



Preparing a monitoring plan

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Scope

- Introduction
- By Law-Requirements Cycle
- Why does an operator need a MP?
- Operators MP Activities
- Technical and Organisational Requirements
- Tüpraş and Preparation of MP
- Time Management&Challenges
- Outcomes

Introduction

UNFCCC

- **1992** (In order to limit average global temperature increases and the resulting climate change)
- Turkey acceded to the UNFCCC on 24 May 2004.

Kyoto Protocol

- **1997** (Adoption of Protocol, legally binds developed countries to emission reduction targets)
- Turkey became Party to the Kyoto Protocol on 26 August 2009

EU Policy

- In connection with Kyoto Protocol
- Measures at EU level (EU-ETS, 2030 and 2050 Roadmaps etc.)

Turkey

- EU Negotiations
- 27th Chapter
- Adoption of MRV Regulation

National Legislations on MRV.

- ❖ By law on Pursuing of GHG Emissions (24.04.2012)



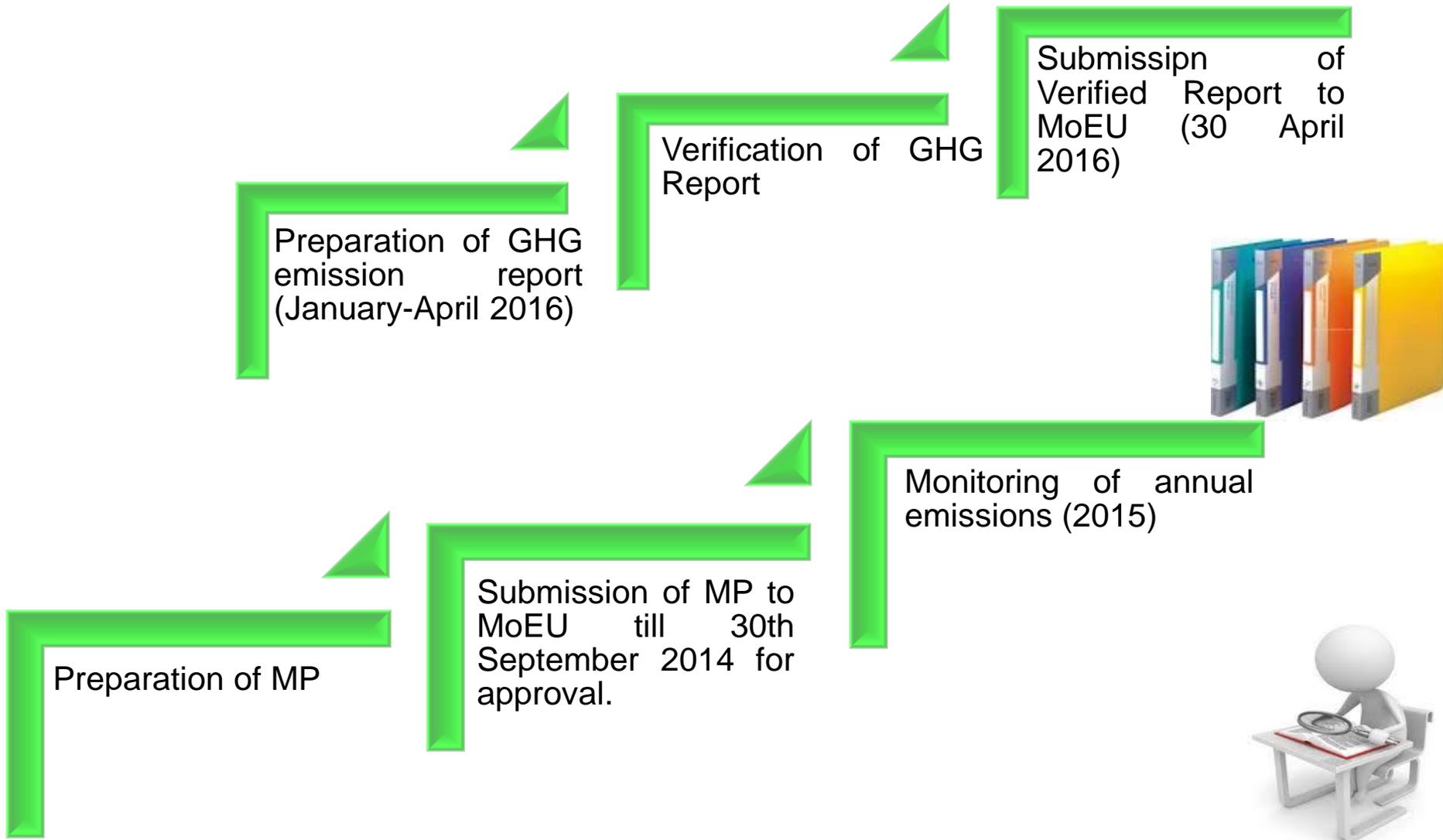
Repealed by

- ❖ By law on Pursuing of GHG Emissions (17.05.2014)

