

**R317. Environmental Quality, Water Quality.**

**R317-1. Definitions and General Requirements.**

**R317-1-3. Requirements for Waste Discharges.**

3.1 Compliance With Water Quality Standards.

All persons discharging wastes into any of the waters of the State shall provide the degree of wastewater treatment determined necessary to insure compliance with the requirements of Rule R317-2 (Water Quality Standards), except that the Director may waive compliance with these requirements for specific criteria listed in R317-2 where it is determined that the designated use is not being impaired or significant use improvement would not occur or where there is a reasonable question as to the validity of a specific criterion or for other valid reasons as determined by the Director.

3.2 Compliance With Secondary Treatment Requirements.

All persons discharging wastes from point sources into any of the waters of the State shall provide treatment processes which will produce secondary effluent meeting or exceeding the following effluent quality standards.

A. The arithmetic mean of BOD values determined on effluent samples collected during any 30-day period shall not exceed 25 mg/l, nor shall the arithmetic mean exceed 35 mg/l during any 7-day period.

In addition, if the treatment plant influent is of domestic or municipal sewage origin, the BOD values of effluent samples shall not be greater than 15% of the BOD values of influent samples collected in the same time period. As an alternative, if agreed to by the person discharging wastes, the following effluent quality standard may be established as a requirement of the discharge permit and must be met:

The arithmetic mean of CBOD values determined on effluent samples collected during any 30-day period shall not exceed 20 mg/l nor shall the arithmetic mean exceed 30 mg/l during any 7-day period. In addition, if the treatment plant influent is of domestic or municipal sewage origin, the CBOD values of effluent samples shall not be greater than 15% of the CBOD values of influent samples collected in the same time period.

B. The arithmetic mean of SS values determined on effluent samples collected during any 30-day period shall not exceed 25 mg/l, nor shall the arithmetic mean exceed 35 mg/l during any 7-day period.

In addition, if the treatment plant influent is of domestic or municipal sewage origin, the SS values of effluent samples shall not be greater than 15% of the SS values of influent samples collected in the same time period.

C. The geometric mean of total coliform and fecal coliform bacteria in effluent samples collected during any 30-day period shall not exceed either 2000 per 100 ml or 200 per 100 ml respectively, nor shall the geometric mean exceed 2500 per 100 ml or 250 per 100 ml respectively, during any 7-day period; or, the geometric mean of E. coli bacteria in effluent samples collected during any 30-day period shall not exceed 126 per 100 ml nor shall the geometric mean exceed 158 per 100 ml respectively during any 7-day period. Exceptions to this requirement may be allowed by the Director where domestic wastewater is not a part of the effluent and where water quality standards are not violated.

D. The effluent values for pH shall be maintained within the limits of 6.5 and 9.0.

E. Exceptions to the 85% removal requirements may be allowed where infiltration makes such removal requirements infeasible and where water quality standards are not violated.

F. The Director may allow exceptions to the requirements of ~~[(A), (B) and (D)]~~ Subsections R317-1-3.2.A, R317-1-3.2.B, and R317-1-3.2.D ~~[above]~~ where the discharge will be of short duration and where there will be of no significant detrimental ~~[a]~~ effect on receiving water quality or downstream beneficial uses.

G. The Director may allow that the BOD5 and TSS effluent concentrations for discharging domestic wastewater lagoons shall not exceed 45 mg/l for a monthly average nor 65 mg/l for a weekly average provided the following criteria are met:

1. The lagoon system is operating within the organic and hydraulic design capacity established by Rule R317-3,
2. The lagoon system is being properly operated and maintained,
3. The treatment system is meeting all other permit limits,
4. There are no significant or categorical industrial users (IU) defined by 40 CFR Part 403, unless it is demonstrated to the satisfaction of the Director that the IU is not contributing constituents in concentrations or quantities likely to significantly ~~[e]~~ affect the treatment works,

5. A Waste Load Allocation (WLA) indicates that the increased permit limits would not impair beneficial uses of the receiving stream.

