

FACT SHEET
REISSUANCE OF A GENERAL VPDES PERMIT FOR NON-CONTACT COOLING WATER
DISCHARGES OF 50,000 GALLONS PER DAY OR LESS

The Virginia State Water Control Board has under consideration the reissuance of a VPDES general permit for point source discharges of non-contact cooling water to surface waters of the Commonwealth of Virginia. This general permit will replace the existing non-contact cooling water general permit, VAG25, which expires March 1, 2013. Owners covered under the expiring general permit who wish to continue to discharge under a general permit must register for coverage under the new general permit.

Permit Number: VAG25

Name of Permittee: Any owner of a qualifying facility discharging non-contact cooling water in the Commonwealth of Virginia agreeing to be regulated under the terms of this general permit.

Facility Location: Commonwealth of Virginia

Receiving Waters: Surface waters within the boundaries of the Commonwealth of Virginia, except Class V stockable waters, Class VI natural trout waters, and those specifically named in Board Regulations which prohibit such discharges. Discharge to surface waters may be through a municipal separate storm sewer system. Chlorine or any other halogen compounds shall not be used for disinfection or other treatment purposes, including biocide applications, for any discharges to waters containing endangered or threatened species as identified in 9VAC25-260-110 C of the Water Quality Standards.

On the basis of preliminary review and application of lawful standards and regulations, the State Water Control Board proposes to reissue the general VPDES permit subject to certain conditions and has prepared a draft permit. The Board has determined that this category of discharges is appropriately controlled under a general permit. Non-contact cooling water discharges are similar in composition even though they may not be generated by a single industrial category or point source. The draft general permit requires that all covered facilities meet standardized effluent limitations, monitoring requirements, special conditions, and Water Quality Standards (9VAC25-260).

Persons may comment in writing on the proposed reissuance of the general permit within 60 days from the start of the public comment period. Comments should be addressed to the contact person listed below. Comments shall include the name, address, and telephone number of the writer, and shall contain a complete, concise statement of the factual basis for comments. Only those comments within the comment period will be considered by the Board.

All pertinent information is on file and may be inspected, and arrangements made for copying by contacting:

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A public hearing will be held on this draft permit. Notice of the public hearing will be published in newspapers, on the Virginia Regulatory Town Hall web site at www.townhall.virginia.gov, and in the Virginia Register. Following the public comment period, the Board will make its determinations regarding the proposed permit action.

1.0 Activities Covered By This General Permit And Sources Of Wastewater

This general permit covers point source discharges of 50,000 gallons per day or less of non-contact cooling water and cooling equipment blowdown to surface waters. Discharge to surface waters may be through a municipal separate storm sewer system (MS4).

"Cooling Water" means water used to reduce temperature which does not come into direct contact with any raw product, intermediate product (other than heat) or finished product. For the purposes of this general permit, cooling water can be generated from any cooling equipment blowdown or produced as a result of any non-contact cooling process through either a single pass (once through) or recirculating system.

"Blowdown" is a discharge of recirculating water from any cooling equipment or cooling process in order to maintain a desired quality of the recirculating water. Water which is used for cooling purposes and which commingles with a wastewater or process fluid becomes process wastewater and is not covered by this general permit. Boiler blowdown and storm water discharges are also excluded from the coverage of this general permit.

This general permit is not applicable for a category where federal effluent guidelines have been promulgated, such as steam electric generating stations (see 40 CFR Part 423).

The cooling water's source can be a well, surface water, or the potable water supply. The water is used in a process for cooling. The temperature control system operates so that the cooling water does not come into direct contact with the raw materials. The primary pollutant associated with cooling equipment blowdown and non-contact cooling water discharges is the heat taken up by the water. In one pass cooling water facilities, after the heat transfer has taken place, the water is discharged. Once-through cooling generates relatively large volumes of water. In most cases, the water passes through the heat exchange apparatus and is discharged without chemical additives or treatment.

