

ENVIRONMENTAL SUSTAINABILITY

Responding to the potential Carbon Tax implementation

Government is contemplating implementation of a Carbon Tax as part of its mix of measures to drive carbon emission reductions in line with their international commitments. The details of how the Carbon Tax will work are still uncertain as government is working to develop carbon budgets for industries that meet its peak, plateau, decline projections and the desired emission reduction outcomes being developed for each sector of the economy. The process is complex and time consuming but it is still anticipated that the first five-year Carbon Tax strategy will come into effect in 2016.

Mpact has responded to this by actively engaging with government through industry associations to understand and give input to the process. Mpact is also taking a close look at its energy and carbon footprint and working to reduce these. The Group has already made significant progress through various interventions and investments. Additionally, Mpact is also looking at the long term at cogeneration and green energy options to further reduce its carbon emissions. To this end, the Group has launched an Energy Centre of Excellence in 2014, which draws together energy experts from across the business, as well as external energy specialists, to drive energy reductions and green energy generation options.

Compliance

As a socially responsible company, Mpact recognises that compliance with legislation is essential to sustainable operations. Mpact is committed to keeping abreast of environmental legislation and actively participates in the review process through membership of the Paper Manufacturing Association of South Africa (PAMSA) Environmental Committee that gives input and comment to draft legislation. Our operations also subscribe to legal registers tailored to their specific situations and are notified by the service provider of changes in legislation.

There are instances where compliance has not been possible due to the recent changes in environmental legislation, or insufficient responses from regulators. These incidents are being managed closely to ensure compliance is achieved as soon as possible. All other non-compliances are monitored and reported to ensure adequate action is taken to correct these anomalies.

All Mpact operations have environmental management systems in place. The Paper, Corrugated, Recycling and larger Plastics operations are certificated to the ISO 14001 standard and are audited internally and externally for ISO and legal compliance.

Energy – Reducing energy consumption and CO₂ emissions

Mpact established an Energy Centre of Excellence in 2014 that aims to reduce energy consumption and CO₂ emissions by coordinating and driving energy efficiency projects and green energy generation initiatives. Energy experts from across the Group meet quarterly to report on progress, share ideas and participate in technology supplier discussion. Initiatives already actively perused in the Group include:

- Energy saving:
 - Optimisation of boiler efficiency;
 - Production process monitoring and optimisation initiatives;
 - Installation of variable speed drives;
 - Replacement of old lighting technologies with modern low energy lighting;
 - Replacement of various heating and cooling equipment with modern high efficiency units; and
 - Creating awareness among employees to conserve energy wherever possible.
- Energy generation investigation:
 - Solar generation feasibility;
 - Energy generation from incineration of waste; and
 - Biogas generation from effluent.

The main source of energy at Mpact is fossil fuel, in the form of coal, and electricity purchased from the national grid. Some heavy fuel oil and natural gas is also used. The total recorded energy used in 2014 was 5643TJ (2013: 5821TJ) of which 4173JT (2013: 4332TJ) was direct energy consumed (fossil fuels) while 1470TJ, or 408GWh, (2013: 1489TJ) was indirect energy consumption (purchased electricity). In terms of energy per man-hours worked, these usages translate to 343MJ/MH for direct energy and 120MJ/MH (0,034MW/MH) for indirect energy.

In 2014, the Paper and Plastics businesses achieved 4% and 7% energy consumption reduction respectively per tonne of product, when compared to 2013 as a result of energy efficiency programmes and improved production efficiencies.

Atmospheric emissions

The main source of atmospheric emissions in Mpact is from boilers. In terms of the new Air Quality Act, Mpact's boilers do not require Atmospheric Emissions Licences (AEL), though they are now subject to Controlled Emitter regulations released in 2013. All relevant operations are in discussion with their local authorities to ensure compliance with these regulations. However, the Copeland Reactor at the Piet Retief Mill does require an AEL and this has been obtained in a licence that also provides the necessary Controlled Emitter authorisations for the site's boilers.

Controls are in place to monitor sulphur dioxide (SO₂), particulates, and carbon dioxide (CO₂) emissions from the boilers; and these are reported on regularly. Emissions are managed through use of good quality (low sulphur) coal, boiler efficiency optimisation and maintenance of grit arrestors in the boiler stacks.

Mpact takes the threat of Global Warming and Climate Change seriously and much of the drive to reduce energy consumption is backed by Mpact's commitment to reduce greenhouse gas emissions. Energy reductions noted above account for internally calculated reductions in both Scope 1 (direct emissions from site) and Scope 2 (arising from electricity purchased) emissions. Scope 1 emissions were 388,086 ton CO₂e (381,899 ton CO₂e) and Scope 2 emissions were 404,234 ton CO₂e (2013: 413,977 ton CO₂e) bringing total emissions to 792,320 ton CO₂e (2013: 791,265 ton CO₂e) which translates to 0,065 ton CO₂e per man-hour worked.

Water and waste water

Mpact operations strive to reduce water consumption and waste water generation, mindful of the reality that water is a scarce and precious resource. As such, all operations across the Group closely monitor and regularly report on water consumption. Interventions to reduce water use included monitoring and awareness drives, equipment upgrades, process optimisation and the treatment and reuse of waste.

Some operations have installed rainwater harvesting systems and improved water metering technology to assist the national drive for water conservation.

The total volume of water used in 2014 was 5 235MI (2013: 5 316MI), giving a value of 431 litres per man-hours worked. The Paper business is the major water user and achieved water saving per ton of product of 2,2% due to increased production efficiencies.

Similarly, for the Paper business, wastewater discharge volumes per tonne of product declined by 0,5%.

Solid waste

Waste management plans are regularly reviewed to bring into effect the requirements of the Waste Management Act which focuses on the reduction, reuse, recycling, recovery, landfill hierarchy. Being a company largely driven by recycling, this ethic is well entrenched throughout the group with recycling of non-hazardous waste increasing to 72% in 2014 (2013: 67%).

Total non-hazardous waste disposed of amounted to 31,450 tons (2013: 36,525 tons) and 0,003 tons per man-hours worked, while hazardous waste disposal was 814 tons (2013: 880 tons). Material recycled totalled 79,297 ton (2013: 72,158 ton).

The Group has made significant progress in this regard, with the Felixton and Springs Mills recycling 87% (2013: 81%) and 85% (2013: 81%) respectively of their residual materials in 2014. In both cases, this was achieved by use of organic material for compost and ash for concrete block making.

Environmental Excellence Awards

The Scarab Award is presented to the operation that performs best in an externally conducted survey on environmental management practices. The 2014 winner was the Springs Mill, Gauteng, while the Springs and Felixton mills were awarded Platinum status for environmental management