



2017
SAFETY, HEALTH,
ENVIRONMENT AND QUALITY
SUPPLEMENTARY REPORT

Sheq

Safety, health,
environment and quality
supplementary report

1 Overview

2 Health and safety

11 Further SHEQ data

SHEQ supplementary report 2017

Supporting information for SHEQ is detailed in the report that follows. This report is supplementary to Afrox's 2017 integrated report, available at www.afrox.com.

Key highlights

- Refreshed risk management training across the business
- Enhanced the quality of our product offering through the Afrox Quality Council
- Introduced the manual handling task force to reduce injuries of this nature
- Installed fatigue monitoring software in our transport fleet

Key challenges

- Process safety remains a key challenge
- Transport fleet and passenger car safety
- Improving on security through technology
- Improving security off-site through technology and education

Overview

At Afrox, we believe that all incidents are avoidable, and we aim to achieve zero harm across all of our operations. The Company regards safety, health, environment and quality (SHEQ) as a priority. Collective accountability and responsibility are key elements of our philosophy, which is ingrained across the business. Our leaders drive the Company's SHEQ agendas and philosophy. Line managers, supported by the SHEQ department, are required to oversee the communication of the policy, demonstrate safe behaviour, and create the appropriate conditions for continual improvement.

This philosophy includes a range of stakeholders such as:

- contractors;
- colleagues;
- customers;
- suppliers; and
- local communities.

The Company SHEQ policy provides mandatory guidelines for all areas of operation. Our Safety, Health and Environmental policy and our Quality policy are available on request from our communications department. The SHEQ Golden Rules that inform the SHEQ philosophy are available on page 61 of the integrated report.

SHEQ management system

An executive manager oversees the Company's SHEQ department and ensures that Afrox's policies are proactive in assessing risks and, consequently, mitigating them.

Our management system assists in ensuring SHEQ compliance with industrial requirements, local and national legislation, and implementing operational best practice. Relevant standards are stored on the Integrated Management System and Standards (IMSS) library. Our sites all operate within an integrated SHEQ management system guided by the OHSAS 18001, ISO 14001 and ISO 9001. The system facilitates integrated SHEQ audits, risk assessments and management reviews. It also considers The Linde Group's and Afrox's requirements, and various legislative requirements. We are at an advanced stage of transitioning our quality management system to ISO 9001 across the Company. Afrox's key sites are implementing ISO 14001, an environmental management system. We regularly conduct risk assessments at key sites. The outcomes of these assessments are prudently reviewed in order to implement mitigation measures where necessary.

Our focus areas for the year were established in 2017 after we assessed the performance of our SHEQ leading and lagging indicators. We are continually assessing the following focus areas through our 2018 SHEQ plans:

- Risk management
- Environmental impacts (carbon emissions, energy, waste, water and accreditations at high impact strategic sites)
- Behavioural safety
- Maintaining the quality of accreditations achieved throughout the Group
- Occupational health (including manual handling)
- Leadership's knowledge of and accountability for SHEQ
- Management line of sight following the recent restructure of our operating model
- Vehicle safety
- Incident management

SHEQ supplementary report 2017 continued

Health and safety

Afrox strictly applies the global employee safety standards prescribed by The Linde Group. We manage safety and employee wellness in an integrated manner using realistic and measurable development targets. At major sites, we have dedicated SHEQ committees to address SHEQ-related issues in line with the Occupational Health and Safety Act, 181 of 1993 requirements. Senior management supports each committee in discharging its responsibilities. All line managers have access to appropriate knowledge and tools to improve their competence in discharging their SHEQ responsibilities. This cultivates and embeds an effective SHEQ performance culture.

Performance 2017

To determine the effectiveness of our mitigation efforts, the Company depends on leading indicators to track and measure critical SHEQ interventions. Annually, we set improvement targets which are monitored and reported to executive management. In instances where targets have not been achieved, we implement improvement plans.

Behavioural safety

We believe that the SHEQ Golden Rules of safety promote positive behavioural changes within the Company and improve SHEQ performance. To curb the rate of significant and serious vehicle incidents, Afrox launched the behavioural ActSafe and DriveSafe programmes at an additional 13 operational sites.

The programmes aim to:

- promote recognition of Afrox as a leading, high-performance SHEQ organisation;
- improve SHEQ performance;
- encourage a positive step change in SHEQ culture and behaviour;
- safely provide quality products and services to our clients;
- achieve zero harm; and
- entrench an interdependent approach to SHEQ in all employees and service providers.

Increasing leadership participation in our SHEQ programme is ongoing. Our managers and business leaders are utilising the LeadSafe behavioural assessment tool. The tool allows managers to demonstrate visible leadership by identifying unsafe behaviours, logging these for mitigation actions and rectifying unsafe behaviour.

