

Summer 2020

# segment

News and information for  
customers and business partners



**steag**  
POWER MINERALS

## Überseequartier sets new standards

Fly ash plays a key role

### **Better logistics efficiency improves ecological balance**

Shorter distances and even better capacity utilization thanks to smart concepts

### **Well positioned for the future with new certificates**

Favorable assessment for quality, energy and environmental management

### **STEAG continues to make good progress**

Review of the successful 2019 business year



Successful together: STEAG Power Minerals supplies KBK – Kies Beton Krebs GmbH & Co. KG – with fly ash for the production of concrete for the Westfield Hamburg-Überseequartier the mega-project, which will be a new crowd puller in the middle of Hamburg's HafenCity from 2022 onwards, is a further milestone in the long-standing cooperation between the two companies.

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You can find an online version of this issue at <https://bit.ly/2A5kCCK> or use this QR code to access the online version.



For our top story from this issue, you will find a link to the corresponding film on **page 13**. Have fun!

# Dear readers,

For more than five years now, STEAG Power Minerals and KBK – Kies Beton Krebs GmbH & Co. KG have already been working together successfully. Now the partners are cooperating in a project with very special dimensions: the construction of the Westfield Hamburg-Überseequartier in the HafenCity. By 2022, a new center of attraction in the Elbe metropolis will be created in direct proximity to the water. **Starting on page 6**, you can find out more about HafenCity, the megaproject and the cooperation between STEAG Power Minerals and KBK.

Our quality management department is also reporting favorable developments: The industry certification body ZER-QMS has put STEAG Power Minerals' processes to the test and issued new certificates for quality, energy and environmental management. More information on this topic can be found **starting on page 26**.

We would also like to introduce our program "in.Motion: Active Break". Once a week, the employees at the Dinslaken site actively encourage more exercise at work. You can read how that works **from page 28 onwards**.

Health is our greatest asset, as we are currently seeing with the coronavirus pandemic. Here too, STEAG Power Minerals is ensuring the best possible protection for all our employees and business partners. We are tackling this crisis with combined forces and wish you good health!

**Despite all the present circumstances, we wish you as always a pleasurable read with the current issue of SEGMENT!**

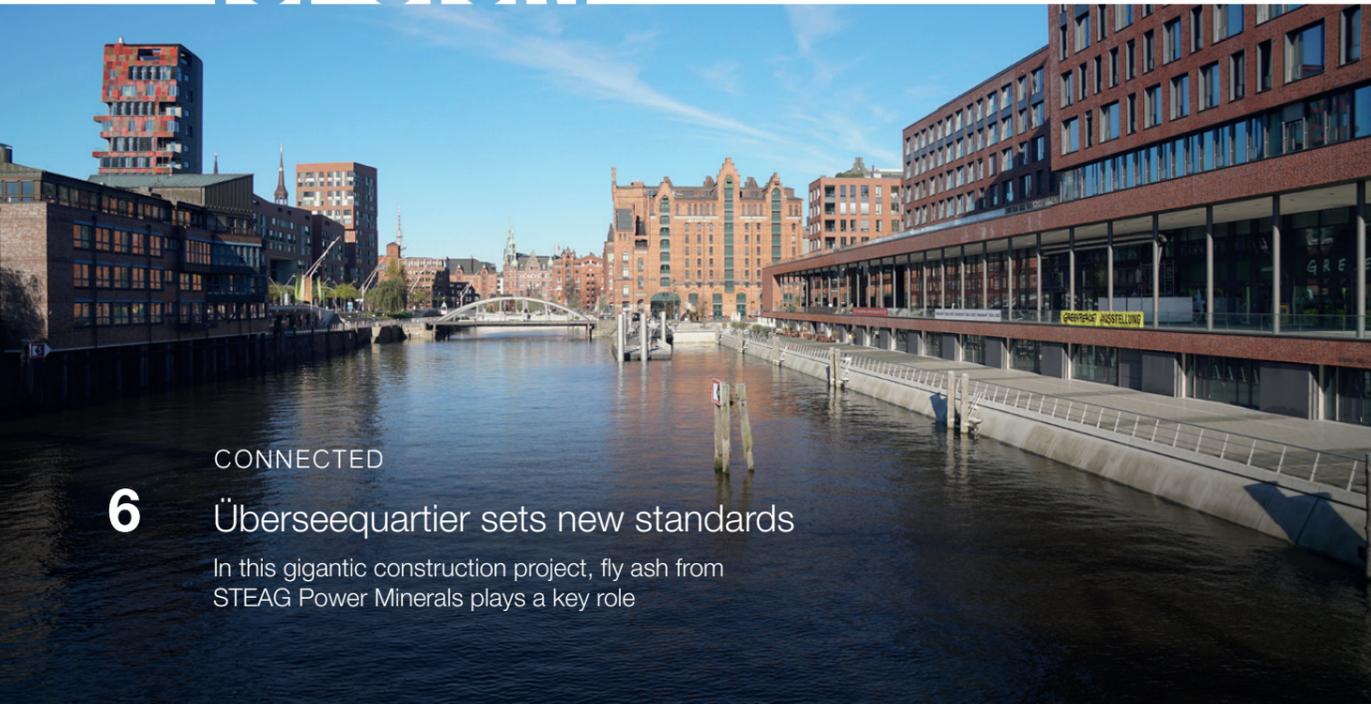
Kind regards,

Andreas Hugot

Stephan Altendeitering

The directors of STEAG Power Minerals GmbH

# TOP-STORY



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A magnet  
for Hamburg's  
HafenCity

# Überseequartier sets new standards

Living, lifestyle and working totally redefined:  
The Westfield Hamburg-Überseequartier is  
currently under development at the heart of  
Hamburg's HafenCity. STEAG Power Minerals  
fly ash plays a key role in the mega-project.

