



TECHNICAL NOTE #26

SA Pollution Prevention Plans and Carbon Budgets and their impact on the clay brick industry

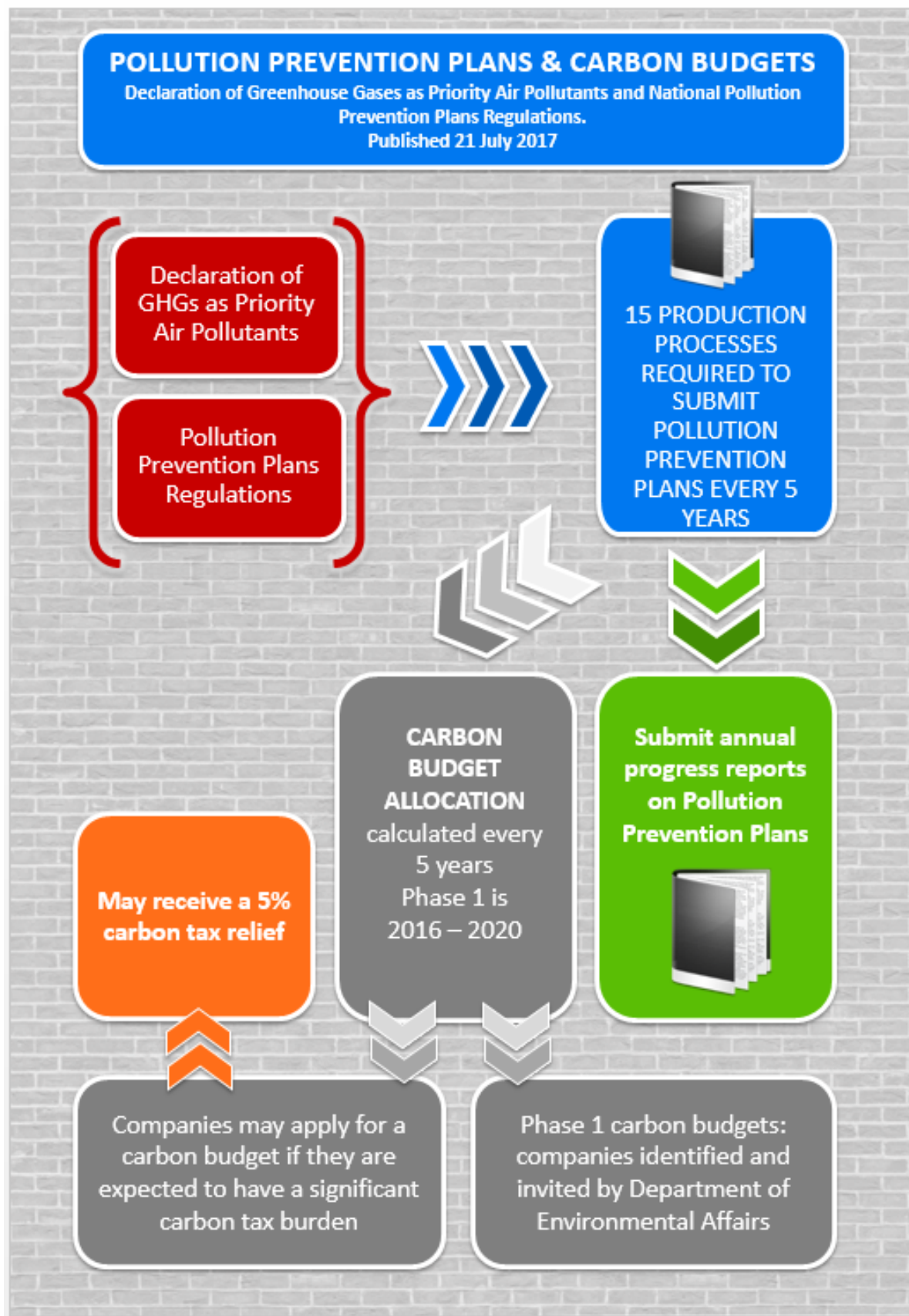
Declaration of Greenhouse Gases as
Priority Air Pollutants and National
Pollution Prevention Plans
Regulations published by the
Department of Environmental Affairs
on 21 July 2017

Summary Updated:
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TECHNICAL CONTRIBUTOR

This summary was developed by
Promethium Carbon for the Energy
Efficient Clay Brick (EECB) Project.