Other cooling equipment, such as cooling towers, use less water because they usually operate in a recycle, rather than once-through, mode. Generally associated with air conditioning units, cooling towers are used to remove heat from a fluid by evaporating water. Water is dispersed over a media or trickled through shallow pans as air is blown over it. Evaporation cools the water down to the ambient air temperature. The cool water is then piped to a heat exchanger within the air conditioning chiller where it absorbs the heat released as Freon is condensed. The cycle is completed when the water is pumped back to the cooling tower. A certain amount of the water in the cooling equipment system must be replaced during each or several cycles in order to maintain the desired properties of the water. This type of discharge (blowdown) is usually lower in volume than the once-through cooling discharge, but it has a greater potential to contain pollutants. The reuse of water usually requires some sort of treatment to inhibit corrosion and scale build-up, to reduce biological growth, and to reduce deposition of water impurities in the system. Chemical and/or non-chemical treatment may be employed to address these problems.

Due to the concern that tributyltin compounds are not easily degradable and thus have long-lasting residual effects, and the stringent water quality standards for tributyltin (0.072 ppb in freshwater and 0.0074 ppb in saltwater), discharges that use biocides containing tributyltin will be excluded from coverage under this general permit. In addition, this general permit will not cover any cooling water discharges that use hexavalent chromium (Cr^{+6})-based water treatment chemicals in the cooling water system. This restriction is imposed based on the provision promulgated under 40 CFR Part 749 that prohibits the use of hexavalent chromium-based water treatment chemicals in comfort cooling towers (CCT's). Although CCT's are dedicated exclusively to, and are an integral part of heating, ventilation, and air conditioning (HVAC) or refrigeration systems, it is anticipated that the majority of the cooling water discharges covered by this general permit will be generated from CCT's. In order to assure compliance with the halogen ban of 9VAC25-260-110 of the Water Quality Standards, chlorine or any other halogen compounds are not allowed to be used for disinfection or other treatment purposes, including biocide applications, for any discharges to water containing endangered or threatened species as identified in 9VAC25-260-110 C of the Water Quality Standards.

Using chloramines to disinfect drinking water is a common practice among drinking water utilities. Ammonia is a byproduct of the use of chloramines for this purpose. Therefore, ammonia monitoring is required where the source of cooling water is disinfected using chloramines.

As a non-chemical treatment alternative, an ion generator is commonly employed in the cooling water system. DC current is passed through anodes made of copper and silver alloy. This process releases copper and silver ions into the water. The ions neutralize bacteria and algae. Other non-chemical treatment alternatives, such as magnetic descaling which reduces the scale build-up by creating alternating magnetic fields, may require alternative treatment for control of biological growth. Either a silver/copper anode unit or chlorine addition may serve this purpose.

Due to the concern that toxic effects could occur as a result of contaminated water sources from groundwater remediation wells, discharges that use groundwater remediation wells as cooling water source will be excluded from the coverage of this general permit.

The cooling water discharges normally do not include a treatment system. However, retention or settling ponds may be used to equalize the flow, lower the temperature, or to settle any possible solids that may occur in the discharge.

2.0 Revisions to the Expiring VPDES General Permit for Non-Contact Cooling Water Discharges of 50,000 GPD or Less

The "Authorization to Discharge" section (9VAC25-196-50) now contains two new reasons why an owner might be denied coverage under the permit: (1) the discharge violates or would violate the antidegradation policy in the Water Quality Standards at 9VAC25-260-30, and (2) the discharge is not consistent with the assumptions and requirements of an approved TMDL. These are standard restrictions that are being added to all general permits as they are reissued. The "Authorization to Discharge" section now also contains a new subsection on "Continuation of Permit Coverage". This provision allows a permittee that has submitted a complete registration statement to the Department prior to the expiration date of the expiring general permit to continue to be covered under the expiring permit until the Board either issues coverage under the new permit, or notifies the permittee that they are not eligible for coverage under the new general permit.

Added a requirement to the "Registration Statement" (9VAC25-196-60 C) information asking if the discharge is to an MS4. If so, then the owner must notify the MS4 owner in writing and let him know: the name of the facility, a contact person and phone number, the location of the discharge, the nature of the discharge, and the facility's VPDES general permit number. The owner must also copy the Department with the notification.

Modified the permit Part I A, Effluent Limits and Monitoring Requirements section. The original limits page is now Part I A 1, and is effective for the first four years of the permit (i.e., until March 1, 2017). Changed the monitoring for Copper, Zinc and Silver from "total dissolved" to "total recoverable". Changed the footnote #4 "Target Levels" for metals monitoring to "Max QL", and changed the numbers based on recommendations from the technical advisory committee (TAC).