Excavators and cranes are working flat out on the huge construction site in the southern part of Hamburg's HafenCity. Every day, the buildings designed by renowned architects like Hamburg's Böge Lindner K2 or France's Christian de Portzamparc are continuing to climb further skywards, already giving a good idea of the future dimensions of the new Überseequartier. When the mega-project opens in the second half of 2022, the metropolis on the Elbe will have yet another attraction. Over a total area of 419,000 square meters – equivalent to about 10 soccer pitches – a district is currently growing which will set completely new standards and is expected to attract an estimated 16.2 million visitors per year. ▶▶▶

The site of today's Hafencity has always played a special role in Hamburg's history. At the end of the 1960s, with the advent of sea containers, handling in the port of Hamburg changed fundamentally, replacing the mixed cargo handling in sacks, crates and barrels that had dominated until then. The port and industrial site to the south of Hamburg's city center with the adjoining warehouse district – the Speicherstadt – became increasingly unattractive. Container handling meant that far more space was needed, as well as large storage and loading areas and an appropriate draft. This led to the port industry shifting downstream south of the Elbe, and to construction of the large Eurogate, Burchardkai, Tollerort and Altenwerder container terminals with huge gantry cranes and the related hinterland connections.

**Biggest urban development project in Europe**

The city developed new uses for the industrial wasteland that is now home to Hafencity. With an investment volume of around 13 billion euros, a mixed-use development of commercial, office and residential space which will expand downtown Hamburg by around 40 percent towards the Elbe is being created here over an area of approximately 155 hectares. Once finally completed in 2030, the district will offer an estimated 48,000 jobs and living quarters for approximately 12,000 people.

To connect to the existing rapid transit network of the Hamburger Verkehrsverbund (HVV), a completely new underground line, the U4, has been built with three stops in Hafencity, and planning has already begun for an extension across the Elbe towards Hamburg-Veddel. Hafencity is undoubtedly Europe's biggest inner-city urban development project at present. The best-known individual building in Hafencity is most certainly the Elbphilharmonie Concert Hall, which opened in 2017. In a striking final act, work on the some 240-meter-high Elbtower is to begin at the eastern end of the district in 2021.

What is special about the Hafencity concept is the high standard of urbanity coupled with approaches to environmental sustainability. The buildings in the eastern part, for

example, are linked with each other via a sophisticated energy management system. The land and water combination, too, is unique: Hafencity is not separated from the water by dikes. Instead, the site is being raised some eight to nine meters above sea level, with the exception only of the quayside and riverside promenades and the waterfront locations, thus preserving the typical port environment and direct access to the water while at the same time ensuring flood protection.

**A new magnet at the heart of Hafencity**

Around 650 apartments in the immediate vicinity of the water are being developed on the Überseequartier site. Offices with a 360° view will provide space for around 4,000 new jobs, with numerous leisure facilities adding the finishing touch to the attractive development. There's a shopping mall with 200 retail outlets, for example, for a leisurely shopping spree, and numerous cafés, restaurants and bars with chic flair and inspirational cuisine where visitors can eat, drink and relax. Film fans can enjoy a futuristic multiplex cinema, while three new hotels provide comfortable accommodation for tourists and business people alike. By offering 830 rooms total, for overnight guests, it's getting possible to satisfy all the visitors. There are hotels for lovers of luxury, for the demand of the upper middle class and the economy segment.

Another highlight is the Cruise Center with its underground bus station. The total cost of construction amounts to around one billion euros. ▶▶▶



About the following Website you can get comprehensive information about the construction site and Hafencity.

[www.hafencity.com](http://www.hafencity.com)



**Fly ash for optimal concrete formula**

But in order for the mega-project with its 14 individual buildings to be completed on time, the construction site has to operate smoothly and efficiently, and this is ensured in part by two mobile concrete mixing plants from KBK – Kies Beton Krebs GmbH & Co. KG, which are deployed directly in the immediate vicinity and produce a total of around 300,000 cubic meters of concrete. The provision of mobile mixing plants for effectively supplying concrete to large construction sites is only one line of business of the Neumünster-based company founded in 1999 though. Besides providing modern truck mixers and concrete pumps, KBK mainly focuses on individual and professional solutions in the field of concrete technology. “We are familiar with the special requirements of various construction projects and provide well-founded advice ensuring an optimal concrete formula,” says Marc Fröhlich, Managing Partner of KBK. In the construction of Überseequartier, for example, around 20,000 metric tons of hard coal fly ash from STEAG Power Minerals are particularly helping to ensure that a durable concrete with excellent properties can be produced, delivered and installed. “Among other things, our fly ash in the concrete ensures that the development of hydration heat in the massive concrete foundations is reduced, thus keeping any possible crack formation to a minimum,” Michael Chemnitz, Key Account Manager at STEAG Power Minerals, points out.

„Our supply concept ensures that we always receive quick information about where we can find **fly ash in the quality we need.**“

Michael Chemnitz, Key Account Manager at STEAG Power Minerals

**Security of supply thanks to various sources**

In order to implement the project successfully and ensure a constant supply, STEAG Power Minerals and KBK have together drawn up an appropriate concept: “The fly ash used in concrete construction has to comply with DIN EN 450 standards. We therefore concentrate exclusively on this quality and obtain the fly ash from various sources,” Chemnitz explains. A major supplier is the nearby Moorburg power plant, but during the past winter, fly ash from power plants in Berlin and Denmark was also used. “Our concept is put together in such a way that we always know where fly ash is available, and can accordingly react quickly and always deliver sufficient volumes,” Michael Chemnitz stresses.