SA POLLUTION PREVENTION PLANS AND CARBON BUDGETS AND THEIR IMPACT ON THE CLAY BRICK INDUSTRY

1. Introduction

South Africa has an emissions intensive economy, however the government is committed to shifting the country to a lower-carbon economy. At the end of 2015, South Africa submitted their *Intended Nationally Determined Contribution (INDC)* at the Conference of the Parties (COP) 21 in Paris. South Africa's INDC commits the country to a "peak, plateau and decline" emission trajectory, to ensure that global average temperatures do not exceed 2 degrees centigrade. A global average temperature increase of 2 degrees centigrade translates up to 4 degrees centigrade for South Africa by the end of the century.

In light of this, the Department of Environmental Affairs is developing a range of policies and measures aimed at reducing greenhouse gas emissions. Three of these that are closely linked are carbon budgets, the declaration of greenhouse gases as priority air pollutants and the pollution prevention plans. A carbon budget is a greenhouse gas emissions allowance that can be allocated on a per company basis. Carbon budgets are generally allocated for a period of several years, normally five years. Company emissions are then reported to the Department against the carbon budget.

The Department of Environmental Affairs has indicated that the carbon budget process is based on a phased approach, with the first phase of the system running from 2016 to 2020. Phase 1 is a voluntary pilot, while phase 2 is expected to be mandatory, post 2020.

In phase 1 where the clay Brick sector was not included, carbon budgets were allocated to companies using a bottom-up approach, in which consideration was given to the operational requirements of the company concerned. In addition the first phase of carbon budgets does not contain penalties for companies exceeding their emissions within their allocated carbon budget.

Planning for phase 2 of carbon budgets is currently underway. The Department plans to include more industries during phase 2, which may include clay brick manufacturers. Clay brick manufacturers therefore need to pay more attention to monitoring greenhouse gas emissions and emission reduction initiatives. Engagement during the public participation for phase 2 of the carbon budgets, would be beneficial for the Clay Brick Association.

Pollution prevention plans outline the mitigation projects that a company plans to implement in order to keep their emissions within their allocated carbon budget.



The Department published two Regulations on 21 July 2017, under the National Environmental Management: Air Quality Act 2004 (Act No. 39 of 2004):

- *Declaration of Greenhouse Gases as Priority Air Pollutants*: these Regulations declare six greenhouse gases as priority pollutants, set a threshold for reporting pollution prevention plans and identify production processes required to report.
- *National Pollution Prevention Plans Regulations*: these Regulations detail the reporting requirements for pollution prevention plans.

2. Who must report?

2.1. Carbon Budgets

Allocation of carbon budgets is a process initiated by the Department of Environmental Affairs, with little regulatory context. The Department identified and contacted approximately 80 large emitting companies within industry and requested that they voluntarily propose a carbon budget. Carbon budgets were agreed on for direct (scope 1) emissions only. The process was initiated in June 2015 with the deadline for submission of budgets being September 2015. The Department has since allocated carbon budgets to 18 companies.

Companies are allowed to approach the Department and request a carbon budget. In November 2015, the revised draft carbon tax design (Technical Note #24) proposed a 5% tax relief for companies with carbon budgets. Although not yet finalised, the indications are that companies that have been awarded a carbon budget will have to submit a pollution prevention plan to the Department of Environmental Affairs.

2.2. Pollution Prevention Plans

Companies with the following production processes need to submit pollution prevention plans if they exceed 0.1 Mt CO₂ equivalent of greenhouse gases¹ annually

- | | |
|---|--|
| • Coal mining | • Iron and steel production |
| • Production and/or refining of crude oil | • Ferro-alloys production |
| • Production and/or processing of natural gas | • Aluminium production (excluding foundries) |
| • Production of liquid fuels from coal or gas | • Polymers production |
| • Cement production | • Pulp and paper production |
| • Glass production | • Electricity production (combustion of fossil fuels, excluding the use of back-up generators) |
| • Ammonia production | |
| • Nitric acid production | |
| • Carbon black production | |

¹ The Declaration of Greenhouse Gases as Priority Air Pollutants set out six greenhouse gases for which reporting is required: carbon dioxide (CO₂); methane (CH₄); nitrous oxide (N₂O); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs) and sulphur hexafluoride (SF₆).



