Legally compliant and simultaneously economically operated emission trading for system operators in Europe turns into an all-time growing challenge. The growing complexity of legal regulations and administrative tasks that had to be done “by the way” by the responsible staff stands against the loss of financial revenue from emissions trading since 2013, previously an effective and economical management of this special region was not mandatory in the company. In order to take account of these changes plant operators in greater numbers than ever will also have to think about to what extent the legal compliance and efficiency can be ensured by its own staff, or whether they should be selectively supported by external professionals or alternatively if all tasks should be carried out in part or in whole by highly specialized Services. Our here presented Emission-News 02-2015 will report about the individual problems and tasks arising, as well as possible solutions. We also provide in our Emission-News an overview of possible problems regarding the reporting of lubricating oil in CHP (Combined Heat and Power) engines.

The legal and administrative task
European emission trading and the associated legal obligation of affected companies to a correct monitoring and reporting on their emissions, an im-peccable Register account management and procurement of necessary emission can be fraught with high sanctions when implemented carelessly.

The tasks of emission trading observed in various EU Directives, EU regulations and national laws in most cases have to be performed punctual, complete, transparent and consistent by European plant operators. As in normal cases the obligations of the emission trading are not the core competence of a company these are not their main focus so the employee responsible for this issue only spends very little time in the year on this deal. As a result political developments, legal innovations or significant price changes in emissions trading are often overlooked which can then be reflected in sanctions, economic harm and damage itself. The resulting risks and harms may outweigh the in emission trading existing opportunities by far and can become an existential threat to small and medium-sized enterprises. The new EU Regulation 389/2013 in particular added additional risks to companies that can only be avoided by a legally compliant registry account management. Similar new hazards come to exist here primarily through the introduction of the roles of now at least two active employees and fully informed representatives in case of failure of representatives or their technical communication.
systems to which severe economic disadvantages with over 100 EUR per ton emission of CO2 may arise for the company.

The elimination of existing revenues from emissions trading
To fulfill the ever increasing demands in emission trading not only a higher time consumption but also more competent experts in the company are required. This for 2 years clearly to be recognized trend stands in stark relation to the astounding "income" that was previously possible for many operators in emission trading:

- The elimination of the sale of surplus allowances from far too large excesses of the period 2008-2012
- The end of the exchange or the recognition of CER / ERU certificates on the delivery obligation or the financial revenue from relevant transactions
- The returning awarding certificates to third parties that have fallen into disrepute by dubious dealers and business practices
- The elimination of the sale of CER / ERU credits from individual projects that are no longer paying off due to lack in demand and a drop in prices

A complete cessation of all revenue opportunities with a simultaneous increase in the purchase of certificates due to lower demand free allocation among the operators themselves naturally results in a totally new cost situation in the "CO2 department" of the company.

The company’s "CO2 department” is everywhere
Each company is positioned differently in the area of emission trading and distributes the tasks to be performed entirely different. In most cases those employees involved in the emission trading are found in the Departments of Environment, Energy Engineering, Purchasing, Controlling, IT and / or Finance, where they each execute individual "parts" of the remit of emission trading.

If the subject matter of emission trading is distributed over almost all disciplines in the company a very risky situation arises because each of these employees is only temporarily engaged with the issue of emissions trading and that only to a small extent as part of its main policy area. Often the large context of the topic and clear responsibilities will be lost since coordination is lacking and a responsible person is not evident. Precisely for this reason more and more often caused problems and risks arise and often seem totally surprising for the management.

Infobox
Key tasks in emissions trading
The main tasks of a plant operator in emissions trading can be divided into four organizational areas:

Register account management:
1) Administrative account management.
2) Activities in the register by the authorized representative (VET entry, return, exchange, sale, etc.)
3) Setup / maintenance / change of URID- and ECAS access and mobile phone numbers.
4) Implementation of legal audits / changes to the registry account data and agents according to 389/13, Art. 25 (1.4) and report to the DEHSt.
5) Reset / change of operator / person accounts.
6) Electronic setting up of a new authorized representative.

Information retrieval
1) Current and daily news on the most important topics in German language.
2) Information about changes in certificates.
3) Training of staff on emissions trading.
4) Price information for the purchase / sale of certificates.
5) Current information on developments at EU and DEHSt.
6) Information on legislative changes in all directives, regulations, laws.
7) Information on CO2-related topics such as system optimization, electricity price compensation, energy efficiency and Renewable Energy Sources Act (EEG).

