THE STORY
OF PRAGUE CEMENT PLANTS

— MILOŠ GARKISCH AT AL. —
2011

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“The Range
of our Customers
was Extended
due to Great Quality
and Increasing Popularity
of our Product...”

The actual statement of the Board of Directors of the Podolí Cement Plant in 1929

INTRODUCTION TO THE BOOK ABOUT THE PRAGUE CEMENT WORKS

You are opening the book, which, with regards to its content and focus, covers the history of the only one cement works, although in wider context, it describes the creation and use of the cement binders in Europe. It also describes the early period of cement industry in Prague-Podolí at the end of the 19th century. The book also deals with establishment and development of the cement plant in Prague that no longer exists. In the book you can follow the efforts for manufacturing a very stable and high-quality binder with uniform properties; the efforts for the cognition of the cement chemical principles and its understanding led to the special-purpose selection of the components used in the production and efforts to improve the crushing, grinding, homogenization, burning technologies etc. Of course, development of these technologies is closely associated with the economy which qualified the massive use of cement on the market as an affordable product which, by using concrete, moved technical possibilities of building to another level. Both cement works, the Radotín and Podolí Cement Works, formed the cement production and use of concrete on first constructions from this material in Prague. Due to the scope of the production (cement, lime, lime hydrate, ready-mix plasters, crushed stones, ceramic pipes, isolation boards), they also contributed substantially to construction activities in Prague at the end of the 19th century and the beginning of the 20th century. Back then, as well as nowadays, it was obvious that the utility value of concrete is not presented only by the material in the cement mixer, but mainly by what is built up from it. And it does not have to be a world-wide known concrete building of the Opera House in Sydney, Australia.

Important personalities of the cement and building industry were associated with both works – Wilhelm Michaelis, Ferdinand Barta, Max Herget or Prof. Ing. Dr. Rudolf Bárta, who is very closely connected to the theory of mortars, which he taught at the Institute of Chemical Technology in Prague with experience – mainly in the cement production. Both works, the original one from 1871 and the present plant from 1961, were constructed in strategic places: near Prague, near the railways and near the rich and quality sources of raw materials. Today, I can also confirm the strategic position of our works because in 2009, a direct connection with the motorway network through the highway bypass of Prague was established.

The fact that we can celebrate such an important anniversary of the establishment of both works shows that the works were and the present works still is a natural part of the environment and its surroundings in Radotín, as well as railways, roads and other constructions. To achieve such a result many generations of workers of these works had to work hard and their effort was and still is successful.

INTRODUCTION TO THE BOOK ABOUT THE PRAGUE CEMENT WORKS

The works is mainly the people who create it and make it alive. It is appropriate to salute to all those who have worked in both Radotín cement works throughout their history and thank them for the work they have done for these works. I personally appreciate how proud they were and they still are of working there. I also thank them for creating good atmosphere and the relationships they have helped to form.

To make the book more varied, we present the accompanying DVD which tries to revive the history of the cement production in Radotín and to describe the present cement production using the most attractive and dynamic forms. The fact that the cement workers have a sense of humor is documented in the book by caricatures showing the operation of the main production equipment, laboratories, central control room or cement dispatch. At the end of the sixties, their author was Antonín Čech who was then working in the works construction department. The history of the cement development as well as the history of the production works brought and is still providing interesting events and relations which deviate from the seriousness of this topic. After all, one of the historic names of company "PRASTAV" might have originated as a similarity to the word "PRAZDROJ", which at the time, like today, presented the world-favorite Czech product manufactured by modern technology and with the top quality. You, dear readers can decide whether this comparison is justifiable.

I hope this book will become a clue for you and in addition to the knowledge of history of the cement production in Prague it will attract your attention and entertain you.

June, 2011

Ing. Ladislav Damašek,
Director of the Plant

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AUTHOR´S FOREWORD

The book about *The History of Prague Cement Works* is the history of the Prague cement works in Prague-Podolí and Radotín. In the second half of the 19th century, a growth of Prague brought also an increase in demand for building materials. For this reason, the works for the cement production were established at rich deposits of limestone in Podolí and Radotín. Both works had much in common. Both of them were established practically at the same time (the first cement was manufactured in Podolí in 1872, and one year later in Ratodín) and they had the same founders. The lack of capital with a threat of closing down both works made a hard start but at last, they worked their way up and became important factories which contributed with their products to the transformation of Prague from a provincial town into a modern metropolis.

Although they were important enterprises, historiography has paid them a little attention until now. The main source of the history of both works over the period of Austria-Hungary is articles in contemporary magazines *Blahobyt*, *Posel z Prahy*, *Průmyslník* and *Hospodář*. Short passages about the history of both works can be found in a publication *Od tradičního vápenictví na území Českého krasu ke vzniku moderní továrny na výrobu portlandského cementu v Králově Dvoře v roce 1911* of Anna Matoušková *(From Traditional Lime Works in Český kras to the Establishment of the Modern Plant for the Portland Cement Production in Králův Dvůr in 1911)* of 1955; in the book of Miloš Cikrt and Jaroslav Láník *Dvě tisíciletí vápenictví a cementářství v českých zemích (Two Thousand Years of Lime Works and Cement Production in the Czech Lands)*, which was published in 2001; further in the Encyclopaedia *Technické památky v Čechách, na Moravě a ve Slezsku* of 2003 *(Technical Monuments in Bohemia, Moravia and Silesia)*. Otherwise no publication has been dedicated to the Podolí cement works.

The historiography of the cement works in Radotín is richer. Perhaps it is due to the fact that the successor to the old cement works has been in operation until today. Of the earlier literature, it is necessary to mention the essay of *Josef Nožička Historie akciové továrny na hydraulický cement v Radotíně (History of the Joint-Stock Factory for Hydraulic Cement in Radotín)*, memories of Prof. Dr. Ing. Rudolf Bárta, Dr. Sc., a descendent of the founder of the works, a dean of the Chemical Faculty at ČVUT and the author of many publications in the field of glasswork, ceramics and cement who called his memoires *Z dějin akciové společnosti Prastav (From the History of the Joint-Stock Company Prastav)*. An important source of information of the cement works´s history are commemorative publications dedicated to the company jubilee which were published in the 70s and 80s of the last century. Recently, people interested in this field could meet the history and presence of the works belonging to the

joint-stock company Českomoravský cement and thus to the history of the cement works Radotín in small promotional publications which were being published by the company management over the last decades. Many important reports on the company are provided in yearbooks of CEVA Prague (Radotín) of the years 1968–1985. Partial information on the company history, introduction of new production procedures, investments in new equipment and reconstruction of old shop floors are stated in individual columns of the company magazine *CB Noviny* and its successors.

Many facts of the presented publications were obtained mainly from the archival funds. Unfortunately, only small part of the archives of the cement works in Podolí was preserved. Documents relating to the factory management and operation fit just into five archival boxes. The main source is annual reports from general meetings of the company but they were kept in incomplete series, and also records of the Regional Commercial Court in Prague relating to Podolská cementárna in Prague (the Podolí cement works).

After the depletion of limestone in the quarries in Bráník and Podolí, the cement works in Podolí was closed down. In the fifties of the last century, the premises of the works were demolished and a swimming complex was built up in its place. The name of the street "Nad cementárnou" in Prague-Podolí, several old pictures and shots and also 55 cm of blue books are the only commemorations of the factory that manufactured cement for almost seven decades.

The archives of individual periods of the cement works in Radotín are unbalanced. There is practically no information on the first fifty years of the factory operation. On the contrary, the time when the cement works was a part of the Prastav Company is relatively well documented. The archives of the Prastav Company are stored in Státní okresní archív (the State District Archive) in Beroun where they were received from the company archive of Královodvorské cementárny (the Králův Dvůr Cement Works), and in Okresní státní archív (the State District Archive) of Prague-West, where they were transferred from the company archive of Radotínské cementárny a vápenice (the Radotín Cement and Lime Works). Documents from the period of 1950–1960, i. e. until the construction of the new works, are also poorly preserved. The analysis of final accounts, accompanying reports on final and statistical statements and also so-called complex analysis of business activities and operation of the factory are missing. We can find important documents of the company history in the archives of Obecní úřad (Municipal Authority) in Radotín, mainly trade certificates for production, construction documents etc. A lot of important information is provided by yearbooks and annual reports of the firms and companies which owned the cement works. The memories of the former and current employees contributed to knowledge of the new and modern works history. I learned a lot of interesting information on the cement plant and quarries in discussions at work meetings of the group members preparing the book on the Prague cement works.

They would not exist without a personal initiative of Ing. Ladislav Damašek, the director of Závod Králův Dvůr-Radotín (the Králův Dvůr-Radotín Works). He initiated the mentioned group for the preparation of the book on the history of the cement works in Prague and the members were Jiří Hájek, Mgr. Ivan Kůs, Miroslav Moravec, Karel Dušánek, Ing. Jan Koryta, Pavel Malášek, Ing. Jiří Lahovský, CSc., Jiří Šulc and Vladimír Chaloupek. I thank them for their well-founded comments. I would also like to thank the management of the company Českomoravský cement, a. s. who provided me with generous conditions when working on this monograph. I would also like to thank my wife Marie who was the first reader and kind critic of the texts of this book.

In Beroun, April 2011 Miloš Garkisch

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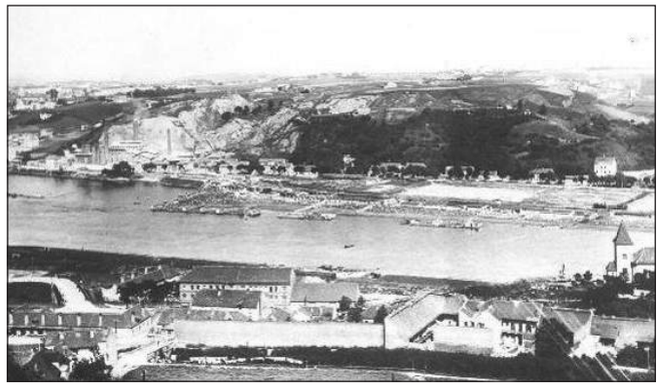
Miloš Garkisch was born in Frýdek-Místek in 1947. He spent his childhood in Olomouc and graduated there from high school in 1966. He graduated from archival science and history at the Faculty of Arts of Charles University. Between 1975 and 2010, he worked in Státní okresní archív in Beroun where he held the post of director in the years 1996–2010. Now he is retired.

~ THE CEMENT PLANT IN PRAGUE-PODOLÍ ~

The beginnings of the second[1] oldest cement works in Bohemia belong to the period called the founding period (gründer) in the historical literature. After losing the war with Prussia in 1866 and after the compensation in Austria-Hungary in 1867, a certain liberalization of conditions in Austria occurred. It was substantial mainly in business and economy. Between 1867 and 1873, many joint-stock companies were established based on the law of association of 1863, of which a considerable part was formed speculatively and they worked not only without subscribed capital but also without necessary reserved funds. The founder of the cement works was the **Ferd. Barta & Comp**. Company established by Ferdinand Barta and his brother in law Otakar Svoboda in 1867. The company was registered in the Commercial Register under number 4391[2] on 28th October 1867. Surprisingly, the business activities of the new company did not deal with building materials, but according to the trade certificate issued by the Prague City Hall on 1st July 1867, the company was engaged in selling general groceries, paints, commission sale and forwarding agency.[3] In 1871, the associates decided to establish a new company called **První pražská továrna na portlandský cement v Podole u Prahy–Ferd. Barta & Comp. (Erste Prager Portland Cement Fabrik in Podol bei Prag–Ferd. Barta & Comp./The First Prague Factory for the Portland Cement in Podol by Prague–Ferd. Barta & Comp.).** Although the name of the company changed over time, the company used the name in both languages over the period of its existence. The company was registered in the Commercial Register of Social Companies, volume IV, page 187[4], on 7th July 1871.



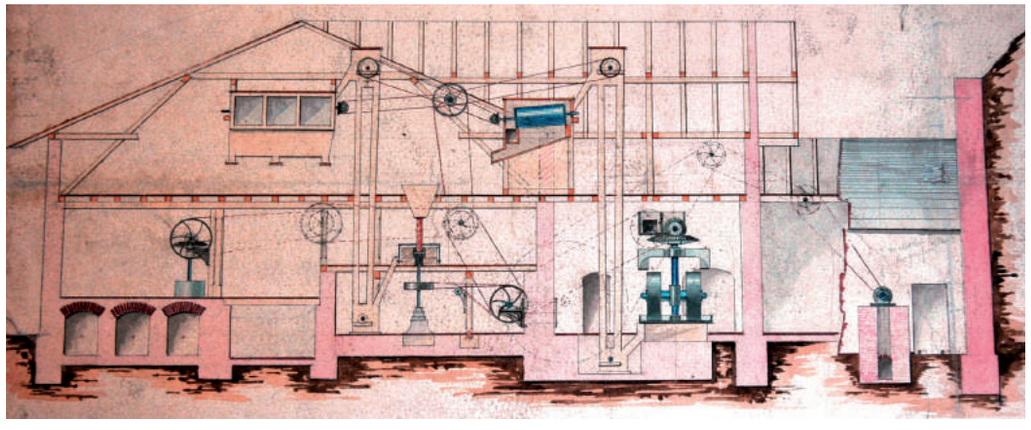
The cement plant in Podolí as viewed from the left bank of the Vltava River

The cement works formation was probably initiated by debates which were taking place in press, regarding the use of estates in the place of demolished Prague city walls from the end of the 60s. Demolition of the city walls and clearance of other fortification premises were carried out on the basis of the decision of the Minister of War of July 1875, by which the so-called demolition reverse was cancelled; it means a ban on building houses in the distance of 300-600 fathoms[5] from the city walls without the consent of the Fortification Headquarters. Professional discussions on the town enlargement and modernization promised extensive construction activities, including sales of building material. The beginnings of the cement factory were not easy. Soon, the founders did not have enough money for the intended company, therefore they decided to unite with other businessmen and establish a new trade

Housing development around the cement plant in Podolí, 1916

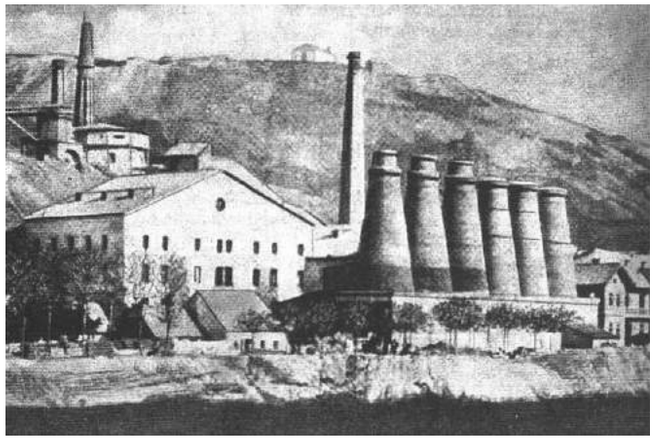
company. By regulation No. 2265 of 3rd March 1872, the I&K Ministry of Internal Affairs in Vienna permitted a formation of **Česká akciová společnost k vyrábění a zužitkování staviva (Böhmische Actiengesellschaft zur Gewinnung und Verwerthung von Baumaterialen/ the Czech Joint-Stock Company for Production and Use of Building Material)**. The company's statutes were approved by the regulation number 11711 of the I&K Vice-Regency in Prague on 7th March 1872.

The first general meeting of the new company took place on 11th March 1872 and the registration in the Commercial Register was made on 15th March 1872. Already at the first general meeting, the amount of the registered capital was being solved. According to the notary record of the general meeting the capital was quated for 12mil florins, *which is to be divided through 60,000 shares per 200 florins. First, only 10,000 shares in sum of 2 mil florins will be issued in the first share issue in the owner's name.*[6] At this general meeting the twelve-member board of directors was elected. Robert Baron Hildeprandt[7], a great land-owner from Prague, became a chairman of the board of directors, and JUDr. Vojtěch Barta, a provincial lawyer from Prague, became a vice-chairman. The members were Ferdinand Barta, a trader from Prague, Josef Barta, a trader from Prague, Vincenc Bubeníček, a timber merchant from Prague, Vincenc Duda, an owner of a real estate from Prague, JUDr. Moriz Lichtenstern, a provincial lawyer from Prague, Leopold Merlet, a wholesaler from Prague, Karel Schnabel, a builder from Prague, Vincenc C. Wagner, a trader from Prague and Ignác S. Wiener, a private businessman from Prague[8]. The shareholders were full of optimism, which was not so unusual in the whirl of millions accompanying the so-called foundation fever in 1867–1873.



Part of the layout of the Podolí cement plant in 1870

The crisis, which was started by the Vienna stock market crush in 1873 and lasted approximately until 1878, forced gradual decreas in a principal stock. In 1872, it already made 800,000 florins, which presented only 40% of the sum of 2 million. At the general meeting on 24th April 1874, the board of directors solved a problem of 2,000 outstanding shares. A proposal to exchange these outstanding shares for estates was not approved and the board of directors had to reduce the share capital.[9] In 1878 the principal stock dropped even lower down to 385,000 florins. The principal stock reduction was made by withdrawing shares from circulation, and their destruction followed.[10]



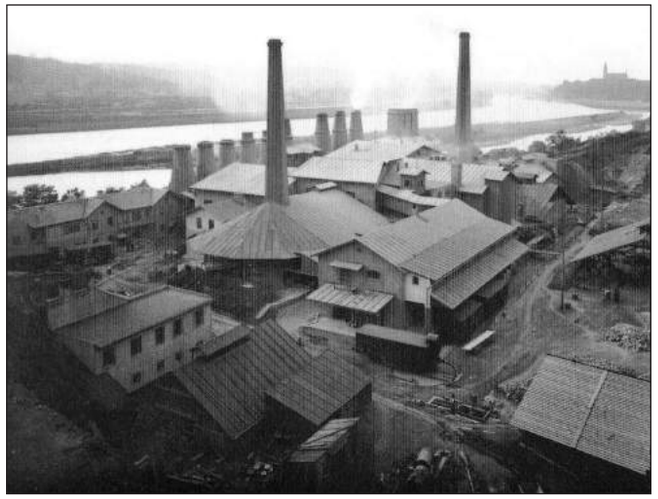
Cement plant in Podolí, 1875

The works development started on the estate belonging to Ottokar Svoboda as early as 1871. It was equipped with periodical shaft kilns and a steam machine with an output of 30 HP from the Breitfeld and Daněk Company. The quarries around the works in Podolí provided a sufficient amount of raw materials. In 1872, the cement works manufactured 1,026 kegs (1,750 q) of cement.[11] The Prime cement quality was also proved by a certificate from the Vienna Expo in 1873. The cement works presented this award in the company's bulletins. Main purchasers of products of the cement works in Podolí and other works of the company were newly established construction sites in Prague. Also, the development and construction of transport routes consumed quantity of building materials at the beginning of the 70s. The Prague railway system was under construction. A rapid growth of the Prague suburbs, mainly Smíchov and Karlín, caused a development of local connections. The rise of transport and development of new housing developments also forced a construction of new bridges. Promising development of the cement plant was slowed down by the crisis of 1873 and later, by a fire of the works in 1877. According to the balance sheet of 31st December 1877, the losses on buildings and machinery presented 473 florins and 92 kreutzers[12]. Damage clean up after this disaster lasted two years. Losses caused by the fire are not mentioned in the annual report for 1880[13]. The then director of the cement works, Karel Ježek, contributed considerably to early commissioning of the works.

Director Ježek drew attention to himslef by expressing his opinion on the cement production development in Bohemia. He published the most interesting article in Listy průmyslové (Industrial Journal) in 1876 – „O důležitosti českého cementu v národním našem hospodářství" (On the Importance of the Czech Cement in Our National Economy). There he criticized the fact that expensive foreign cement imported to Bohemia on duty-free basis could be replaced by the domestic product. Regarding the fact that there is a sufficient amount of suitable "limestone rocks" in Bohemia, he suggested a construction

of about 15 cement works which would sufficiently cover cement usage in all of the Czech Kingdom. Based on his own experience he calculated that the establishment and commissioning of the new works would require 200,000 florins. According to Karel Ježek the establishment of a cement works network in Bohemia and Moravia would have a positive impact on the Czech Lands economy. Limestone rocks, that have no importance for agriculture and the country has abundance of, would increase in value due to the construction of cement works and equipment in quarries, many craftsmen and workers would get a job, engineering works would get interesting contracts and inflow of funds would positively affect the local economy. The conclusion shows his young Czech patriotism. *It means that each kreutzer going abroad is a waste because it could be turned at home at least hundred times a year. Under such conditions it would be possible to contribute to art and any other needs of intellectual life. It depends on the good will and a cultivated sense for the importance of effects of the well-ordered national economy, and Bohemia will become richer each year. That is what is currently being thrown out abroad.*

The situation in the society was not good at the beginning of the eighth decade of the 19th century. The general meeting judged this condition as follows: *The balance sheet for the administration year 1880 does not show a profit to be worthy of notice even this time.* Bohemia and Prague were recovering slowly from the economy crisis. Besides the sale problems, the managing board also solved a bad access to the works. The board started negotiations with the district authority and the I&K District County in Královské Vinohrady to include the road connecting Podolí and Vyšehrad in the class of district roads, i.e. to strengthen and pave it. Further, the board tried for the designed railway connecting Vyšehrad, Podolí and Modřany to be "licensed". Debates about the railway dragged on for several years.



Shaft kilns in the Podolí cement plant

In 1881, the board of directors decided not to pay out a profit but to put money in a newly established reserve fund which replaced the so-called standby fund. This one was exhausted by the liquidation of the consequences of fire. The following year, a battle started in Austria for introducing duty on import of foreign, mainly English cement. Supporters of the duty-free import claimed that domestic products did not achieve the quality of imported cement. But expert testing, introduced officially in 1879[14], proved right the opposite and a duty of 50 kreutzers per 100 kg of cement was introduced. The board of directors responded to this: *Another favourable circumstance for our company is that due to the known cement scandal, a commonly presented prejudice that only English or foreign cements are of a good quality, was definitely affected and finally, a well-*

deserved attention is also paid to the domestic products.[15] At the same time, a new circular kiln for burning lime was built up in Podolí. Dissatisfaction of shareholders with the company´s management and with small dividends culminated at the 13th general meeting on 29th March 1885.

RECONSTRUCTION OF THE PLANT AND INTRODUCTION OF NEW PRODUCTION METHODS

The newly elected board of directors took resolute steps to improve the economic situation. It is stated in the annual report of 1885: *Complying with the wish expressed at the last general meeting, immediately after assuming their posts, the board of directors thoroughly examined the situation of the entire company regarding technical, commercial and administrative matters, and after obtaining the result, the board decided to reorganize the works. As a consequence, a complete change in management took place. The cement production was proved a false part of the company and it is stopped completely and one of the first specialists has been called to make an expert consultation. The result will be used in the cement production and also for current equipment to newly establish this area of the social enterprise. Technical*

Česká akc. společnost k vyrábění a zužitkování staviva v Podole. Cementárna v Podole u Prahy odporučuje

jemně mleté:
- Portlandský cement osvědčené jakosti;
- Roman cement pro stavby ve vodě, v mokré půdě atd.;
- cementové vápno zvláště též pro obmítky, které vlivem povětrnosti neb jinak trpí, velmi dobré.
- Pražské staroměst. vápno vedlejší ochrannou známkou opatřené, nedostižitelné co do hydrauličnosti;

kusové:
- vápno pražské staroměstské,
- vápno podolské hydraulické, stavební a bílé;
- vápno k hnojení, nejlepší prostředek k sesílení půdy.

[56]

Cementové výrobky: dlaždice, kuželky na balkony, věnce kol stromů, vásy, trouby na kánaly, záchody, průtoky pod silnice a cesty atd.

Šamotové cihly, šamotová moučka a hlína.

Výrobky naše uvedené má též na skladě v *Praze* Pan Vác. Veselý, Divadelní ul. č. 26. n. a v Karlíně proti Hamburku, *Benešov* Rud. Pokorný, *Chrudim* Ant. Kabeláč, *Jaroměř* A. P. Zouzal, *Jihlava* Jan Pfeifer, *Jičín* Em. Rost, *Kouřim* E. Hnátek, *Kutná Hora* Fr. Hrádecký, *Králové Hradec* T. C. Weber, *Král. Městec* A. Sládek, *Lomnice* H. Bulova, *Nymburk* B. Brzorád, *Nová Paka* Karel Záhorský, *Nový Bydžov* Storch a Peřina, *Tábor* B. J. Mendl, *Turnov* W. Werich, *Mýto Vysoké* O. Pohl, *Choceň* K. Havlíček, *Králíky* bratři Šrůtkové.

Další skladby svými se ovšeličnými firmám dle bližšího dohadnutí a prosíme pány obchodníky, kteří by si sklad přáli, by na nás písemně se obrátili.

PRAŽSKÉ STAROMĚSTSKÉ VÁPNO * PRAGER ALTSTÆDTER KALK

The Podolí cement works product advertising, 1880

equipment has been found eligible, changes in the machinery and construction changes have been made, including all possible economical measures and the new production shall start at the end of the year. In accordance with the obtained tests and certificates, the comodity gained this way is comparable to the best English and German brands; because now we are able to manufacture at least a six timeslarger quantity than before, any order can be fulfilled. Necessary attention was also paid to the technical part of the lime production, and due to the increased trade activities, the sale drastically improved already in the second

Circular kiln in Braník

Quary in Braník with the circular kiln in the background

half of the last year in comparison with the first half. We hope that more vigorous sale performance, with a new special clerk and appointed country representatives will help our cement and lime products to be sold in full.[16] The specialist mentioned in the annual report was Wilhelm Michaelis from Berlin, an important cement expert. He introduced many changes to the works operation. These changes improved products quality and stimulated production growth. For example he implemented regular analysis of the chemical composition of raw materials. After a three-year reconstruction of the works, the board of directors presented a positive balance to the shareholders and pronounced: *Due to the current equipment, our cement works is able to increase the production by 50% in comparison to the last year. If it is necessary to enlarge the works according to the increasing popularity of our brand, it will be a task for the board to find means and ways to maintain the pace with such unanticipated growing sale.*[17]

The main range of the company's products was hydraulic lime, cement and cement comodities. The lime was burnt in two circular kilns in Bráník and in one kiln in Podolí. Cement was manufactured in shaft kilns in Bráník, which were reconstructed and modernized in the mid 80s. During the company reorganization and considering the decreasing lime prices, the board of managers decided to reduce its production and concentrate on the production and sale of cement. On the basis of this decision, the cement works was enlarged, dipping and drying rooms were reconstructed and new storages for manufactured cement were built. The successful reorganization of the company was documented by the board in statistic data on the products sale. In 1883, 112,470q of lime, 6,400q of cement and 7,600q of hydraulic lime were sold. In 1885, when the reconstruction started, 83,926q of lime, 4,208q of cement and 3,947q of hydraulic lime were sold. In the following year 1886, the company happened to sell 88,979q of lime, 19,520q of cement and 6,212q of hydraulic lime.[18] It is interesting that only during these years the board of directors stated in the annual reports data on the quantity of products in units of weight. In following reports the quantity is stated in money.

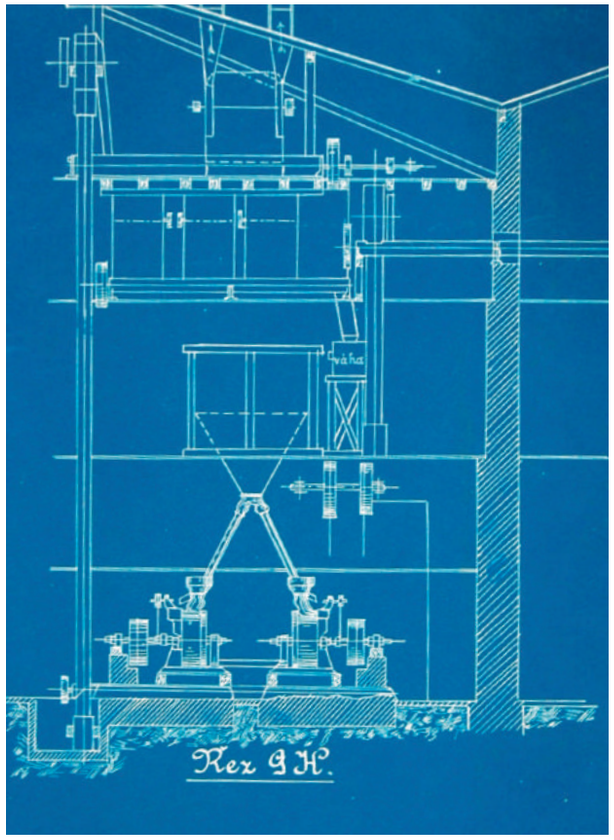
The main market of the company's products was in Prague which was gradually changing into a modern metropolis. In 1886, the new Building Code was introduced for Prague and the surrounding municipalities, which defined width of streets and consequently height of houses; it also defined the percentage of the development and much compulsory hygienic news of new housing constructions. In the 80s, new big building projects started and they were financed by the Prague City Hall, e. g. extension of the water lines from water-works in Podolí. Incorporation of other suburban municipalities in Prague and the following increase in the number of building plots supported the building activity.

PERIOD OF STABILIZATION AND ACHIEVEMENTS

The turning point of the 80s and 90s seemed to the board as a *boundary between the period where all activities of the board lied in directing the results at writing-off of losses from the past years and improving our works, and the period in which it can be expected, that the result would be used for paying dividends to the shareholders.* The board also pronounced: *Competent attempts with our cement convinced us that we can compete with our product everywhere. Because the cement is the principal resource of our incomes, all our attention is turned to the sale. This is possible, all the more so as in 1889 our works was not in full operation regarding the cement production and now, with our current equipment, we can produce much more cement..* And the board closes its announcement optimistically: *In the nearest period it is possible to look forward to many water and channel constructions and navigability of the Vltava River; with this and cheap water transport we can compete with our products even at longer distances.* The board of directors passed a comment towards the shareholders regarding the company's losses that year when the fire destroyed construction joinery works in Modřany.[19]

Optimism did not leave the board even the following year. It announced: *We are glad to tell you that the hope expressed at the general meeting last year regarding further development of our trade and sale came to fruition. Despite the decrease in our prices and labour and all necessary matters in 1890, mainly coal and coke went up in price; we achieved very favourable results due to all kind of savings and active trade*. It is necessary to note that the favourable results were affected also by selling the construction joinery works and estates in Modřany. Furthermore, the board assured the shareholders that *they are focusing on approved novelties in the area of the cement production with a view to use them. The board is also focusing on the quality: repeated expert testing with our current Portland cement in comparison with other brands proved its excellence in both tensile and pressure strength and constancy of the volume.*[20]

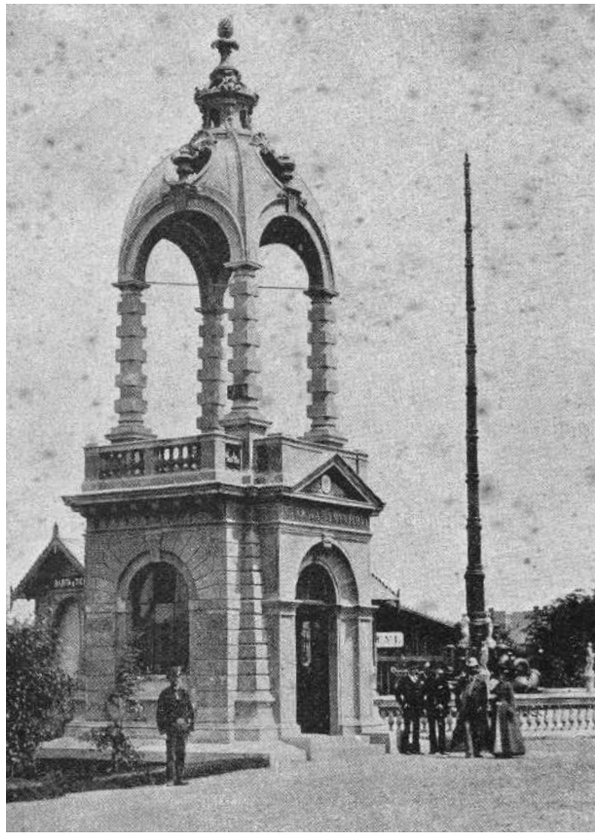
In the following year the company had the opportunity to introduce its products at the prestige Jubilee Land Exhibition organized on the occasion of the hundredth anniversary of the industrial exhibition that took place in honour of the coronation of Leopold II., the King of Bohemia. Participation of the company was very successful at this exhibition. Cement businessman and deputy Karel Tichý, a co-founder of the company Barta and Tichý, wrote about the participation of the company in a publication devoted to the exhibition[21] that *the Joint-Stock Company for production and*



Mill machinery plan in the cement plant in Podolí in 1893

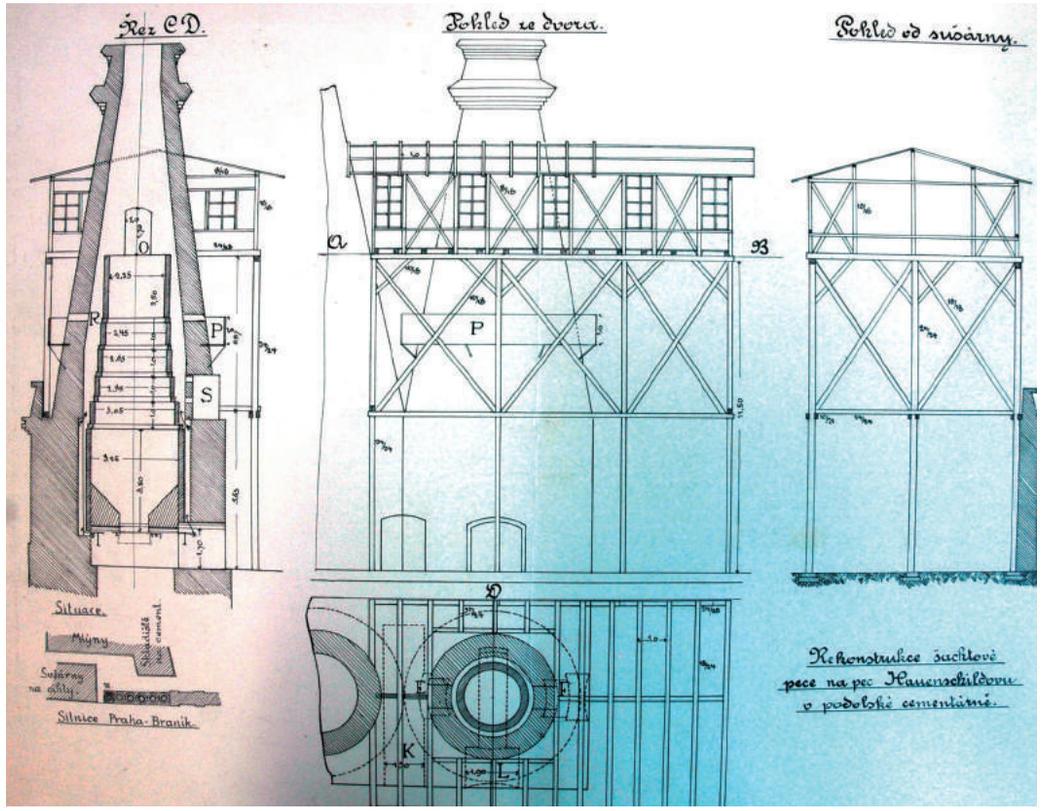
utilization of construction material in Podolí built a pavilion from its own cement with an ornamental tower in which even pieces of hydraulic lime are placed, as well as white lime for the mixing purposes, ground lime etc. The displayed cement was found exceptional and rewarded with the first price. The success at the Jubilee Land Exhibition confirmed an excellent quality of the company´s products. Mainly cement from the works in Podolí was appreciated very much and the board did not omit to inform the shareholders in the annual report for the year 1892. *The G. Gregersen and sons Company, which did the reconstruction of the Charles Bridge ruptured by the flood, used mostly our Portland cement and Prague Old Town hydraulic lime. They issued for us the best certificate. We received the same evaluation of our Portland cement from quite a few concrete companies, mainly from the company of engineer P. Ammann in Mödling by Vienna, which made grandiose water structures of of our Portland cement on the Jizera River.* The board also recalled that *regardless of the necessity to work in the works days and nights without stopping all year round, all the orders were not fulfilled.* At last, in the annual report the board responded to the upcoming construction projects in Prague, such as the re-development of Josefov, construction of the central slaughterhouse, the city sewage system, regulation of the Vltava River and others, by increased productivity of the Portland cement production; and *because the increased production and higher product sales require more financial resources*, the board asked the general meeting for approval of the proposal to increase the principal stock by 500,000 florins to issue another 1,150 fully payable shares per 100 florins and announced that the board intended to build a railway connecting the plant with the railway tracks Nusle-Modřany.[22]

Besides the successful participation at the Jubilee Land Exhibition, the year 1891 brought the company and cementworks a lot of changes. At the 19th annual general meeting on 5th April 1891, a new name of the company was approved. After the approval of the I&K Ministry of Internal Affairs and I&K Vice-Regency of Prague, the company's name was: **Podolská cementárna, česká akciová společnost k vyrábění a zužitkování staviva (Podoler Cementfabrik, Böhmische Adrien gesellschaft zur Gewinnung und Verwerthung von Baumaterial/ The Podolí Cement Works, the Czech Joint-Stock Company for Production and Use of Building Material).** The board of directors clarified a change of the name in the application: *in order to clearly designate the main works of the company.*[23] Increasing the sales of the cement encouraged the board to purchase rocks with the measurements of 14,659 m² in Podolí. The board said about the successful purchase that the company is richly provided with material for the Portland cement production for the future. The high quality of the cement from Podolí was also confirmed by the award at the industrial exhibition in Lvov in 1892.



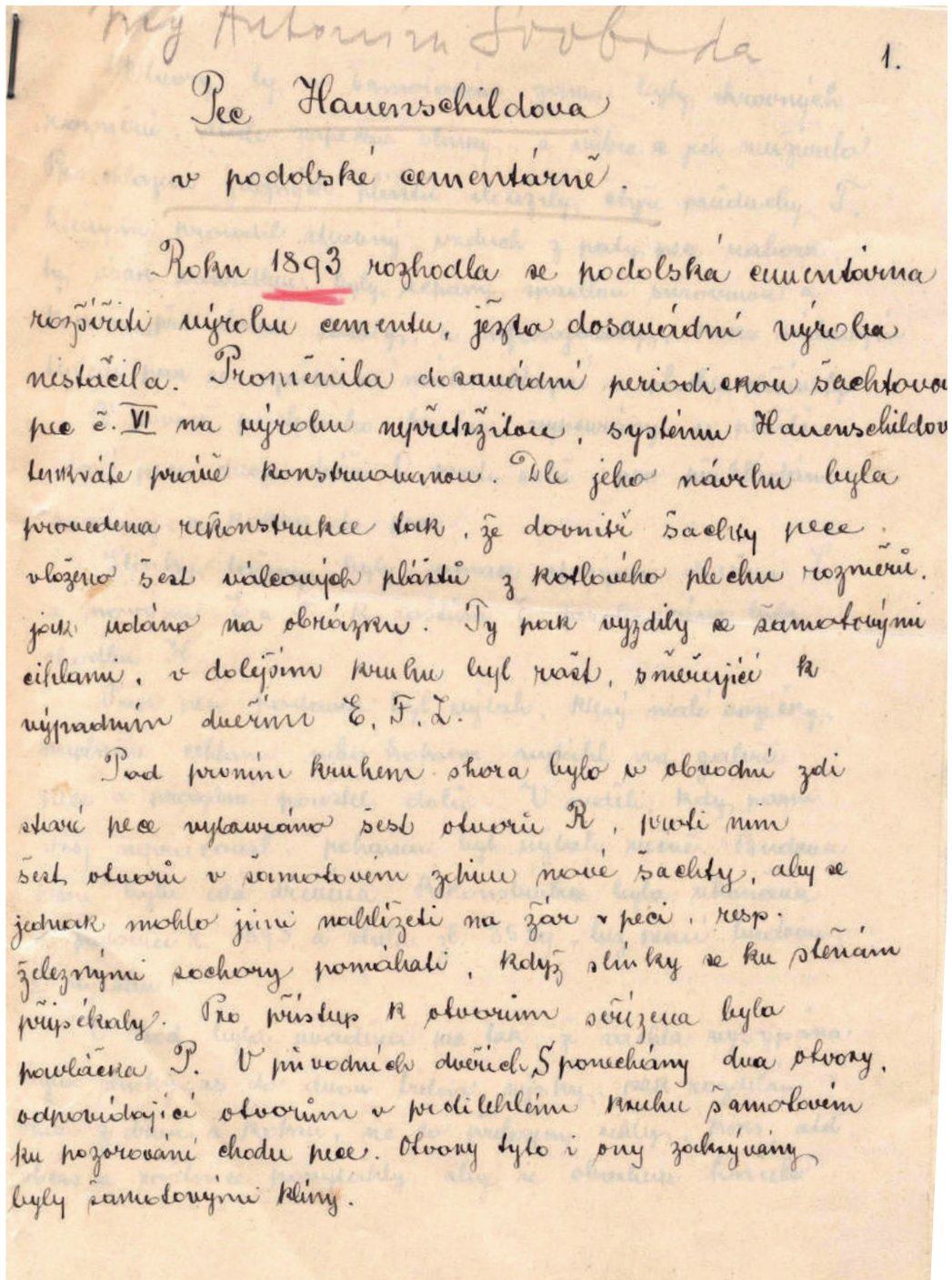
Pavilion of the Podolí cement plant for building material during Provincial Jubillee Exposition in Prague in 1891

In the 90s, the company became a member of the Cement Cartel in Austria. The company´s representatives with other Austrian producers of the Portland cement took part in negotiations with the Austrian Government of import duty on the German cement. Negotiations were successful and the German cement was encumbered with import duty for 12 years.[24] In the cement cartel association of the Austrian cement plants the Podolí cement plant co-operated narrowly with the cement plant of Max Herget in Radotín and the Beroun Stock-Joint Cement and Lime Works. When the association finished its activities in 1908 and the establishment of the successor organization was not in assigned due to obstructions on the part of the Austrian cement works, the cement works in Radotín, Beroun and Podolí started the negotiations on the establishment of the joint cement retail shop.[25] In 1892, the board of directors had to deal with an unusual matter. Its member František Rašín, a wholesaler, was knighted by Emperor Franz Josef. That was the beginning of the correspondence between the board and the Commercial Court whether this promotion should be registered in the Commercial Register. Since the change in the Register was performed for a fee, at the end the mercantile heart of knight Rašín from Ryzmburk won and he did not insist on the change.



