



BRIEFING MEMO

Date: January 5, 2017

To: Nutrients Work Group

From: Bret Icenogle

Date: January 5, 2017

Subject: Regulation #85: Definition of New Domestic Wastewater Treatment Works

Summary

The Water Quality Control Division (division) recommends adding a definition of Existing Discharge and New Domestic Wastewater Treatment works to Regulation #85.

Issue and Background

Section 85.5 of Regulation #85 outlines the specific limitations for dischargers of nutrients. For domestic and non-domestic wastewater treatment works that do not qualify for exclusions or delayed implementation, the specific total phosphorus and total inorganic nitrogen limitations vary based on whether the facility received preliminary effluent limits or was discharging prior to May 31, 2012. Domestic wastewater treatment facilities that received preliminary effluent limits or were discharging before May 31, 2012 are eligible for less stringent nutrient limits. Industrial wastewater treatment facilities discharging before May 31, 2013 are eligible for the same less stringent nutrient limits. For all new domestic and non-domestic treatment works that submitted a request for preliminary effluent limits (and began discharging) on or after May 31, 2012, more stringent nutrient limits apply.

Regulation #85 uses the phrases "new domestic wastewater treatment works", "non-domestic wastewater treatment works discharging prior to May 31, 2013", "non-domestic wastewater treatment works which begin discharging on or after May 31, 2013", and "discharging prior to" but does not clearly define these terms to fully distinguish between new and existing treatment facilities in all cases. For example, the regulatory language does not clarify whether an existing treatment facility only qualifies for less stringent limits if the discharge was to surface water prior to May 31, 2013. Hypothetically, if a treatment facility that historically discharged to groundwater or reclaimed water applies for a surface water discharge, does this facility qualify for less stringent nutrient limits? To apply nutrient limits for this and all other examples, the division needs to decide whether the Water Quality Control Commission's intent relates to whether a facility had historical nutrient loading to a surface water body or relates to the challenges of upgrading existing treatment infrastructure to achieve nutrient treatment.

Discussion

Statement of Basis and Purpose: Nutrient Loading Versus Infrastructure

The division consulted the Basis and Purpose language within Regulation #85 to determine the Water Quality Control Commission's intent related to new domestic wastewater treatment works and existing discharges. The Basis and Purpose language in Regulation #85 states the following: "The Commission does not intend the requirements for new facilities in subsections 85.5(1)(b) and 85.5(2)(b) to apply to expansions or other improvements to existing facilities in the same location."

The division interprets this statement to mean that infrastructure in place (including infrastructure built relying on PELs received prior to May 31, 2013) prior to May 31, 2013 will receive less stringent nutrient limits. References to nutrient loading or the discharge location of existing domestic and non-domestic wastewater treatment works is specifically absent from the Basis and Purpose language.

Related Regulatory Language: Nutrient Loading Versus Infrastructure

Other existing regulations use exact or similar terms or phrases to new domestic wastewater treatment works and existing discharge. While the Basis and Purpose language provides some direction, the division considered whether it could apply existing regulatory terminology and definitions to Regulation #85. The following information summarizes exact or similar terms or phrases from other existing regulations to those used in Regulation #85 for new domestic wastewater treatment works or existing discharge.

- Regulation #22 uses, but does not explicitly define, the term “new domestic wastewater treatment works.” New domestic wastewater treatment works in Regulation #22 includes new treatment facilities on a new site, existing domestic wastewater treatment works that relocate their outfall to a new site or new stream segment, and existing domestic wastewater treatment facilities that relocate or modify their approved site (e.g. may include process and/or property changes). The intent of the term new domestic treatment works used in Regulation #22 relates to new loading associated with a change of discharge (e.g. new surface water segment; groundwater to surface water) or modifications to an existing site (e.g. expansion, flood plain encroachment, etc.). The term’s use in Regulation #22 does not appear to align with the intent of the same phrase used in Regulation #85 in all cases.
- Regulation #61 includes the following definition for “New Discharger” in section 61.2(65):

(65) “NEW DISCHARGER” means any building, structure, facility, or installation from which there is or may be a discharge of pollutants that did not commence at the particular site before August 13, 1979, that is not a new source, and that has never received a final effective permit for discharges at the site.

While Regulation #85 does not use this term directly, the division considered whether this term well represents the inferred intent of Regulation #85. The term “new discharger” appears to relate to a new discharge or changed load from a site. The term does not appear to contemplate whether infrastructure on the site was existing, and whether the new load or discharge is related to an expansion or other improvement for an existing facility at the same location. Based on this discrepancy, the division has concluded that the “new discharger” definition does not appear to align with the intent of Regulation #85 in all cases.

- Regulation #61 includes the following definition for “New Source” in section 61.2(67):
- (67) “NEW SOURCE” means any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced after the promulgation of standards of performance for the particular source, pursuant to section 306 of the Clean Water Act. The term also applies where a standard of performance has been proposed, provided that the standard is promulgated within 120 days of its proposal. Except as otherwise provided in an applicable new source performance standard, a source is a “new source” if it meets this definition of “new source”, and: (a) It is constructed at a site at which no other source is located; or (b) It totally replaces the process or production equipment that causes the discharge of pollutants at an existing source; or (c) Its processes are substantially

independent of an existing source at the same site. In determining whether these processes are substantially independent, the Division shall consider such factors as the extent to which the new facility is integrated with the existing plant; and the extent to which the new facility is engaged in the same general type of activity as the existing source.

