

Facility level and data management in the South African MRV system



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

29 September 2016

Phindile Mangwana

pmangwana@environment.gov.za



Strategic Purpose & Context

- To introduce a single national reporting system for the transparent reporting of greenhouse gas emissions
- Accelerated UNFCCC Reporting Requirements for Developing Countries
- Update and maintain a National Greenhouse Gas Inventory;
- To inform the formulation and implementation of legislation and policy.
- Support implementation of Carbon Tax and its administration



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA



Legal Framework

- National Environmental Management: **Air Quality act**, 2004 (Act no. 39 of 2004);
- National Greenhouse Gas Emission Reporting **Regulations** are founded based on the above legislation;
- ***Current Status:*** Ready for Promulgation after a second round of public consultation;



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA



Legal Framework

GOVERNMENT NOTICE

DEPARTMENT OF ENVIRONMENTAL AFFAIRS

NO.

2016

NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT, 2004
(ACT NO. 39 OF 2004)

DRAFT NATIONAL GREENHOUSE GAS EMISSION REPORTING REGULATIONS

- Regulations provide the “*What*” information should be reported

- Technical Guidelines provide the “*How*” with detailed methodological guidance on how emissions may be calculated in line with IPCC 2006 Guidelines.

Technical Guidelines for Monitoring, Reporting and Verification of Greenhouse Gas Emissions by Industry

A companion to the South African National GHG Emission Reporting Regulations

Version No: TG-2016.1

June 2016



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA



Who must report emissions

- **Data Providers** – The Reporting Regulations identify 2 types of data providers (Category A) and (Category B).

Category A

Any person in control of or conducting an activity marked in the Category A column above the capacity given in the threshold

Category B

Any organ of state, research institution or academic institution, which holds GHG or relevant activity data

However, if these institutions conduct listed activities, then they are classified as Category A data providers

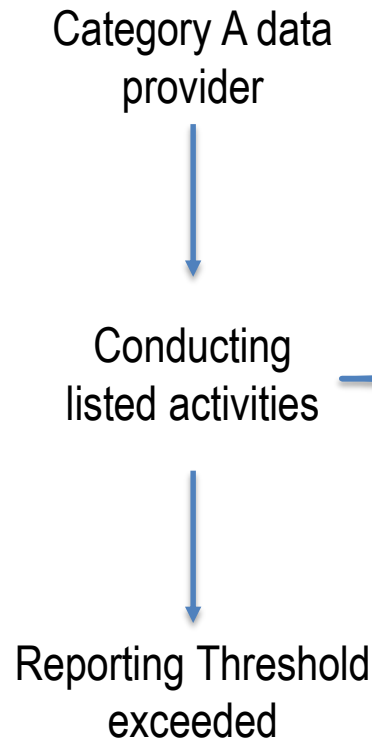


environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA



Who must report



- **Energy –**
 - Stationary combustion of fuels;
 - Domestic Aviation Industry;
 - Water-borne navigation;
 - Railway transport;
 - Fugitive emissions from coal mining;
 - Fugitive emission from Oil and gas operations.
- **Industrial Processes and Product Use:**
 - Mineral Industry;
 - Chemical Industry;
 - Metal Industry.
- **Waste**
 - Solid waste disposal;
 - Wastewater treatment;
 - Waste incineration.



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA



Code	Name	Category A		
		shall report when their total installed capacity for this activity is over the threshold	Threshold	Transitional Arrangement Applicability (Regulation 15)
1	ENERGY			
1A	Fuel Combustion Activities			
1A1	Energy Industries			
1A1a	Main Activity Electricity and Heat Production	Tier 2 or 3	10 MW(th)	YES
1A1b	Petroleum Refining	Tier 2 or 3	none	YES
1A1c	Manufacture of Solid Fuels and Other Energy Industries	Tier 2 or 3	none	YES
1A2	Manufacturing Industries and Construction			
1A2a	Iron and Steel	Tier 2 or 3	10 MW(th)	YES
1A2b	Non-Ferrous Metals	Tier 2 or 3	10 MW(th)	YES
1A2c	Chemicals	Tier 2 or 3	10 MW(th)	YES
1A2d	Pulp, Paper and Print	Tier 2 or 3	10 MW(th)	YES
1A2e	Food Processing, Beverages and Tobacco	Tier 2 or 3	10 MW(th)	NO
1A2f	Non-Metallic Minerals	Tier 2 or 3	10 MW(th)	YES
1A2g	Transport Equipment	Tier 2 or 3	10 MW(th)	NO
1A2h	Machinery	Tier 2 or 3	10 MW(th)	NO
1A2i	Mining and Quarrying	Tier 2 or 3	10 MW(th)	YES
1A2j	Wood and Wood Products	Tier 2 or 3	10 MW(th)	NO
1A2k	Construction	Tier 2 or 3	10 MW(th)	NO
1A2l	Textile and Leather	Tier 2 or 3	10 MW(th)	NO
1A2m	Brick manufacturing:	Tier 2 or 3	10 000 bricks a month	NO
1A3	Transport			
1A3a	Civil Aviation	Tier 2 or 3	100 000 litres/year	Yes