Key safety leading indicators

Reviewing leading indicators annually enables Afrox to identify actual versus desired performance in various areas and influence behavioural change to pursue targets.

Leading indicators	Performance improvement target	December 2017
Number of P1 audit findings issued	0	0
Number of overdue P2 audit findings	0	20
Overdue P3 audit findings (not to be greater than 2% of open P3s)	<2%	23.6%
Close out 2010 to 2015 EMOCs ¹	80%	79%
MHRP ² licences	100%	100%
MCIR ³ investigations and corrective actions agreed by SHEQ and business within 60 days	90%	100%

¹ Engineering management of change

² Major hazard review programme

³ Major customer incident report

The management of our operations and our application of due diligence continued to strengthen. This is due to the improved rigour on key programmes such as the behavioural safety programmes and consistently low levels of overdue audit findings. We increased our focus on ensuring that incident investigation and implementation of corrective actions are addressed effectively and promptly.

SHEQ supplementary report 2017 continued

Safety trends

We measure safety performance over a specific time period and track events by reviewing lagging indicators.

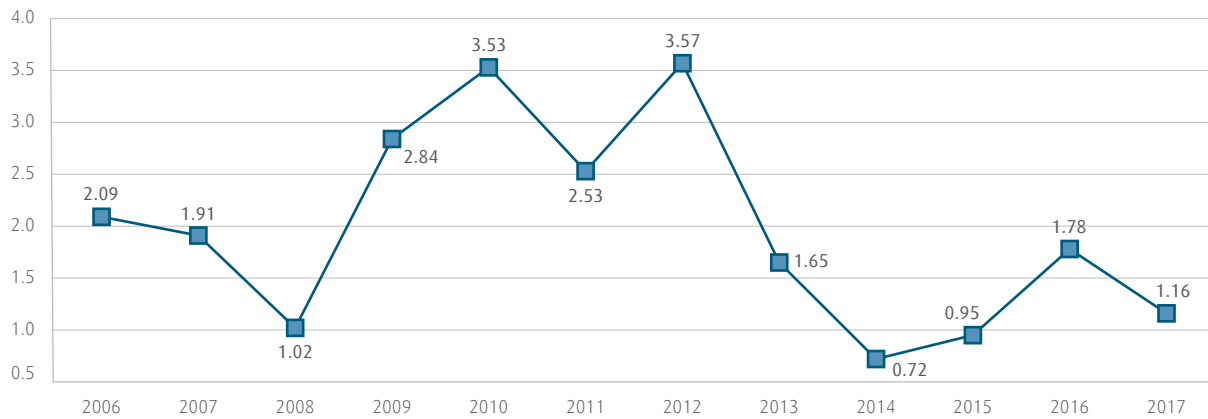
Lagging indicators	Performance improvement target	2017	2016
Manual handling (total recordable) injuries	6	2	10
PSIFs ¹	0	7	5
Repeat MIR ² within 12 months	0	6	3

¹ Potential severe injury and fatalities

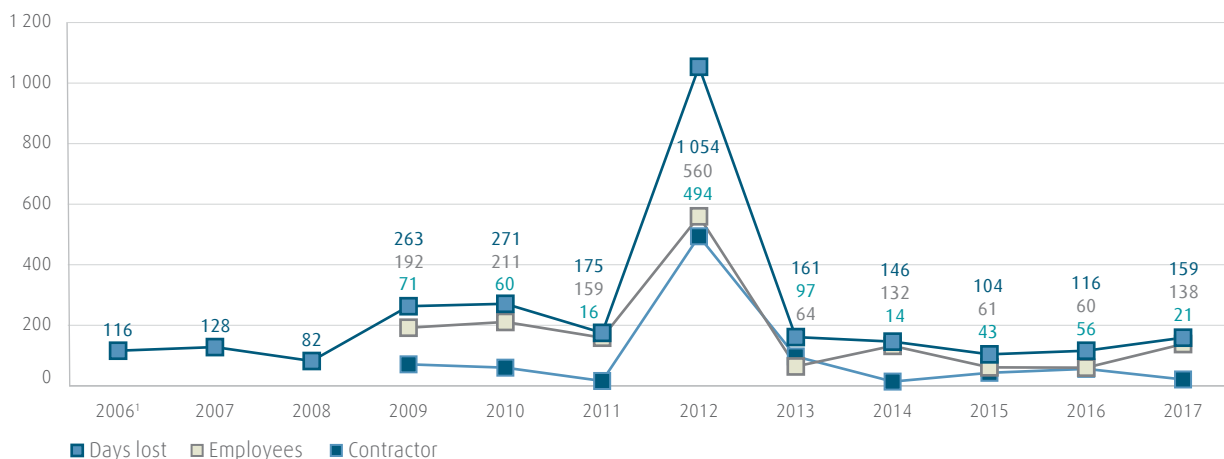
² Major incident report

Afrox tracks its PSIF incidents, lost-time and total recordable injuries, vehicle incident rates, total recordable injuries caused by manual handling activities and major incidents. Our performance still requires improvement, and we are responding through a range of action plans to address the key risks identified and to analyse the root cause of the incidents.

