Message from the WRA President

Dear members,

I am pleased to share with you the first edition of WRA Annual Report for the Period of January—December 2018.

As the mother of all high-temperature processes, we are an indispensable requirement for the most important industrial sectors. Refractory products are vital elements in all high-temperature processes, notably in the production of steel, cement, petrochemical processes, glass and ceramics.

At a time when economic pressures call for stronger networks, the refractory industry is embracing increased global cooperation. And we need to align forces with other relevant players to tackle the challenges our societies face, being part of the solution and contributing to sustainable wealth globally. That’s why it takes innovation. And innovation takes courage and vision.

The World Refractories Association (WRA) constitutes a forum to debate regulatory issues affecting global trade, circulate aggregated industry statistics, promote the interests of the worldwide refractory industry, and act as a counterpart to other world industry organisations such as the World Steel Association.

Besides strengthening the role of the association founded just in 2014 as a counterpart to other world industry and customers organizations such as the World Steel Association, I have strived to increase the number of WRA members to unite as many producers as possible. In the next conceptual step, local members’ interests and global sector issues will be aligned to create a generally recognized industry agenda. Among the obvious main issues, I have put a special focus on innovation, safety and safety data collection and the tense global raw material situation driven by stricter environmental regulations in China as thematic priorities for my presidency in 2018.

Following successful meetings organised since its set-up, the World Refractories Association met at the Extraordinary General Assembly and Conference on Innovation in the Chinese capital on 15 and 16 November. In addition to the representatives of the member companies, top-class experts met and discussed the future of the refractories industry for two days.

The WRA plays a fundamental role in promoting the refractories industry beyond the perceptual threshold, to make our industry visible to the external world. Refractories are truly fundamental for modern societies. With this, I share with you the WRA Annual Report for the period January—December 2018 and I wish you a prosperous and productive year ahead.

Yours sincerely,

Stefan Borgas
WRA President
WRA Mission & Structure

The World Refractories Association constitutes a forum to debate regulatory issues affecting global trade, circulate aggregated industry statistics, promote the interests of the worldwide refractory industry, and act as a counterpart to other world industry organizations such as the World Steel Association.

The WRA is composed of continental associations including Europe (PRE), Latin America (ALAFAR) and North America (TRI) as well as national associations from China (ACRI), India (IRMA) and Japan (JRA). Multinational companies Calderys, Refratechnik, RHI Magnesita, Vesuvius plc, Beijing LIRR and PRCO are also direct members.

In 2018 the WRA welcomed five new direct members: Saint Gobain, HarbisonWalker, Magnezit Group, Posco Chemical and INTOCAST. Stefan Borgas, CEO of RHI Magnesita, was elected president of the World Refractories Association (WRA) and took office in January 2018. He assumed the presidency previously occupied by François Wanecq, former CEO of Vesuvius plc, for two years.
WRA Membership

6 regional/national associations representing:

- Latin-America
- USA
- Europe
- India
- China
- Japan

15 member companies:

- Beijing LIRR
- Calderys
- HarbisonWalker International
- INTOCAST AG
- JINLONG Refractories Group
- Magnezit Group
- POSCO CHEMICAL Co., Ltd.
- PRCO – Puyang Refractories
- Refratechnik
- RHI Magnesita
- Ruitai Materials Technology Co., Ltd.
- Saint Gobain
- Sinosteel Group
- Vesuvius
- Zhejiang Zili Co. Ltd.
WRA Statistics

Production & Employment

WRA collects production & employment statistics from member regional associations.

Safety

WRA collects safety statistics from its members to determine the Lost Time Injury Frequency (LTIF) rates in respective regions. LTIF rates are calculated based on the following method: (LTI x 1,000,000) / hours worked.

Data exclude non-supervised contractors, and road traffic accidents and non-lost time injury. However, data reported include directly supervised contractors by the company as well as fatalities.
WRA Activities

WRA Board

The Board of the World Refractories Association met twice in 2018, first on the occasion of CERAMITEC in April in Munich, Germany, where WRA President Stefan Borgas presented the future orientations and objectives of the World Refractories Association (see the inaugural letter). The subsequent meeting of the WRA Board took place on 15 November as part of 2018 WRA Autumn meetings. This meeting offered an opportunity to welcome new members and present the progress of the work developed by the WRA notably regarding statistics, customs codes revision and safety data collection.

