



ifa

TECHNICAL & SHE



**IFA TECHNICAL & SAFETY,
HEALTH AND ENVIRONMENT (SHE) COMMITTEE**

promoting, enabling, leading...
responsible fertilizer production globally

Mission

Promote the efficient, safe and secure production, storage and transportation of plant nutrients in a sustainable manner.

Objectives

- To facilitate the sharing of technical knowledge and the adoption of SHE best practices among member companies;
- To develop industry standards and performance measures that encourage continuous improvement;
- To interact with relevant organizations and legislative bodies to raise awareness and to enhance mutual understanding of global fertilizer industry issues.

The Technical & SHE Committee accomplishes these objectives with a variety of developmental and outreach platforms, including:

- Promotion of production technologies techniques;
- Global benchmarking;
- Education and advocacy;
- Technical and educational workshops and special events.

Committee Structure



Chairman
Technical & SHE Committee
Brent Heimann, Arab Potash
Company Ltd. – Jordan



Vice Chairman
Technical & SHE Committee;
Convenor Working Groups
Method Harmonization and
Product Security
Jan Chys, Yara SA/NV – Belgium



Convenor Working Group
Safety, Health & Environment (SHE)
Kuldeep Kumar Kaul,
DCM Shriram Limited – India



Convenor Working Group
Conferences & Training
and Production Technology
Yasser Abdulrahim Alabbasi,
Gulf Petrochemical Industries Co.
(GPIC) – Bahrain



Member
Technical & SHE Committee
Soufiyane El Kassi,
OCP Group – Morocco



Member
Technical & SHE Committee
Fernanda Dias,
NAQ Global Companies – Brazil



Member
Technical & SHE Committee
Egor Yurkin,
MCC-Eurochem – Russia



Member
Technical & SHE Committee
Fahad A. Al-Sawat,
SAFCO – Saudi Arabia



Member
Technical & SHE Committee
Xiong Yongqiang,
Kingenta Ecological
Engineering Group – China



Member
Technical & SHE Committee
Walid El-Sayed A. Abdou,
Abu Qir Fertilizers Co. – Egypt

Complete list of Committee members:

www.fertilizer.org
Technical SHECommittee
(access restricted to registered
web site users)

Establishing global performance measurements for the fertilizer industry

IFA's Technical & SHE Service has long performed global benchmarking and certification on behalf of its members, to provide key performance metrics and to promote best practices within the industry. Given the nature of the Committee's activities, the benchmarking and certification activities concentrate primarily on efficiency, safety, health, and environment.

I) Energy Efficiency

This survey has been conducted every three years since 2004, and it is the Committee's principal means for monitoring global energy efficiency and carbon dioxide emissions in ammonia production. Participation is on a voluntary basis and a fee is applied per participating plant.

Once the data has been collected and validated, the benchmark contractor develops a summary report with the key findings, which are issued to each individual participant.

II) Environmental Performance

This global survey has been conducted biennially since 2002, and it covers critical emissions to land, air, and water across the main fertilizer product areas. In order to make this benchmark accessible to every company, and to allow for a sufficient survey base to develop credible and accurate global benchmarks, no fee is applied for participation.

All data is collected in a confidential manner, and a detailed report is generated with trend analysis, conformance with established best-available techniques (BAT), global averages and best-in-class benchmarks, and individual emissions graphs for each emissions area. Only consolidated data is reported.

III) Employee Safety: Lagging and Leading Indicators

Employee Safety Survey: This process provides a platform for members to share safety statistics on Lost-Time Injuries Rate (LTIR) and Total Recordable Injuries (TRI), which are considered "lagging" indicators of safety performance. Global safety averages are released to all members and published on the members-only section of the IFA web site. It is conducted every year and there is no fee applied for participation.

Employee Safety Perceptions Survey: The safety perception survey is a relatively new benchmarking

endeavor. A survey is issued to IFA member company employees requesting their perceptions of safety in the workplace. As such, qualitative input is analyzed to create "leading" safety indicators, so as to complement the "lagging" indicators from IFA's traditional Employee Safety Survey. The benchmark is conducted every year by an IFA-appointed third party contractor to ensure strict data confidentiality. A participation fee is applied.

IV) Protect & Sustain: Product Stewardship Initiative

Protect & Sustain has become in many respects the de facto standard for certifying product stewardship in the fertilizer industry, which is the management of SHE across the supply chain.

Six main areas of the fertilizer product value chain are examined with this framework:

- Protect & Sustain management system
- Product development and planning
- Sourcing and contractor management
- Manufacturing techniques
- Supply chain to customer
- Marketing, sales and application

Following certification, companies may promote their certification level accordingly and use it as a gauge of SHE management excellence when communicating with supply chain partners, authorities, or the general public.



2015 IFA Global Safety Summit (Vancouver, Canada)



For more information and to get started, please visit www.protectandsustain.org

Publications

Phosphogypsum: sustainable management and use

B. Birky, J. Hilton, AE. J. Johnston, January 2016

Safety handbooks

IFA Safety Handbook, 3rd edition, June 2014

Electronic versions available in Arabic, Chinese, English, Portuguese, Russian and Spanish

Message mapping projects

Message Map on Climate Change, April 2011

Message Map on Product Security, December 2013

Latest recommendations of the IFA Method Harmonization Working Group

Fertilizer Transportation Sampling, October 2015

Evaluation of Commonly Used Methods for the Analysis of Acid-Soluble Phosphate in Internationally Traded Inorganic Fertilizers, June 2014

Determination of Moisture of Fertilizers, June 2014

Fertilizer Bag Sampling (<= 50 kg), June 2014

Review of Analytical Methods for Slow- and Controlled-Release Fertilizers, November 2014

More technical presentations are available at www.fertilizer.org/Library

IFA's 12 SHE Principles

1. All members shall demonstrate leadership and management commitment with regard to safety, security, health and environmental issues in fertilizer production, distribution and sales.

2. All members shall strive for zero harm and adverse environmental impact whilst maintaining a healthy work place for all employees and contractual staff.

3. All members shall ensure that safety, security, health and environmental issues are integrated into their corporate policy and receive the utmost importance and priority.

4. All members shall ensure adequate financial and human resources for continual improvement of safety, security, health and environment performance.

5. All members shall comply with local safety, security, health and environmental laws and embrace international laws and best practices as much as possible.

6. All members shall establish and improve their safety, security, health and environmental performance through annual objectives, targets or key performance indicators.

7. All members shall establish adequate procedures and controls to ensure that safety, security, health and environment are not jeopardized at any time or in any form.

8. All members shall ensure that all employees and contractual staff have the right competence and are adequately trained and informed about safety, security, health and the environment related to their specific activities, and shall encourage the participation of employees and contractual staff for further improvements.

9. All members shall adhere to the principles of hazard and risk assessment in evaluating all their activities to ensure that safety, security, health and environmental standards are continually enhanced.

10. All members shall strive to subscribe to safety, security, health and environmental management systems that will be subjected to internal and external auditing.

11. All members shall voluntarily share information with regard to experiences and lessons related to safety, health and the environment with all employees and contractual staff, and with other IFA members, unless there are legal constraints or if the information is of proprietary nature.

12. All members shall strive to continually promote safety, security, health and environmental matters to enhance the social responsibility and accountability of the global fertilizer industry.

Technical & SHE Service



Volker Andresen, Director
vandresen@fertilizer.org
+33 1 53 93 05 26



Sophie Palmié, Project Coordinator
spalmie@fertilizer.org
+33 1 53 93 05 27