**Several years of strong partnership**

STEAG Power Minerals has now been working together successfully with KBK for more than five years. The cooperation began with supplying fly ash to stationary concrete mixing plants, and since KBK sold these in 2016, both partners have worked together on various construction sites, for example as part of a project on the A7 freeway in Hamburg-Stellingen. The cooperation between the two companies is characterized above all by open communication and trust. Marc Fröhlich reaffirms: “We are delighted to be working with our partner STEAG Power Minerals again in reliably implementing this mega-project.” ▶▶▶

Contact: Michael Chemnitz  
Key Account Manager at STEAG Power Minerals  
michael.chemnitz@steag.com



**20,000 metric tons**  
of fly ash as STEAG Power Minerals' contribution to a stable and durable building fabric

Production of  
**300,000 cubic meters concrete**

**2 KBK mobile mixing plants**  
are deployed in the immediate vicinity of the construction site

# 3 questions for ...



„By optimizing the concrete formulas and selecting the right suppliers, we can produce a concrete that meets the high demands of the project.“

Alexander Pickert, Head of Mobile Projects at KBK - Kies Beton Krebs GmbH & Co. KG

## Marc Fröhlich, Managing Partner of KBK – Kies Beton Krebs GmbH & Co. KG

### 1 What is particularly special about Kies Beton Krebs?

We look back on many years of experience, and focus on cutting-edge technology and the very highest performance standards. We are especially proud of our employees and our long-standing and trusting partnerships with our customers, which have existed for over 20 years now. It is their satisfaction that continues to motivate us.

### 2 Mr. Fröhlich, what is your experience in terms of working with STEAG Power Minerals?

We have been working together in a spirit of partnership with STEAG Power Minerals as a supplier of concrete additives for several years now. Our cooperation is also characterized by mutual trust, stemming from always having interacted very closely in implementing joint large-scale projects. That's what creates transparency, knowing what makes the other one tick. For the past three years and more we have mainly been dealing with large-scale construction sites together. Precisely here in this time-sensitive sector we know we can always count on STEAG Power Minerals.

### 3 What do you see as being especially important in project business?

We attach great importance to intensive, close interaction and cooperation with the client, even in the calculation phase. With our various mixing plants and our experience, this enables us to design an individual, perfectly tailored concept for the construction project that meets the customer's requirements. For us, working together in a spirit of partnership is absolutely crucial. Specifically in the project business, unforeseen challenges can arise that can only be tackled together, calling for fast and flexible action focused on the solution. This is the only way to achieve a good result together. And that's something we've mastered for many years now and are very proud of.

Left side of the picture: Marc Fröhlich, Managing Partner of KBK – Kies Beton Krebs GmbH & Co. KG

Right side of the picture: Micheal Chemnitz, Key Account Manager at STEAG Power Minerals



Would you like a taste of the new Überseequartier? Just scan the QR Code or follow the link!

<https://bit.ly/2zFFhxn>

Total capacity per year:

**150,000**  
metric tons

of ash and slag

# New expertise in slag treatment

**Growth in Brandenburg:** On 1 January 2020, the STEAG Power Minerals Group acquired the majority of the shares in a slag treatment plant in Zossen. In future, slag and ash from STEAG's waste to energy plants will be processed there and returned to the economic cycle – with high potential for creating value.

## **Growth strategy pacing ahead**

At the end of last year, the STEAG Power Minerals Group was able to add a new company to its portfolio. Both parties signed the contracts on 12 December 2019. "I am pleased that we are taking a major step forward with this acquisition in line with our growth strategy," says Günter Henkel, Managing Director of MINERALplus and initiator of the project. The STEAG Power Minerals Group holds the majority of the shares, while part of the company now renamed MINERALplus Stork GmbH & Co. KG, MPS for short, remains owned by Stork Holding GmbH. MINERALplus is responsible for operating the new plant within the SPM Group, as the STEAG Power Minerals subsidiary specializes in the disposal of industrial waste and the production of construction materials from particulate matter waste from waste to energy plants. "The Zossen plant will start treating slag from STEAG's IKW Rüdersdorf and T.A. Lauterbach waste to energy plants in January 2022 and 2024 respectively, thus ensuring its disposal. In the meantime, it will treat slag from other waste incineration plants," Mike Harke, Project Manager and new Authorized Officer at MPS affirms. ▶▶▶



”The modern sensor-based sorting technology of the plant enables particularly high added value to be achieved.“

Frank Borchers, Managing Director of MINERALplus Stork GmbH & Co. KG

the same year, with commercial operation getting under way in 2015. Taking a look inside, the line-up is impressive: The plant offers four eddy current separators in the application range from two to 80 mm, and special separation techniques for recovering unmixed stainless steel. The greater part of the plant is housed in a hall complex measuring 80 by 20 meters, where solid mineral waste – mainly grate and boiler ash and incinerator slags – is carefully treated. During this process, the waste passes

through the treatment stages of screening, separation of iron, crushing and separation of non-ferrous metals, in some cases several times. “We have vast expertise in treating secondary raw materials. MINERALplus GmbH now gives us a partner who also looks back on many years of experience in the recycling of construction waste. We look forward to pooling our skills and developing together to remain fit for the future,” says Martin Lorenz from Stork and now Authorized Officer of the new company.

### Recovery of metallic raw materials

Around 55,000 metric tons of ash and slag arise every year in Rüdersdorf, and around 65,000 metric tons in Lauta. With an authorized treatment capacity of 150,000 t/a, the plant in Zossen is sufficiently dimensioned for these slags. The site also provides first-rate technical conditions. “The plant is equipped with modern, sensor-based sorting technology, enabling it to achieve particularly high added value because metals, for example, are returned to the economic cycle,” Frank Borchers, new Managing Director of MINERALplus Stork explains.