Lost time injury rate

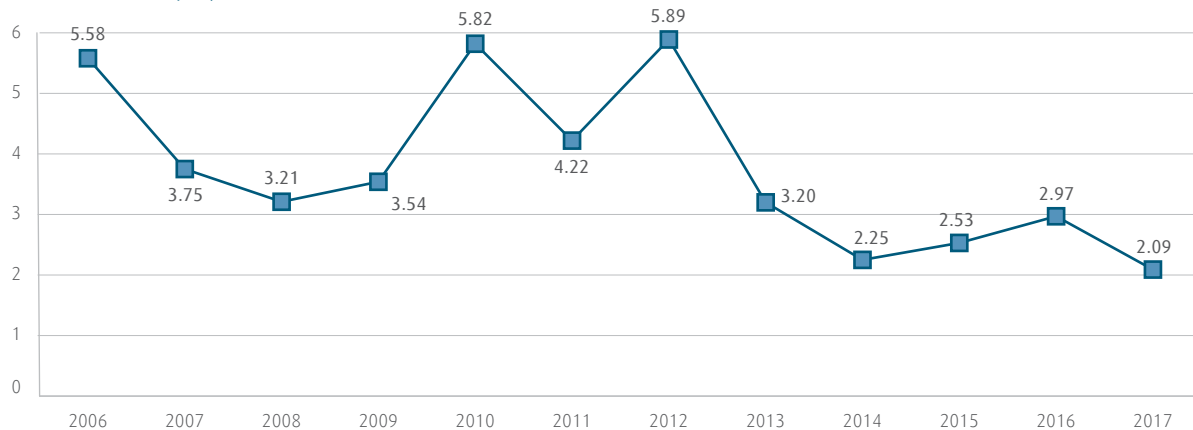


Work days lost



SHEQ supplementary report 2017 continued

Total recordable injury case rate



Manual handling incidents contribute significantly to the number of work days lost. The number of work days lost is dependent upon the type and severity of the injury and what is prescribed by the treating doctor. Through consistent management effort and accountability, we aim to provide robust incident investigation processes, improve incident management, and improve the implementation of effective responses. We are guided by our SHEQ philosophy, Golden Rules and policies to reach our non-negotiable goal of zero harm.

Transport and passenger car safety

All vehicle incidents are accounted for when measuring vehicle performance, providing a holistic view of performance.

Lagging indicators at 31 December 2017	Performance improvement target		2017 rate	2017 number	2016 rate	2016 number
	Rate	Number				
Passenger and light vehicle (PLV) incidents						
Total	2.25	50	2.96	37	3.13	55
Severity level 1 and 2	0.23	5	0.24	3	0.06	1
Severity level 3	0.45	10	0.40	5	0.63	11
Severity level 4	-	-	2.32	29	2.45	43
Total safe kilometres	-	-	-	337 686	-	319 441
Severity level 1 and 2 safe kilometres	-	-	-	4 164 788	-	1 756 228
Commercial vehicle (CMV) incidents						
Total	1.88	50	2.72	72	2.60	69
Severity level 1 and 2	0.15	4	0.26	7	0.11	3
Severity level 3	0.19	5	0.30	8	0.34	9
Severity level 4	-	-	2.15	57	2.15	57
Total safe kilometres	-	-	-	368 093	-	384 685
Severity level 1 and 2 safe kilometres	-	-	-	3 786 101	-	8 847 747

The number of PLV incidents reduced to 2.96 (2016: 3.13) while commercial vehicle incidents increased to 2.72 (2016: 2.60), mainly due to unsafe driving behaviour by third parties. The Company will be placing additional focus on these areas and continuing with safety programmes, namely:

- operational excellence tools such as the new driver risk profiling, drive-cam, lane assist and fatigue monitoring technologies;
- continuous training in our various truck and passenger car safety standards;
- enhanced transport contractor management focus, including a contractor safety day;
- focused communication and vehicle safety awareness campaigns. Afrox continues to supply information to the South African Arrive Alive campaign to raise vehicle safety awareness and improve road safety;
- training for all employees in our "in-vehicle distractions while driving" standard;
- further deployment of our behavioural ActSafe and DriveSafe programmes for drivers;
- using various tools to monitor driving behaviour, such as incidents of speeding from GPS reports, speeding fines and on-board-camera events;
- the deployment of a business-wide fatigue stand-down (see page 5 for more details);
- continuation of our rollover prevention training programme in 2017, 127 drivers were trained;
- continuation of our defensive driving training programme for truck and passenger car drivers;
- enhanced transport contractor management focus, including a contractor safety day;
- monitoring the successful completion of online and practical training;
- focused transport audits; and
- senior line management engagement.

