

PETROLEUM CONTAMINATED WATER

FACT SHEET

General WPDES Permit No. WI-0046531-04-0

May 8, 2007

GENERAL PERMIT COVERAGE

General permits (GP) are designed to cover discharges from a class of activities or industries that are similar in character. When a GP is issued, many facilities meeting its requirements may be covered under the same GP. GPs currently exist for, storm water runoff associated with industrial activity, non-contact cooling water, groundwater remediations, non-metallic mining, land spreading of food processing wastewater, and several other types of operations.

For activities eligible for coverage under a general permit, the Department sends a cover letter and a copy of the permit to the facility. The cover letter includes the Department's determination that a discharge is covered under the GP. A facility may need to be covered under more than one GP, depending on the different types of wastestreams that a facility discharges. However, a facility that requires an individual permit for any part of its discharge may have all of its discharges covered under one individual permit.

GENERAL DESCRIPTION OF ACTIVITIES COVERED UNDER THIS GP

This General Permit (GP) is applicable to point source discharges of wastewater that has been contaminated with petroleum. Petroleum products may include, but are not limited to: gasoline, diesel fuel, aircraft fuel, jet fuel, heating oils, and lubrication oils. The discharge from activities covered under the permit will be intermittent in nature, dependent on storm water runoff or the amount of condensation. Flow volumes may range from 1000 to 20,000 gallons per day. Three types of water contaminated by petroleum products may be discharged under this permit as defined below:

Petroleum Contact Water (excluding tank bottom water): The transfer of petroleum products and the general operation of equipment at these facilities typically result in small spills and drippings of petroleum products that may commingle with stormwater runoff or other sources of water. In addition, storm water that falls within containment areas storing fuel may become contaminated with petroleum products. These contaminated waters contain free phase (not emulsified or dissolved) petroleum products and may be covered by this GP. Examples of facilities that may be regulated by this GP include vehicular fueling, railroad yards, airports, and petroleum tank farm operations. A standard treatment system for the removal of free phase petroleum products consists of an oil/water separator.

Tank Bottom Water: Water collects in petroleum storage tanks due to condensation and infiltration of rain and snow. The volume of water collected in a tank over time depends on the tank design, precipitation, ambient temperature, and other factors. The wastewater drained from the storage tanks requires collection and treatment prior to discharge. The largest volumes of wastewaters will come from the bulk petroleum storage tank facilities; these are the facilities anticipated to be regulated by this GP. However, this GP may be appropriate for regulating other facilities that store petroleum products and drain the water from the storage tanks.

When water is removed from a tank, it has usually been in contact with petroleum products for an extended period of time. The waste removed from the bottom of the tanks (tank bottoms) contains a limited, and usually small, amount of free product, water saturated with dissolved petroleum products, and sometimes water with emulsified petroleum products. The water removed from petroleum storage tanks requires more extensive treatment than other wastewaters contaminated with petroleum products because of the dissolved and emulsified petroleum products. Commonly, oil/water separators are used as pretreatment to remove free product from the wastewater. Treatment for removal of dissolved petroleum products may include: stripping, activated carbon, activated clays, and distillation. Treatment for removal of emulsified petroleum products may include thermal or chemical treatment.

Scrap and Waste Storage Area Oily Water: Storage areas for scrap and waste materials, especially scrap metal, may generate an “oily wastewater” from stormwater contacting the material during storage. This petroleum contaminated storm water may not be discharged to waters of the state unless it is treated and complies with the treatment technology based effluent limits contained in this permit. This contaminated wastewater may contain a combination of free product and dissolved petroleum products, depending upon the exposure time.

Facilities in the business of recycling of scrap and waste materials are typically covered under one of two stormwater permits, either the “Recycling of Scrap and Waste Materials” permit WI-S058831, or the “Dismantling of Vehicles for Parts Selling and Salvage” permit” WI-S059145. When treatment of the “oily wastewater” is necessary, because best management practices cannot control the petroleum product contamination, the facility must obtain coverage under this permit to discharge from the treatment system. Treatment for removal of the “oily wastewater” may include an oil/water separator and activated carbon absorption system.

A facility is not eligible for coverage under this general permit to discharge process wastewater that may contaminate storm water. Process wastewater would include discharges from oily scrap waste processing areas such as metal shredding, washing, or engine block breaking. When processing is involved, metal contamination of the wastewater is likely, that requires treatment. An individual industrial WPDES permit is necessary for process wastewater discharges, which would contain site specific effluent limits for a discharge.