Companies that conduct any of the production processes mentioned above as a main activity, irrespective of size, must also submit pollution prevention plans. Clay brick production is excluded in the current Regulations.

3. What are the reporting requirements?

According to the Department, carbon budgets and pollution prevention plans will be submitted every five years with annual progress reports.

3.1. Carbon Budgets

Phase 1 of carbon budgets is based on historical greenhouse gas data for the period 2000 – 2015 and greenhouse gas projections for 2016 – 2020. The emissions data is reported per activity according to the 2006 Intergovernmental Panel on Climate Change Guidelines, splitting combustion emissions from other greenhouse gas emissions as per the Technical Guidelines for mandatory reporting.

3.2. Pollution Prevention Plan

A pollution prevention plan, submitted every five years to the Department of Environmental Affairs must include the following:

- Company name and registration number;
- Contact details of the person responsible for submitting the pollution prevention plan;
- Description of production processes;
- Type of greenhouse gases generated from each production process;
- Total greenhouse gases from each production process for the year before the start of the pollution prevention plan;
- Methodology used to monitor annual greenhouse gas emissions calculated according to the Draft National Greenhouse Gas Reporting Regulations (Technical Note #25);
- Methodology used to measure progress towards meeting the greenhouse gas emission reductions;
- Description of mitigation projects (emission reduction and energy efficiency projects) that will be implemented to reduce greenhouse gas emissions over the five year period including projected value of emission reduction projects.



3.3. Annual Progress Reports

Each company must monitor and report progress to the Department to demonstrate implementation of the pollution prevention plan and this annual progress report must include:

- Details on the mitigation projects that were implemented to reduce greenhouse gas emissions; and
- Details of deviations from the pollution prevention plan and actions taken to address deviations.

4. What are the timelines?

The timelines for the carbon budgets and draft Regulations are as follows:

Table 1 Key Dates for Consideration.

Aspect of the carbon budget process and draft Regulations	Timeline
Company may apply for first phase (2016 -2020) carbon budgets.	Up to the end of October 2016.
Company must submit a pollution prevention plan to the Minister.	Five months from the date of promulgation of the Regulations.
If the pollution prevention plan is rejected, the company must amend the plan.	Within 30 days from rejection.
Validity of pollution prevention plan.	5 years.
Company must submit annual progress report to the Minister for the preceding calendar year.	By 31 March each year.
Verification of information submitted in the pollution prevention plan or annual progress report.	60 days after written instruction from the Minister.

5. How should the data be reported?

Companies that were requested to submit carbon budgets during phase 1, were provided with a template from the Department of Environmental Affairs. A template for pollution prevention plans is currently being developed under the *Guidelines for the Development of Pollution Prevention Plans in Respect of Greenhouse Gases*.

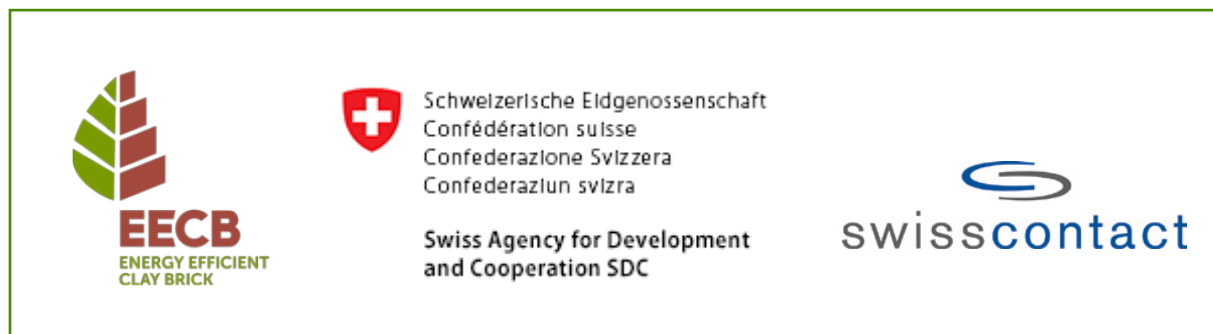


For further information on the Climate, Carbon and Energy Regulations:

The Clay Brick Association of South Africa

Website: www.claybrick.org/climate-carbon-energy-regulations

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