with Part 4.3.2, to implement a new schedule of increased sweeping or vacuuming within 14 calendar days. However, if a subsequent visual assessment indicates that suspended solids remain a stormwater pollution issue that would be a separate corrective action-triggering event. In such a case, permittees would undertake the corrective action review process

again in order to assess and correct other deficiencies that are suspected to be the cause, meaning that the corrective action deadlines in Part 4.1 and Part 4.2 would be reset.

EPA emphasizes that these timeframes are not grace periods within which an operator is relieved of any liability for a permit violation that may have triggered the corrective action. If the original inadequacy triggering a corrective action constitutes a permit violation, then that violation is not deferred or erased by the timeframe EPA has allotted for corrective action. In all cases, failing to take corrective action as required in Part 4 constitutes a permit violation separate and apart from any violation that the triggering event may have constituted.

VIII.D. Corrective Action Documentation (Part 4.4).

For any event described in Part 4.1 or 4.2, permittees must document basic information describing the event that triggers corrective action and their response to that event. As described previously, the permit establishes conditions for both immediate and 14-day (or longer if 14 days is infeasible) response periods. Permittees must maintain a copy of this documentation with their SWPPP as well as summarize this information in the annual report.

These documentation requirements are substantially similar to the 2008 MSGP. EPA has also moved documentation requirements for spills or leaks from Part 5.4 of the 2008 MSGP into the corrective action documentation requirements in the 2015 MSGP in order to reduce potential redundant documentation in the SWPPP.

VIII.E. Effect of Corrective Action (Part 4.5).

The permit states that if the condition triggering the corrective action review is a permit violation (e.g., exceedance of a numeric effluent limitation), correcting it does not remove the original violation. Additionally, failure to take corrective action in accordance with Part 4 is a separate permit violation (in addition to any permit violation that may have triggered corrective action). EPA will consider the appropriateness and promptness of corrective action in determining enforcement responses to permit violations. This provision is unchanged from the 2008 MSGP.

VIII.F. Substantially Identical Outfalls (Part 4.6).

If the event triggering corrective action is associated with an outfall that has been identified as a "substantially identical outfall" (see Parts 3.2.3 and 6.1.1), permittees must assess the need for corrective action for all related substantially identical outfalls. Any necessary changes to control measures that affect these other outfalls must also be made before the next storm event if possible, or as soon as practicable following that storm event. Any corrective actions must be conducted within the timeframes set forth in Part 4.3.

IX. Stormwater Pollution Prevention Plan (SWPPP) (Part 5)

Part 5 requires operators to develop a SWPPP to document the specific control measures they will use to meet the limits contained in Part 2 and Part 8, if applicable, as well as to document 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 permittees, inspectors and other authorities in ensuring and documenting that effluent limits are met. Per Part 5.3, this documentation must be kept up-to-date (e.g., with inspection findings, after stormwater controls are modified). Failure to develop and maintain a current SWPPP is a recordkeeping violation of the permit, and is separate and distinct from a violation of any of the other substantive requirements in the permit, such as effluent limits, corrective action, inspections, monitoring, reporting, and sector- or state-specific requirements.

To be covered under the MSGP, operators must complete a SWPPP prior to submitting an NOI for permit coverage (ongoing permittees must update their existing SWPPP). Doing so helps to ensure that permittees have (1) taken steps to identify all sources of pollutant discharges in stormwater; and (2) implemented appropriate measures to control these discharges in advance of authorization to discharge under the new permit.

Part 5.2 of the permit contains most of the required elements to be documented in the SWPPP; however, sector-specific SWPPP documentation requirements are also included in Part 8 of the permit. Those permit elements that all permittees must document include: 1) the establishment of a stormwater pollution prevention team; 2) a description of the site; 3) a summary of potential pollutant sources; 4) a description of control measures; 5) monitoring and inspection procedures (including schedules); 6) documentation to support eligibility considerations under other federal laws; and 7) signature requirements.

Note that any discharges not expressly authorized in the MSGP cannot become authorized or shielded from liability under CWA section 402(k) by disclosure to EPA, state, or local authorities after issuance of this permit via any means, including the NOI to be covered by the permit, the SWPPP, during an inspection, etc.

IX.A. Person(s) Responsible for SWPPP Preparation (Part 5.1).

Part 5.1 requires that the SWPPP be prepared in accordance with good engineering practices and to industry standards. Examinations of SWPPPs during inspections have found some SWPPPs to be generic and minimal rather than detailed and site-specific. Therefore, for the 2015 MSGP, EPA added the SWPPP preparation standards requirement, similar to the 2008 MSGP requirement regarding selection of stormwater controls: "The selection, design, installation, and implementation of these control measures must be in accordance with good engineering practices and manufacturer's specifications."

With respect to the SWPPP preparation standards requirement, the SWPPP may be developed by either the facility itself or a contractor, but it in all cases the SWPPP developer must be a "qualified person", and the SWPPP must be certified per the signature requirements in Part 5.2.7. A "qualified person" is a person knowledgeable in the principles and practices of industrial stormwater controls and pollution prevention, and who possesses the education and ability to assess conditions at the industrial facility that could impact stormwater quality, and to assess the effectiveness of stormwater controls selected and installed to meet the requirements of the permit. The requirement for the SWPPP to be developed by a qualified person and then certified provides accountability and increases the chance that SWPPPs will be available to and followed by facility personnel. Regardless of the SWPPP certification, EPA may still determine after reviewing a SWPPP that it is not in compliance with the requirements of Part 5.2. In this instance, the Agency may require the SWPPP to be reviewed, amended as necessary, and certified by a Professional Engineer with the education and experience necessary to prepare an adequate SWPPP. For the mining sectors (G, H and J), the certifier may also be a Professional Geologist. This professional credentials requirement option is for severely and/or persistently deficient SWPPPs. This requirement engenders no additional burden when the permit is fully complied with originally.

IX.B. Contents of Your SWPPP (Part 5.2).

The SWPPP must address the specific requirements in Part 5.2. Permittees may choose to reference other documents in their SWPPP, as appropriate, rather than recreating the same text in the SWPPP. However, when referencing other documents, permittees are responsible for ensuring that their SWPPP and the other documents referenced together contain all the necessary elements to fully address the elements in Part 5.2. In addition, permittees must ensure that a copy of the referenced document is in an accessible format that can be made immediately available to facility employees, EPA,

a state or tribe, etc., per Part 5.4. For example, if a facility is a member of EPA's National Environmental Performance Track (http://www.epa.gov/performancetrack), it does not need to include in a separate SWPPP document components that are already included in its Environmental Management System (EMS) document. Any EMS activity that is adequately documented so that it also fully meets the documentation requirements for a SWPPP (e.g., for facility inspections that incorporate and document stormwater inspection requirements) will fulfill the relevant provision of the MSGP. EPA encourages such a facility to incorporate all required SWPPP components into its EMS, and work from a single plan. Similar allowances apply to other program documents such as Spill Prevention, Control and Countermeasure (SPCC) plans. Regardless of whether all required SWPPP components are combined into one document, an index should be kept that identifies where individual SWPPP components are addressed.

IX.B.1. Pollution Prevention Team (Part 5.2.1).

A qualified individual or team responsible for developing and revising the facility's SWPPP must be identified. These persons are responsible for implementing and maintaining the control measures to meet effluent limits, and taking corrective action where necessary. Personnel 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 covered. EPA 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. Identification 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.

IX.B.2. Site Description (Part 5.2.2).

The SWPPP must describe the industrial activities, materials employed, and physical features of the facility that may contribute significant amounts of pollutants in stormwater runoff. The SWPPP must also contain both a general location map of the site that shows where the facility is in relationship to receiving waters and other geographical features, plus 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 associated with industrial activity that contain potentially significant quantities of pollutants (i.e., pollutant amounts that could cause a water quality standards exceedance), the map must indicate the probable direction of stormwater flow and the pollutants likely to be in the discharge. Flows with a significant potential to cause soil erosion must be identified. The site map must also include locations of such things as: 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 operators' sites (see the permit for a 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. A detailed site description and site map assists permittees in identifying issues and setting priorities for the selection, design and implementation of measures taken to meet effluent limits, and in identifying potential changes in materials, materials management practices, or site features. It is also vital for executing proper inspections.

IX.B.3. Summary of Potential Pollutant Sources (Part 5.2.3).

The 2015 MSGP requires permittees to identify the potential sources of pollutants from industrial activities that could result in contaminated stormwater discharges, unauthorized non-

stormwater discharges, and potential sources of allowable non-stormwater discharges. "Stormwater discharges associated with industrial activities" is defined, pursuant to 40 CFR 122.26(b)(14), 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; 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 "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. "Stormwater discharges associated with industrial activities" does not include areas located at a facility separate from the facility'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. Part 5.2.3 is only applicable to those portions of a facility covered under the permit, but the areas of the facility not covered under the MSGP should be identified and an explanation provided as to why such areas need not be covered.

Note that potential pollution sources include a facility's roof(s) and other surfaces that could accumulate pollutants originating from an industrial process and deposited through the air. Roofs, walls, etc., exposed to emissions from industrial areas can build up such pollutants over dry periods, which can be mobilized during a rain event or in snowmelt, so these areas need to be identified and included in SWPPP development. Likewise, industrial structures containing materials that could become pollutants discharged in stormwater (e.g., copper cladding on buildings or zinc from galvanized fences) must also be identified as potential pollutant sources.

For each area that may be a pollutant source at the site, permittees must describe the following:

Activities in the Area (Part 5.2.3.1). This description must include a list of the industrial activities at a facility (see the list above), including any co-located industrial activities that may be exposed to stormwater.

Pollutants (Part 5.2.3.2). 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 exposed to stormwater in the three years prior to the date permittees prepare or amend their SWPPP. Also include any additional significant materials that may become a pollutant source that permittees plan to use during the permit's term.

EPA defines "significant materials", per 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 the CWA section 311(b)(2)(A); 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 Resource Conservation and Recovery Act

(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. See 40 CFR 302.4 for the list of such hazardous substances.

Spills and Leaks (Part 5.2.3.3). The SWPPP must document where potential spills and leaks could occur that could contribute pollutants to stormwater discharges, and the corresponding outfall(s) that could be affected by such spills and leaks. The pollutant list must include all significant materials that have been handled, treated, stored or disposed, and exposed to stormwater in the three years prior to SWPPP preparation or amendment. New owners/operators of existing facilities should try to identify any significant spills or leaks attributable to past owners (within reason). 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). Note that 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 per Part 2.1.2.4.

As required in Part 4.3 of the permit, any spills or leaks that occur while covered under the 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.

Unauthorized Non-Stormwater Discharges (Part 5.2.3.4). Part 5.2.3.4 requires the presence of unauthorized non-stormwater discharges to be evaluated and documented. The documentation must include: the date of any evaluation; a description of the evaluation criteria used; a list of the outfalls or onsite drainage points that were directly observed during the evaluation; and the actions taken, such as a list of control measures used to eliminate unauthorized non-stormwater discharges. The permittee must eliminate unauthorized non-stormwater discharges or document that a separate NPDES permit was obtained.

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 non-stormwater discharges are discovered, the documentation must also include a description of how those discharges were eliminated or a statement detailing that a separate NPDES permit was obtained.

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 authorized non-stormwater discharge has been identified, permittees must document in their 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 5.2.3.5). The SWPPP must identify any storage piles containing salt, including piles that are only partially comprised of salt, used for deicing or other commercial or industrial purposes.

Sampling Data (Part 5.2.3.6). This Part requires ongoing permittees to summarize in their SWPPP all stormwater discharge sampling data collected during the previous permit term, as appropriate. Such a summary will support the identification of potential pollutants and pollutant sources at a facility and also the selection of source control practices to meet permit limits. The summary must include an adequately descriptive narrative and may also include data table/figures. Narrative summaries only are appropriate where available data is very limited or where data results and findings are otherwise easily and concisely conveyed in a brief paragraph. Summaries utilizing tables or charts are appropriate where more data are available. New dischargers must provide a summary of any available stormwater discharge sampling data that they may have, including the methods used to collect the data and the sample collection location.

IX.B.4. Description of Control Measures to Meet Technology-Based and Water Quality-Based Effluent Limits (Part 5.2.4).