Shaft kiln reconstruction plan

In 1893, the board of directors used an advantageous offer to purchase another 20,124 m² of rocks in the vicinity of the cement works in Podolí. In the same year, one of the kilns was reconstructed to a periodical kiln of the Hauenschild system with the height of 7 m; lower part had the diameter of 2.5 m and the height at the top of the kiln was 1.8 m. A brick octagonal chimney from 1875 was built up to the height of 50 m and cost 3,529 florins.[26] Also the grinding equipment and drying rooms were reconstructed.[27] Raw material was ground in the mill house equipped with millstones with the diameter of 1.5 m. Grinded material was soaked in a dipping agent for three days and after that bricks with dimensions of 29×14×8 cm were pressed from this material and then freed from moisture from 15% to 2%. About 9,000 bricks were laid in the kiln – one layer of bricks, one layer of coke. The thickest layer of coke was at the bottom of the kiln and the thinnest was at the top of the kiln. There were about 25 layers placed in the kiln. One day the kiln was burned, the following day it was cooled and the third day it was emptied[28]. In the following year, the company transferred its headquarters to Prague. This step required negotiations with the Ministry of Internal Affairs and Vice-Regency of Prague regarding the changing statutes and the board gave reasons for this: *our quarries and a works are in Podole but our trade is concentrated in Prague and our central management and offices are in Prague.*[29]



Pec Hauenschildova

v podolské cementárně.

Rokm 1893 rozhodla se podolská cementárna rozšířiti výrobu cementu, jejíž dosavadní výroba nestačila. Proměnila dosavadní periodickou šachtovou pec č. VI na výrobu nepřetržitou, systému Hauenschildovu teměř úplně konstrukcemnou. Dle jeho návrhu byla provedena rekonstrukce tak, že dosavadní šachtu pece vložen šest válcových plášťů z kotlového plechu rozměru, jaká měla na obvodu. Ty pak vyzdily se šamotovými cihlami, v dolejším pruhu byl ráček, směřující ke výpadním dveřím č. F. 2.

Pod prvním kruhem shora bylo v obvodní zdi staré pece vybouráno šest otvorů R, proti nim šest otvorů v šamotovém zdivu nové šachty, aby se jednak mohlo jimi nahlížeti na žár v peci, resp. železnými sochory pomáhati, když slínky se ku stěnám přisekaly. Pro přístup k otvorům sestřízena byla pavlačka P. V původních dveřích S ponechány dva otvory, odpovídající otvorům v prvním kruhu šamotovém ku pozorování chodu pece. Otvory tyto i ony zazdívány byly šamotovými klíny.

Manuscript of a document from Ing. Anotnín Svoboda regarding the recosntruction of the shaft kiln from 1893

In 1895, *particularly extensive and expensive reconstruction took place in almost all stations of the Podolí cement works related to not only the grinding equipment, drying rooms and kilns but also to the departments providing the driving power of the works. The goal achieved in 1895 had to be devided into the amount of the former stock principal and the amount the principal was increased by and which was mainly used for mentioned reconstructions.*[30] The proposal for increasing the stock principal by 115,000 florins and the issue of 1,150 shares per 100 florins fully paid was submitted by the board at the 23rd annual general meeting on 7th April 1895. Although, in the annual reports the board of directors complained about the poor sales of lime and preferred the cement production, they organized the construction of a new shaft kiln for the lime production.[31]

In the same year, the board dealt with the construction of the railway from Podolí to Bráník-Hodkovičky. The board organized the elaboration of its detailed project and it was submitted to the I&K Ministry of Railways in order to obtain a licence and a building permit.[32] At the same time the board had the design of the works railway elaborated, which would connect the cement works with the railway station in Bráník. On 16th December 1897, the project was submitted to the I&K General Inspectorate of the Austrian Railways. The negotiation was not easy and there were many objections. The Vice-Regency of Prague objected that the railway would be at the expense of the main railway project, which would connect the railway station in Bráník-Hodkovičky through the tunnel under Vyšehrad with the railway station in Vyšehrad. The municipal authority in Podolí-Dvorce complained that the project did not preserve the regulation plan approved by the Vice-Regency and Provincial Committee and the anticipated railway does not respect a public safety. The railway would run only 8 m from the house of neighbour Krupička and there exists a fire risk from passing trains. A lawyer of Prince of Schwarzenberg stated objections to the railway construction: *Already the first project submitted by the respectable cement plant in Podole was, as they say a still born child, because it was obvious at first sight that it cannot be approved because the railway was supposed to narrow an important road between Podole and Bráník from its second kilometer and it would affect a riverbed. This would result in narrowing the riverbed profile and putting in risk estates on the right bank of the Vltava River laying lower and belonging mostly to His Highness Sir Adolf Josef, Prince of Schwarzenberg.*

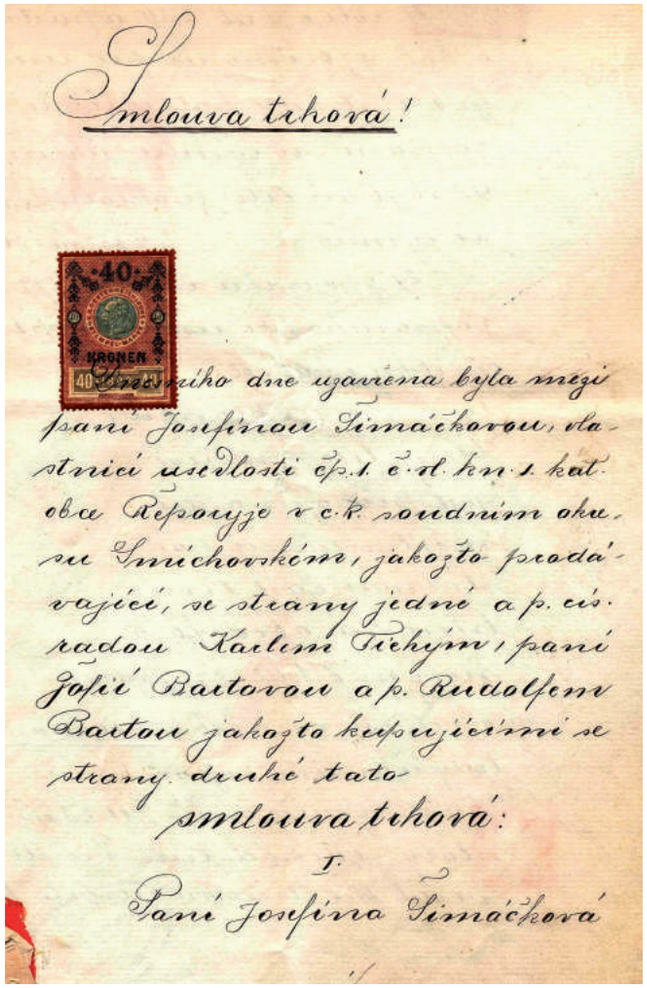
After many negotiations the railway project was reworked and finally approved on 29 November 1899[33]. The plant railway with the length of 3,386m with two simple points and two turn tables with diameter of 6 m was commissioned and operated until the cement plant was closed down.

In the last but one year of the 19th century, at the 27th annual general meeting held on 19th March 1899 the company changed its name to **Podolská cementárna v Praze (Podoler Cementfabrik in Prag/Podolí Cement Plant in Prague)**.[34]

Paper share of the Podolí Cement Plant of 1895 in the amount of 100 Austrian gulden

IN THE NEW CENTURY

At the beginning of the new century, the board of directors was dealing with a problem of the quarrying in Bráník with dynamite. At the beginning, there was a complaint of the residents of Bráník about frequent blasting which disturbed the residents, and insufficient security against falling stones. According to the correspondence, the Vice-Regency, Prague City Hall, District Executive in Královské Vinohrady and District Municipality stepped in the dispute. During negotiations substantial disorders were found in the evidence of ammunition and firing charges which were often done by a worker without a blasting test. At the end, permitted to make blast three times a day in summer and twice a day in winter. Stock of dynamite in the warehouse could not exceed 10kg and the warehouse had to be under the supervision of a cartridge-foreman who was approved by the District Executive. Only the blaster confirmed by the District Executive could carry out the blasting.[35]


Smlouva tahová!

40 KRONEN

…ního dne uzavřena byla mezi
paní Josefinou Šimáčkovou, vla-
stnící usedlosti čp. 1 č. d. kn. 1 kat.
obce Řepovje v c.k. soudním okr.
u Smichovském, jakožto prodá-
vající, ze strany jedné a p. čís.
řadou Karlem Tichým, paní
Josefií Bartovou a p. Rudolfem
Bartou jakožto kupujícími se
strany druhé tato
smlouva tahová:
I.
Paní Josefina Šimáčková

Illustration of the so-called Market Agreement on estate sale, 1903

Even in the period of ongoing economic crisis which affected the world economy between 1900 and 1903 and also Austria-Hungary, the board decided to renew some equipment in the plant. They commissioned three new shaft kilns of the Liban system.[36] In the following year the board of directors was happy about its decision to reconstruct the plant and they stated in the annual report: *there was a substantial cement sale due to the construction of the Alpine railways. Our plant was busy all year although the production did not reach its production possibilities which were extended by the reconstruction of our plant and by the goods railway from Podolí to Bráník-Hodkovičky. Furthermore,*

the board clarified to the shareholders a reason why the cement plant was not running at full power: We manufacture only about as much as the contingent assessed by the Association of the Austrian Cement Plants allows us. We cannot fully use our production abilities and save overhead expenses. This detriment is partially compensated by more stabilized and adequate price of cement.[37]

On 10th April 1905, at the 33rd annual general meeting a decision to increase the stock principal by 500,000 crowns[38] was approved, and after an official approval the board was authorized to release a new shares issue.

In the following year, the board of directors was put out of countenance by the strike of all the workers in the company´s quarries, lime and cement plants. In the annual report the board reported to the shareholders: T*he strike burst out under the pressure of external elements at the beginning of the year and lasted for six weeks. At this time, not only the entire production but also the sale stopped. It was not possible to do repairs of the kilns straight after the strike because the external workers who did these works before the strike were still on strike. It lasted several weeks until all the kilns were commissioned again.* It seems that the strike was not caused by a fight for the common voting right but by workers´ wage claim. The strike was finished by an agreement.[39]

After the crisis, the extensive economic boom came during a decade before the First World War. The prosperity reflected in the society economy. As the board of directors stated in the annual report: *Numerous water structures, dams on mountain streams and regulating works*[40] *as well as the use of cement for different concrete and ferroconcrete structures of building constructions and mainly plant constructions brought a favourable trade for the whole cement industry.*[41] In this year official files for ferroconcrete structures were issued.[42] At the general meeting the shareholders decided to release only 1,250 pieces of new shares and the stock principal increased only by 250,000 crowns.[43] Nationalizing of the Austrian railways in 1906–1908 and political crisis accompanying annexation of Bosnia and Herzegovina when partial mobilization of troops happened, caused a failure in the allocation of railway carriages which resulted in faulty fuel supply and products export. Therefore, from the general meeting held on 19 April 1909 the shareholders sent a sharp protest to the I&K Ministry of Railways against considerable lack of railway carriages.[44] The boom let the society to make an extensive modernization of the cement plant. On Friday 29 January 1908, ball mills for rough material and cement and tube mill from the F. L. Smidth & Company from Copenhagen were approved. Further, the building


Quarry by the Podolí cement plant, 1915

commission permitted the construction of another three kilns of the Libanov system. In March 1912, the lime kiln was demolished and the construction of three kilns of the Schneider system started instead of the originally designed Libanov kilns.

The shape of the cement plant was improved by a new brick chimney with height of 45 m. There was also installed an exhaustion with output of 750 m^3 per minute from the company Janka a spol. Radotín.[45] In December 1909, at the board meeting a question of the position of the rotary kiln became a part of the agenda. When comparing advantages and disadvantages of the new method of the cement production, this proposal was finally refused: *It is impossible to build a rotary kiln at our old plant which is limited regarding its space.* In autumn of 1911, for the use in quarries a drilling rig for compressed air with an efficient compressor was purchased from the company H. Flottmann & Com. in Vienna. Another important investment was a press of the Dosrsten system for production of cement bricks and a chain conveyor from the engineering plants Hervest-Dorsten from Westphalia.[46] None of the board members and shareholders even thought that this modernization would be the last one for a long time. In 1911, the Podolí cement plants took a part at the birth of "Hlavní prodejna rakouských cementáren spol. s.r.o. (Main Retail Shop of the Austrian Cement Plants Ltd."), a successor organization to the Cartel Association of the Austrian Cement Plants which finished its activity in 1908. In the new organization Podolská cementárna, Královodvorská cementárna, Radotínská cementárna Maxe Hergeta and Berounská akciová cementárna a vápenice (the Podolí cement plant, Králův Dvůr cement plant, Radotín cement plant of Max Herget and the joint-stock cement plant in Beroun) constituted the so-called Czech Group.

THE FIRST WORLD WAR PERIOD

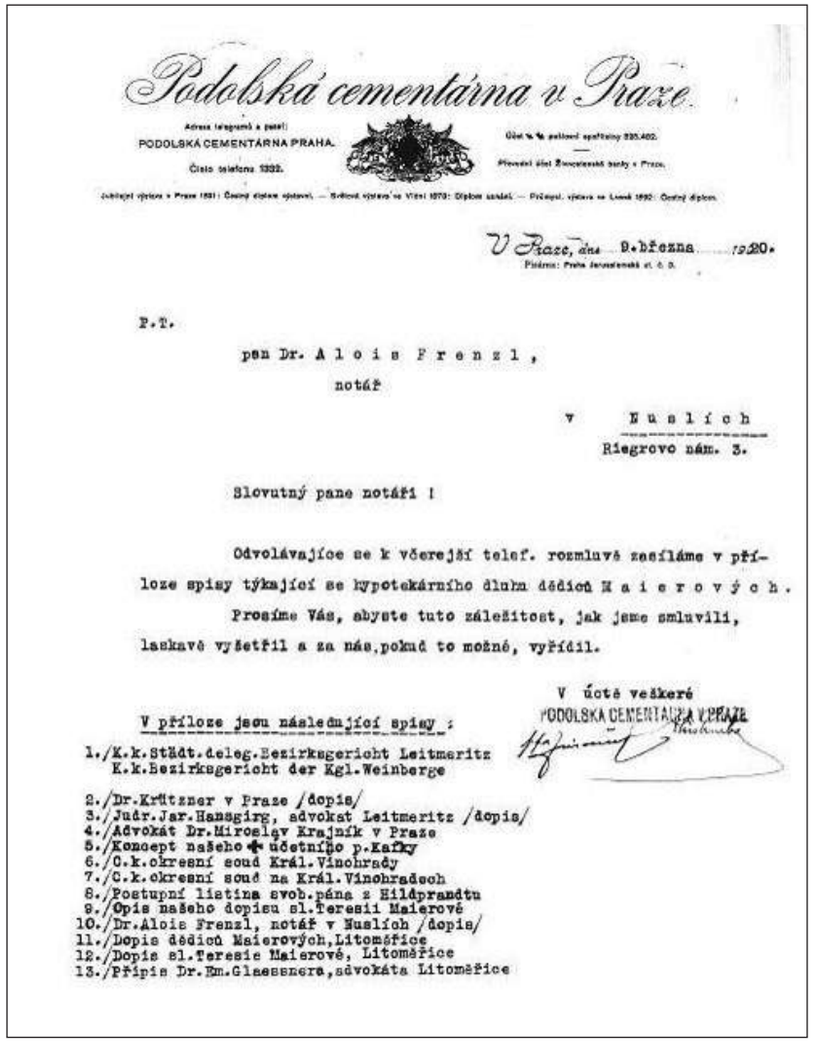
In 1914, outbreak of the conflict affected distinctively the operation of all the company's plants. The cement plant, of which 151 workers joined the army, was forced to stop production, mainly because the railway transport was fully used by the army and also the horse-drawn wagons were requisitioned. After a short chaos, the economic situation stabilized. Companies working for the army needs were preferred and building material industry was not one of them. The cement production was renewed by the company in November but *it was limited and the burning of lime did not even start*, as the board of directors informed the shareholders, because from the beginning of August[47] the building hustle finished.[48] In all the annual reports over the war period the same complaints appeared – lack of coal, railway carriages and labour. In 1915, the Main Shop of the Austrian Cement Plants Ltd. was asked by the owners of the Halič and Bukovina cement plants for a financial compensation. Regarding the war conditions in Halič and Bukovina they could not manufacture and dispatch cement, so they asked for a compensation according to § 29 of a contract concluded between cement plants associated in the Main Shop. According to this article, in case of "major force" – which war was – the plants should have got from other plants a compensation for each carriage with which they would stay under contingent "without their own fault". Taking the situation into consideration, the Podolí cement company refused to take part in the compensations.[49] The cement plant worked partially for two, three months of the

year. For that reason there was significant loss in 1917 and 1918. The situation was worsened by an unfair competition of cement plants out of the Cartel. The big Hungary cement plant in Tatabanya belonging to "Ungarische allgemeine Kohlenbergbau Aktiengesellschaft" supplied its cheap cement to Vienna, Austria, Moravia and Bohemia.[50] In 1917, the main coordinator of the cement Cartel, Hlavní obchod rakouských cementáren s.r.o. (Main Shop of the Austrian Cement Plants Ltd.) in Vienna finished its activity and Hospodářský svaz průmyslu cementářského (Association of the Cement Industry) was established on the basis of the regulation of the I&K Ministry of Commerce No. 507 of the Imperial Law of 22nd December 1917. This association possessed a monopoly right to purchase, distribute and sell coal products.[51] After the monarchy disintegration, the association finished its activities. At the end of 1918, the board of directors decided to increase the stock principal by 250,000 crowns in the issue of 1,250 shares to 1,500,000 crowns in total.[52]

IN THE CZECHOSLOVAK REPUBLIC

The economic collapse which started in 1917 went on even during the first years of the existence of the Czechoslovak Republic. The board complained that: *the production had to be adapted to irregular and quite small fuel supplies of not perfect quality and so the production was behind our assumption.* The cement plant worked only 25% of the pre-war production and a slump of the lime works in Bráník was even deeper. The lime production dropped down to 16%. At the request of the villages along the Vltava River, passenger transport on the company's goods railway was operated by the State Railways management from March to August 1919. The board commented on the stoppage of passenger transport: *we do not have to regret this because we had more harm than good from it.*[53] In 1920–1923, the economy of the Czechoslovak Republic stabilized, an increase in industrial production, successful export and moderate inflation enabled to eliminate the controlled war economy, which lasted for almost three years after war. The regulation of raw materials and industrial products was cancelled. The years 1920 and 1921 were successful. The board was satisfied that a fuel ration provided to the plant by the Ministry of Public Works increased but the board also complained: *that the fuel prices of all materials and equipment necessary for operating our plant were increasing permanently, all railway import quotas increased substantially and different levies and tax were newly introduced. They also stated: Newly supplied machine parts which are looked after with difficulty under current circumstances, are not as good as the parts prior to the war and on the top of it, they are expensive.*[54] The employees of the cement plant did not participate in the December strike.

In 1921, the town electrical railway was prolonged to Podolí and the water main was laid from the water tower in Podolí to Bráník, and then the road was reconstructed. It meant that any connection of Prague with the surroundings via this road was excluded during the reconstruction and the board of directors had to stop the production and dismiss a large number of employees.[55] The economic depression from 1922 and 1923 postponed a blooming building business expected by the board. The cement plant had reasonable stocks from the previous period, so in 1922, the cement



Podolská cementárna v Praze.

Adresa telegramů a pošt: PODOLSKÁ CEMENTÁRNA PRAHA.
Číslo telefonu 1332.

V Praze, dne 9.března 1920.

P.T.

pan Dr. A l o i s F r e n z l ,
notář

v Nuslích
Riegrovo nám. 3.

Slovutný pane notáři !

Odvolávajíce se k včerejší telef. rozmluvě zasíláme v příloze spisy týkající se hypotekárního dluhu dědiců M a i e r o v ý c h.
Prosíme Vás, abyste tuto záležitost, jak jsme smluvili, laskavě vyšetřil a za nás,pokud to možné, vyřídil.

V účtě veškeré
PODOLSKÁ CEMENTÁRNA V PRAZE

V příloze jsou následující spisy :
1./K.k.Städt.deleg.Bezirksgericht Leitmeritz
K.k.Bezirksgericht der Kgl.Weinberge
2./Dr.Krützner v Praze /dopis/
3./Judr.Jar.Hansgirg, advokat Leitmeritz /dopis/
4./Advokát Dr.Miroslav Krajník v Praze
5./Koncept našeho dopisu účetnímu p.Kafky
6./C.k.okresní soud Král.Vinohrady
7./C.k.okresní soud na Král.Vinohradech
8./Postupní listina svob.pána z Hildprandtu
9./Opis našeho dopisu sl.Teresii Maierové
10./Dr.Alois Frenzl, notář v Nuslích /dopis/
11./Dopis dědiců Maierových,Litoměřice
12./Dopis sl.Teresie Maierové, Litoměřice
13./Přípis Dr.Em.Glaessnera,advokáta Litoměřice

The Podolí Cement Plant company letter, 1920

production did not start and the plant operation was reduced to milling the stored clinker, which lasted several weeks. The complaint of the board about closing the road Bráník-Podolí for nine months in connection with the extension of the electrical railway culminated with a comment, *a lease on the Bráník quarries, which expired after fifty years in June of the last year, has not been prolonged by the Prague Municipality. They took over the company, which was probably a compensation for big damages we were affected by through the fault of the municipality during the construction of the road and electric railway.*[56] In summer, the state railways management started operating the passenger trains between Podolí and Bráník-Hodkovičky on Sundays and holidays using the company's goods railway. The operation finished on 30th July. In the following year the board assessed it with a statement: *the production was limited*

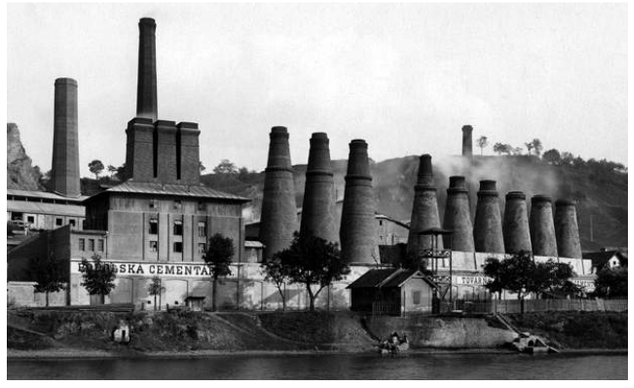
anyway and due to the miners' strike[57] *it was prematurely interrupted again, and because we had a stock of finished products, the operation did not start after the strike had finished.*[58]

Paper share of the Podolí Cement Plant from 1924 in the amount of 200 Kč

With regard to the planned extended reconstruction for years 1924 and 1925 the board gathered an unscheduled general meeting on 19th January 1924, which decided to increase the stock principal by 750,000 crowns. In 1925, the production was affected by the plant's reconstruction. An increase in the stock principal from 1,500,000 crowns to 2,250,000 crowns was done smoothly and the announced issue was successful. The issue profit after expenses deduction was put into the reserve fund.[59] The board stated the balance for the year 1925 as follows: *As a result of reconstruction works it was impossible to maintain a normal operation in the plant and the balance for the year 1925 showed a loss.* During the year 1925, there was finished a construction of the suspencion cableway from quarries to the cemen plant. Furthermore, the new storage of clinker was constructed as well as a new boiler room with two new vertical water-tube steam boilers from the company Breitfeld-Daněk. There was assembled a rotary grid with relevant machinery for the automatic rotary kiln[60] and the shaft kiln with the height of 12.20 m and 3.30 m in diameter with a rotary grid of the Grueber system was constructed. The construction of a new engine room for a new steam engine started and a new truck was purchased. The steam engine with an output of 880HP was delivered by the company Breitfeld-Daněk in 1926. The reconstruction demanded substantial costs, so the board decided to ask the general meeting for another increase in the stock principal from 2,250,000 to 3,000,000 crowns. In December 1926, the company transferred its central office from Prague, Jeruzalémská Str. 3 to Podolí, No. 43.

In 1927, the Parliement of the Czechoslovak Republic approved a tax reform. Tax burden on the population and business was very high; besides the tax itself it represented also different levies and municipal surcharges on tax. A backbone of the reform was presented by three tax laws – the law on direct tax, on new modification of the financial economy of units of the territorial autonomy and the law on stable balances. On the basis of Law No. 180/1927 Coll. which amended Law No. 76/1927 Coll. on Direct Tax, the board made an evaluation of properties which were not in the permanent company's operation. The price of the properties was estimated for 1,163,750 CSK. Another company´s property was appraised according to Law No. 78/1927 Coll. on Stabilization Balances. This law was supposed to make preconditions for establishing taxable yields later on. The value of quarries and estates with the area of 97,070.07 m^2 was appraised by specialists for 4,701,000 CSK, goods railway was appraised for 1,488,307 CSK. All buildings of the plant were assessed for 999,934 CSK. Three kilns of the Schneider type with relevant structure were evaluated for 997,303 CSK. Most of the machinery acquired before the war was appraised as *old iron* with the value of 300,000 CSK. The value of the house with apartments for a director and clerks was 204,562 CSK. A new evaluation resulted in the surplus amounting to 7,923,686 CSK in the opening balance-sheet. In the last balance, the company's property was estimated for only 767,418 CSK. The board suggested to use all surplus according to the law and to establish the stabilization fund. "The fund for transition to peaceful economy" established in 1919 was cancelled *because the purpose for which it was established in its time does not last any more* and it was transferred to the reserve fund.[61] At the end of 1927, the board discussed a special event. Its member Rudolf Fischl, an assistant to the director of Česká průmyslová a hospodářská banka in Prague (the Czech Industrial and Economy Bank) was effectively condemned for a fraud by the Land Civic Court. The crime was committed with base and dishonest motives, so the board decided at the meeting on 19 December 1927 Rudolf Fischl to be crossed out from the Commercial Register as its member.[62]

The end of the 20s of the last century was characterized by a big construction prosperity which brought not only good profit but also enabled other investments. A construction of de-dusting equipment in the cement plant was considered by the board as the most important investment of the year 1928, and the board made a comment on commissioning this equipment in the annual report: *By constructing the most modern de-dusting equipment we achieved a complete removal of dust in production.*[63] The car pool of the cement plant was boosted with another automobile. At the beginning of the following year 1929, severe frosts set in. In February 1929, the lowest temperature on the territory of our country (-42.2ºC) was measured. Construction activities practically stopped because of severe frosts. On the contrary, it was very hot in the cement plant because of fire which burst out on 4th February. It happened to confine the fire in small part of the plant and the damage caused by fire to be covered by the insurance. The board notified the shareholders: *Despite the persisting and the most severe frosts, the reconstruction of destroyed premises started straight away and we can thank to the plant management for their effort to reduce the interruption of the production caused by fire to the shortest period. It was impossible to prevent unfavourable consequences of fire.*[64] The board imputed good economic results to the quality cement of their own plant and presented this impression to the shareholders: *High quality and increasing popularity of our product has enabled another expansion of our customer base. We cannot miss the fact that cement is gaining a broader application; due to extensive investments of the cement plants, the current price of cement is much lower than it would correspond to the valorized pre-war price, even though the present regular strength exceeds the regular pre-war strength and also valid regulations.*[65] The reconstructions and repairs performed required more money. At the general meeting a proposal of the board of directors was approved to stamp the company's shares from the nominal value of 200 CSK to the value of 400 CSK using the amount of 3,000,000 CSK from the stabilization fund. The stock capital increased from 3,000,000 CSK to 6,000,000 CSK.[66] In the balance sheet on 31st December 1930, items such as horses, wagons and feed material did not appear for the first time. Cement supply to the customer was provided only by lorries. The works owned two lorries of the Praga brand with a loading capacity of 5 tonnes with full-rubber pneumatics and a trailer. In 1931, a combustion chamber for the Cummer drying room and the plant for feeding water softening were reconstructed.[67]



A cement plant in Podolí

At the beginning of the 30s, the plant management elaborated an internal inventory of buildings and machinery of the plant probably for the Inland Revenue administration. The production center of the plant consisted of two kilns with rotary grid of the Grueber system. The jacket height of the first

one was 10 m with inner diameter of 3.20 m, the jacket height of the second one was 12.20 m with inner diameter of 3.30 m. Both kilns were placed in the concrete structure from 1913. The structure originally surrounded three kilns but from the third one, only a chimney and dust chamber remained. The structure height was 13.65 m, there was placed a storey with concrete walls and a concrete roof with a roof ventilator on it. The capacity of each kiln was 10–12 wagons (100–120 tonnes) of clinker per 24 hours. Filling the kilns with material was provided by the Bühler press. Two sets of milling equipment for ground material. Each of them consisted of a Kominor ball mill and a tube mill with the diameter of 1.7 m and height of 9.6 m. The capacity of each set was roughly 70q per hour. Cement was ground by a set of the Kominor ball mill and a tube mill with the diameter of 1.2 m and height of 6 m. The capacity of this unit was 30–40q per hour. The "Rekord" mill with the diameter of 1.7 m and height of 9.6 m ground 70–80q per hour regarding the fineness. Material was crushed by: a hammer crusher "Mamut" with the capacity of 150–200q per hour, a crusher by the kilns with a jaw opening of 440 x 200mm and capacity of 50q per hour, a crusher by the "Rekord" mill had capacity of 100 q per hour and the opening of 600/300mm. Another crusher in the old cement station processed 50q of material per hour and its opening was 440/200mm. The last standby crusher "Glaser" had the opening with dimensions of 600/300mm and it processed 70q of material per hour. Two Cummer drying rooms with the diameter of 1.12 m and length of 6.70 m were able to dry out 140q of material per hour to reach the required moisture. Other machines stated on the list were: 25 HP "Flottmann" compressor, pressure 6atm. and three pneumatic hammers, a double "Dorsten" pressmixer of raw material and coke with dimensions of 0.70 m × 4.4 m. 20 chain elevators provided the transport of coke dust, raw material, clinker and cement between different stations. Individual production premises were connected by narrow-gauge railway with gauge of 500mm, with 16 turn tables and a length of 500 m. The drive of the plant was provided by two vertical water-tube Breitfeld-Daněk steam boilers with a steam collector and a preheater – heating surface of 200 m², steam pressure of 15 atm. with an automatic grid. Furthermore, the 880 HP Breitfeld-Daněk steam engine with valve mechanism of the Schwabe system, steam pressure of 15 atm. and a generator with the 35O HP exciter with a tension pulley and 23 electric engines of different capacity, size and prices. There were 40 brick buildings in the area of the plant – two brick chimnies and mill buildings, workshops, cement stores, laboratories, also a building with dipping rooms and press and administration building and sheds. The plant also owned eight residential buildings in Podolí. Connection of the plant with the surroundings was provided by the railway with the length of 3.25 km, three trucks of the "Praga" brand with the loading capacity of 5 tonnes and a cableway of 720 m with an output of 60q per hour. At the end of the report it was stated: The stock of stones for the plant is estimated for 30–40 years. The company takes 25% of lime from Hlubočepy and Karlštejn. The average opencast from our own quarry presents 3,500 wagons.[68]

DURING THE GREAT DEPRESSION

At the beginning of the 30s, the world economy was affected by the deep economic crisis. Economic depression came to Czechoslovakia with some delay and gradually it hit all areas of the

national economy. The biggest restriction in the building industry came in the years 1932–1935. In annual reports of this period, the complaints of the board repeatedly said: *The general economic crisis, which culminated last year, resulted in a considerable drop in the building industry. Our sale did not achieve even 60 % of our production capacity.*[69] The company was weighed down by a substantial bank debt, so it suggested increasing the share capital from 6,000,000 CSK to 7,000,000 CSK by issuing 2,500 new shares per 400 CSK fully paid. The board made a comment on the proposal: *If the share capital is increased, it will be possible to pay for ponderous debts and save money on high bank interests. The increase was approved by the general meeting.*[70] In the following year, the board of directors assessed the situation: *Big drop in building activities resulted in another general decrease in sale of cement, all the more so did the public investment activity dropp to the lowest level.*[71] Even in 1934, the situation did not change and the board said to the shareholders: *In the last year a revival of the building activity did not happen and the investment activities also dropped to a lower level. Rough competition brought a price slash to such a level that is harmful to the economy. It is obvious that in such situation we made a loss last year.*[72] On 1st May 1935, at the 63rd general meeting a question was discussed whether women should have a passive right at a general meeting. The problem was probably iniciated externally because there were not many women amongst the shareholders. They were mostly widows of the shareholders and they left somebody to represent them at the general meeting. The board recommended to approve the alteration of the articles – *with regard to the general legal regulation and a legal status of women it is not a problem to amend the articles in this way – legally competent women have an active and a passive right to vote.* At this general meeting, another change of the articles was also caused by the unfavourable economic situation. With regard to lower sales of comodities the board suggested to turn waste into by-products and put a record in the statutes: *To make waste into by-products and do trade with them as well as with all sorts of building materials.*[73] In this situation the plant management tried to reduce expenses. When manufacturing the Portland blast-furnace slag cement, the management decided to use blast-furnace slag from Dobříšské železárny a.s. (the Dobříš Iron-Works) in Stará Huť by Dobříš. During negotiations with the management of the State Railway on a tariff reduction, they mentioned that if the plant does not get a discount on transport, they will use their own trucks for the transportation of slag and cement distribution. The management of ČSD (Czechoslovak State Railway) notified that the plant was going to get a reduced tariff when they were using railways for cement distribution.[74]

THE CZECHOSLOVAK CEMENT CARTEL

Rough competition during the economic crisis revived the intention to establish the Czechoslovak Cement Cartel. Negotiations were very difficult because the smaller plants laid down big requirements regarding the amount of quotas. At the end, in the middle of February 1933, the report was signed and it determined deliveries of individual plants, and the principles for the next agreement were determined too.[75] The purpose of the agreement was to protect common interests of the members, to organize the production economically and determine the guidelines for sale of cement, to reduce useless expenses on competition, remove unfair competition and use agreed quotas as well as possible with the use

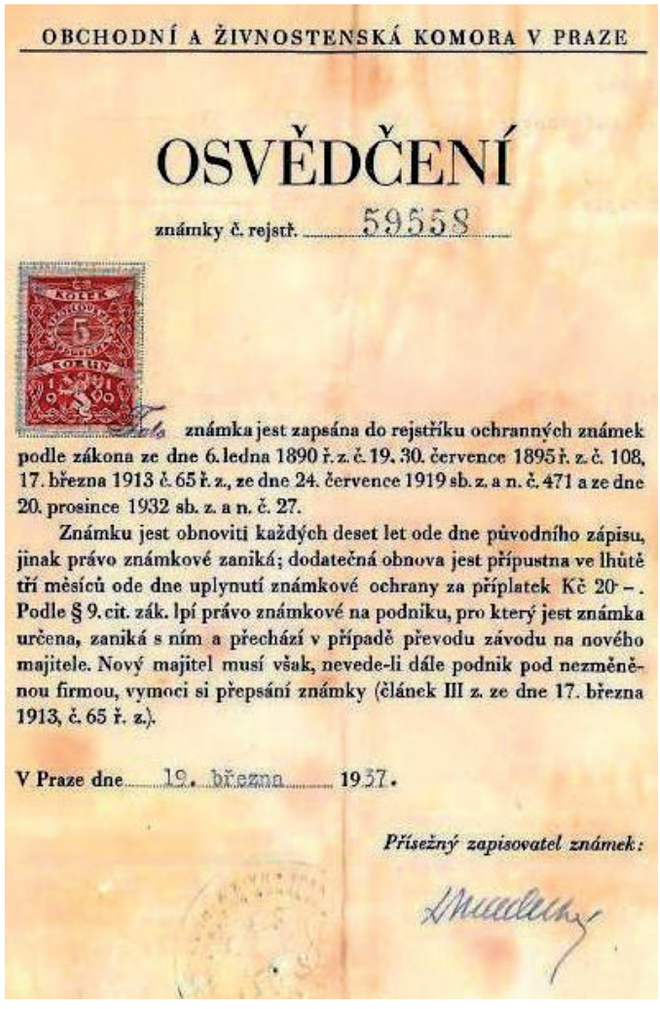
of geographical location of producers towards customers. The report was also signed by the company's representatives. The main guarantor of the agreement was supposed to become the joint-stock company under the company **"Cement"**, a.s. (plc.) with headquarters in Prague. The stock capital of the new company was 1,000,000 CSK, which was divided into 5,000 shares per 200 CSK registered in the name of the owner. The Podolí cement plant bought 163 shares, i.e. 3.26 % of the stock capital. The agreement was related to the manufacturing and selling cements: Portland, high-quality, ferroportland, blast-furnace and aluminious cement, and also hydraulic binding agents. All cement deliveries were under the arrangement of the agreement. Total sale was divided amongst participants in a ratio of quotas. The quota for the Podolí cement plant was determined for 3.269%. To ensure the commitments coming from the agreement to be met, a guarantee fund was established. Each participant paid 40,000 CSK to the fund per each percent of quota. The Podolí plant paid 130,760 CSK.[76] The agreement of 1933 was not found binding by some cement plants, and therefore the Králův Dvůr plant, which made the biggest effort of all to establish a statewide cement cartel, started negotiations with Prastav, the Podolí cement plant, the Řetenice cement plant and Malověřice cement plant – Leo Czech. The Králův Dvůr plant and Maloměřice plant – Leo Czech committed to provide the Podolí plant and the Prastav Company with financial compensation for some parts of quotas. The main sale of cement products should concentrate in the joint-stock company "**Prodejna cementáren s.r.o**" (Retail Shop of Cement Plants) with headquarters in Prague. Finally, the statedwide cartel was established and started its activity on 1st January 1936. On that day also "Prodejna cementáren" started its activities. The equity capital of the new company was once again 1,000,000 CSK. The Podolí plant contributed a capital of 34,500 CSK, i.e. 3.450%, and its quota was set for 3.450% with a clause that the Králův Dvůr cement plant had the right to take over a part of quota up to half a percent each year from Podolí and vice versa. The company made a comment on the establishement of the cartel and shop towards the shareholders: *This agreement contributed to the stabilization of cement prices, which contributed substantially to the development of a private building industry. But after this price adjustment, the cement prices are still low and even lower than before the outbreak of a price battle in 1933.*[77]

The Czechoslovak Cement Cartel, which was established laboriously, did not last very long. After the Munich Agreement being signed in September 1938, the cartel broke up. All the cement plants in the occupied area finished their membership in the Cartel. Štrambersko-vítkovické cementárny, a.s. (the Štramberk-Vítkovice Cement Works, plc.) threatened with leaving the Cartel on 14th November 1938 due to importing material for cement production for higher prices from foreign countries and it could not keep prices determined by the Cartel. This plant enforced a withdrawal from the agreement by legal proceedings.[78] Finally, despite the compromises, Štrambersko-vítkovické cementárny concluded a provisional agreement according to which the orders were divided according to old quotas with the following cement works that remained in the curtailed republic: Královorská cementárna (the Králův Dvůr plant), Podolská cementárna (the Podolí plant), Prastav and Maloměřická cementárna (the Maloměřice plant). A ratio within the Králův Dvůr cement plant, Prastav and the Podolí cement plant was 76:15:9. Moravské cementárny (Moravian Cement Plant) divided the area of Moravia. The Podolí cement plant got out of the set of five cement plants in 1942 because it terminated its operation. Its quotas were taken over by the Králův Dvůr cement plant. This provisional situation lasted until 1945.

LAST YEARS OF THE PODOLÍ CEMENT PLANT

The board commented on the situation in 1936: *Building activity developed satisfactorily, thus our sale of cement increased.*[79]

In November 1936, the company transferred the main office from Podolí to Prague II., Na Poříčí 32. The reason of this transfer was as follows: *our offices were transferred from inconvenient rooms located almost on the outskirts to inner Prague because of representation and trade advantageousness.*[80] In 1936, during a period of an increasing tension between Czechoslovakia and Germany and upon the request of the board of directors, the plant was registered in the list of companies important for defence of the country. This registration was made by the Ministry of National Defence. The questionnaire had to be filled in for the Land Military Headquarters needs. It stated that the directors and members of the board were Czechoslovak citizens and most of the shareholders were Czechoslovak nationals and of Czech nationality. Furthermore, the plant employed 177 workers; 8 women, 11 clerks and 2 foremen.


OBCHODNÍ A ŽIVNOSTENSKÁ KOMORA V PRAZE

OSVĚDČENÍ

známky č. rejstř. 59558

známka jest zapsána do rejstříku ochranných známek podle zákona ze dne 6. ledna 1890 ř. z. č. 19. 30. července 1895 ř. z. č. 108, 17. března 1913 č. 65 ř. z., ze dne 24. července 1919 sb. z. a n. č. 471 a ze dne 20. prosince 1932 sb. z. a n. č. 27.

Známku jest obnoviti každých deset let ode dne původního zápisu, jinak právo známkové zaniká; dodatečná obnova jest přípustna ve lhůtě tří měsíců ode dne uplynutí známkové ochrany za příplatek Kč 20·–. Podle § 9. cit. zák. lpí právo známkové na podniku, pro který jest známka určena, zaniká s ním a přechází v případě převodu závodu na nového majitele. Nový majitel musí však, nevede-li dále podnik pod nezměněnou firmou, vymoci si přepsání známky (článek III z. ze dne 17. března 1913, č. 65 ř. z.).

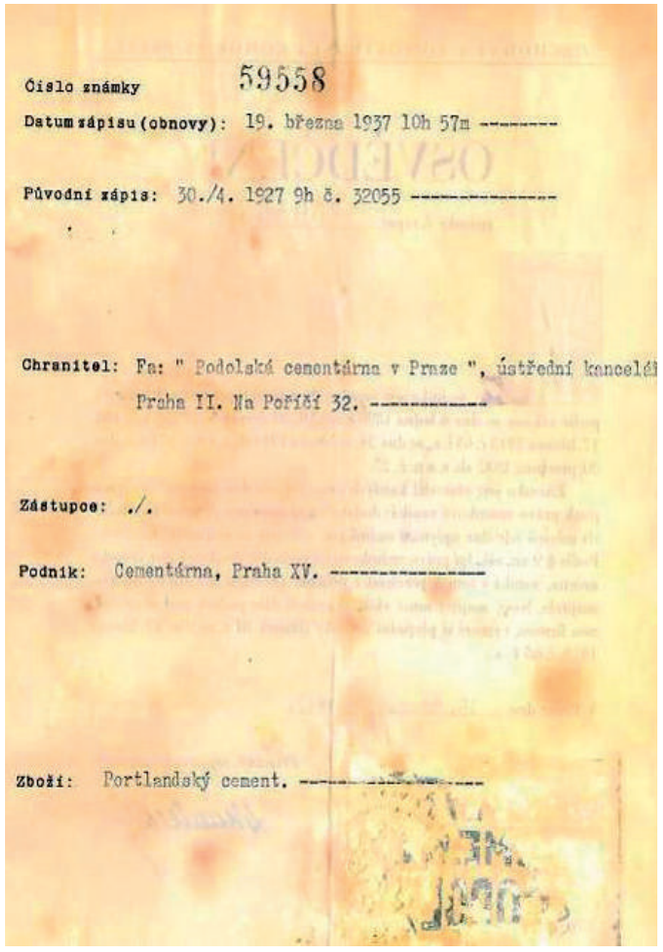
V Praze dne 19. března 1937.