In practice, this means that MPS sells sorted scrap metals like iron, aluminum, copper and stainless steel to metal recyclers, thus extending the value chain within the Group. “Metal is the world’s most recycled material. It’s therefore true to say that the metal products manufactured today on average consist to half of recycled material,” Bernhard Stork, likewise Managing Director of the company, confirms. The metal content in the slag is about eight to ten percent, the remaining amount being processed finished slag that can be used as a substitute construction material, for example in the construction of roads and paths on landfills.

### Sophisticated separation techniques

The treatment plant in the Schöneiche district of Zossen was founded by the disposal company Stork and the disposal logistics provider Heider in 2014 as HEIDER STORK Recycling GmbH. Building work on the state-of-the-art treatment plant for slag and ash from waste incineration plants in the greater Berlin and Brandenburg region began

**Contact:**  
**Mike Harke**  
 Project Manager and  
 Authorized Officer at  
 MINERALplus Stork  
[mike.harke@steg.com](mailto:mike.harke@steg.com)



# Christoph Kenter is the new Managing Director of Powerment

Since September of last year, Christoph Kenter, together with Jochen Pfitzner and Wolfgang Beer, has been part of the new top management of Powerment in Ettlingen. Against the background of the coal phase-out, the former managing director of Fernwärme Zürich AG is focusing on the stabilization and further development of material flows in order to ensure reliable supplies of power plant by-products.

## Christoph Kenter is making a highly motivated start

A supply of power plant by-products that is as continuous as possible – especially during the summer months and beyond 2038 – is his primary goal at Powerment. He is pursuing a multi-track strategy: “On the one hand, of course, we will secure established sources. At the same time, however, we are also increasingly working on developing access to new suppliers. This includes the identification and testing of alternative products such as limestone powder, ground granulated blast furnace slag, volcanic rock powder or compounds,” says the graduate in mechanical and production engineering.

„In the development of existing and new products, I can see a great amount of potential for the future of Powerment.“

Christoph Kenter, Managing Director of Powerment

# 3 questions for ...

## 1 What were your first impressions as Managing Director of Powerment?

My predecessor Gunter Reiner set the bar high. In return, he leaves a rock-solid and well-functioning company that is optimally prepared to face the challenges of the coming years. Our team is highly motivated, lean and professionally positioned – also in view of the ongoing digitalization. This enables us to sell further goods and products to our customers in a targeted manner and on time. It is still too early for me to make a comprehensive assessment of the market situation. But I know that we are well prepared for the future and will master the challenges of the energy transition.

## 2 What are the greatest challenges you face as Managing Director?

As I said, first and foremost the exciting topics of the energy system transformation in this country. The volatility of power plants in particular will tend to become more unpredictable. Whether we in the south-west will benefit in future from the decommissioning of nuclear power plants and the first lignite-fired plants is difficult to predict in view of falling gas prices, grid stability and the expected expansion of energy from renewables. However, I can see considerable potential for Powerment in the development of established and new products. This is what we want to take to the market in order to continue to live up to our motto “Powerment creates strong connections” in the future.

## 3 Have you already established approaches to master the challenges ahead?

I see a target-oriented approach in the development of cooperation with strong partners. In the past, together with our sister company STEAG Energo Mineral in Berlin, we were able to strengthen our market position in Bavaria with material from the Litvinov power plant in the Czech Republic. We are also intensively handling rail logistics from Poland together with STEAG Energo Mineral in order to establish a smooth connection. We intend to further expand and consolidate this important partnership in terms of quantity and quality. We also work very successfully with our shareholders STEAG Power Minerals and EnBW.

## PROFILE

### since September 2019

Managing Director of Powerment GmbH & Co. KG

### 2011 – 2019

Managing Director at Fernwärme Zürich AG with focus on material flow management, energy management and contract management

### 2007 – 2010

Head of the Thermal Recovery and Drying Department at MSE Mobile Schlamm-entwässerungs GmbH with power of attorney for all allocated business areas

### 1996 – 2006

Technical manager of the drying plant at MSE Mobile Schlamm-entwässerungs GmbH. Parallel development and expansion of the area of thermal recovery of sewage sludge with focus on co-combustion in coal-fired power plants

### 1995

Project manager for sewage sludge drying at MSE Mobile Schlamm-entwässerungs GmbH in Karlsbad-Ittersbach

### 1990 – 1994

Studies at the Esslingen University of Applied Sciences in the field of mechanical engineering/production engineering, obtaining the degree of Dipl.-Ing. (FH)

### 1983 – 1986

Training as an organ and harmonium builder at Orgelbau Kenter in Neuhausen

# Better logistics efficiency improves ecological balance

The decline in electricity production from hard coal is leading to changes in the distribution of the increasingly scarce fly ash from German sources. Today, most of the transport between power plants and customers is carried out by road truck. Owing to sophisticated logistics concepts, however, transport routes can be shortened, routes linked and vehicles can be used to full capacity. This benefits the environment in particular.

The production and transport of power plant by-products has changed considerably over the past decade. For example, the following shift has occurred with freight transport on behalf of STEAG Power Minerals: Only 10 years ago, around 60 percent of fly ash was transported by truck, 30 percent by ship and 10 percent by rail. Today, the situation is completely different: In North Rhine-Westphalia alone, 90 percent of the material is transported by truck and only 10 percent by ship. The railway share has even dropped to zero. Although ship and rail have a more favorable eco-balance in terms of environmental pollution than trucks, their share of total traffic has now become very small.