While Regulation #85 does not use this term directly, the division considered whether this term well represents the inferred intent of Regulation #85. The term “new source” can relate to a discharge from an existing site even related to an expansion or other improvement for an existing facility at the same location. Due to this discrepancy, the “new discharger” definition does not appear to align with the intent of Regulation #85 in all cases.

Infrastructure Based Example Applications

By differentiating new domestic wastewater treatment works from existing discharges based on whether the facility had PELs or approved infrastructure before May 31, 2012, the following examples highlight how the division would apply nutrient limits:

- Example 1: Facility changes their discharge from reuse or groundwater to surface water. The facility existed prior to May 31, 2012, had site location and design approval, and held an active discharge permit or notice of authorization.

Under this scenario, an existing permittee switches from a groundwater or 100% reuse discharge to a surface water discharge. Since the treatment facility had approved and permitted infrastructure prior to May 31, 2012, the facility would receive less stringent nutrient effluent limits.

- Example 2: Relocated domestic wastewater treatment works that replaces an existing domestic wastewater treatment works on a new site where the new site could discharge within the same stream segment or on a new stream segment. The historic facility existed prior to May 31, 2012, had site location and design approval, and held an active discharge permit or notice of authorization. The new facility came about after May 31, 2012.

Under this scenario, an existing discharger relocates their domestic wastewater treatment works because of catastrophic flood. The domestic wastewater treatment works will continue to discharge to surface water within the same stream segment but the facility will be located on a new site. Although the treatment facility had approved and permitted infrastructure prior to May 31, 2012, the facility would received the more stringent nutrient effluent limits because the owner chose to construction on a new site and the site can accommodates construction of an enhanced BNR treatment facility.

- Example 3: Relocated outfall from an existing domestic wastewater treatment works to a new stream segment. The facility existed prior to May 31, 2012, had site location and design approval, and held an active discharge permit.

Under this scenario, an existing discharger relocates their outfall from a tributary to the main stem of the river. The domestic wastewater treatment works will continue to discharge to surface water from an existing site. Since the treatment facility had approved and permitted infrastructure prior to May 31, 2012, the facility would receive less stringent nutrient effluent limits.

- Example 4: A facility that discharges to either groundwater or surface water, or that applies reclaimed water, that existed prior to May 31, 2012, had site location and design approval, but did not hold an active discharge permit or notice of authorization and is now requesting a surface water discharge permit.

Under this scenario, an existing unpermitted discharger is working to come into compliance with all regulatory requirements. Since the treatment facility had approved infrastructure and was discharging, albeit unpermitted, prior to May 31, 2012, the facility would receive less stringent nutrient effluent limits.

- Example 5: Existing domestic wastewater treatment works that has a site location application and discharge permit but is scraping their site and building a brand new domestic wastewater treatment works on same site with same outfall. The facility existed prior to May 31, 2012, had site location and design approval, and held an active discharge permit.

Under this scenario, an existing discharger chooses to completely rebuild their aging treatment facility to avoid failure. The treatment facility will maintain their existing surface water discharge and construct within their currently approved site. Since the treatment facility had approved and permitted infrastructure prior to May 31, 2012, the facility would receive less stringent nutrient effluent limits.

- Example 6: A new development is proposed for a brand new domestic wastewater treatment works on a new site and to encourage consolidation, an existing domestic wastewater treatment facility decides to cost share and consolidate with the new domestic wastewater treatment works. The soon to be demolished facility existed prior to May 31, 2012, had site location and design approval, and held an active discharge permit. The new facility received PELs following May 31, 2012.

Under this scenario, an existing discharger consolidates with a new domestic wastewater treatment works because of economics. The new domestic wastewater treatment works will continue to discharge to surface water within the same stream segment but the facility will be located on a new site. Although part of the service area was served by a treatment facility that had approved and permitted infrastructure prior to May 31, 2012, the facility would receive the more stringent nutrient effluent limits because the owners chose to construction on a new site and the site can accommodate construction of an enhanced BNR treatment facility.

- Example 7: An existing facility that expands its design capacity and qualifies for nutrient effluent limits per the regulatory requirements. The facility existed prior to May 31, 2012, had site location and design approval, and held an active discharge permit.

Under this scenario, an existing discharger with site location and design approval and a discharge permit to surface water expands their design capacity to greater than 2 MGD. The treatment facility will maintain their existing surface water discharge and construct within

their currently approved site. Since the treatment facility had approved and permitted infrastructure prior to May 31, 2012, the facility would receive less stringent nutrient effluent limits.

- Example 8: An existing non-discharging domestic wastewater treatment works (e.g. evaporation pond) converts to a surface water discharge. The facility existed prior to May 31, 2012, had site location and design approval, but did not hold an active discharge permit or notice of authorization.

Under this scenario, an existing unpermitted discharger needs to convert to a surface water discharge from an evaporative lagoon with site location and design approval. Since the treatment facility had approved infrastructure and was discharging, albeit unpermitted, prior to May 31, 2012, the facility would receive less stringent nutrient effluent limits.

Proposal

Add the following definitions for new facility and existing facility to Regulation #85 and modify language throughout Regulation #85 to reflect these terms:

New treatment facility - Any new domestic or non-domestic wastewater treatment facility on a new site that commences discharge to surface water, or receives PELs, after May 31, 2012

Existing treatment facility - Any existing domestic or non-domestic wastewater treatment facility that commences discharge or receives PELs or site approval prior to May 31, 2012 for groundwater discharge or surface water discharge; or who applies for a Notice of Authorization for the application of reclaimed water prior to May 31, 2012.

Schedule:	Initial discussion	January 12, 2017
	Comments due	February 27, 2017
	Follow-up	March 6, 2017

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