Added five new conditions to permit Part IB, Special Conditions, and modified one condition. Added: #8. The number of significant digits for reporting monitoring results; #9. The requirement to implement measures and controls consistent with a TMDL requirement when the facility is subject to an approved TMDL; #10. A notice of termination condition; #11. The requirement to control discharges as necessary to meet water quality standards; and #12. The responsibility to comply with any other federal, state or local statute, ordinance or regulation. Modified #4 (discharges to MS4s) by adding a requirement to submit discharge monitoring reports to the owner of the municipal storm sewer system (MS4) if they discharge to the MS4.

Added a requirement to permit Part II A that requires samples taken as required by the permit be analyzed in accordance with 1VAC30-45: Certification for Noncommercial Environmental Laboratories, or 1VAC30-46: Accreditation for Commercial Environmental Laboratories. This new requirement is being added to all general permits as they are reissued and reflects new regulations in 1VAC30-45 and 1VAC30-46.

3.0 Effluent Limitations and Monitoring Requirements

3.1 Part I A 1. Effluent Limitations and Monitoring Requirements for the First Four Years of the Permit Term (March 2, 2013 through March 1, 2017).

<u>Parameter</u>	<u>Limitation</u>
Flow	0.05 MGD maximum
Temperature	Maximum ⁽¹⁾
pH	6.0 minimum, 9.0 maximum ⁽²⁾
Total Residual Chlorine ⁽³⁾	Non-detectable max.
Ammonia-N ⁽³⁾	No limit, monitoring required
Hardness ⁽⁷⁾	No limit, monitoring required
Total Recoverable Copper ⁽⁴⁾	No limit, monitoring required
Total Recoverable Zinc ⁽⁴⁾	No limit, monitoring required
Total Recoverable Silver ^(4,5)	No limit, monitoring required
Total Phosphorus ⁽⁶⁾	No limit, monitoring required

All monitoring is once per three months by grab sample, except for temperature which is by immersion/stabilization.

⁽¹⁾ The effluent temperature shall not exceed a maximum 32°C for discharges to non-tidal coastal and piedmont waters, or 31°C for mountain and upper piedmont waters. No maximum temperature limit, only monitoring, applies to discharges to estuarine waters.

The effluent shall not cause an increase in temperature of the receiving stream of more than 3°C above the natural water temperature. The effluent shall not cause the temperature in the receiving stream to change more than 2°C per hour.

Natural temperature is defined as that temperature of a body of water (measured as the arithmetic average over one hour) due solely to natural conditions without the influence of any point-source discharge.

⁽²⁾ Where the Water Quality Standards (9 VAC 25-260-5 et seq.) establish alternate standards for pH in the waters receiving the discharge, those standards shall be the maximum and minimum effluent limitations.

⁽³⁾ Chlorine limitation of non-detectable (<0.1 mg/l) and monitoring only apply to outfalls directly discharging to surface waters and are required where either: (1) a treatment additive that contains chlorine or chlorine compounds is used, or (2) the source of cooling water is chlorinated. All data below the quantification level (QL) of 0.1 mg/L shall be reported as "<QL". Ammonia monitoring only applies where the source of cooling water is disinfected using chloramines.

⁽⁴⁾ A specific analytical method is not specified; however a maximum quantification level (Max QL) value for each metal has been established. An appropriate method to meet the Max QL value shall be selected using any approved method presented in 40 CFR Part 136. If the test result is less than the method quantification level (QL), a "<[QL]" shall be reported where the actual analytical test QL is substituted for [QL].

<u>Material</u>	<u>Max QL(µg/l)</u>
Copper	1.0
Zinc	50.0
Silver	1.0

Quality control/assurance information shall be submitted to document that the required QL has been attained.

⁽⁵⁾ Total dissolved silver monitoring is only required where a Cu/Ag anode is used as a non-chemical treatment alternative.

⁽⁶⁾ Phosphorus monitoring is only required where additive containing phosphorus is used.

⁽⁷⁾ Hardness monitoring is only required for discharges to fresh waters and dry ditches.

3.2 Part I A 2. Effluent Limitations and Monitoring Requirements for the Last Year of the Permit Term (March 2, 2017 through March 1, 2018) - Discharges to Freshwater Receiving Streams.