- ❖ In connection with this by law, Communique on Monitoring and Reporting of GHG Emission (22.07.2014)



By Law-Requirements Cycle

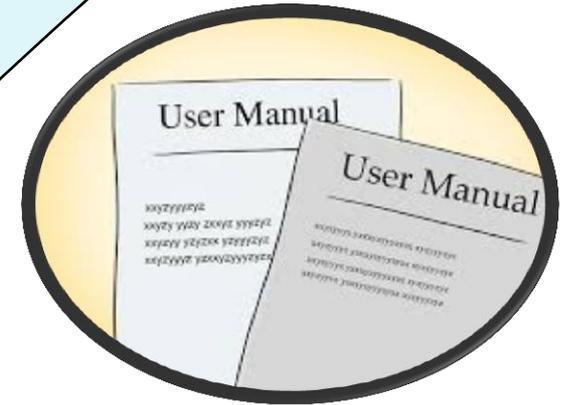


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Why does an operator need a MP?

- ❖ Legal Requirements
- ❖ Determination of source streams, location, source, points
- ❖ Choosing GHG monitoring Methods
- ❖ Categorisation of Installation
- ❖ Tier System
- ❖ Uncertainty
- ❖ Procedures
- ❖ Data Flow and Control System
- ❖ Improvement

Manual for Operator Tasks



Operators MP Activities

- ❖ Data collection (metering data, invoices, production protocols,...)
- ❖ Sampling of materials and fuels,
- ❖ Laboratory analyses of fuels and materials,
- ❖ Maintenance and calibration of meters,
- ❖ Description of calculations and formulae to be used,
- ❖ Control activities (e.g. four eyes principle for data collection),
- ❖ Data archiving (including protection against manipulation),
- ❖ Regular identification of improvement possibilities.

Organizational Requirements

- ❖ Scope under by-law on GHG (Annex-1)
- ❖ Responsible department,
- ❖ Cooperation with affiliated installations,
- ❖ Distribution of tasks,
- ❖ General and tailor-made meetings,
- ❖ Raising awareness of legislations in company,
- ❖ Be aware of deadlines
- ❖ Determination of organizational gaps

Technical Requirements-1

- ❖ Responsible staff (Engineers...)
- ❖ Understanding of Legislations
- ❖ Brainstorming for interpretation of legislations
- ❖ Knowing in detail the situation of their own installation
- ❖ Define the installation's boundaries
- ❖ Determine the installation's category
- ❖ List all emission sources and source streams

Technical Requirements-2

- ❖ Identify the tier requirements based on the installation category
- ❖ List and assess potential sources of data,
- ❖ Calculation methodology
- ❖ Tiers are met or not?
- ❖ Operator should define all data flows
- ❖ Carry out a risk analysis
- ❖ Check and write MP

Tüpraş and Preparation of MP-1

- ❖ Head Office manages,
- ❖ Environment department is responsible,
- ❖ Background on UNFCCC, Kyoto Protocol and EU- ETS
- ❖ Following up national administrative developments
- ❖ Review of all EU-ETS guidance documents
- ❖ Review of MP guidance published by MoEU