SHEQ supplementary report 2017 continued

ActSafe and DriveSafe behavioural programmes

ActSafe is behavioural safety programme for truck drivers, site operators, and customer engineering service (CES) contractors. DriveSafe is a behavioural safety programme for PLV drivers. The programmes aim to:

- enhance our understanding of the factors which influence our drivers', operators' and CES contractors' behaviour;
- eliminate incidents and injuries through a culture of interdependence; and
- understand how unsafe behaviour can be modified to reduce risk and occupational injuries.

Improved employee-management engagement and conducting behaviour checklist assessments are key elements that support the effectiveness of these programmes.

Business wide focus on driver fatigue

Drivers are encouraged to voice their concerns of fatigue or inability to work to Afrox management. Afrox maintains a newly developed driver risk profile system which assesses and monitors driver performance and compliance. The system has safety metrics such as incident rate and fatigue levels to target improvements.

Due to the vast distances which our sales and marketing teams cover, they are limited to 14 hours of work per day, including driving. As a control against fatigue, employees are required to lodge/sleep over at the destination before continuing their journey in instances where the hours exceed this limit.

Learning management system

Competency levels for required learning have decreased slightly from 79% in 2016 to 77% this year.

The Company creates learning profiles for employees using the TRACCESS system. This learning database is linked to The Linde Group's Integrated Management System and Standards (LiMSS). The system determines which learning programme is relevant to the employee. This ensures that the appropriate training is provided for competency areas that are required to complete a task.

Contractors are expected to maintain high levels of competence and operational excellence. The Company supports this by providing suitable required learning competency profiles to them.

Major hazard installations

To ensure safe and sustainable operations, we depend on our ability to identify and mitigate risks. Our status as a South African Department of Labour Approved Inspection Authority (AIA) enables us to conduct major hazard installation (MHI) studies. We are also an accredited inspection body for the risk assessments on MHIs in line with international standard ISO/IEC 17020:2012 from the South African National Accreditation System (SANAS).

The internal major hazard review programme (MHRP) is used to identify and assess large-scale site hazards that can impact our employees and off-site public. This programme enables the Company to mitigate and manage major risks that result from installation disasters. This MHRP is aligned to The Linde Group, the European SEVESO II Directives, USA OSHA Process Safety and the South African Occupational Health and Safety Act.

Health and occupational hygiene

The Company's occupational health programme assists in minimising major risks in the workplace (such as noise exposure, manual handling and hazardous chemical exposure). To prevent contraction of occupational illnesses and diseases, we continue to integrate this programme with our management system.

We value the wellbeing of our employees and aim to maintain high health standards. Afrox employs qualified medical practitioners and supporting staff at seven sites in South Africa and at most of our major sites, including those in other African countries. The Company's smaller sites have access to mobile occupational health clinics.

The Company's medical surveillance programme monitors the health of our employees who are engaged in certain types of activities. Procedures for pre and post-placement medical examinations have been fully deployed across the business and occupational risk exposure profiles (OREPs) have been fully developed and implemented. The profiles are defined by the type of medical surveillance needed for critical safety positions.

SHEQ supplementary report 2017 continued

Manual handling	<p>Manual handling and cylinder handling incidents pose an occupational health risk for Afrox. These incidents and injuries are monitored and investigated by SHEQ specialists. Our internal standard includes incident reporting and investigation guidelines. Afrox has a business-wide team stand-down programme (refer to page 5 for further details), associated training and assessment tasks for all employees.</p> <p>We recorded two (2016:15) manual handling incidents in 2017. Improved awareness across the business helped to decrease manual handling incidents.</p>
Noise exposure	<p>Our hearing conservation programme continues to develop by focusing on:</p> <ul style="list-style-type: none"> • medical surveillance; • completing noise surveys; • site noise exposure risk; • issuing appropriate personal protective equipment; and • providing related training.
Nitrous oxide (N₂O) exposure	<p>We monitor N₂O through gas detectors and the medical surveillance programmes. N₂O exposure was maintained at legal and acceptable levels at our sole plant and filling operation, the Germiston Gases Operation Centre (GOC).</p>
Silica exposure	<p>At one of our factories where some employees could be exposed to crystalline silica, we operate a medical surveillance programme to monitor the health and wellbeing of employees who handle this hazardous substance. The Company conducts exposure surveys, submitting an annual report to the Department of Labour in line with regulatory requirements. The 2017 site survey indicated no exposure concerns.</p>

Environment

Our SHEQ system incorporates environmental management controls.