RATIONALE FOR PERMIT REQUIREMENTS

1 Applicability Criteria

1.1 Activities Covered

The permit is applicable to discharges of wastewater contaminated with petroleum products, including discharges from vehicle fueling facilities, railroad yards, airports, bulk petroleum stations and terminals (tank farms), and scrap metal storage areas.

A note advises permittees who are covered under this permit that a storm water permit for the industrial activities listed may also likely be necessary. Transportation facilities and petroleum bulk stations and terminals would be subject to the Tier 2 industrial general storm water permit (WI-S067857). Scarp recycling would be subject to the “Recycling of Scrap and Waste Material” storm water permit (WI-S058831). Auto parts recycling would be subject to the “Dismantling of Vehicles for Parts Selling and Salvage” storm water permit (WI-S059145). The storm water permits contain the requirements for storm water pollution prevention plans and other applicable requirements from ch. NR 216, Wis. Adm. Code. Additional information on the storm water permits is available at the following Department web site:

<http://dnr.wi.gov/org/water/wm/nps/stormwater/industrialforms.htm>

1.2 Activities Not Covered

Discharges of contaminated groundwater must be regulated under a different permit, and may be eligible for the “Contaminated Groundwater from Remedial Action Operations” general permit WI-0046566.

Discharges covered under this permit must meet the wetland protection requirements of ch. NR 103, Wis. Adm. Code, and may not significantly adversely impact wetlands. For discharges that impact wetlands, a facility will need to submit information that allows the Department to determine if a discharge meets code requirements.

Discharges to outstanding and exceptional resource waters are not authorized by this permit. Regulation of discharges to outstanding and exceptional resource waters requires an individual permit, which provides the oversight and discharge limitations necessary to protect these types of receiving waters.

The discharges from activities eligible for this permit are not expected to exceed any surface water or groundwater standards. Activities with discharges that may violate surface water quality standards or groundwater quality standards require the oversight and discharge limitation available under an individual permit.

2 Requirements for All Discharges

2.1 Required Treatment

The three categories of wastewater described below will be contaminated to a certain degree with petroleum products that must be treated to protect surface water and groundwater. Facilities without treatment equipment will be unable to control the discharge quality and will not be in compliance with this GP. An exception may be discharges of secondary containment water from petroleum bulk stations and terminals described in Subsection 2.2.

2.1.1 Petroleum Contact Water (excluding tank bottom water)

This category of wastewater will likely be contaminated by petroleum products. The permit requires treatment with an adequately sized, designed, and functioning oil/water separator. This provides simple gravity separation of the oil from collected water. A few important common features of oil/water separators include: a small inlet under-flow baffle extending a short distance under the operating level of the wastewater for distribution of the incoming flow across the cross section of the separator, a large outlet under-flow baffle that extends far below the water surface to prevent separated oil from discharging, and a method for removal of the collected oil from the surface of the water. Some of the methods for removal of petroleum products from the oil/water separator include: rope skimmers, paddle skimmers, semi-permeable membranes, absorbents, and manual removal. Oil/water separator equipment may also include: extensive baffle systems, inclined plates, coalescing media, and air flotation systems. The separated petroleum products are usually stored in slop tanks for recycle.

2.1.1 Tank Bottom Water

This category of wastewater will contain dissolved or emulsified petroleum products that cannot be removed by an oil/water separator. Methods for removing dissolved or emulsified petroleum products from water include air stripping, chemical addition, dissolved air floatation (DAF), activated carbon, activated clays, thermal treatment, and distillation. Activated clays or carbon units are used to remove contaminants from water resulting from contact with the heavier end hydrocarbons. To protect against contaminants breaking through carbon or clay units, two units are required in series when this type of treatment is used. The activated clays and carbon will remove insoluble organics and color. Hydrocarbons are adsorbed in the following order: unsaturates, aromatics, naphthenes, and paraffins. In each series, the high molecular weight hydrocarbons are adsorbed more readily. Resinous and asphaltic substances are actively adsorbed. Since wastewater contaminated strictly with gasoline mostly contains low molecular weight, saturated, paraffin hydrocarbons, these wastewaters are usually not treated by activated clay or carbon filters; rather air stripping is used to volatilize contaminants from the water.

2.1.3 Scrap and Waste Storage Area Oily Water

This category of wastewater will contain oil and grease, and dissolved or emulsified petroleum products that cannot all be removed by an oil/water separator. Methods for removing dissolved or emulsified petroleum products from water would be similar to the tank bottom water described above.

