



Avoiding SNC for Chronic and TRC

Example Calculation

ABC Industry has a permit with a copper limit of 1.80 mg/L. They are required to sample and report quarterly. On March 25th, they collected the first quarter sample that showed the discharge has a copper concentration of 9.3 mg/L in violation of the permit limitation. The sample collected in December was 1.3 mg/L. No other samples were collected between October 1st and March 31st.

There are several violations that are considered **Significant Noncompliances (SNC)** that are related to excessive pollutants in the discharge:

1. **Chronic violations** are those in which 66% or more of all the measurements taken for the same pollutant during a six-month period exceed (by any magnitude) a numeric Pretreatment Standard or Requirement, including instantaneous limits;
2. **Technical review criteria (TRC) violations** are when 33% or more of all the measurements taken for the same pollutant parameter during a six-month period equal or exceed the product of the numeric Pretreatment Standard or Requirement including instantaneous limits multiplied by the applicable TRC (TRC = 1.4 for BOD, TSS, fats, oil and grease, and 1.2 for all other pollutants except pH);

Is ABC Industry in SNC for chronic violations?

No, less than 66% of the samples were in violation.

$$\frac{\text{Number of violations in 6 months}}{\text{Number of samples in 6 months}} = \frac{1}{2} = 50.0\%$$

Is ABC Industry in SNC for TRC violations?

Yes, over 33% of the values were above the TRC calculation.

$$\text{Calculate} = 1.2 \text{ TRC} \times 1.80 \text{ mg/L} = 2.16 \text{ mg/L}$$

$$\frac{\text{Number of values above 2.16}}{\text{Number of samples in 6 months}} = \frac{1}{2} = 50.0\%$$

Additionally, if the City collected samples during the 6 month period, those values would also be included in the calculations. Call the IP Program at (303) 651-8667.

For dischargers sampling quarterly, **it is important to sample early in the quarter.** If there is a violation, then you have time to investigate and correct the problem and re-sampling during the monitoring period. Collecting additional samples that are in compliance will lower the percentages so you can avoid SNC.

If you are in SNC for chronic or TRC calculations, you have to be concerned about being in SNC during the next quarter. Remember, the following quarter calculations will also include all samples collected during the previous 6 months.

Part 2

Re-test in April is 4.5 mg/L
Re-test in May is 1.2 mg/L

Is ABC Industry in SNC for 2nd quarter?

Yes, the discharger is in SNC for both chronic and TRC violations.

$$\frac{\text{Number of violations in 6 months}}{\text{Number of samples in 6 months}} = \frac{2}{3} = 66.6\%$$

$$\frac{\text{Number of values above 2.16}}{\text{Number of samples in 6 months}} = \frac{2}{3} = 66.6\%$$

Being in SNC during consecutive quarters will result in the City stepping up enforcement. The permit may also be modified to increase sampling frequency to ensure that additional quarters in SNC are avoided.