“The reasons for this can be found in the change in customer supply, caused by the lower production volumes for all power plant by-products,” explains Dr. Hans Hermann, Head of Logistics at STEAG Power Minerals. At the same time, however, it can be seen that although truck traffic accounts for a larger percentage of the total transport volume, the average distance travelled per delivery has become much shorter – and there is a lot of ecological potential here.

## Transport distances as short as possible plus optimum capacity utilization

For example, STEAG Power Minerals, together with the freight service providers used for truck transport, is increasingly aiming to achieve the shortest possible transport routes and avoid empty runs. This is achieved by regularly aligning delivery routes, linking routes and optimizing vehicle capacity utilization. This increase in efficiency has a particularly favorable effect on the environment.

Choosing the shortest connection between the source power plant and the final customer while at the same time searching for suitable connecting cargoes – for example in constructing triangular routes – reduces freight rates, saves time and pollutes the environment less. “This is made possible by the fact that, with a few exceptions, fly ash is now only supplied as standardized material in accordance with DIN EN 450. No longer, as extensively in the past, were only selected sources allowed to be used for delivery, which often meant long transport routes,” says Dr. Hermann. In the network of associated companies of STEAG Power Minerals, the strategy of exchanging long delivery routes with partner companies that can better supply the respective customer from sources located closer is also being pursued.

”**25 percent less emissions in 5 years** – this result shows that our logistics concept is sustainable. For us it is an incentive to exploit further potential in this area.“

Dr. Hans Hermann, Head of Logistics at STEAG Power Minerals

## Significant reduction in environmental pollution

The results of the optimized logistics processes to date are impressive: Despite the large number of road freight journeys, the use of infrastructure and therefore also the level of emissions has been reduced by about 25 percent over the past five years. As Dr. Hermann confirms: “By reducing the metric ton kilometers on the road, we can not only increase transport efficiency, but at the same time make a contribution to reducing the environmental impact of our transport operations.”



SHORT TRANSPORT ROUTES

LINKING ROUTES

OPTIMUM CAPACITY UTILIZATION

USE SOURCES OF PARTNER COMPANIES



Contact:  
**Nils Jansen**  
 Head of the Power Plant  
 By-Products Division  
 nils.jansen@steag.com

Nils Jansen (on the left) und  
 Wolfgang Beer (on the right)

# Securing long-term supply of fly ash

The Power Plant By-Products division is facing major changes. This applies on the one hand to the changing background conditions in the energy industry, and on the other hand to human resources: Wolfgang Beer, a valued contact for customers, will go into his well-deserved retirement at the end of May 2021, after having played a major role in shaping the power plant by-products sector for 45 years.

**„Wolfgang Beer and I have been working together very well and very closely for many years.** By supporting me in an advisory capacity until May next year, we can ensure that the transfer of responsibility runs smoothly.“

Nils Jansen, Head of the Power Plant By-Products Division at STEAG Power Minerals

However, Wolfgang Beer is deliberately handing over responsibility to his successor Nils Jansen now, in order to be able to support him in word and deed in the coming year. As a long-standing employee of STEAG Power Minerals, Nils Jansen has a comprehensive overview of the market situation, company development and customer portfolio. Most recently, he worked on new projects and further expanded international sales. As the new head of the power plant by-products division, he is venturing a glance into the future here.

**Mr. Jansen, with the power plant by-products division you will be taking on a demanding job. What challenges are you facing?**

The greatest and most unexpected challenge at present is certainly the outbreak of the coronavirus pandemic. We will be very busy cushioning the effects of this crisis. Furthermore, we are already taking steps in anticipation of the first stage of the coal phase-out and will be developing solutions to increase STEAG Power Minerals' security of supply. In the long term, of course, we will have to master the complete coal phase-out and the associated existential task of developing replacement products. ▶▶▶

**PROFILE**  
**Nils Jansen**
**since 2020**

Head of the Power Plant By-Products Division at STEAG Power Minerals

**2014 – 2019**

International sales and project management at STEAG Power Minerals

**2013**

Strategy and business segment development at STEAG Power Minerals

**2011 – 2012**

Consultant for municipal cooperation at STEAG GmbH

**2010 – 2011**

Consultant for corporate development at Stadtwerke Duisburg (municipal utility company)

**2008 – 2010**

Sales Trainee at Stadtwerke Duisburg

**2009 – 2010**

Master in Energy Economics at the RWTH Aachen and University of Münster

**2002 – 2008**

Studies at the University of Mannheim with degree in economics

**How do you assess the availability of fly ash from hard coal fired power generation in 2020?**

The availability of fly ash in 2020 is subject to many external influences. In recent years, the availability of fly ash has been significantly affected by the influence of renewable energy sources and a rising CO<sub>2</sub> price. In the meantime, an extremely low gas price has also had a corresponding effect, because – like the other factors mentioned – it leads to decreasing operating hours of hard coal fired power plants, with the simple consequence that less fly ash is produced. In addition, there is widespread uncertainty about the details of the coal phase-out in Germany. At the moment, nobody can reliably calculate what current plans will mean for the short, medium and long-term availability of fly ash. Finally, it is becoming apparent that the coronavirus pandemic could also have a negative impact on the utilization of hard coal-fired power plants and lead to considerable restrictions in the supply of power plant by-products in the summer of 2020.

**How do you assess the further prospects against the background of the planned coal phase-out?**

From 2021 at the latest, this issue will be the decisive factor in the availability or non-availability of fly ash. In 2019, the Commission for Growth, Structural Change and Employment presented a proposal for a phase-out of coal-fired power generation in Germany. In this context, both hard coal and lignite capacities were to be constantly reduced over that period. At present, we see the Federal Government's current draft bill as blatantly discriminating against hard coal fired power plants, which are to be decommissioned earlier than originally planned in favor of lignite-fired power plants, which produce much higher emissions. Such a scenario would inevitably have consequences for the market for power plant by-products.