Příseżný zapisovatel známek:

Portland Cement Podolí trademark certificate, 1937

The main products of the plant were Portland cement, ferroportland cement and high-quality Portland cement "Podol Speciál". The regular monthly production of the plant was 500 wagons of cement; maximum monthly output was 600 wagons. The stock was 400 wagons of cement and 300 wagons of clinker. Sale of products was made by Prodejna cementáren in Prague (shop). Every month, the plant needed 12 wagons of slag (stock was 10 wagons) and 20 wagons of gypsum or gypsum shivers (stock

was 15 wagons) for its production. In 1936, the plant processed 40 wagons of lignit III every month (stock was 15 wagons). The supplier was from Ústí nad Labem, Ústecká montánní společnost s.r.o. (Mining Company from Ústí). The E. Hess Company and the Silur Company, both in Prague, delivered coke dust. Every month the plant used 120 wagons of coke dust and 30 wagons were in stock. Annual electricity consumption was 575,989 kWh. The list of machinery was identical to the list made for revenue purposes at the beginning of the 30s. This list had been completed with the list of equipment of workshops. The cement plant was insured with "Slávie", Vzájemná pojišťovací banka (Mutual Insurance Bank), Akciová společnost Moldavia-Generali and Pražská městská pojišťovna (the Joint-Stock Company Moldavia-Generali and Prague City Insurance Company).[81]


Číslo známky 59558
Datum zápisu (obnovy): 19. března 1937 10h 57m --------
Původní zápis: 30./4. 1927 9h č. 32055 ----------
Chranitel: Fa: " Podolská cementárna v Praze ", ústřední kancelář
Praha II. Na Poříčí 32. ----------
Zástupce: ./.
Podnik: Cementárna, Praha XV. ----------
Zboží: Portlandský cement. ----------

Portland Cement Podolí trademark allocation certificate, 1937

The following year 1937 was important for the company. The Králův Dvůr cement plant took over almost 80% of shares of the Podolí cement plant in Prague and made an influence on the market with cement in Prague stronger. After taking over a parcel of shares, the general director of the Králův Dvůr plant, JUDr. Jaroslav Charvát, was co-opted into the board of directors of the Podolská plant, and so was a director secretary, JUDr. Zdeněk Semerád. This happened at the meeting of the board on 28th June 1937. In August 1937, the company's office was transferred from Prague II, Na Poříčí 32 to Prague II, Ječná 39, which was headquarters of the Králův Dvůr plant.[82] At the end of the 30s of the 20th century, the situation of the Podolí plant was not good and even the future did not look too rosy. In the years 1938 and 1939, the sale increased but at the cost of increased production expenses, and as the board of its parent concern company Králův Dvůr plant pronounced: *Its balance ended with a small surplus. It was possible to make full depreciations but dividens could not be paid.*[83] In 1937, the significant change in the cement production happened.

The so-called briquetting was removed and a new balling method was introduced – pelletization. The board of directors of the KDC (the Králův Dvůr cement plant) had a professional study done – "Development of the Cement Production Costs in the Podolí Cement Plant in Prague in the years 1938–1940." In this study the costs of the Podolí plant and Králův Dvůr plant were compared and it stated that *in the Podolí cement plant they worked with obsolete equipment and manually a lot. The share of wages in production costs is almost double in comparison with the KDC.* At the end of the study it is stated: *When increasing the production costs, the balance between the production costs and prices of sale could be disrupted, which could be dangerous for such a small plant.*[84] Poor economic results were confirmed by the board in the annual report of 1940: *Sale of cement of our company was lower than in 1939, production costs continued to increase. Under gross yield item the additional yield is put from sale of our several building plots in Podolí. Only this circumstance caused that decline of this item is not as visible.*[85] At the turn of the 30s and 40s, the Podolí cement plant had to face not only poor economic results but also the pressure of the Prague City Hall wanting to close it down. The continuing growth of Prague caused that the plant was right in the town in the vicinity of residential houses. Its dusty and noisy operation became a cause of frequent complaints. A new regulation plan did not anticipate the plant either.

Portland Cement Podolí trademark, 1937

The problems around the cement plant cumulated and indicated that the days of one of the oldest cement plants in the Czech Lands are numbered. The last day of of working of the plant, which was almost seventy years old, was on 12th May 1942. On the basis of the stopping assessment of the Ministry of Economy and Labour No. 48 801/42 W I/E of 27th April 1942, the management stopped the factory operation. Although, the cement plant practically reduced its production, it entered the KDC the German cartel Zementgemeinschaft Südost in Vienna at the end of 1942.

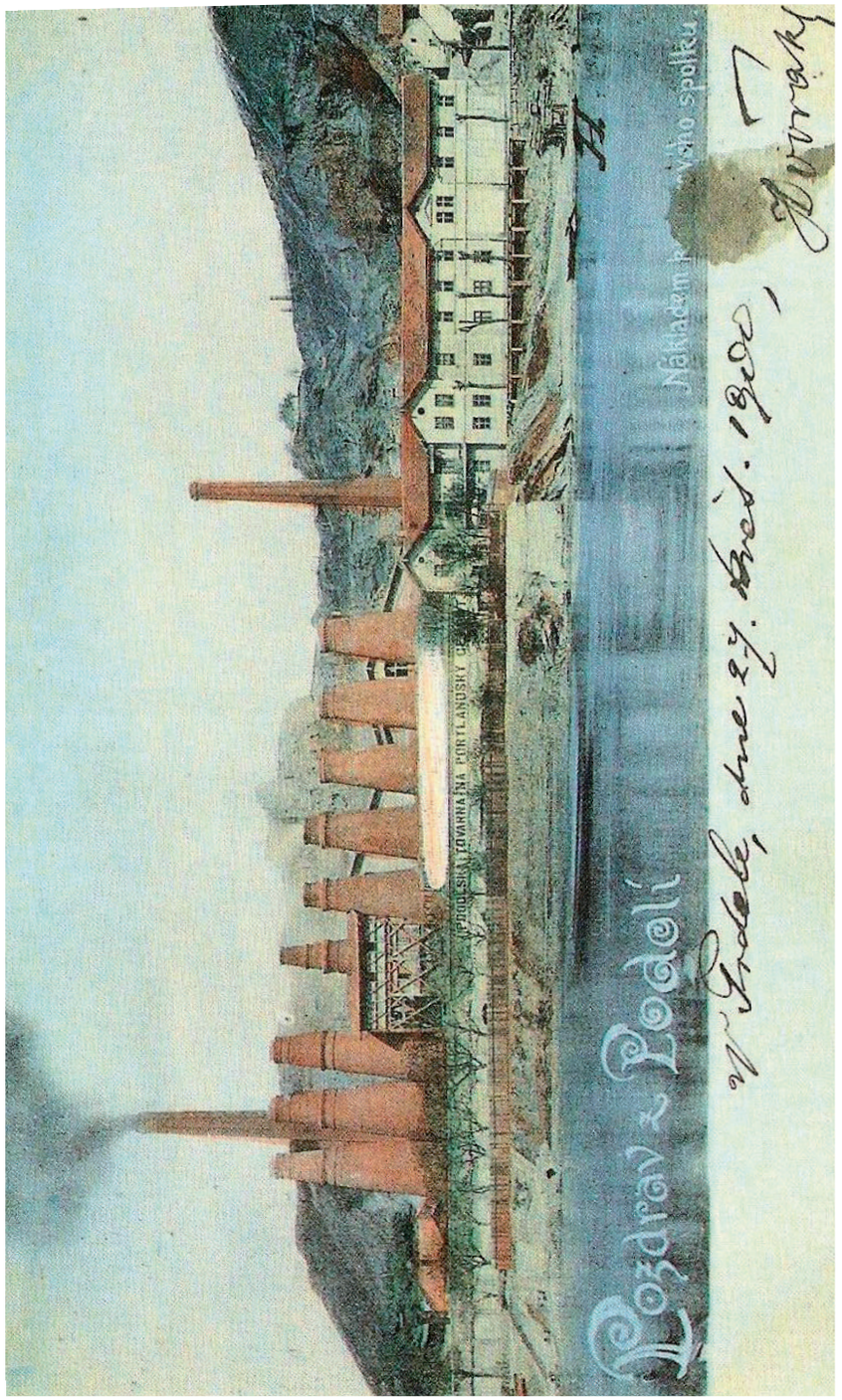
In 1942, after closing down the production in the Podolí cement plant, the Králův Dvůr plant bought other 159 shares of the Podolí cement plant. At the end of 1945, the KDC showed that it owned 14,309 shares of the Podolí cement plant in total.[86] Before the company was officially closed down, the Podolí cement plant company, or rather its parent company Králův Dvůr cement plant a.s., was looking for a convenient locality to move the plant to. Sometime in 1940, a decision was made and the cement plant was transferred from Prague-Podolí to Hranice in Moravia.

On 5th March 1941, at the meeting of the board of directors, chairman JUDr. Jaroslav Charvát mentioned a difficult negotiation regarding a permission to build the cement plant in Hranice in Moravia which was not finished yet.[87] Even a new board of directors was not successful in pressing for transfer and construction of the new cement plant. Reichs Germans were appointed as members of this board: Wilfried von Proskowetz, dr.Heinrich Fabesch, the director of the KDC and Baron Bernd Wolf von Lüdinghausen who became a director of the Podolí cement plant on 3rd November 1941. In 1942,

the management of the Podolí cement plant in Prague asked the supervisory agency of the Ministry of Economy and Labour for an exception from the conscription of "products consisting of iron and steel fully or partially." The management asked this obligation not to be applicable on: *machines and machine components in the amount of 77.6 tonnes of iron and steel designated for planned relocation of our plant for Portland cement from Prague-Podolí to Hranice in Moravia.* In the application the management also noted: *We had asked the relevant authorities for permission to make a planned relocation in 1940 already. Considering the aftermath changes on the market with building materials and the reduction of building activities, our preparations for the project implementation did not make such progress to relocate our plant during the war time.*[88] Despite different difficulties brought by the war time, preparations for relocation to Hranice had not stopped. By the end of 1943, the Podolí cement plant in Prague bought estates with the area of 40 ha, 42 and 56 m² in Hranice and paid 3,133,533 CSK for it. There was ordered new equipment for the new cement plant worth 29 million CSK.

After closing down the production, the premises of the plant were used for storing not only machinery and parts for the KDC and the cement plant in Hranice, but also for storing machines from factories which were cancelled by the occupation authorities as useless for the war. The correspondence of the factory management from this time relates mostly to forced rentals and sales of machinery, which were performed on the basis of prescriptive assessments "Maschinenhauptkommission des Wehrkreisbeauftragte für Böhmen und Mähren des Reichsministers für Rüstung und Kriegsproduktion."[89] There were cement plants amongst purchasers of the machinery, e.g. Sasko-česká továrna na portlandský cement v Čížkovicích (Saxony-Czech plant for Portland cement in Čížkovice), Stupavská cementárna v Bratislavě (Stupava cement plant in Bratislava), and also engineering companies involved in the war production such as the Joint-Stock Company (Škodovy závody–Škoda Works before), Pražská železářská společnost (the Prague Iron and Steel Company), Letecké závody Letov (Aviation Works Letov), Aero Praha etc. Part of machines, mostly electric motors and workshop tooling were confiscated by Pionirschule Waffen SS in Hradisko and Wehrmacht. Some premises were rented out to the Prague City Hall, some of them to the Police headquarters in Prague, some buildings served as warehouses for many Prague companies. After liberation the national administration was established in the company on the basis of the Presidential Decree No. 5 Coll. of 19th May 1945. This administration executed the liquidation of the company and the plant. In 1951, the shaft kiln and the cement mill "Rekord" were relocated to the Radotín cement plant. Part of the estate was rented out to the military administration and from 1st April 1947 to the Fund of National Reconstruction. The liquidation of the plant premises and reconstruction of the premises required substantial expenses because many buildings were from ferroconcrete. The railway was gradually abolished, firstly a section between the plant and quarries in Bráník, and in 1953, the rest of the track. The plant was not probably relocated to Hranice because the plant there was commissioned in 1954 under different political and economical conditions.

THE CEMENT PLANT IN PRAGUE-PODOLÍ



A cement plant in Podolí in 1900

Overview of the cement production in the Podolí cement plant.[90]

Year	Quantity in Tonnes	Year	Quantity in Tonnes	Year	Quantity in Tonnes
1872	1 750	1911	21 540	1932	36 420
1882	1 822	1912	22 260	1933	27 650
1883	1 400	1913	20 330	1934	14 880
1885	1 175	1914	11 560	1935	27 180
1886	1 596	1926	14 820	1936	38 760
1906	15 090	1927	21 900	1937	49 860
1907	16 890	1928	30 770	1938	46 120
1908	18 290	1929	24 050	1939	55 990
1909	19 080	1930	23 520		
1910	21 660	1931	34 440		

The following table provides a basic picture of the economic development of the joint-stock company.[91]

Year	Company Output	Net Profit
1874	112 850 fl.	165 fl.
1875	23 602 fl.	132 fl.
1877	34 076 fl.	485 fl.
1878	41 346 fl.	335 fl.
1879	30 060 fl.	2 592 fl.
1880	21 162 fl.	94 fl.
1881	34 568 fl.	432 fl.
1882	34 812 fl.	9 670 fl.
1883	31 980 fl.	8 689 fl.
1884	25 352 fl.	6 522 fl.
1885	29 452 fl.	Loss 19 011 fl.
1886	33 669 fl.	Loss 12 144 fl.
1887	43 890 fl.	Loss 19 469 fl.
1888	57 704 fl.	2 810 fl.
1889	51 845 fl.	13 226 fl.
1890	65 789 fl.	20 397 fl.
1891	67 330 fl.	22 960 fl.
1892	83 884 fl.	31 446 fl.
1893	101 221 fl.	32 364 fl.
1894	97 757 fl.	31 302 fl.
1895	76 857 fl.	32 669 fl.
1905	296 947 K[92]	89 577 K
1906	106 634 K	84 670 K
1907	346 092 K	113 760 K
1908	401 238 K	125 822 K
1914	181 858 K	Loss 69 488 K
1917	139 917 K	Loss 4 515 K
1918	135 511 K	Loss 23 757 K
1919	833 727 CSK	484 145 CSK
1920	1 855 582 CSK	957 722 CSK
1921	1 848 030 CSK	549 269 CSK
1922	751 855 CSK	179 404 CSK
1923	740 683 CSK	Loss 42 270 CSK
1924	674 523 CSK	173 260 CSK
1925	634 406 CSK	Loss 22 519 CSK
1927	1 939 401 CSK	287 589 CSK
1928	1 940 350 CSK	725 317 CSK
1929	1 982 844 CSK	573 968 CSK
1930	2 701 840 CSK	386 362 CSK
1932	1 890 604 CSK	149 707 CSK
1933	1 716 612 CSK	11 795 CSK
1934	1 494 868 CSK	Loss 1 377 482 CSK
1936	1 963 983 CSK	32 006 CSK
1937	2 052 003 CSK	269 054 CSK
1938	1 849 108 CSK	422 CSK

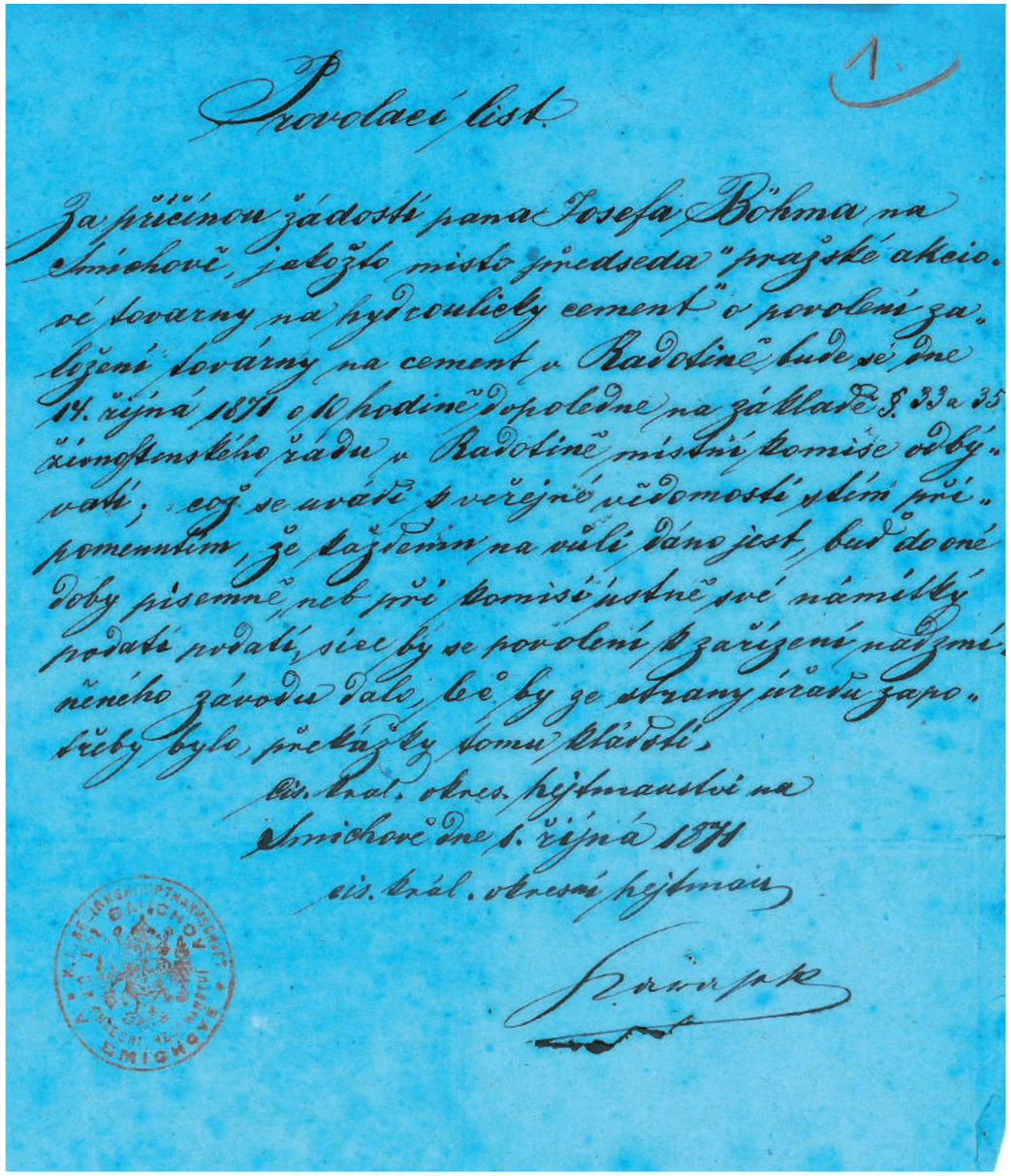
~ THE RADOTÍN CEMENT WORKS ~

The beginning of the third oldest Czech cement plant is similar to the establishment of the oldest cement plant in Prague-Podolí. It was founded by the same people, the reasons were also similar as well as a change of the owner after the first three years of its existence.

The year 1871 became an important year for Radotín, a village with 300 citizens, 36 houses, a school and a church. That year, a group of Czech businessmen headed by Ferdinand Barta and Josef Kučera[93], a professor of chemistry at the Prague Technical University, established the Pražská akciová továrna na hydraulický cement (Prague Joint-Stock Factory for Hydraulic Cement). Despite the economic peripeties the plant had been distinctively affecting the life in Radotín for almost 90 years.

The beginning of the cemen plant can be traced back to 2nd January 1870, when Mr. Alois Oliva[94] and Jan Stanislav Skrejšovský[95] submitted the application for construction of a steam engine plant for the production of hydraulic cement near Prague[96] to the Ministry of Internal Affairs. The Ministry granted a request on 25th March 1871 and the Prague Vice-Regency approved the company´s articles on the basis of the ministerial regulation on 7th May 1871. The company acted as the Czech company and therefore, we can find a lot of important Czechs in the founding committee such as Dr. Julius Grégr, Jan Stanislav Skrejšovský or Petr Fischer, a mayor of Smíchov, furthermore Czech businessmen František Urbanek, Emil Kittl, father of a famous female singer Ema Destinova or Jan B. Jesenský, father of female writer Růžena Jesenská, but also Max Herget, B. Fragner, J. Rubáš, František Petr Petřík, Josef Kučera and Josef Böhm, a secretary of the Smíchov town. JUDr. Antonín Knight Randa, a dean of the Faculty of Law of the Charles-Ferdinand University was also an important member of the committee. The founders of the plant wanted to use the period of the building boom in the capital city by applying their product to the extended domestic market and push out the foreing competitors. According to the magazine "Průmyslník" (Industrialist) 1,200,000 barrels (about 300,000 tonnes) of cement amounting to almost 3 million florins[97] was imported to Bohemia in 1871. At that time, only two works in Bohemia manufactured cement-in Bohosudov and in Prague-Podolí. The Podolí cement works was an example for the construction of the plant in Radotín. After all, many members of the Prague Joint-Stock Works for Hydraulic Cement were financially involved in the Podolí works. Selection of a place of the new works was affected by a significant quantity of raw material and by a location of Radotín on the railway tracks of the Czech West Railway connecting Prague with Western Bohemia and Bavaria. The founding general meeting of the company took place on 16th July 1871. The first members of the board of directors were: Max Herget, B. Fragner, Jan Jesenský, Karel Kirschner, Prof. J. Kučera, Prof. JUDr. A. Randa, J. Rubáš, and Josef Böhm who became its first chairman. The main protagonist of the construction of the cement works was Professor Josef Kučera who was experienced in the construction of a small cement works of Max Herget in Hlupočepy and the cement works in Podolsko, Russia.

On 31st July 1871, the Prague Joint-Stock Works for Hydraulic Cement bought a farmsted number 20 from Jan Macháček, so-called Žufníčkovský grunt, for 17,600 florins and the estates on which it built



Provolací list.

Za příčinou žádosti pana Josefa Böhma na Smíchově, jakožto místo předsedy "pražské akcio. vé továrny na hydraulický cement" o povolení za. ložení továrny na cement v Radotíně bude se dne 14. října 1871 o 10 hodině dopoledne na základě §. 33 a 35 živnostenského řádu v Radotíně místní komise odbý. vati; což se uvádí k veřejné vědomosti všem pře. pomenutím, že žádosti na vůli dáno jest, buď do oné doby písemně neb před komisí ústně své námitky podati, jinak by se povolení k zařízení nadzmí. něného závodu dalo, což by ze strany úřadu zapo. dlení bylo, překážky tomu kladoucí.

Cís. král. okres. hejtmanství na Smíchově dne 1. října 1871

cís. král. okresní hejtman

Permission document for establishing the cement plant in Radotín of 1st October 1871

up quarries from Counts Oettingen-Wallerstein. Prior to the works construction, the negotiation of the local bulding commission had taken place at 9.30 am on 14th October 1871. After an investigation, the commission found out that *the area on which the new plant should be built is at the distance of 55 fathoms from the Radotín village (104.50 m) and according to the drawings the kilns are designed in such manners that neither fumes nor harmful gases could be detected, and there are no objections regarding the construction and the neighbours agreed with it.* Because there were no written or oral objections, after the negotiation, building permit No. 12 143 to build the plant was sent to Josef Böhm, the vice-chairman of the Prague Joint-Stock Plant for Hydraulic Cement. This permit had a condition that the construction was going to be performed according to the plans approved and the company will register for taxation with the I&K Revenue in Zbraslav. The decision of the local commission was approved by the I&K Regional County Executive in Smíchov[98] on 30th October 1871.

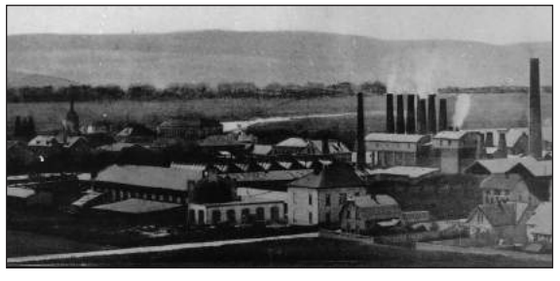
In the magazine "Průmyslník" from 1871, it was written, as Dr. Ing. R. Bárta stated that the registered capital of the Prague Joint-Stock Plant for Hydraulic Cement represented 160,000 florins which were divided into 800 shares per 200 florins. The magazine also stated that: *61,000 florins should be spent on machines and every day, 100–120 barrels per 4q (480 kg) of cement should be manufactured. For this the kilns, crushers, rolling mills with the power of 8 horsepowers, which would grind 700 q every day, will be needed as well as four horizontal mills with the power of 5 horsepowers, stirrers, extruders, with the power of 12 horsepowers and four drying rooms. The machines will be driven mostly by steam. For this purpose three boilers with the power of 80 horsepowers will be acquired. The machines are supplied by the Breitfeld & Evans Company. The construction will be carried out by builders Farkaš and Jechenthal. It should be finished in March.*[99] The assumption of Professor Josef Kučera that the sum of 100,000 florins would be sufficient did not apply. Only the building construction cost 183,991 florins and the machinery of the plant cost another 87,462 florins.[100] Under these circumstances the board decided to increase the share capital to 300,000 florins. Regarding the then situation on the financial market, new shares were not to be issued and the board had to find a credit. Svatováclavská záložna (savings bank) in Prague granted 37,000 florins provided that Max Herget and Petr Fischer, members of the board of directors, would secure the credit personally.

On 16th March 1873, the final inspection of the following plant premises was done: a typing room, tool warehouse, rooms for crushing stones, mills for row material, a lift for raw powder, tilery, a room with a steam engine, crushers of burned cement, storage of manufactured cement, channels for drying, three rooms for cleaning, two warehouses, a room for the steam engine for dryers and kilns.

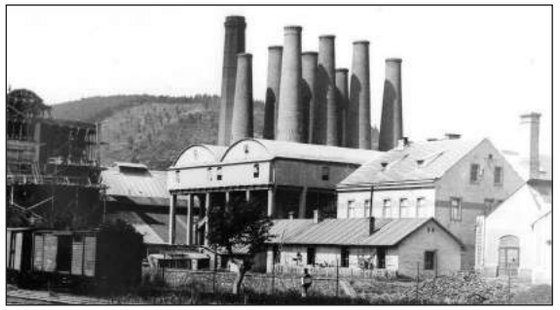
At the end of the final report the committee stated: *According to all findings of technical specialists, according to the public and police, the board has found out that within the meaning of art. 81 of the Building Code of 11th May 1864, the permission to use these newly built premises of the plant for hydraulic cement cannot be refused.*[101] The plant was exempted from paying house taxes for 15 years.

Raw materials delivery from the quarry to the plant was provided by local small farmers with their teams of horses. In 1873, the company management asked the Prague Vice-Regency for permission to build a narrow-gauge horse track from the quarry to the cement plant. On the basis of regulation No. 24002 of I&K Vice-Regency of 20th May 1873 the I&K County Executive in Smíchov carried out an inquiry and it issued a permission No. 12713 to operate this track with the length of 970 fathoms (1843m)[102] on 3rd September 1873. For the fuel delivery and transport of manufactured cement the company built up a railway of 150 fathoms (285.5 m) connecting the railway station of the Emperial Privileged Czech West Railway in Radotín and the cement plant. The final inspection of the railway took place on 20th July 1872.[103] The company finished its building activity by the construction of two one-storey houses for clerks and workers. The approval of the construction took place on 24th November 1872.[104]

Radotín at the turn of the 19th and 20th centuries



The old cement plant



The old cement plant in Radotín in detail from the train tracks

Cement in the Radotín plant was manufactured by so-called dry way, which was similar to the production in the Podolí plant. Crushed raw material from qurries was ground in mills and from this material powder bricks were manufactured. Those were put on handbarrows and taken to the channel dryers. After drying, the bricks were put into the shaft kilns and burned for clinker. Clinker made this way was ground with gypsum to the Portland cement. In the early years, about 1,500 tonnes of Portland cement were manufactured and dispatched in wooden barrels which were made in the barrel making workshop of the cement plant. Material was originally ground on millstones. Dr. Ing. Bárta remembered: *When we took over the plant in 1921 they were still in the yard.*[105] The cement plant started operating under the management of director Josef Kučera[106] on 1st January 1873. The first results were promising but then it turned out that the kilns were unsatisfactory. Clinker did not burn sufficiently and at the end, cracks appeared in the kilns. In August 1873, the operation of the plant had to be stopped.

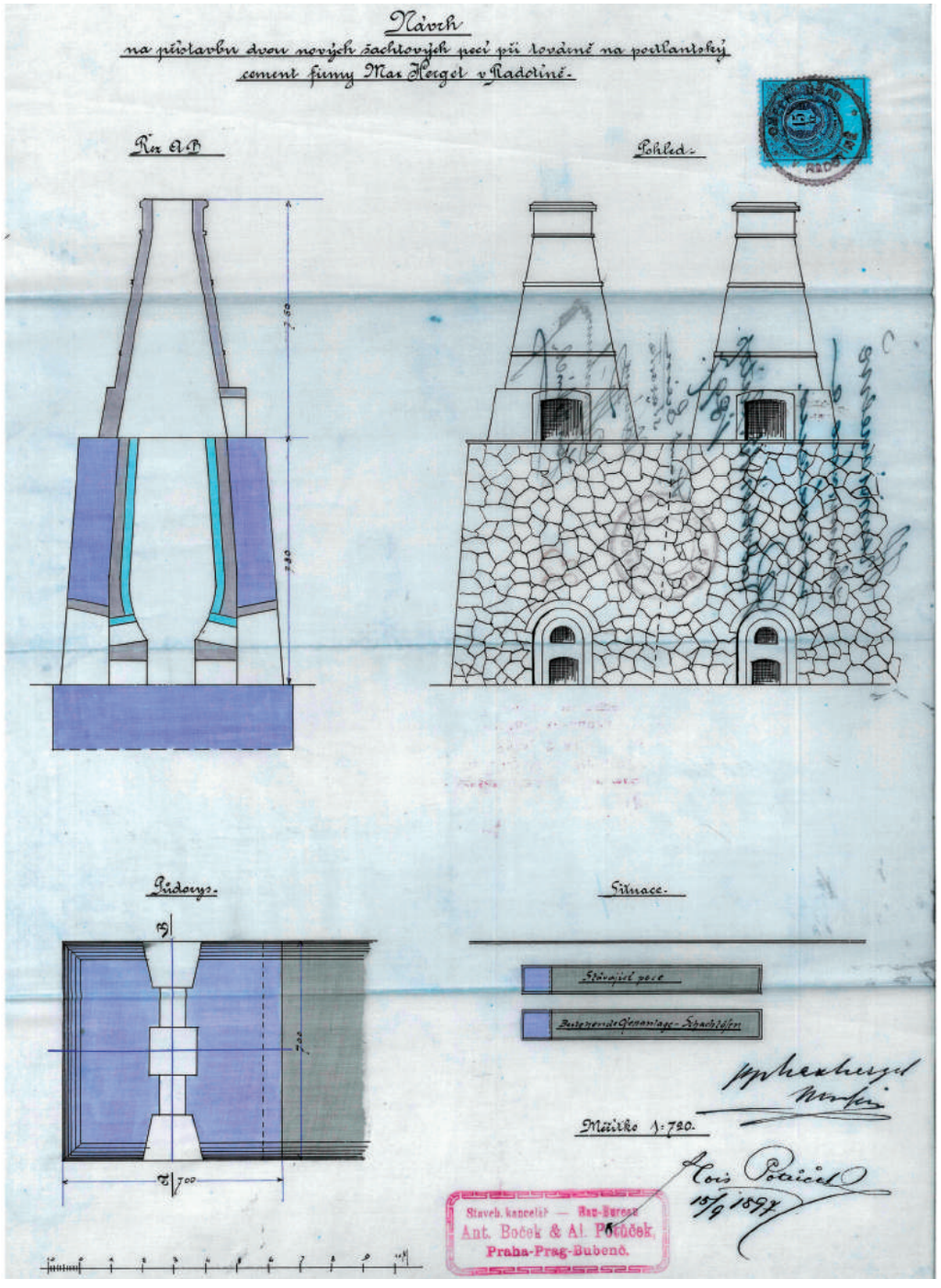
Although, there were many members of the board who came from the political and economical life of the Czech Kingdom and the Austrian Monarchy, the company did not avoid difficult financial losses in 1873. Ferdinand Barta and other members of the company jointed their business with the Czech National Bank.[107] This bank was established in the period of the economic boom during the so-called Gründer period at the turn of the 60s and 70s. The all-Czech company was established on 10th January 1872. The bank did business even in the building industry, and to support it the bank founded "Banka pro stavby a nemovitosti v okolí Prahy" (Bank for Buildings and Properties in the Vicinity of Prague). The bank overreached itself and the Vienna stock market crashed in 1873 heavily damaged it. The bank was closed down in 1878. By that time its activities were concentrated on the reduction of its own capital and liquidation.[108] Ferdinand Barta was a member of the bank board of directors and during its liquidation he lost 40,000 florins. Also other shareholders of the Radotín cement works suffered financial damages.[109] Subsequent economic crisis brought the company into problems which resulted in stopping the production of the works.. The board tried to cover their lack of operation capital by subscribing for other 100,000 florins. When this proposal was unsuccessful at the general meeting on 30th November 1873, although the board made an emotional appeal to the shareholders not to let the important Czech company fail, they had no other choice than to make a motion to dissolve the company at the next general meeting on 18th January 1874. The general meeting of the shareholders approved the proposal and the board was authorized to execute the liquidation.[110]

One of the sharehoslers, Max Herget, used the company´s problems and after the liquidation in 1876, he cheaply bought up shares of other members .[111]

UNDER MAX HERGET AND HIS SUCCESSORS´ MANAGEMENT

In January 1877, Max Herget registered the company under a new name **Portland Cementfabrik Radotin. Max Herget (Plant for Portland Cement Radotín. Max Herget)** in the Commercial Register and on 22nd February 1877, the company got permission No. 31939 from the County Executive in Smíchov[112] to operate the plant.

Max Herget, as Rudolf Bárta remembers, led the Radotín cement plant within the scope of his company with the assistance of his relative Ing. Karel von Wersin, a professor of technical mechanics and science of machines at the Prague Polytechnic Institute, who was a very experienced technical practitioner. The production of cement has improved. Documents from 1879[113] inform about a possible production of 5,000 tonnes of high-quality cement. In 1897, two Schneider shaft kilns and a packing room were added, and the capacity increased to 7,000 tonnes.[114] The Schneider kilns had dimensions of the basis of 7×7m and the height of chimneys was 15.40 m and it was designed and built by Stavební kancelář Antonín Boček & Alois Potůček from Prague-Bubeneč (Building Office) which also built a stockyard of cement, coke and stone at the mill and a cement packing room.[115] After purchasing a new quarry in Kosoř, Max Herget built an iron bridge from the quarry located on the left bank of the Radotín stream to the Kosoř quarry. The bridge went over the Radotín stream and the district road from Radotín to Lochkov.[116]



Max Herget's cement plant shaft kiln plan of 1897

Max Herget managed his plants until his death on 23rd March 1893; the administration was carried out by chief clerk Rudolf Grab and the technical part of the plants was organized by Ing. Karel von Wersin. Václav Šrámek was an administrator of the plant in 1881.[117]

After Herget´s death, the company was managed by his son Antonín, a lieutenant of the Second Uhlans Regiment. The I&K County Executive in Smíchov granted him with a permission to manufacture cement.[118] Because of discrepansies with other family members and co-owners he abdicated and left the company. In 1904, the company management refused an offer of the Králův Dvůr cement Plant to sell the Radotín plant.[119] After the resignation of Antonín Herget, Rudolf Grab as a director and Max Herget´s youngest daughter Marie took over the management of the company. Rudolf Bárta characterized Marie as follows: *She was devoted to the plants and as long as she was a decisive person, the plants were of a high standard. She used to visit the plants riding a horse – she was well known for that. Although, her behaviour was still unusual, at that time she was a respectful personality everywhere.*[120] *Then he described the situation in the company with the following words: Trying to sustain his leading position director Grab did not tolerate real specialists around him, which was a big disadvantage for the further development of the plant. Bohumil Bukovský, the then clerk and later a chief clerk in the Prastav Company, and at the end a director of Průmyslové podniky hlavního města Prahy (Industrial Companies of Prague), remembered, that even an excellent cement specialist from Switzerland, Ing. Seen, had to leave the plant under Grab´s pressure. After that, administrator Šrámek was put in charge of the cement plant. The owners resisted that in the interest of progress a specialist must be appointed. So Grab brought a son of the director of the cement plant in Bohosudov which was established in 1858. Earlier, he was an assistant in one cement plant in East Prussia. He did not study engineering, but he graduated from a two-year course of so-called practical class. It was Karel Rühr who was firstly only in charge of the steam boiler, but he made it to the top quickly and after Grab´s death he took his place. He was characterized by a rather aggressive nature, so Miss Herget, as she was called, did not have such an influence on business when he was a director. His reforms related mostly to work organization and supervision of the production according to the German model. During the period of his management, after Grab´s death, several administrators alternated on the position of the administrator – Schirhal, Starý and only the last one, Ing. Segeta was a specialist – chemist.*[121] *When Marie Hergert died in 1917, she was replaced by a family representative Vilemína Herget, the second daughter of Max Hegert. Her husband was her cousin and the then deputy of the Vice-Regent in Prague, JUDr. Jindřich Herget. After his retirement, he took charge of the company and with the assistance of Rühr he managed it until the fusion with the Prastav Company.*[122]

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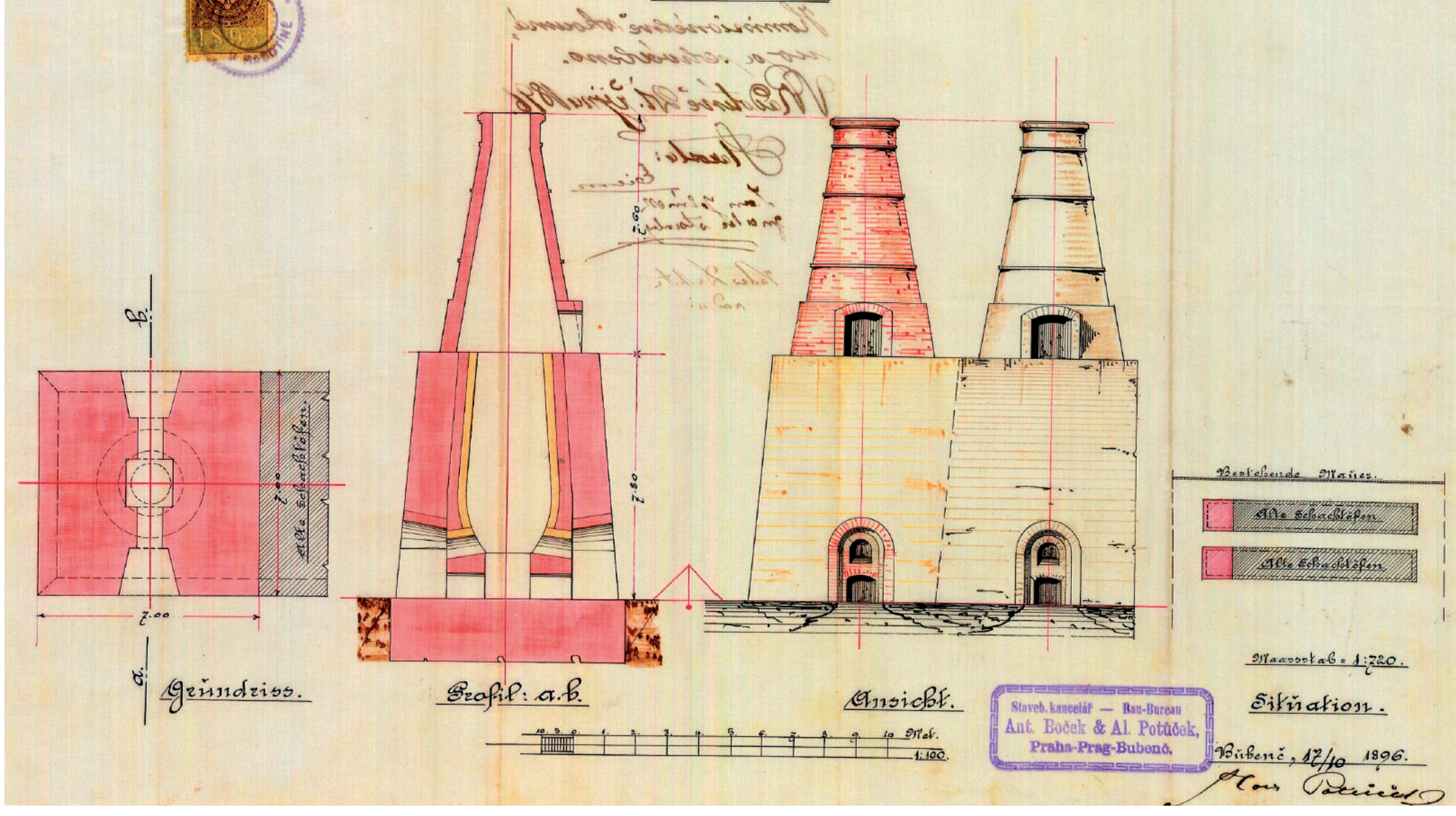
Plan

zur Ausführung der neuen Schachöfen bei der Portland Cementfabrik der Firma Max. Herget in Radotin.