Who must report

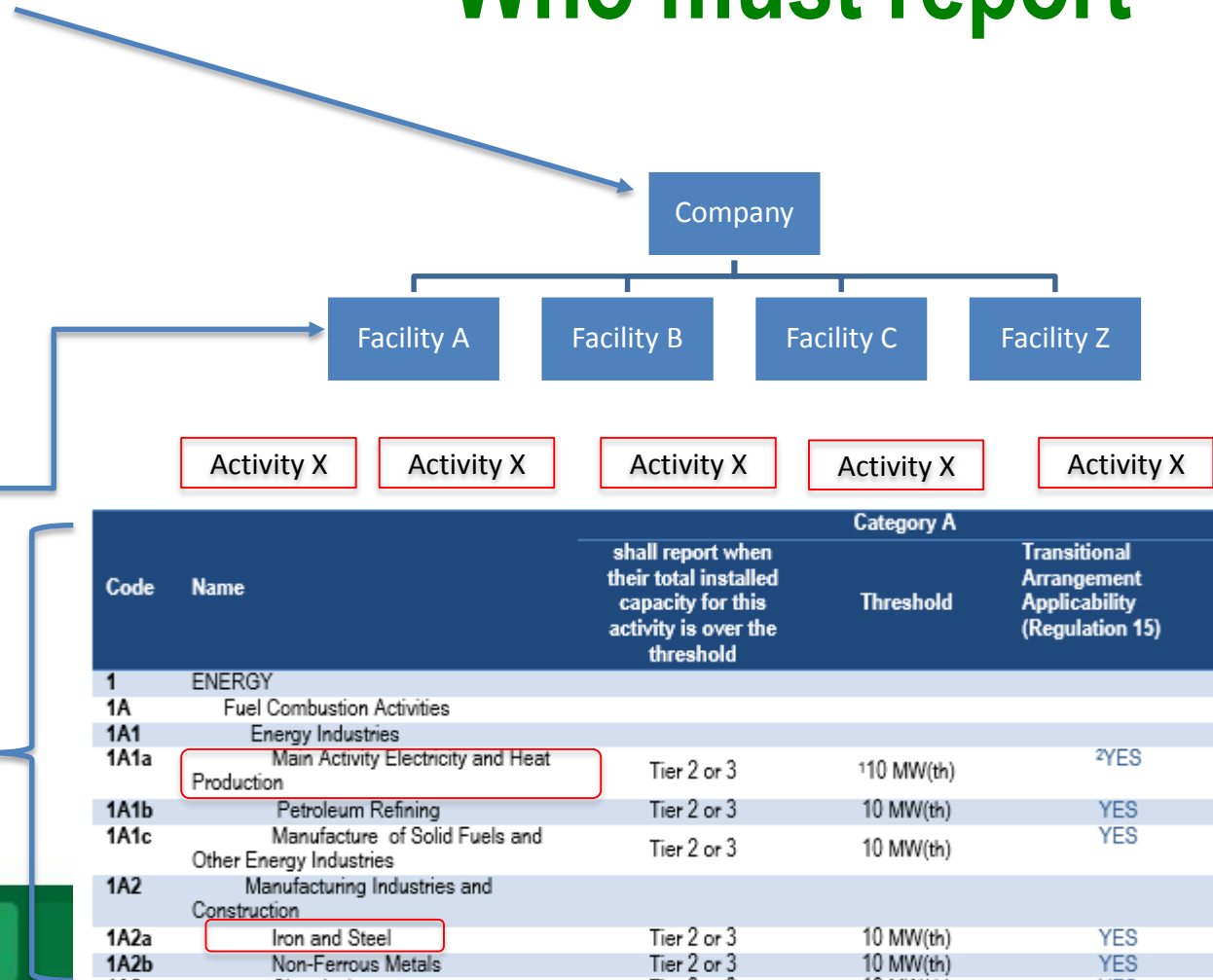
A company may have 1 or more facilities and the focus is on operational control