Operators must describe in their SWPPP the control measures implemented at their site to achieve each of the effluent limits in Parts 2.1.2, 2.1.3, 2.2, 2.3, 8 (if applicable) and 9 (if applicable), and to address any stormwater run-on that commingles with discharges covered under the permit. The description of the control measures must include the location and type of control implemented, including how the Part 2.1.1 selection and design considerations were followed, and how they address the pollutant sources in Part 5.2.3. The control measures in Part 2.2 marked with asterisks are not required to be elaborated on in the SWPPP beyond the inclusion of the requirement language verbatim. Further discussion of this relaxed documentation requirement is provided in Section VI.A Control Measures in this Fact Sheet.

IX.B.5. Schedules and Procedures (Part 5.2.5).

***Pertaining to Control Measures Used to Comply with the Effluent Limits in Part* 2** (Part 5.2.5.1). This Part specifies what schedules and operating procedures must be documented in a SWPPP for the appropriate Part 2 effluent limits. Documenting these activities will help improve facility compliance with the requirements.

Good Housekeeping (see also Part 2.1.2.2). Document the schedule or the convention used for determining when pickup and disposal of waste materials occur, and also a schedule for routine inspections for leaks and conditions of drums, tanks and containers

Maintenance (see also Part 2.1.2.3). Document the preventative maintenance procedures and schedules, including for regular inspections, testing, maintenance and repair of all control measures.

Spill Prevention and Response Procedures (see also Part 2.1.2.4). Document the procedures for preventing and responding to spills and leaks, including notification procedures. Document the control measures for material handling and storage, and the procedures for preventing spills that can contaminate stormwater. Also specify cleanup equipment, procedures and spill logs, as appropriate.

Erosion and Sediment Control (see also Part 2.1.2.5). Identify any polymers and/or other chemical treatments used and the purpose.

Employee Training (see also Part 2.1.2.8). Document the content of the training and the frequency/schedule of training for employees who have duties in areas of industrial activities subject to this permit.

Pertaining to Inspections and Assessments (Part 5.2.5.2). This Part requires permittees to document in their SWPPP the procedures to be followed for routine facility inspections (Part 3.1) and for quarterly visual assessments (Part 3.2). The SWPPP must include information such as person(s) or position(s) performing the inspections/assessments, the specific items to be covered by the inspections/assessments, and the respective schedules. Operators invoking the exception for inactive and unstaffed sites for quarterly inspections or visual assessments must provide information in the SWPPP to support such a claim.

Pertaining to Monitoring (Part 5.2.5.3). This Part requires permittees to document in a SWPPP the specific monitoring requirements and procedures that that they will follow. Permittees must include information such as locations where samples are to be collected, person(s) or position(s) responsible for collecting samples, the frequency of sampling and the pollutants to be sampled, sampling protocols, natural background level information, if applicable, and procedures that will be followed to gather storm event data. Requiring this documentation helps ensure that operators know about their monitoring responsibilities and should improve facility compliance with the permit's requirements.

If operators choose to use the substantially identical outfall exception in Part 3 for quarterly visual assessments or Part 6.2 for benchmark monitoring, they are required to describe in their 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.

IX.B.6. Documentation to Support Eligibility Considerations Under Other Federal Laws (Part 5.2.6).

Documentation Regarding Endangered and Threatened Species and Critical Habitat Protection (Part 5.2.6.1). The 2015 MSGP requires SWPPP documentation that supports operators' endangered and threatened ("listed") species eligibility criterion selected per Part 1.1.4.5 and Appendix E, including: whether listed species are found in proximity to the facility; a description of any communication between the permittee and the U.S. Fish & Wildlife Service and/or the National Marine Fisheries Service (the Services); results of the listed species screening process; and, if applicable, a description of the measures implemented to protect the listed species. This information must be documented to ensure operators are properly eligible for permit coverage vis-à-vis endangered species and may be separately reviewed by EPA and/or the Services.

Documentation Regarding Historic Properties (Part 5.2.6.2). The permit requires SWPPP documentation that supports operators' historic properties eligibility determination per Part 1.1.4.6 and Appendix F, including: results of their historic property screening investigations; whether stormwater discharges would have an effect on a property listed or eligible for listing on the National Register of Historic Properties (NRHP), a summary of any consultation with the SHPO or THPO; and, if applicable, a description of the measures the operator will implement to avoid or minimize adverse impacts on historic properties. This information must be documented to ensure operators are properly eligible for permit coverage vis-à-vis historic properties and may be separately reviewed by SHPOs/THPOs.

IX.B.7. Signature Requirements (Part 5.2.7).

The 2015 MSGP requires the permittee to sign and date the SWPPP consistent with procedures detailed in Appendix B, Subsection 11 (a standard permit condition for signatory requirements, pursuant to 40 CFR 122.22). Permittees may appoint an authorized representative consistent with EPA regulations if they think it is more appropriate for someone else to sign the SWPPP certification, e.g., a member of the stormwater pollution prevention plan team. The signature requirement includes an acknowledgment that there are significant penalties for submitting false information.

IX.C. Required Modifications (Part 5.3).

This Part requires that the SWPPP be updated whenever any of the triggering conditions for corrective action in Part 4.3 occur, or when a review following the triggering conditions in Part 4.3 indicates that changes to permittees' control measures are necessary to meet the effluent limits in the permit. The SWPPP must be signed and dated by an authorized representative each time it is modified. Note that failure to update the SWPPP is a recordkeeping violation, not a violation of an effluent limit. For example, if operators change their maintenance procedures, but fail to update their SWPPP to reflect these changes, a recordkeeping violation will result.

IX.D. SWPPP Availability (Part 5.4).

The 2015 MSGP requires that a complete and current SWPPP be accessible in any format at the facility and must be immediately available to facility employees; EPA, a state, or tribe; the operator of an MS4 receiving discharges from the site; and representatives of the Services at the time of a site inspection. In addition, as described below, permittees must now make available either their SWPPP or certain information from their SWPPP to the public (except for any confidential business information (CBI) or restricted information [as defined in Appendix A]).

Enhanced transparency and public accessibility of required NPDES documentation are Agency priorities, and will better enable the goals and requirements of the CWA to be met. The difficulty of obtaining facility and discharge information often made it more difficult for citizens and groups to protect their local resources, and reduced the ability of state and federal agencies to provide program oversight. Timely, complete, and accurate information regarding potential pollutant sources, the types and concentration of receiving water pollution, stormwater control measures implemented, etc., are vital for protecting water quality and can provide a powerful incentive to improve compliance and performance. Operators who object to making SWPPP information publicly available may instead apply for an individual NPDES permit.

IX.D.1. SWPPP Posting on the Internet (Part 5.4.1).

The permit provides two options for meeting the new requirement to make publicly available permittees' SWPPPs or SWPPP information. Part 5.4.1 details the option to provide a URL of permittees' SWPPP location on their NOI form. Permittees using this option must post their SWPPP on their own website or on an associated website, i.e., a relevant and easily discerned website such as a corporate or government website, where the facility submitting the SWPPP is identified on the homepage and facility information is presented on and easily accessed at that website. Permittees must post an updated SWPPP at least once a year no later than 45 days after conducting the final routine facility inspection for the year required in Part 3.1.

After an NOI is submitted, the URL would be accessible via EPA's Integrated Compliance Information System (ICIS) and Enforcement and Compliance History Online (ECHO) System. Although CBI and restricted information may be withheld from the public, such information may not be withheld from EPA or the Services. The 2008 MSGP did not require permittees to provide the SWPPP directly to the

public or to EPA without an EPA request; however, the Agency included in that permit an optional provision to post a SWPPP online (the benefit of doing so for new permittees was a shorter waiting period prior to authorization).

IX.D.2. SWPPP Information Provided on NOI Form (Part 5.4.2).

This Part provides the second option for meeting the new requirement to make publicly available permittees' SWPPPs or SWPPP information. For those facilities with SWPPPs not in a format that lends themselves to being put online or that lack a website to host it, salient SWPPP information can be extracted or summarized and input into the NOI per Part 7.3. Although not as complete as an entire SWPPP, the information required, such as the control measures and BMPs implemented to comply with the non-numeric technology-based effluent limits required in Part 2.1.2, will be sufficient for stakeholders to be aware of what a facility is doing to protect local resources and comply with permit provisions. Permittees must post an updated SWPPP at least once a year no later than 45 days after conducting the final routine facility inspection for the year required in Part 3.1.

IX.E. Additional Documentation Requirements (Part 5.5).

Part 5.5 includes a list of documents, findings, activities and information that must be kept with the permittee's SWPPP. 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 EPA (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.

X. Monitoring (Part 6)

The permit requires that stormwater samples be collected, analyzed, and documented consistent with the procedures described in Part 6 and Appendix B, Subsections 10 – 12, and any additional sector-specific or state/tribal-specific requirements in Parts 8 and 9, respectively.

X.A. Monitoring Procedures (Part 6.1).

The 2015 MSGP requires certain permittees to sample and analyze their stormwater discharges as a way to assess the effectiveness of control measures in meeting the effluent limits contained in the permit. Analytical monitoring measures 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 sufficiently controlled.

Part 6.1 of the permit identifies procedures for collecting samples and identifies where, when, and what to sample. These requirements are unchanged from those in the 2008 MSGP. These requirements are in addition to the standard permit conditions described in Appendix B, Subsection B.10.

X.A.1. Monitored Outfalls (Part 6.1.1).

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 (except for numeric effluent limitation monitoring; see below). 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 resources required for a facility to comply with analytical monitoring requirements. 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 permittees believe their facility has two or more outfalls that qualify as substantially identical, they may monitor only one of these outfalls and report that the quantitative data also apply to the other substantially identical outfalls. Permittees must also document the location of each of the outfalls and explain why the outfalls are expected to discharge substantially identical stormwater, 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 EPA approval for this determination; however, EPA may subsequently determine that outfalls are not substantially identical and require sampling of additional outfalls. EPA clarifies in Part 6.1.1 that the allowance for monitoring only one of the substantially identical outfalls is not applicable to any outfalls with numeric effluent limitations. Permittees are required to monitor each outfall covered by a numeric effluent limitation as identified in Part 6.2.2.

X.A.2. Commingled Discharges (Part 6.1.2).

If stormwater discharges associated with industrial activity commingle with discharges not authorized by the MSGP (e.g., unregulated stormwater or other permitted wastewater), then permittees must sample the stormwater discharge before it mixes with the other discharges when practicable. This provision is intended to ensure that monitoring results are representative of discharges covered under the permit and not indicative of other discharges from the site. EPA acknowledges that in certain instances, such as when authorized stormwater discharges are commingled with other waste streams prior to on-site treatment, sampling only authorized stormwater may be impracticable.

X.A.3. Measurable Storm Events (Part 6.1.3).

The 2015 MSGP specifies the characteristics of a measurable storm event as an event that results in a discharge from the permitted facility. By defining a storm event as one that results in a discharge, it affords the permittee flexibility to sample during any storm event that produces a discharge, rather than having to ensure that a minimum magnitude is reached. Part 6.1.3 specifies that 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) period is included in an attempt to eliminate monitoring discharges soon after a previous storm event washed away residual pollutants, and may be waived by permittees where they document that less than a 72-hour (3-day) interval is representative for local storm events during the season when sampling is being conducted. The 2015 MSGP 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.

X.A.4. Sample Type (Part 6.1.4).

The permit specifies that a minimum of one grab sample must be taken from the measurable storm event being monitored. This will allow facilities to make accurate comparisons of monitoring results to the corresponding benchmark levels or effluent limitations. The grab sample must be taken during the first 30 minutes of the discharge, except for snowmelt monitoring which has no 30-minute requirement since (1) runoff typically does not occur during a snow event (2) collecting a snowmelt sample within 30 minutes of commencement of discharge would very likely be impractical (because the snow will not have melted yet), and (3) the “first flush” effects of snowmelt are not as well defined (i.e., the time when the highest pollutant concentrations occur). If more than one grab 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 as soon as practicable, but the permittee must document and keep with the SWPPP an explanation of why a grab sample during the first 30 minutes could not be done.

X.A.5. Adverse Weather Conditions (Part 6.1.5).

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 permittees 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 as "no data" during the usual reporting period. This provision applies to all monitoring requirements of the permit.

X.A.6. Climates with Irregular Stormwater Runoff (Part 6.1.6).

The 2015 MSGP provides for the implementation of alternative monitoring schedules for facilities located in arid and semi-arid climates, or in areas subject to snow or prolonged freezing. Alternate monitoring schedules allow permittees the flexibility to allocate their resources effectively to capture the required number of stormwater discharge events during the permit term. This flexibility will yield a more accurate characterization of pollutant concentrations in facility stormwater discharges during times of the year when precipitation is actually occurring, and during snowmelt discharges in areas subject to extended winter seasons and prolonged freezing. This special exception will provide EPA with more data that can be used to evaluate facility pollutant levels. Incumbent with this flexibility is operators' responsibility to identify those periods during which discharges are most likely to occur and establish a schedule distributing the required monitoring events during those periods.