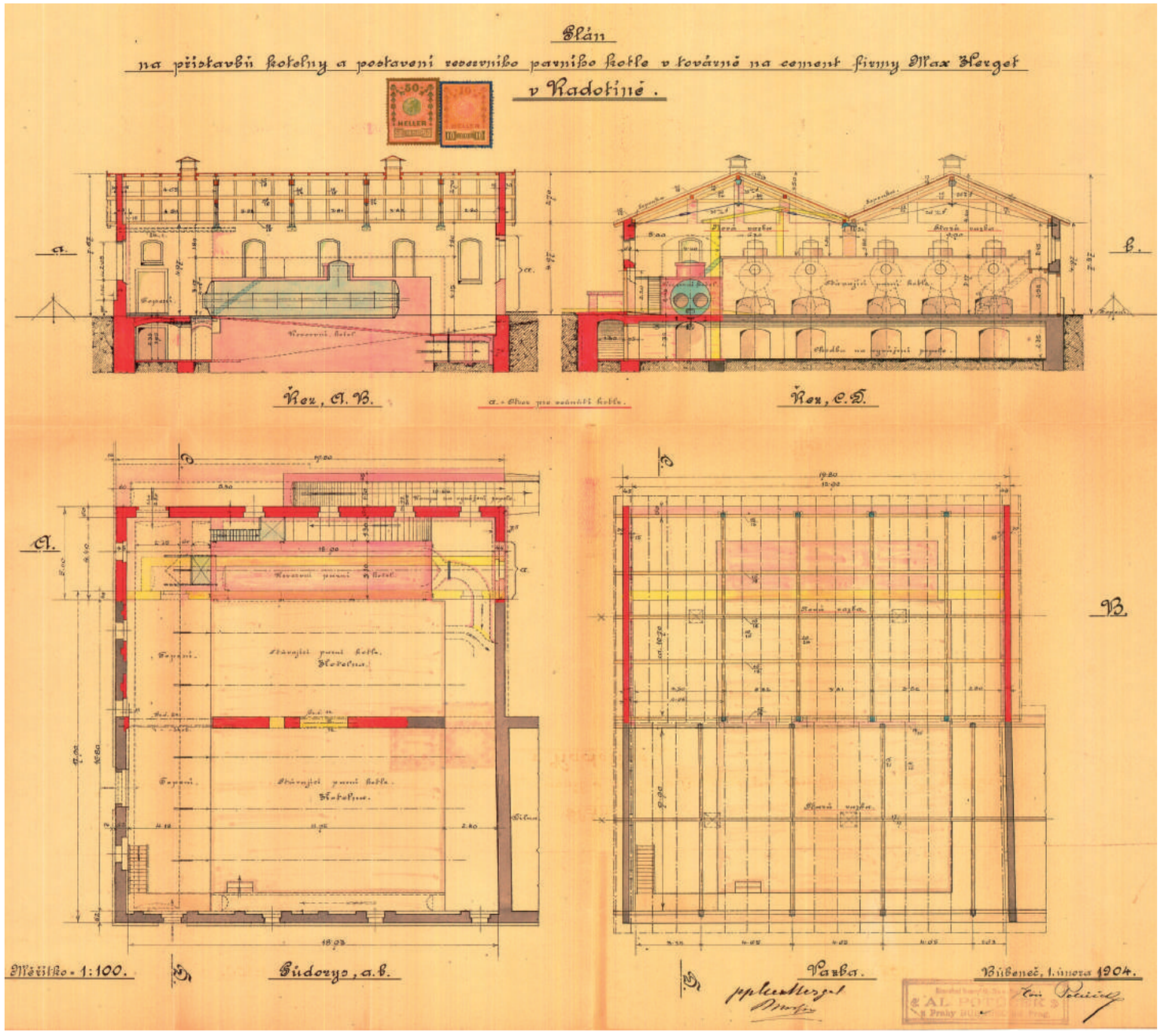


Max Herget's cement plant shaft kilns plan of 1896

EXTENSION OF THE PLANT AT THE TURN OF THE CENTURY

The scope of the construction´s renovations and extension of the works were done by the new management after Max Hegert´s death and were described in detail in the report of Ing. Otto Schott, a civil engineer from Heidelberg.[123] Ing. Otto Schott elaborated the report on the basis of his personal visit to the Max Hegert Company in February 1919, probably within the scope of properties evaluation due to the fusion of Max Herget Company with the Barta & Tichý Company. He basically captured the situation of the cement plant before the First World War, because during the war time no big changes were done. According to this report, the plant premises were in the area of 40,380 m², of which the area of 10,000m² was not built up. The main plant premises such as mills and stockyards were of wooden structures while structures of the kilns from 1910 were made of ferroconcrete. In 1907, the plant was reconstructed on the basis of plans of the company Friedrich Krupp A.G. Grusonwerk Magdeburk-Buckau. After reconstruction the cement plant was able to manufacture between 30,000 and 38,000 tonnes of Portland cement per year.

In 1908, a partial modernization of the mill equipment was carried out by the Curt von Grueber Company from Berlin and tube mills were reconstructed by the company F. L. Smidth & Com. from Copenhagen. Commissioning of new mills and crushers was accompanied by complaints of the Radotín citizens because of the excessive noise. Negotiations took place with a personal participation of the county representative. At the end, the operation of the plant was approved under conditions that the company´s management was going to soundproof the mills walls and crushers.[124] 18 shaft kilns operated in the cement plant. Half of them were large kilns with the diameter of 10 to 11 m. The second half were small kilns – some with an upper diameter of 2 m, others with a diameter of 3 and 3.5 m. In 1914, four kilns were equipped with bottom blowing air. Two Dorsten presses processed raw material into bricks. The ball mill from the Löhnert Bromberg Company ground cement. This mill was purchased in 1907. Three silos were used for storing cement and the capacity of each of them was about 55 wagons (i.e. 550 tonnes). Filling cement in jute bags or barrels was carried out manually. Most of cement was dispatched in bags. Machines in the plant were driven by horizontal steam engine with an injection condenser with the power of 570 HP. The original non-condensing one-cylinder machine was built up by the Ringhoffer Company from Smíchov in 1894. In 1904, it was reconstructed into a conjugate machine and ten years later the



Cement plant extension plan, 1904

engine went through upgradaing and its output increased to 570 HP. Production of necessary steam was provided by the boiler equipped with four flamy tubes. The heating surface of the boiler was 105 m².

Quarry Lochkov (Čistá) in full operation

For driving three generators, a steam engine was acquired with an output of 40 HP. In 1890, the Breitfield and Daněk Company delivered it. Direct-current generators with tension of 150 V and output of 25 kW drove ventilators at the shaft kilns, equipment for positioning railway wagons on the works railway, coke crushers and it also supplied power to the lights of the works. On Saturday when the production was reduced and also when the main steam engine was put out of operation, machines were driven by generators. Electrical equipment for the cement plant was mostly delivered by the Waldeck & Wagner Company from Prague. The works railway with a normal gauge was used to transport necessary material to the plant and took manufactured cement. Railway wagons were arranged in the train units by marshalling equipment which was procured by the Windhoff Company from Windhoff, Theine-Westfalen in 1912. In the plant premises material was transported on a small railway with gauge of 600 mm. The rail of this track was 60 mm high. Service water was brought to the works by the 500 meter long channel from the Berounka River. It was 100–150 cm high and 60–80 cm wide.

The works owned two quarries. One quarry was in Kosoř and the second one was in Lochkov. It also rented another quarry in Lochkov owned by Ing. Jan Kubička. From this quarry it was possible to excavate 6,000 wagons (i.e. 60,000 tonnes) of stones. In the quarries the quarrymen worked with a drilling unit for compressed air which was delivered by the Westfalia A. G. Gelsenkirchen Company in 1909. Stones were transported from quarries by the mining railway. Gauge of this railway was 750 mm and hight was 75 mm. In 1911, a petrol locomotive was purchased for this railway. Another stones for achievement of better composition of raw material for the production of cement were transported from the quarry Cikánka in Prague-Slivenec.

At the end of this report Ing. Otto Schott wrote several statistical data which are stated in the following tables.

For the interest in trade, the company´s management had done professional analysis and official attestations. Professional exams of the Radotín Portland cement were carried out by the following institutions[125]:
a) Ústav pro sklářství, keramiku, technologii a zkoušení na C. k. české vysoké škole technické v Praze (Institution of Glass Industry, Ceramics, Technology and Testing at the I&K Czech Technical University)
b) Laboratorium des Vereins Deutscher Portland-Cement-fabrikanten in Karlshorst.

Quantity of cement sold, cement price and net profit.

Year	Dispatching of Cement in Tonnes	Total Price for Cement Sold in CSK	Net Profit in CSK
1904	12 161	522 951	233 060
1905	11 992	537 251	234 788
1906	27 639	1 232 070	307 052
1907	15 541	711 791	353 860
1908	12 541	629 572	349 333
1909	14 455	676 514	360 213
1910	14 993	559 256	308 960
1911	14 041	515 318	315 864
1912	12 579	537 137	405 450
1913	10 171	436 366	239 356

c) Prüfungs-Anstalt des Vereines der Österr. Zement-Fabrikanten in Wien.
d) Mechanisch-technisches Laboratorium für Prüfung von Bau und Maschinenmaterialen an der k. k. deutschen technischen Hochschule in Prag.
e) Versuchsanstalt für Bau- und Maschinenmaterial k. k. Technologisches Gewerbe-Muzeum in Wien.
f) Prüfungsan

THE WORKERS SITUATION IN THE CEMENT WORKS BEFORE THE FIRST WORLD WAR

The cement works belonged to the biggest companies in Radotín. In 1914, before the First World War started, the works was employing between 150 and 160 workers in full-time job. According to the then terminology they *worked for 24 hours*. Some of them were on piece-work, others on weekly wages.[126] Other 100 workmen worked temporarily.[127] The position of workmen was established by the plant rules[128] which were approved by the I&K County Executive in Smíchov on 1st December 1904.

Everyone who applied for a job in the Radotín Cement Works had to be over 14 and was obliged to submit an employment book to the plant administration and undergo a medical examination. The workmen were divided into four classes. The so-called quarrymen belonged to the first group and the special working rules for quarries were applied to them except for the work rules of the works. In the second class, there were machinists, boiler tenders, machine-keepers and mill operators working in the cement manufacturing and lime burning. The third group comprised of workmen who worked on constructions, repairs of manufacturing equipment and on making barrels, i. e. bricklayers, blacksmiths, locksmiths, carpenters, joiners, wheelwrights and barrel makers. The last class included helpers and labourers. In the quarries and works only adult men worked.

Cement plant employees in 1890

Women and juvenile workmen were employed in work not requiring specific physical stress without any danger. They helped bricklayers arranging bricks in the drying rooms and sorted cement. Their position was specified in one article of the plant rules. *Juvenile workers are not appointed before reaching 14 years of their age. They are not involved in the night job until they are 16. Women are not allowed to work at night. Puerperas can work only four weeks after a child birth. During these four weeks they obtain a benefit from the plant health insurance office according to a relevant article of the statutes of this office.*

The continuous operations consisted of two shifts: from 6am to 6pm and from 6pm to 6am of the following morning. In other departments the workers started at 6am and worked until 6pm. Only on Saturday befor Easter, on Christmas Eve and on New Year´s Eve the shift ended at 2pm. This shortening of working hours did not apply to the continuous operations. *Religious needs of the workers were out of consideration there.* On the morning shift the workers had a right to have a ten-minute break for breakfast, a lunch break from 12am to 1pm and another ten-minute afternoon tea break. There were also two ten-minute breaks on the night shift and an hour break from 12pm to 1am. The beginning and the end of the shift as well as the break was announced by a bell. Leaving work before the bell was penalized as well as leaving the plant during the night shift. Children under 14 had no access to the plant and they were not even allowed to bring food and drinks.

The plant rules also contained obligations of the workers. Except for the article which ordered the workers *to keep machines, parts and tools(which were them commited) in aplle – pie order, the workers should be tidy and polite and avoid arguments and troubles regardless their age and gender.* Smoking a pipe

in all plant premises and in yards was strictly prohibited[129] There was also prohibited to bring and consume alcohol. The plant rules also included penalties for bridging the rules. The lowest penalty was granting an official reprimand. For more serious misdemeanours the workers had to pay financial penalty from 20 hellers to half of the day wage. The toughest punishment included dismissal. The employment termination could have been done when a worker was employed for a fixed period or when he gave an eight-day notice. The reason for dismissal was drunkenness, failing to abide working hours, theft, deception, *rude offence or physical insult to superiors, co-workers and home people; or when the worker threatens the others or manipulates carelessly with fire and light and he does not pay attention to warnings and cautions; and if he is imprisoned for more than 14 days.* The worker could have his employment terminated without notice *when he could not keep working without detriment to his health.* Other serious reasons for leaving the job were: *when administration or clerks of the plant comitt physical violence on the worker or his family, or gross libel, or attempt the worker or his family into immoral or unlawful actions.*

Another article concerned the payment of wages. Wages were always paid on Saturday at 4pm. Mandatory contributions to sickness fund were deducted, as well as *accident* insurance and fines and damages and compensation determined for quarries according to the Conditions of Employment. The rest of wages was paid out in cash. Wages paid in advance were not allowed.

The last articles of the plant rules concerned workers´sickness and injuries. According to the Trade Law every worker was obliged to pay 2 hellers from each crown to the plant health insurance office. The plant contributions were half of the amount paid by workers. At the expense of sickness funds every worker received a free medical treatment and medicines. In case of sickness the worker received 60% of his weekly wage for two weeks.

These plant rules contained conditions under which the plant administration usually employed workers, and the rules represented employment contract unless a different contract was concluded with individual workers, so each worker employed in the plant had to read these rules and commit to oblige their provisions.

The First World War affected negatively the plant economy. Most employees were mobilized. Teams of horses were confiscated for the war purposes. The cement plant and other company´s plants were not considered important for the war economy operation and therefore, the cement plant had problems with coal and coke deliveries and supply of wagons for raw materials and products transportation. The company refused to take a part in financial compensation of the owners of cement plants it Halič and Bukovina for damage caused by war events. Nevertheless, the period of the First World War made a positive impact on the company´s history. The economic collapse during the last war years caused negotiations between JUDr. Jindřich Herget, who represented the Max Herget Company, and Rudolf Barta Sr., who represented the Barta & Tichý Company, regarding the merging of the two companies. The economic misery which continued in the early postwar years forced the management of both companies to speed up the merger of both companies.

SHORT HISTORY OF PREDECESSORS OF THE COMPANY SPOJENÉ PRAŽSKÉ TOVÁRNY NA STAVIVA

Company Barta & Tichý was established by Ferdinand Barta and Karel Tichý in 1875. The line of business was sale of artificial fertilizers, including lime for liming fields, and distribution of chemical and building materials. Later, they added to their business a production of building materials. In 1875, the estates in Hlubočepy were bought from large farmer Říha for 1,142 florins on which the quarries and kilns for burning lime were open. Later on, they bought a ring kiln with twelve chambers from the Engelthaler, Gastl and Říha Company, which was placed in the neighbourhood. Another successful business activity of this company was the production of building ceramics. In 1878, Karel Hartig, a constructor, built for Barta & Tichý two periodic kilns for firing fireclay, pottery and terracotta and a building of the new plant in Hlubočepy. Big part of the production concentrated on ornamental garden ceramics such as statues of antique goddesses, balustrades and ornamental bowls for flowers, etc.[130] In 1892, after Ferdinand Barta´s death, Karel Tichý took charge of the company and Ferdinand Barta´s son, Rudolf Barta started working in the company too. He established a concrete tiles producing plant according to the Italian model. This plant was located in Smíchov, by the railway station of the Czech West Railway. In 1895, the Barta & Tichý Company rented a red marble quarry from the Knights of Cross with the Red Star. The company was gradually either buying or renting quarries in Kosoř, Český Šternberk, Soběšín and Bohdaneč. The range of products extended. According to the price list of the 90s of the 19th century the company manufactured:

Industrial part of Hlubočepy at the end of the 19th century

hydraulic building lime, white lime, ground cement lime, Portland cement, cement tiles and roof tiles, cement paints for house painting, firebricks, mortar and pipes, stones for smelting furnaces, goods of terracotta as water and drainage pipes, toilet necks, mangers for horses, chimney superstructures, containers for chemical and technical purposes, fireclay pavement tiles and ornamental building and garden terracotta statues, cornices, balustrades etc.[131] In the years 1908–1910 the company had registered 45 types of decorations of their own tiles with Zápisný úřad pro ochranu vzorků při obchodní a živnostenské komoře (Register for Protection of Samples at the Chamber of Commerce in Prague).[132] In 1908, after Karel Tichý´s death, Rudolf Barta became his successor. In 1906, after a bankruptcy of the branch and the following loss, the company had to enter the central shop of producers of ceramics in Vienna under unfavourable conditions. In 1910, the company bought a building of the former mill house "U Broučků" in Radotín and established there a workshop for processing marble and a crushing mill for so-called "Ulm pulp"[133] The company survived the First World War with substantial financial losses.

The beginnings of the Max Herget Company dates back to the 18th century. Amongst the company´s founders is František Antonín Linhart Herget, professor of engineering at the professional Inženýrský institute (Engineer Institute) in Prague. The company´s boom came with his son Antonín when the Herget Company belonged to the biggest producers of bricks in Prague.

Herget´s plants included brick factories in Smíchov e.g. "Zatlanka" to the north of a homestead Santoška and in Bubeneč.[134] The Hergets supplied their bricks not only to the Prague constructions but their bricks were also used for building the Terezín and Josefov fortress. The company was gradually leaving the manufacture of bricks and at the time of establishing with the Barta & Tichý Company a new company called Spojené pražské továrny na staviva (Joined Prague Plants for Building Materials) they did not own any brick factories.

In 1910, in the quarries Na Požárech the Tichý & Barta Company started lime extraction. Later on, the quarries were transferred to Prastav.

František Antonín Linhart Herget, 1741–1800

Another construction product was lime which also made the company famous. Ing. Barta wrote in his memoirs: *Professor Herget knew a new orientation of production of building materials, mainly in France. According to the French example the Hergets supplied hydraulic lime and as "pasta di Praga", the company delivered it to Venezia, Hamburg and Bremen because it was successfu in marine constructions. In the 30s, we renewed its manufacture under the name "Old Prague" hydraulic lime – hydrate in the Prastav Company in Zlíchov. At home, Herget pushed through the Prague hydraulic lime to be officialy prescribed for all water and foundation constructions. It was so-called "Max Herget". After 1918, this provision was transferred to the building regulations of the Czechoslovak Republic and was valid until the 30s.*[135] The company achieved the biggest boom when Maximilian, a grandson of Professor Herget, started managing the company and gave the company his name. He cancelled all his plants in the Prague district and transferred them to Zlíchov where he built up a lime works with twelve chamber kilns so-called "Prussian kilns". In 1876, the company achieved the biggest expansion by merging with the Radotín cement plant. When Maximilian died in 1893, the company owned a plant for earthen goods and brick plant in Bubeneč, lime works in Hlubočepy and Zlíchov, and lime works in Beroun. More history is described in the chapter on the Radotín plant under the leadership of Max Herget and his successors.

Lime works of the Max Herget Company in Zlíchov at the beginning of the 20th century

IN THE CZECHOSLOVAK REPUBLIC

In 1919, an extensive and very detailed inventory of assets was carried out in both business entities. A valuation of assets was done by independent specialists whose bibliographic data are stated in the appendixes of Otto's Encyclopeadia. An evaluation of the company's buildings Barta & Tichý and Max Herget was done by Ing. Bohumil Hollman, an iron concrete structures specialist, architect František Buldra from Prague, Ing. architect Otakar Materna from Prague, Prof. Ing. Doctor of Engineering Otakar Kallauner from Ústav chemické technologie anorganické České vysoké školy technické v Brně (Institute of Anorganic Chemical Technology at the Czech Technical University in Brno) and Ing. Otto Schott from Heidelberg. The price of machinery was assessed by Ing. Otto Schott from Heidelberg and Ing. František Matouš from Prague.[136] All the assessors stated that construction buildings of both companies are in good conditions. On the contrary, machinery was criticized. Many of machines were old and their operation was not economical, although the maintenance was good.

A preparatory committee of the future joint-stock company called **Spojené pražské továrny na staviva a.s. (SPT – Joined Prague Factory for Bulding Materials)** approved the entry of properties into the register on 16th June 1921. The value of properties was 12mil CSK. The Barta & Tichý Company brought properties with the value of 5,890,008 CSK, 94 hal (hellers) and the value of the Max Herget Company brought to the new company was 6,109,991 CSK, 06 hal.[137] The new company got the plant for Portland cement in Radotín, lime works in Zlíchov, in Hlubočepy, Holyně, Řeporyje, Beroun and Bohdaneč; lime quarries in Zlíchov, Hlubočepy, Klukovice, Holyně, Ohrada, Řeporyje, Beroun, Tetín, Koněprusy, Slivenec, Radotín, Kosoř, Lochkov, Bohdaneč and Český Šternberk. The part of new possessions was also the plant for refractory fireclay goods and stoneware pipes and stoneware for chemical-technical purposes in Hlubočepy, a plant for mosaic and glazed tiles and majolica in Hlubočepy, a factory for cement and concrete goods in Smíchov; a steam engine brick factory in Řeporyje, quarries with Slivenec marble, with the machinery processing, cutting, grinding and polishing marble; a plant for manufacturing crushed marble for facades, terrazzo floors and manufacturing artificial stone placed in Radotín; a plant for manufacturing red, black and white marble mosaic pavements in Slivenec, Kosoř, Bohdaneč and Český Šternberk. The company also gained an extended network of building material stores not only in Prague but also in Beroun, Jindřichův Hradec, Hořovice, Rokycany, Plzeň and Karlovy Vary.[138] After official formalities, the company was established at the general meeting on 25th June 1921.[139] At this meeting the first board of directors was elected. Chairman of the board and CEO became Rudolf Barta, a vice-chairman of the Czech Bank and manager of the Barta & Tichý Company, a vice-chairman was JUDr. Jindřich Herget, the owner of the manor farm estate and

Brick factory of Barta & Tichý in Řeporyje

industrialist. Other members of the board of directors were: JUDr. František Barta, an executive secretary of the Industrial Club, Karel Kletetschka, a director of iron works in Libčice, Ing. Jan Kubíček, the owner of the Lochkov manor, Karel Rühr, director in Podmokly and JUDr. Ladislav Tichý, an industrialist. Later on, Bohumil Rosenkranz, president of the Czech Bank, was co-opted into the board of directors. Florián Miller from the Max Herget Company, Antonín Novotný and Dr. Ing. Rudolf Bárta from the Barta & Tichý Company became holders of procuration. At the general meeting, former chief chemist of the Podolí Cement Plant, Ing. Josef Tichý was appointed to a post of the director of the Radotín Cement Plant. The shareholders were familiarized with the company´s articles. It stated that the stock capital of the company was 16mil CSK and it was diversified into 40,000 pieces of integral personal shares per 400 crowns. The Barta & Tichý Company and Max Herget Company took over 30,000 shares of the total amount and the rest of 10,000 shares amounting to 4mil CSK were paid in cash in the following proportion: companies Barta & Tichý and Max Herget cleared 9,750 shares and the Czech Bank in Prague cleared 250 shares. Money from this transaction made the basis of the reserve funds.[140]

One of the first and main tasks of the newly extablished company was a reconstruction of obsolete plants. With regard to the prevailing situation on the cement market, the board decided to prefer reconstruction of the Radotín cement plant and to reduce investment in other plants for the time being, except for the unfinished cableway from the quarry Na Požáru to the lime works in Holyně.[141] At the same time, the board had conducted a control of all the company´s plants. Inspectors unfortunately stated that *they missed a safe place for books, money and important documents in almost all the plants, mainly in Radotín and Hlubočepy*. The board members postponed a purchase of strongboxes and suggested the directors and operation managers to secure money and important documents much better.[142] The important step to the extent reconstruction of the cement plant, the board made at the meeting right in the Radotín factory on 31st May 1922. As Prof. Ing. Otakar Kallauner suggested, they decided to reject the so-called small reconstruction and start a general reconstruction. They asked the Czech Bank in Prague for credit. After getting the credit of 15mil CSK the machinery was ordered in the German companies Curt von Grueber and von Pfeiffer. The company partially used the inflation exchange rate of the German mark.[143] The reconstruction project for the cement plant was elaborated by Ing. Stoll from Berlin.[144] When commissioning the compound mill, the chairman of the board of dierectors asked a specialist from the Grueber Company for advice because when commissioning such a giant body with the weight of 60,000kg something could go wrong *because until now we have not worked with a similar machine.*[145] The construction of new kilns was done by the Blecha Company which already built kilns in the cement plant before the war. Furthermore, a steam engine was purchased for 380,000 CSK from the Skoda Works. Its performance was 310 HP, part of it were a preheater, generator

Radotín at the beginning of the 20th century


TELEFERIA

SPOLEČNOST PRO STAVBU LANOVÝCH DRAH S.R.O. V PRAZE.

TECHNICKÁ KANCELÁŘ: PRAHA-KARLÍN, KRÁLOVSKÁ TŘ. ČÍS 88.

PROJEKT

ZAŘÍZENÍ PRO DOPRAVU VÁPENCE

Z LOMU „POŽÁR" DO PECE U HOLÍNĚ.

Technická zpráva.

V PRAZE, V ÚNORU 1923.

TELEFERIA společnost pro stavbu lanových drah PRAHA-KARLÍN Královská tř. 88

Spojené pražské továrny na staviva akciová společnost v Praze.

Front cover of the plan for the delivery of limestone from the quarry Na Požárech, 1923

with performace of 315 kWA and two electric motors amounting to 223,000 CSK. The order was placed to the Škoda Works because of price and also the circumstances *because the Škoda Company is our biggest client of all the offering companies and knows local situation well.*[146]Although, the plant reconstruction went on, the board permitted to carry out the cement strength test in Radotín according to the Bárta – Kallauner patent.[147] Besides the cement production, the SPT Company tried to break through the other fields they did business in. In 1922, the JPP entered the Brick Cartel with a quota of 4 millions of bricks per year and deposited 500,000 CSK into Akciová společnost stavitelů (the Joint-Stock Company of Constructors).[148] On account of advantages of the plant railway insurance, the JPF Company became a member of the section of the owners of railways at Ústřední svaz průmyslníků (the Central Union of Industrialists).[149] Reconstruction of the important plant, purchase of estates *for further ensuring our plants*, financial commitments of the company´s ancestors, unpaid receivables amongst clients[150] and other unfavourable circumstances as well as a long shutdown of plants due to great snowing at the beginning of the year and a strike in the mines in March 1923 caused the company´s difficult financial situation. When the fiscal year 1923 did not fare well financially and finished with a loss of 3,450,910 CSK[151], the company´s financial situation was quite critical. The original amount of losses was 5.5 million CSK but the loss was reduced to 3,450,910 CSK due to depreciations and different transfers.[152]

The main financial guarantor of the JPF Company, the Czech Bank was substantially affected by deflationary crisis as well as by the other medium banks. This crisis was launched by the monetary policy of Minister Alois Rašín and this policy increased extraordinarily requirements on the credit. At the beginning of the year the Czech Bank suffered from significant problems. After the bankruptcy of many small and medium banks, a panic started amongst small savers, which was supported by a polemic in the press. Mass deposit withdrawals had started. Only during March 1923, the Czech Bank paid out 107mil CSK to savers.[153] It was very difficult to get credit under such circumstances. Providing the credit of 15 million CSK in 1922, the Czech Bank commited not to give a notice of withdrawal to the JPF Company until 1924, and could not refuse another credit for the company. The bank decided to solve the company´s request for the 5 million credit by by the unusual way. They would provide the company with the credit of two and half million crowns only if the second half was deposited by the shareholders. The shareholders refused this solution. In the end the board resolved this awkward situation and appointed in the company´s management a man who was well capitalized and able to get new credits. It was Rudolf Weinmann, a Prague coal trader. His start and his acting in the company were characterized by Dr. Ing. Rudolf Bárta: *As a matter of fact, Rudolf Weinmann did not act unreasonably in Prastav[154]. He became convinced that current management does well, so he did not make any changes and was happy about the function of the acting councillor of the board and he always had respect for us.*[155] In fact, Rudolf Weinmann gained substantial authority in the company. It was agreed in the agreement between him and the company that he was going to be co-opted to the board of directors and the board was going to *authorize him to directly conduct the business of the company and manage directly all the important company´s matters. The shareholders will assign to Rudolf Weinmann that many shares that represent the half of the principal fund but against the payment in cash and the principal will be reduced from 16 mil to 8 mil CSK*. Furthermore, the company bought 800,000 crowns worth of

a lime work, quarries and a production plant for building materials of the Josef Procházka Company in Loděnice which R. Weinmann owned.[156] The amount of 800,000 CSK was not to be paid to the owner but it was to be kept as a loan of the company with 8% interest. The payment for the company in Loděnice was paid out in September 1928[157]. On the other hand, R. Weinmann committed to gain for the company credit amounting to 2 mil CSK, which he was going to secure personally.[158] The situation of the company was characterized by the chairman of the board of directors and the general director of the JPF (Spojené pražské továryny na staviva – the Joined Prague Factory for Building Materials) Rudolf Barta in the annual report from 1924:[159] *The year 1924 was for our company a turning year. When the Czech Bank could not keep the guaranteed credit on which basis we decided to invest in Radotín, we had to not only slow down our investments but we were also forced to reduce the production in many of ou works . At the end of 1923 and at the beginning of 1924, the financial situation got so far that we could not pay neither for old receivables from 1923 nor regular expenditures as wages, salaries, tax and fees. In April 1924, when the participation of councillor Weinmann was organized, the most acute financial troubles disappeared and councillor Weinmann stopped his unfavourable interference with the workst management and weakening its activity. The councillor negotiated with the Czech Bank modus vivendi and the investment and trade acitivities could continue.* In this financial situation the shareholders could only dream of getting dividends but for all that they heard also good news at this general meeting – *Portland cement from the newly reconstructed cement plant in Radotín enjoys popularity and it is acknowledged as one of the best cements all togehter.*

Cement production also affected the names of buildings and streets

In 1924, another change happened in the make-up of the board of directors. From October, J. M. P. general and Grand Master of the Knights of the Cross with the Red Star ThDr. Josef Vlasák[160] became a member of the board. In January 1925, in the board of directors the workers were represented by Josef Veidiš, a chairman of the factory committee. The arrival of Rudolf Weinmann saved the company from instant bankruptcy but there was a huge debt of about 13 mil CSK (interests were 1.2 mil CSK), which the company fought for some more years.

The economic situation of the company got also complicated by unpredictable events. In 1925, the lime works in Beroun was damaged by fire[161] and the following year, a serious failure of a kiln in the Radotín plant occurred, which resulted in a loss in the cement production. Even during a period of a difficult situation, the JPF Company did not refuse requests of villages and associations for contribution to the memorials to the fallen in the world war. The company gave stones for memorials

to Choteč, Lochkov, Holyň and Slivenec. It also permitted the Beautification Association to convert the sidehill against the Böhm´s Mill (which belonged originally to the company) into a park.[162]

In January 1925, Ing. Jan May started working for the company. He was appointed a chief technical administrator of all the works, mainly for the Radotín plant.[163] After the director of the Radotín plant, Ing Josef Žitný, returned back to the Podolí cement works on 22nd November 1926, Ing. Jan May replaced him on this position. By appointing Ing. May, the company gained a very capable manager. Immediately after the appointment, the new director asked the board for money for a thorough repair of kilns and reconstruction of the cement mill and he also offered to leave for Germany to visit manufacturers and personally arrange contracts. Due to the reports on the construction of a new works of Královodvorská cementárna in Králův Dvůr the board agreed with suggestions of the director.[164] Furthermore, the board supported the Radotín cement tests in the Eternitas plant in Častolovice in which Ing. May participated. In 1925, the company had a dispute with the Královodvorská works regarding the marking of a new type of Iron-Portland cement. The Královodvorská works won this dispute and the Radotín product had to be renamed to Ferro-Portland cement.[165]

Big debts, which could not be amortized, amounting to 13 mil CSK and other expenses in Radotín as the repair of kiln no. 2, purchase of a new grid and reconstruction of old kilns into cement stores forced the company to sell properties which earned nothing. The house in Smíchov was sold as well as the estates in Zlíchov, Habrová and brick works in Řeporyje. The decision on immediate sale was expedited by the opinion of R. Weinmann that *at this moment even a small amount of money is more important to us than a big amount in the future.*[166] For the efficient sale of cement, a contract on the sale of the Radotín cement was concluded with the Cementa Company, purchasing a cooperative of manufacturers of cement commodities Ltd. in Prague At the meeting it was also announced that upon the agreement with councillor Weinmann his son in law Ing. Karl Ullmann would be appointed and co-opted to the board of directors.[167]

The year 1926 was favourable for the shareholders. At the 6th general meeting it was decided, not with one voice though, to pay out the dividends. *The chairman noted that dividends should not be paid out because the financial situation of the company is still not satisfactory and we still have big debts. Because since the establishment of the company, any dividends were not paid out, the board should suggest the general meeting to pay small dividends which would compensate the shareholders for their big sacrifices for the company. A big demand for our Radotín cements, mainly for Portland cement as well as Ferro-Portland cement with diabase and special high-quality cement Rekord enables the board to make such a step. He thanks the shareholders for their selfless abandoning the dividends since the beginning of the company.*

In the following year the company got into an unpleasant dispute with the Královodvorská works over the amount of cement supplies to a construction of expo premises in Brno. It was a construction requiring the most cement in the republic at that time.[168] The year 1927 was quite successful for the JPP Company. Except for the cement supplies to the expo in Brno, the company was also an exclusive supplier for the construction of the Accident Insurance Company in Holešovice and the building of the Town Library of the Prague City. The company also supplied cement to other important buildings

which were stated in the company´s promotional materials – Veletržní palác (Fair Palace) in Prague and road bridges over the Vltava River in Kralupy, over the Labe River in Kolín and the Berounka River in Zbraslav.

The profit was used for liquidation of a big debt. In August, the company received credit of 5mil CSK with the Anglobanka via councellor R. Weinmann and the company´s obligation increased to 13.3 mil CSK. On the other hand, there were receivables amongst the clients amounting to10 mil. CSK.[169] In July 1928, the board of directors objected to the Prague Town Hall that they significantly harmed the works in Zlíchov and Hlubočepy due to the new regulaton plan. The company also complained to the Prague Town Hall about the fact that they did not prefer the companies residing on the territory of the City when organizing their constructions.

On the basis of Law No. 78/1927 Coll. on Stabilization Balances, the board of directors had carried out an evaluation of the company´s immovable properties. Regarding the current financial situation in the company the board slightly adjusted the evaluation downward.[170] The company owned estates of 2,283,195m² with price of 4,122,240 CSK. They valued the buildings at 18,443,250 CSK and machinery at 11,601,040 crowns. The railways were valued by the sum of 3,063,580 CSK and other stock by 4,107,230 crowns. Immovable property of the company had a total value of 41,337,340 CSK. The company contributed to the stabilization fund with the amount of 24,721,233 CSK[171] The solution of financial and production problems during the board meeting in October was interrupted by a request of the temporary committee of the sport club of 24th September 1929 for a permission to use *the inicials of the SPT Company on their shield* and rent out the company´s estate in Zlíchov to build a playground and a canteen. The board of directors agreed with those requests and wished the club good luck.[172] The loss of 122,000 CSK which safe-breakers caused the company on the night from 26th to 27th October was commented by the board of directors: *We are covered by the insurance with the Slávie Bank*.

Large orders of cement[173] and other building materials on one hand and debts of the company on the other hand meant that the reconstruction of the most important cement plant in Radotín was delayed. At the board meeting, held on 8th October 1929, Chairman R. Barta said *that almost all our plants need investmenst. The total amount makes to about 6,350,000 crowns. The Radotín plant will need to release 1.5mil CSK. The board is of the opinion that the future investment into the Radotín should be as high as possible because this is the main source of our profit.* At this meeting there was also a decision made to pay the dividends always according to the opinion of acting councillor Rudolf Weinmann who stated that it *has to be our principle to always pay dividends and keep it at the current rate*. In April 1929, according to the fact that *the representative of the Czech Bank in the board of directors Ing. Kubíček is always very forthcoming, the board decided to take the credit (7 mil. crowns) from Anglobanka back to Czech Bank*.

Serious lack in the company´s accounting forced the board to have elaborated a reorganization of the accounting department and new methods of accounting by professor Ing. Fuksa[174]. The new way was introduced from 1st January 1930. At the last board meeting in 1929, one item of the programme was also a new company´s name. This item was introduced by the chairman: *we are being warned from different sides that the name of our company is difficult to remember and it is too long. It is being taken into consideration to put one more short word in front of the current name which coul come to general use, for example "Prastav".*[175]

OTHER WORKS OF THE JPP

At the end of the 20s, serious problems started in other business fields of the JPP – in the lime production. Even though from the company´s establishment the investment in the lime works was limited only to general maintenance, the lime production increased. In 1921, 27,720 tonnes of lime were produced from all the lime works, in 1923, it was already 34,740 tonnes and in 1925, the production increased up to 52,030 tonnes. And then a drop came. The situation was being sorted out by the board of directors at its financial meeting on 21st December 1927. Dr. Ing. Rudolf Bárta presented a report on the production in the company´s lime works. At the beginning he said *that the lime production is really bad, almost disastrous*. After such a gloomy introduction he talked about individual plants. The lime works in Zlíchov had the twenty-chamber kiln which could not be fully used because of the lack of stones. Stones from the Hájek quarry gave black and peeled lime which which caused frequent complaints and subsequent discounts. The quarry in Klukovice was almost empty and it was uneconomical to deliver stones from Loděnice. The lime works in Hlubočepy had the twelve-chamber kiln which used 75% of stones from Loděnice and the rest from Klukovice. Transportation of all stones by railway was expensive and unfavourable. Another lime works in Holyně had a twenty-chamber kiln and there was also a lack of the stone. The quarries in the neighbourhood were almost exploited and limestone had to be extracted from the depths which was expensive. The transport of stone from the Požár[176] quarry to Holyně was connected by a cableway, but at that time it was not sufficient and so expensive that the lime price from Holyně was the same as in Zlíchov and Hlubočepy. The lime works in Beroun had sufficient amount of stone from Koněprusy and the Damila quarry, but the low price of lime from the cement plant in Králův Dvůr substantially affected its sale. The most modern and biggest lime works in Loděnice also struggled with low prices of the lime from Králův Dvůr. At the end, Ing. Bárta recommended *transferring the production of lime works with expensive work and sometimes with a loss to places where limestone is nearby, so the lime production is cheaper and it is possible to confront the competition*. He recommended to build up a new lime works in Řeporyje by the quarry Na Požáru and submitted a framework budget.[177] The investment was estimated for three million crowns. Due to the lack of financial resources the project did not happen. Firstly, the contruction of the new lime works was postponed until 1931 and then it was not planned at all. Instead of building a new lime works, the company bought from Antonín Herget the lime works in Holyně for 300,000 CSK.[178] The quarry Na Požáru was extended, the railway was built up and drilling equipment was acquired for 1.7mil crowns.[179] The extended quarry Na Požáru supplied the lime works in Hlubočepy and both plants in Holyně, which were called Holyně km – 7 and Holyně km – 8.[180] The lime works in Zlíchov was cancelled and reconstructed for 250,000 crowns to a stone-cutter´s workshop and production of ground lime Atlas.

STONEWORK

Another area of the company´s business with a remarkable success was stonework. The founder companies Barta & Tichý and Max Herget owned large marble quarries in Slivenec, Kosoř, Bohdaneč and Český Šternberk, they also had plants for processing marble and marble pavement mosaics, but they did not have stonework concession necessary for this business. They were unsuccessful when trying to obtain this concession via Antonín Žežulka, a supervisor in the Slivenec quarries, because he was not a shareholder of the company.[181] In 1922, the company was joined by a stonework company Ing. Jiří Víšek, but it did not bring concession either and regarding the finances, it was not a good move. Even though Ing. Rudolf Bárta was a member of the board of directors of the „Kamenické závody, dříve Ing. Jiří Víšek a.s. (Stonework Works, earlier Ing. Jiří Víšek) and the JPP Company invested in the company substantial financial amounts, its influence on the stoneworks was very small and profit was low. Therefore, in 1928, the company sold its share and left the company Víšek.[182] The entry into the Tvrdek and Comp. in 1926 was far more successful. The company gained granite and marble quarries in Vyškovice and Jaroškov in Šumava mountains.[183] Finally, the company got a concession from Dr. Ing. R. Bárta for 18,000 CSK of the annual rent.[184] Dr. Ing. Rudolf Bárta got trained as a stonemason at Antonín Žežulka.[185] In the years 1929 and 1930 new workshops for processing marble were built up in the place of the Zlíchov lime works. After some time, due to many prestige and lucrative orders, the stonework department elevated the company Prastav to the most important companies doing stonework business in the republic. This department started using for facade claddings and interiors unusual stones such as syenite, rhyolite, diabase or trachyte. Also foreign materials were used. But main basis was in the company´s own quarries. Red and grey-green marble was mined in Slivenec and it was supplied to the market under the name *rouge antique*, white marble from the quarry in Vyškovice was called *bianco crystalo*, marbles from Jaroškov and Šternberk were sold under the name *blanche ivoir*.[186] Also black marble from the quarry in Kosov was used as well as orthoceras marble from the quarry in Klukovice. We can mention some projects of all contracts: the Petschka Bank in Prague[187], the Petschka villa in Bubeneč, the Czech Industrial Bank Na Příkopech, the Monument of National Liberation Na Vítkově, the Town Library of the City of Prague, Poslanecká sněmovna (Chamber of Deputies) in Rudolfíno, Ministry of Commerce, the General Pension Institution, Legiobank Na Poříčí, the Agricultural Museum in Letná and the garden of the Queen Anne´s Summer House in Prague. In Bratislava the department worked on the headquarters of the Tatra Bank, in Kutná Hora they did lining of the interior of the Town Theatre. They also did some jobs for sacral buildings – main altar in the cathedral in Hradec Králové as well as in the Church of the Sacred Heart in the Square of George of Poděbrady in Vinohrady. They did another job in the Smíchov Synagogue – lining the lobby. The department did not even refuse small orders such as tombs, tiling the foyers in villas, tiling fireplaces etc. with prices from 1,000 crowns. Deliveries of three-colour pavement mosaic or sidewalk curbs etc. were also very important. The company´s participation at the exhibition of decorative art in Paris in 1927 was successful too. The company received a diploma for the presented mosaics. There was a notable order for delivery of white cobbles from the quarry in Jaroškov – for the Prague City Hall and the Town Hall in Brno. These cobbles should have been used for pedestrian crossings and dividing street lines.[188]

CERAMICS

After establishing the JPP Company), the production programme changed. Building ceramics was prevailing – sewage pipes, tiles and wall tiles. When at the board meeting chairman of the board of directors Rudolf Bárta talked about individual plants of the company he said about ceramics: *lime and cement is significantly seasonal while ceramics provides more permanent employment. Recently, we have also drawn financial resources from this area when we could not rely neither on cement or lime.*[189] Even despite this evaluation, investments in the plant in Hlubočepy were small and due to the poor financial situation of the JPF Company the board of directors had been considering selling the ceramics plant for some time and using the yield for paying their debts. In 1925, chairman of the board of directors Rudolf Barta negotiated with management of the Západočeské továrny kaolinové a šamotové (the West Bohemian Kaolin and Fireclay Plant) in Horní Bříza about the possibility to sell the ceramics plant in Hlubočepy. The price of the ceramics plant was estimated at 2,897,380 crowns. At the end, they sold the brick plant in Řeporyje. The main production article of the company was stoneware sewage pipes and ceramic tiles. Compact walltiles manufactured in five colours (red, yellow, black, grey and white) made only a small supplement to the production programme. In 1926, the plant manufactured 220 wagons of pipes and 70,000m² of tiles; the plant employed 180 male workers and 92 female workers. The following year, in 1927, the company tried to manufacture painted walltiles. But the production was very expensive due to manual work, therefore it stopped soon.[190] The board dealt with the ceramics plant in December 1929. Also, at this board meeting Chairman Rudolf Barta made a critical comment on the lack of financial investments in the plant: *Hlubočepy are not on such modern, economical and technical level as it would deserve. If we do not invest and improve the production and technical equipment, we will still be behind and we cannot adapt to the current time and its requirements*. He also complained that due to the break-up of the Monarchy the large sale territory disappeared. He also said that the company **Keramika s.r.o.**, prodejny dlaždic, obkladaček, zboží kameninového a kamen (shops with tiles, walltiles, stoneware goods and stoves), concluded a price and cartel agreement with the producers of ceramic pipes in Austria, Hungary and the SHS Kingdom (Yugoslavia). At the end, the chairman talked about the technical situation in the factory. *The factory equipment is very old, the kilns are from 1878 and firing is expensive and poor. It is necessary to demolish them and build up new modern ones. The pipes made in these old kilns are of inferior quality and the "Keramika" Company is surprised how it is possible to manufacture such poor pipes today. Losses caused by poor quality pipes made 125,000 crowns per year. Due to permanent firing, the ring kiln from 1898 needs substantial repairs.* He recommended building up four kilns for half a million CSK in which 172 wagons of ceramic pipes and 300 wagons of fireclay bricks were supposed to be burned each year. He also recommended building up a testing laboratory similar to the laboaratory in the Radotín works because ceramic products are standardized and quality

is tested.[191] In spite of it, on 2nd December 1929, at the financial meeting the board of directors decided to postpone investment in Hlubočepy and put all resources into the Radotín cement works. As it was stated in the annul reports from the years 1931, 1932, 1933, with regard to the fact that the *ceramics factory for manufacturing sewage pipes, tiles and firelay in Hlubočepy sold less*, the lack of investments was not so considerable.