Meeting the CO2 reporting requirements and possible support functions
1) Creation of CO2 annual reports, monitoring plans and communications for the operation.
2) Editing and creating BImSchG licenses, system diagrams and measurement issues.
3) Processing and handling to benchmarks, NACE and PRODCOM codes for the purpose of CL membership.
4) Supervision and training of authorized representatives in registry account and their tasks.
5) Communication with DEHSt and EU.

The allowance trading
1) Purchase, sale and exchange of EEA/aEUA, CER and ERU certificates.
2) Fixing the dates on purchase / sale of certificates.
3) Access to CO2 trading and stock markets in Europe.
4) Use of the capabilities of CER and ERU certificates.
5) Run the portfolio of certificates.
6) Knowledge of spot and forward businesses and hedging leasing transactions and prices.
7) Knowledge of bilateral trade agreements.
8) Price determination of CO2 allowances for accounting and evaluation.
Organizational models for emission trading in the company
The risks of legally incompliant handling within the company and thereby a high penalty or an image damage or major economic disadvantages are extremely versatile and can occur in almost all areas of emission trading. Just a list of reasons or circumstances that can lead to a failure to make timely delivery of certificates, breach of statutory obligations or report non-compliance with the new requirements of the Registry Regulation would fill several pages. Ideally all these tasks and risks of emissions trading should be managed and monitored in a department, which obviously only for very large plant operator is costly in terms of personnel and even then only partially possible. Medium-sized and smaller companies however can’t and don’t want to operate such personal and organizational effort. To handle the tasks in emission trading legally compliant and economically basically 4 different ways make sense for the organization:

a) Adoption of most tasks in a single department or two (backup) with the appropriate level of competence and wide-trained staff, which generally allows the second employee to constitute a security backup for the first one. In general this model only is economically promising in a volume of well over one million tons per year.

b) Adoption of the majority of tasks by a single suitably competent and broadly trained employee which gets a second employee to partly accompany him. Additional adoption of the role of a complete security backup by an external service that is immediately available in case of relevant issues or any failure with the technical and professional assistance for all areas of emission trading.

c) Adoption of parts of tasks in the respective departments by at least two employees of the operator. Uncovered areas of expertise in emissions trading (like IT, registers accounting, reporting, etc.) are assumed by an external consultant with a service that completely covers the relevant areas so that the appropriate technical skills with the operator personnel do not have to be established.

d) Adoption of all relevant tasks of emission trading of the operator by an external service that completely covers the entire field, so that these areas of expertise are not needed from the operator in their entirety. Naturally the operator will still have to delegate their own interest with at least one person responsible for emission trading, which can perform the most necessary tasks again in case of expiry of the consulting agreement.

In order to assess the advantages and disadvantages of the aforementioned organization models better, responsible employees at plant operators should be informed about the ways in which different kinds of organizations can be classified according to the most important areas of emissions trading.
Possible types of organization of emissions trading

In order to individually and successfully implement the legal and economic requirements of EU emissions trading in the company, all necessary activities in different types (areas) of organizations in operation can be distinguished, and then assigned to the company individual departments or partly or wholly external competent service providers.

Since the implementation of the EU Registry Regulation 289/2013 the following four areas of organizational structures in operation can be distinguished:

- **Register account management** can / should be allocated to the business segments Management / IT / Energy Technology
- The receipt of all essential **information on emissions trading** can / should be allocated to the business areas of environment / energy technology / management
- The **Physical trade of certificates** can / should be allocated to the divisions Purchasing / IT / Finance / Management
- An **advice and support on emissions trading** can be provided to all business fields such as environment, energy engineering, purchasing, controlling, IT / Finance

The Aforementioned classification implies that not only in the traditional areas of consulting / support (creating monitoring plan, message for the operation, annual report), there is a possibility of discharge / outsourcing but also in the other three areas – account management, emissions trading and information acquisition or CO2 expertise.

**Summary for legally compliant and economically operated emissions trading**

Small- and medium-sized enterprises that have an emission volume of less than 1,000,000 tons per year, should decide between organizational models b), c) and d).

Otherwise, according to estimates by Emissionshändler.com® eventually massive problems should be expected, which will affect the company's image in the internal and external IT security and in the economic and legal security. In the risk guidelines of each company, therefore, arises a need for the identification of risks and their systematic analysis in the field emissions trading scheme in operation.