Afrox's impacts on water, air, waste, industrial effluent and hazardous chemicals are managed by environmental standards. Our key challenges addressed through these standards, include energy consumption, sustainable resource usage, waste management, legal compliance and indirect air emissions linked to climate change.

Afrox sites annually report on environmental data through the global environmental reporting tool. Data on our water consumption, electricity usage, raw materials consumption, carbon emissions, quantity of packaging materials used and hazardous and non-hazardous waste generated are recorded. Refer to page 11 of this supplementary report for statistical data. The Linde Group uses this data to compile submissions to the global Carbon Disclosure Project (CDP).

Materials used

Afrox uses various raw material inputs in our different production processes outlined in the table below. The consumption of raw materials is monitored each month and site processes are adjusted to ensure optimal yields and efficient operation.

Production	Raw material	Business unit process
Welding and manufacturing	Metal, flux powders and chemicals	Afrox welding consumables factory
Self-rescue pack manufacturing	Chemicals, metal, rubber	Afrox self-rescue division
Bulk tank manufacturing	Mild and stainless steel	Afrox cryogenics
Cylinder maintenance	Shot, zinc wire, paint, thinners	Afrox gases operation centre and filling sites
Acetylene production	Calcium carbide	Afrox gases operation centre and filling sites
N ₂ O production	Ammonium nitrate	Afrox gases operation centre and filling sites

Energy

Through internal audits, we analyse the energy efficiency of our air separation units (ASUs) according to our energy strategy and energy management system. A significant portion of our electricity consumption emanates from these plants and we aim to reduce consumption, where possible.

Our 2017 energy consumption (and carbon footprint) increased due to increased operational activity such as less down-time on plants. An annual target will be set for 2018 after analysing 2017 data.

SHEQ supplementary report 2017 continued

Climate change

We conduct an annual systematic analysis to record and evaluate emissions from our business activities. The consolidated findings are submitted to The Linde Group and thereafter to the CDP. The Company considers the Greenhouse Gas Protocol when accounting for greenhouse gases.

Carbon footprint

	Unit	2017	2016	2015
<i>Direct greenhouse gas emissions (Scope 1)</i>				
CO ₂ emissions	t	14 546	10 276	8 633
Afrox transport fleet	tCO ₂ e	23 972	24 008	24 172
Other greenhouse gases	tCO ₂ e	12	27	290
Total scope 1	t	38 548	34 311	33 096
<i>Indirect greenhouse gas emissions (Scope 2)</i>				
CO ₂ emissions	t	449 711	441 336	427 460
of which by air separation plants	t	406 232	379 778	375 685
Total scope 1 and 2	tCO ₂ e	488 259	475 647	460 557

Purchased electricity consumption increased by 4.8% due to our ASUs operating for longer periods during the year. ASUs produce nitrogen, oxygen and argon, which are major contributors of our indirect CO₂ emissions. Indirect CO₂ emissions increased by 1.9% as a result of the increase in purchased electricity. Overall, direct and indirect CO₂ emissions increased by 2.6%.

We acknowledge that indirect emissions from purchased electricity are a major contributor to our carbon footprint. Therefore, we set annual reduction targets to reduce purchased electricity. The Linde Group seeks to reduce CO₂ emissions by 6 million tonnes by 2020. The target is include a reduction of 4.8 million tonnes in air separation plants (scope 2 emissions).

NO_x, SO_x, and other significant air emissions

We are committed to phasing out hydrochlorofluorocarbons (HCFCs) in the market and monitoring emissions of air pollutants with greenhouse gas emissions. Afox's dissolved acetylene plants have air emissions licences in compliance with the National Environmental Management: Air Quality Act, No 39 of 1994.

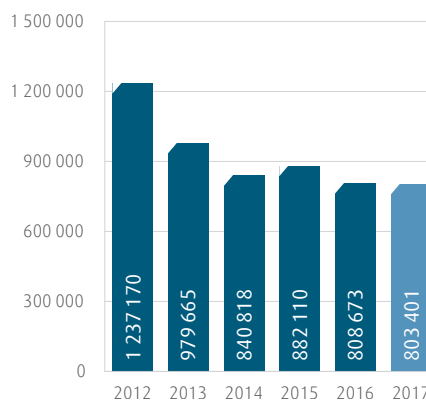
Water

Our sites are required to monitor and report water consumption to facilitate analysis to identify improvement areas. The Company's water is supplied by municipalities or regional utilities. Numerous sites rely on boreholes for gardening purposes.

