

# Environmental reports from SQL

## Summary

The main objective of this bachelor's thesis was to develop a prototype for a system in the shape of a database with applications for environmental reports from waste incineration plants. The intent is to create a showcase and a proof of technology for AF Malmö's customers who have an estimated benefit of this technology. The system needs to process data from a waste incineration plant according to relevant national and international regulations. Afterwards the data needs to be visualized with relevant parameters. The database is required to have support for real-time values that are used for alarms and plant overview.

## Problems

- How can the adjustment and normalization of the digital measurements from the control system be converted to physical representative values?
- How should the database handle values that are incorrect due to calibration of sensors?
- Which parameters should be presented to the plant-operators in "real-time"?

## Method

- Regulation studies
- Database construction
- Application development
- Prototype testing
- Adjustments

## Results

- SQL – database for reports and sensor values
- Application for presentation and calculation

## Conclusion

The objectives of this thesis were to create a relational database and the necessary applications needed to store and handle information from a waste incineration plant. The objectives were completed and as a result the prototype proves the possibility to create advanced calculations from the control system via a SQL Database. The main advantages using this type of database structure include: scalability, reliability, and cross platform support.