### 3.3 Technology-based Limits for Controlling Nutrient Pollution.

#### A. Total Phosphorus Limits

1. All non-lagoon treatment works discharging wastewater to surface waters of the state shall provide treatment processes which will produce effluent less than or equal to an annual mean of 1.0 mg/L for total phosphorus.

2. The phosphorus effluent limit identified in Subsection R317-1-3.3 shall be achieved by January 1, 2020.

#### B. Discharging Lagoons -Phosphorus Loading Cap

1. No technology-based effluent limit for phosphorus will be instituted for discharging treatment lagoons. Instead, each discharging lagoon will be evaluated to determine the current annual average total phosphorus load based on average flows and concentrations. Absent field data to determine these loads, they will be estimated by the Division.

2. A cap of 125% times the current average annual total phosphorus load will be established. Once the lagoon's phosphorus caps have been reached the owner of the facility will have five (5) years to construct treatment processes or implement treatment alternatives to prevent the total phosphorus loading cap from being exceeded.

#### C. Exceptions

1. Where an existing TMDL has allocated a total phosphorus wasteload to a treatment works, no technology-based limit or loading cap, as applicable, for total phosphorus will be applied.

2. If the owner of a discharging treatment works can demonstrate that the discharge from the treatment works will not increase the total phosphorus concentration in the receiving water beyond 10%, no technology-based limit or loading cap, as applicable, for total phosphorus will be applied.

3. If the owner of a discharging treatment works can demonstrate that imposing a technology-based limit or loading cap for phosphorus

would result in an economic hardship for the users of the treatment works, no technology-based limit or loading cap for phosphorus will be applied. "Economic hardship" is defined as sewer service fees, as a result of implementing a technology-based limit or loading cap for phosphorus, being greater than 1.4% of the median adjusted gross household income of the service area based on the latest information compiled by the Utah Tax Commission.

4. If the owner of a discharging treatment works can demonstrate that the technology-based limit identified in Subsection R317-1-3.3.A, or the loading cap identified in Subsection R317-1-3.3.B, are clearly unnecessary to protect waters downstream from the point of discharge, the technology-based limit or the loading cap, as applicable, will not be applied.

D. For treatment works required to implement technology-based limits or a loading cap for total phosphorus, the demonstration under Subsection R317-1-3.3.C must be made by January 1, 2018. Unless this demonstration is made, the owner of the treatment works must proceed to implement the technology-based limit or loading cap, as applicable, in accordance with, respectively, Subsections R317-1-3.3.A and R317-1-3.3.B.

#### E. Monitoring

1. All discharging treatment works with reasonable potential to discharge nitrogen or phosphorus are required to implement, at a minimum, influent monitoring for total phosphorus and total Kjeldahl nitrogen concentrations, and effluent monitoring for total phosphorus, ammonium (as N), ortho phosphorus, nitrate-nitrite (as N) and total Kjeldahl nitrogen, as follows:

- a. annually for treatment works with flows less than 1 mgd;
- b. quarterly for treatment works with flows greater than 1 mgd and less than 5 mgd; or
- c. monthly for treatment works with flows greater than 5 mgd

2. All monitoring under Subsection R317-1.3.3.E shall be based on 24-hour composite samples.

3. These monitoring requirements shall be self-implementing beginning January 1, 2015. [~~Extensions To Deadlines For Compliance.~~

~~The Director may, upon application of a waste discharger, allow extensions to the compliance deadlines in Section 1.3.2 above where it can be shown that despite good faith effort, construction cannot be completed within the time required.]~~

#### 3.4 Pollutants In Diverted Water Returned To Stream.

A user of surface water diverted from waters of the State will not be required to remove any pollutants which such user has not added before returning the diverted flow to the original watercourse, provided there is no increase in concentration of pollutants in the diverted water. Should the pollutant constituent concentration of the intake surface waters to a facility exceed the effluent limitations for such facility under a federal National Pollutant Discharge Elimination System permit or a permit issued pursuant to State authority, then the effluent limitations shall become equal to the constituent concentrations in the intake surface waters of such facility. This section does not apply to irrigation return flow.

**KEY: water pollution, waste disposal, industrial waste, effluent standards**

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