

GENERATION

EU ETS Operator Experience Compliance Perspective

EDF Energy – Cottam Power Station – 7 September 2015



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Interaction with the Environment Agency (1)

- Environment Agency (EA) are the UK regulator and involve industry to discuss the interpretation and implementation of EU ETS legislation at the installation level
 - This approach enables potential issues to be identified in advance and resolved
 - Most of the time a solution can be found which is acceptable to both regulator and operator
 - A key issue for operators was to make it clear that “one size does not fit all” i.e. different approaches are equally valid because they produce the same accurate CO2 result



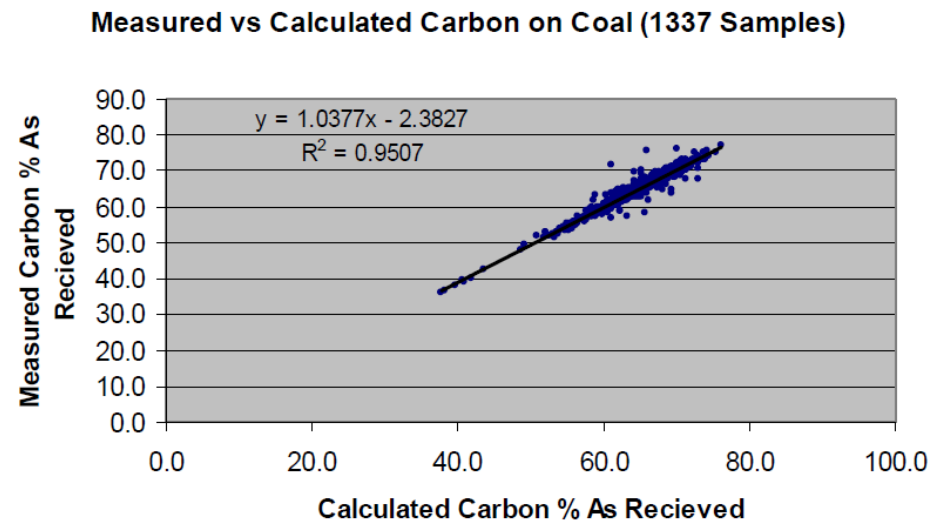
Interaction with the Environment Agency (2)

- The interaction is achieved in the UK via the Joint Environmental Programme (JEP)
 - A formal network of major thermal plant operators in the UK
- Since Phase 1, JEP have produced and agreed with the EA a detailed guidance document on how EU ETS compliance can be delivered at power stations
 - All major thermal plant operators have provided input
 - Demonstrates that PARR or analysed carbon method is acceptable (see next slide)
 - Gives operators access to advanced technical arguments / non-typical power station skillsets (such as uncertainty analysis) to use when applying for a permit
 - Provides EA permitting officers with the comfort that their managers have agreed the proposed approach, making the permit determination process efficient



Interaction with the Environment Agency (3)

- PARR formula (calculated carbon) vs analysed carbon
- Cottam, along with some other power stations, has a Fuel Management System and reporting process built entirely on the Parr formula
- JEP study of >1000 samples demonstrates that either method is acceptable
- Based on the comprehensive study the EA were able to agree that either method can be used
- Similar approach in respect of heat account and stock surveys for activity data (as existing belt weighers not accurate enough for Major Source Tier accuracy requirements)



Interaction with the Environment Agency (4)

- Toward end of Phase 2, EA introduced website-based system “ETSWAP”
 - Reporting system and library of all EA interactions with the installation
 - A good system which is user-friendly
 - Makes data transfer errors within EA systems less likely as ETSWAP enables automatic transfers rather than manual transfers
- The application of the tier system continues to work extremely well in practice and remains proportionate and fair
 - Example: Coal is 98% of total emission whilst propane is only 0.000005% of the total emission
 - Coal uncertainty of 0.5% means it does not matter if propane uncertainty on 30 tonnes is +/- 15 tonnes