Reporting is done at this level (Company-level)

Emissions reported for each facility

Activities taking place within facility(ies)

Conducts an activity(ies) listed and reporting thresholds are met (Annexure 1 of the Regulations)



environmental affairs

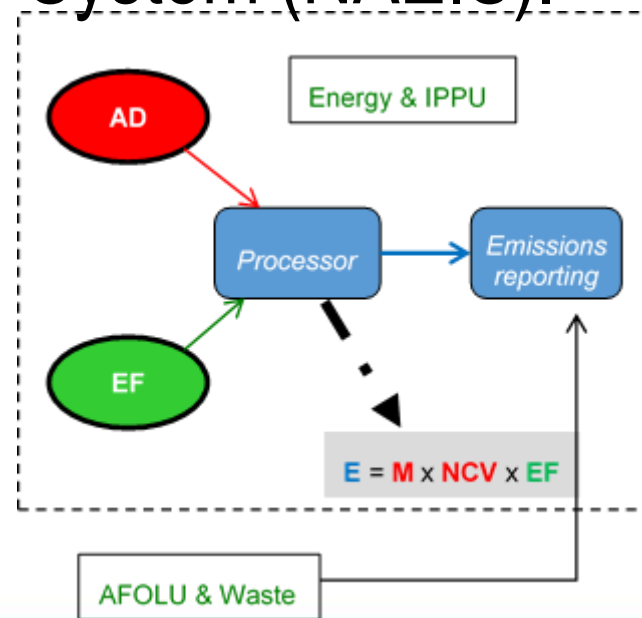
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Bottom-up Reporting approach



How will reporting be done

- **Web-based reporting** – via the web-based National Atmospheric Emissions Inventory System (NAEIS).
- Registration
- Reporting
- Verification



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA



When does reporting start

- DEA is in the process of finalising the Regulations
- **30 days** after promulgation of the Regulations
 - ✓ Registration on the NAEIS is required.
 - ✓ after 30 days of commencing a listed activity
- 31 of March each year – reporting of previous year's emissions – E.g. in 2017 data providers will report 2016 emissions data.



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA



Data Management

- SA is in the process of developing a **National System**
 1. Development of institutional arrangements for South Africa's Greenhouse Gas Inventory;
 2. Development of country-specific GHG Inventory Data Collection Templates;
 3. Development of System Procedures and technical Works Instructions;
 4. Development of robust methodologies for national greenhouse gas Inventories; and



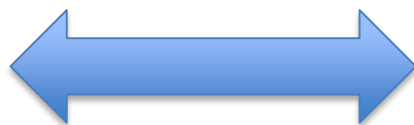
environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA



How are these two linked

- NAEIS
- Provides a reporting Platform for industry
- *Data repository*



- National System
- Provides a management system for Inventory compilation



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA



Use of Reported Data

- Inventory Compilation (primarily)
- Carbon Tax Imposition @ R120 per ton of CO₂e
 - Reported Emissions Data is verified by DEA; and
 - Submitted to Treasury and the Revenue Services for imposition of Carbon Tax



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA



Carbon Tax Design in SA

Tax-free thresholds and allowances

A basic
60%
tax-free threshold

An additional
10%
tax-free allowance
for process emissions


A variable tax-free
allowance of up to
10%
for sectors exposed
to trade


A tax-free allowance of
5%
for early actions or
efforts to reduce emissions
that exceed the industry
average


An additional
5%
tax-free allowance for
companies participating
in phase 1 (up to 2020)
of the carbon budgeting
system

Carbon offsetting
allowance of either
5% or 10%

Some statistics and characteristics

 R120 per ton CO2e

 Carbon tax will be based on CO2 equivalent
emissions

 **95%** exemption if administered well till
2020


 Carbon tax to be implemented in 2017,
emissions measured as per the Department of
Environmental Affairs (2016)

Image source: *Ernst & Young*



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA



Summary

- GHG Reporting programme is responding to inventory compilation challenges;
- Supports UNFCCC and domestic reporting obligations;
- Policy formulation, review and strategy formulation;
- Supports implementation of key climate change mitigation response programmes.



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA



Questions

Thank You



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