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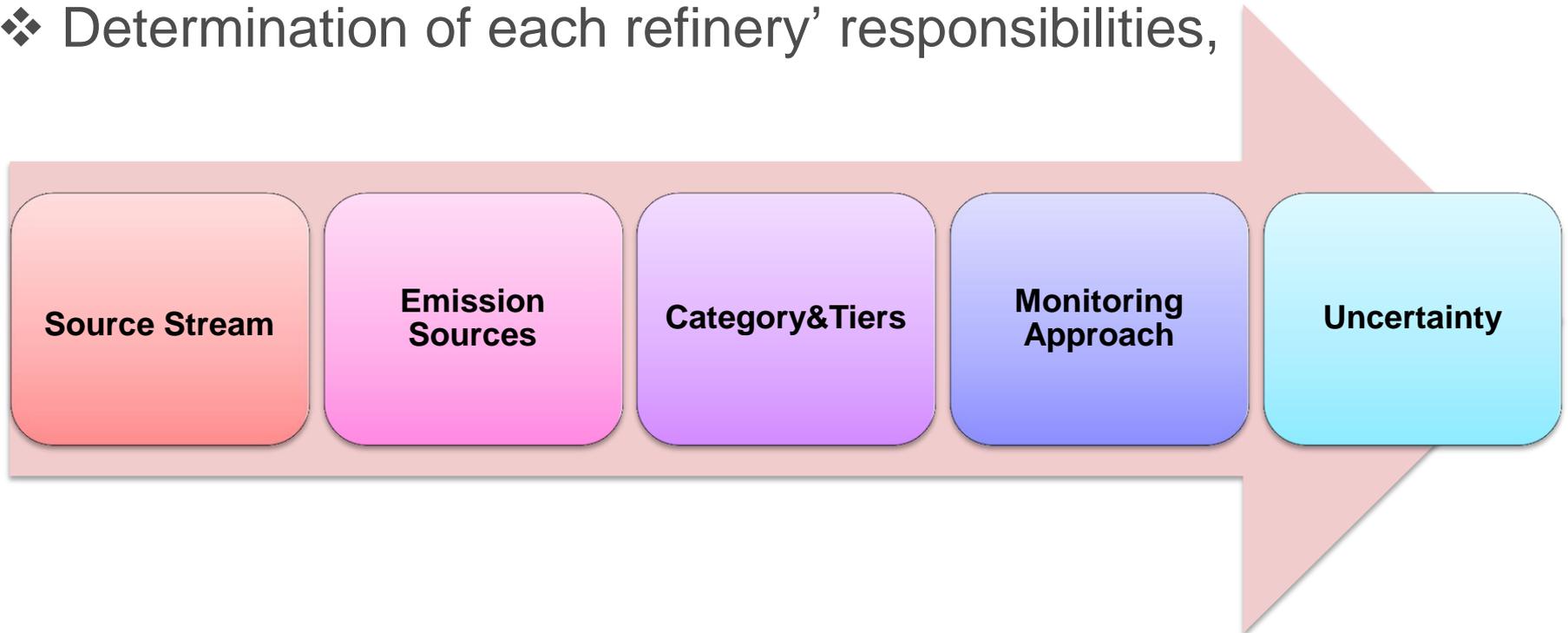
Tüpraş and Preparation of MP-2

- ❖ Taking part in Ministry's working group on legislations.
- ❖ Participation in private trainings
- ❖ Participation in trainings provided by Ministry projects
- ❖ Taking part in sectoral meetings
- ❖ Co-operation with affiliated refineries



Tüpraş and Preparation of MP-3

- ❖ Meetings with refinery representatives,
- ❖ Co-operation with Production, Energy departments etc.
- ❖ Understanding of legislations by every party,
- ❖ Try to be in agreement on all definitions and requirements.
- ❖ Determination of each refinery' responsibilities,



Tüpraş and Preparation of MP-4

- ❖ Standart methodology for most of the combustion emissions,
- ❖ Mass balance for process emissions,
- ❖ Determination activity data,
- ❖ IPCC factors and laboratory analysis are used,
- ❖ Determination of uncertainties,
- ❖ Writing procedures with available infos.
- ❖ Monitoring plan template,
- ❖ Filing up Ministry's online version,
- ❖ Submission by 30th September 2014

Time Management

- ❖ Proactive approach,
- ❖ Be aware of deadlines,
- ❖ Instruction to related staff on time,
- ❖ Taking into account data collection time period,
- ❖ Follow up designated authority



Challenges

- ❖ New legislation
- ❖ Complexity of refinery,
- ❖ Lack of expertise
- ❖ Understanding of items,
- ❖ Tier approach,
- ❖ Insufficient background on some issues (Uncertainties, QA/QC, Risk Analysis etc)
- ❖ Requires long period of time



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Outcomes&Recommendations

- ❖ New legislations, new responsibilities
- ❖ Organisational structure,
- ❖ Distribution Tasks
- ❖ Requires more efforts
- ❖ Understanding of legislation is vital,
- ❖ Increase of technical capacity,
- ❖ Investments to reach high tiers,
- ❖ Coordination with legal authorities,
- ❖ Coordination of different departments,
- ❖ Getting ready for 2015 monitoring and 2016 reporting.

Thank You

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