**In your opinion, what does that mean for the future availability of fly ash?**

Looking at current forecasts by various consulting firms, several hypotheses can be put forward, despite the fact that there are still unresolved questions at present; firstly, hard coal fired power plants that went into operation after 2010 will remain in the market until at least the end of this decade. Secondly, decommissioning of hard coal fired power plants in southern Germany before 2025 is ruled out at the current state of play. Thirdly, the hard coal fired power plants remaining in the market after the first stage of coal phase-out starting in 2023 are expected to run more full-load hours per year and thus be less volatile than today. Fourthly, in spite of the current uncertainty, this means that we will still be able to count on fly ash from German power plants in the coming years. If these considerations prove to be true, the situation at the remaining sites would even improve temporarily until they are shut down, as less volatility and production fluctuations can be expected in the course of the years. This in turn would also stabilize the supply chains for power plant by-products in the medium term.

**What effect will this situation have on the business of STEAG Power Minerals?**

In addition to the expected volume increases at the power plant sites which will remain in the market after the first stage of the coal phase-out, the decommissioning of power plants will naturally have a negative effect on the total quantities produced in Germany over the period concerned. With our long-term partnerships in the German power industry – especially with a high proportion of power plants built after 2010 – we will continue to have a good market position and will therefore be able to supply our customers with fly ash in the long term.



„I am of course leaving STEAG Power Minerals after so many years with a certain amount of regret, because I have always enjoyed my work. At the same time, however, **I am pleased to have found an energetic and reliable successor in Nils Jansen.** He will certainly master the challenges ahead of him.“

Wolfgang Beer, former Head of the Power Plant By-Products Division at STEAG Power Minerals

**Do you think sales and trading will change?**

The decline of fly ash in real terms over time will certainly also affect our sales and trading activities. In the coming months and years we will concentrate on the following measures to ensure an optimized supply to our customers. Firstly, we will increase import capacities and reduce exports. In the first half of 2020 we have already marketed several block trains with Polish fly ash to the west German concrete and cement market. These volumes enable us to stabilize the difficult capacity utilization situation which currently prevails. In the meantime, the logistics chain from the railway to the customer's silo is working very well. If there is interest from our customers, we plan to expand this import option further. We are also examining the import of fly ash from power plant sites outside the European Union. In that context, the logistical challenges and the development of construction material prices in Germany will be decisive for the implementation of this business model in the short or indeed long term. At the same time, we will also primarily supply our German core markets with quantities of fly ash released from existing contracts in the short and medium term which are still being marketed to neighboring countries today. These marketing channels, which were very important for us in times of surplus quantities, are clearly losing their strategic importance in times of the coal phase-out.

**What does this mean in terms of the customer portfolio?**

The absolute decline in power plant by-products, which is expected at least in the long term, naturally confronts us with the task of restructuring our customer portfolio step by step. We are currently marketing a diminishing quantity of ash to a customer base that has remained relatively unchanged over time. This approach will inevitably have the effect of impairing the supply situation of individual customers. The distribution of a quantity of by-products specified externally for us and all market participants to a generally decreasing number of customers will lead to an increase in supply security for the remaining customers. We would therefore like to discuss long-term partnerships and cooperation models with our customers to a greater extent in the future. This will increase the ability of both sides to plan and thus increase their entrepreneurial security... In summary, we assume that fly ash will remain an important construction material for the German market today, tomorrow and into the next decade – and that we will remain a reliable and long-term partner.

**Wolfgang Beer**  
 - since 1982 as a specialist for KNP  
 - from 1988 as deputy sales manager  
 - 1998 Sales manager & procurator

# Well positioned for the future with new certificates

For one week, the industry certification body ZER-QMS scrutinized the processes of STEAG Power Minerals. The result: new certificates for the quality, energy and environmental management systems.

## Compliance with ISO standards

Fine Eck is responsible for the planning, monitoring and correction of the certified management system in accordance with the three applicable standards, and supports the management in ensuring that the ISO standards, i.e. those standards set by the International Organization for Standardization, are adhered to at STEAG Power Minerals. Together with the persons responsible, she traces all the processes in the company that are essential for the management systems, taking into account the three areas, in order to ensure that the standards are met, to recognize potential for improvement and to identify and eliminate possible sources of error in humans or machines. In practice, there is a description for each of these processes. This includes the process steps, responsibilities, release points and other conditions.

## Internal processes are continuously optimized

"The bottom line is that we as STEAG Power Minerals have to position ourselves well and in a future-oriented manner. To achieve this, we make the quality of our processes transparent and measurable, and continually optimize our internal processes. At the present time, consideration of environmental protection and energy efficiency is particularly important to us and is also increasingly demanded and checked by our customers," as the

**Quality management system:**  
DIN EN ISO 9001:2015

**Energy managementsystem:**  
DIN EN ISO 50001:2018

**Environmental managementsystem:**  
DIN EN ISO 14001:2015

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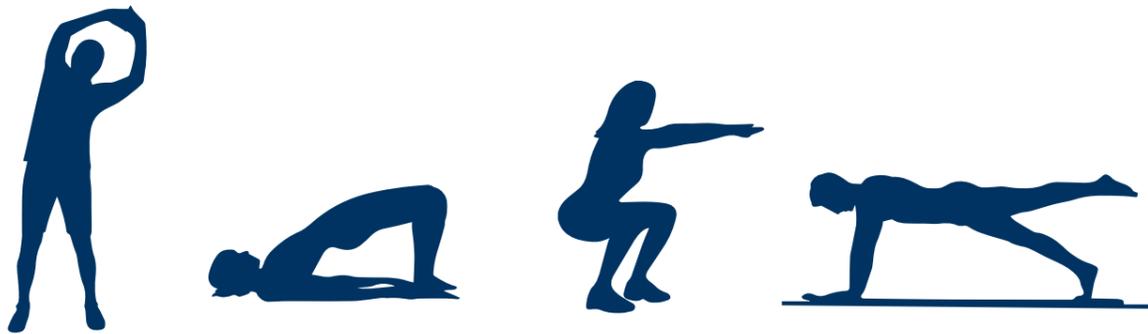
"[...] At the present time, consideration of **environmental protection and energy efficiency** is particularly important to us and is also increasingly demanded and checked by our customers."

