

ECRAN Climate
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CASE STUDY – A ROAD TO PROCESS ANALYSIS

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CONTENT

- Description of example installation
- Strategic analysis
- Risk analysis
- Verification plan



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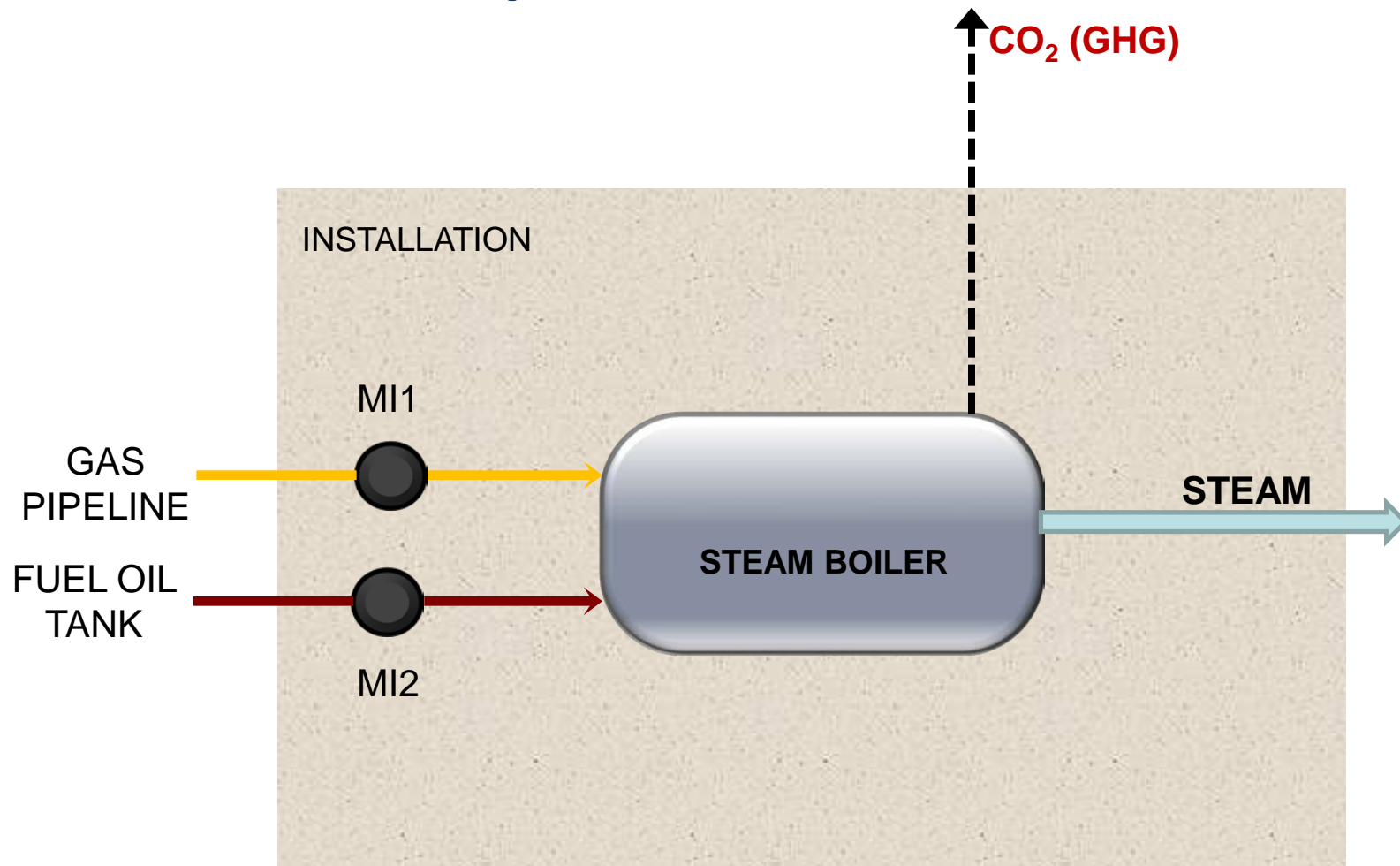
CASE STUDY – INSTALLATION „ENERGY”

- installed capacity: 28 MW
- one steam boiler
- fuels: natural gas, fuel oil
- own flow meter for each source stream
- analysis in external laboratories
- annual emission: 42.000 t CO₂
- source stream contributions to overall emissions:
 - natural gas: 36.500 t CO₂
 - fuel oil: 5.500 t CO₂



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Installation – simple scheme



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STRATEGIC ANALYSIS

- performed to assess likely nature, scale and complexity of verification tasks
- collect and review documentation to assess if
 - verification team sufficiently competent
 - time allocation set correctly (see example)
 - able to conduct risk analysis
- minimum data set to be assessed
 - the category of the installation
 - the monitoring plan
 - emission sources and source streams
 - data flow, control system and control environment



STRATEGIC ANALYSIS – INSTALLATION „ENERGY”

- category of installation
 - Annex I activities
 - methodology
 - analytical methods and labs
 - source streams, categorisation
 - data flow
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- verification team competent?
 - enough time allocated?
 - possible to proceed to risk analysis?



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RISK ANALYSIS

- performed to identify and analyse
 - inherent risks
 - control activities
 - control risks related to control activities
- to be considered at least
 - findings from the strategic analysis
 - information received from the operator
 - information obtained from the previous verification
 - materiality level
- risk analysis should be revised if necessary



RISK ANALYSIS – INSTALLATION „ENERGY”

- list activities
- identify possible incidents
- assess probability
- assess impact
- assess inherent risk (probability, impact)
- identify control activities and assess their effectiveness
- assess control risk
- assess detection risk



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VERIFICATION PLAN

- includes
 - verification programme – activities, time, manner
 - test plan – scope and methods of testing control activities and procedures
 - data sampling plan – scope and methods of data sampling
- verification risk has to be reduced to an acceptable level
- verification plan and risk analysis should be updated if
 - risks found to be different from those assumed



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VERIFICATION PLAN – INSTALLATION „ENERGY”

- verification programme
 - what is to be actually done in process analysis
 - who, what, when, where, how
 - set priorities (from higher to lower risk) and level of details
 - identify potential problems
- test plan
 - control activities defined, but are they implemented and effective?
 - what to test and how
- data sampling plan
 - no time and resources for checking all the data
 - define representative sample