In December 1935, agreements with companies Bratří Mračkové (Mračka Brothers) from Třemošná and Antonín Kadlec from Vranov by Břasy were signed that from 1st January 1936 they were becoming regular members of Keramika spol. s r.o.. Because the influence of the Prastav in Keramika was substantial, the chairman of the board of directors called it familiarly our Keramika; the accession of both companies to Keramika was a great commercial victory. Chairman Rudolf Barta commented on it: *By this all industry of ceramic pipes is consolidated in our Keramika except for the plant by Dlouhý Újezd where pipes are manufactured in small quantity and this plant is not our rival. Tomorrow, at the unscheduled general meeting Keramika agrees on increasing prices of ceramic pipes as well as tiles.*[192]

United Prague factories Hlubočepy

The following year, in 1936, the Commercial and Trade Chamber in Prague authorized Prastav to use commercial trademark *antifumo* placed on its ceramic goods and registered a patent for new pipes provided with groove on one end and hollowing on the other end which enables the pipes to be connected tighter.[193] Big investment of 2 mil CSK for a reconstruction of the plant in Hlubočepy was agreed at the financial meeting of the board of directors on 2nd September 1937. The reconstruction took place from September 1937 to March 1938. The existing drive by transmissions was replaced with electrical engines. A generator for generator gas production was built and it was used for burning stoneware pipes, fireclay and tiles, furthermore an engine room with a Diesel engine for driving gas generator for drying rooms and for night lighting was built. The existing ring kiln for burning pipes and fireclay was reconstructed for using generator gas. In the place of the three demolished round kilns, a new modern ring kiln with 30 chambers for firing stoneware tiles was built up using generator gas for firing too. A new building was built for the kiln. In the department of tiles a new driving station was built which was used for driving hydraulic presses. A new semi-automatic press for pressing tiles was acquired. Production of fireclay bricks also changed. They were manufactured on a brick press and then they were pressed again on the overpress which was converted to be driven by engine drive. A big new vertical mill was built up for grinding raw material. Furthermore, the reconstruction of the plant sewerage system was carried out because the existing one was not suitable. They also made a probe to find own water supply.[194] Products from the new plant were exported. In 1946, negotiations on a recovery of debts from the years 1938/1939 took place. Debtors were in Colombia and South Africa and they owed money for stoneware pipes.[195]

A proposal of the board of directors regarding the name of the company and using the abbreviation **Prastav** before its name was approved at the 10th general meeting on 17th May 1930. The shareholders agreed on the opinion of the board that this abbreviation can be acceptable also in other languages. The commercial report said that due to strong frosts in 1929 and decrease in building activities, only 40,580 tonnes of cement were dispatched. They achieved a great success with the marble pavement mosaic.[196] Director May tried to eliminate problems with the cement quality, mainly with the fine milling which was required by companies building roads. He noted that *competition grinds to finess corresponding to 5% of the rest of the sieve with 4,900 openings per 1cm². We usually grind for 9–10 %* and he also required an investment in the mills.[197]


Reservováno pro

PRASTAV

akc. spol. v Radotíně

odpovědi na následující dvě otázky (zatím):
1. Proč snad ani jediný z radotínských obchodníků stavebninami neodebírá radotínský cement, a vede i při vyšší ceně raději cement královdvorský?
2. nebylo by možno, aby radotínská cementárna dostala zadánu dodávku cementu na úpravu silnice uvnitř Radotína?
3. třetí otázka, kolik asi cementárna zaplatí na přirážkách obecní pokladně, není již otázkou, poněvadž na ni bylo již odpovězeno v jiném referátě. To, co Prastav odvede obci, nejsou tedy nikterak čísla astronomická. Za tyto přirážky rozbije Prastav při dopravě cementu auty za měsíc více silnic, než odvede za celý rok!

Nový Obzor

At the third financial board meeting, it was decided to make and extended reconstruction of the Radotín cement plant. The target of this reconstruction was to achieve an annual cement production of about 60,000 tonnes. The planned reconstruction was to take place in three phases. During the first phase, the electrification of the plant was supposed to be done. In the second one, a construction of a new cement mill was planned as well as a reconstruction of the kilns. The third phase included a planned reconstruction of the raw material station (mills and raw material crushers). The planned investment in the Radotín plant was estimated at 7–8mil CSK. In 1930, the first part of the planned reconstruction started, i.e. electrification, which cost 3.6mil CSK.[198] In the second phase, the new cement mill was built and was supplied, including its assembly, by the company Smidth from Copenhagen. Also the new kilns designed by the company Curt von Grueber from Berlin were reconstructed. In July, the construction and assembly of the new transformer station was finished and a hammer crusher and a conveyor were commissioned. The old engine room and a boiler room were put out of operation on 22nd October. Since that time, the works has been using only electricity. Electricity consumption was ensured by supplies from Středočeský elektrárenský svaz (Association of the Central Bohemia Power

Plants). During the reconstruction, the Prastav got bad news that affected the company´s economy. The biggest cement producer in the Czechoslovak Republic the Královodvorská Cement Works

Company note, 1935

decreased the cement price by four crowns per one metric cent. Naturally, the Prastav Company had to respond to this and reduce the price too.[199] The reconstruction carried on throughout the following year. In April, the second reconstructed kiln was commissioned. At the second board meeting in April 1932, the chairman noted that the reconstruction of the cement works is de facto finished. The only thing to be built is the equipment for automatic cement packing. The board assessed the result of the reconstruction at the beginning of 1932 with the following words: *An overall reconstruction was done on time, so the increase of standards, which is prepared and will be introduced soon, will not create any obstacles for us. Also, the price battle, which is under way, could not be made if a reconstruction has not been carried out.*[200] But the situation in 1933 was characterized by the chairman as follows: *the sales are very bad now; cement and lime prices are very low than ever before and the financial standing of the clients is also poor. We are coming into the most difficult times our company has ever been through. The cement Cartel is breaking up. However, we have not become its member and the lime cartel does not even exist. News about us presented in the newspapers are completely tendentious.*[201] On the reality that some cement and lime producers sold cement and lime under the production price the board of directors commented as follows: *We did not take part in a competition for unprofitable prices.*[202] Information on

total liquidation of the lime works in Beroun due to a fire and the situation in the cooperative **Cementa** might have contributed to the bad mood of the chairman. Receivables from the cooperative were big, the economy of the cooperative was meagre, so the board of directors decided to interrupt any commercial intercourses with it and claim debts even at the cost of liquidation of the cooperative.[203] Despite the pessimistic words of the chairman, the economic situation in the Prastav Company was not so bad because in May of the following year, the board of directors asked for introduction of the company´s shares in the Prague stock market. At the board meeting, the chairman announced that *after a deal with councillor Weinmann he was asked by director Malý*[204] *to obtain information on the possibility of introducing our shares in the stock market. Director Malý informs that he has talked both with Dr. Epstein,*[205] *and with Dr. Kudela*[206]*and that according to this information we might be introduced in the stock market because we have paid the dividend for three years in a row. Once for all we would pay a fee of 2,000 crowns and 500 crowns for notification. In our case it is 40,000 shares. When they are introduced in the stock market with a rate of 600 crowns, the exchange rate would be 24 mil crowns. The fee would be 1/10 %, i.e. 2,400 crowns. It was decided to introduce our shares in the stock market.*[207] In 1933, a work loan was subscribed by the company for 250,000 CSK.[208]

In May of the same year, the board of directors took into account that *the commercial association of the lime producers stopped working* and the test to use concrete for lining a shaft kiln was not aproved.[209] At the meetings, the board never expressed its comments on the political situation. At the meeting held on 10th October 1934, it made an exception and denounced the attempt on the Yugoslavian king Alexander and French Minister of External Affairs L. Barthou in Marseille.[210] At this meeting, the board also approved the accession to the Statewide Cement Cartel.

STATEWIDE CEMENT WORKS CARTEL

History of the Cartel of the Czechoslovak Cement Works is described in the history of the Podolí Cement Works; therefore this part will concentrate on the role of the Prastav Company during negotiations on the Cartel and a position of the company in the cartel. During negotiations on the cartel agreement, sharp conflicts occurred between the Prastav and the Královodvorská Cement Works. The JPP Company tried to join the free agreement amount the biggest cement producers arranged after the establishment of Czechoslovakia, which was adjusted the situation on the cement market in outline, but *because of the big opposition of the Králův Dvůr it did not happen*, as the chairman of the board noted. During negotiations on the Cartel, the Prastav asked for 11% of the Czech quota and 6%

A caricature of the Statewide Cement Works Cartel in Prager Börsen Curier of 8 November 1934

of the statewide quota. After a long negotiation, it made concession to 10.2 % of quota for the Czechs. Also, the representatives of the company required some compensation for deliveries to Moravia for those discounted percentages of the Czech quota and another compensation which would be covered by selling about 30,000 tonnes of cement from Králův Dvůr, 5,000 tonnes of lime from Koněprusy and 4 million of white slag bricks. This requirement of the company as well as the others was rejected by the Králův Dvůr Cement Works.[211] The executive committee of the Králův Dvůr Cement Works Plc. made on these requirements of the Prastav comments at its meeting on 8th May 1934:

The Prastav Company was placing more and more new requirements and even such requirements not connected to cement at all. But also after meeting these requirements of the Prastav Company Works it showed that new sacrifices brought by big cement works in the interest of the Cartel were pointless because shortly after new requirements were accepted, the Prastav Company came with other requirements which were escalating and culminated with a requirement to guarantee this company minimum average yields from 100 kg of Portland cement from the plant with the amount of 22 crowns, and with another defended requirement for letting the Prastav sell products of our company. It must be noted that while negotiations on the cartel agreement went on, this company did not save any reserves in its trade policy. On the contrary, by hawking its Cartel prices and pointing to its positions "outside the Cartel" the company tried to expand its sales also to customers who have not been their clients before. It is natural that requirements of the Prastav Company stated above had to be rejected as unacceptable. As it is evident from the mentioned history of negotiations, the possibility that the Prastav might be coming with new requirements again and again was not excluded.[212] At the end, the Prastav Company with the Podolí Cement Plant received some compensation. The Prastav Company owned a common deposit of 54,940 crowns (5.494 % and quota of 5.494 %[213]) of Prodejna cementáren a.s. (Retail Shop of the Cement Works) which organized the sales of products of the cement works. The board of directors was satisfied with the final result and thanked the negotiator, Doc. Dr. Ing. Bárta, *for a very difficult and conscientious defence during the arrangement of the contractual conditions of this Cartel*. At the same time, the board thanked Doc. Dr. Ing. R. Bárta for his skilful negotiation on the lime Cartel.[214] The negotiation of Mr. Associate

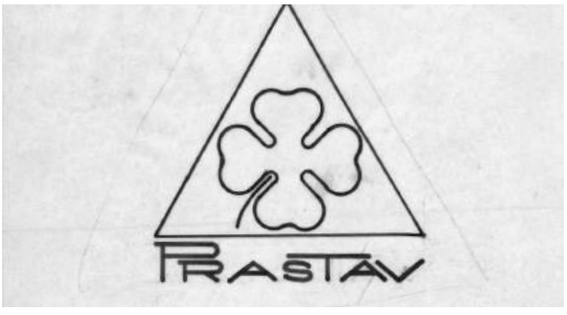
Commercial councillor Rudolf Barta 1868–1952, photo taken in 1936

Professor was really skilfull because Mr. R. Bárta became a chairman of the Registration Office of Lime Works in Bohemia and his father (a chairman of the board of directors of the Prastav) Rudolf Bárta became a chairman of the supervisory board of the Office.

At that time, the company did not even avoid business failures. In 1930, Prastav gave credit of 500,000 CSK to a building company Josef Lepiš Praha. This amount was secured by the guarantees of the Agrobanka. Gradually, problems of the Lepiš Company grew and the bank guarantees declined. As the chairman of the board of directors of Prastav said, *the general case of the credit is very complicated and requires a special caution of our accounting department. We have four big packs of documents and we lead discussions regarding this almost every day, but no result is in sight.*[215]

Rudolf Barta built a hotel Záhoří in 1914

Záhoří Rudolfa Bárty Hotel after extension in 1935



Trademark

An aggravated international situation affected also the Prastav Company. District Offices in Beroun and Prague-Country informed the board of directors that works of the Prastav Company in Loděnice, Radotín, Slivenec, Lochkov, Řeporyje and Holyně were incorporated into companies important for defence of the country and they ordered the establishment of air defence.[216] In April 1937, the Prastav Company subscribed for a loan amounting to 301,000 CSK to the state defence. In summer, the company started a campaign for using lime as a fertilizer in agriculture. The Acrigulture Advisory Centre for fertilizing with lime was established and promoted liming fields at exhibitions and the press. At the end of 1937, one event that affected the running of the company happened. On 3rd November 1937, a member of the board of directors and an executive committe, Councillor Rudolf Weinmann, died. Although he did not come to the fore too much, his influence on the board's decision making was dominant. The board of directors did not make any decisions without his consent. In the executive committee, he was replaced by his son in law Ing. Karel Ullmann.

OBCHODNÍ A ŽIVNOSTENSKÁ KOMORA V PRAZE

OSVĚDČENÍ

známky č. rejstř. 60753

Tato známka jest zapsána do rejstříku ochranných známek podle zákona ze dne 6. ledna 1890 ř. z. č. 19, 30. července 1895 ř. z. č. 108, 17. března 1913 č. 65 ř. z., ze dne 24. července 1919 sb. z. a n. č. 471 a ze dne 20. prosince 1932 sb. z. a n. č. 27.

Známku jest obnoviti každých deset let ode dne původního zápisu, jinak právo známkové zaniká; dodatečná obnova jest přípustna ve lhůtě tří měsíců ode dne uplynutí známkové ochrany za příplatek Kč 20·–. Podle § 9. cit. zák. lpí právo známkové na podniku, pro který jest známka určena, zaniká s ním a přechází v případě převodu závodu na nového majitele. Nový majitel musí však, nevede-li dále podnik pod nezměněnou firmou, vymoci si přepsání známky (článek III z. ze dne 17. března 1913, č. 65 ř. z.).

V Praze dne 23. srpna 1937.

Přísežný zapisovatel známek:

Prastav trademark certificate

PATENTNÍ ÚŘAD

REPUBLIKY ČESKOSLOVENSKÉ

Třída 53 d. Vydáno 10. ledna 1938.

PATENTOVÝ SPIS č. 60033.

SKELNÉ HUTĚ LUKEŠ A SPOL., AKCIOVÁ SPOLEČNOST, PRAHA.

Zařízení k výrobě tělísek hrudkovitých nebo zakulacených tvarů.

Přihlášeno 4. ledna 1934. Chráněno od 15. září 1937.

Pro různé technické účely, zejména v průmyslu keramickém nebo ve výrobě cukrovinek a pod., jest zapotřebí formovati práškovité nebo kouskovité materiály do tvaru hrudkovitých nebo zakulacených tělísek. Předmětem vynálezu jest přístroj, umožňující výrobu takovýchto tělísek podle potřeby větších i menších, tvrdších i měkčích, který jest zejména určen jednak k výrobě hrudek cukrovitých a cukroví, jednak v oboru keramických průmyslů k výrobě šamotových a hlinitých hrudek.

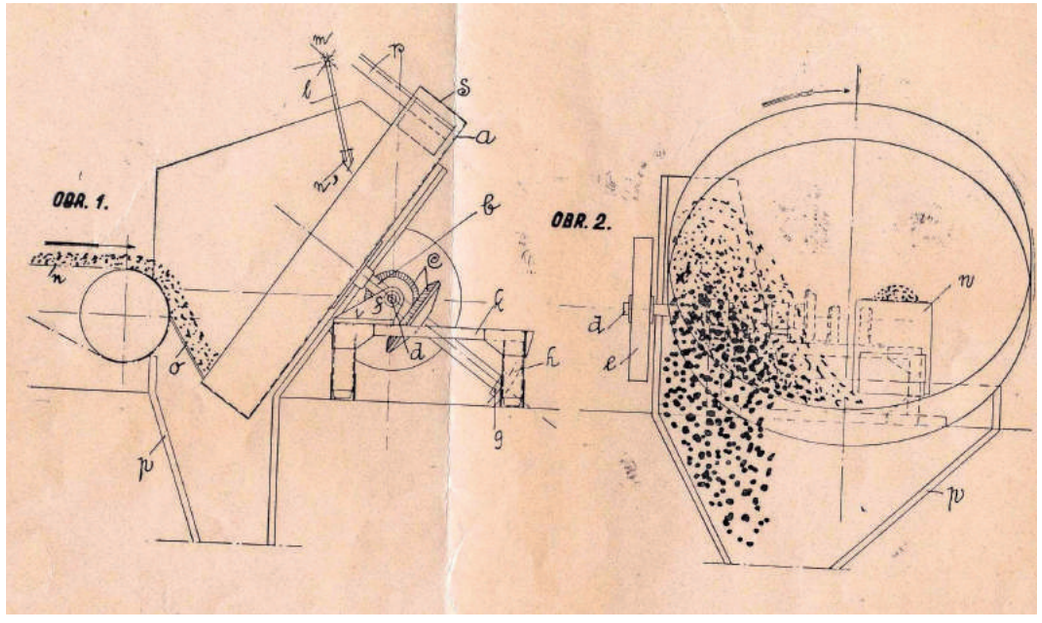
Na přiloženém výkresu jest zobrazen schematicky příklad provedení přístroje podle vynálezu v nárysu a bokorysu.

Přístroj tento sestává z otáčivé mísy *a* s okrajem *s*, buď tvaru válcovitého, konického neb jiného, která jest upevněna na hřídeli *b*, uváděném do rotačního pohybu buď přímo, nebo ozubeným soukolím *c* od hřídele *d* a řemenice *e*. Aby mísu *a* bylo možno nakláněti, jest hřídel *b* uložen v otočném kloubovém ložisku *f*. Na svém spodním konci jest uložen hřídel *b* v nožním ložisku *g*, které jest přišroubováno na saních *h*, vytvořených na příslušném poloměru kolem středu kloubového ložiska *f*. Kloubové ložisko *f* jest uloženo dvěma otočnými čepy v nehybných konsolách *i*. Tyto konsoly *i* jsou pevně spojeny s celkovou frémou *k* přístroje. Pro přidání příslušné tekutiny do unášené hmoty v míse *a* slouží trubice *l* s regulačním kohoutem *m*, opatřená příp. na svém konci rozprašovačem *n'*. Aby se materiál neusazoval na stěně v míse, k tomu slouží stírač *r*.

Práškovitý materiál, z něhož mají býti utvořena hrudkovitá tělíska, přivádí se do mísy *a*, na příklad transportním pásem *n* a vedením *o*. Mísa *a* při své rotaci unáší s sebou materiál, který současně mísí, při čemž se tvoří tělíska uvedeného tvaru, případně pod vlivem přiváděné tekutiny. Tato tělíska stálým nabalováním materiálu objemově rostou, až po dosažení určité velikosti (která jest závislá na sklonu, počtu obrátek a výšce okraje *s* mísy), samočinně přepadají přes okraj *s* do výpadu *p*.

Jedná-li se o směs různých materiálů, mohou tyto býti dodávány na mísu buď společně, již předem smísené, neb každý materiál zvlášť. Tekutiny, jichž by případně bylo třeba, mohou býti přidány trubicí nebo trubicemi *l*.

Patent document 60033 of 1938



Drawing of the patent document

In 1937, the Prastav Company got into an argument with the Waldes Company over a trademark. In Semptember 1937, the Prastav Company asked the Commercial and Trade Chamber – office for protection of trademarks and samples in Prague, for registration of a trademark (*right-angle triangle withb a four-leaf and word PRASTAV*). The trademark caused a protest of the Waldes Company which did not accept the Prastav to use a four-leaf which the Waldes Company had been using since 1911. Because Prastav used the four-leaf for marking small garden tools and garden architecture, the Waldes Company asked for remedy. The argument lasted until 1943 when both companies came to an agreement.

Dr. Ing. Rudolf Bárta, 1897–1985

At the end of November, the Patent Office of the Czechoslovak Republic informed the board of directors that they registered *a patent for a device for manufacturing small bodies of lumpy or rouded shape.*[217]

Doc. Dr. Ing. R. Bárta wrote about this device in his memoirs: *lumps were made on the inclined rotary granulating plate. Today, without any exaggeration, it is the most widespread equipment for dressing in the world.*[218]

At the beginning of 1938, the company implemented an important investment. On 10th February, it bought from Ing Kukla iron-works and a rolling mill works in Pečky for 1,700,000CSK. The board voted for the purchase because of the lack of time by "per rollam" (circular).[219] The plant was situated in the former sugar factory and it was in quite good conditions except for two kilns. The board decided to build up one shear kiln and cancel the others. The investment was estimated for 350,000 CSK.[220] Production of concrete bars and small forged pieces (picks, axes) started when the company received the trade licence to produce heat-treated iron.[221] In a Zlíchov plant, the company introduced a production of isolation boards of the Sven trademark, which imitated well-known boards from the Heraklit Company. The boards became very popular and the company expanded their production. In 1938, cca 44,000 m² was manufactured and one year later it was 80,303 m².

In 1938, important changes happened in the company management. The Czech Bank which was the main financial institute of Prastav went over to ownership of Živnostenská Banka. In December, 1938 long-time general director Rudolf Barta retired and his son Dr. Ing. Rudolf Bárta succeeded him.[222]

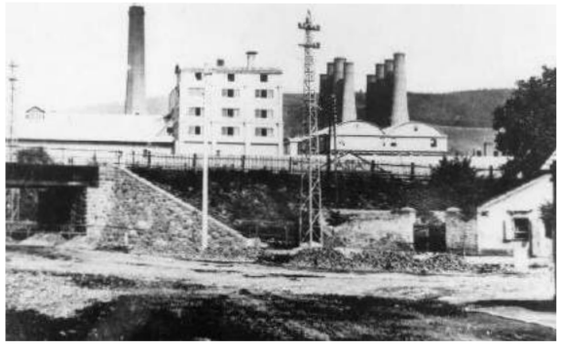
DISPUTES OVER THE ENVIRONMENT

At the beginning of the 30s, a dispute started between the municipal authority in Radotín and the Prastav Company over dust, fumes and noise pollution. Paradoxically, this dispute was set by the plant reconstruction and an installation of the new dedusting equipment which was to improve environment in the Radotín valley. The highest state administration authorities, territorial municipalities, central secretariats of political parties, parliamentary clubs of the National Assembly and the press with the statewide influence, gradually took part in this dispute.

Dust raising factory became a matter in a polluting dispute

After a final inspection and putting equipment into service, citizens of Radotín started complaining about the environment getting worse. They had already complained before about dust and noise caused by the works but it was never so bad. Already on 25th October 1934, during the final inspection, an opinions exchange started between the representatives of the Prastav Company and members of the trade-law commission. The company´s representatives complained that a member of the building committee Josef Vomáčka, *who is prejudiced against the company because in the local magazine presented sharp and unjustified attacks against the company in a manner to avoid a legal action and prevent a proof of untruthfulness of these statements in front of the court. In these articles he spreaded untruthful data on the company operation, attacked groundlessly the authorities, so if as a member of the committeere he would visit the plant, it is possible that he will use his experience for repeated attacks against the company regardless of everything operates there within the law and official permits.*[223]

Also the representatives of the Prastav Company *were surprised by the existence of a committee authorized to investigate relations between the Municipality and the cement plant.*[224] The representatives of Prastav did not mind any municipal committee but they did mind the members of the committee to have the authorization to enter the factory. The members of the Municipal Building Committee protested against rebukes of Prastav and they stated in the report that: *Mister Vomáčka was authorized by a resolution of the Municipality and the authorization of the Municipal Council to represent the Municipal Council as a member of the committee which was sent to organize the trade administration. He was a consultant in this committee that was elected to solve problems between the Municipality, tenants and the Prastav Company, and he worked in this manner*. Even through arguing between the representatives of the company and the municipality, the District Office Prague-country issued a permission to use new equipment. The representatives of the municipality stipulated the following: in the interest of the public there should be carried out an additional investigation of the factory operation regarding dedusingt equipment and find out whether it is contaminating the environment with dust and fumes and whether further adjustments are needed.[225] The municipal council called professional committees to elaborate reports on the state of envionment in Radotín. On 3rd June 1935, the Health Committe submitted a written notice to the council where it dramatically stated: *According to the statement of the Prastav Company and the results of the final inspection, it is obvious that thededusting equipment has been installed in the cement works. As the members of the committee found out from their experience and from many complains of the citizens, the dedusting equipment did not meet the requirements because the situation, regarding dust and smell, has not approved, it even got substantially worse. It is indisputable that a lot of dust, fumes and smell, which shroud all days and nights, destroy properties and health of the citizens. A school is located in immediate proximity of the cement works and all children must walk through a lot of dust, fumes and smell with a risk of injury because if the atmospheric pressure is low, there is very low visibility through the fumes and dust from the cement plant.*[226] The members of the committee also presented a presumption that the dedusting equipment did not operate all the time and recommended the municipality to invite a technical specialist to investigate these problems. The committee, which was criticized by Prastav, was authorized to investigate relations between the cement plant and the municipality and it elaborated a thirteen-page report which was submitted to the local authority. The committee also suggested to the municipal council to ask the District Office to call a public meeting to negotiate all complaints about pollution of the atmosphere by the cement works. The District Office called the Institute for Economical Fuel Utilization in Prague to send experts to *investigate the presence of fumes and dust during the cement plant operation*. On 27th June 1935, at the meeting of the local authority, a written report of the committee for investigation of relations between the municipality and the cement works was assessed and approved. The members of the committee described



From the Balého St.

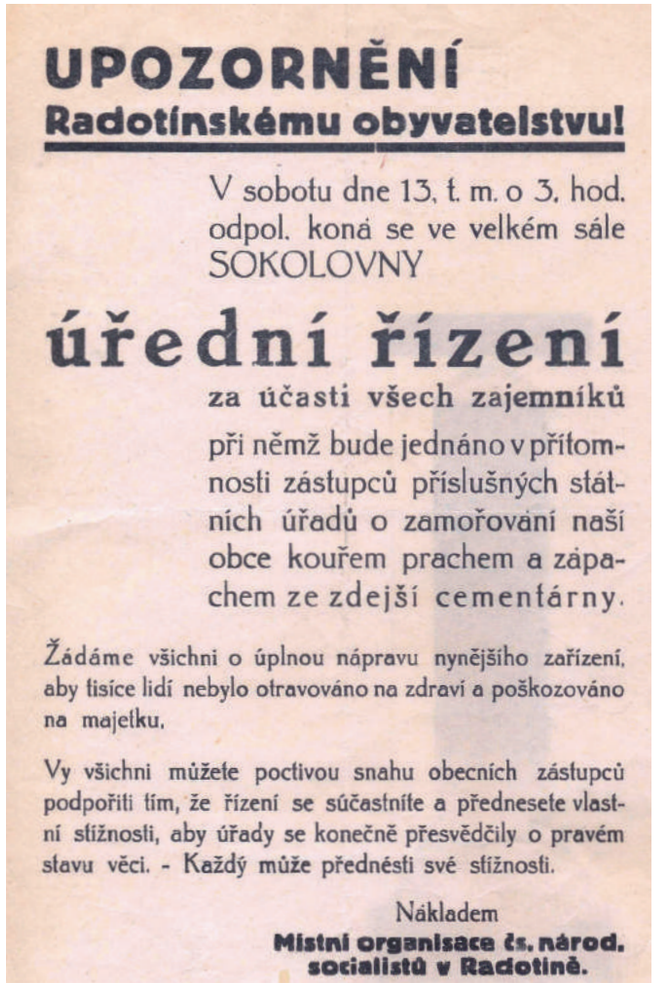
disputes of the municipality with the cement plant regarding the atmosphere pollution since establishing the plant in 1871. They complained not only about a small will of the factory management to solve the problem, but also about a lax approach of the superior authorities towards the complaints of the citizens. At the end of the report, they stated: *Regarding all given facts, the committee came to believe that the municipality made all the possible steps to improve this situation to protect properties and health of the citizens and children, but all these steps were futile and the superior authorities did not show enough power to oblige all the raised requests.*

On 1st July 1935, the Municipal Authority in Radotín turned to surrounding municipal authorities[227] with a request to inform it whether their villages are also bothered by fumes and dust from the cement plant. A positive response from Horní Černošice and Dolní Mokropsy has been preserved;[228] a negative response came from Lipany. On 11th July, an expert opinion was sent from the Institute for Economical Utilization of Fuels in Prague to the municipality: The experts of institute after performed measurement stated: *Generation of dust in the present state of the operation and activities of dedusting equipment has not increased, and thus did not become deterioration compared to the previous ratios, while the dust development has been reduced. Fume gases from the kilns diffuse the neighbourhood of the works as a result of unfavourable weather conditions. This could be improved by blowing fume gases with higher speed and running it out much higher.*[229] The municipal council was not happy about the expert opinion. They criticized that the *measuring has not been done often enough and under different weather conditions*, but they used these results for they arguments. Complaints about a small number of measurements in the evening or at night, or when the plant was in full operation or under different weather conditions became arguments which were used in individual appeals. The fact that the plant had longer shutdown, played its role during official negotiations. The second party of the dispute, the Prastav Company, relied on this expert opinion, although it had many reservations about it.

The District Authority called a public meeting to the Radotin gymnasium, which was supposed to take place on 13th July 1935. At this meeting, complaints about *bothering the neighbourhood with fumes and dust from the cement works* were to be diccussed. At the meeting, which lasted only a short time due to emotions, the Municipal Authority presented a memorandum which was elaborated by the Committee authorized to investigate realtions between the municipality and the cement plant. Communist and national-socialistic agitators were involved and they tried to use this meeting for agitation for the forthcoming municipal elections. The attitude of the national-socialistic party to the problem called a response in the press. On 24th July, in the magazine Národ (Nationality)[230] an article appeared – *How the National-Socialists Want to Produce Unemployment*, or on 29th July, in Večerník of Právo lidu (evening paper of the Right of People)[231] an article appeared – *A Threat to Workers in the Cement Works in Radotín*.

After a failure, the District Authority called new negotiations to the Municipal Authority in Radotín on 30th July. Only the representatives of the disputed parties were invited, as well as experts and representatives of the relevant authorities. On 16th October, on the basis of the agreement of 30th July, the District Municipality approved the dedusting equipment in the cement works and permited its operation. In December 1935, the municipality made an appeal with the Land Authority in Prague.[232] The municipal representatives complained that *after the proceeding on 30th July, the District Office issued*

a permission assessment without waiting for the opinions of technical experts who whould have given their opinion on the expert opinion of the Institute for Economical Utilization of Fuel. The permitting authority was happy about the statement of the experts, though it was obvious that this report was not complete. I cannot stress enough that if the situation has worsened, then equipment would have to be improved because it bothers surroundings with dust and fumes above the permissible level. It obviuously results from the expert opinion of the Institute that the dust and fume extractor collected during the day, i.e. 24 hours, 878.5 kg of dust and coarser solid particles, which corresponds with 58.8% of all quantity coming through the chimney. So it is obvious that during the 24 hours, 640 kg of fine dust and other particles were released to the atmosphere. This quantity can and certainly does bother the close and wider environment of the cement workst in substantialy and it means that in one month, 19,200 kg of solid particles enter the atmosphere. During nine months of the plant operation, this amount represents 170 tonnes of particles. Apart from this, every hour 20,000 m³ of gases are released to the atmosphere, of which 5.1 % is represented by poisonous carbon monoxide. The amount of this gas is certainly so high that even after the dispersion in the air it still substantially bothers the surroundings and can be dangerous for health of the citizens, particularly if it is stated that fume coming from the chimney of the cement plant is pushed down to the ground in the closest surroundings of the plant for most of the year, as it is confirmed by an observation made by the Institute for Economical Utilization of Fuels. The amount of carbon monoxide is certainly dangerous for the surroundings when 1,000m³ of this gas is released every hour. In comparison with the previous situation, the reduction is not proved. Especially, when after reconstruction the capacity of the cement plant increased by 35.23%. The company responded


UPOZORNĚNÍ
Radotínskému obyvatelstvu!
V sobotu dne 13. t. m. o 3. hod. odpol. koná se ve velkém sále SOKOLOVNY
úřední řízení
za účasti všech zajemníků
při němž bude jednáno v přítomnosti zástupců příslušných státních úřadů o zamořování naší obce kouřem prachem a zápachem ze zdejší cementárny.
Žádáme všichni o úplnou nápravu nynějšího zařízení, aby tisíce lidí nebylo otravováno na zdraví a poškozováno na majetku.
Vy všichni můžete poctivou snahu obecních zástupců podpořiti tím, že řízení se súčastníte a přednesete vlastní stížnosti, aby úřady se konečně přesvědčily o pravém stavu věci. - Každý může přednésti své stížnosti.
Nákladem
Místní organisace čs. národ. socialistů v Radotíně.

Officila procedure regarding the plant dustiness notice

to the appeal of the municipality by the expert´s report of Ing. Bedřich Helm, a Chief Commissioner of the Institute for Economical Utilization of Fuels who noticed on the basis of the report that due to the reconstruction dustiness was reduced by 39 %, the amount of fume gases from the kilns increased but on the other hand gases from the former boiler rooms disappeared. He also questioned the argument of the municipal authority *being bothered beyond the permited* level because this level could not be determined as it had not been determined by the regulation.

The municipal authority ordered another expert opinion from an expert who was appointed to Radotín through the Prague City Hall. It was Ing. Jan Čipera, a Chief Technical Commissioner of the Fumes Department and Heating Police of the Prague City and a senior lecturer of the theory of combustion chambers at the Mining University in Příbram. He agreed with the opinion of the Institute for Economical Utilization of Fuels. At the end, he added a peculiar advice to his report: *With regard to the results of my existing experience I recommend the authorities to be asked to task the company to cautiously observe any further technical development of the dust extractors and also a perfect burning in order to suggest their use in their works as soon as the practical and economical results will be achieved*. After that, it was quiet because the cement plant did not work until March. On 6th April 1936, the municipal council immediately sent a memorandum regarding dustiness to the central secretariat of the Czechoslovak People´s Party, theCzechoslovak National-Socialistic Party, the Czechoslovak Party of the National Unification, the Czechoslovak Communist Party, the Republican Party of Agricultural and Farming People, the Czechoslovak Social-Democratic Labour Party and the Czechoslovak Trade-Mercantile Party. Only the response of the People´s Party is preserved. It is stated in it that they were going to intercede in relevant places on their behalf. Another activity of the municipality is of 22nd May 1936 when they asked the county supervisor to order the trade department of the district office to issue a regulation to implement such adjustments to eliminate problems with fumes and dust or reduce it to the minimal level. On the basis of this application the District Office performed "a sudden inspection" in the cement works.[233] The aim of inspection was to determine whether the company complied with the various trade-legal assessments of the District Office. Members of the Commission found that the gas extractor does not remove dust sufficiently therefore the Office considered that the complaint of the municipality is justified. The company´s representatives stated in the answer: *We have never been assigned to make sure that the function of the dedusting station was so perfect that it would catch all the dust.* They also complained that there were no correct values stated in the report. For example, the real production of the cement plant was exchanged with the production capacity or the amount of dust which the equipment was supposed to collect, there were different values stated in the assessment for the authorization of the cement mill and the crusher station operation in comparison with the inspection report. At the end of the assessment, the company's representatives defended themselves that the complaint of the municipality would be justifiable if the company did not meet the conditions under which the plant reconstruction was permitted. *Even though such juridical responsibility does not apply to us, we will do our best to reduce fumes and dust as much as possible. We are preparing to place new parts to improve the function of the dedusting equipment and we believe that according to the tests that have been carried out, these will be more efficient.*

Another opinion which was required by the state administration was related to the weather conditions in Radotín. On 6th August, the result of the observation was presented by Dr. Alois Gregor,

a councellor of the State Meteorological Institute and private assistant professor of meterology at the Technical University in Brno. He summarized his observation as follows: *The plant is located in an unsuitable location of a turbulent zone because prevalent and strong winds come from the western quadrant and create air waves above the plant. Pollution in Radotín could be improved by elevating the chimney up to 50–60 m where the waves are not so intense.*

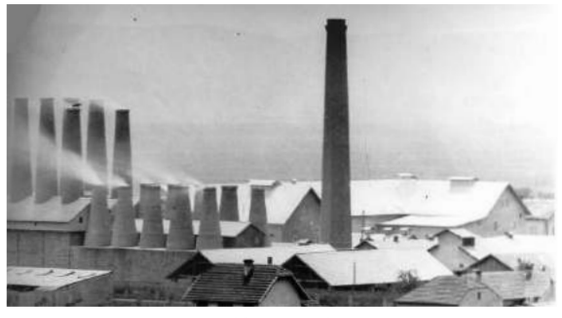
From Klapice

Another negotiation was called on 15th October 1936, and it took place in the municipality. They tried to find out whether the Prastav Company had implemented the given measures to reduce the pollution. Also, they discussed assessments of the Institute for Economical Utilization of Fuels and the Meterological Institute. At the meeting, the company´s representatives informed that during the period of the main shutdown another dedusting equipment of the BETH system was going to be installed. At the same time, they required guarantees – if the company was able to meet all financially accessible measures, no other other official proceedings were going to be called and the public was not going to be disturbed with actions against the cement works. On the basis of the negotiation results the Dictrict Office issued an assessment on 6th November which ordered the Prastav Company to get all products of combustion together in one chimney *which should be big enough to release fumes above the turbulent zone*. Also, the new BETH filtration equipment was to be commissioned by the end of 1936 and the company was to submit a plan for reduction of the carbon monoxide of the kilns from 5 % down to 3 %. The assessment of the District Office did not satisfy both parties.The Prastav Company pointed out in its appeal that the height of the chimney was determined very vaguely[234] and to build the chimney which was high enough could provoke objections of the remote villages. Regarding the amount of carbon monoxide the company management pointed to the fume gases analysis which was done by the Hygienic Institute of the School of Medicine of the Charles University on 10th November. It was stated in this report that: the content of carbon *monoxida is hospitable*. The Institute also carried out measurements of the atmosphere in surroundings of the company. Prof. Josef Čančík, a Chief of the Hygienic Institute stated in the report that: *hygienic conditions, resulting from the amount of dust and content of carbon monoxide, do not differ from the average current state of the atmosphere in the cities.*[235] At the same time the correspondence between the central secretariat of the Czechoslovak Party of the National Unification and the company management went on. The Prastav management explained the central secretariat their standpoint to the dispute and complained about the hateful and demagogic articles against the cement works published in *the magazine A–Zet*[236] *by local members of the party*.