X.A.7. Monitoring Periods (Part 6.1.7).

This Part specifies that the monitoring requirements commence during the first full calendar quarter following either September 2, 2015 or following the date of authorization to discharge, whichever date comes later. For quarterly benchmark monitoring, EPA Part 6.1.7 defines the calendar quarters during which monitoring must occur and also describes when the first monitoring quarter is to commence. Permittees in climates with irregular stormwater runoff may define alternate monitoring periods, as described above, provided that documentation of the revised schedule is kept with the SWPPP. Note that EPA's NetDMR system will automatically generate pre-populated discharge monitoring report (DMR) forms based on the facility's sector and other information provided in the NOI form.

X.A.8. Monitoring for Allowable Non-Stormwater Discharges (Part 6.1.8).

This provision clarifies that permittees are only required to monitor allowable non-stormwater discharges in Part 1.1.3 when they are commingled with stormwater discharges associated with industrial activity.

X.A.9. Monitoring Reports (Part 6.1.9).

This provision specifies that monitoring data must be reported using EPA's electronic NetDMR tool at www.epa.gov/netdmr, as described in Part 7.4 (unless a waiver from electronic reporting has been granted from the EPA Regional Office, in which case a paper DMR form may be submitted.)

X.B. Required Monitoring (Part 6.2).

The 2015 MSGP contains five general types of monitoring requirements:

- Benchmark monitoring (Part 6.2.1);
- Effluent limitations monitoring (Part 6.2.2);
- State or tribal provisions monitoring (Part 6.2.3);
- Impaired waters monitoring (Part 6.2.4); and
- Other monitoring required by EPA (Part 6.2.5).

The frequency of monitoring is dependent on the applicability of these five types of monitoring to each permitted facility. The permit provides that if any of these monitoring requirements overlap, permittees may use a single sample to comply with those overlapping requirements. The permit also specifies that when an effluent limitation is lower than the benchmark concentration for the same pollutant, the corrective action trigger is based on an exceedance of the effluent limitation, which would subject the permittee to the corrective action requirements of Part 4.1.

X.B.1. Benchmark Monitoring (Part 6.2.1).

EPA is continuing to require benchmark monitoring as an indicator of the performance of the measures undertaken to meet the effluent limitations contained in the permit. Benchmark monitoring requirements described in Part 6.2.1 of the permit require permittees to collect stormwater samples for laboratory chemical analyses. For clarity, EPA emphasizes that the benchmark levels in the EPA MSGP are not, and have never been, effluent limits themselves. Therefore, an exceedance of the benchmark four-quarter average is not a violation of the permit, provided that no separate water quality exceedance resulted from the associated stormwater discharges.

Because some operators choose to sample more than the required number of times, EPA has included specific language in the permit that the extra samples may be used to calculate their benchmark average. Any additional sampling does not reduce the requirement that the monitoring be completed over a minimum of four calendar quarters. Therefore, additional samples collected in one quarter for this purpose cannot replace sampling required in other quarters. (Note: requirement for four calendar quarters of monitoring is not applicable to airports.)

The MSGP retains the same benchmark monitoring concentrations as the 2008 MSGP but modifies metals benchmarks for discharges to saline waters. Consistent with the 2008 MSGP, those facilities that are required to perform benchmark monitoring (approximately half of the regulated entities) must collect samples quarterly in the first year of permit coverage. After collection of four quarterly samples, if the arithmetic average value of the four monitoring results exceeds the benchmark concentration for any parameter, permittees must review their control measures, make the necessary modifications, and continue quarterly benchmark monitoring until four additional quarters of monitoring have been completed and the average does not exceed the benchmark. Alternatively, after review of their control measures, permittees may seek a reduction or discontinuation of benchmark monitoring even if the benchmark concentration has been exceeded in the following cases:

- Benchmark monitoring can be reduced to once annually if a permittee determines that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice to meet the technology-based effluent limits (TBELs) or are necessary to meet the WQBELs in the permit. The basis for this determination must be

documented (in the SWPPP) and be made available to the relevant regulatory authorities upon request.

- Benchmark monitoring can be discontinued for the permit term if the exceedance is solely attributable to the presence of pollutants in the natural background. The basis for this determination must be documented (in the SWPPP) and available to the relevant regulatory authorities upon request.

Benchmark monitoring may also be discontinued if the exceedance is due to run-on of pollutants from another property AND the following steps are taken:

- The run-on situation and any supporting evidence and data are documented (in the SWPPP); and
- A request for discontinuation of monitoring is submitted to the appropriate EPA Regional Office, along with the supporting evidence and data, and the Region explicitly approves the discontinuation of monitoring.

Because of the variability inherent in stormwater and in stormwater control measure efficacy, EPA expects that stormwater controls will often need adjustment in response to indications of potential deficiencies to ensure the permit's technology-based and water quality-based limits are being met. Benchmark monitoring is an important feedback tool, along with routine inspections and visual assessments, for assessing the effectiveness of controls in meeting the permit's effluent limits. An exceedance of a benchmark four-quarter average provides permittees with an indication that the facility's controls may not be sufficiently controlling pollutants in stormwater, and that modifications may be necessary.

EPA does not anticipate that corrective actions undertaken in response to benchmark exceedances under the MSGP will necessitate complex or costly actions for most permittees; rather, modifications to the stormwater controls in response to benchmark exceedances will in most cases be commonsense and pollution prevention-oriented. In some cases, when pollution prevention measures do not prove to be adequate, built or installed treatment controls may also be needed to provide sufficient means for minimizing pollutants in stormwater discharges. EPA expects the great majority of permittees performing corrective actions (for any of the situations described in Part 4) will determine there are modifications that can be made to the control measures that are technologically available, and economically practicable and achievable, and commonly employed in the industry. Per Part 5.1, such a determination must be made by a "qualified person" (i.e., *a person knowledgeable in the principles and practices of industrial stormwater controls and pollution prevention, and possesses the education and ability to assess conditions at the industrial facility that could impact stormwater quality, and the education and ability to assess the effectiveness of stormwater controls selected and installed to meet the requirements of the permit)*. The permittee is not required to retain a professional engineer or other consultant in order to make this determination, unless EPA concludes that the SWPPP is inadequate per Part 5.1.

The MSGP provides considerable flexibility to permittees in selecting the control measures used to meet the permit's technology-based and water quality-based effluent limits, and EPA recognizes that the control measures needed to adequately minimize pollutants will vary considerably for each facility. For example, the MSGP's good housekeeping technology-based effluent limit requirement does not specify the frequency with which potential sources of pollutants must be swept or vacuumed. If an exceedance of the four-quarter benchmark average for TSS occurs, and site cleanliness is a suspected or likely cause, a possible corrective action could be to increase the frequency of the sweeping or

vacuuming. If successful, permittees would have to document this corrective action as a SWPPP modification. It is also EPA's experience that in many cases benchmark exceedances are often the result of control measures being improperly implemented or maintained (e.g., open dumpsters, leaking fuel tanks, open valves). As a result, EPA has determined that proper implementation and regular maintenance of stormwater controls are technologically available and economically practicable for all permittees, and thus has made these permit requirements.

However, where permittees have examined their control measures and determined, considering good engineering practices, that no further pollutant reductions are technologically available and economically practicable for any pollutant, no SWPPP modifications are required (provided the permit's water quality-based effluent limits are being met), and permittees may reduce benchmark monitoring to once per year for the pollutant. EPA may choose to inspect such facilities to assess the validity of the operator's determination that no further pollutant minimization is possible. In reviewing permittees' determinations that additional corrective actions are not technologically available and economically practicable in order to meet the technology-based effluent limits, EPA may consider whether there are control measures or practices that other facilities are currently implementing and whether the costs of the controls are reasonable so that facilities do not experience undue economic hardship. EPA encourages permittees to contact their EPA Regional Office for assistance and guidance in responding to benchmark exceedances. For some facilities that continue to have benchmark exceedances after repeated corrective actions and that have the potential to cause or contribute to a water quality exceedance, an individual permit may be more appropriate than the MSGP.

Applicability of Benchmark Monitoring Requirements (Part 6.2.1.1). Facilities must monitor for any benchmark parameters specified for the industrial sector(s), both primary industrial activity and any co-located industrial activities, applicable to their discharge. The industry-specific benchmark concentrations are listed in the sector-specific sections of Part 8.

Derivation of the Benchmark Levels.

For the 2015 MSGP, EPA has retained the same benchmark values from the 2008 permit, but has added 10 benchmark values (arsenic, cadmium, copper, cyanide, lead, mercury, nickel, selenium, silver, and zinc) for facilities that discharge into saline waters (saltwater). The process that EPA followed in selecting the benchmark values for the permit is as follows: Step 1: Use EPA's final CWA section 304(a) recommended acute criterion value; Step 2: If no EPA acute criterion exists, use the chronic EPA criterion; Step 3: If neither acute nor chronic criteria exist, use data from runoff studies or technology-based standards to establish a benchmark. In general, the freshwater acute criteria are less restrictive than chronic water quality criteria. Because of the intermittent nature of wet weather (i.e., stormwater) discharges and the high ambient flows that generally result from precipitation events, EPA views acute criteria as generally more appropriate than chronic criteria in this context. Since benchmarks are usually set equal to ambient water quality criteria for the receiving waters, with no allowance for dilution during storm events, they are conservative values. Exceedance of benchmarks does not necessarily indicate that a discharge is causing or contributing to a violation of a water quality standard exceedance, but does require an evaluation of control measure effectiveness by the facility, with follow-up corrective action where necessary. For a full discussion of EPA's approach for the derivation of the benchmarks, see the Fact Sheet for the 1995 MSGP (60 Fed. Reg. 50825, September 29, 1995), 2000 MSGP (65 Fed. Reg. 64746), and the 2008 MSGP (73 Fed. Reg. 56572).

The MSGP defines saline or salt waters for the purposes of benchmark monitoring as those waters with salinity equal to or in exceedance of 10 parts per thousand 95 percent or more of the time, unless otherwise defined as a coastal or marine water by the applicable state or tribal surface water quality standards. This definition is consistent with 40 CFR 131.36. These benchmarks represent the

available acute ambient water quality criteria for priority toxic and non-priority pollutants in saltwater. These benchmark values reflect the toxicity of these metals in saline waters and replace the freshwater-based benchmark values in the 2008 permit. In some cases, the saltwater values represent significant changes in the benchmarks for facilities discharging into saline waters. The values for arsenic, copper, cyanide, and nickel are lowered by an order of magnitude. The values for cadmium and lead are increased by an order of magnitude, while the value for selenium is increased two orders of magnitude. Benchmark values for the other metals increase (mercury) or decrease (silver, and zinc) by smaller amounts.

The following table presents the permit's freshwater and saltwater benchmark values, and the source of those values. In most cases, EPA has not revised benchmarks since they were first published in the 1995 MSGP. However, eight of the ten benchmarks that were assigned the freshwater acute water quality criterion value as differentiated from the 2000 MSGP's value that was based on the method detection limit (MDL) (i.e., arsenic, cadmium, copper, cyanide, mercury, nickel, selenium, and silver) were lowered in the 2008 MSGP based on CWA section 302(a) EPA-recommended criteria. Excluding mercury and nickel, the benchmark values were changed from 3.18 times the MDL to the ambient acute water quality criteria value. Mercury and nickel benchmarks were revised based on EPA's updated acute aquatic life recommended criteria. In each case, at least one EPA-approved 40 CFR Part 136 analytical method exists with detection limits below these benchmark values.

