Project: Monitoring program – Emission to air

Background:

The Norwegian Environment Agency requires that Norwegian companies should document their emissions to soil, air and water to ensure that they are within the requirements of the permit. In 2010 came a demand from The Norwegian Environment Agency to establish a monitoring program for emissions to air and water. In this connection, Allnex hired Lean Tech to create a Monitoring program for emission to air.

Description:

The permit sets the following requirements for air emissions:

1. Max 70 mg / Nm^3 TOC as an average for the emissions from the incinerator
2. Max 70 kg / day VOC as an average from the storage tanks
3. Max 5 weeks downtime for incinerator

It is calculated how much the various emission sources contributes to the total emissions to air, and determined the uncertainty related to the various emissions. It has been focused on the lowest uncertainty for emissions that contribute to the largest proportion of the total.

When preparing the monitoring program the normal production conditions has been considered and the natural variation of the emission decided. Seasonality has been taken into account. Measurement uncertainty for the analyses carried out is determined, and the number of samples to obtain a representative sample has been set.

Emissions from storage tanks is a combination of measured and calculated values. A representative sample of products were selected for the analysis of air emissions. Emissions from the other products are based on these measurements, but adjusted for the product dry solids, solvent and solvent composition. Uncertainty in measurement related to variations in product composition and temperature of the product is determined.

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Summary:

The monitoring program for emission to air ensures that the samples taken are representative of Allnex' emissions to air. The monitoring program contributes to an increased awareness of emissions to air. Allnex will focus on the highest uptime of the incinerator since this is the largest source of emission. To reduce air emissions from storage tanks, it is important that the temperature of the product is not too high

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