The approach for this purpose is obvious – the use of information, commercial, consulting and services of specialized external service providers that perform the tasks of the company partially or wholly, in particular the register account of the operator and the associated legal obligations are in focus in accordance with EU Regulation 389/2013. Thus, not only the associated risks of the company are minimized and the liability of directors and board members is limited, but also especially the responsible employees are relieved and emissions trading in the company is operated economically.

**Infobox
Services for emissions trading**

Emissionshändler.com® offers companies all the necessary information, trading and consulting services in emissions trading or conducts them fully and economically on behalf of the company. Here in particular the compliance with legal obligations under the EU Regulation 389/2013 and legally compliant registry account management of the company are the centre of attention.

With an appropriate appointment of these tasks Emissionshandler.com®, not only the associated risks of the company are minimized and the liability of directors and board members is limited, but also especially the responsible employees are relieved and emissions trading in the company is operated economically.

If a company will be completely relieved of all duties and tasks in emissions trading, it may opt for the CO2-free package of Emissionshändler.com®.

The CO2-Hassle-free-package includes legally compliant bookkeeping, detailed technical information, competent advice and service as well as successful emissions trading.

For more detailed information about the individual CO2 packages and more information, use a free call number 0800-590 600 02 or info@emissionshander.com.
Uncertainties in the coverage of hundreds of motor-driven cogeneration plants

The uncertainties in the reporting of lubricating oil for gas or diesel engines in the cogeneration sector continue to increase, since testing organizations appear to orient with their verifiers more and more on the details of the monitoring regulation. According to estimates of Emissionshändler.com® hundreds of motor-driven cogeneration plants in Germany are bound to emissions trading and thus have a latent problem not only in emissions reporting but also in its not actual monitoring plan if the motors within the system boundaries of BImSchG-approval work. Cogeneration plants, in which the generator for electricity generation is driven by gas turbines, are naturally not affected.

Should lubricating oil be taken into account in the emissions report?

The Monitoring Regulation 601/2012 is describing arrangements for mutual control of verifiers, noting numerous details in the Monitoring Regulation. It comes therefore sometimes very surprising for operators if the emission reports created by conventional methods for gas-fueled engines cogeneration plants need to be supplemented. On the part of the verifier is partially required that also the used lubricating oil must be added to the balance of the substances in the operation of the engines, which should be calculated from the CO2 emission.

The legal aspects about oil reporting

To answer the question of whether to list the amounts of lubricating oil used in engines in a monitoring plan and reporting a CO2-annual report, including the return of the relevant certificated quantities, the following three relevant regulations should be taken into account:

a) In the MVO (Regulation (EU) No 601/2012 of the Commission of 21 June 2012) is stated in Article 5:
"Completeness: The monitoring and reporting is complete and takes into account all process emissions and combustion emissions from all emission sources and source streams of all activities listed in Annex I to Directive 2003/87/EG and other in accordance with Article 24 of directive relevant activities included as well as all greenhouse gas emissions listed for these activities, avoiding double counting."

b) In the MVO (Regulation (EU) No 601/2012 of the Commission of 21 June 2012) is stated in Article 3 (5): "emission source" means a separately identifiable part of a plant or a process in a plant from which relevant greenhouse gases are emitted.

c) The DEHSt Guide to the "scope of Greenhouse Gas Emissions Trading Act (TEHG) for the allocation period from 2013 to 2020, "notes of the German Emissions Trading Authority (DEHSt)" explains in Section 2.3.1: "Emissions trading obligation of the entire plant: If the approval under 4.BImSchV activity of an activity under Part 2 of Annex 1 TEHG is extending the emission trading obligation § 2 para. 4 TEHG to the entire plant in the scope of approval by BImSchG. The BImSchG license determines the investment limits binding."

When a facility is authorized then all of the elements are included in BImSchG approval to emissions trading. Either plant components that are necessary for operation, or as ancillary equipment associated with the plant components and process steps in a spatial and operational context and could be used for the development from Annex 1, Part 2 TEHG the greenhouse gases are important to be classified. Ancillary equipment are characterized as they

Typical flow diagram of a plant

The green-colored elements are in this case the gas engines that drive generators. The used heat is removed from both the cooling circuit of the motors as well as the exhaust gas heat exchanger.
"have no method steps of the sorts that are to achieve the purpose of operating immediately necessity, but are focused on the purpose and accordingly hold a purposeful function."

The threading of the aforementioned regulations is required to find an answer to whether lubricating oil must be taken into account in emissions trading systems in the emissions report generally or only in exceptional cases.