MSGP Benchmark Values and Sources			
Pollutant	**MSGP Benchmark**	**MSGP Source**	**Different**
Aluminum (T) (pH 6.5 - 9)	00.75 mg/L	1	No
Beryllium (T)	0.13 mg/L	2	No
Iron (T)	1.0 mg/L	3	No
Biochemical Oxygen Demand (5 day)	30 mg/L	4	No
pH	6.0 – 9.0 s.u.	4	No
Chemical Oxygen Demand	120 mg/L	5	No
Total Phosphorus	2.0 mg/L	6	No
Total Suspended Solids	100 mg/L	7	No
Nitrate + Nitrite Nitrogen	0.68 mg/L	7	No
Magnesium (T)	0.064 mg/L	8	No
Turbidity	50 NTU	9	Yes
Antimony (T)	0.64 mg/L	12	No
Ammonia*	2.14 mg/L	13	No
Cadmium (T) Freshwater)† (Saltwater)	0.0021 mg/L 0.04 mg/L	1 14	Yes
Copper (T)* (Freshwater)† (Saltwater)	0.014 mg/L 0.0048 mg/L	1 14	Yes NA

MSGP Benchmark Values and Sources			
Pollutant	**MSGP Benchmark**	**MSGP Source**	**Different**
Cyanide (Freshwater) (Saltwater)	0.022 mg/L 0.001 mg/L	1 14	Yes
Mercury (T) (Freshwater) (Saltwater)	0.0014 mg/L 0.0018 mg/L	1 14	No; criteria updated^
Nickel (T) (Freshwater)† (Saltwater)	0.47 mg/L 0.074 mg/L	1 14	No; criteria updated^
Selenium (T)* (Freshwater) (Saltwater)	0.005 mg/L 0.29 mg/L	3 14	Yes
Silver (T)* (Freshwater)† (Saltwater)	0.0038 mg/L 0.0019 mg/L	1 14	Yes
Zinc (T) (Freshwater)† (Saltwater)	0.12 mg/L 0.09 mg/L	1 14	No; criteria updated^
Arsenic (T) (Freshwater) (Saltwater)	0.15 mg/L 0.069 mg/L	3 14	Yes NA
Lead (T)* Freshwater)† (Saltwater)	0.082 mg/L 0.21 mg/L	3 14	No

(T) Total recoverable

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

† These pollutants are dependent on water hardness where discharged into freshwaters. The freshwater benchmark value listed is based on a hardness of 100 mg/L. When a facility analyzes receiving water samples for hardness, the permittee must use the hardness ranges provided in Table 1 in Appendix J of the 2015 MSGP and in the appropriate tables in Part 8 of the 2015 MSGP to determine applicable benchmark values for that facility. Benchmark values for discharges of these pollutants into saline waters are not dependent on receiving water hardness and do not need to be adjusted.

^ The values for these pollutants do not have a new basis. They are still based on the water quality criteria, but the "National Recommended Water Quality Criteria" was updated in 2002.

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-01-0102006
13. "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)
14. "National Recommended Water Quality Criteria." Acute Aquatic Life Saltwater (CMC) available at: http://water.epa.gov/scitech/swguidance/standards/criteria/current/index.cfm#altable

Benchmark Monitoring Schedule (Part 6.2.1.2). Facilities required to conduct benchmark monitoring must do so in each of the first 4 quarters of permit coverage starting September 2, 2015, unless a modified benchmark monitoring schedule is included in the SWPPP for areas with "Climates with Irregular Stormwater Runoff" (see Part 6.1.6).

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, permittees have fulfilled the benchmark monitoring requirements for that parameter for the duration of the permit term.

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

- Make the necessary modifications and continue quarterly sampling 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 permittees make this determination, the accompanying rationale must be included in the post-SWPPP documentation. No further corrective action is required, but permittees must monitor annually for the pollutant for the remainder of the permit term.

As explained earlier in this section of the Fact Sheet, in most cases, commonsense, pollution prevention-oriented stormwater control modifications will be possible by most facilities with benchmark exceedances. A determination that no further pollutant reductions are technologically available and economically practicable and achievable will be highly site-specific, and must be based on well-documented good engineering judgment. Again, the permittee is not required to retain a professional engineer or other consultant in order to make this determination, unless EPA concludes that the SWPPP is inadequate per Part 5.1. EPA notes that if existing facilities subject to benchmark monitoring have previously made such a determination under the 2008 MSGP, they must conduct four quarters of benchmark monitoring in the first year of permit coverage under the 2015 MSGP. However, provided there is no separate water quality exceedance, and provided that there have been no significant changes in the facility's operation that could impact the level of pollutants in stormwater discharges, if benchmark concentrations are again exceeded under the 2015 MSGP, existing permittees may rely on their previous rationale supporting a determination that no further pollutant reductions are

technologically available and economically practicable. In such circumstances, there is no ongoing requirement to undertake corrective actions to modify stormwater controls or to expend additional resources to justify a determination that no further pollutant reductions are technologically available and economically practicable, and benchmark monitoring can be reduced to once annually.

EPA is also maintaining in the 2015 MSGP the option for permittees to justify benchmark exceedances based on local natural background concentrations. Part 6.2.1.2 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., the average concentration detected in runoff from all facility outfalls required to be monitored for four separate events minus the average natural concentration of the parameter does not exceed zero).

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. Natural background levels cannot be attributed to run-on from non-natural sources such as other industrial sites or roadways (however, per Part 6.2.1.2, permittees may be eligible to discontinue monitoring for pollutants that occur solely from run-on sources and should consult the EPA Regional Office for related guidance). 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 per Part 6.2.1.2. Facilities must use the same sample collection, preservation and analysis methods for natural background monitoring as required for benchmark monitoring.

If permittees experience average benchmark exceedances for one or more pollutants during coverage under the 2015 MSGP or suspect that they might have benchmark exceedances caused entirely by natural background, they can begin monitoring the natural background pollutant concentrations from a non-human impacted reference site concurrently with required benchmark monitoring. After monitoring for four quarters and adequately determining that exceedances are the result of pollutants present in the natural background, permittees may discontinue further evaluation of their facility's control measures and may discontinue additional benchmark sampling.

To support a determination that the pollutant's presence is caused solely by natural background sources, the permit requires the following be documented and maintained with the SWPPP, as required by Part 5.5:

- An explanation of why the presence of the pollutant of concern in the discharge is not related to the activities or materials at the facility; and
- Data and/or studies that tie the presence of the pollutant of concern in the discharge to natural background sources in the watershed.

This explanation must include any data previously collected that provides the levels of natural background pollutants in a reference site.

The following is a list of the types of information that should be considered to support a rationale for the natural background exception:

- Map showing the reference site location in relation to facility along with available land cover information;
- Reference site and facility site elevation;
- Available geology and soil information for reference and facility sites;

- Photographs showing reference site vegetation;
- Reference site reconnaissance survey data regarding presence of roads, outfalls, or other human-made structures; and
- Records from relevant state or federal agencies indicating no known mining, forestry, or other human activities upstream of the 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 evaluating 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 appropriate. 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 met reference site criteria (indicating absence of human activity) during the time data collection occurred.

The justification for this exception must be kept on-site with the facilities' SWPPP (see Part 5.5), and made available to EPA on request. EPA may review permittees' determinations that a benchmark exceedance is based solely on natural background concentrations, and disallow the exception if the Agency finds the documentation inadequate. As with existing facilities that previously made a determination that no further pollution reductions are technologically available and economically practicable, facilities that have previously made a determination that benchmark exceedances are attributable solely to the presence of that pollutant in the natural background may be able to rely on a previous analysis and rationale for discontinuing benchmark monitoring under the 2015 MSGP. However, these facilities must conduct four quarters of benchmark monitoring in the first year of permit coverage under the 2015 MSGP and the results must continue to show that the average concentration of pollutants in the facility's discharge are less than or equal to the concentration of that pollutant in the natural background. In such circumstances, there is no ongoing burden to undertake corrective actions to modify stormwater controls or to expend additional resources in justifying the rationale for meeting this exception, and benchmark monitoring can be discontinued for the permit term.

A similar exception may also be available to permittees who attribute their exceedances solely to run-on sources. This exception is only available after discussing the situation and receiving guidance and approval from the appropriate EPA Regional Office. EPA notes that these waivers are not available for effluent limitation monitoring (Part 6.2.2).

Exception for Inactive and Unstaffed Sites (Part 6.2.1.3). Part 6.2.1.3 of the permit allows for an exception from benchmark monitoring for facilities that are both inactive and unstaffed, when such facilities no longer have industrial activities or materials exposed to stormwater. EPA is retaining this exception because these facilities will not be contributing pollutants in stormwater discharges. These facilities could alternatively submit a No Exposure Certification terminating permit coverage. However, EPA realizes that some facilities plan to recommence industrial activity in the future and therefore may wish to keep active permit coverage. To qualify for this exception, permittees must maintain a signed certification with their SWPPP documentation (Part 5.5 of the permit) that indicates that the site is inactive and unstaffed, and that there are no industrial activities or materials exposed to stormwater. Permittees are not required to obtain advance approval for this exception. The 2015 MSGP retains the

allowance for inactive and unstaffed sites in the mining industry (i.e., Sectors G, H, and J) to qualify for this exception where some industrial activities or materials are still exposed to stormwater. This provision is included for mining sites because of the large number of extremely remote sites in these sectors, and the impracticability/infeasibility of reaching these sites during qualifying storm events. However, these sites must still be identified in a SWPPP, and must still adopt control measures to minimize pollutant discharges and meet water quality standards.

The permit clarifies that if circumstances change and industrial materials or activities become exposed to stormwater or facilities become active and/or staffed, this exception no longer applies and permittees must immediately begin complying with the applicable benchmark monitoring requirements under Part 6.2 as if they were in the first year of permit coverage, and notify EPA of the change in the NOI by submitting a "Change NOI" form. In the same way, if permittees are not qualified for this exception at the time they are authorized to discharge, but during the permit term the facility becomes inactive and unstaffed, and there are no industrial materials or activities that are exposed to stormwater, then permittees must notify EPA of this change in the "Change NOI" form. They may discontinue benchmark monitoring once they have done so, and have prepared and signed the statement described above concerning their qualification for this special exception.

X.B.2. Effluent Limitations Monitoring (Parts 6.2.2).

Numeric effluent limitations have been included in previous versions of the MSGP, based on national effluent limitation guidelines for certain industry-specific discharges (see Part 6.2.2). Consistent with minimum monitoring requirements for NPDES permit limits established at 40 CFR 122.44(i), monitoring for these parameters must be conducted at least once each year for the duration of permit coverage. Numeric effluent limitations are specified in the sector-specific requirements in Part 8. Monitoring for all parameters must be conducted according to the procedures in Part 6.1 unless otherwise noted.

The 2015 MSGP retains the requirement for corrective action whenever there is an exceedance of a numeric effluent limitation. EPA also clarifies that, in contrast to benchmarks, an exceedance of an effluent limitation constitutes a violation of the permit. Failure to conduct required corrective action and follow-up monitoring as required in Part 6.2.2.3 is an additional violation.

Additionally, facilities that use coal simply for steam generation are not subject to numeric effluent limitations. Applicable control measures for these facilities must be selected, designed, installed, and implemented consistent with the stormwater control requirements established in Part 2 of the permit.

Part 6.2.2.2 clarifies that permittees subject to effluent limitation guidelines are required to monitor each outfall discharging stormwater, and that the flexibility afforded for benchmark and impaired waters monitoring for substantially identical outfalls does not apply to effluent limitation guidelines monitoring.

Part 6.2.2.3 specifies follow-up monitoring requirements for pollutants that exceed any effluent limitation contained in the permit. EPA is maintaining the requirement to conduct follow-up monitoring as a way to ensure that permittees come back into compliance with applicable effluent limitations as soon as possible. While the NPDES regulations require a minimum of annual monitoring to demonstrate compliance with applicable effluent limitations, the vast majority of NPDES permits for industrial wastewater discharges require more frequent monitoring (up to daily for certain pollutants/sources in some instances). Monitoring at the regulatory minimum of once per year is appropriate for stormwater discharges, provided facilities remain in compliance with the numeric effluent limitations. However, it is appropriate to require more frequent monitoring once the effluent limitation is exceeded. Otherwise,

there would be an additional year to wait to confirm that facilities have come back into compliance with the limitation. This is an unacceptably long period for permittees to be potentially out of compliance with the limitation. EPA notes that failure to complete follow-up monitoring and reporting within the stipulated timeframes constitutes additional violations of the permit, in addition to the initial effluent limitation violation.

Consistent with other types of effluent monitoring, the permit requires that follow-up monitoring results be reported to EPA through EPA's NetDMR system (see Part 7). Procedures and timeframes for reporting exceedances of numeric effluent limitations are described in Section XI.F of the Fact Sheet.

X.B.3. State or Tribal Provisions Monitoring (Part 6.2.3).

Where a state or tribe has imposed a numeric effluent limitation, has established a wasteload allocation, or has stipulated specific monitoring requirement(s) as a condition for certification under CWA Section 401, a minimum monitoring frequency of once-per-year has been included in the permit. This annual monitoring frequency applies only if a state or tribe does not specify an alternative monitoring frequency.