The first half of 1937 went on quite well. This situation was probably affected by a longer shutdown of the works, so there was nothing to be measured. In August, an official letter came from the District Office for the works management to perform an observation suggested by meteorologists and on based

of the results to determine the height of the chimney. After a series of appeals and interventions, which also involved the Ministry of Industry, Commerce and Trade, three measurements and observations of air waves by air balls were finally performed in October 1937. The company management sent the results of this measurement to *the District Office.*

In comparison to the year 1937 and according to the preserved records, the year 1938 was busier. In January 1938, a delegation of the Radotín Municipality with its mayor Antonín Dolák started an intervention at the highest authorities and institutions. Step by step they visited the Ministry of Agriculture, Ministry of Health, Ministry of Finance, a President and assessor of the Land Committees[237] and Český zemský svaz měst, obcí a okresů (the Czech Union of Towns, Villages and Districts). They submitted to these authorities and institutions a resolution criticizing the tardy attitude of the company management towards the solution of reducing the air pollution in the village. Also, the municipality decided for the municipal office to send a memorandum of dust and fume faults in the cement works to the statewide editorial offices of magazines and to secretariats of leading political parties. From 21st to 24th January 1938, the municipal office sent the memorandum to the following editorial offices: *Národní listy*[238] *(The National Gazette), Večer*[239] *(Evening), České slovo*[240] *(The Czech Word), A–Zet*[241]*, Národní střed*[242] *(The National Collision), Právo lidu*[243] *(The Right of the People), Lidové listy*[244] *(The People´s Gazette), Venkov*[245] *(The Country), Haló noviny*[246] *(The Hello Paper) and Rudé právo*[247] *(The Red Right).* On the same day, the municipal office also sent the memorandum to the party parliamentary clubs in the National Assembly. The following Members of Parliament received a copy of the memorandum: *the Czechoslovak National-Socialistic Party, the Czechoslovak Trade-Mercantile Party, the Czechoslovak Social-Democratic Labour Party, the Czechoslovak People´s Party, the Republican Party of Agricultural and Farming People, the Czechoslovak Party of the National Unification and the Czechoslovak Communist Party*. The campaing of the municipal office brought some results. On 28th February, the company management sent the Ministry of Public Works an extensive report on the problem of dustiness. The main argument became the chimney height, which was not specified. In March 1938, the company management had to clarify the dusting problem to the Ministry of Internal Affairs and Ministry of Public Health and Physical Education.[248] Declaration of a representative of the labour and a member of the factory committee Antonín Pechar causes a smile when he declared *that he has been working in the cement plant for 54 years and his health is excellent which is the best evidence of the the fact that the environment air in Radotín is not unhealthy.*[249] The rest of the year 1938 went on under the sign of the chimney, mainly its height. In July, the Land Office in Prague refused all appeals of the Prastav Company and ordered to perform all measures which were stipulated in the assessment of the District Office of 6th November 1936. The company management approached the Supreme Administrative Court in Prague. The main argument of this appeal was once again the height of the chimney, which had not been specified. The company asked the Central Union



Old cement plant

of the Czechoslovak Industrialists for a professional opinion, which ended up with being positive for Prastav. Also, because during the First Republic the "court mill" worked slowly, the company management asked the Land Office for a suspensory effect of its decision. The Land Office refused the request of Prastav. The reason was as follows: *because health interests require immediate administration of the mentioned decision*. The decision of the Land Office did not alarm Prastav because the final decision was up to the decision of the Supreme Administrative Court. In 1939, the municipal office tried to use the statewide activity called *A Week of National Health Care*. It sent an extended complaint to the Ministry of Social and Health Administration, the Land Office, the District Office and the committee of the National Conviviality. In this complaint, the municipal office stressed that the company did not follow the directives of the authorities regarding the restrictions of dustiness. In June 1939, the Supreme Administrative Court cancelled all the decisions of the Land Office. The company´s lawyer made comments on the verdict: *because the construction of the chimney is finished the decision of the Supreme Administrative Court does not have any practical meaning.*[250]

From Klapice

25 paper shares of 400 Kč, 1938

Paper share of 400 Kč, 1938

100 paper shares of 400 Kč, 1938

~ PRASTAV DURING THE GERMAN OCCUPATION ~

The development of Prastav was substantially affected by the break-up of the Czechoslovak Republic and the announcement of the Protectorate of Bohemia and Moravia. Straight after 15th March 1939, a problem, which was related to the existence of Prastav, appeared. At a meeting on 30th March, the board solved a resolution of the Government to remove non-Aryans from the company management.[251] At this meeting, resignation letters of non-Aryan members were made public – Ing. Karel Ullmann, JUDr. Leo Kraus and JUDr. Max Wiener, an accountant. At the same time, in the Retail Shop of the cement plant, at the Registration Office of the lime works and in the Retail Shop of the associated lime works in Prague, elections took place, where the non-Aryan members were excluded.[252] Because Rudolf Weinmann´s heirs and former members of the board of directors Ing. Karel Ullmann and JUDr. Leo Kraus owned 60 % of the Prastav shares there was a danger that the company would be declared a Jewish property and would be confiscated by the occupancy authorities. Therefore, on 25th July, chairman of the board of directors and general director Rudolf Bárta called a board meeting where this problem was solved. At the meeting, a representative of the Czech Bank, JUDr Ludvík Dukát, declared that on 28th February the bank had already bought all shares of the Prastav Company which were owned by Ing. Karel Ullmann, JUDr. Leo Kraus and Rudolf Weinmann´s heirs and at the same time Ing Karel Ullmann and JUDr Leo Kraus declared that their resignation as members of the board of directors. On the basis of these facts the board made a decision on the resolution which was sent to superior authorities: *After the audition of representatives of the Czech Bank, JUDr Ludvík Dukát and lawyer of the Prastav Company JUDr Valentin Kadula, the board of directors states:*
1) on 15th March 1939, no Jew was in fact a member of the company´s board of directors„
2) on 15th March 1939, no Jew was a decisive part of the Joint-Stock Company Prastav or its works regarding the capital or the right of vote. As a result of this the board of directors acknowledges that reports ordered by the directive of the Reichs Protector for Bohemia and Moravia on the Jewish property of 21st June 1939 according to § 3, 4 and 5 are not applicable to the Prastav Company.[253] This declaration provided the Prastav Company with some time and postponed the threat of confiscation.

The occupation regime introduced a system of war economy straight away. It dictated to individual industrial companies the scope and structure of production and at the same time it ensured execution of the prescribed tasks by labour, raw materials, fuels, production equipment and means of transport. At the time of the Protectorate the controlling authority of the industry became the Central Association of Industry, which ensured maximum arms production capacity. The extraordinary political situation was characterized by many orders and bans, and their breach was under the threat of strict punishments. The chairman of the board of directors pointed out the directors and administrators of the works: *According to the orders of the authority the chief of the works, together with the plant personnel and the works committee, is responsible for undisturbed operation of the works under the death penalty by shooting*. Undisturbed plants operation was under control of the police force. The director of the

Radotín cement works reported that the police force came to the works to check on the peace and usual operation even twice a day.[254] The company economic situation was not good. In the commercial report which was presented to the board it was said: *From May 1938, a considerable political uncertainty prevailed, which affected the sales and during the last months (i.e. February, March 1939) the sales almost stopped, considering the well-known events.*

In the second half of 1939, the situation calmed down. Cement deliveries and deliveries of other products to Sudetenland[255] and Germany[256] went on without any significant administrative problems. For payments in Germany and on the territory of Sudetenland, a bank collection was established with Kreditanstalt der Deutschen in Karlovy Vary. Suprisingly, the company´s losses caused by the occupation of the Czechoslovak borderlands were not as big. The board of directors expressed it with the amount of 62,000 CSK. The problems occurred in the quarry Požár[257], which supplied practically all lime works with stone, except for Loděnice, and it was an important material basis for the company. Geological conditions were not good in the quarry. Extracted stratas were small so there was a lot of waste during the extraction. Therefore, a plan was elaborated for opening another part of the quarry by a tunnel.

In the ceramics factory in Hlubočepy, an operation in a newly reconstructed works started and so did the production of quality goods after some earlier problems. The raw material delivery from Sudetenland was weaker and it was necessary to rework the production programmes for material delivery from alternative suppliers. In comparison with the previous year, the loss of ceramic pipes was 29 % and tiles 26 %. Also, the export of ceramic goods was smaller. The products of Prastav were completely pushed out of the Polish and Hungarian market and in Austria (from March 1938, Eastern mark) Prastav had to cooperate with the Tonwaren Gesellschaft Company in Vienna to keep its place on the market. The only good export with upward tendency was to Jugoslavia.

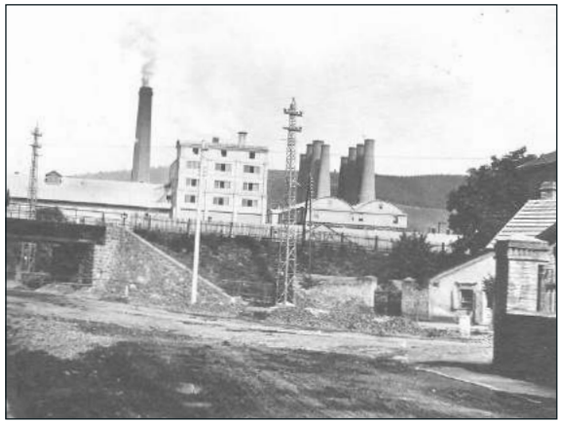
The year 1939 was the first year when, after the reconstruction of the plant in Pečky, the Prastav Company started business in the iron and steel industry. The reconstruction did not go very smoothly. The political situation affected the industry too. A new kiln was not achieving the expected performance and it was impossible to force the supplier and the designer of kiln from Sudetenland to solve this complaint. Raw material for the plant was solely old iron. 420 wagons of concrete iron were manufactured under the management of director Ing Vladimír Hain-Šmiderský. Because the company did not want to "unnecessarily irritate" the Iron Cartel, because it was not a member of it, it maintained the purchase and sale prices on the level of the Cartel.

In 1939 in Pečky, the company also started a production of isolation boards, which were successfuly manufactured in the Zlíchov works. The German wehrmacht was very interested in isolation boards during the Second World War, and therefore deliveries for the German military forces substantially affected the company´s profit. In the Pečky plant, an automated lime production was introduced.[258] The introduction of the isolation boards production in Pečky had also another reason than only commercial. In case of closing down the works by the occupation authorities, this production was to be extended also to the building of the former iron-works and protect them against forced rental to the companies which were found important for the war economy.[259] This happened only partially.

As a result of the political changes in Munich, there were also big changes in the Cement Works Cartel. The cement plants in Řetenice, Štramberk and Čížkovice remained in the assigned territory of Sudetenland and clearance was somehow difficult. The Štramberk cement plant management approached the court of arbitration with their requirements. The Slovak cement producers also caused problems to the Cartel. They held the opinion that the Cartel agreements and stipulated quotas were still valid, but the cement plants in Protectrate refused it. By the end of May 1939, difficult disputes were to be solved. These disputes appeared in the Cartel and were proceeding at the courts of arbitrator. During these proceedings, the Prastav Company was trying to defend its quota and a commercial authorization. Similar problems occurred at the Registration Office of the lime works in Bohemia. The lime producers from Sudetenland left this Cartel. The clearance with the leaving members and arguing about commercial quotas took place here as well. Prastav was in a different position here because in contrast to the Cement Cartel, the company had a considerable influence and crucial word in the process of distributing new quotas.

Torso of a cement plant in Pečky

Financial situation of the company was affected by the collection of fuel, raw materials and spare parts. At the beginning of 1939, expecting unfavourable political and economic situation, the board of directors ordered spare parts for the machines in Denmark and Sweden. The company paid for materials and spare parts 1,859,000 CSK. During this difficult period the board did not even forget the charity. They remitted 15,000 CSK to the National Help.[260]



Old cement plant from the underpass

Despite the different political changes, the year 1939 ended up relatively well for the Prastav Company. The economic year was characterized in the commercial report presented at the 20th regular general meeting as follows: *In the year 1939, the sales of the plants of our company were higher than the preious year. Because we manufacture and sell all the main building materials, mainly Radotín cement and other cements, lime, concrete iron, ceramic tiles, stoneware pipes, fireclay, artificial coating, stone works, timber-cement insulation boards, pavement*

mosaic, as well as many other construction materials, we could satisfy our clients in Bohemia and Moravia as best as possible. We can consider the results in 1939 exceptional.[261]

The following year was not so good. In 1940, militarization of the economy took place. The building industry and production of building materials was in a difficult situation because public constructions were reduced and construction of dwelling houses was not permitted, construction of industrial and military buildings was not sufficient to cover the losses. The construction industry became one of the biggest suppliers of labour to Germany and arms industry. The company´s administration was very much bothered by the correspondence with the Central Office for Public Contracts and reports. All the industrial and commercial works were obliged to report all contracts which were assigned by "the public bearers of the German Reich or Protectorate, eventually by the company from the Reich". The obligation was applied to the contracts which exceeded 50,000 CSK. There was a strict punishment in case of disobedience. According to the regulation of 6th February 1940,[262] the Central Office was authorized to "ask for reports on economic situations, mainly prices and stocks, as well as on the performance of companies and works."[263] The company carried out an extensive written contact with the Highest Price Office. The main point of the correspondence was applications for a price adjustment of the Prastav products. At the meeting in July, the board complained about the increased administration. *To catch up with all the correspondence with authorities, the clerks have to work overtime and our accounting department, would not be able to handle the price agenda, if it was not equipped with accounting machines.*[264]

The beginning of the year was marked by heavy frosts. It was impossible to work in the quarries. Water in the engine coolers was freezing as well as the air pipes. *Allegedly, there were no witnesses of such an unfavourable situation in quarries.* Damages caused to the cement production by heavy frosts were estimeated at 700,000 CSK.[265] On top of the unfavourable weather conditions, there was also a blackout of electricity for a long time[266] and placing wagons failure.

Another reduction of the production occurred in March 1940, when a compulsory blackout was ordered as the anti-aircraft defence so the night shifts were cancelled because it was impossible to follow this strictly controlled regulation when manipulating with material and goods in the works yards. The last two horses in Radotín that pulled carriages between the quarry and the cement plant paid for the war mobilization. They were taken away for the military administration needs and were replaced with a wood gas locomotive.

The cement production was complicated by the raw material quality. Limestone from Lochkov, Požár and partially from Loděnice was mainly processed in the Radotín cement plant. Limestone from Požár and Lochkov was too hard and resilient for grinding. By increasing its percentage in the raw material, the output of the material mill was reduced and it did not grind a sufficient amount of both limestones and it did not also prepare so much material which the kilns would burn. 120–140 tonnes of cement were manufactured weekly. Therefore, in 1940 it was manufactured by 6,500 tonnes of cement less than in 1939. The cement production in 1940 was affected also by so-called *numerus clausus* (limited number) of the cement production which was declared by the Ministry of Commerce, Industry and Trade by the regulation A XV no.1 of 15th July 1940.[267]

Another problem the company had to deal with was a wage issue of the workers. Collective agreements were cancelled and the state started determining wage rates. By 1942, more than 130 regulations were issued, which uniformly adjusted wages and working conditions in individual fields or companies. Orders with an extended validity were issued, e. g. increase in nominal wages occurred in

Quarry in Řeporyje – fire

December 1939 and in the spring of 1940.[268] The compulsory increase of wages in December cost the Prastav Company about 1,354,000 CSK.[269] Also overtime was forbidden.[270] It was stated at the meeting of the executive committee in July: *productivity has decreased in all works. The regulation increased wages in the quarries and lime works again, but for those categories which do not matter too much – they are not qualified and have no influence on the performance. And although these price adjustments have cost us a lot of money, they bring no benefit and also bring dissatisfaction to the workers and as a result decline in performance.*[271]

The situation in the cartels was not still stable. There was still a provisional measure.[272] There was an agreement with the German unions of cement producers that the level of the deliveries from Sudetenland to Protectorate was going to be the same as the deliveries from Protectorate to Sudetenland. Temporary sale quotas were determined and Prastav received 8.5 %. However, the final determination of the quotas depended on the German occupational authorities. Negotiations with the representatives of the South German and North German Union on the level of the cement deliveries to Germany failed. Compare to the previous year, the sales of cement decreased by 1/3.[273]

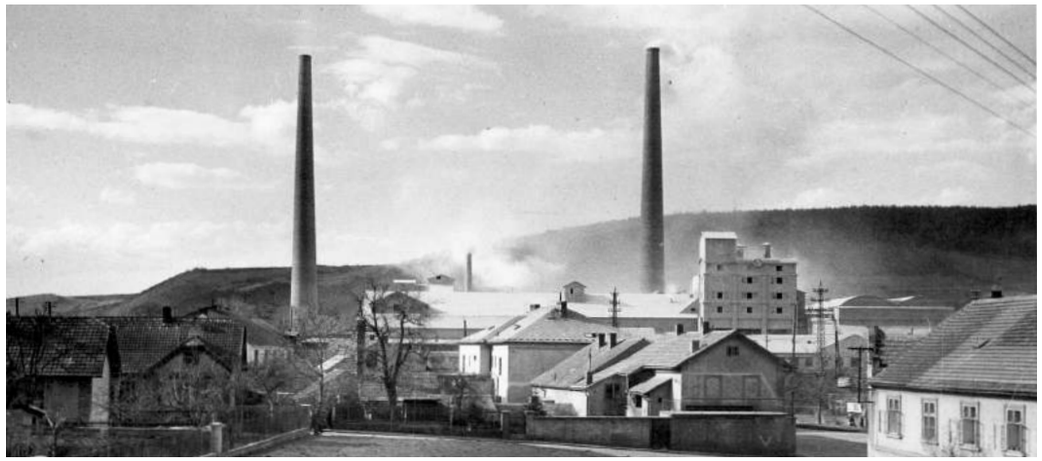
The Registration Office of the lime works in Bohemia changed its name to the Registration Office of the lime works in Prague because the lime works in Moravia also joined the Office. The situation in the lime Cartel stabilized. Prastav dispatched about 1,000 tonnes of lime every week.

On 17th May 1940, at the founding general meeting, the Prastav Company joined the Českomoravské sdružení pro staré železo (Bohemia-Moravian Association for Old Iron) and its members were all the users of scrap iron and similar old iron. With regard to the lack of iron on the market, the

profit was small. Prastav was forced to close down the operation in the quarries of a company J. Tvrdek, spol. s r. o., in Šumava mountains gradually.

The board characterized the production year 1940 by the following summary: *On the whole, it is possible to say that the production in our plants is getting more difficult. The performance of workers is decreasing and we also have to take into account another increase in wages. We are promissed that it would be possible to transfer it into increase in the sale price but according to our experience, this is always a problem because our prices must be able to compete. There are also other losses resulting from stopping an allocation of coal and addition of wagons and our stocks are getting smaller. The board had a gloomy prognosis for the following year: We cannot ensure that we will be able to maintain all our works and we might have to be forced to stop the production, although we are doing our best to delay this moment as much as possible.*

At the beginning of 1941, several cartel groups were established and they affected the export of raw materials and import of products from the Protectorate. Three German cement cartel unions united in Deutsche Zementverband, with which the Prodejna cementáren, spol. s r.o. (Retail Shop) concluded an agreement on the quota of the cement exported from the Protectorate cement plants to Sudentenland. The temporary agreement was concluded on the level of the cement export to Germany. Producers of ceramic pipes had to export their goods only via Deutsche Steinzeugröhren verband and ceramic mosaic was exported only with a permission of Deutsche Mosaikplatten verband.[274]



Old cement plant viewed from the City Council

The Prastav Company expanded even in this difficult situation. It bought the Essas Company for 500,000 CSK which manufactured the Essen asphalt in the Loděnice works.[275] The board decided that they were not going to manufacture the Essen asphalt but only road metal. The company had other plans with the Essas Company. Because *this time is not favourable for the producers who are also traders* the board of directors decided to separate the trade part of the Prastav Company and transfer it to the Essas Company. On 8th August 1941, Prastav obtained a trade licence for the wholesale of building

materials of all sorts for the Essas Company, such as building ceramics and ceramic fixing materials. The credit was open at Živnostenská banka (Trade Bank) and Prastav was a guarantor.[276] Shortly after realeasing a line of business of the new company, Keramika s.r.o. came up with a protest. It did not like that Essas was going to trade building ceramics. Finally, the trade licence was adjusted and the Keramika Company was satisfied. From 1st January 1943, the Prastav Company worked in the cement cartel as the cement producer and the Essas Company as the cement wholesaler.[277] In July, at the meeting of the executive committee, a cartel arrangement of 13th June 1941 was approved. The agreement was supposed to be valid by the end of 1941 and the quota for Prastav was determined for 8.5 %.[278]

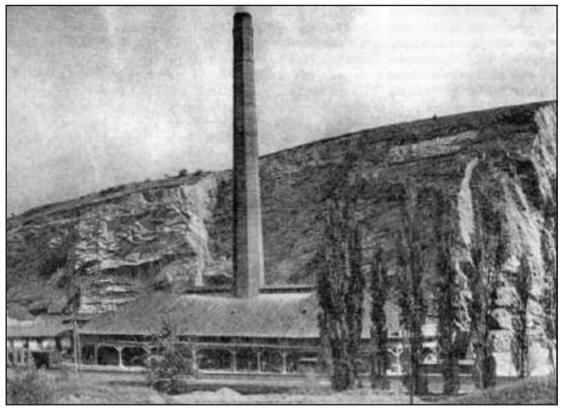
Changes within the company management occurred in October. On 8th October, General Director Doc. Dr. Ing. Rudolf Bárta was arrested by the Gestapo for his activity in the management of the Česká obec sokolská (the Czech Sokol Community) and he was put into jail in Osvětim, where he stayed until April 1945. Ing. Jan May became the general director instead of him and Rudolf Bárta senior remained on the position of a chairman. At the November meeting, the board of directors dealt with a modification and preparation of the new articles of the company. According to the regulation of Oberlandrat in Prague, the articles had to be issued in German, while the German version took precedence over the Czech text. There was also ordered to register the company´s name in German in the Trade Register: **Prastav. Vereinigte Prager Baumateriallenfabriken Aktien Gesellschaft in Prag.**[279]

All the year 1941 the Prastav Company had difficulties in its business. The problems occurred because of irregular and still decreasing coal deliveries, because of the lack of wagons, blackouts, and also problems with labour force started. Therefore, the evaluation of the year was very pessimistic. It was stated in the report on trade that: *It is really a struggle we lead to maintain not only the operation, but also at least some profitability;* and in the report on production it stated: *It is possible to say that the performance is decreasing permanently and the production is maintained only with extreme strength*. At the end of the year, the construction businessmen received a New Year´s gift from the Ministry of Public Works. According to the regulation of 30th December 1941, the Ministry of Public Works declared *winter building rest*. Within six days, all building works had to be stopped, excluding those that were designated by the level of urgency O or GB. Because reconstructions and new buildings in the works of Prastav did not have these labels, on 8th January 1942, there was a quiet at all building site after a security check and cleaning.[280]

In the fourth war year 1942, due to the situation at the front lines, the German economy was forced to transfer to the needs of the long term war. This transfer deeply affected the Protectorate economy. In the spring of 1942, the first wave of the concentration of companies took place and brought to almost 2,900 industrial works notifications on their full or partial stopping. About 50,000 workers were released from them of which a big part was sent to Germany.[281]

As a result of the concentration, the Prastav Company was forced to stop the operation of the lime works, fireclay factory and ceramics factory in Hlubočepy, also quarries and lime works in Bohdaneč and the production in lime works in Holyně – km no. 7.[282] The production of rolled iron in Pečky was also officialy stopped. An Inhibitation notification for the iron factory in Pečky was partially suspended because, as the board stated in minutes: *in order to maintain the operation of existing equipment in Pečky*

we have obtained a permission via Hospodářská skupina průmyslu vyrábějícího železo (the Economic Group of Industry Manufacturing Iron) to manufacture pioneer picks for Wehrmacht and dressing rough castings for Českomoravské strojírny (Czech-Bohemian Machine Works) in Prague. This help to solve a problem with some equipment and machines and avoid placing them at disposal of some other companies. Via Českomoravské sdružení pro stare železo (Bohemia-Moravian Association for Old Iron) Prastav negotiated with the Bruckner Company on participation of assorting and "size reduction" of the captured iron scrap from the eastern war territory.[283]



Lime works in Holyně

The year 1942 brought big changes in the area of wages and salaries. The Government regulation on "ensuring the stabilization of wages and salaries and working morale"[284] inhibited, without a special permission, a rate of wages. Only higher work performance or prolonged working time could lead to higher incomes. This measure was very important because by the end of the war, rates of wages were not changed. In March 1942, according to the command of Oberlandrat in Prague, the board of directors made a decision that a German version of the name Prastav would be Pragobau and in the German version of the company the name Pragobau will be used instead of Prastav. Furthermore, it was ordered that the company´s employees had to answer a call in the following manner: *Pragobau, Prague – Prastav Praha*.[285]

To enforce the company´s financial situation, at a meeting in May, the board decided to sell "free" bonds to Česká obchodní společnost (the Czech Trade Company) for 195,870 CSK and 4½ % of obligations of the loan for the defence of the State.[286] Apart from the economic problems the war time had brought, the company had to solve again the deterioration of the environment in Radotín caused by the cement plant. The construction of the high chimney in 1938 probably did not remove dustiness. In August 1942, articles appeared in the papers: Prastav dusí Radotín (The Prastav is Choking Radotín) in Přítomnost (The Presence) of 15th August[287] and "Prastav vykuřuje Radotín" (The Prastav is Fuming out Radotín) in Polední list (The Noon Gazette) of 18th August.[288] The long shut downs of the works probably caused that the dispute over the dustiness did not achieve such level as it did at the end of the 30s.

There was a fire in the Cífka quarry in Loděnice on 18th June 1942 wich was caused by the workers. The fire destroyed a corner station of the cable way for transport of stones. The damage of the machinery and building equipment (130 000 crowns) was covered by insurance.[289]

At the end of the year, the board adopted many important decisions. The board, together with other cement plants, entered the German cartel company Zement Gemeinschaft Südost

in Vienna. They paid 6,000 Reich marks for their membership.[290] The board approved edition of new shares. The members agreed that single shares were going to be printed in green colour, shares printed per 25 pieces were to have blue colour and brown colour was designated for shares printed by 100 pieces. On coupon sheets and talons "a letter P was to be made by dry embossing" instead of words Pragobau – Prastav, and it cancelled a stand at the Prague sample fair due to the fact that the activities of the fairs were stopped by the occupational authorities. The Prastav Company had participated in the fairs regularly since the 20s. In September 1932, the company received a certificate of merit from the Prague sample fairs *because the company participated in all 25 international fairs with perfectly prepared expositions*.[291] The end of the year was characterized by savings again. In December, the production was reduced due to decrease in the electrical power consumption by 10 %, which was ordered by Ekonomická skupina kamene, zemin a keramického průmyslu (the Economic Group of Stone, Soil and Ceramics Industry).[292]

The year 1943 brought further submitting of the Protectorate economy to the war production. At the end of 1942, the institution of the chief of arms (Rüstungsobmann) was established, which took over all managing functions of the arms economy in Bohemia and Moravia. For example, he was appointed a president of Ústřední svaz průmyslu (the Central Association of Industry). This way the local arms production was subordinated directly to the Reich Minister without being connected to the opinion of the Reich Protector or the Protector Government.

The Germans were appointed to the managing functions in the Czech companies to supervise the smooth running of plants. In March, a German from Prague, SS-Obersturmführer Edgar Graf was appointed to the board of directors of the Prastav Company to the position of a general director. From the moment he started, all minutes from the board meetings, meetings of the executive committee as well as the commercial, production and personal reports had to be made in Czech and German. Of course, the German text was stated before the Czech one. At the same time, the chairman of the board of directors presented to the members a memo no. 4/43 of Ústřední svaz průmyslu. The president of the Association ordered that *the board meetings should be called only if it is necessary and if it respons to the war economic measures*.[293] This measure was declared mainly because of the Germans who participated, respectively supervised several boards of directors and they could not manage to be in all places at once. Much harder intrusion on the company management came in May 1943. The company Firma Klinker Zement GmbH. Posen (Poznan) got 55 % of the stock capital of the Prastav Company from the property of Živnostenská banka (the Trade Bank). According to the agreement between Živnostenská banka and the company Klinker Zement, the members of the board of directors were exchanged at the May meeting. Five Reich Germans were appointed to the new board of directors. Apart from General Director Edgar Graf, who was appointed earlier in March, from May it was Dr. Hanns Bobermin, Gottfried Buchartz, Dipl. Ing. Richard Goebel, Josef Opperbeck and Dr. Wilhelm Lange. Immediately after the first meeting, it was decided that all written documents of the board were going to be only in German as well as all reports and records from individual floor shops of the Prastav Company.[294]

In April, the Employment Office in Prague carried out a wages inspection in the company according to the Government regulation no. 404/1942 Coll. "On the Stability of Wages and Salaries and Working Morale". The revision was a signal of further workforce drainage. Shortly after the inspection, Hospodářská skupina kamene, zeminy a keramického průmyslu required more workers from the company. The stonemason´s workshop and a plant for manufacturing insulation boards in Zlíchov were affected the most. Workforce drainage was great. On 1st January 1942, 1,145 employees (999 men and 146 women) had been working in works of the Prastav Company. One year later, on 1st January 1943, there were only 608 employees (556 men and 52 women).[295] Besides workforce, the company had to provide a part of equipment in works in Zlíchov and Hlubočepy to the Todt organization.[296] In May, the employment offices in Prague, Kladno and Jičín asked the company to release another 5% of its employees to the war industry. Prastav paid recreational accommodation for 12 workers in Luhačovice at the recreational event of Reinhard Heydrich.[297] The company ordered 100 hardback books at the Orbis publisher to uplift their spirits. The company paid for these books 4,500 crowns.

In the technical and production report on the year 1943, the situation in the company´s works was described. The war situation affected the operation of the works. Fuel deliveries were reduced. Consumption of coke peas for the cement kilns had to be reduced from 1,200 tonnes to 700 tonnes. Power supplies were reduced too. In August and September, during the harvest and cereal beat out, it was possible to take proper amount of power and work at full capacity, but only from 5pm to 7am of the following day. The persistent lack of wagons affected the delivery of raw materials and collection of manufactured products. The lack of parts was also substantial. In January, the raw material mill broke down and as a result one kiln had to stop operating. The mill was commissioned in March. Heavy frosts lasted until the middle of March and restricted mainly production in quarries. Only lime works in Loděnice and Holyně – km no. 8 worked. The lack of coal and wagons occurred here too. The stonemason´s department had problems with domestic material deliveries resulting from workforce leaving the industry and many quarries were closed down. Purchasing stone in foreign countries was difficult. In a plant in Pečky, damaged and captured war material was processed. It was supplied by the company Reichsvereinigung Eisen Aussenstelle. In the first six months of 1943, 150 wagons were sorted and disassembled. Beacause of this actitivity, the fire insurance was extended to cover damages *caused by explosion of explosives which were brought to the plant with war booty designated for scraping, and at the same time, the compulsory insurance was extended to cover damages caused during disassembly and sorting damaged war material*. The company

Lime works of Jindřich Cífka in Loděnice

had to rent a part of the premises in Pečky for a construction of the hall for the headquarters of the Reich railway (Reichsbahnzentralamt).

In 1943, a change was made in the cement cartel. On 13th January 1943, the Reich Minister of Economy extended a validity of the regulation on establishing the German Cement Association (Deutscher Zementverband) of 1940 to the Protectorate with an agreement with the Reich protector. The cement plants in the Czech Lands then became members of the German Cement Association when they were members of the group Zement Gemeischaft Südost.[298] In the cartel, the Prastav Company was given quota of 6.219 %, ie 81,000 tonnes of cement. Prastav, as the cement producer, was obliged to sell all manufactured cement in the Prodejna cementáren, spol. s. r. o (Retail Shop of the Cement Plants) in Prague, which sold it to the Essas Company. As a retail seller, the Essas Company sold cement to Prastav which distributed cement to the customers via its stores. Due to this loop, Prastav received from each sold ton of cement only 40 hellers. The level of the cement sales was affected by the official ban on all constructions and a decline in ration coupons for cement.[299]

The Prastav quota within the lime cartel was 10.765 %, ie 33,150 tonnes. Lump lime and mainly ground lime designated for fertilization of fields were dispatched. The Atlas lime was not manufactured. The lime sale was free. When the order was higher than 5,000 CSK it was necessary to ask the chief of the arms (Rüstugsobmanna).

In 1943, the Prastav Company had to enter a company manufacturing fireclay Treuhand Gesellschaft Feuerfest Bonn, although it did not sell any fireclay because the production stopped.[300] After declaration of total war and related total mobilization of force and means in February 1943,[301] the occupational power tried to use the remaining reserves in cooperation with authorities of the Protectorate administration. Individual companies remained in hands of their owners, but their authorities in the companies were substantially reduced. Official supervision of the companies was very detailed. For example, in December 1943, the board had solved an order of the Ministry of Economy and Labour of 5th December 1943 no. W-I/3e-491 267-25/10-43 – *to sell one of the released and reported typewriters out of operation in plants in Hlubočepy and Řeporyje to a trader with typewriters, and to inform the Ministry in written*.

At a meeting in December, the board of directors was not solving only a problem about the typewriter, but they also agreed to increase the stock capital from 16mil CSK to 28mil CSK. This increase was made to the account of the stabilization and a general reserve fund.[302] In 1944, it came to the concentration of plants and closing down producing works that were not so important for the war economy. The stonemason´s department was closed down and its 19 workers were disposed of to the employment office. Also the number of employees in the Radotín plant was decreased by 10 people. In Pečky, the production was reduced and they were finishing delivery of 40,380 pickers for Wehrmacht, and also castings of parts for armoured vehicles. The available premises in Pečky were rented out to the companies Ferra A.G and Českomoravská strojírna[303] (Bohemia-Moravian Engineering Works) upon the order of the authorities. In August and September, the company Deutsche Wirtschaftsbetriebe GmbH from Berlin carried out an inspection of the economical situation of Prastav for the year 1942. The aim of this revision was to discredit the then Czech company management and in case of discrepancy to remove the remaining Czech members of the board of directors and punish them.[304]

Regarding employment, the working hours were moved. From 18th September 1944, a 54-hour working week was introduced. On the other hand, the company paid 14,000 CSK for 18 workers and their relaxation within the programme of Reinhard Heydrich. The board also released 25,000 crowns as a bonus for long-time employees. They also bought vitamins for employees for 4,730 crowns and paid for the Christmas ratio of cigaretts for workers. The board also released 10,000 crowns for purchasing sport accessories for football, athletics and box.

Prastav advertisement

In August, there was a change in the company management. On 8th August 1944, general director and SS Obersturmführer Edgar Graf died and Major Edgar Blecker-Kohlsaat were appointed to this position on 4th April 1945.

The economic and commercial situation of the company for the year 1944 was assessed by the board at the meeting in December. In all works, difficulties caused by "Totaleinsatz" appeared. In the company, only 594 employees worked and other 40 were going to be released for the needs of the employment office. The lack of fuel, wagons and electrical power was a reason why the production and dispatch of cement dropped down by 5.2 % in comparison to the last year. The lime production was lowered by 11.1 %. The air defence received a big part of the lime production because they used it as disinfection. On the contrary, the production of insulation boards in Zlíchov and Pečky went up. There was a big interest in boards with the thickness of 2.5 cm. We manufactured 356,721m² of these boards which was 4.1 % more than last year. The boards per 3,000 crowns were delivered also out of the territory of the Protectorate upon the order of the chief of arms (Rüstungsobmanna) and it was mostly delivered for Wehrmacht. In iron-works in Pečky, the production was gradually slowing down. The production dropped down by 45 %. Despite the war difficulties the Prastav Company started a new production of the tar and asphalt. It was stated in the report that the complication of the production was caused by frequent loans of motors and other equipment to the Todt organization.[305]

In May 1945, the Radotín cement plant stopped running for a while. The war period was finished by the liberation of the Czechoslovak Republic.

Table of Economic Results of Spojené pražské továrny na staviva, a. s. – Prastav[306] (The Joined Prague Plants for Building Materials)

Year	Company's Performance	Net Profit
1920	1 635 427 CSK	184 372 CSK
1921	3 670 096 CSK	541 093 CSK
1922	3 111 453 CSK	36 379 CSK
1923		Loss 3 450 910 CSK
1924	7 701 265 CSK	166 619 CSK
1925	8 819 779 CSK	11 454 CSK
1926	8 707 963 CSK	503 055 CSK
1927	Data did not come down	Data did not come down
1928	10 245 491 CSK	2 302 917 CSK
1929	8 143 600 CSK	1 453 812 CSK
1930	7 562 694 CSK	1 115 073 CSK
1931	7 642 648 CSK	956 773 CSK
1932	7 473 062 CSK	891 243 CSK
1933	6 417 889 CSK	83 284 CSK
1934	8 047 955 CSK	128 228 CSK
1935	2 973 026 CSK	163 395 CSK
1936	5 710 762 CSK	486 043 CSK
1937	8 441 384 CSK	1 845 670 CSK
1938	6 106 860 CSK	816 928 CSK
1939	8 221 912 K	1 649 409 K[307]
1940	6 600 904 K	1 077 471 K
1941	8 887 094 K	847 755 K
1942	8 810 412 K	2 292 942 K
1943	Data did not come down	Data did not come down
1944	7 601 871 K	1 589 534 K
1945		Loss 6 497 582 CSKs

The cement production in the Radotín cement plant in the years 1932–1945[308]

Year	Amount in Tonnes	Year	Amount in Tonnes
1932	50 540	1940	62 820
1933	55 220	1941	63 720
1934	31 610	1942	44 902
1935	48 280	1943	44 800
1936	62 310	1944	41 720
1937	71 080	1945[309]	10 020
1938	74 960		
1939	71 020		

~THE LAST YEAR OF THE PRASTAV COMPANY ~

After the liberation, two spheres of problems were being solved. Firstly, it was necessary to remove the remains of the war and then to change the structure of owners of the entire national economy as it was stated in Košický vládní program (Košice Government Programme). A request for nationalizing was pursued by the social democrats and communists immediately in May 1945. On the basis of the edicts of nationalization of the President of the Republic,[310] the national enterprises were established with 100% of the state ownership and under a strong control of a trade union, which was controlled by communists. During the first weeks after the war, works councils were established in plants and offices with a full support of trade union. In May, their competence, however, still did not have a legal ground and their activities often provoked constraints. The constraints increased when in the official printed matters of Ústřední rada odborů – ÚRO (Trade Union Council) the statements appeared saying that "they were created by the right of the revolution". On 12th May 1945, the TUC published the "Regulation for Works Councils Elections" which was approved by the "government groups" which vaguely attributed to this document legal validity, and this regulation slightly clafiried the organization and mission of the enterprise councils. The regulation became then a basis for the edict of the President of Republic no. 104/1945 of 24th October 1945 on works and enterprise councils. The mentioned regulation granted the councils quite considerable authority to interfere with the after war economy. The main task of the councils was to check on the production and administration of the company, control over abiding regulations of work safety and defence of economic, social and cultural interests of workers. Many times the councils tried to interfere with the managing of the companies under the motto "rectification of the management failures". Except for this the councils made so-called national purge which did not go without misfeacances and excesses.[311] The Prastav Company also did not avoid all this.

The first meeting of the central works council[312] in the Prastav Company took place on 23rd May 1945. Because the delegates from the works did not understand the mission of the works councils, Dr. Jerie from the central directorate of the Prastav Company explained the regulations of the elections and a position of works councils and a central works council. It was supposed to have nine members and the numbers of the representatives in the council were governed by the number of members of individual works. Three members represented Radotín, the center and works in Loděnice, Pečky, Zlíchov, Holyně and Hlubočepy had one representative each. Ing. Roháček was elected the first chairman of the central works council.[313] Other items were an election of the national administrator, a decision on persons excluded by works councils and whether the exclusion related only to a specific works or the whole company. After a short discussion, Ing. Dr. Rudolf Bárta was nominated for the position of the national administrator under a condition that he was going to be devoted only to managing the Prastav Company. This condition related to the pedagogical activity of Ing. Dr. Bárta at the Institute of Chemical-Technology Engineering at Czech Technical University. Ing. Dr. Bárta accepted the post of the national administrator and after his explanation, the enterprise council did not insist on their condition. On 1st June 1945, the Ministry of

Industry authorized Dr. Ing. Rudolf Bárta by order No. 126.1/45 II. to perform interim managing of Prastav Spojené pražské továrny na staviva a. s. (Prastav Company, Joined Prague Factories for Building Materials). According to decision of the Minister of Industry No. II-2-208591/45 of 9th October 1945, the registration of introduction of the national administration of the Prastav Company was made on 19th October 1945.

Although, many members of the enterprise council had problems regarding knowledge of mission and authority of the works councils, they were clear about excluding and subsequent dismissal of co-workers. At the first meeting, nine people were excluded. Ing. Jan May was one of them.

Commercial councillor Rudolf Bárta senior received a letter in which he lost the vote of confidence for his behaviour during the occupation and got a proposal to give up the membership in the board of directors voluntarily. At the end of the meeting, it was agreed that inventory of the company will be made on 15 May 1945 and all damages caused during occupation will be totalled. Further, it is necessary to prepare a list of the most urgent requirements which must be met to start work in the works. Those will be presented to the Ministry of Industry and economic council of the government. The lack of workforce was solved as well as bad working morale in works and a persistent lack of working shoes and clothes. The enterprise was dealing with these problems by the end of its existence. At the end of June, the central works council received from the national administrator information on the economic situation of the Prastav Company. The company had 3,300,000 CSK in cash. To start the production, it was necessary to have 6 million CSK and on that account the national administrator asked the Trade Bank for a credit of 8 million crowns, which was approved by the works council additionally. The amount of financial incomes was connected to the gradual releasing of the sale of goods fixed by the managing regulations. It was related namely to cement. In the production programme for renewal of the production it counted on the gradual increase in output. At the end of June, the Radotín cement works manufactured 500 tonnes per week, from the mid July, it counted on the performance of 1,200 tonnes per week and later with almost 1,500 tonnes per week. The production plan for the Zlíchov works for isolation boards was only 50 m^3 at the end of June and it counted on 70 m^3 at the end of July. The production was limited by the lack of material. Low capacity of timber-cement board production in Pečky was caused by unsuitable cement. At the end of June, they manufactured 3,000 boards manually and 3,500 boards with machines.

Damages caused by the war events and German occupation from 17th September 1938 until the liberation was numbered by a sum of 44,707,288 CSK. The biggest damage of 34,878,480 CSK was made by stoppage or reduction of some plants. Another big loss amounting to 6,460,902 CSK was caused by insufficient securing of the renewal of the production equipment. Direct damages to buildings, equipment, material stocks and goods were evaluated by the amount of 3,130,000 crowns.[314] In July, at the meeting of the works council something happened that proved the political situation in the trade unions. Even though most members of the works council were members of the Communist Party or its sympathizers, a proposal to call each other "a comrade" and state it in reports was not approved. The representative of the works organization of KSČ (Czechoslovak Communist Party-CCP) clarified a difference between the party organisations in works and works councils and indicated, according to the party conception that the trade unions had to behave as non-political. It was recommended to all employees of the Prastav Company to become members of the trade unions.[315] Relations between the national administration,

respectively the national administrator, and the enterprise council in the company management were not always ideal. The enterprise council tried to affect the company management by many regulations. In July, they agreed that all expenses of the national administration had to be approved by the chairman and executive director of the works council.[316] One month later, the council agreed that all contracts with advisors of the company had to be submitted to the works council for their approval. At the same time a dispute over adjusting wages of chief clerks who were discriminated during the occupation occured. The national administrator presented a list of the clerks whose wages were increased. He had the list approved by the Ministry of Work Protection and Social Care and asked the enterprise council for an additional agreement, which some members conceived as dodging the enterprise.[317] Wage issue was very sensitive and it was practically a part of almost each programme. Problems accompanying the cement and lime production in moths after the war, was presented in the production and commercial report of the national administrator of 31st August 1945. *Our cement works in Radotín is still operating with one kiln and we are ready to commission the second one, even though we do not have enough workers. We have been working passively because the sales prices have not been increased since 1941, although the production expenses have increased and especially now in the new republic. The lime works in Loděnice and Holyně km 8 are in operation. The production has not even increased. It decreased mainly because of the lack of workers. The workers are leaving mainly for the borderlands and they are also trying to find more comfortable jobs, for example with the post office, railways etc. Another group is created by individuals who own small farmsteads and they are mainly devoted to that and do not go to work. There are supposed to be 50 workers in the quarries but only two, three or four workers are currently working there. We have asked for German workers, but all our efforts are still futile. Ing Bárta finished this report saying: We still expect that the situation will improve and we are doing our best.*[318] In August, the national administration solved a reduction of running the lime works in Loděnice. It was caused by a request of the commander of the Red Army for the workers to disassemble equipment of the former Junkers works in Loděnice,[319] which was declared "trophy booty". The chairman of the works council of the lime works tried to get help at the district and local authorities, but he was not successful. He capitulated to the arguments of the Soviet commander that *President Beneš gave hand to marshal Stalin and said that everything is possible* and he was going to send for workers. The Red Army paid for the workers, in comparison with Pečky where the army took equipment and stocks left along the German Reich Railways from the stores of Prastav. The representatives of the Red Army refused to talk to the company management at all.

