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Foreword

Of the auxiliary equipment necessary for the operation of a coal-fired steam generator, particular importance is attached to the coal bunkers. As bunkers and associated discharge equipment can reciprocally influence each other’s functioning, the necessity of perfect interaction is already to be taken into account during planning.

The VGB Instruction Sheet “Coal Bunkers” contains a collection of experience and recommendations which was prepared according to the best of our knowledge but which cannot always completely reproduce the state of the art. It provides a summary of information in the field of coal bunkers which provides the user with a better overview of the specialist area and the associated regulations. The Instruction Sheet is therefore an important instrument for economisation and efficiency-boosting cooperation between manufacturers and owners/operators. Complete application or application only of excerpts must be agreed upon between the clients and the suppliers. There is no obligation to apply it. Liability, also for the factual correctness of the presentation, is excluded.

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The Instruction Sheet was prepared by the VGB Technical Committee on “Power Plant Coal Handling” of the VGB General Committee “Firing Systems”.

The functional area of power plant coal handling is divided into the following areas:

- Delivery
- Handling
- Coal bunkers
- Silo units
- Pulverising systems
- Pulverised coal conveying

The present Instruction Sheet deals with the area of coal bunkers and silo units which can be treated as synonymous terms.

The other areas are dealt with in the following Instruction Sheets:

- Delivery and handling
  VGB Instruction Sheet ”Coal Handling in Power Plants” (first edition 1980)
  Order code: VGB-M 211

- Pulverising systems and pulverised coal conveying
  VGB Instruction Sheet “Pulveriser systems” (first edition 1981)
  Order code: VGB-M 213
The present Instruction Sheet was edited using the Instruction Sheets previously applying to this area:

No. 21 “Coal Bunkers – Design and operation”
(First edition 1971), order code: VGB-M 206, and
No. 22 “Bunkers, Discharge and Metering Devices – Linings”
(First edition 1975), order code: VGB-M 207

This was done in a working panel to which, from the VGB Technical Committee on “Power Plant Coal Handling”,

K. Hanowski, J. Menningmann, Dr. E. Scherrer and U. Schoop
belonged. At the VGB office, the working panel was supported by A. Kantner.

Essen, October 1988
VGB Technische Vereinigung
der Grosskraftwerksbetreiber e.V.

(Technical Association of Large Power Plant Operators)
Foreword to the 3rd edition

Since the second edition of the VGB Instruction Sheet "Coal bunkers and silos" in 1988, the share of hard coal for electricity generation in Germany has largely switched from domestic to imported coal. The lignite/brown coal share for electricity generation has remained approximately constant in western Germany while it has been roughly halved in the new federal states of the Federal Republic of Germany (Lusatia region and Central Germany). As a consequence of this change and of technical progress, a large number of coal supply units have been constructed in new power plants or have been replaced in existing plants. A number of replacement construction measures are also impending in order to construct new power plant units with improved efficiencies and lower emission values. In order to update the experience gained in the course of those projects, the following gentlemen formed a working panel and brought the VGB Instruction Sheet VGB-M 206 up to the present-day status.

The directives of the EU (European Union) have also been included in Chapter 8 "Industrial safety" and Chapter 9 "Environmental protection", and the acts, ordinances, technical rules and various guidelines applicable to these areas have been updated.

Involved in the VGB working panel were:

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- Dipl.-Ing. H. Flügel, Vattenfall Europe, Berlin
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From the VGB office, the working panel was supported by Dr.-Ing. L. Müller.

Essen, December 2009

VGB PowerTech
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