Exceedances of state or tribal numeric effluent limitations are permit violations in the same way as exceedances of effluent limitation guidelines-based limitations are violations. Both types of violations require the same corrective action and follow-up monitoring.

X.B.4. Discharges to Impaired Waters Monitoring (Part 6.2.4).

Part 6.2.4 of the permit contains provisions for monitoring discharges to water quality impaired receiving waters. The following is a step-by-step discussion on how permittees should determine appropriate monitoring requirements.

Operators must indicate in their NOI whether they discharge to an impaired water, and, if so, the pollutants causing the impairment, or any pollutants for which there is a TMDL. To assist operators in determining their receiving waters' information, NeT will automatically provide receiving waters' information and their impairment status based on the latitude and longitude of stormwater outfalls provided on the NOI form. This information is also readily accessible from the state or tribal integrated report/CWA section 303(d) lists of waters.

If the discharge is to an impaired water, the monitoring requirements under Part 6.2.4 are triggered; otherwise, permittees have no obligations under Part 6.2.4. In Part 6.2.4.1, EPA specifies that facilities will be considered to discharge to an impaired water if the first water of the U.S. to which they discharge is identified by a state, tribe, or EPA pursuant to Section 303(d) of the CWA as not meeting an applicable water quality standard, or has been removed from the 303(d) list because the impairments are addressed in an EPA-approved or established TMDL, or is covered by pollution control requirements that meet the requirements of 40 CFR 130.7(b)(1). For discharges that enter a separate storm sewer system prior to discharge, the first water of the U.S. discharged to is the waterbody that receives the stormwater discharge from the storm sewer system.

When developing TMDLs, EPA and the states evaluate contributions from upstream segments and contributing waterbodies. As such, in some instances, upstream sources may be identified as a contributor to an impairment. Where EPA has reason to believe that permitted facilities have the potential to cause or contribute to an impairment in a downstream water, i.e., a water quality standards exceedance, notwithstanding any indication in permittees' NOIs that they do not discharge to an impaired water, EPA may require them to perform additional monitoring and/or adopt additional control measures to address the potential contribution to the impairment, i.e., to ensure that the

discharge is controlled as necessary to meet water quality standards. In these instances, EPA will notify permittees, in writing, of any additional obligations, including monitoring requirements, to meet such water quality-based effluent limit.

The permit requires permittees to monitor for all pollutants for which the receiving waterbody is impaired, with a few noteworthy exceptions as discussed below. For waters impaired by pollutants without an approved TMDL, monitoring is required where a standard analytical test method in 40 CFR Part 136 exists for the pollutant or surrogate parameter. If the pollutant for which the waterbody is impaired is suspended solids, turbidity or sediment/sedimentation, the parameter to be monitored is total suspended solids (TSS). If the pollutant of concern is an indicator or surrogate pollutant, then the pollutant indicator (e.g., dissolved oxygen) must be monitored. No monitoring is required when a waterbody's biological communities are impaired but no pollutant is specified as causing the impairment, or when a waterbody's impairment is related to hydrologic modification, impaired hydrology, or other non-pollutant (e.g., exotic species, habitat alterations, objectionable deposits). If a TMDL has been approved or established that applies to the discharge, EPA will notify the permittee of any monitoring requirements based on any assumptions and requirements of the TMDL and any wasteload allocation for the discharge.

Permittees Required to Monitor Discharges to Impaired Waters (Part 6.2.4.1). The appropriate impaired waters monitoring frequency is determined based on whether there is an approved or established TMDL for the pollutant in the impaired water.

i. *Discharges to impaired waters without an EPA-approved or established TMDL*. For those permittees discharging to impaired waters without an approved or established TMDL, annual monitoring is required for all pollutant(s) causing the impairment or their surrogate(s). Following the first year, impaired waters monitoring is no longer required if the pollutant of concern is not detected and is not expected to be present in the discharge, or is detected but it is determined that the pollutant's presence is caused solely by the natural background levels. The basis for discontinuing impaired waters monitoring under this Part must be documented and retained with the SWPPP.

Operators are advised to follow the same guidance provided in Section X.B.1 of this Fact Sheet in determining if the natural background exception is applicable. Operators should consult their EPA Regional Office for help, if needed. The same exception may also be available to discharges of pollutants attributed solely to run-on sources. This exception is only available after discussing the situation and receiving guidance and approval from the appropriate EPA Regional Office.

Any monitoring requirements associated with impaired waters without a TMDL will be automatically prepopulated on permittees' DMR forms in NetDMR based on the information provided on the NOI form.

EPA notes that, as with all five types of monitoring in the 2015 MSGP, permittees can combine monitoring activities where requirements are duplicative (e.g., if effluent limitation guidelines-based limits and impaired water monitoring both require testing for the same parameter at the same outfall).

ii. *Discharges to impaired waters with an EPA-approved or established TMDL*. If permittees discharge to an impaired water with an approved or established TMDL, monitoring is not required for the pollutant(s) for which the TMDL was written unless EPA informs the permittee that they are subject to such a requirement consistent with the assumptions and requirements of the TMDL and its wasteload allocation. Where applicable, EPA's notice will include specifications on which pollutant(s) to monitor and the required monitoring frequency. The

previous MSGP monitoring requirements for permittees discharging into waters with a TMDL relied on operators to interpret their requirements to a great extent. Consequently, EPA has removed the language describing when monitoring must continue and when it may cease and instead will inform permittees of any monitoring requirements required under this Part.

The monitoring requirements in Part 6.2.4 are intended to provide the states and EPA with further information on the impacts stormwater from permitted industrial facilities have on impaired waters, and to help ensure that the facilities are not causing or contributing to the impairment. For discharges to impaired waters that do not yet have an approved TMDL for pollutants of concern, these monitoring data are important for developing the TMDL to identify potential sources of the pollutants causing the impairment(s) as well as to identify sources that are not likely to contribute to the impairment(s) and thus may not be included in the TMDL or its wasteload allocation. They are also important for assessing whether additional water quality-based effluent limits, either numeric or qualitative, are necessary on a site-specific basis to ensure that facilities do not cause or contribute to a water quality standards violation. For discharges of pollutants to waters with an approved or established TMDL, monitoring data provides a means of ensuring that discharges are controlled consistent with the TMDL, as well as a useful tool to assess the permittees' progress toward achieving necessary pollutant reductions consistent with any wasteload allocation.

Exception for Inactive and Unstaffed Sites (Part 6.2.4.2). Part 6.2.4.2 of the permit includes an exception from impaired waters monitoring for facilities that are both inactive and unstaffed, when such facilities no longer have industrial activities or materials exposed to stormwater. EPA previously only had such an exception for benchmark monitoring requirements, but has extended this exception for impaired waters monitoring for the same reason (i.e., because these facilities will not be contributing pollutants in stormwater discharges). See Fact Sheet Section X.B.1 for further information about this exception.

EPA notes that this exception has different requirements for Sectors G, H, and J.

X.B.5. Additional Monitoring Required by EPA (Part 6.2.5).

EPA may determine that additional discharge monitoring is necessary to meet the permit's effluent limits, specifically the permit's water quality-based effluent limit. In this case, EPA will provide the appropriate facility with a brief description of why additional monitoring is needed, locations and parameters to be monitored, frequency and period of monitoring, sample types, and reporting requirements.

XI. Reporting and Recordkeeping (Part 7)

XI.A. Electronic Reporting Requirement (Part 7.1).

Permittees must comply with a number of different reporting requirements described throughout the 2015 MSGP. Part 7.2 includes a summary of all of the required information that must be submitted. Part 7.1 of the 2015 MSGP requires all permittees to submit all NOIs, NOTs, NOEs, annual reports, and Discharge Monitoring Reports DMRs electronically, unless they have received a waiver from the EPA Regional Office. Waivers may only be granted on a case-by-case basis and must be based on one of the following conditions: (1) If the permittee's headquarters is physically located in a geographic area (i.e., zip code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission; or (2) If the permittee has significant issues regarding available computer access or computer capability. In the past, permittees were encouraged to use the electronic reporting system, but were given the option to submit paper information. Due to the expansion in Internet availability, greater efficiency in administrative processing,

and the need to reduce costs to manage information, permittees are required to use EPA's electronic reporting systems, NeT and NetDMR, unless they receive a waiver from the EPA Regional Office. This new requirement is consistent with EPA's proposed Electronic Reporting Rule (78 FR 46005).

XI.B. Additional SWPPP Information Required in an NOI (Part 7.3).

Part 5.4 of the 2015 MSGP requires permittees to make some of the information in their SWPPP publicly available. The purpose of this requirement is to better inform the public and regulatory agencies about the nature of a facility's activities and permitted discharges that could impact receiving waters and about the facility's compliance with the permit. The permit provides two options for making this information publicly available. One option allows permittees to post their SWPPP on the Internet and provide the URL on their NOI form, per Part 5.4.1. For those facilities with SWPPPs not in a format that lends itself to being put online or that lack a website to host it, EPA offers a second option under which salient SWPPP information can be extracted verbatim or summarized and included on the NOI form. Although not as complete as an entire SWPPP, the information required, such as the control measures and BMPs implemented to comply with the non-numeric technology-based effluent limits required in Part 2.1.2, will be sufficient for stakeholders to get a good idea of what a regulated facility is doing to protect water resources and comply with permit provisions. If operators do not provide a SWPPP URL, their NOI form must include the following salient SWPPP information:

a. Onsite industrial activities and other potential sources of pollutants, including potential spill and leak areas (see Parts 5.2.3.1, 5.2.3.3 and 5.2.3.5);

b. Pollutants or pollutant constituents associated with each industrial activity exposed to stormwater that could be discharged in stormwater and any authorized non-stormwater discharges listed in Part 1.1.3 (see Parts 5.2.3.2);

c. Stormwater control measures employed to comply with the non-numeric technology-based effluent limits required in Part 2.1.2 and Part 8, and any other measures taken to comply with the requirements in Part 2.2 Water Quality-Based Effluent Limitations (see Part 5.2.4). If polymers and/or other chemical treatment will be used, the polymers and/or chemicals used and the purpose must be identified;

d. Schedules for good housekeeping and maintenance, and the schedule for all inspections required in Part 4 (see Parts 5.2.5.1 and 5.2.5.2).

XI.C. Reporting Monitoring Data to EPA (Part 7.4).

The purpose of submitting monitoring data to EPA is to document stormwater quality and identify potential water quality concerns to EPA, states, and stakeholders. *Monitoring requirements (*i.e., parameters required to be monitored and sample frequency) will be prepopulated on a permittee's electronic DMR forms based on the information reported on the NOI form (through the NeT system). Accordingly, certain changes in monitoring frequency must be reported to EPA through the submittal of a "Change NOI" form in NeT. These monitoring changes include:

- All benchmark monitoring requirements have been fulfilled for the permit term;
- All impaired waters monitoring requirements have been fulfilled for the permit term;
- Benchmark and/or impaired monitoring requirements no longer apply because the facility is inactive and unstaffed;
- Benchmark and/or impaired monitoring requirements now apply because the facility has changed from inactive and unstaffed to active and staffed;

- For Sector G2 only: Discharges from waste rock and overburden piles have exceeded benchmark values;
- A numeric effluent limitation guideline has been exceeded;
- A numeric effluent limitation guideline exceedance no longer occurs.

Once monitoring requirements have been completely fulfilled, permittees are no longer required to report monitoring results using NetDMR. If benchmark monitoring and/or impaired waters monitoring requirements have only been partially fulfilled (e.g., the four-quarter average is below the benchmark for some, but not all, parameters or some, but not all, impairment pollutants are detected), permittees must continue to use NetDMR to report results, but they must report "no data" for any monitoring requirements that have been fulfilled.

For benchmark monitoring, EPA notes that sampling results must be submitted to EPA no later than 30 days after receiving laboratory results for each quarter that benchmark samples are required to be collected per Part 6.2.1.2. For any of monitored outfalls that did not have a discharge within the reporting period, permittees must report using NetDMR that there was "no data" for that outfall no later than 30 days after the end of the reporting period.

XI.D. Annual Report (Part 7.5).

In the 2015 MSGP, EPA is retaining the requirement to submit electronically an annual report. This provision, along with SWPPP information being made accessible, will provide citizens and other stakeholders with more information about activities and discharges that could affect their receiving waters. The annual report must include a summary of the routine site inspection and visual assessment findings, corrective action documentation and any noncompliance observed, and, when applicable, the rationale for why it is believed that no further pollutant reductions are achievable when a four-quarter average benchmark is exceeded. Annual reports must be submitted electronically (unless a waiver from electronic reporting has been granted) by January 30th for each year of permit coverage.