2.2 Secondary Containment Water

Wastewater collected in secondary containment structures at petroleum bulk stations, terminals, or tank farms is storm water that either doesn't contain petroleum products or may contain such low concentrations that treatment is unnecessary prior to discharge. The permit takes this into account by allowing the water that collects in secondary containment structures that meets uncontaminated conditions to be discharged without treatment. The main criterion is that the wastewater cannot contain a visible oil

sheen or film, in which case it would comply with the 15 mg/L limit for oil and grease. Wastewater that doesn't meet the criteria must be treated and monitored as specified in Table 3.1.1 or Table 4.1.1.

During the first year after coverage is granted under the reissued permit, monitoring is required for flow, oil and grease, total BETX, and PAH for groundwater discharges. For a surface water discharge BOD₅ must also be monitored. If the chemical monitoring data for the secondary containment water is found to be uncontaminated, it may be discharged without treatment. No further chemical monitoring during the 5 year term of the permit is required.

2.3 Dykes and Berms

Water collection or treatment facilities with dikes and berms must be designed and maintained to prevent leakage above ground.

2.4 Adequate Design

Precipitation must be taken into account for exposed collection and treatment systems. Ch. NR 205, Wis. Adm. Code identifies the design rainfall amount and probable intensity of 10-year and 25-year, 24-hour rainfall events for locations in Wisconsin. This permit requires that treatment systems be capable of handling the water resulting from a storm having a 10-year, 24-hour event frequency that falls within or flows into the area of the treatment/disposal system. This design parameter is common to industrial treatment facilities in Wisconsin. Wastewater treatment systems must have sufficient hydraulic capacity.

2.5 Treatment System Usage Restrictions

Treatment system equipment may only be used for treatment of petroleum contaminated water. Activities that use treatment equipment for other purposes will not be able to meet permit requirements. For example, if an oil/water separator is used to store waste oils and spills, any contact water entering the oil/water separator could result in the discharge of oil and grease in exceedance of permit limits.

2.6 Treatment System Inspection and Maintenance

Inspection and maintenance of treatment system equipment is as important as the analytical monitoring of the discharge. Treatment equipment must be operating effectively and efficiently to insure that effluent limits are met. This can only be accomplished through regularly scheduled maintenance and cleaning.

2.7 Reporting Monitoring Results

The permittee is required to report monitoring data to the Department on a regular basis using either paper forms or electronically in the future.

2.8 Disposal of Waste Oil and Solids Removed from Treatment Systems

Documentation of waste oil and solids disposal from the treatment system will provide information as to the cleanliness of the operation, and that wastes are properly disposed of. Large amounts of waste oil and solids for disposal may indicate excessive spills, dumping, and possible discharges of oil that may not be identified by analytical monitoring. Disposal is subject to applicable Department regulations. A report on the disposal of waste oil and solids is required annually.

2.9 Reporting of Tank Bottom Water Disposal

Facilities regulated by this GP that do not treat and discharge tank bottom water on site are required to report where they dispose of this wastewater. An Activity may decide to dispose of the tank bottom water by hauling it to a sewage treatment plants or other appropriate treatment and disposal facility. Since tank bottom water contains hazardous pollutants, it is appropriate that all facilities regulated by this GP report to the Department where this water is being disposed.

2.10 Test Methods

The permit specifies the test methods that shall be used for the chemical analysis of parameters associated with discharges covered by this GP. The Department may approve an alternate test method as long as it provides accurate results and has a level of detection similar to the method specified in the permit. If the facility wishes to use an alternate method, it must be approved by the Department in writing prior to use.

2.11 Treatment System Plan Approval

Monitoring data from several current permit holders indicates there may be difficulty in meeting the proposed PAH effluent limits for the petroleum contact water category. Consequently, additional treatment beyond an oil/water separator may be necessary. An activated carbon adsorption unit to treat the effluent from the oil/water separator is expected to be a possible solution as the best available treatment economically achievable.

Because there may be many such treatment system modifications, and they would simply involve supplier furnished package treatment units, the Department's review of individual plans is unnecessary. The permittee may self approve their plans if they meet the criteria described in the permit. The Department uses a similar self approval process for wastewater holding tanks.