<u>Parameter</u>	<u>Limitation</u>
Flow	0.05 MGD maximum
Temperature	Maximum ⁽¹⁾
pH	6.0 minimum, 9.0 maximum ⁽²⁾
Total Residual Chlorine ⁽³⁾	Non-detectable max.
Ammonia-N ⁽³⁾	No limit, monitoring required
Total Recoverable Copper ⁽⁴⁾	9.0 µg/l maximum
Total Recoverable Zinc ⁽⁴⁾	120 µg/l maximum
Total Recoverable Silver ^(4,5)	3.4 µg/l maximum
Total Phosphorus ⁽⁶⁾	No limit, monitoring required

All monitoring is once per three months by grab sample, except for temperature which is by immersion/stabilization.

⁽¹⁾ The effluent temperature shall not exceed a maximum 32°C for discharges to non-tidal coastal and piedmont waters, or 31°C for mountain and upper piedmont waters. No maximum temperature limit, only monitoring, applies to discharges to estuarine waters.

The effluent shall not cause an increase in temperature of the receiving stream of more than 3°C above the natural water temperature. The effluent shall not cause the temperature in the receiving stream to change more than 2°C per hour. Natural temperature is defined as that temperature of a body of water (measured as the arithmetic average over one hour) due solely to natural conditions without the influence of any point-source discharge.

⁽²⁾ Where the Water Quality Standards (9 VAC 25-260-5 et seq.) establish alternate standards for pH in the waters receiving the discharge, those standards shall be the maximum and minimum effluent limitations.

⁽³⁾ Chlorine limitation of non-detectable (<0.1 mg/l) and monitoring only apply to outfalls directly discharging to surface waters and are required where either: (1) a treatment additive that contains chlorine or chlorine compounds is used, or (2) the source of cooling water is chlorinated. All data below the quantification level (QL) of 0.1 mg/L shall be reported as "<QL". Ammonia monitoring only applies where the source of cooling water is disinfected using chloramines.

⁽⁴⁾ A specific analytical method is not specified; however a maximum quantification level (Max QL) value for each metal has been established. An appropriate method to meet the Max QL value shall be selected using any approved method presented in 40 CFR Part 136. If the test result is less than the method quantification level (QL), a "<[QL]" shall be reported where the actual analytical test QL is substituted for [QL].

<u>Material</u>	<u>Max QL(µg/l)</u>
Copper	1.0
Zinc	50.0
Silver	1.0

Quality control/assurance information shall be submitted to document that the required QL has been attained.

⁽⁵⁾ Silver monitoring is only required where a Cu/Ag anode is used.

⁽⁶⁾ Phosphorus monitoring is only required where an additive containing phosphorus is used.

3.3 Part I A 3. Effluent Limitations and Monitoring Requirements for the Last Year of the Permit Term (March 2, 2017 through March 1, 2018) - Discharges to Saltwater Receiving Streams.

<u>Parameter</u>	<u>Limitation</u>
Flow	0.05 MGD maximum
Temperature	Maximum ⁽¹⁾
pH	6.0 minimum, 9.0 maximum ⁽²⁾
Total Residual Chlorine ⁽³⁾	Non-detectable max.
Ammonia-N ⁽³⁾	No limit, monitoring required
Total Recoverable Copper ⁽⁴⁾	6.0 µg/l maximum
Total Recoverable Zinc ⁽⁴⁾	81 µg/l maximum
Total Recoverable Silver ^(4,5)	1.9 µg/l maximum
Total Phosphorus ⁽⁶⁾	No limit, monitoring required

All monitoring is once per three months by grab sample, except for temperature which is by immersion/stabilization.

⁽¹⁾ The effluent temperature shall not exceed a maximum 32°C for discharges to non-tidal coastal and piedmont waters, or 31°C for mountain and upper piedmont waters. No maximum temperature limit, only monitoring, applies to discharges to estuarine waters.

The effluent shall not cause an increase in temperature of the receiving stream of more than 3°C above the natural water temperature. The effluent shall not cause the temperature in the receiving stream to change more than 2°C per hour. Natural temperature is defined as that temperature of a body of water (measured as the arithmetic average over one hour) due solely to natural conditions without the influence of any point-source discharge.

⁽²⁾ Where the Water Quality Standards (9 VAC 25-260-5 et seq.) establish alternate standards for pH in the waters receiving the discharge, those standards shall be the maximum and minimum effluent limitations.