XI.E. Exceedance Report for Numeric Effluent Limitations (Part 7.6).

As described in Part 6.2.2.3, permittees must conduct follow-up monitoring any time a monitoring event identifies an exceedance of a numeric effluent limitation. Part 7.6 specifies that an exceedance report must be submitted to the EPA Regional Office no later than 30 days after receiving laboratory results. Part 7.6 also identifies the specific information to be included in this report, which is necessary for EPA to assess the potential impact of this discharge on water quality and the adequacy of the permittee's response in addressing the exceedance.

XI.F. Additional Reporting (Part 7.7).

Permittees must comply with a number of different reporting requirements in the 2015 MSGP. Specific reporting requirements are included in Part 7; however, additional reporting requirements are included in Part 9 applicable to certain states or tribes as well as standard reporting requirements detailed in Appendix B, Subsection 12. Part 7.7 includes a summary of all of the required reports from Appendix B, Subsection 12, and specifies which reports are to be submitted to the appropriate EPA Regional Office. Reports required to be submitted include:

- 24-hour reporting (see Appendix B, Subsection 12.F) for any noncompliance which may endanger health or the environment. Any information must be provided orally within 24 hours from the time the permittee became aware of the circumstances;

- 5-day follow-up reporting to the 24 hour reporting (see Appendix B, Subsection 12.F) - A written submission must also be provided within five days of the time the permittee became aware of the circumstances;
- Reportable quantity spills (see Part 2.1.2.4) – The permittee must provide notification, as required under Part 2.1.2.4, as soon as there is knowledge of a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity.
- Planned changes (see Appendix B, Subsection 12.A) – The permittee must give notice to EPA promptly, no fewer than 30 days prior to making any planned physical alterations or additions to the permitted facility that qualify the facility as a new source or that could significantly change the nature or significantly increase the quantity of pollutants discharged;
- Anticipated noncompliance (see Appendix B, Subsection 12.B) – The permittee must give advance notice to EPA of any planned changes in the permitted facility or activity which they anticipate will result in noncompliance with permit requirements;
- Compliance schedules (see Appendix B, Subsection 12.F) – Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date;
- Other noncompliance (see Appendix B, Subsection 12.G) – The permittee must report all instances of noncompliance not reported in your monitoring report (pursuant to Part 7.1), compliance schedule report, or 24-hour report at the time monitoring reports are submitted; and
- Other information (see Appendix B, Subsection 12.H) – The permittee must promptly submit facts or information if the permittee becomes aware that they failed to submit relevant facts in the NOI, or that they submitted incorrect information in the NOI or in any report.

XI.G. Recordkeeping (Part 7.8).

The 2015 MSGP 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 MSGP. Part 7.8 describes recordkeeping requirements associated with activities covered under the permit. These include the original SWPPP and any modifications, to provide an 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. Permittees must retain copies of these documents for a period of at least three years from the date that permittees' coverage under the permit expires or is terminated. The recordkeeping requirements in Appendix B, Subsection B.12 include a more general statement of the NPDES standard condition for records retention, but does not impose additional requirements on the permittee above what is required in Part 7.8.

XII. Special Requirements for Discharges Associated with Specific Industrial Activities (Part 8)

Except for the changes to the monitoring requirements described in Section X.B.1 of this Fact Sheet and the changes to individual sectors listed below, the general format and requirements in the sector-specific parts of the permit (Part 8) are similar to the 2008 MSGP.

XII.A. Technology-Based Effluent Limit Clarifications.

The 2015 MSGP contains minor changes to some of the Part 8 provisions for Sectors E, F, K, L, M, N, O, P, Q, R, S, V, X, Y, Z, AA that further clarify the effluent limit requirements.

XII.B. Sector A – Timber Products.

A new provision in Sector A has been added that allows for a pollutant credit in a discharge that is comprised only of water extracted from and returned to the same waterbody. This provision is consistent with EPA's permitting regulation at 40 CFR 122.45(g). The waterbody's extant pollutant levels may be above the level of an effluent limitation, but this provision allows the water to be used and reintroduced into the original waterbody without violating the effluent limitation, providing permittees show that their discharge would meet the limitation in the absence of the pollutant(s) in the intake water. They must demonstrate that the control measures they use to meet applicable technology-based standards would otherwise, if properly installed and operated, meet the limitations for the pollutant. This provision has been added to Sector A because of the effluent limitation guideline for spray down or intentional wetting of logs at wet deck storage areas, which often uses the kind of water this provision addresses.

XII.C. Sectors G, H and J (Mining Sectors).

In the 2015 MSGP, EPA is continuing to allow all stormwater discharges from earth disturbances to be covered under the MSGP, instead of requiring coverage for some of those discharges under a separate permit (i.e., the CGP). EPA adopted a single-permit approach for covering all stormwater discharges at a mine needing coverage under an NPDES stormwater permit in the 2008 MSGP at the request of the mining industry. Previously, EPA required discharges during the exploration and construction phases of a mine to be authorized under the CGP (or an individual construction stormwater permit), and discharges from the active mining phase to be covered under the MSGP (or an individual industrial stormwater permit).

In the 2015 MSGP, EPA revised some of the requirements applicable to earth disturbing activities at mining operations, including TBELs, inspection, maintenance, corrective actions, and final stabilization provisions. These revisions were due in part to the promulgation of the recent Construction & Development Effluent Limitations Guidelines and New Source Performance Standards, which applies in the mining context to the construction of staging areas to prepare for erecting structures such as to house project personnel and equipment, mill buildings, etc. and the construction of access roads. For other earth disturbing activities at mining operations conducted prior to active mining activities, EPA has revised the applicable requirements based on EPA's best professional judgement.

One of the main differences between the 2015 and the 2008 MSGP mining sector requirements is that EPA dropped the identification of what activities are subject to the earth disturbance-related requirements based on which "phase" of the mine development is occurring. Previously, the earth disturbance-related TBELs/requirements were assigned to the exploration and construction phases and the active mining MSGP TBELS/requirements applied to the active and reclamation phases at a mining operation. Associating requirements with mining phases caused too much confusion, especially in light of EPA's inaccurate past association of "overburden" with the exploration phase. Dispensing with the phases not only provides better clarity, but also acknowledges that not all activities associated with a certain phase may meet the threshold for earth-disturbance-related requirements (e.g., field surveys and simple test boreholes performed during exploration).

The 2015 MSGP now identifies which activities are covered by earth disturbance-related requirements by when they occur within the general timeline of a mining operation (i.e., before or

during active mining) and also by the purpose of the earth-disturbing activities undertaken. The former is in the definition of "mining operations" in Part 8.G.3.1(a): "earth-disturbing activities conducted prior to active mining activities". The latter (i.e., the "purpose" portion of the definition) is provided in Part 8.G.3.2, where such earth-disturbing activities are further classified in two ways: (a) activities performed for purposes of mine site preparation; and (b) construction of staging areas for structures and access roads. The reason for this dual classification is because earth disturbances described in 8.G.3.2(b) are subject to TBELs from the C&D rule (because they are regulated pursuant to 40 CFR 122.26(b)(14)(x) and (15)(i)), and thus have different TBELs from earth disturbances described in 8.G.3.2(a) (which are regulated pursuant to 40 CFR 122.26(b)(14)(iii)).

Part 8.G.3.2 also provides examples of the two classes of earth-disturbing activities conducted prior to active mining activities. Examples under 8.G.3.2(a), mine site preparation include "cutting new rights of way (except when related to access road construction); providing access to a mine site for vehicles and equipment (except when related to access construction); other earth disturbances associated with site preparation activities on any areas where active mining activities have not yet commenced (e.g., for heap leach pads, waste rock facilities, tailings impoundments, wastewater treatment plants)". Activities under 8.G.3.2(b) include "construction of staging areas to prepare for erecting structures such as to house project personnel and equipment, mill buildings, etc.), and construction of access roads."

As mentioned above, mine site preparation activity discharges defined in Part 8.G.3.2(a) are regulated pursuant to 40 CFR 122.26(b)(14)(iii), the category of industrial stormwater that includes mining. These earth-disturbing activities limits and conditions are subject to EPA's best professional judgement (BPJ) TBELs that meet the BAT/BCT/BPT standards because such earth-disturbing activities were not analyzed under and are not subject to the C&D (Construction and Development) ELG rulemaking and are not subject to any other mining ELGs. Discharges from the construction of staging areas and access roads defined in Part 8.G.3.2(b) are regulated pursuant to 40 CFR 122.26(b)(14)(x) and (b)(15)(i)) (i.e., the narrative definition for Phase I and Phase II [small] construction) and such discharges are subject to the C&D ELG and therefore have TBELs based on the C&D rule in Parts 8.G.4.1 and 8.G.4.2. The former (construction of structures) is categorized under NAICS 236220 Commercial and Institutional Building Construction; and the latter is under NAICS 237310 Highway, Street, and Bridge Construction. These NAICS codes were included in the November 23, 2009, *Economic Analysis of the Final Construction and Development ELG*, which provides additional evidence that they are subject to the ELG.

The Part 8.G.4.1 TBELs are applicable to both earth disturbances defined at Part 8.G.3.2(a) (i.e., earth disturbances performed for purposes of mine site preparation) and earth disturbances defined at 8.G.3.2(b) (i.e., construction of staging areas for structures and access roads). For earth disturbances defined at 8.G.3.2(a), the basis for the limits is EPA's BPJ, and for earth disturbances defined at 8.G.3.2(b), the basis for the limits is the C&D rule. The 8.G.4.1 limits consist of requirements for preventing erosion and sediment discharges, and are similar to the BPJ limits in the 2003 and 2008 CGP. EPA has made revisions to some of the limits in the 2015 MSGP that EPA has determined to be both technologically available and economically practicable for earth disturbances defined at Part 8.G.3.2(a) after a review of applicable requirements in non-NPDES mining permits (in NM, NC, MD and CA). The TBELs at 8.G.4.1 include installation of downgradient erosion and sediment controls; erosion and sediment control maintenance requirements; perimeter controls; sediment track-out; soil or sediment stockpiles; sediment basins; dust minimization; and restrictions on the use of treatment chemicals.

The Part 8.G.4.2 TBELs are only applicable to earth disturbances defined at Part 8.G.3.2(b) (i.e., construction of staging areas for structures and access roads). The limits at Part 8.G.4.2 are based on the C&D rule and not applicable to earth disturbances defined at Part 8.G.3.2(a) because, in EPA's BPJ, these

specific limits were not found to be technologically available and economically practicable for such disturbances. The limits at 8.G.4.2 include minimize area of disturbance; erosion and sediment control design requirements; natural buffers; native topsoil preservation; minimize steep slope disturbances; minimize soil compaction; dewatering practices; pollution prevention; and site stabilization.

The earth-disturbance-related mining requirements in Parts 8.G.4.1 and 8.G.4.2 are largely similar to requirements in the 2012 CGP, which in general regulates earth disturbances of an acre or more. These requirements are straightforward; however, should an operator need additional guidance, EPA encourages operators to refer to the CGP (see see http://water.epa.gov/polwaste/npdes/stormwater/EPA-Construction-General-Permit.cfm). Further information regarding these requirements is found in the 2012 CGP Fact Sheet, particularly if operators need more information regarding the 2012 CGP's new buffer requirements and cationic chemical usage requirements.

EPA notes that the earth-disturbance-related limits apply to sites that are often like standard construction projects (remote settings notwithstanding). Nevertheless, to accommodate any situations where pre-active mining earth disturbances actually have extenuating conditions that make compliance excessively difficult, EPA has revised the permit language to include the conditional "unless infeasible" to the following effluent limits: 8.G.4.1.1 Erosion and sediment control installation requirements; 8.G.4.1.2 Erosion and sediment control maintenance requirements; 8.G.4.1.5 Soil or sediment stockpiles; 8.G.4.2.2 Erosion and Sediment Control Design Requirements; 8.G.4.2.3 Natural Buffers; 8.G.4.2.5 Sediment basins; 8.G.4.2.6 Native topsoil preservation. In addition, a feasibility component was added to 8.G.4.1.3 Perimeter controls.