3 Groundwater Discharge Requirements

3.1 Monitoring Requirements and Limitations

A discharge to groundwater includes wastewater infiltration from irrigation, drain fields, ditches, and absorption ponds. The effluent quality is regulated to prevent negative impacts to the water beneath the ground surface. Tables 3.1.1, 3.1.2, and 3.1.3 in the permit list the discharge limitations and monitoring requirements for groundwater discharges for three categories of petroleum contaminated wastewater. The limits are treatment technology based. The monitoring parameters consist of the following:

3.1.1 Petroleum Contact Water (excluding tank bottom water)

Flow: An estimate of the average daily flow reported quarterly will be sufficient to assure that the facility is aware of the discharge amount. An estimate means a reasonable approximation of flow based on any of the following: (a) water balance, (b) an uncalibrated weir, (c) calculations from the velocity and cross section of the discharge, (d) intake water meter readings where the intake, or a specific portion of it, is discharged, (e) discharge water meter readings, and (f) any of the more complex methods listed in s. NR 218.05(1), Wis. Adm. Code. The Department may approve additional methods for estimating flow.

Oil and Grease: After the removal of free petroleum product treated wastewater may be discharged to groundwater. The oil and grease effluent limit is 15 mg/l expressed as a daily maximum. This is a treatment technology based limit that reflects the ability of an oil/water separation to easily remove oil and grease. Oil and grease monitoring is required on a quarterly basis using a grab sample.

Total BETX (benzene, ethylbenzene, toluene, and xylenes) and PAH (polynuclear aromatic hydrocarbons): These parameters are monitored annually using a grab sample. The concentration of these compounds should be below a level of concern as BETX and PAH are usually only associated with the tank bottom water. Included are treatment technology based effluent limits of 750 µg/L Total BETX and 0.1µg/L PAH expressed as a monthly average. These limits are the same as those used in the "Contaminated Groundwater from Remedial Action Operations" general permit. Carbon absorption treatment can achieve these concentration levels. The limits are based on the need to meet ch. NR 140, Wis. Adm. Code preventive action limits (PAL). Data indicates just an oil/water separator may not be sufficient for meeting the effluent limits.

3.1.2 Tank Bottom Water

Flow, Oil and Grease, Total BETX and PAH: These parameters are monitored the same as the petroleum contact water described above, except the total BETX and PAH monitoring frequencies are increased to quarterly monitoring because it is more likely to be present.

Benzo(a)pyrene, Naphthalene, Benzene, Ethylbenzene, and Toluene: Monitoring for these parameters, which are found in petroleum products, is required on a quarterly basis using a grab sample. The BETX components are monitored individually except for xylene. Water that may collect at the bottom of a petroleum storage tank is subject to long term exposure, causing it to become contaminated with dissolved or emulsified petroleum products. The discharge limitations are based on the PAL contained in ch. NR 140, Wis. Adm. Code. Setting the discharge limitations at the PALs, and expressing them as monthly average limits is designed to ensure groundwater standards are not exceeded.

3.1.3 Scrap and Waste Storage Area Oily Water

Flow, Oil and Grease, PAHs, Benzo(a)pyrene, Naphthalene, Benzene, Ethylbenzene, Toluene, and Total BETX: These parameters are monitored the same as the tank bottom water described above.

Total Suspended Solids: Solids may be a contaminant in the stormwater runoff that enters scrap and waste storage areas, so it was added as a potential parameter of concern. Included is a treatment technology based limit of 40 mg/L expressed as a daily maximum.

In addition to the discharge limitations and monitoring requirements in the tables, there are six explanatory footnotes related to the monitoring requirements or operation of the treatment system.

4 Surface Water Discharge Requirements

4.1 Monitoring Requirements and Limitations

Surface water discharges include ditches, storm sewers and pipes that convey wastewater to creeks, streams, rivers and lakes. The effluent quality is regulated to prevent negative impacts to surface water. Table 4.1.1, 4.1.2, and 4.1.3 in the permit lists the discharge limitations and monitoring requirements for surface water discharges for three categories of petroleum contaminated wastewater. The limits are treatment technology based, not water quality based. If a surface water needs protection beyond the general permit, an individual permit with site specific water quality based limits must be issued. The monitoring parameters consist of the following:

4.1.1 Petroleum Contact Water (excluding tank bottom water)

Flow, Oil and Grease, and PAHs and Total BETX: These parameters are monitored the same as the petroleum contact water in the Table 3.1.1.

Biochemical Oxygen Demand (BOD₅): This parameter is monitored annually to gather information on BOD₅ levels in discharges to surface water. A best professional judgment limit of 20 mg/L expressed as a monthly average applies. BOD₅ monitoring is not applicable to groundwater discharges.