**Analysis of the legal and administrative regulations**

The following three brief analyses show the extent to which the above rules should be applied:

**To a): MVO, type 5**, the answer is clear: all emission sources must be considered. A distinction between sources according to the source strength is not provided in this formulation. Thus, the lubricating material is also included in the reporting obligation, because in case of commercial use it enters the combustion chamber and also burns. The situation is different, however, for the parts of the lubricating materials, in the form of spent during an oil change on the balance limit – but measurable in the amount of oil – these are left out.

The affected lubricating material quantities can be determined by a mass balance. But another method of quantity determination is also possible. When the engine supplier experience is available, of how much lubricant is burned per kWh of electrical energy. Using this experience the amount can be determined by calculation.

**To b): MVO, Article 3 (5)**, the answer is not so clear, because it begs for the question of what are the "relevant greenhouse gases". Does relevant mean,

1) to the effect must be relevant to the total emissions of the plant (which would then mean that their contribution would exceed the prescribed accuracy band of the main emission offender)?

2) that they must meet the requirement of the development within the system boundaries in principle?

Emissionshaendler.com more prone to interpretation 2)

**To c): Guidelines DEHSt, point 2.3.1**, the answer is clear again. Because DEHSt writes: ... all of the BImSchG approval include elements to emissions trading...

A restriction on the size of the contribution of various factors to amount of emissions is not clear from the text. In combination with the fact that the FMS system keeps the necessary physical properties for lubricating materials as the default values prepared it can be concluded that such substances, in principle, are counted as issuers.

**The experience so far**

After the experiences and observations of Emissionsandler.com® DEHSt approves emission reports with consideration of lubricating materials as well as those without considering the consumption of lubricating materials.

In a plant with an emission rate of combustion gas about 100,000 t CO2 / year, the amount of combustion gas resulting from the consumption of a lubricating materials is around 200 t CO2 / year. This increase in the calculated emission by about 0.2% could be described as not relevant. However, it influences the report completeness, if the contribution of the lubricating material is not determined a priori. A later revision of emissions report is quite possible and therefore presents a latent risk a corresponding penalty (here: 20,000 euros).

To prevent this kind penalties and other problems, there is an obvious need to update the existing monitoring plan and make the corrections to create the annual report by the end of March.

**Implementation of the requirements in FMS and the monitoring plan**

In the third period of the FMS form each emission report is generated by the applicable form of the monitoring plan stated for the plant. This material is processed by DEHS® FMS system, which then automatically generates the framework of the emission report with the materials specified in the monitoring plan. In the so-generated emissions report other substances cannot be subsequently added, but this are the only corresponding supplements in the monitoring plan possible.

The corresponding requirement of a verifier meant, therefore, that, firstly the monitoring plan for these
plants to the substance "lubricating material" must be completed.
This results generating the emissions report to the chapter "lubricating material" under the activity "1 - combustion (Other gaseous and liquid fuels)". The other information (heat value, emission factor) will be automatically inserted by the FMS because the system automatically maps the corresponding list.

Now the so-added monitoring plan and the emission report will be accepted by the verifier.

The effort to complement the monitoring plan is unique and the subsequent creation of the emissions reporting results only little additional effort for working with the empirical values of the engine manufacturer for lubricating materials consumption, which should be generally accepted in cogeneration plants. A little more effort should arise when working with a mass balance taking into account the quantities being purchased, the dissipated and unburned waste oil volumes and change in inventories. This might be necessary if the motors are used to generate mechanical energy.

Disclaimer
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Our offer
Please contact us without obligation at +49 (0)30-398 8721-10 or info@emissionshaendler.com as well as via mail or find out more about the Internet services under www.emissionshaendler.com.
Kind emission regards

Michael Kroehnert

Note to our readers
Since 2006 Emissionshändler.com® publishes its proven CO2 newsletter.
About 4,500 industrial customers, utilities, interest groups and individuals in Germany, Poland and other Eastern European countries can currently benefit from our emission letter in German, English and Polish, to inform themselves about current practices and up to date on topics on European emissions trading.
To continue offering our newsletter in the most accurate and up to date form and quality to our interested readers, from 15th February 2015 onwards, we will have to provide our newsletter offering for a fee (with a few exceptions).
Further information and registration information will be available in the upcoming remaining free issues of our info letters.
The possibility to register for an annual subscription can be found when visiting our website at:

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