Our primary water uses are:

- manufacturing of specific gases (such as acetylene and nitrous oxide);
- hydrostatic testing of vessels and cylinders;
- cooling systems;
- emergency deluge systems; and
- office purposes.

Total water consumption (m³)



Our activities do not significantly destroy any water source, natural habitat or related ecosystems. We operate a tactical water plan in response to water security and our water affordability risk. Afox continues to increase water-saving awareness among our employees and implements mechanisms such as water harvesting to save water.

Wise water use in Kuilsriver

Rainwater harvesting installation at the Kuilsriver ASU were implemented before the city of Cape Town approved a level 5 water restriction in September 2017, requiring Afox and industry partners to reduce water usage by 20%. The harvesting system is located on the machine house roof and stores fresh rain water in multiple storage tanks for future use. The operations support team at the site further optimised the cooling tower that provides cooling to the plant machinery. This enhancement has led to an average of 25% water saving.

SHEQ supplementary report 2017 continued

Emissions to water	Afrox adheres to local regulatory requirements by reporting emissions data for all our sites. No permit contraventions or significant spills were reported this year.
Waste water	Our waste water is directed to on-site effluent treatment or municipal plants for purification. Where necessary, we have a permit which enables our sites to discharge industrial effluent into municipal sewer systems. Local authorities have issued permits to 16 sites that regularly monitor the quality of the effluent. In special instances, management interventions may take place to ensure compliance with permit conditions.

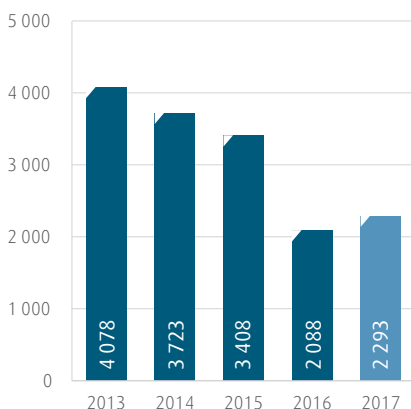
Waste

We are committed to avoiding, reducing and recycling waste where possible. Afrox disposes of waste in line with local regulations and national legislation. The Company also distinguishes between hazardous and non-hazardous waste.

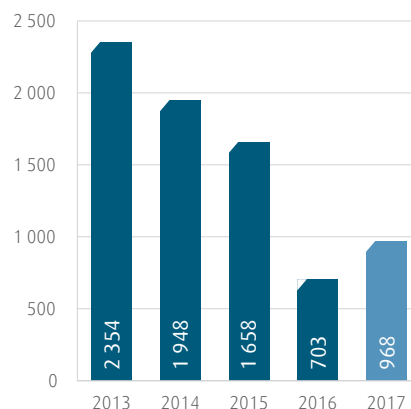
Our waste management standard drives us in ensuring legal and ethically responsible action. The standard outlines the responsible handling and legal storage, and disposal of waste streams. Among others, scrap cylinders, chemical containers, carbide sludge, empty waste oil, asbestos and spent fluorescent tubes are disposed. Where possible, we recycle hazardous waste (such as oil, empty chemical containers, used solvents, paint-related waste and asbestos) or safely dispose it at licensed facilities.

Afrox's SHEQ department performs regular audits and verifies all contractors used for transporting and disposing of hazardous waste. Our sites comply with SHEQ and legal requirements by conducting regular inspection of waste areas and using waste inventories. We ensure that waste assembly and storage areas are maintained.

Total waste (tonnes)



Hazardous waste (tonnes)



Hazardous waste	<p>Hazardous waste increased by 37.7% (2016: 39% decrease) due to the following factors:</p> <ul style="list-style-type: none"> • The Company's safety rescue division relocated and had to dispose legacy GEF waste. • Raw materials no longer used in production processes at the welding consumables factory were disposed. • More potassium hydroxide water was disposed than prior years. This was due to increased production at a hydrogen plant. Contaminated soil from the hydrogen plant was also disposed. • Increase in nitrous oxide effluent and shot blast occurred at GOC. Shot blast is the process of paint removal and contamination clearing on cylinders.
Asbestos	The Company's phase-out plan for asbestos in cylinder massing activities is progressing. An annual external audit was conducted and submitted to the Department of Environmental Affairs.
Environmental expenses	<p>No fines related to environmental legislative compliance were received. We incurred the following typical expenses this year:</p> <ul style="list-style-type: none"> • Consultancy fees for environmental impact assessments and external audits • Process and infrastructural modifications • Spill prevention equipment • Asbestos phase-out plan audit • Environmental training courses
Biodiversity	The Company's environmental management programme requires us to examine the potential impact of our activities on biodiversity in operation and in new site planning. A significant portion of our sites are in industrial or commercial zones. We take steps to ensure minimal negative environmental impact to any habitats that are located close to our sites.