In addition, mining representatives expressed concerns regarding the requirement to conduct earth disturbance-related inspections once per month for frozen conditions. They claimed this was "too frequent for remote areas that can only be accessed by snowmobile and where temperatures are typically -40° F." While the once per month inspection requirement is already relaxed for frozen conditions, and EPA allows permittees to take safety into account when performing such tasks, the Agency has changed the requirement to address the extreme conditions the commenter provided: *"Frozen conditions: You may temporarily suspend or reduce inspections to once per month until thawing conditions occur if frozen conditions are continuous and disturbed areas have been stabilized. For extreme conditions in remote areas, e.g., where transit to the site is perilous/restricted or temperatures are routinely below zero, you may suspend inspections until the conditions are conducive to safe access, and more frequent inspections can resume."*

EPA notes that mine dewatering discharges composed entirely of uncontaminated ground water seepage authorized in Part 8.J.1 for Sector J construction sand and gravel, industrial sand, and crushed stone mining facilities is consistent with Part 1.1.3.1, which authorizes non-stormwater discharges of uncontaminated ground water. The rest of the regular MSGP provisions for active mines are unchanged from the previous permit.

In the 2015 MSGP, EPA clarified that earth-disturbing activities defined in Part 8.G.3.2 (and 8.H.3.2 and 8.J.3.2) have ceased, the earth-disturbance-related requirements no longer apply (see Part 8.G.4.5). If pre-active mining earth disturbances do not result in an active mine being established (the reality in a vast majority of instances according to the International Association for Impact Assessment), permittees must stabilize the site before permit termination (see Part 8.G.4.5). However, when active mining activities are to occur and a well-delineated active mining area is established, disturbed areas within the active mine area would not need to be stabilized, because the active mining-related MSGP requirements would then apply up to the point of mine closure. The 2015 MSGP also makes clear that an expansion of the mine into undeveloped areas triggers the earth-disturbance-related requirements in

Part 8.G.4, as stated in Part 8.G.3.4: "Earth-disturbing activities described in the definition in Part 8.G.3.2 that occur on areas outside the active mining area (e.g., for expansion of the mine into undeveloped territory) are considered earth-disturbing activities conducted prior to active mining activities, and must comply with the requirements in Part 8.G.4."

The other portion of "mining operations" consists of "active mining activities" (defined in 8.G.3.3). In the 2015 MSGP, active mining also includes the reclamation phase. The requirements for these types of discharges have not been significantly revised from the 2008 MSGP. EPA has added a definition of "active mining area" that is based on the regulatory definition at 40 CFR 440.132(a): "A place where work or other activity related to the extraction, removal or recovery of metal ore is being conducted, except, with respect to surface mines, any area of land on or in which grading has been completed to return the earth to desired contour and reclamation work has begun." The active mining area is where the regular MSGP (i.e., non-earth-disturbance-related) requirements apply.

The 2015 MSGP also recognizes that mines are often subject to other regulations and non-NPDES permits (e.g., exploration permit, mining permit, reclamation plan, Surface Mining Control and Reclamation Act (SMCRA)). If these other regulations/ permits have overlapping requirements with the MSGP and a permittee can demonstrate and document compliance with the other regulations/ permits, EPA shall consider that the permittee has complied with the relevant requirements in the MSGP (see the note in the beginning of Part 8).

XII.D. Sector N – Scrap Recycling Facilities.

Scrap and Recyclable Waste Processing Areas (Part 8.N.3.2.5). This section identifies requirements for scrap and recyclable waste processing areas for facilities in Sector N. Language clarifications have been made but requirements are unchanged from the 2008 MSGP.

XII.E. Sector O – Steam Electric Power.

Industrial Activities Covered by Sector O (Part 8.O.2). This Part identifies the applicable industrial activities covered under Sector O. EPA has clarified the 2015 MSGP to exclude geothermal power generation from needing authorization to discharge stormwater under the permit. In the initial rulemaking, the definition of "stormwater discharge associated with industrial activity" did not address nor consider geothermal power generation in 40 CFR 122.26(b)(14)(vii). However, since the promulgation of the definition, the geothermal power industry has emerged such that EPA has clarified that this industry was not within the scope of the original industrial definition.

XII.F. Sector S – Air Transportation Facilities.

For the 2015 MSGP, EPA has updated the requirements for Sector S to incorporate the Airport deicing effluent limitation guidelines and new source performance standards. Airlines and airports conduct deicing operations on aircraft and airfield pavement to ensure the safety of passenger and cargo flights. In the absence of controls, deicing chemicals are widely dispersed causing pollutants to enter nearby rivers, lakes, streams, and bays. On May 16, 2012, EPA published the Airport Deicing ELG in the Federal Register to control the discharge of pollutants from airport deicing operations to surface waters. See 40 CFR Parts 9 and 449. The requirements largely apply to wastewater associated with the deicing of airfield pavement at primary airports. The rule also established NSPSs for wastewater discharges associated with aircraft deicing for a subset of new airports. These guidelines are implemented in discharge permits issued by states and EPA Regional Offices under the NPDES program. Therefore, the 2015 MSGP is incorporating the requirements from the Airport ELG that are appropriate to the kinds of discharges the permit authorizes. These requirements are found in Part 8.S.8 of the permit.

Effluent Limitations Based on Effluent Limitations Guidelines and New Source Performance Standards (Part 8.S.8). Part 8.S.8.1 of the 2015 MSGP contains new requirements that are applicable to stormwater discharges from airfield pavement deicing activities at both existing and new "primary airports" (as defined at 40 CFR 449.2), providing the airports have at least 1,000 or more annual non-propeller aircraft departures. The limitation specifies that there shall be no discharge of airfield pavement deicers containing urea. To comply with this limitation, airports must certify annually that they do not use non-urea-containing deicers, or, alternatively, they must meet the ELG's effluent limitation for "Ammonia as Nitrogen", which is 14.7 mg/L, daily maximum. The 2015 MSGP also retains a sector-specific effluent limit requirement that applies to airports not subject to the ELG to consider the use of non-urea-based pavement deicers (see Part 8.S.4.1.6 Source Reduction). Currently, only about 10 percent of chemical pavement deicers applied nationwide contain urea.

The other major part of the ELG concerns only new airports (i.e., those subject to the new source performance standards at 40 CFR 449.11). New airports with 1,000 or more annual non-propeller aircraft departures must meet the applicable requirements for aircraft deicing at 40 CFR 449.11(a) (see Part 8.S.8.2). The ELG specifies that new airports with 10,000 annual departures located in certain cold climate zones are required to collect 60 percent of available aircraft deicing fluid after deicing (see 40 CFR 449.11 to determine whether an airport is in a cold climate zone). Airports that discharge the collected aircraft deicing fluid directly to waters of the U.S. must also meet numeric effluent limitations for chemical oxygen demand. However, collected aircraft deicing fluid is not authorized for discharge under the MSGP (i.e., it is an unauthorized non-stormwater discharge). Therefore, this effluent limitation is not included in this permit (such an effluent limitation would only be incorporated into an individual permit that covers an airport's wastewater discharges).

The record for the ELG also indicates that a 20 percent available aircraft deicing fluid (ADF) collection goal may generally be achievable for existing primary airports that have 10,000 or more annual departures. EPA estimates that glycol collection vehicles (GCVs) typically collect at least 20 percent of the available ADF when properly operated and maintained, and that GCV technology is affordable at the targeted airports because GCV equipment is available in a range of sizes and configurations. EPA strongly recommends such airports adopt, at a minimum, the goal of collecting 20 percent of available glycol after application. EPA recommends that airports consider using GCVs, if doing so would be consistent with considerations of safety, space availability or other operational constraints. New airports subject to the 60 percent collection requirements also have monitoring, reporting and recordkeeping requirements pursuant to 40 CFR 449.20(a), and are included by reference in Part 8.S.8.3. Because the Federal Aviation Administration indicated in 2011 that there were no pending or planned airports in the U.S. that would be subject to NSPS in the ELG, EPA has not elaborated on the 60 percent collection, or the monitoring, reporting and recordkeeping requirements in the 2015 MSGP.

EPA changed the existing language in Sector S to reflect the terminology used in the ELG but did not change the basic requirements. An area where clarifying language was added is in the long standing requirement that all parties meeting the definition of "operator" at airports, including tenants who perform industrial activities, must obtain stormwater permit coverage. EPA discontinued usage of "co-permittee" in the 2008 permit due to confusion about its meaning, but retained both the requirement for NOI submittal by individual operators, pursuant to 40 CFR 122.28(b)(2)(i), as well as the responsibilities of individual operators. EPA notes that the regulations do provide flexibility so that states with approved NPDES programs can adopt a permitting paradigm different from EPA's; i.e., authorizing industrial discharges without NOI submittals.

To provide the clarity air transportation sector representatives requested, EPA included a new part in Sector S that enumerates the responsibilities and options when there are multiple operators

(Part 8.S.3 Multiple Operators at Air Transportation Facilities). In addition to the NOI requirement for all operators, the new clarifying language explains what the collaboration may be between the airport authority and airport tenants regarding permit compliance responsibilities. One area needing more detail involves SWPPP generation. As in all previous MSGPs, a single comprehensive SWPPP must be developed for all stormwater discharges associated with industrial activity at the airport. Part 8.S.3.3 explains that the comprehensive SWPPP should be developed collaboratively by the airport authority and tenants, but when an airport operator develops a SWPPP for discharges from its own areas of the airport, that SWPPP must be coordinated and integrated with the comprehensive SWPPP. The SWPPP must clearly identify all operators' individual contributions and compliance responsibilities, and all operators must sign and certify the SWPPP per Part 5.2.7. This Part further clarifies that the MSGP's requirements can be complied with by a) the airport authority for itself; or b) the airport authority on behalf of its tenants; or c) tenants for themselves. Communication procedures between operators must be included in the SWPPP to ensure permit compliance.

Regarding the list of stormwater control options available for the various types of deicing activities, EPA adopted the ELG's terminology, such as using "feasible" in place of "practicable" and "as appropriate" (note: "practicability" is included in the definition of "feasibility"). EPA also included the ELG's factors for operators to consider when selecting controls to meet their technology-based effluent limits: safety, space, operational constraints, and flight schedules. In addition, new types of technologies or practices identified in the ELG for controlling deicing chemical discharges have been added to the permit.

XIII. Permit Conditions Applicable to Specific States, Indian Country or Territories (Part 9)

Section 401 of the CWA (See also 40 CFR §122.44(d)(3) and §124.53(a)) provides that no federal license or permit, including NPDES permits, to conduct any activity that may result in any discharge into navigable waters shall be granted until the State/Tribe in which the discharge originates certifies that the discharge will comply with the applicable provisions of sections 301, 302, 303, 306, and 307 of the CWA. The requirements under this Part of the permit provide state, U.S. territory and tribal requirements that these entities certify are necessary in order for the permit to include limits to achieve their water quality centers water quality standards.

XIV. Appendices

XIV.A. Definitions and Acronyms (Appendix A).

Definitions (Appendix A). Appendix A of the 2015 MSGP provides definitions for permit-specific terms and a list of acronyms used throughout the permit.

The following definitions were added in the permit:

- "Antidegradation Policy or Antidegradation Requirements"
- "Bypass"
- "CERCLA Site"
- "Confidential Business Information"
- "Corrective Action"
- "Critical Habitat"
- "Discharge Point"
- "Discharge to an Impaired Water"

- “Effective Operation Condition”
- “Effluent Limitations”
- “Effluent Limitations Guideline (ELG)”
- “Eligible”
- “Endangered Species”
- “Feasible”
- “Hazardous Materials or Hazardous Substances or Toxic Materials”
- “Historic Property”
- “Infeasible”
- “Measurable Storm Event”
- “Minimize”
- “National Pollutant Discharge Elimination System (NPDES)”
- “Non-Stormwater Discharges”
- “Notice of Intent”
- “Notice of Termination”
- “Outfall”
- “Permitting Authority”
- “Restricted Information”
- “Run-On”
- “Saline Water or Saltwater”
- “Spill”
- “Stormwater Controls”
- “Stormwater Team”
- “Storm Event”
- “Threatened Species”
- “Toxic Waste”
- “Uncontaminated Discharge”
- “Upset”
- “Waters of the United States”

In addition to the changes mentioned above, the following permit-specific definitions were also revised to more accurately reflect their regulatory counterparts or current EPA policy:

- “Arid Areas”
- “Discharge to an Impaired Water”

- "Drought-Stricken Area"
- "Federal Operator"
- "Impaired Water"
- "Indian Country or Indian Country Lands"
- "Municipal Separate Storm Sewer (MS4)"
- "New Discharger"
- "Operator"
- "Pollutant"
- "Qualified Personnel"
- "Semi-Arid Areas"
- "Stormwater Discharges Associated with Construction Activities"
- "Tier 2.5 Waters"
- "Total Maximum Daily Loads"
- "Water Quality Standards"

EPA notes that it has changed the term "federal facility" to "Federal Operator" to clarify which entities may obtain coverage under this general permit where the state permitting authority is not authorized to administer the federal facility program (i.e., in Vermont, Washington, Delaware and Colorado). The revised definition makes clear that where the operator is a department, agency or instrumentality of the Federal government (a "federal entity"), or another party engaging in industrial activity for any such federal entity, the operator is a "Federal Operator" that may obtain coverage under the permit.