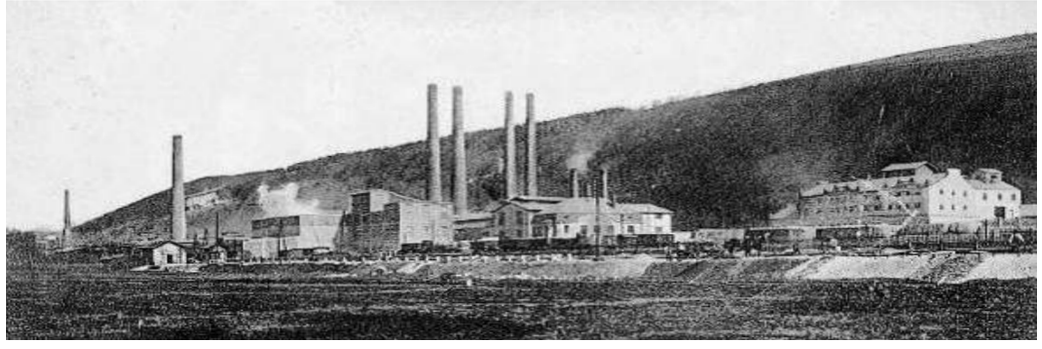
At a September meeting, the council discussed the behaviour of commercial councillor Rudolf Barta during the occupation. The worst thing for him was a crystal vases ceremony, when in 1939 during different events, he and the director of the Prague Samples Faires, Ing. Řezáč, handed over to K. H. Frank,[320] Josef Pfitzner[321] and Kurt von Burgsdorfov those vases.[322] After an excited discussion, during which some council members highlited Bárta´s contribution to saving the company from the Nazi occupation and his opponents argued *that due to indulgence to collaboration with the enemy, sense of revolution would fall flat*, it was decided that commercial councillor Rudolf Barta had to clear out the company apartment and his payments from the funds of the Prastav Company were going to be stopped. At the same time, national administrator Ing. Dr. Rudolf Bárta was called upon to clarify why he was arrested and put into jail by Nazis.

This request was allegedly made by the workers. Ing. Bárta submitted a proof that he was arrested because of political reasons as a member of the board of directors of the Czechoslovak Sokol.

In the economic part of the meeting, Ing. Bárta stated that due to the low cement prices and increased expenses, in the year 1945, the Prastav Company, was going to lose at least 3 million crowns on the cement production unless the highest pricing authority was going to allow increase in the cement prices. He also warned the works council that many employees were giving notice and leaving to settle down in the bordelands and it was impossible to stop them, and they did not have new ones. Regarding the planned socialization of the company, the enterprise council sent a letter to the Ministry of Industry with a request to leave the Prastav Company as the independent economic unit, to which some smaller plants were to be affiliated, which would make an organic unit with the Prastav Company.[323]

In September 1945, activities of the trade unions and the CPC in the background asking for nationalization of big industrial enterprises, reached the top. The central council of the trade unions organized demonstrations in the works; petititions and resolutions appeared where "working people called for nationalization." On 23rd August, pressure created by the trade unions on the government culminated at the congress of the enterprise and works councils in the Prague Lucerna. Activities of the trade unions did not ease even during the following months. The Government was receiving petititions and resolutions from working people.

On Tuesday October 2nd, the enterprise council met the national administration at an unscheduled meeting to discuss the nationalization of the Prastav Company and merging it with the Králův Dvůr cement plant, as it was stated in a proposal of the Ministry of Industry. At the beginning of the meeting, a problem about employees dismissed within so-called national purge was being looked at. Many of them were dismissed without committing any misdemeanours. That is why they approached the court and the court dismissed the charges of collaboration with the enemy and non-patriotic behaviour during the lacking freedom period. Therefore, they asked the company for financial compensation. Because these amounts counted several hundred thousands of crowns, the national administration asked for establishing a criminal commission to verify accusations. Provisions of the criminal commission were refused by the enterprise council without stating a reason. The course of the meeting where the future of the company was to be decided was very calm and there were no comments on the merging of



Cement plant in Králův Dvůr

the Prastav and Králův Dvůr works. The members of the enterprise council accepted the fact that their agreement was only a formal matter. In the afternoon, the meeting went on in Králův Dvůr. At the end of the meeting, a declaration of the enterprise councils of the Prastav and Králův Dvůr cement plant was accepted: *As we are waiting for the issue of edicts about the nationalization of our key industry, we would like to contribute to the success of this historical event. Due to this, the personnel of both companies decided to make a recommendation to relevant places to create from both companies one center which would serve as a basis of the national corporation called "Cement a vápno v zemi České" (Cement and Lime in the Czech Land). To prevent losses of the national economy we recommend to affiliate all plants of the Králův Dvůr cement works and all works of the Prastav Company to the national corporation "Cement a vápno" (Cement and Lime) without separating any of them. It is necessary not to separate mixed enterprises in particualr to use the fully existing production and commercial organizations of all merged companies and to build all these effectively in the future.*[324]

Incomplete and contradictory reports on the planned nationalization of the cement and lime works in Bohemia and establishing the big national corporation in which all cement producers were going to be concentrated, caused uncertainty and nervousness amongst the employees regarding the future of the works and their working places. On 13th September 1945, an unscheduled meeting was called to the Králův Dvůr cement plant. The reason was a protest against the strange establishments of the enterprise council of the cement works at the meeting in Maloměřice.[325] The participants of this meeting criticized that the representatives of all the cement works were not invited to the meeting in Maloměřice and mostly the representatives of the cement works in Maloměřice were elected to the enterprise council. Those recommended to cancel Prodejna cementáren in Prague (Retail Shop of cement plants) straight away and establish a new one in Brno.

They also did not like a system of one company and one delegate in comparison with proportional representation according to the number of employees. The delegate representing the ÚRO (Trade Union Council) tried to pacify the participants saying that this is not and it should not be an official body in the meantime. All participants at the meeting were convinced that it is necessary to bear it in mind for the near future when all cement works will be nationalized because after that this council will take over the tasks of the enterprise council of the new corporation.[326]

An invoice of the company J. Otto and Růžička in Pardubice of 6th October 1945 for engravings and matrix for printing new shares of the Prastav Company shows a hectic tempo of the nationalization of industrial enterprises. When the order was made at the beginning of August, nobody presumed that the print of new shares in October was going to be groundless in consequence of the nationalization.[327]

At the beginning of October, the company management tried to commission the lime works in Bohdaneč. It was the last works of Prastav which had not been in operation since the end of the war. The main reason of not operating the lime works was a lack of workforce. The national administration tried to solve the same problem in Radotín by using the German prisoners of war from the prisoner of war camp in Motol. Due to using 60 prisoners of war in Radotín, the second kiln could be lighted as well. The company management received a permission to start the production and sales of rolled products in Pečky in a volume of 400 wagons per year.

Also, at this meeting the enterprise council criticized the national administration of the company that it did not cooperate sufficiently. They asked the national administration to present to the enterprise council the reports for the Ministry of Industry for consultation in advance, and *also to discuss all important matters with the enterprise council, respectively with their representative body in advance.*[328]

For the planned merging of Prastav and the Králův Dvůr cement plant, a working committee was established comprising of representatives of the national administrations and enterprise councils of both companies. First they met on 3rd October. The main task of the delegates of Prastav in the working committee was to negotiate a parity representation of the Prastav Company in the managament of the future national corporation. At the November meetings, called upon the request of the enterprise council disputes between the enterprise council and the national administration of the company, regarding wages of the chief clerks were solved. After the approval of the Ministry of Work Defence and Social Care, the national administration paid "improved" wages of the chief clerks. This decision caused a stormy resistance of the enterprise council which saw a breach of cooperation and circumvention of the regulations of currency reform in the procedures of the national administration because the amounts calculated from June were paid out in new money and so they were not transferred to the fixed deposit.[329] The situation culminated and national administrator Ing. Bárta asked the enterprise council for a vote of confidence. After a longer negotiation, it was agreed that the decision on the wages issue was up to the Ministry of Work Defence and Social Care and the TUC. Ing. Bárta won a vote of confidence.

In October 1945, during the culminating negotiation on the nationalization, the TUC declared an action of working competition which should have increased low work performance. Individual works of Prastav took part in "the National Competition in the Construction of the Republic". Although, optimistic reports on the high employees' performance and high production values per one worker were preserved, the results did not survive, so we do not know whether some workers or teams received a proud title, standard or a pin badge of "Hero of Socialistic Work" or "Fighter of Work".

At the last November meeting of the enterprise council, the dispute over the amount of wages for clerks settled down. Experts of the TUC did not find the procedure of the national administration to be against the law. Due to increased cement and lime prices, the negotiation on adjusting the workers wages took place.

In the financial and economic report, national administrator Ing. Bárta stated that according to the currency reform, financing the company got complicated. All the credits were stopped and the company was financed from the bills which were re-discounted with the National Bank. It was difficult to transfer the accounts to new money, particularly when three clerks of the accounting department resigned to leave for the borderlands to get higher income. On this occasion the national administrator did not refrain from the criticism of the enterprise council: *my concern proved right that if there is no attention paid to the entitled requirements of clerical workers, it will bring further leaving of good and reliable workers. Due to long negotiations and mainly some members of the works council expressing their opinions in important places, a very unfavourable situation occurred for our company externally and internally too. The atmosphere in which clerical workers work is unfavourable for the company and it means for our company further big loss.*

Because of the lack of fuels the works in Holyně and Loděnice were threatened. In Hlubočepy the kilns were stopped because of the lack of coal.[330]

The wages issues were stopped by regulations of the wages adjustment for workers and clerical workers effective as of 1st December 1945. For the employees with increased work performance the national administrator suggested bonuses and asked the enterprise council to realize this action.

In December, the production was negatively affected by the lack of coal, power and raw materials and in some works also by the lack of employees.[331]

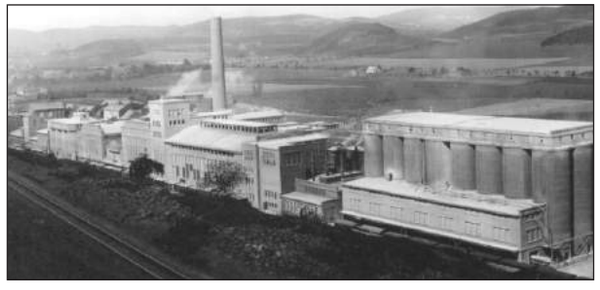
At the beginning of the year, Ing. Rudolf Bárta negotiated with Dr. Jaroslav Charvát, a general director on the central body of the nationalized industry of building materials and ceramics regarding the future of the Prastav Company in the future national corporation. According to the statement of Director Dr. Charvát, the independent Prastav Company was not taken into account with the new corporation and the company was going to merge with the KDCP (Králův Dvůr cement plant). In the meantime, the works of the Prastav were not to be separated and were expected to remain in one national corporation.

The assessment of the year 1945 was not too optimistic. Only the stonework workshop in Zlíchov, production of light building boards in Zlíchov, production of boards in Pečky and the Prague stores of building materials were active; in the previous year, the other works were passive, some of them quite considerably, e.g. the Radotín cement works. Performance of all works was dropping down and was far behind the performance from the year 1944 with the same number of employees.[332]

At the February meeting of the enterprise council, Ing. Bárta informed the council on the course of the company nationalization in details. The works in Pečky was set aside from the nationalization for unknown reasons, but during three months, before a relevant documents preparation, this plant had been also nationalized. Furthermore, the national administrator complained that he was not able to maintain the Prastav Company as an independent company and he saw the reason in an insufficient support which he received as the national administrator. In spite of it, he pushed through that the Prastav Company was not divided and was transfered as a whole to the future national corporation "Cement a vápno v Čechách". According to the rumours on the Radotín cement works closing down he stated that *it is still possible, but he thinks that he will be successful to postpone the closing down at least for this year. He warns anyway that it is necessary to take it with a pinch of salt. He can see the only future of the Radotín works as a plant manufacturing high-quality and special cements. In his opinion, other things depend on theworks itself.* At the end of the meeting, the chairman informed the enterprise council on negotiation of the Economic Group of Stone, Soil and Ceramic Industry regarding the appointment of employees of Prastav to the board of some professional group. The representatives of the economic group informed him that there are no free places on the board because the other companies were more active and had occupied these places. They assured him that the places were going to be freed due to the nationalization and fusion of companies.[333] This negotiation lost its point by integrating Prastav into the new national corporation.

THE RADOTÍN CEMENT WORKS IN THE NATIONAL ENTERPRISE ČESKÉ CEMENTÁRNY A VÁPENICE (CZECH CEMENT AND LIME WORKS)

Nationalized companies were going through merging and rearranging from 1946 which went on until 1989 as an expression of the effort to rationalize the industry organizational structure. The new reorganization usually ended just as bad as the previous one.



Vápenný Podol lime works

The awaited national enterprise in which the cement and lime works in Bohemia were concentrated, was established on the basis of §12 of the edict of President of the Republic No.100/45 Coll. And a regulation of the Minister of Industry of 7th March 1946.[334] Finally, it was named České cementárny a vápenice, n. p. (the Czech Cement and Lime Works, n. e.). The day of establishing was set for 1st January 1946. The line of business was manufacturing and processing cement, cement binders of all sorts and lime, acquisition and sales of these goods. On 1st January 1946, the Czechoslovak state transferred to České cementárny a vápenice the assets of the following nationalized companies:

Královdvorská cementárna, a.s. (Králův Dvůr Cement Plant Plc.) together with the assets of the company D. Berl Praha.

Prastav, Spojené pražské továrny na staviva, a.,s. Praha. (Joined Prague Plants for Building Materials Plc.).

Sasko-česká továrna na portlandský cement, a.s., in Čížkovice. (Saxony-Czech Factory for Portland Cement Plc. in Čížkovice).

Řetenická cementárna, a.s.,in Řetenice by Teplice. (The Řetenice Cement Works Plc.).

Podolská cementárna v Praze, a.s. (The Podolí Cement Works Plc.).

Lime works and quarry in Vápenný Podol from the assets of the nationalized company Česká obchodní společnost v Praze (Czech Trade Company in Prague).

Works in Srbsko and Havlíčkův Brod from the assets of a nationalized company Akciové železárny in Komárov (dříve C. T. Petzold a spol.), (Joint-Stock Ironworks in Komárov, earlier C. T. Petzold and Comp.).

The national corporation České cementárny a vápenice (the Czech Cement and Lime Works) owned 18 plants in total on all the territory of Bohemia: three cement works in Králův Dvůr, Čížkovice and Radotín, eleven limeworks in Řetenice, Vrchlabí, Prachovice, Závratec, Vápenný Podol, Loděnice, Holyně, Bohdaneč, Srbsko, Hlubočepy, and Králův Dvůr, three works for production of light building boards in Zlíchov, Pečky and Havlíčkův Brod and slag brickworks in Kladno.

Furthermore, after an agreement with the Ministry of Industry, Zemský národní výbor (the Land National Committee) in Prague put České cementárny a vápenice in charge of the national administration of the following companies:

Jan Liebieg a spol., vápenka v Brodci u Železného Brodu (Jan Liebig and Comp., Lime Works in Brodec by Železný Brod).

Václav Renner, vápenka v Jesenném u Železného Brodu (Lime Works i Jesenné by Železný Brod).

Josef Kratzer ve Vrchlabí (in Vrchlabí).

Halley a Zirm, vápenka, drtírna štěrku v Horním Lánově u Vrchlabí (Halley and Zirm, Lime Works, Gravel Crushing Works in Horní Lánov by Vrchlabí).

Rudolf Möhwald a spol., drtírna štěrku a lomy v Horním Lánově u Vrchlabí (Rudolf Möhwald and Comp., Gravel Crushing Works in Horní Lánov by Vrchlabí).

Jan Bischof, vápenky ve Svobodě nad Úpou (Lime Works in Svoboda nad Úpou).

Litoměřické továrny na vápno a cihly a.s. v Litoměřicích (Litoměřice Works for Lime and Bricks Corp. in Litoměřice).

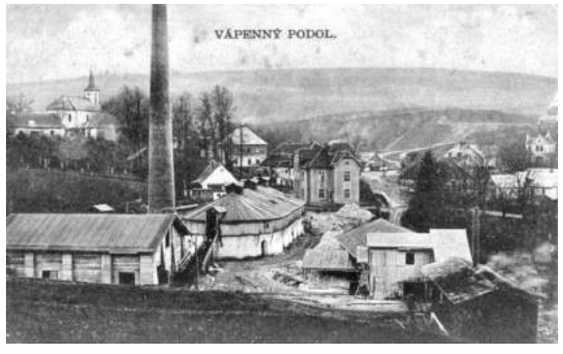
Kurt Endisch, vápenky a cihelny v Lahošti u Duchova (Lime Works and Brick Works in Lahošť by Duchov).

The enterprise was managed by a nine-member board of directors. The members were: Prof. Dr. Ing. Rudolf Bárta, Doc. Dr. Ing. Bedřich Hacar, Antonín Hanzlík, Karel Matouš, Rupert Mundl, Martin Novotný, Ing. Josef Wildmann, arch. Rudolf Zelinka and Dr. Ing. Josef Žitný. Alternate members of the board were Dr. František Boček, Ing. Cuhra, Jiří Elis, Ing. Jiří Fuchs, Josef Matějka, Josef Kovář, Jan Petráš and František Šmída. Dr. František Vidrman was named the enterprise director. Apart from the enterprise secretariat, there were four divisions: administrative (legal, insurance and tax department, accounting department and calculation department), technical, commercial (sale of products and purchase of materials) and social-political (wages, recreational care, supporting funds).[335]

Technical division carried out an inspection of all equipment in the plants and found out that it was obsolete in most of works and worn out due to constant operation during the war. Therefore, it increased costs of the production and required a substantial use of labour. The buildings were in satisfactory conditions.

There was a plan to invest 48,896,775 CSK during two years, but the new corporation actually received only 12,100,000 CSK.

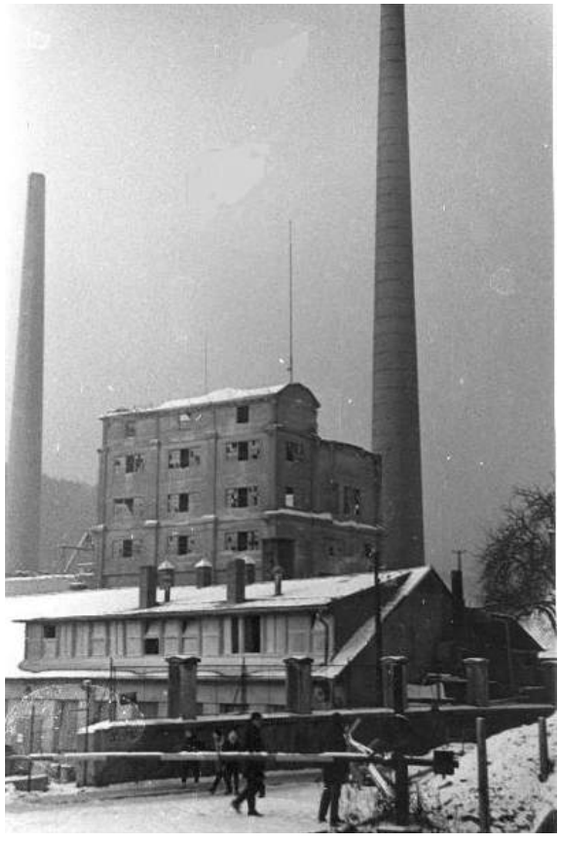
The commercial division offered the following products: Portland cement, Ferroportland cement, blast furnace cement, high-quality cement of *Standard* brand, also block lime, ground lime, hydraulic lime, ground limestone, saturation limestone, slag bricks, timber-cement boards, marble mosaics and marble wall facing. In September 1946, České cementárny a vápenice took part in the Prague sample fairs and their exposition was awarded by the directorate of the fairs. The corporation started many commercial contacts and concluded several conctracts. The contract for 10,000 tonnes of high quality cement of *Standard* brand was concluded for



The Vápenný Podol lime works

Neatherlands and a contract for 60,000 tonnes of Portland cement for Belgium. There was a big demand for marble mosaic and marble wall facing. Transport became a problem because the main route for the transportation of cement and other products of České cementárny a vápenice from Bohemia to the Western Europe was the Labe River and a low water level could sometimes reduce the export.

The retail shop of the cement plants was closed down on 1st May 1946, the Essas Company was renamed to Stavela and it was incorporated as a sale company into České cementárny a vápenice.



The old cement plant fromt the railway crossing

At the beginning, even the commercial division had no problems with the raw material supplies. Dictribution of coal went without interruption. A problem occurred with acquiring gypsum scraps and gypsum. The Czech cement plants had been fighting the lack of material since May 1945. They organized delivery from Austria and Bavaria. The fact that the train with 800 tonnes of gypsum scraps was accompanied by a military guard reflected the then situation in Bavaria. It seemed that the train did not transport only gypsum.

The social-political division provided information on the number of employees in the new corporation. In August 1945, there were 234 clerks, 1580 workers, 61 Germans and 52 prisoners working for the corporation. 71 % of the workers worked for hourly rate and only 29% of them worked for task wages.[336]

While the board of the national enterprise of České cementárny a vápenice started working from November 1946, the enterprise council started its acitivities already in March 1946, when the enterprise started functioning. At the first meeting of the enterprise council,[337] one third of the members and alternative members of the board were elected. To be familiar with the job description of the members of the board and with the role of the board in the national enterprise, an article of Antonín Zápotocký, a chairman of the Trade Unions was read to the delegates. This article was devoted to the boards of directors of the national enterprises and was published on 28th March 1946 in daily paper "Práce" (The Work). After an exciting discussion about the candidates the elections were carried out, but they were declared non valid at the end and were repeated the following day. As the official reason for repeating the elections was stated

that many delegates did not have the authorization of the works councils of the relevant works, which was contrary to the edict of the President of the Republic No. 104/45 Coll. on the Works Councils. The list of candidates and also members elected in the repeated elections slightly differed. Another third of the members and alternative members of the board of directors of České cementárny a vápenice was elected at the May meeting. Also, at this meeting a sharp interchange of opinions regarding democracy of the election occurred when the candidates, who were proposed by the works organizations of the Czechoslovak National-Socialistic Party and the Czechoslovak Social Democracy, were refused. The leaders of the meeting referred to the Government regulation of 15th January 1946 in which it was stated that the leading bodies of the nationalized enterprise elections were in competency of the Trade Unions and not the political parties.[338] At this meeting a proposal was submitted to issue a corporation magazine.

At the June meeting of the enterprise council, a sharp dispute took place amongst the members of the corporation council and a personal and wages referee regarding the workers' wages. The wages issues were practically discussed at each meeting – with or without shouting. The members of the council were distempered by the refusal of the Ministry of Industry to name all the national enterprise České cementárny a vápenice in the name of Antonín Zápotocký. The Ministry proposed to name only one plant in the name of the chairman of the Trade Unions and not the entire enterprise. Otherwise, many legal documents would have to be made again. The beginning of the June meeting of the enterprise council was ceremonial. The enterprise council congratulated Klement Gottwald on his nomination to the position of the Prime Minister.

Another item of the meeting was a proposal of a conversion of "Obecně prospěšné stavební družstvo zaměstnanců firem Prastav-Spojené pražské továrny na staviva v Praze and Stavela, velkoobchod se stavebními hmotami v Praze, se sídlem v Radotíně" to "Obecně prospěšné stavební a bytové družstvo zaměstnanců Českých cementáren a vápenic" (Public Service Building Cooperative of Employees of Companies Prastav – Joined Prague Plants that for Building Materials in Prague and Stavele, Wholesale Store with Building Materials with its seat in Radotín" to "Public Service Building and Housing Cooperative of Employees of Czech Cement and Limeworks"). At the end of the meeting, some complaints caused distraction when on the ground of accusation of collaboration, personal matters were discussed.[339] At the August meeting, the last third of the members and alternate members of the board of directors of České cementárny a vápenice were elected. There was sent a protest against low punishment of the members of the former Protectorate Government and a proposal for discharging the personal and wages referee was being sorted out. They upbraided him that *he acted in the old way and protected superiors more than a right request of the workers, and he did not try to find out the possibility of a new favourable solution for the company*. Although, the management of the national enterprise tried to defend the personal and wage referee they did not prevent his discharge. The October meeting of the enterprise council was held in the anti-clerical spirit. A performance bonus for the clerical staff was discussed and according to some members of the enterprise council the national enterprise Czech Cement and Limeworks was loaded with a high number of too many clerks. The opinion "to send the clerks to the production process" was not successful because also professional and intermediate technical grades were part of

clerks. But the production could not be operating without these personnel, which some more liberal members of the enterprise council realised.[340] But from October, in each employee statistics a ratio of workers and clerks was compared. At the end of the year, the class struggle backed up at the meetings of the enterprise and there were discussed production plans for the year 1947.

New digger for the old cement plant, 1947

It was planned that during the year 1947, České cementárny a vápenice were going to manufacture 355,000 tonnes of cement, 150,000 tonnes of lime, 43,000 tonnes of saturation limestone, one million pieces of light building boards, 15 million of slag bricks, 6 million of burnt bricks and 20,000 tonnes of gravel. It was planned that the Radotín Cement Works was going to manufacture 50,000 tonnes of cement, lime works in Loděnice was to manufacture 21,000 tonnes of lime, in Srbsko, it was to be manufactured 6,000 tonnes of lime, in Holyně 7,000 tonnes of lime and 1,500 tonnes of gravel, and in Hlubočepy 6,000 tonnes of lime. Pečky planned to manufacture 600,000 pieces of light building boards with dimensions of 200 x 50 cm and 30 000 pieces of different cement blocks and 500,000 pieces of timber-cement bricks with dimensions of 29 x 14 x 6 cm. In addition to the production plans the enterprise approved establishment of a travelling works library which would educate employees by adequate literature in the borderlands and in plants with a small number of employees where the library could not be established and where the lack of local libraries occured. The enterprise council lodged an application with the Ministry of Finance, a press department, for a permission to issue a fortnight magazine called "České cementárny a vápenice." The edition would have counted 2,000 copies and according to the enterprise council publisher: *The aim of the magazine is to inform all employees of the national enterprise about current economic and social issues. The magazine would be a connection between employees of individual works which are placed on the territory of Bohemia and it should increase mainly performance of all employees by adequate information*. At the end of the November meeting, the enterprise council sent a telegram of congratulations on the anniversary of the October Revolution to Ambassador of the Soviet Union Valerian Zorin, and also a letter to Prime Minister Klement Gottwald promissing to meet tasks of the two-year plan.

In January 1947, the Prague City Hall approached the directorate of Czech Cement and Limeworks with a proposal to purchase a plot and premises of the former Podolí cement works. The district council of Prague 15 intended to build a cultural house and a block of flats in this premises. The City Hall offered for the area of 137,027 m² the amount of 4,000,339 crowns. The Ministry of Industry should have made a decision. At the January meeting of the board of directors, director Dr. Vidrman announced the economic results for the first year of running the national enterprise České cementárny a vápenice. It was manufactured 325,369 tonnes of cement, 79,141 tonnes of lime, 436,190 m² timber-cement boards,

1,452 tonnes of marble mosaic and 685 tonnes of ceramics (ceramic pipes). The Radotín cement works manufactured 37,112 tonnes, which presented 11.5 % of the total capacity. There is a certain move resulting from this, showing the importance of the Radotín cement works. While this works occupied the first place amongst the works of the Prastav Company it was the smallest cement works in České cementárny a vápenice. On 1st January 1947, there were 1,832 employees and 27 Germans working in České cementárny a vápenice. The director talked about the lack of labour. They expected employment of 150 workers from Slovakia for the year 1947. Except for the borderland, there was a lack of accommodation for new workers. When discussing a solution for the lacking labour, some members of the board inclined to the opinion that it was possible to employ also women in the building industry, although it was a men domain before. They also pointed out a fact, that in the Soviet Union, it was usual for women to work in the building industry. The director also announced that the Registration Office of the lime works was going to stop its activities as of 1st January 1947.[341]

At the first meeting of the enterprise council in 1947, its chairman evaluated activities of the council during the past year. He mentioned *the fights for the general directorate which had to be done to accomplish the wish of the workers and obey a voice of working people*. Because the chairman of the enterprise council was leaving České cementárny a vápenice, a new chairman was elected. It was Klement Bok.[342] In spring 1947, the works council elections took place. On 14th March, elections took place in seven plants. Even though the candidates were chosen with care, they did not go through in the cemen works. The elections had to be repeated in Králův Dvůr, Čížkovice and Radotín. Other elections went on in September. [343]

In February, the first "separation" of former Prastav took place. The works in Zlíchov was transferred to the national enterprise Konstruktiva and the works in Hlubočepy went to the national enterprise Rakovnické keramické závody (the Ceramic Works in Rakovník). At the meeting, the members of the board were familiarized with a big investment action which appeared regularly at the meetings of the board and enterprise council over all period of the existence of České cementárny a vápenice. It was a construction of a new cement works and a reconstruction of the lime works in Prachovnice.[344]

In June, there was a fire in the works in Srbsko. The building and machinery of a loading station was destroyed due to unwariness of the workers. The damage was estimated at 1,200,000 crowns. The management was warried about the production failure and the following disruption of the production plan.[345] At the summer meetings of the board the lack of labour was discussed again. The problems with delivery of machinery for the quarries caused a substantial need of labour in the quarries. The effort to solve the mining of saturation limestone for sugar factories with the help of work teams from sugar factories was not successful. Work morale of the work teams was bad. Even delivering workers from Slovakia and foreign countries did not help. Work performance of the Hungarians and Romes from Slovakia and Romanians was very problematic. Only performance of the Italians was more effective. The directorate tried to motivate these workers and increase their effort with American cigarettes, which they received from the UNRRA deliveries. But this also did not help. In June 1947, the company České cementárny a vápenice started the cement delivery to the construction of new Lidice. On the grounds of discussing investments, Dr. Vidrman, a director, presented a summary of the kilns in lime

works and their technical conditions in August. Alltogether, there were 20 circular kilns and 45 shaft kilns in lime works. The average age was 52 years whereas the newest one was a 14-chamber annular kiln of the Eckert-Ohop system in Loděnice built up in 1916. At this moment, nine circular kilns and four shaft kilns were operating with the total capacity of 3,800q per day. The rest of the kilns were out of operation due to the lack of labour and economy and dilapidated conditions. At the end of the meeting, the future of the premises Vindišovka in Radotín bought by the Prastav in 1940 was discussed.[346]

During autumn months, the works council elections took place in all works. Before the elections, a meeting of deputies of works councils and works confidants with the corporation management was held *because both deputies of the works and the corporation directorate felt that they need to be in touch with the deputies of workers from individual works* – this was stated as a reason for this meeting. But in reality, at this meeting, they discussed tacticts for the elections and how to avoid the same disturbing situation as in the spring. But the course of the elections was not good. The works council in the cement works in Králův Dvůr and Radotín was elected in the repeated election, and in Čížkovice, Loděnice and in Srbsko, the works councils were not elected at all. That is why the assembly of deputies of the works councils of České cementárny a vápenice, which was established at the meeting on 29th September 1947, approached the TUC to quickly issue the regulations of establishing and renewing the enterprise and works councils. The deputies of the TUC participated in the meeting of the deputies of works councils and works confidents which took place on 6th November. The deputies from the TUC informed the participants of the meeting that the way of the enterprise and works councils' elections and their organization and authority were going to be adjusted by the second executive provision of the decree of the President of the Republic No. 104/45 Coll. on the Works Councils and it will be published soon. By that time, they should follow instructions which were approved by the board of the TUC at the meeting on 10th October 1947. At the end of the meeting, the deputies of the TUC asked the members of the corporation council and other participants of the meeting to send a resolution to the Presidium of the Government in which they asked the deputies of the TUC to participate in all the negotiations of the National Front. At the meeting, the production plan for the year 1948 was presented to the directorate. The entire enterprise České cementárny a vápenice was going to manufacture 590,000 tonnes of cement, 131,700 tonnes of lime, 76,000 tonnes of saturation limestone and 780,000m² of insulation boards in total. There was a production plan for Radotín amounting to 70,000 tonnes of cement, for Loděnice it was 18,000 tonnes of lime and 4,000 tonnes of saturation limestone. For Holyně it was planned to produce 9,200 tonnes of lime and for Srbsko it was 22,000 tonnes of saturation limestone. Pečky were supposed to manufacture 600,000 m² of insulation boards in 1948.[347] At the end of the year, the board of directors and the management tried to solve a provisional administration of confiscated properties.[348] More and more formal requirements of the Settling Office in Prague caused delays when assigning confiscated properties to the enterprise property and it was still requiring a lot of time. The enterprise did not receive any of the required confiscated properties by the end of 1947.[349]

At the first meeting of the enterprise council in 1948, wages at the general directorate were discussed. A heated debate was sparked by a deputy of the general directorate when he answered to the members of the enterprise council that they did not have any right to know the income of the general and enterprise directorate. Director Dr. Vidrman calmed them in some way explaining that salaries and other benefits were stipulated by the Ministry of Work Defence and Social Affairs on the basis of an agreement with the TUC.[350] The negotiation on workers' wages was part of the following meeting. The failure of the negotiation with the directorate on changes in workers´ wages resulted in sending a request for the intervention to the Minister of Work Defence and Social Care, Zdeněk Nejedly and the TUC.[351] At the first meeting of the board of České cementárny a vápenice, the members of the board of directors paid tribute to their colegue Dr. Ing. Josef Žitný, a former director of the Podolí cement plant and later, of the Industrial Works of Prague City who died on 29th December 1947. Director Vidrman presented the economic results of the enterprise for the year 1947. The cement works manufactured 538,351 tonnes of cement. They met the plan for 151 %. The works manufactured 85,293 tonnes of lime and the plan was met only for 96.5 %. Also production of light building boards did not meet the plan – the production was 398,150m², which was only 46.8 % of planned products. One of the reasons of not meeting the plan was the lack of labour. The workers assigned to České cementárny a vápenice according to the decree of the President of the Republic No. 71/45 Coll. on Working Obligation of Persons who Lost the Czechoslovak Citizenship were not very valuable for the enterprise. Work morale of these people was low and they avoided working and sought different interventions to avoid the start of work. At the end of the meeting, the lack of work clothes and shoes was discussed. From so-called Sweden gift,[352] the corporation obtained clothes via the Ministry of Work Defence and Social Care, and the Czechoslovak Red Cross sent the enterprise work shoes.[353]

At the February meeting, the board of directors was familiarized with regulations of the Settling Office in Prague and the Ministry of Industry that confiscated properties were finally incorporated into the enterprise Čížkovická cementárna a vápenka (Čížkovice Cement and Lime Works-ČCLW).[354] They were also informed about the workforce state. On 1st January 1948, in České cementárny a vápenice there were 2,290 workers, of that 222 were women and 325 were clerks. There were big problems with frequent job changing. For example in 1947, 63 people left the Radotín plant and 76 new workers came. The last item of the meeting was the arrangement of medical examinations of all employees in České cementárny a vápenice with the Masaryk League against Tuberculosis.

Nobody of the members anticipated that this meeting of the board of directors of České cementárny a vápenice was the last meeting.[355] After 25th February, most of the board members were "dismissed" by the action committee (AC) and the board was not called under the new conditions.

On 26th February 1948, after the February events, a non-schedule meeting of the enterprise council was called. This meeting started a process in the enterprise, which resulted in fatal consequences for many employees. At the meeting, the attendance and a course of one-hour strike of 24th February was evaluated. They tried to determine whether the action committees were established in all the works and how workfolks responded to the resolution accepted at the congress of works councils of 22nd February. After the information from individual works, comrade Oldřich Pešek from Radotín addressed

the meeting and declared:[356] *Today, the time is competent to finish things what could not be finished in May 1945 by a purge and those, who do not belong to the nationalized industry should be excluded. If unreliable people stay in their places, in half a year new counter forces will raise, so it is the order of the age to give a final order now. Director Vidrman declared that according to his opinion the biggest problem is that the action committees are still not working in the works and they are not established in 90% of the works. There is no other choice than to organize them very quickly.*[357] A report of another speaker, Director Ferda, was very similar. He admonished *that the co-workers who, regarding their unreliability, should be watched out for to prevent any eventual sabotages and in case of observing some sinister intentions to intervene immediately*. The participants were annoyed by the information that 13 employees of the works in Loděnice did not agree with the resolution accepted at the congress of the works councils. At the meeting, withdrawals of Ing. Dr. Rudolf Bárta, Dr. Ing. Bedřich Hacar, Ing. Jaroslav Cuhra and Jan Petráš from the board of directors of the national enterprise České cementárny a vápenice were accepted. Also, General Director Dr. Jaroslav Charvát was withdrawn. At the meeting, 18 employees in total were withdrawn from the enterprise directorate, board of directors and central directorate. A case of exclusion of Prof. Dr. Ing. Rudolf Bárta was somehow paradoxical. While in České cementárny a vápenice he was excluded as "antisocial supporter of capitalism", at the Institute of Chemical-Technological Engineering he was elected to the action committee. This information exasperated comrades from the enterprise council of České cementárny a vápenice and they sent protest letters to the action committee of the Institute of Chemical-Technological Engineering at the Czech Technical University, to the action committee of the National Front at the universities in Prague and the action committee of the Ministry of Education. In the response from the Faculty of Chemical-Technological Engineering it is stated that Prof. Ing. R. Bárta was not a member of the action committee *and because the purge at the universities is organized according to different regulations in comparison with regulations in the industry, it is not technically possible to remove the named from the institute as you require.*[358]

By the February putsch, the current democratic regime in Czechoslovakia was removed and totalitarian system of the Communist Party was installed. The trade union movement helped substantially to the Communist Party to perform the state putsch. As the most numerous social organizations this movement affected the employment part of the society. Many of its requirements, for example the nationalization, solution of the government crisis etc. was pushed through by the Communist Party (CPC) via the Trade Unions. Position of the Trade Unions principally changed after February 1948. The Trade Unions were in thrall of the CPC and became a part of the state and the party system supporting the communist regime. Changes that happened in all areas of the entire society also affected the industry. Sovietization and militarization of the national economy could not exclude the industry of building materials. Many companies lost their quality management which was excluded. Financial resources for investments were reduced for the benefit of the heavy and military industry. For example, such a big enterprise as České cementárny a vápenice could not acquire a bulldozer because it did not secure enough currency.[359] It started a period of concealment of most economic and production reports, statistics and production information. Structure of the official documents changed. Data and information are covered by ideological phrases and all the time the fight against

something is called up. For example, defects were not to be removed but they were fighting against them etc. As a result of the change in the mission of the trade union movement, the mission of the works and enterprise councils also changed.

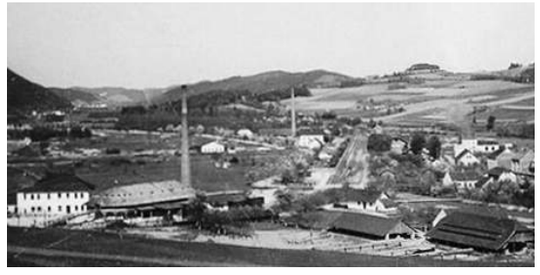
At the March meeting, Oldřich Pešek was elected the chairman of the enterpries council. From this meeting all the operation, production and financial reports of the enterprise and individual works were declared confidential. The secretary of the TUC emphasised the responsibility of the action committee of České cementárny a vápenice to report its resolutions to the relevant Regional Union Council (RUC) and the Central Action Council of the Trade Union of Employees in the building industry at the TUC with a statement which came instead of the excluded employee and which measures were done regarding the undisturbed operation of the works. The responsibility for measures made by the action committee was accepted by the works council and it was emphasised that it was necessary to refuse cases when the works council would blame the action committee for its decisions. This warning was supposed to be directed against the exclusion of two engineers from the Radotín cement plant. According to the exclusion of the engineers, the secretary of the TUC said that the engineers were not excluded because they were specialists but because they were not faithful, and he agreed with an opinon that the named engineers should go through a trial period. Director Vidrman informed the participants that České cementárny a vápenice obtained the following companies into the national administration:

Žichovice lime works

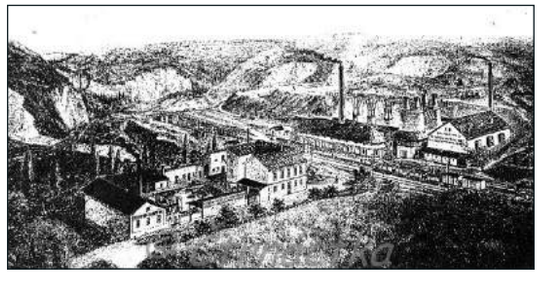
Tomášek lime works – Korno

- J. Tomášek in Karlštejn,
- Bratří Trnkové (Trnka Brothers) in Sušice and in Hydčice,
- K. Klement in Sušice and in Žichovice,
- J. Chvoj in Horažďovice,
- Pragolit – Vrutické cihelny in Prague (brick factory),
- První lovosická cihelna a vápenka in Lovosice (brick factory and lime works),
- Veselý a Ing. Husák in Beroun,
- Biskup, Kvis a Kotrba in Řeporyje,
- J. Maryško in Brodec.