WRA General Assembly

The World Refractories Association organised its 3rd General Assembly forming part of the 2018 WRA Autumn meetings. This meeting was attended by more than 50 refractory industry representatives from continental and national refractories associations and multi-national companies who discussed global trends and future developments. This meeting formally approved new WRA Members and reported on the progress of the work developed by the WRA Safety & WRA Technical Committees.

WRA—ACRI Innovation Conference

Following the General Assembly and a networking dinner on November 15 the World Refractories Association and the Association of China Refractories Industry (ACRI) gathered at the WRA-ACRI Conference on Innovation in Beijing. In addition to the representatives of the member companies, top-class experts met and discussed the future trends in the innovation of the refractories industry. For more information read this press release.

These two days of meetings concluded with factory visits. A WRA-ACRI delegation composed of 17 industry representatives from visited two refractory plants in Xinmi City, Zhengzhou.
WRA Safety Committee

WRA has gathered safety statistics since 2017 and results are regularly presented to the WRA Board. The purpose is to increase the level of safety across the refractory industry, collect the LTIF indicators and circulate statistics with lost time injury frequency rates to members for internal benchmarking.

WRA Safety Committee was established last April and Patrick André CEO of Vesuvius has been appointed as the Committee’s Chair. WRA Safety Committee held 3 conference calls during which the Committee discussed the definition of lost time injury, the list of accidents and injured body parts.

Safety data collection is anonymous. Results are aggregated and reported at country level, regional level covering China, USA, Europe (incl. Russia, Norway & Turkey), Latin America (incl. Mexico and Chile), India, Japan and South Korea, and rest of the world. WRA prepares a 12-month rolling average overview of LTIF rate in the defined regions (see statistics, p.5). Data exclude non-supervised contractors, and road traffic accidents and non-lost time injury. However, data reported include directly supervised contractors by the company as well as fatalities.

Through a voluntary standardised reporting, companies are invited to report once or twice a year in an aggregated way on the classification of accidents reported in the year. This would be particularly of benefit to companies not having such good practices yet implemented. Moreover, companies are welcome to share the most important incidents, so-called “red-stripe”, in case of a severe accident or a fatality in order to share learning from these accidents with other company members. This committee is open to all members.

WRA Technical Committee

In April, the WRA Board established a WRA Technical Committee, which discusses regularly key technical topics for the refractories sector. This Committee, chaired by Dr Rainer Gaebel from Refratechnik, has convened 3 times in 2018 by conference calls held in June, September and November. It has now 32 experts from across the WRA membership covering all regions. As part of the WRA Technical Committee, four task forces (TF) were created: Environmental Standards TF, HS Codes TF, Online Repository of Technological Papers TF and International Standards TF.

1. Environmental Standards Task Force

The work of the Environmental Standards TF aims to assess how emission limit values (ELV) are implemented at a regional level and how the refractory producers can benefit from joint work on environmental standards.

Allied Minerals, Cal Soda, HarbisonWalker International, Refratechnik, RHI Magnesita, Sinosteel Lirr, Vesuvius and Wahl Refractory Solutions have nominated their experts to the TF.

Emissions and environmental laws are a worldwide topic, however, there are regional deviations to the legislation and implementation. Due to the lack of comparison, very strict standards are being applied in different parts of the world.
In its first exchange on 5 September 2018, the TF discussed the objectives to be pursued concerning the topic of emissions reduction at a global level and discussed how WRA would and could address the issue of environmental standards. The agreed objectives include building an image of WRA as a reliable partner while targeting not only governments but also NGOs. This can be achieved if the industry has compiled a reliable set of data to develop a strong position of the industry. The benefit of this exercise is to share solutions among WRA members and have an overview of the emission profile of the sector.

2. HS Codes Task Force

The Harmonised System (HS) Codes TF, established with the support of PRE in 2015, has been working over the last years to develop a proposal for possible amendments to Chapters 25 and 69 and to Headings 25.18, 38.16, 68.15 and 69.03 in respect of refractory ceramics. The primary objective was to harmonise the classification system of certain refractories considering lack of customs enforcement scheme globally and level the playing field in international trade of refractories.

Allied Mineral Products, Calderys, HarbisonWalker International, Vesuvius, Refratechnik, RHI Magnesita, Sinosteel Lirr and nominated experts for this TF.