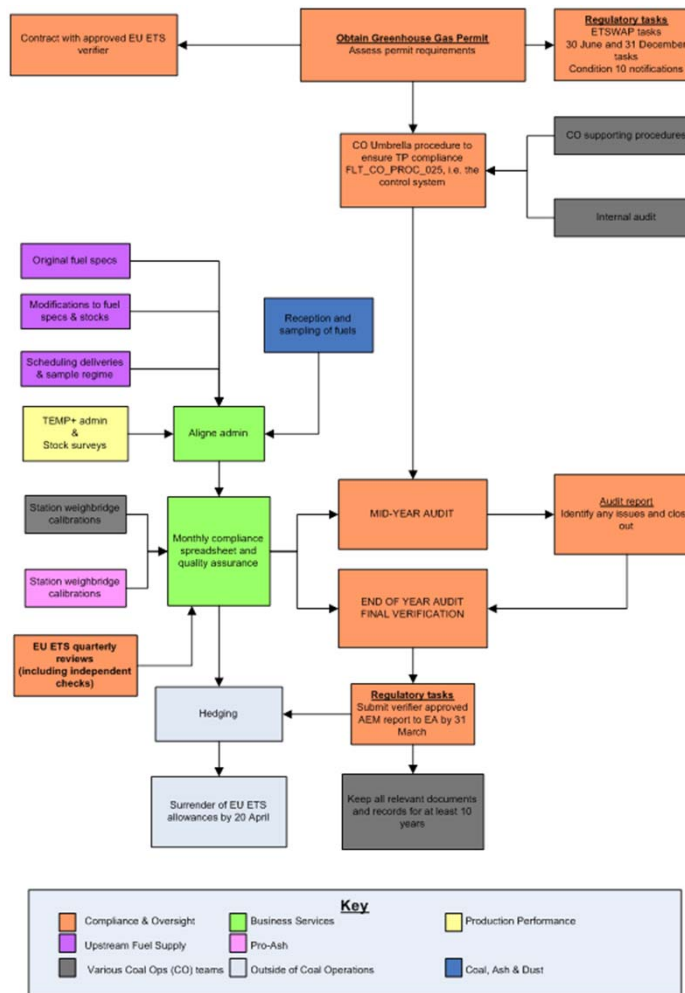
Key challenges and lessons learnt (1)

- The JEP approach and good relationship with the Environment Agency has prevented many potential major challenges
 - Calculated carbon vs analysed carbon / heat account and stock surveys
 - The very good application of the tier approach
 - Consequently EU ETS compliance is relatively straightforward (no major change to existing systems nor need for capital investment)
- Station compliance is co-ordinated by a team at the power station
 - This team has “oversight” and overall accountability for station compliance
- But to achieve station compliance requires far more than just a single team with oversight
 - It is a station effort and requires a number of competent personnel from other departments (see next slide)



Key challenges and lessons learnt (2)

- How EU ETS compliance is delivered – key areas and how they link together



Key challenges and lessons learnt (3)

- The key systems which EU ETS depends on need to be robust and those who are accountable for them need to fully consider the potential impacts to EU ETS compliance if they are requested to change these systems for other business objectives
 - Our technical records team have a very strong commitment and pride to their data being accurate and have numerous verification points in their process
- Needs to include contingency for “data gaps”
 - Problem: weighbridge failure (still need coal to come in).
 - Solution: we (already) have more than one weighbridge for both rail and road



Key challenges and lessons learnt (4)

- Audit should not be seen as an audit
 - You do not want the auditor to identify improvements or find mistakes – an operator cannot get EU ETS wrong
 - It is purely to verify the emissions – that is the attitude needed
 - We do our own quarterly reviews – ensures active management and oversight of the systems which deliver EU ETS compliance
 - We involve, as much as possible, the people who work on EU ETS associated issues on a day-to-day basis in the audit to build auditor confidence that we all know what we are doing and there are no weaknesses in our management system



THANK YOU