⁽³⁾ Chlorine limitation of non-detectable (<0.1 mg/l) and monitoring only apply to outfalls directly discharging to surface waters and are required where either: (1) a treatment additive that contains chlorine or chlorine compounds is used, or (2) the source of cooling water is chlorinated. All data below the quantification level (QL) of 0.1 mg/L shall be reported as "<QL". Ammonia monitoring only applies where the source of cooling water is disinfected using chloramines.

⁽⁴⁾ A specific analytical method is not specified; however a maximum quantification level (Max QL) value for each metal has been established. An appropriate method to meet the Max QL value shall be selected using any approved method presented in 40 CFR Part 136. If the test result is less than the method quantification level (QL), a "<[QL]" shall be reported where the actual analytical test QL is substituted for [QL].

<u>Material</u>	<u>Max QL(µg/l)</u>
Copper	1.0
Zinc	50.0
Silver	1.0

Quality control/assurance information shall be submitted to document that the required QL has been attained.

⁽⁵⁾ Silver monitoring is only required where a Cu/Ag anode is used.

⁽⁶⁾ Phosphorus monitoring is only required where an additive containing phosphorus is used.

4.0 Basis For Effluent Limitations And Monitoring Requirements

4.1 Effluent Monitoring During the First Four Years of the Permit Term (March 2, 2013 through March 1, 2017)

For the first four years of the permit term (March 2, 2013 through March 1, 2017), the following parameters are required to be monitored without specific limitations: Ammonia-N (only required where the source water is disinfected using chloramines), Hardness, Total Recoverable Copper, Total Recoverable Zinc, Total Recoverable Silver (only required where a Cu/Ag anode is used), and Total Phosphorus (only required where an additive containing phosphorus is used). These parameters were selected for the initial issuance of the general permit in 1998 after reviewing results of a cooling tower effluent characterization study conducted by the Hampton Roads Sanitation District (HRSD) and the Hampton Roads Planning District Commission (HRPDC). The monitoring will provide additional effluent data which will be used to evaluate the need for future effluent limits.

4.2 Technology-Based Effluent Limitations

EPA has not promulgated National Effluent Guidelines for non-contact cooling water discharges. For a category where Guidelines have been promulgated, such as steam electric generating stations, the issuance of an individual permit for the discharges would be more appropriate. (See 9VAC25-31-170 B.3.a.(3)).

4.3 Water Quality-Based Effluent Limitations

Water quality-based limitations for pH, temperature, and total residual chlorine (TRC) are included in this general permit for all monitoring scenarios. In addition, water quality-based limitations are included in the permit for total recoverable copper, zinc and silver in the last year of the permit term (March 2, 2017 through March 1, 2018).

The pH limitation is based upon the Water Quality Standards (9VAC25-260-5 et seq.). There shall be no change from background conditions that would impair any uses assigned to the receiving streams.

Because of the concern of excess heat from cooling water discharges, and once through systems in particular, a respective temperature limit for non-tidal coastal and piedmont waters or mountainous waters, based on the Virginia Water Quality Standards (9VAC25-260-50) is placed in the permit. Restrictions on rise above natural temperature and maximum hourly temperature change are also imposed. In order to ensure that the stringent temperature standards for put and take trout waters and natural trout waters will be maintained, cooling water discharges to these receiving streams will not be covered by this general permit, rather be covered by an individual permit.

The general permit contains a TRC limit of non-detectable (<0.1 mg/l) in order to ensure that the Water Quality Standards (9VAC25-260-140) are maintained regardless of the dilution available to the discharge. The selection of the non-detectable limit, rather than the numerical standard itself which is below the detection level, is consistent with other VPDES permits issued by the Board. Total residual chlorine limitation and monitoring are required for facilities where the following conditions prevail: 1) There is a direct discharge to surface waters; and 2) Either a treatment additive that contains chlorine or chlorine compounds is used, or the source of cooling water is chlorinated. For cooling water discharges to the MS4s, it is anticipated that dissipation in the cooling process and chlorine demand in the MS4s will reduce the residual chlorine to "de minimis" level. For any cooling water discharges to waters containing endangered and threatened species as identified in the Water Quality Standards (9VAC25-260-110 C.), chlorine or any other halogen compounds are not allowed to be used in the cooling water system.