2018 was marked as a key year for the HS codes revision. Substantial progress has been achieved thanks to the continued work of the HS Codes TF. Critical meetings for the revision of HS codes on refractories took place in September and November when the entire proposal for the revision of HS codes on refractories was discussed at the WCO HS Codes Review Sub-committee. Final adoption of the review legal notes is expected in June 2019 by the WCO. The revised legal notes on refractories will enter into force in January 2022. WRA will also prepare for the revision of explanatory notes, which will enter into force at the same time as legal notes).

3. Online Repository of Technological Papers Task Force

This task force is working towards a global platform that would unite the most renowned technological papers of use to the refractories sector and, for that purpose, gather an index of articles, limited to papers published at internationally recognised conferences. The feasibility of this project is being assessed by this TF in terms of which conferences to be targeted, the total amount of papers, copyright issues, budget & resources.

ALAFAR, Calderys, PRE, HarbisonWalker International, Vesuvius, Refratechnik and Sinosteel Lirr have nominated experts to this TF and already compiled a total of 447 technological papers for the online repository that comprises the following information: author, title, abstract, year, source, contacts of the source and information whether they are or not reviewed;

The objective for 2019 is to target 5-10 conferences/events and correspondent papers and upload an index of articles on a restricted members area on the WRA website.
4. International Standards Task Force

This TF was created based on the need of having international harmonised standards rather than different standards in various countries or regions. One of the objectives for 2018 was to make an overview of the existing international standards and focus on selecting the methods that should be further investigated from among standards.

This TF has gathered from all experts the "Top Ten Prioritized Test Methods", which have been compiled into a shortlist. TF experts agreed that there should be a proper evaluation of the existing standards, prioritisation and a WRA proposal & recommendation before the next ISO meetings in 2019.

Calderys, HarbisonWalker, Refractech, RHI Magnesita, Sintertec, Sinosteel Lirr, Vesuvius, and Koblenz University of Applied Science have nominated experts for this TF, in order to secure representativeness of different world regions and applied standards.

To achieve these goals, this TF has nominated Gerhard Urbanek (RHI Magnesita) as liaison representative for WRA on ISO TC33.

In 2019 WRA will continue its cooperation with Prof. Dr Olaf Krause, convener of ISO TC 33.

World Steel Association

WRA has become an affiliated member of the World Steel Association since end 2017. World Steel Association’s programmes and projects are conducted under the guidance of its Committees, which report to the Executive Committee and the Board of Directors. WRA has nominated its representatives to the following committees:

- Safety and Health Committee
- Economics Committee
- Raw Materials Committee
- Environment Committee

WRA attended one Safety and Health Committee, represented by Michel Cornelissen, in September 2018 in Ipatinga, Brazil. WRA President Stefan Borgas attended World Steel Economic Committee meeting, in September 2018 in Brussels, Belgium and the subsequent one in March 2019 in Buenos Aires, Argentina.
WRA Communications & Events

WRA website is regularly updated and comprises past news and a list of future events. To raise the awareness towards refractories, a video explaining what refractories are has been uploaded on the WRA website. In the future, this website will be upgraded to meet the demand for more efficient information and data gathering (e.g. statistics).

UNITECR

UNITECR is a biennial international technical refractories conference that is organized in rotation by one of its four “Founding Member Organizations”. UNITECR aims to maintain and develop its activities and generally to contribute to the progress and exchange of industrial knowledge and technologies concerning refractories.

WRA organises its General Assembly every other year in conjunction with UNITECR. The second World Refractories Association General Assembly took place on 27 September in Santiago de Chile, in the context of the UNITECR 2017.

The WRA General Assembly offered an opportunity to present the initial work developed by the WRA since the 1st General Assembly in Vienna in 2015 regarding statistics, customs codes revision and safety data collection. About 40 participants attended the event and exchanged on the future orientations and objectives of the World Refractories Association.

The coming UNITECR 2019 is organised in Yokohama, Japan. The focus of the UNITECR 2019 will be on the protection of intellectual property rights and their enforcement at trade fairs. The subsequent two UNITECRs will be held in Chicago, US (UNITECR21) and Germany (UNITECR23).
The World Refractories Association (WRA)

WRA is a forum to debate regulatory issues affecting global trade, circulate aggregated industry statistics and promote the interests of the worldwide refractory industry. It also serves as a counterpart to other world industry organisations.

The WRA is made up of major refractory industry associations and multinational companies. The secretariat is held by the European Refractories Association, PRE.

WRA

Rue Belliard 12
B-1040 Brussels
Belgium

Tel: +32 2 808 38 80
secretariat@worldrefractories.org

www.worldrefractories.org