The following definitions were deleted from the permit:

- "Best Management Practices"
- "EPA Approved or Established Total Maximum Daily Loads (TMDLs)
- "You" and "Your"

The following acronyms were added to the list that appears in the 2008 MSGP:

- "CFR" – Code of Federal Regulations
- "ELG" – Effluent Limitation Guideline
- "NeT" – NPDES eReporting Tool
- "NOE" – No Exposure

XIV.B. Standard Permit Conditions (Appendix B).

Standard Permit Conditions (Appendix B). Appendix B includes the standard NPDES permit conditions consistent with 40 CFR 122.41. EPA updated the 2008 MSGP's standard permit conditions to add the following conditions, which are consistent with 40 CFR 122.41:

1. Validity of electronic signatures (Appendix B, Part 11.F).
2. Retention of Records (Appendix B, Part 15).

3. Reopener Clause (Appendix B, Part 16).
4. Standard Severability Clause (Appendix B, Part 17)

XIV.C. Areas Covered (Appendix C).

Areas Covered (Appendix C). Appendix C specifies in what areas of the country the permit would apply, and includes specific corresponding permit numbers. In contrast to the 2008 MSGP, the permit is now available for areas in the State of Colorado subject to industrial activity by a federal operator and Indian country. The permit is not available in Region 4 or in Alaska (except Denali National Park and Preserve and Indian country lands as defined in 18. U.S.C. 1151) because the EPA has authorized the State of Alaska to administer the NPDES program.

XIV.D. Activities Covered (Appendix D).

Activities Covered (Appendix D). Appendix D describes the types of activities covered by the permit by subsector, SIC or Activity Code, and activity represented. There have not been any substantive changes to this from the 2008 MSGP.

XIV.E. Procedures Relating to Endangered Species (Appendix E).

Procedures Relating to Endangered Species Protection (Appendix E). Appendix E specifies the Part 1.1.4.5 eligibility criteria related to the protection of endangered and threatened ("listed") species and critical habitat and the procedures operators must follow to meet the criteria. As described in Section V.A.3 of this Fact Sheet, EPA has finalized changes to Appendix E from the 2008 permit as a result of the Agency's ESA consultations with the FWS and the NMFS.

For background, the Services are responsible for developing and maintaining the list of protected species and critical habitat. Once listed as endangered or threatened, a species is generally afforded the full range of protections available under the ESA, including prohibitions on killing, harming or otherwise taking a species. The Services may also designate "critical habitat" for a listed species as a means to further protect and recover those species. Critical habitat is an area determined to be essential for the conservation of a species and need not be in an area currently occupied by the species. Some, but not all, listed species have designated critical habitat. Exact locations of such designated critical habitat are provided in the Services regulations at 50 CFR Parts 17 and 226.

The most substantial change to Appendix E is the requirement for operators attempting to establish eligibility under criterion C (i.e., facilities with listed species in their action area that are making a determination that their discharges and discharge-related activities are not likely to adversely affect listed species and critical habitats) to submit a worksheet to EPA 30 days prior to submitting the NOI. The type of information required for filling out the worksheet and the process involved in generating the information is consistent with the requirements and expectations of the prior permit, because the types of conclusions that must be reached are similar.

As described in Section V.A.3 of this Fact Sheet, EPA has made minor modifications to the other criteria, and in Appendix E, EPA has provided greater specificity regarding how operators can establish their eligibility under the criteria.

These changes are necessary to ensure that the endangered and threatened species eligibility criteria in Part 1.1.4.5 are adequately protective of species, and to ensure the operators are making accurate eligibility determinations.

XIV.F. National Historic Preservation Act Procedures (Appendix F).

Section 106 of the NHPA requires Federal agencies to take into account the effects of Federal "undertakings" on historic properties that are either listed on, or eligible for listing on, the National Register of Historic Places. The term Federal "undertaking" is defined in the NHPA regulations to include a project, activity, or program of a Federal agency including those carried out by or on behalf of a Federal agency, those carried out with Federal financial assistance, and those requiring a Federal permit, license or approval. See 36 CFR 800.16(y). Historic properties are defined in the NHPA regulations to include prehistoric or historic districts, sites, buildings, structures, or objects that are included in, or are eligible for inclusion in, the National Register of Historic Places. This term includes artifacts, records, and remains that are related to and located within such properties. See 36 CFR 800.16(1).

EPA's issuance of the MSGP is a federal undertaking within the meaning of the NHPA regulations. To address any issues relating to historic properties in connection with issuance of the permit, EPA has included criteria for operators to use to certify that potential impacts of their covered activities on historic properties have been appropriately considered and addressed. Although individual applications for coverage under the general permit do not constitute separate Federal undertakings, the screening criteria and certifications provide an appropriate site-specific means of addressing historic property issues in connection with EPA's issuance of the permit.

Coverage under the 2015 MSGP is available only if operators certify that they meet one of the eligibility criteria following the procedures in Appendix F related to compliance with historic properties protection pursuant to the NHPA. These criteria are used to identify whether land disturbances associated with the installation or revision of subsurface stormwater control measures would affect properties listed in, or eligible for listing in, the National Register of Historic Properties; and, if so, to determine the measures that will prevent or mitigate adverse effects to the properties.

EPA does not anticipate any effects on historic properties from the pollutants in the stormwater discharges covered by the 2015 MSGP. However, existing and new operators could undertake activities in connection with the 2015 MSGP that might affect historic properties if they install or new or modify control measures that involve subsurface disturbance. The overwhelming majority of sources covered under the 2015 MSGP will be operators that are seeking renewal of previous permit coverage. If these existing dischargers are not planning to construct new stormwater controls or conveyance systems, they have already addressed NHPA issues. In the 2008 MSGP, they were required to certify that they were either not affecting historic properties or they had obtained written agreement from the applicable SHPO, THPO, or other tribal representative regarding methods of mitigating potential impacts. EPA is not aware of any adverse effects on historic properties under the 2008 MSGP, nor the existence or need for a written agreement. Therefore, to the extent the 2015 MSGP authorizes renewal of prior coverage without relevant changes in operation, it has no potential to affect historic properties.

Where operators install or modify control measures that involve subsurface disturbance, the area of potential effect (APE) for the activities performed to comply with the permit, for historic preservation purposes, is limited to the location and depth of the earth disturbance associated with the installation or modification of the stormwater control measures. Operators need only consider the APE when doing the historic properties screening procedures to determine their eligibility criteria in Appendix F. This is the only scenario where activities authorized or undertaken in connection with the 2015 MSGP may affect historic properties. Since both new and existing dischargers could undertake such activities, all operators are required to follow the historic property screening procedures to document eligibility. Historic preservation requirements are unchanged from 2008.

XIV.G. Notice of Intent (Appendix G).

Notice of Intent (Appendix G). Parts 1.2.1.2 and 7.1 require operators to use the electronic NPDES eReporting Tool system, or "NeT" system, to prepare and submit NOIs. However, where operators request and receive approval from their EPA Regional Office, they are authorized use the paper NOI form provided in Appendix G on a case-by-case basis.

Operators must provide the following types of information on the NOI form: (1) Permit Information, (2) Facility Operator Information, (3) Facility Information, (4) Discharge Information, (5) SWPPP Information, (6) Endangered Species Protection, (7) Historic Preservation, and (8) Certification Information. The NOI form provides EPA with the information necessary to help determine whether industrial operators have issues that could affect their eligibility to discharge under the permit, and enables EPA to better match permittees with their respective monitoring requirements and to prioritize oversight activities.

The NOI form has been updated the 2008 permit. New questions on the form include:

- Operator point of contact (name, address, phone)
- "Ownership type" of facility (e.g., federal facility, privately owned, city government)
- Latitude/longitude for each stormwater outfall
- The hardness of the receiving water (only if required to monitor for a hardness-dependent metal)
- Whether the facility discharges to saltwater receiving waters
- Whether the facility discharges to a federal CERCLA site listed in Appendix P
- A SWPPP URL or selected SWPPP information (pollutants of concern; a schedule for good housekeeping and maintenance; a schedule for all inspections required in Part 3; and a description of control measures employed to comply with the non-numeric technology-based effluent limits required in Part 2.1.2, and any other measures taken to comply with the requirements in Part 2.2)
- Summary of the basis for ESA criterion selected
- Whether the facility is located on a property of religious or cultural significance to an Indian tribe

Changes were made to correct previous oversights (e.g., hardness dependent and saltwater information), to reflect new or changed permit requirements (e.g., CERCLA provision), or to increase transparency of information (e.g., SWPPP questions).

XIV.H. Notice of Termination (Appendix H).

Notice of Termination (Appendix H). Parts 1.3.2 and 7.1 requires permittees to use the NPDES eReporting Tool system, or "NeT" system, to prepare and submit their NOT when any of the conditions in Part 1.3.3 have been met. However, where the EPA Regional Office specifically authorizes permittees to use a paper NOT form, those permittees are required to complete and submit the paper form provided in Appendix H. No significant changes were made to this form from the 2008 MSGP.

XIV.I. Annual Reporting Form (Appendix I).

Permittees must use NeT to prepare and submit an Annual Report. However, where the EPA Regional Office specifically authorizes permittees to use a paper Annual Report form, those permittees

must complete and submit the paper form provided in Appendix I. Information required consists of general information on the facility, summary findings from the routine facility inspections and quarterly visual assessments, and a description of corrective actions taken and the status of follow-up repairs, maintenance activities, or new BMP installations for the previous year.

XIV.J. Calculating Hardness in Receiving Waters for Hardness-Dependent Metals (Appendix J).

Appendix J provides guidance to operators for determining their receiving water's hardness level for hardness-dependent metals benchmark monitoring.

XIV.K. No Exposure Certification (Appendix K).

Part 7.1 requires operators to use the NPDES eReporting Tool system, or "NeT" system, to prepare and submit a No Exposure certification. However, where operators request and receive approval from their EPA Regional Office, they are authorized to use the paper NOE form provided in Appendix K on a case-by-case basis. The NOE form informs EPA that the industrial operator has certified eligibility for the no exposure permitting exemption.

XIV.L. List of Tier 3, Tier 2, and Tier 2.5 Waters (Appendix L).

Appendix L provides a list of Tier 3, Tier 2, and Tier 2.5 waters to assist industrial operators in determining eligibility for coverage under Parts 1.1.4.9, and in complying with any applicable requirements in Part 2.2.

XIV.M. Discharge Monitoring Report Form (Appendix M).

Part 7.1 requires operators to use NetDMR to prepare and submit their Discharge Monitoring Reports. However, where an operator requests and receives a waiver from their EPA Regional Office, the operator is authorized use the paper DMR form included in Appendix M. The DMR form provides EPA with the information necessary to determine compliance with monitoring requirements.

XIV.N. List of SIC and NAICS Codes (Appendix N).

For informational purposes only, Appendix N contains all the 1987 Standard Industrial Classification (SIC) codes that are regulated under stormwater regulations, and matches them up with corresponding North American Industrial Classification System (NAICS) codes. NAICS codes have been in use since they replaced the SIC codes in 1997. There is not a one-to-one correspondence between the two systems, so a comprehensive list of regulated codes for both systems was generated. Such a list of codes and how these codes fit into the MSGP's sectors may be of interest to stakeholders.

XIV.O. Summary of Permit Reports and Submittals (Appendix O).

Appendix O provides a list of reporting and recordkeeping information that must be generated and, in many cases, submitted to the Agency.

XIV.P. List of CERCLA Sites (Appendix P).

Appendix P provides a list of receiving waters associated with CERCLA sites to assist industrial operators in determining eligibility for coverage under Part 1.1.4.10. These receiving waters have been identified by the EPA Regional office as the ones most likely to experience contamination/recontamination due to toxic pollutants (particularly pollutants for which the site became associated with CERCLA clean ups) being introduced/reintroduced into the receiving water.