4.1.2 Tank Bottom Water

Flow, Oil and Grease, PAHs, Total BETX, and BOD₅: These parameters are monitored the same as the petroleum contact water described above.

Benzo(a)pyrene and Benzene: These two parameters were added as petroleum contaminant indicators for the tank bottom water. Included are treatment technology based limits of 0.1 µg/L for benzo(a)pyrene and 50 µg/L for benzene, which are both expressed as a monthly average.

4.1.3 Scrap and Waste Storage Area Oily Water

Flow, Oil and Grease, PAH's, Total BETEX, Benzo(a)pyrene, Benzene, and BOD₅: These parameters are monitored and limited the same as the tank bottom water described above.

Naphthalene and Total Suspended Solids: These parameters were added as potential substances of concern. Included are treatment technology based limits of 70 µg/L for Naphthalene expressed as a monthly average, and 40 mg/L for total suspended solids expressed as a daily maximum.

In addition to the discharge limitations and monitoring requirements in the tables, there are six explanatory footnotes related to the monitoring requirements or operation of the treatment system. The floating solids and foam requirement is a best professional judgment narrative limit dating back to the Refuse Act Permit Program and the Corps of Engineer's River and Harbor Act of 1899.

5 Schedules of Compliance

The “Compliance with Effluent Limits” includes three scenarios: current permittee, existing activity without a permit, and new activity.

For current permittees, the two treatment technology based limits for total BETX and PAH now apply to “Petroleum Contact Water”, the same as have applied to the other two categories of wastewater. Because this imposes a new limit, one year is allowed before the limit becomes effective to allow the permittee to take action if necessary to comply. Monitoring data from some current permittees indicates PAH concentrations would exceed the limit.

An existing activity that currently isn't covered under the general permit is in violation for discharging without a permit. The facility must take action to comply with effluent limits within 6 months. The Department believes is a reasonable response time. The issuance of a general permit doesn't preclude the Department from taking enforcement action for failure to obtain a permit.

For new activities covered under the general permit compliance is expected immediately. But, if upon start-up of a new treatment system monitoring data indicates the discharge violates any effluent limits, permittees are allowed up to 90 days for corrective action to attain compliance. This period of time to resolve start-up problems is allowable in accordance with s. NR 106.117(1), Wis. Adm. Code.

6 Standard Requirements

These requirements apply to all permittees, and reflect the general permit conditions contained in ch. NR 205, Wis. Adm. Code. They consist of the applicable permittee obligations and reporting requirements.

7 Summary of Reports Due

Report that must be submitted by permittees is summarized. In most cases annual reporting on the previous year is required by January 15th. The DMR submittal must include information on monitoring results, with attached reports on waste oil and solids disposal and tank bottom water disposal.

CHANGES FROM THE PREVIOUS GENERAL PERMIT REISSUANCE

The substance of the permit remains very similar to the current permit that was effective June 1, 2001 and expired March 31, 2005. Revisions were made where necessary to clarify or reflect changes in the how the Department is regulating the discharge covered. The standard requirements were updated to reflect the most recent language and the requirements that are appropriate for this permit. The permit was restructured to be consistent with the format used for the individual WPDES permits. Specific changes made to the permit are described below.

Revised the applicability criteria in Subsection 1.2. The item relating to the 21 bioaccumulators was eliminated. This is now addressed in the 5th bullet that states water quality standards for surface water and groundwater may not be exceeded. The previous language that said adding any detectable quantities of bioaccumulators wasn't realistic because improvement in the analytical level of detections can detect very minute concentrations of contaminants.

Revised the language in Subsection 2.2.1 by including “clean fire suppression water or other uncontaminated water” in the description of water that may be discharged without any treatment. The fifth bullet that previously specified annual monitoring was reduced to once during the permit term to be conducted during the first year. Data indicates this water is typically uncontaminated and isn't a concern.

The visual inspection for an oil sheen is sufficient to allow a discharge without treatment. But, if the chemical monitoring exceeds any applicable effluent limit, the secondary containment water must be treated as petroleum contact water and is then subject to that category of requirements.

Revised Subsection 2.8 by replacing the expression “sludges and solids” with “waste oil and solids”, which is a better description. The term sludge is more appropriate for biological treatment systems rather than for the physical removal of waste oil.

Revised Subsection 2.10 by adding to the table the test method for oil and grease (Hexane) and total suspended solids. It’s also noted that the level of detection used in the analysis must be less than the effluent limit. In some cases, labs used by permittees may have used levels of detection too high that makes a compliance determination with the effluent limit inconclusive.