Fine Eck, Head of Quality Management at STEAG Power Minerals

quality manager explains. All standards include the aspect of process optimization and focus on continuous improvement.

The external certifications are a showpiece for STEAG Power Minerals and are actively requested and demanded by many business partners. The quality management system has been certified to DIN EN ISO 9001:2015, the energy management system to DIN EN ISO 50001:2018 and the environmental management system to DIN EN ISO 14001:2015. Regular audits are required for all these certificates. In addition to the internal audits, these also include third-party audits such as the current one by ZER-QMS GmbH, in which individual processes of the relevant management systems are examined on a random basis once a year.





# A quarter of an hour for better health

Mobilizing, strengthening and stretching: Every Thursday, employees at STEAG Power Minerals in Dinslaken have the opportunity to spend 15 minutes with a fitness instructor, actively doing something to combat back pain and tension.

When Cornelia Zarth-Obhodjas comes to STEAG Power Minerals in Dinslaken on Thursdays, that means it's time to leave your office and get moving! With her "in.Motion: Active Break" program, the state-certified movement educator supports the employees in actively combating monotonous movement sequences and sedentary habits in the office.



„It's great that my employer gives me the **opportunity to take advantage of this beneficial time once a week.**“

Anja Beer, Marketing & Communication employee at STEAG Power Minerals

## Actively preventing back pain and tension

She instructs the group in mobilizing, strengthening and stretching the entire musculoskeletal system. Together, the colleagues from across all departments switch off their thoughts for a while, get stretching and let their muscles work. The exercises specifically counteract neck, shoulder and back pain, and can even be carried out directly in the workplace and wearing work clothes. Where necessary, the sports therapist even offers individual counseling for specific complaints on a case-by-case basis. "Our 'Active Break' livens up our daily work routine. As we mostly work sitting down, Conny's varied program for getting us loosened up does us the world of good," remarks Melanie Totzke, Procurement & Sales Assistant for power plant by-products at STEAG Power Minerals. Dr. Hans Hermann, Head of Logistics, is likewise thrilled: "It's so good to have this opportunity!" A few minutes' exercise that are really effective. I strongly recommend the 'Active Break'.

## Recharging the batteries during working hours

The project "Active Break" by "in.Motion" is a Health and Social Management initiative. With its "LIFE" program, Health and Social Management seeks to strengthen and maintain the health of the employees. LIFE stands for "langfristige individuelle Förderung der Eigenverantwortung" – long-term individual promotion of personal responsibility. With its comprehensive preventive healthcare, STEAG is counteracting a general trend towards inactivity. A survey conducted by DKV Deutsche Krankenversicherung in the recent years found the Germans to be veritable couch potatoes.

## Preventive program very popular

"The preventive program is proving very popular with our employees. It creates a strong bond and enhances motivation," Heinz Jonda, Health and Social Management Consultant, explains. "Active Break" helps to recharge the batteries for upcoming tasks and the rest of the week during working hours. Out of this motivation the staff have requested an additional exercise program Heinz Jonda: "We are delighted that there's such great demand nevertheless. We're on the right track with LIFE, because with this level of commitment, our employees are clearly demonstrating personal responsibility!"

### LIFE – the STEAG Health and Social Management trademark

As part of keeping employees healthy, Health and Social Management assumes mediating and supporting functions in general and illness-related issues, giving employees recourse to a comprehensive and integrated support system and helping them to maintain their fitness and health. Since being introduced as a pilot project in Lünen in 2008 and subsequently being extended to all other locations, LIFE has continued to develop in the interests of the staff. Whilst initially the focus was on raising awareness of health issues, the LIFE trademark now represents an end-to-end lifestyle concept as an integrated component of the established human resources policy.

STEAG GmbH  
STEAG-Head office  
in Essen-Rüttenscheid



„In 2019, we achieved a **strong improvement in key financial figures.**“

Joachim Rumstadt, Chairman of the Board of Management of STEAG GmbH

Until such time as this is available in sufficient quantities, natural gas will be needed as a bridging technology after the phasing out of nuclear energy and coal-fired power generation. For this reason, a new combined cycle power plant will be built in Herne by mid-2022, in which hydrogen can also be burned in the long term.

#### Efficiency drives the energy transition

Energy efficiency is also important for the success of the energy transition: STEAG is planning and constructing a new process steam supply system for the BP refinery in the Scholven district of Gelsenkirchen, which in future will use refinery gases that were previously flared off without any benefit to energy generation.

In addition, the company's own carbon footprint shows that STEAG takes the political targets for reducing emissions seriously: Compared to 1990, STEAG's own CO<sub>2</sub> emissions in Germany fell by 79 percent by the end of 2019. This is because even before the Act to Reduce and End Coal-Fired Power Generation was passed, STEAG shut down a large part of its domestic hard coal fired power plants at its own expense.