An analysis of cooling water general permit effluent discharge monitoring data from the most recent permit cycle indicates that some facilities have elevated levels of copper, zinc and silver in their discharges. The previous permit did not limit those metals, but had a "monitoring only" requirement. The technical advisory committee (TAC) for this permit reissuance agreed that limits should be included in this reissuance, but favored a phasing in of the limits until the end of the permit term. This will give facilities time to evaluate their effluent discharge data to determine if there is a problem with these metals, and to make corrections to their system to fix the problem before the limits take effect. The copper, zinc

and silver limitations proposed for this reissuance are based on the numerical water quality criteria in the Water Quality Standards (9VAC25-260-140) for protection of aquatic life. Limits are given for both freshwater receiving streams and saltwater receiving streams. For freshwater receiving streams, a total hardness as CaCO₃ of 100mg/l was assumed. The freshwater copper and zinc limits are based on the chronic criteria, while the silver is based on the acute criteria. The saltwater copper and zinc limits are based on the chronic criteria, while the silver is based on the acute criteria.

4.4 Toxics Considerations

Due to the concern that the use of corrosion inhibitors and/or biocides may be allowed through this general permit, and that metals could be discharged and thus the quality of the receiving stream could be impacted, a maximum flow of 50,000 gallons per day (0.05 MGD) is imposed in this general permit. It is the opinion of the Department that a larger discharge would need to be monitored on a more frequent basis and need additional controls, and it would be more appropriate to be covered by an individual permit. This approach is also consistent with the agency's Toxics Management Program.

Further assessment of the need for toxicity monitoring requirements for the restricted flow discharges (< 0.05 MGD) was performed by conducting an in-house review of toxicity test data for non-contact cooling water discharges (with or without additives). It showed that 94% of acute toxicity tests had an LC₅₀ greater than or equal to 100% effluent. It was concluded that these types of discharges, in general, are not acutely toxic. The report also showed that 75% of chronic toxicity tests had a no observed effect concentration (NOEC) greater than or equal to 100% effluent, which is the worst case of the instream waste concentration (IWC). These results indicate that both acute and chronic tests passed the decision criteria (75% of the tests) established by the Toxic Management Program. Therefore, additional toxicity monitoring is not imposed in this general permit.

5.0 Special Conditions and Their Basis

1. Restriction of floating solids and visible foam discharges. This is a standard requirement for all permits per the VPDES Permit Manual (2010) and conforms to the general water quality criteria at 9VAC25-260-20.
2. Prohibition of any discharges other than cooling water as defined. The effluent limitations do not address pollutants typical of treated sewage, process wastewater, or storm water discharges. Therefore no discharges other than cooling water as defined are permitted under the general permit.
3. Prohibition of unapproved chemical usage and prior approval requirement for change of treatment technology. In order to assure protection of water quality and beneficial uses of the waters receiving the discharge, the use of any chemical additives not identified in the registration statement, except chlorine, without prior approval is prohibited under this general permit. The general permit contains a water quality-based chlorine limitation.

The chemical and/or non-chemical treatment that are employed in the cooling water system will be identified on the registration statement and evaluated before the facility is covered under the general permit. Prior approval shall be obtained from the DEQ before any changes are made to the chemical and/or non-chemical treatment technology employed in the cooling water system, during the life of the permit term.

4. Notification of municipal separate storm sewer system. Where cooling water discharges to surface waters through a municipal separate storm sewer system, the permittee is required to notify the owner of the municipal separate storm sewer system in writing of the existence of the discharge, and include the name of the facility, a contact person and phone number, the location of the discharge, the nature of the discharge, and the facility's VPDES general permit number. This is required in order to facilitate the municipality's efforts to control dry weather flows from the storm sewer. **New for this reissuance**, the permittee is also required to submit any DMRs required by the permit to both the Department and to the owner of the MS4.

5. Requirement for proper O & M and routine inspection. Due to the concern for a potential lack of inspection and proper operation and maintenance of each cooling water system, a routine inspection is required by the facility personnel.

6. Notification levels. The permittee is required to report the discharge of any toxic pollutant from any activity that has occurred or will occur when that discharge, either on routine or non-routine basis, will exceed the highest of the listed notification levels. This condition is required by the VPDES Permit Regulation (9 VAC 25-31-200 A).

7. Geothermal Systems Using Groundwater and No Chemical Additives. Geothermal systems using groundwater and no chemical additives may be eligible for reduced monitoring requirements. If a geothermal system was covered by the expiring general permit, and the monitoring results from the previous permit term demonstrate full compliance with the effluent limitations, the permittee may request authorization from the department to reduce the monitoring to once in the first monitoring quarter of the first year of the new permit term.