A new Subsection 2.7 describes the how to report monitoring results to the Department.

A new Subsection 2.11 describes the plan approval criteria for self approval of wastewater treatment systems. Based on a review of 15 representative petroleum activities in the Milwaukee area, there were several effluent concentrations that would exceed the proposed PAH limit in the petroleum contact category of wastewater. Additional treatment beyond an oil/water separator may be necessary to achieve compliance. If the criteria described in the permit are met the plans are self approved. This will eliminate a routine plan approvals for the Department similar to the process used for holding tank plan approvals.

Revised Table 3.1.1 and Table 4.1.1 by including monthly average limits for Total BETX and PAH for the “Petroleum Contact Water” category. The limits are the same as the current limits for the “Tank Bottom Water” and “Scrap and Waste Storage Area Oily Water” categories. Limits weren’t included in past permits, only monitoring was required because the intent was to collect data on “Petroleum Contact Water” to determine if PAH concentrations were a problem. Based on monitoring results the PAH concentration at some facilities has exceeded the proposed limit effluent significantly (a high of 34 µg/L). In those cases, additional treatment with carbon absorption will be necessary to comply with limits.

Revised Tables 3.12 and 4.12 by increasing the monitoring frequency for PAH from annual to quarterly. Based on the monitoring data for the “Petroleum Contact Water” category that found several high PAH concentrations, PAH may be more prevalent than expected. And PAH may be even more likely present in the “Tank Bottom Water” category of wastewater so a higher monitoring frequency is appropriate.

Revised the surface water monitoring Tables 4.1.1, 4.1.2, and 4.1.3 by including a BOD₅ limit of 20 mg/L. The current permit only required monitoring to generate data. Based on a review of 15 representative petroleum activities in the Milwaukee area, there were a few detections of BOD₅ above 2 mg/L, but BOD₅ doesn’t appear to be a concern (a high of 13 mg/L). The 20 mg/L limit is a best professional judgment limit based on the water quality standard for a marginal surface water in accordance with ch. NR 104, Wis. Adm. Code, and is believed reasonable.

A new Section 5 contains a compliance schedule for complying with effluent limits, with three scenarios. Current permittees are allowed up to one year to comply with the newly imposed effluent limits for total BETX and PAH that apply for the first time to the “Petroleum Contact Water” category of wastewater.

A new Section 7 provides a summary of reports due under the general permit.

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PUBLIC NOTICE COMMENTS and ADDITIONAL CHANGES

The permit was public noticed May 10, 2007 when 8 general permits were noticed together in 13 newspapers around the state. One comment on the Petroleum Contaminated Water General Permit was received during the public notice period - a June 7, 2007 letter from the Union Pacific Railroad who is the permittee for a railroad yard in Butler (Southeast Region). They objected to the proposed PAH limit of 0.1 µg/L for petroleum contact water that is treated by an oil/water separator. Their reasons being that additional treatment with carbon adsorption for the potentially large volume of storm water at their site would be too expensive, and the limit is technology based so it's unknown if there would be water quality improvements in the receiving water.

The Department believes the 0.1 µg/L limit is both achievable and reasonable so it is retained in the reissued permit. PAHs (polynuclear aromatic hydrocarbons) are associated with heavier petroleum products such as diesel fuel. The 0.1 µg/L limit is based on the potential carcinogenic effect and the Department's judgment that this concentration is achievable with activated carbon treatment, which represents best available technology. This limit is also included in the general permit used to regulate discharges of treated contaminated groundwater remediation projects. Other contaminated storm water runoff could violate this limit, but the Department's effluent limit authority for storm water is limited to water that is required to receive treatment, such as the oil/water separator.

A change to the permit was made to clarify the sampling location for effluent from the oil/water separator or other treatment process, with revisions to Subsections 3.1 and 4.1. The phrase in parentheses "if applicable" that followed treatment was removed because it doesn't apply. All contact water covered under this permit requires treatment (except for qualifying secondary containment water as described in Subsection 2.2.1). Added to the end of the last sentence is the phrase "that consists solely of the treated effluent before mixing with any other water". In some instances, permittees were collecting samples at a different location that includes untreated storm water runoff or other water that may be from off-site. A sample location like that doesn't represent the oil/water separator treatment performance, which is what this permit is regulating. Any other storm water or wastewater that commingles with the oil/water separator effluent could be another source of contaminants and could be outside the control of the permittee, or might be clear water that would dilute the effluent.

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