These successes also open up new financial options: The process of obtaining a green rating was successfully completed at the beginning of the year. In consequence, STEAG aims to place green financing instruments on the capital market in the future. These are intended to meet the evaluation criteria of the "Green Bond Principles" for sustainable investments.

#### Excellent staffing levels

Finally, at the end of April, the STEAG Supervisory Board ensured that the company remains excellently positioned for future challenges in terms of personnel too: In addition to Alfred Geißler and Dr. Wolfgang Cieslik, who will retire during the course of the year, Michael Baumgärtner left the management board in the best mutual agreement on April 30. He was succeeded on May 1 by Dr. Heiko Sanders as the new CFO, so that STEAG can seamlessly continue the successful course of corporate restructuring in economically difficult times with a complete management team.

However, due to the consequences of the coronavirus outbreak, the original target figures for 2020 will probably not be achievable. Nevertheless, the management remains confident and believes that STEAG is well prepared for the challenges ahead.

In addition to the coronavirus pandemic, these include, above all, the Act to Reduce and End Coal-Fired Power Generation currently being discussed in the German Bundestag. STEAG's criticism of the unequal treatment of hard coal fired power plants compared to lignite, as provided for in the law, is shared not only by other power plant operators, but also by the Upper House of Parliament. If their concerns are not heard, STEAG is considering filing a complaint. "We accept the will of society to abandon coal-fired power generation in Germany," Joachim Rumstadt clarifies. "But we can't agree to the planned legislation."

# STEAG continues to make good progress

Thanks to a significant increase in the Group's net income, STEAG can look back on a satisfactory business year. "In 2019, we achieved a strong improvement in key financial figures," says Joachim Rumstadt, Chairman of the Board of Management of STEAG GmbH.

All in all, STEAG also proceeded successfully with the repositioning of the Group in 2019: The acquisition of STEAG Solar Energy Solutions, or SENS for short, was an important step forward in the growth market of photovoltaics. At the same time, STEAG is focusing on hydrogen as the energy source of the future: At the Völklingen-Fenne site, the Group is planning to produce emission-free, green hydrogen from surplus wind and solar energy with funding from the Federal Ministry of Economic Affairs.

# Practical implementation of the new Environmental Directive of the German Committee for Reinforced Concrete

With the guideline on “Use of silicon-rich fly ash and bottom ash in concrete components in contact with soil, groundwater or precipitation” issued by the German Committee for Reinforced Concrete (DAfStb), the verification of the environmental compatibility of these power plant by-products has been newly regulated since May 2020.

It replaces the previous regulations, which were set down in general building inspectorate approvals issued by the German Institute for Building Technology (DIBt).

In order to confirm to the users that the new national regulations for the application are fulfilled, the manufacturers have added the following statement to their declarations of performance under the terms of the Construction Products Regulation:

**“Requirements for use in Germany according to the Model Administrative Provisions for Technical Building Regulations (MVV TB), Section A 3.2.3 and DAfStb (environmental) guideline are fulfilled.”**

In addition, this declaration also appears on the delivery notes for fly ash according to DIN EN 450-1 next to the CE mark. The amended declarations of performance for the types of fly ash which we market are available to users for downloading from our homepage.

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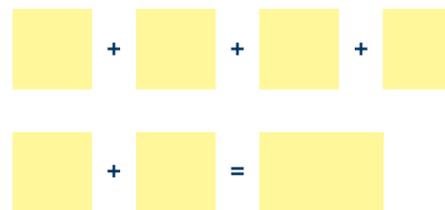
Scan the QR code to access the **download of the amended declarations of performance** on our homepage.

## Each number only once in a row

Solve the sudoku and add up the colored fields. Send the result to [gewinnspiel@steag.com](mailto:gewinnspiel@steag.com) under the heading „**competition**“. Last date for entries: by October 30, 2020.

Photo: Grundig Intermedia GmbH

	4		3					9
		7	6		5			
		2	4			5		1
1		3						2
8					4			
2					6	9	8	
	3	1	7					
	9			2				5
	2					1	9	4



## Congratulations!

In the last edition we asked you to find the solution word in our grid riddle. The correct answer was **Security of supply!** The following winner was drawn from all correct entries: **Wolfgang Schäfer!** Congratulations - enjoy your "Bose®" SoundLink Revolve Bluetooth speaker!

### It's worth your while taking part:

All participants who send in correct answers will be entered into a draw for an ...

... „**All-in-one**“ **Internet-radio with Bluetooth, Multiroom and DAB+ connection by GRUNDIG.**

Have fun solving the sudoku and good luck in the draw.\*

FOR A GOOD REASON  
**GRUNDIG**



\* The judges' decision is final. Employees of the STEAG Power Minerals Group and their family members may not take part. By entering the competition, the participant agrees that in the event of winning, his / her name will be published in the SEGMENT magazine.

## Just between us,

Ah'd be propa fashed if ah hadn't orned certificates for me quality, energy and environmental management. STEAG Power Minerals can now deck themselves oot wi'them again. Whey ah can dee that an all!

Quality Management: Ah only buy the best N'castle Broom. "That's QUALITY," sez Chris me neighbor, gerring it doon'im before ah can. He reckons it's reet canny.

Energy Management: Whey aye, man. Ah'm ganna fit a transformer on wor lass at hyem.

Ronnin aroond propa sackless an treddin the fitness machine in the bedroom, hor as got ta make a geet load a pooer. Got the transformer on order an all.

Environmental Management: Ah separate the rubbish. Norrallofus can tell ya that. Ah tak that serious, but. If I divvent knaa what gans in where, ah spread it aroond me neighbours' bins. Ye canna gi me wrang; me bins are sorted reet guid.

Ah'm ganna get me certification. Hadaway noo.

*Betonkopp*

(written in Geordie accent)