SHEQ supplementary report 2017 continued

Quality and product stewardship

Our quality management system enables us to supply products and services that comply with international, national and Company standards. The online LiMSS library houses these standards and determines the testing frequency, required minimum standards, and the test equipment used in ensuring that the products and services are compliant. The Afrox Quality Council was established in 2013. Since then, our reporting has improved due to increased consolidated feedback from key stakeholders in our production processes. They review our quality programmes and assist us to create appropriate and value-adding action plans.

Certifications

We recertified all of our CO₂ sites to comply with FSSC 22000:2010 requirements, which is a major requirement of some of our significant customers. SANAS accredited our GOC test shop for ISO 17020 requirements. The test shops at other sites were re-opened to ensure adequate stock of in test cylinders. Our welding consumables factory continues to comply with EN 13479 by TÜV Rheinland AG, a global provider of technical, safety, and certification services.

For 2017, the key quality focus areas were:

2017 focus area	Feedback on progress
Embedding a quality culture at every level of Afrox	A number of quality improvement teams were introduced and we are aiming to introduce more in 2018. The senior quality council agenda now extends to all emerging Africa countries.
Working to achieve complete certification for the business	We placed more effort on re-aligning to the current business structure and attained the appropriate certificates.
Transitioning to ISO 9001:2015 requirements	On-site certification to the new standard is ongoing.
Introducing quality behavioural programmes	The quality improvement team started this process and we aim to continue this in 2018.
Measuring and reducing costs of poor quality	We included this in the quality council agenda and aim to develop it further.
Effectively managing critical suppliers	Afrox's quality critical supplier management programme commenced, which includes telephone or site audits of suppliers.
Continuing our focus on the reduction of avoidable credit notes	A customer experience team has been formed to address this matter.
Achieving full authorisation status for CO ₂ plants currently on conditional authorisation	We continue to work with key customers to develop authorisation.

For 2018, the key quality focus areas will be:

- driving continuous improvement by empowering the workforce;
- entrenching a process approach within the business;
- employee training and awareness;
- quality days and themes each quarter;
- improved quality risk management; and
- becoming more customer-centric in our approach to quality.

Product stewardship

The Company regards product stewardship as the ethical management of products and their packaging at all stages of the product life cycle, thereby minimising their health, safety, environmental and social impact.

Our level of ethical environmental stewardship transcends our legislative obligation. We encourage our stakeholders in the extended life cycle of products to also be responsible. This decreases the likelihood of negative impacts associated with the production, delivery, use and end-of-life disposal of Afrox products. The Company periodically performs customer audits to raise awareness and can certify customers in the safe use of hazardous products.

Refer to www.afrox.com for material safety data sheets on all Afrox products.

SHEQ supplementary report 2017 continued

Internal audit programme

Afrox uses a risk-based internal audit programme developed by the Company. The programme focuses on good manufacturing practice, transport management, quality, contractor management, leadership commitment and responsibility, safe systems of work, management of change and manual handling.

	2017	2016	2015	2014	2013
Sites certified to ISO 9001 ¹	100%	100%	100%	100%	100%
Sites certified to ISO 14001 ¹	100%	100%	100%	100%	100%
Sites certified to OSHAS 18001 ¹	100%	100%	100%	100%	100%

¹ Only sites that are required to be certified.

A detailed list of awards, certification and accreditation is available online at www.afrox.com.

SHEQ supplementary report 2017 continued

FURTHER SHEQ DATA

Data relating to Afrox's resource usage for the last five years, specifically energy, water, raw material usage, and emissions (gas emissions, emissions to air and to water) is outlined on a year-on-year basis in the tables below.