Owners of new geothermal systems, and previously unpermitted geothermal systems that receive coverage under this permit shall submit monitoring results to the Department for the first four monitoring quarters after coverage begins. If the monitoring results demonstrate full compliance with the effluent limitations, the permittee may request authorization from the Department to suspend monitoring for the remainder of the permit term.

Should the permittee be issued a warning letter related to violation of effluent limitations, a notice of violation, or be the subject of an active enforcement action, upon issuance of the letter or notice, or initiation of the enforcement action the monitoring frequency shall revert to 1/3 months and remain in effect until the permit's expiration date.

8. **New for this reissuance**, the permit requires that any monitoring results be reported using the same number of significant digits as listed in the permit. A similar special condition is being added to all general permits as they are reissued.

9. **New for this reissuance**, discharges to waters with an approved "total maximum daily load" (TMDL). Owners of facilities that are a source of the specified pollutant of concern to waters where an approved TMDL has been established shall implement measures and controls that are consistent with the assumptions and requirements of the TMDL. This special condition is being inserted into all general permits as they are reissued. The condition was developed since general permit discharges are considered insignificant to the overall TMDL waste load allocation. This special condition allows staff more flexibility to allow permit coverage for discharges without requiring immediate modification of the TMDL. DEQ will track all the general permit discharges and once they become significant for purposes of the TMDL, the TMDL will be modified to include the load.

10. **New for this reissuance**, Notice of Termination. This special condition spells out the procedure a permittee must use to terminate coverage under the general permit. Termination notification requirements are usually contained in the regulation itself, but the TAC thought it would be good to have it in the permit itself so the owner would have the requirements in their permit.

11. **New for this reissuance**, the discharges authorized by this permit shall be controlled as necessary to meet applicable water quality standards. This special condition was added as a general requirement. A similar special condition is being added to all general permits as they are reissued.

12. **New for this reissuance**, approval for coverage under this general permit does not relieve any owner of the responsibility to comply with any other federal, state or local statute, ordinance or regulation. This special condition repeats the requirement in 9VAC25-12-60 C (Authorization to Discharge). A similar special condition is being added to all general permits as they are reissued.

6.0 General Permit Coverage

The general permit has a fixed term of 5 years. Every authorization under this general permit will expire at the same time and all authorizations will be renewed on the same date, provided a complete registration statement has been filed prior to the general permit's expiration date.

All persons desiring to be covered by this general permit must register with the Board by submitting a registration statement and applicable fee to the Department. The registration statement shall be submitted and a notification of coverage issued prior to any discharges or other activities for which this permit is required.

Cooling water sources that are discharging to surface waters on the effective date of this general permit and that have not been issued an individual VPDES permit, are required to submit the registration statement. Existing operations with individual VPDES permits that wish to seek coverage under the proposed general permit would have to file a registration statement at least 210 days prior to the expiration date of the individual VPDES permit. For all new cooling water dischargers that propose to discharge to surface waters and that will begin activities after the effective date of this permit, the registration statement shall be filed at least 30 days prior to the commencement of construction or operation of the cooling equipment.

This general permit does not cover activities or discharges covered by an individual VPDES permit until the individual permit has expired or has been revoked. Any person conducting an activity covered by an individual permit, which could be covered by this general permit, may request that the individual permit be revoked and register for coverage under this general permit. Antibacksliding will be considered prior to granting the coverage under this general permit. Any owner or operator not wishing to be covered or limited by this general permit may make application for an individual VPDES permit, in accordance with VPDES procedures, stating the reasons supporting the request.

This general permit does not apply to any new or increased discharge that will result in significant effects to the receiving waters. The determination is made in accordance with the State Water Control Board's Antidegradation Policy contained in 9 VAC 25-260-30 of the Virginia Water Quality Standards.

All facilities that the Board determines are eligible for coverage under this general permit will be authorized to discharge under the terms and conditions of the permit after a complete registration statement is submitted, the applicable permit fee is paid and the Department sends a copy of the general permit to the applicant. If this general permit is inappropriate (for example, effluent limitations are needed for any parameters other than flow, pH, temperature, total residual chlorine, copper, zinc or silver) the applicant will be so notified and the requirement that an individual permit or alternate general permit is needed will remain in effect.