Category description	Unit	2017	2016	2015	2014	2013
1. Energy						
Electricity consumption	MWh	476 348	454 531	441 103	401 187	460 558
of which by air separation plant	MWh	429 906	390 225	385 485	346 582	397 508
Natural gas consumption	MWh	70 546	49 849	41 550	57 424	52 289
2. Water						
<i>Water source</i>						
Ground water	m ³	119 501	118 151	98 089	95 241	453 261
Municipal water	m ³	474 769	690 477	769 425	781 587	527 093
Total water consumption	m ³	803 401	808 673	882 110*	840 818	979 665
of which industrial and process water	m ³	378 842	410 738	688 310	593 458	697 265
of which drinking water	m ³	412 689	383 029	182 114	247 360	282 401
3. Resources and material						
Raw materials and supplies	t	3 968.51	7 995.10	13 892.54	8 197.39	8 684.33
Packaging material	t	1 109.07	99.50	227.75	183.16	206.88
4. Emissions						
<i>Direct greenhouse gas emissions (Scope 1)</i>						
CO ₂ emissions	t	14 546	10 276	8 633	11 987	1 741
Afrox transport fleet	tCO ₂ e	23 972	24 008	24 172	24 998	26 120
Other greenhouse gases	tCO ₂ e	12	27	290.90	360.36	498.55
Total Scope 1	t	38 548	34 311	33 096.50	37 345.46	43 660.03
<i>Indirect greenhouse gas emissions (Scope 2)</i>						
CO ₂ emissions	t	449 711	441 336	427 460*	354 544	441 396
of which by air separation plants	t	406 232	379 778	375 685*	345 636	382 830
Total Scope 1 and 2	tCO ₂ e	488 259	475 647	460 556*	391 890	485 056.56
5. Emissions to air						
Emission of HFC	kg	12	27	203.46	360.36	383.50
* Restatement						
6. Emissions to water						
Chemical oxygen demand (COD)	kg	28 239	3 179	14 662	16 126	24 065
Biochemical oxygen demand (BOD)	kg	10 050	1 064	6 461	6 301	6 766
Nitrates	kg	489	42	188	195	767
Phosphates	kg	29	8	90	27	250
7. Waste and recycling						
Total waste	t	2 293	2 088	3 408*	3 723	4 078
Non-hazardous waste	t	1 325	1 384	1 749*	1 775	1 724
Hazardous waste	t	968	703	1 658*	1 948	2 354
Recycled waste	t	966	806	845*	729	6 149
Landfill waste	t	1 313	988	2 434*	2 844	1 901
Other disposal methods	t	171.8	282	116.41	136	453
8. Transport						
Distance driven by Afrox transport fleet	per million km driven	26.5	26.5	26.7	27.6	28.6
Serious truck incident rate	per million km driven	0.26	0.11	0.23* ¹	0.00	0.07
9. Certified sites						
Sites certified to ISO 9001	%	100	100	100	100	100
Sites certified to ISO 14001	%	100	100	100 ²	100	100
Sites certified to OHSAS 18001	%	100	100	100	100	100
10. Environmental incidents						
Environmental complaints		0	0	0	2	1
Reportable environmental incidents		0	0	0	0	1

* Restatement

¹ In 2015 Afrox started recording all vehicle incidents and not just avoidable ones as in the past

² Only sites that are required by customers to be certified.

SHEQ supplementary report 2017 continued

Occupational health and safety

Category description	Unit	2017	2016	2015	2014	2013
Workplace accidents with at least one day of absence (employees) rate	per million hours worked	1.48	1.28	1.11	0.86	1.42
Workplace accidents with at least one day of absence (contractors) rate	per million hours worked	0.62	2.70	0.63	0.36	2.61
Workplace accidents of employees with at least one day of absence	Number	8	7	7	6	11
Workplace accidents of contractors with at least one day of absence	Number	2	8	2	1	5
Working days lost due to industrial accidents (employees)	Number	138	60	61	132	135
Working days lost due to industrial accidents (employees) rate	per million hours worked	25.53	10.97	9.66	18.88	17.40
Fatal workplace accidents involving employees	Number	0	0	0	0	0
Fatal workplace accidents involving contractors	Number	0	0	0	0	0

Workplace statistics

Statistics	Unit	2017	2016
Number of fatalities (i.e. injuries on duty leading to death excluding the deaths of workers not occurring at work)	Number	0	0
Number of first aid cases (FACs)(i.e. injuries on duty leading to minor treatments, such as a plaster or a pain tablet)	Number	22	23
Number of medical treatment cases (MTCS)(i.e. injuries on duty leading to medical treatment, but no lost days)	Number	8	10
Fatal injury frequency rate (FIFR)(i.e. number of fatalities per 1 000 000 person hours worked)	%	0	0
Lost time injury frequency rate (LTIFR)(i.e. number of LTIS per 1 000 000 person hours worked)	Number	1.16	1.78
Total recordable injury frequency rate (TRIFR) – reported	Number	2.09	2.97
Does the Company report an LTIFR and/or TRIFR target?	Yes/No	Yes	Yes