At the end of his speech, the director talked about a declaration of the fight against production losses and utilizaiton of materials and waste.[360]



Sušice Lime Works



Biskup, Kvis and Kotrba Lime Works in Řeporyje

In April, the management of České cementárny a vápenice and the enterprise council negotiated on plans and counter plans[361] of the national enterprise and individual plants. Director Vidrman said that in the scope of the national corporation, the two-year plan (2YP) was to be met for 113% by 28th October. To achieve this result we were going to commission the old equipment which was supposed to serve as backup. A plan of lime production was to be met at 101.5% by 28th October. A plan of limestone extraction was going to be fulfilled with big difficulties. The production of insulation boards did not achieve the required performance to meet the plan for 100 %. At the same time, the director informed that a plan for the Five-Year Plan was already at the stage of its creation. The action trio was supposed to be established to take control over the fulfilment of the plans. The highest enterprise action trio was made by: the chairman of the enterprise council, a directorate deputy and the chairman of the production committee.

One of the serious reasons of non-fulfilment of the plan the enterprise management found in bad work morale, fluctuation and absenteeism. To remove these problems, the action trios were established in plants to affect the workers to improve. But it seemed that ideological phrases such as *today, when we work for ourselves and better future of all of us, it is necessary to perform our duties and be a responsible economist of the national property*,[362] were less effective than the laws of punishing bad work morale as a measure to improve work discipline.[363]

In April 1948, the enterprise got the Isolit Company in Močovice into the national administration.

In June and the following months, personal problems occurred in the enterprise. Election of President Klement Gottwald brought extended amnesty. Because the convicts worked in most works of České cementárny a vápenice, the amnesty affected the workforce. A difficult situation was in works in Loděnice and Svoboda nad Úpou. Harvesting and other agriculture works threatened the operation of the quarries. Most quarrymen were small farmers and they worked on their fields at the time of harvest. It was not so difficult with workers from the region in comparison with workers from Slovakia who left for a few weeks. The director criticized that the action trios, established to deal with the absence, were not established in all works. Another reason of the production plan not being fulfilled was the lack of financial resources for acquiring new equipment or a reconstruction of the old one.

They planned for investments for the five-year plan to be in the amount of 830mil crowns but *today we know that this amount will be significantly reduced* said the director.[364]

Even though four months from the February events had passed, some members of the enterprise council and works council did not notice that the time changed and the task of the enterprise and works councils was different. Therefore, they were reminded by the enterprise management. *The works councils are not supposed to take any measures in the production. They should and can make suggestions but they must not cross the conceptions of chiefs by their opinions. Neither the works council nor a group of the Trade Unions manages the works or take any measures which are managed by the enterprise administration. The works council guards over the management regarding the employees, but it never decides on the production or equipment.*[365]

After this criticism, the enterprise council waded into the participants of the festival parade in Prague on the occasion of the 11th Sokol Congress. The festival parade of Sokol became a protest against the communist hegemony. The participants of the parade cheered President Beneš and other slogans such as "You can't tell us who to love" and others.The enterprise council condemned the behaviour of the participants and asked for a strict punishment of the offenders.

Director Vidrman informed that Antonín Řepa was authorized to manage the Radotín cement plant. He replaced Ing. Josef Jedlička, who was dismissed.

It was stated in the economic report that the Králův Dvůr cement plant and a cement works in Čížkovice were going to be the main cement suppliers for foreign countries and Radotín was to solely supply domestic market. We were manufacturing timber-cement boards only in Pečky. The plant in Havlíčkův Brod was under reconstruction. There was a big interest in boards because they were used in large in the building industry.

At the end of the meeting, the lack of workforce, which was caused by evacuation of the Germans, was discussed as well as accident prevention. The safety referee of the enterprise, safety referees, inspectors and confidents of the works were going to be appointed on 31st July 1948. The corporation management and the corporation council presumed that new officers were going to be able to lower the accident high occurrence.

The chiefs of the Unions approached the enterprise council to establish the works clubs and works schools in corporations. Both institutions were supposed to support the efficiancy of workers and increase the work morale.[366]

In August, the enterprise catalogue of works was approved and then it was sent to the Institute for Work Standards at the TUC and the Ministry of Social Care. The formal approach of the management of all three cement works was criticized because they filled a form in gross and the enterprise council had to examine the cement works.

The director informed the enterprise council about the plan for the year 1949. In 1949, České cementárny a vápenice were expected to manufacture 650,000 tonnes of cement (the plan for Radotín presented 70,000 tonnes), 165,000 tonnes of lime (Loděnice was to produce 19,300 tonnes and Holyně – 10,000 tonnes of lime). There was a plan to extract 69,000 tonnes of limestone (a plan for Loděnice was 4,000 tonnes and for Srbsko 22,000 tonnes of limestone). A plan for the slag bricks production was set for 15 million

pieces and 2,300,000 pieces of red bricks. In 1949, it was supposed to be manufactured 900,000m² of insulation boards 2.5 cm thick. A plan for Pečky counted 600,000 m²).

At the end of the year, socialistic competitions started. They competed for absence dicrease, removing hard work, preparing improvement proposals etc. This competitive storm needed to establish a function of a referee for competition.

At this meeting, an excited discussion regarding the evidence of the time which the members of the Trade Unions and works councils of the continuous operating spend at meetings was being discussed.

To increase technical skills of workers, the directorate in Prague, Králův Dvůr and Čížkovice organized conversion training centres which became boarding centres with the following subjects: principles of the national economy, planned economy, accident prevention, mathematics and geometry, eclectrotechnics, heat engineering, coal and power economics, work in quarries, machinery, grinding practice, chemical technology, fire measures. The corporation management presumed that about 100 persons could be trained.[367]

In 1949, another reorganization of the national enterprise took place. At the April meeting, Director Vidrman informed the participants about the preparation of decentralization of České cementárny a vápenice. The national enterprise České cementárny a vápenice administrated 49 works. Therefore, it was decided to divide the enterprise according to the regions. In the scope of a region, the divided plants were going to create an independent economic unit. The leading enterprise, also called the fundamental enterprise, was going to have the following departments: social-political and personnel, accounting, wages, operational, warehouse department, center administration, purchase department (except for things of common purchase), common technical and operational administration. Development investments, big maintenance, technical design works and common planning of the sector were going to be managed by the center.

In the Prague region, where the important works of České cementárny a vápenice were placed, such as the Králův Dvůr cement plant, Loděnice, Srbsko, Skoupý, Radotín, Řeporyje, Smíchov, Kladno and Pečky, two or three fundamental works were going to be established instead of only one. The reorganization was supposed to finish on 31st December 1949.

At the end, Director Vidrman evaluated the financial management of the national enterprise České cementárny a vápenice for a period of its existence. In the year 1946, the corporation had a loss of 45,681,000 crowns; in 1947 the loss was only 14,156,000 crows. In 1948, the corporation showed a profit of 14,900,000 CSK.

During this period, the social issues were not forgotten. In 1948, the Radotín cement works assumed a sponsorship over the local kindergarten, and in 1949, they built up houses in Slavojova Street in Radotín for their employees.

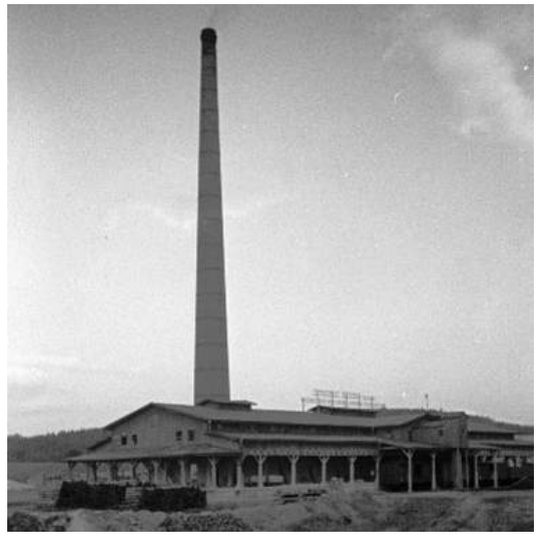
~ PRAGOCEMENT, NATIONAL ENTERPRISE (N. E.), RADOTÍN ~

The National Enterprice Pragocement was established with the decree of the Minister of Industry of 9th July 1949, No. 1106, published in the Official Gazette of the Czechoslovak Republic on 16th July 1949, Series II, No. 164, effective from 1st January 1950, with headquarters in Radotín. The headquarters of Pragocement controlled the cement factory in Radotín and lime works in Řeporyje, Holyně and in Skoupý by Sedlčany[368], Srbsko, Zdice and in Loděnice. Not even two years had passed and the proprietary nature of the former Prastav Company was disbanded, although the national management and works council were trying to keep the company together. The production programme of the new company included the manufacture of cement, lime, lime hydrate, dry mortar and artificial stone, mining of blocks of marble, mosaic pavement blocks and modified limestone for various industrial purposes.

From 1st April 1952, the company was expanded to include lime works in Chýnov and Rakovice by Písek, which were delimited from South Bohemia Brickworks and Limeworks, N. E., in České Budějovice. Another change in the number of works of Pragocement took place on 1st January 1953. Lime works in Rakovice was transferred to the local management and new lime works in Loděnici, Srbsko and Zdice, which were delimited from Královdvorské cementárny, n. p., Králův Dvůr by Beroun were included. From 1954, the Development Centre for Blasting Technology and New Mining Techniques in Prague became part of Pragocement.[369]

The former executive of the enterprise council for Czech Cement and Lime Works, Oldřich Pešek, became the new manager of the enterprise.

The new enterprise was founded during difficult times. After Stalin's disagreement with Yugoslavia the Moscow comrades did not acknowledge any specific paths to socialism and the only acceptable line of building socialism was the Soviet one. The

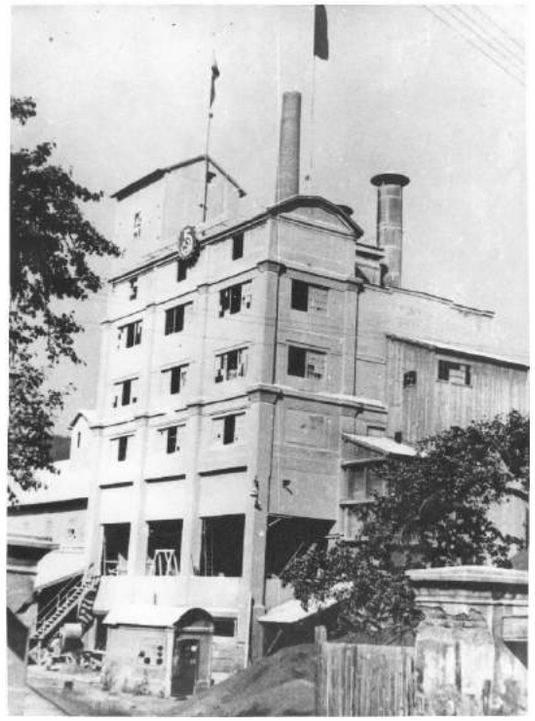


Chýnov Lime Works

Circular lime works in Rakovice

Communist Party dissociated itself from Titoism and nationalism, ie from the Czechoslovak way of building socialism, and it mechanically started to adopt the Soviet practice under the slogan "the Soviet Union is our role model". The relatively developed Czechoslovak economy started to adopt methods and procedures from a different kind of environment. The Soviet economy had developed in isolation from the rest of the world and it was not dependent on imports of raw material, and some sectors lagged behind the world economy.

The level of the Soviet industry is proved by the fact that her foreign trade was very meagre and the main export items were not products but mainly raw material. The adoption of Soviet experience was supervised by a number of Soviet advisors with a great influence, but no sense of responsibility. On the other hand, many failures and set-backs were explained by the intervention of the Soviet advisors, therefore nobody was responsible for them. At the turn of 1948–1949 the Communist Party dropped the idea of coexistence of the state and a cooperative sector with a small-scale private sector and other small businesses as it was proclaiming shortly after February 1948. The Communist Party leadership announced a policy of rapid socialization of agriculture, crafts, retail, services and free-lance occupations. The change in strategy was confirmed at IX. congress of the Communist Party as part of a general line of building socialism in Czechoslovakia.[370] Socialisation of small businesses reflected even on business operations of České cementárny a vápenice (ČCV). On the one hand, national enterprices were separating from ČCV, such as Pragocement, on the other hand they took over the administration of small-scale manufacturers of cement products, bricks, and lime.[371]



The old cement plant, shaft kiln tower

International relations significantly worsened. In November 1949 at the Information Bureau of Communist and Workers Parties meeting in Moscow there was declared that imperialism approached the open war preparation. The war was expected to break out around the year 1953. It was concluded that socialist countries have to intensify their effort for economic independence, step up the pace of industrialisation and pay close attention to militarisation. Tasks for militarisation in individual countries of the Soviet bloc were set at the meeting of J. V. Stalin in January 1951. A number of party and government documents in Czechoslovakia, which summarised the requirements for the armaments industry into the "Project of a Plan for Maximum Arms Production", followed the protocol from the Moscow meeting.

Implementation of the "Project of a Plan for Maximum Arms Production" from March 1951 had far-reaching consequences for the entire national economy and it became a crucial cause of changes in the five-year plan. As a leading industrialised country of the Soviet bloc, Czechoslovakia was charged with exaggerated production tasks to participate in the industrialisation of the economically less developed countries of the Eastern bloc and to advance the arms production to maximum effort.[372] The five-year plan, which originated in 1947–1949 and contained a number of remarkable ideas, proposals and procedures, was virtually abandoned. Its authors were leading communist economists who received their education in the pre-Munich republic and Western Europe. In various subcommittees of the national economic committee of Central Committee of the Czechoslovak Communinst Party-CC CCP), they cooperated with a number of leading university-educated professionals with many years of managerial experience, mostly non-Communist party members. One of them was Professor Ing. Dr. Rudolf Bárta, a former national manager of Prastav.

The five-year plan was modified in the years 1950, 1951, 1953 and 1954. The economic problems, resulting from the exaggeration of real possibilities, complex objective conditions and erroneous decisions, were considered a malicious activity. During the process of the "anti-state conspiratorial centre led by Rudolf Slánský" in November 1952, the indictment stated that the national economy committee of the Central Committee of CCP had been composed of "selected capitalist hostile elements" to "criminally interfere in all sections of the Czechoslovak economy." Most of the victims to this and other processes

The old cement plant in hot commission

The main gate to the old cement plant

were people who shaped the post-war economic policy or held important posts in central economic establishments.[373] Their posts were replaced with new, mostly less professionally competent, but ideologically steadfast comrades.

On the bridge – path to the present shopping centre Berounka

During the five-year plan the toughest centralization of management in the post-war development of the Republic was pushed through and it was not limited to the economic sector only. Not only the Cold War, but also the efforts of the Party and state authorities to consolidate their control over all sectors of society contributed to the centralisation. The business sector lost its previous independence from the supreme bodies of the state. The inter-company management was taken over by Soviet "chozraščot"(planned management). The influence of labor collectives and trade unions weakened. Enterprise and works councils were transferred to the Revolutionary Trade Union (RTU). Since 1953 they were converted to works councils RTU. As already mentioned, the early 50s were marked by preparations for war. A large army, the largest in the history of Czechoslovakia[374], was being built and spies, imperialists and class enemies were starting to be hunted. Industrial works, important for national defence, including cement factories, had appointed security officers, economic and commodity administrators, who supervised the management of fuel, electricity, metals and other raw materials.[375] Keeping the military and industrial secret in companies of ČCV was instructed in a bulletin No. 26/49 of the management of Czechoslovak Ceramic Works.[376] All building works, trade and engineering documents were labelled "Classified". The secrets escalated during a census in 1950. The management of Pragocement received this memorandum on 2nd March. *Based on a ministry decree your security official shall fill in a questionnaire of a register of industry and trade works on the behalf of your national enterprise. The questionnaire must not be handed in to a census official, but it has to be sealed in an envelope and personally handed over to an SNB (National Security Corps) officer or his acting deputies."*[377] While earlier, every company prided itself with the number of products it had made and its modern machinery, in those days this kind of information was considered highly confidential.

Large sums of money headed to the mining industry. It mainly focused on fuels and metals mining. Part of a planned investment into industries producing construction materials was transferred to the heavy and armament industries. Thus there was lack of funding for reconstructions and repairs of production facilities, even though the national economy needed certain quantity of cement, lime and other building materials for the construction of new buildings (factories, mines, hydraulic structures, agricultural buildings and housing estates). It was remarkable that even the construction of highways and expressways, which were prepared very well, considering they were designed and technically engineered during the First Republic and the Protectorate, were stalled for strategic reasons.

The cement works in Radotín was once again the main factory of the new enterprise. It produced Portland cement in two automatic shaft kilns. Limestone was delivered from Lochkov via a narrow gauge railway. Other raw materials were drawn from own quarries in Loděnice and Slivenec. The cement works had enough supply of stone for several decades in its own quarry. The works equipment was partially reconstructed between the years 1947–1949. The plant, with the best effort, managed to produce the planned 70,000 tons of cement.The planned costs of modernization of the works, which would increase the production by 100%, were 12,600,000 CSK. This amount, for well-known reasons, was not available and therefore another solution was being sought. Finally, in 1951, from the former Podolská cementárna a shaft kiln and a Rekord cement mill were transferred to Radotín and new raw material silos were built. Even in later years only small investments, which were enough for necessary maintenance and slight improvement of the equipment, were available.

Thanks to its location near Prague, the majority of cement was shipped by trucks, and therefore new automatic bag filler was built and mechanical loading of cement was readjusted.[378] Within the framework of the socialist competition for removing heavy physical work, declared in 1949, conveyors for unloading materials were installed. The most fundamental removal of heavy manual labour was in 1952, the installation of transport conveyor and pull-out equipment of a trolley from Ostroj Opava for a new limestone hammer crusher.[379] In the same year a hammer crusher with an inclined conveyor for crushing raw materials, a drying drum with a bucket elevator with automatic weight and chain conveyors to limestone bin were put into operation.[380]

So-called white-collar house

Start of the operation of the drying and crushing station was accompanied by complaints of citizens about too much dust. The editor's office of paper Rudé Právo, CC CCP and the District Trade Union Council followed this complaint. The Council assembled a brigade of engineers of a company Janka, n. e. and discussed the issue of dust control. A device consisting of eight separators with a diameter of 450 mm, which could capture 80 % of the dust, was proposed.[381]

In 1951, a modern canteen for employees, which replaced the old one, was built.[382] At the same time a construction of a new chimney, which was supposed to replace the old demolished chimneys, behind the crushing station began.[383] By 1952 a warehouse for lump material was roofed, a building of laboratory was enlarged and an overall adaptation of sanitary facilities for workers took place. There was also a construction of two transport bridges that allowed the transportation of the clinker from kilns to bins at the cement mills and a reconstruction of three raw material silos was completed.[384]

It was the end of the year 1953, the imperialists did not attack, the declined Korean adventure showed the comrades that the ideals of socialism were hard to push through with force and arms and

the Czechoslovak economy showed "a certain disproportion," as the start of a collapse was officially called so there was some reduction in tension and arming. Two annual consolidation plans (1954 and 1955), which restricted investments into heavy and arms industries and shifted them into the consumer industry, agriculture and housing.

Disposal of the material mill in the old cement plant

At the time a debate whether to carry out a major overhaul of the outdated cement works in Radotín or demolish it and build a new one was taking place. Obviously in a situation where any final decision was not being made, large investments into equipment of the cement works were not taking place there was just enough finance to carry out only the minimum maintenance. In May 1953 Pragocement received a state order to deliver 15m³ of blocks of Slivenec red marble to panel the walls of Klement Gottwald's mausoleum. The state order was politically monitored. Enterprise Director Oldřich Pešek commited for *the material to be chipped with great care, to be of good quality and desired colour*. Because Pragocement did not own any lifting equipment, the army direction loaned a 30 common metres BB bridge structure, a gantry crane, and soldiers volunteers for free so blocks could be extracted in the prescribed dimensions and limits. Costs of the blocks amounted to 44,381.43 CSK in the new currency.[385] Since 1955 Pragocement supplied a Prague municipal corporation with sidewalk mosaic from Slivenec marble. In the quarry Hvízdalka, on 15th May 1954, the first bench blasting took place.

Demolition of the old cement plant

In 1954 new dedusting equipment was put into operation and a chimney, whose construction began in 1951, was opened. For technical reasons, from January to early September 1956, the production of cement was stopped and the works was only producing ground lime and limestone for fertilizing.

In the following year 1957, a raw material mill was changed and in 1960 there was a company health centre set up in the cement works. In 1958, there were some organizational changes in the enterprise. The quarry in Slivenec was delimited to Povltavský Stone Industry, the Development Centre for Blasting Technology and New Mining Techniques in Prague was seperated from Pragocement. After many reminders, in 1959, a new mill "Unidan" was built in Radotín and the old mill "Rekord" was dismantled. The hauilng of stone from the quarry via the narrow gauge railway was cancelled and replaced with car transportation.

On 2nd December 1959, Oldřich Pešek, the Director of Pragocement died. Until the appointment of a new director the business was run by Economy Deputy Václav Černý. The position of a new director was assumed on 2nd June 1960, by Jaroslav Havel.

In the early sixties, the cement plant equipment was in a bad shape, it did not provide proper and safe operation and therefore the production in the Radotin cement works was terminated in August 1963. It was interesting that in the last two years, 1961 and 1962, it had produced the most cement ever. In 1961 it was 154,600 tons [386] and just before the closing in 1962, it produced 160,000 tons of cement.[387] In the last year of operation it produced 7,310 tones of cement, 41,000 tones of ground limestone and 3,290 tones of hydraulic binder.

The disposal of machinery and other equipment was assigned to a group of workers led by architect Vlastimil Čečelín. The demolition of the cement works was carried out on the basis of the permission of Místní národní výbor MNV (Local National Council LNC) in Radotín čj.723/1965.The demolition project was developed in 1964 by a company Keramoprojekt Trenčín. The planned demolition costs were 3,330,300 CSK.[388] It was carried out by Vojenské stavby v Praze (Military Construction in Prague). The demolition was taking place from November to 31st December 1966. Only a former office building, a part of locksmith's workshop, a former carpenter workshop and houses at the gatehouse was all that was left from the old cement works. The office building was to be used again as a cultural house after the reconstruction. In the end even these buildings were demolished by the year 1969.

Frequent delimitation of branch factories in the fifties reflected in a lack of investments into the construction of new facilities and upgrading of operations. The major investment project was only a construction of bunkers for finishing the slacking of hydrate in Loděnice and in 1953 it was a reconstruction of a cableway from the lime quarry to the lime works.[389] During 1959, crushing and sorting stations in Chýnov and a new mill in Řeporyje were built. Using the old circular kilns in Zdice proved to be uneconomic.[390] From 1954 to 1960 in a company in Zdice, outside the manufacturing programme, colemanit was being grinded at the Lösche mill[391] for Kovochema Uhříněves.[392] Every year the mill ground around 4,000 tons of this mineral.[393]

At the end of the fifties, the company Pragocement became interested in trademarks for their products. Some trademarks came from the time of the company Prastav, for example, the trademark for the sort of cement "Atlas." Validity of some of the trademarks expired and it had not been renewed again. In 1959, the company management turned to the Headquarters of Patents and Trademarks with the Czechoslovak Chamber of Commerce to register a trademark No. 102743 "Karlit" for a product of the Lime works in Srbsko. Pragocement justified the transfer of the registration by the fact that in 1953 the lime works in Srbsko was transferred to the administration of Pragocement. Similarly, in 1961 the management asked to transfer a trademark No. 116556 "Chemikan" from Hranické cementárny a vápenice, n. p., (Hranice Cement and Lime Works, n. e. Hranice) to Pragocement, n. p. The trademark was carried by hydrate for special purposes, which was produced by a lime works in Loděnice.[394]

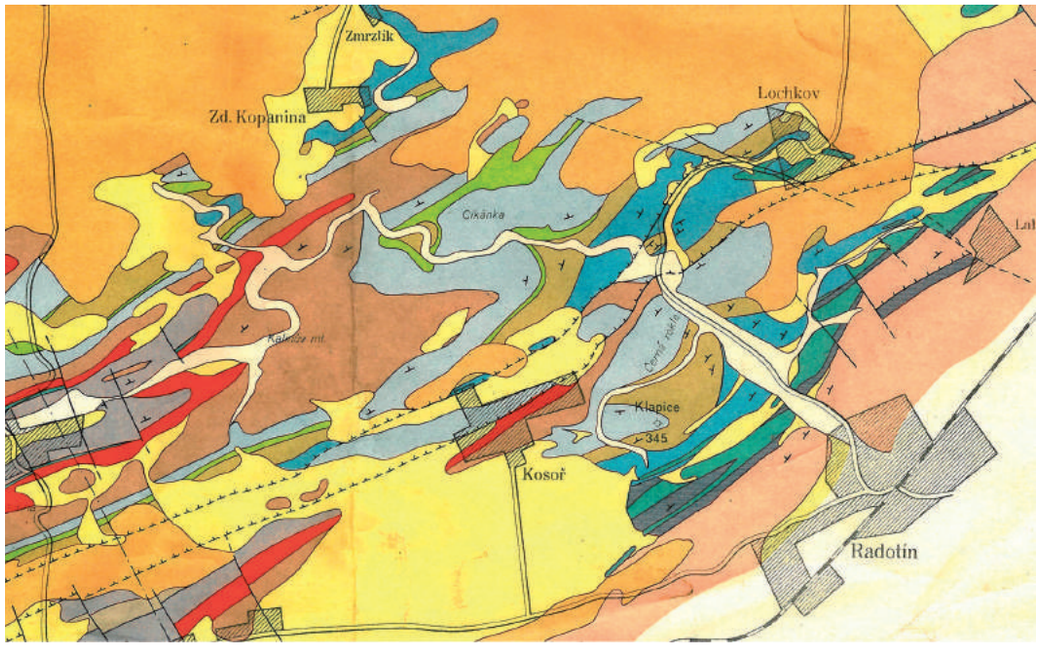
In 1953, the company Pragocement built a resort for their employees in Kokonín by Jablonce nad Nisou and a recreation centre for the youth (pioneer camp) in Srní in Šumava. In 1960, the company established a health care centre in Radotín.

At the end of the fifties, another restructuring of the industrial sector took place. Central administration was abolished and so called mid-management, production and economic units were established (PEU), comprising mainly of, according to the sectoral principle, a number of companies. On 1st January 1960, a new **Production Economic Unit of CEment and LImeworks (PEU CELI)** was established. For the Czech lands there was CPU CELI Radotín[395] and from the year 1970 CPU CELI Praha. For Slovakia there was CPU CELI Trenčín. CPU CELI was the main producer of cement, lime, limestone and asbestos-cement products, gypsum plaster and products, dry mortar and lightweight building boards.[396] The number of national enterprises in CPU CELI Radotín (Praha) fluctuated. In 1960, there were 12 enterprises, in 1969 there were 14, and in 1979 the number dropped to eight. From 1st January 1980, a concern organization was introduced. Existing national enterprises and directorate-generals were closed down and the CELI Concern was established. It consisted of the directorate-general, five group of companies (GC), a research institute and an organization for capital construction.[397] The cement works in Lochkov was included in the GC of CELI Praha. This situation lasted until 1989.

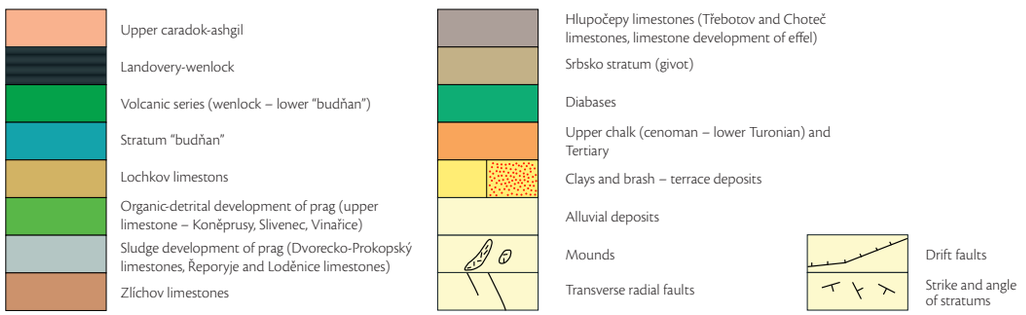
GEOLOGICAL SURVEY

In the connection with the future of the cement plant, in the years 1953 and 1957 a deposit survey was commissioned. The exact assignment was: *Detailed Examination of stratigraphy and tectonics in the vicinity of the today limestone quarry Hvížďalka and in the foreground of this quarry to determine chemical composition and technological properties of limestone*. Drilling and tunneling works were carried out over the quarry. The survey was carried out by Zeměvrtný průzkum a sondy, n. p., Praha. The result of the geological survey was summarized in the following report: *The lowest stratigraphic series of the beds concerned are Lochov limestone, belonging to the most upper Silurian. It contains a large number of cherty nodules. For cement purposes it is useless and it presents a sill and limits of mining possibilities. In its upper wall there is black Kosoř laminated limestone, belonging to the lowermost Devonian. It has a rather high content of SiO_2 and a higher MgO content, so it cannot be regarded as suitable cement raw material. It is processable in case of emergency and in small quantity. They are 3–4m thick. In the upper wall there were deposits of marble and high percentage Slivenec and Řeporyje limestones. They contain 80–90 % of $CaCO_3$, dolomitized in some places; thickness is variable because it is a reef kind of development and varies from 0 to 15m. The top wall is from Dvorecký limestone, which has the nature of calcareous marl containing about 68–72 % of $CaCO_3$. They are composed of limestone nodules of the size of 3–10 cm in diameter in average with cavity material between these nodules that are made of plastic marl with lower content of $CaCO_3$. The thickness is about 30m (based on surface exposure). Above them there is Prokopský limestone. It is a heavy-bedded limestone with the thickness of layers of 20–40 m. It is a higher limestone with average content of 83 % of $CaCO_3$. It is a ten´s of metres thick.*[398] At the same time there was a survey of the deposit in a location Damil, cadastral of Tetín. Works on Damil were carried out by Nerudný průzkum, n. p., Brno, středisko Praha (Prague central). In 1955, a location behind the Kalinový mlýn and the foreground

of the quarry Cikánka II., i.e. behind the restaurant Cikánka, were checked. The Economic Plan for 1954 released the amount of 137, 538. 50 CSK for the deposit surveys, and for the year 1955, it was 194, 513. 60 CSK.[399]



Geological map of the broader surroundings



CONSTRUCTION OF THE NEW CEMENT WORKS IN RADOTÍN

Increased demand for cement for the national economy led to the decision to build a new cement plant. There were several reasons to build a new plant in Radotín Valley. First, it was a proven resource base[400] with an easy connection to the rail network and in close proximity from the capital, whose buildings were to be the main consumer of the produced cement.

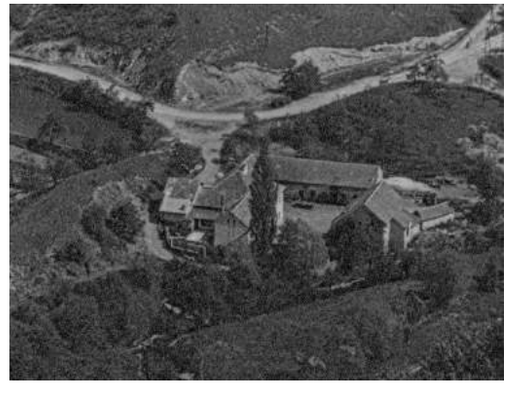
Space for a new cement plant

In 1957 an investment task for the construction of the new works was drafted. N. E. Pragocement was the investor. One year later, the Czechoslovak government permitted the construction of the new works with a provisionary title Cementárna Lochkov, which was to have annual capacity of 452,000 tons of alite and 610,000 tons of cement. This construction was carried out as a government task, and so it was supported by all higher authorities. The cement production technology in the new works was approved, ie dry production with cyclone heat exchangers. The construction project was developed by Keramoprojekt, n. p., Praha, the construction itself was provided by Konstruktiva, n. p., Praha and the general contractor of the technology was Přerovské strojírny, n. p., Přerov. The main machine-process equipment was supplied by a company Klöckner-Humboldt-Deutz. The investor, designer and project provider were concluding such contracts from the beginning unitl the completion of the construction that the market economy is not aware of. They presented individual and associated socialist commitments for compliance and delays during the construction. The deadline of the construction of the new works was in two and a half years. The project was divided into three parts: Construction I.– siding, which began in October 1958, Construction II.– quarry management, which began in November 1958, and finally Construction III.– construction of the works itslef, which began in February 1959. First problems had arisen in front of the designers of the new plant in the form of adjusting the terrain, where the building was being constructed. On the site there was a confluence of Radotínský and Lochkovský Creeks. Both creeks needed to be redirected into new river beds. Near the bed of the Radotínský Creek there were places with silt, in terms of structural geology it is difficult liquid sand up to about 15 metres deep. In some places, however, the bedrock was

Radotín stream leaving the plant premises

very strong. Behind the building of Výzkumný ústavu maltovin (Research Institute of Mortars) there was some kind of rocky headland. It was an original outpost of a rock that resister the strength of erosion of the Radotínský Creek. The exposed rock by the today's building of car repair shop is not a former quarry, but an exposed downwash washed out by Radotínský creek. Today's riverbed is new, blasted out with great effort in a ness.[401]

Simultaneously with the construction of the plant a housing estate in Radotín was being built. This construction was carried out by n. p. Konstruktiva Praha. Block A was completed in 1959. During the years 1959–1966 blocks B-G were built and the last block to be built was block H as a cooperative one in 1967. At the same time at the housing estate a network of business was built: a grocery shop, restaurant, drugstore and stationary and later on there was also a hairdresser saloon and finally in 1967, a kindergarten and a day care centre were built.



Mašek's Mill

During the plant construction, shortages in the supply of raw material, such as reinforcing steel, appeared, as well as deficit in coordinating the deliveries of individual parts of machinery. Basic data on the construction of the new works is provided in the works chronicle: *The construction of the Lochkov works dates to 8th October 1958. That day ground work for the railway siding from Radotín started and work crews started to demolish the old estate, the former Mašek's mill. The most modern cement works began to grow on the area of 38 hectares. The works has the highest degree of mechanisation and automation, from drilling machines to a mechanical cement bags loader. Individual technological workplaces are equipped with powerful machinery and equipment. Massive rotary kilns are heated with heavy oil. The general supplier of construction works was n. p. Konstruktiva, the general supplier of technology was Přerovské strojírny Přerov, n. p., and another 24 companies participared. A total of 630,000 cubic metres of dirt was moved on the site and 142,000 cubic metres of concrete was deposited, 18 hectares of formwork and 3,775 tons of reinforcing steel were used up. The overall cost of the construction of the Lochov works, including the housing estate with 260 flats, was 287 million CSK. 30th June 1961, a rotary kiln No. 1 was ceremonially ignited with the participation of major political and public figures. Kiln No. 2 was ignited on 15th August 1961.*[402] The construction of the cement plant could not escape the political folklore of the time. It was called "The Construction of the Youth" and to raise the working morale a number of working collectives were bestowed the title of "socialist labour brigade" and individuals were given medals "for success at work", "Fučík's Badge", a "badge of honour ČSM"(Czechoslovak Union of Youth) and certificates of Regional and District Committee ČSM.

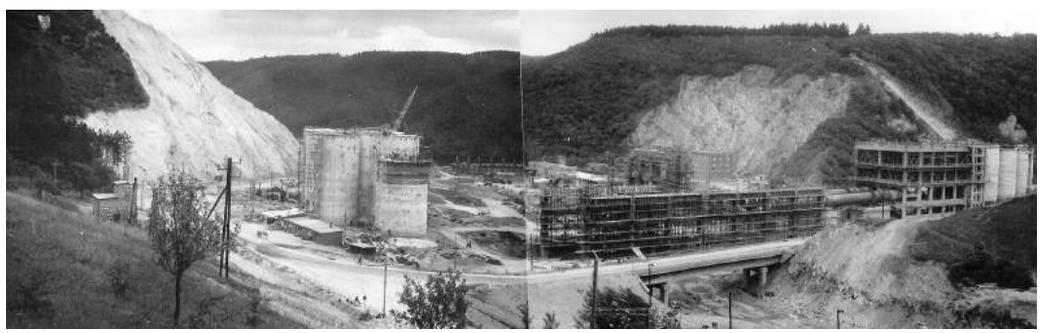
A trial operation of the new works was initiated by putting a first kiln into operation on 30th June1961 and as of 1st November the operation was planned to be permanent. During the trial period significant deficiencies showed, so the new works could not be put into permanent operation before

the end of the year. Therefore the original cement production plan was lowered by 112,000 tons, ie from 186,000 tons to 74,000 tons of cement.[403] The cement works was not put into operation even in 1962. Major deficiencies and defects were related to the lack of co-ordination of domestic and imported equipment causing frequent failures of the operation. It concerned the grate coolers, elevators, OKV weighing feeders, supply of raw material into exchangers, axial fans, etc. There were also flaws in work management, power failures plus the cement production requirements were not met.[404]

During the year a director of the company was replaced. On 15th June 1962, Jaroslav Havel was dismissed and his position was taken over by Jan Kryhut.

Construction of the new cement plant – material silos

Cobstruction of the new cement plant – sanitary facilities, workshops and the AB building in the front

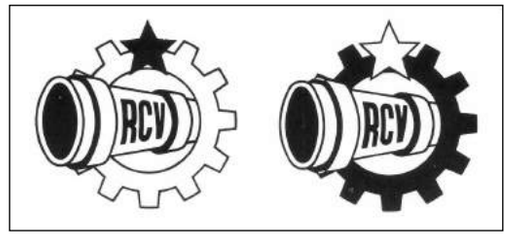


Overview of the cement plant construction

Government Resolution No. 1109/62 set a new date for putting the plant into permanent operation on 30th June 1963. Problems in the production, however, postponed the date of a permanent operation until 31st December 1963 with the decision of the General Manager of the departmental office of Cementárny a vápenky from 4th September1963.[405]

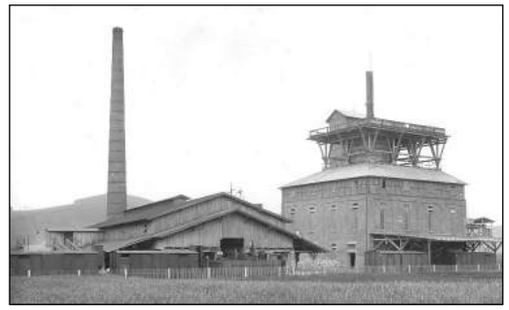
RADOTÍNSKÉ CEMENTÁRNY A VÁPENICE, N. P., (RCV) RADOTÍN - (RADOTÍN CEMENT AND LIMEWORKS, N. E., RADOTÍN (RCL)

To celebrate the new cement works in Lochkov, a new company Radotín Cement and Limeworks, n. e., (RCL) Radotín was established on 1st January 1961. The new company consisted of the main works in Lochkov and branch operations in Radotín, Řepy, Řeporyje, Loděnice, Zdiby and Srbsko. At the same time, the works in Chýnov was delimited into Jihočeské stavební hmoty, n. p., Veselí nad Lužnicí. (South Bohemia Building Materials n.e.) The cement production was concentrated into Lochkov and Radotín, other branch operations became lime operations, where, apart from lime, other lime products, such as saturation and ground limestone, construction and industrial gravel, terrazzo grit and synthetic dry mortar were made.



Alternatives of the emblem of RCV from A. Čech

On 17th December 1960, an inter-company competition for a new company emblem was announced. It was evaluated on 2nd February 1961. Author of the winning logo was Antonín Čech.[406]



Zdice Lime Works

In 1963 the RCV company was extended with a lime plant in Jinonice, which was delimited by the Minister of Construction on 28th June 1963 from Pražské stavební závody (Prague Construction Factory), závod Stavební hmoty (factory for Building Material). In 1964, the works in Zdice was detached and assigned to Královdvorská cementárna, n. p., Králův Dvůr u Berouna. From 1st January 1967, RCL took over from Prachovické cementárny a vápenice, n. p., Prachovice (Prachovice Cement and Limeworks n.e.) their branch operation in Kunčice nad Labem, including a limestone griding plant in Vrchlabí. In two years, the works in Kunčice was delimited to a newly arising national company Krkonošské vápenky, Kunčice nad Labem (Limeworks Krkonoše). At the end of October 1968, the operation in the limeworks in Řeporyje and Jinonice was terminated. Part of the works in Řeporyje was passed on to Komunální služby Řeporyje (Municipal Services), effective of 1st Ocotber

1969. The rest of both works were demolished. The quarry in Prokop's Valley, which supplied the limeworks in Jinonice, was also reclaimed.[407]

In 1969, operations of works were not only being cancelled but also reconstructed. In Skoupý, in July of the same year, a construction of a limestone grinding mill was initiated and in April a construction of a new plant for the production of dry mortar mixtures started in Srbsko.

Senior citizens in a holiday resort in Nový Dvůr

The company management also influenced the increase in wholesale prices of products in 1969 by 12.11 %. Significant portion of the profit was assigned to support the development of the industry and it was concentrated in the industry fund of the investment construction.[408]

To provide employees with a holiday place, RCL established a new holiday establishment in Nový Dvůr in Šumava.

CONSTRUCTION OF NEW LIMEWORKS IN LODĚNICE

The management of Radotínské cementárny a vápenky, n. p., had troubles with another new construction too. The document on maximum capacity of increasing the production of building materials approved by the ÚV KSČ bureau, included the construction of limeworks in Loděnice, whose planned capacity was 100,000 tons of lime and the initiation of its operation was set to the year 1964.[409] With the official letter form the Ministry of Construction from 18th July 1958, the investor Pragocement, n. p., was asked to compile and present an investment task by 1st April 1959. The first investment task was not accepted because it *did not include a reserves classification committee's assessment certifying sufficient supplies of limestone of satisfactory composition and physical properties*. A new investment task, presented on 15th October 1959, was accepted by the Ministry of Construction and the construction itself was included in the five year plan for the years 1961–1965. The new plant was to replace the old operation in Srbsko. The project order was provided by Keramoprojekt Trenčín, n. p. The planned limeworks were expected to produce annually 100,600 tons of lime products (90,000 tons of burnt lime, 27,000 tons of lump lime, 30,000 tons of ground lime, 40,000 tons of hydrated lime for dispatch and 3,600 tons of lime hydrate for artificial plasters), 30,000 tons of plasters and 40,000 tons of ground limestone for agriculture. The expected investment expenses were 55mil CSK. On 7th April 1961, the project was approved by the Minister of Construction and the construction of the plant began on 1st November 1961 in the area by Holý Vrch (east of Loděnice). However, the construction did not go on for long. It was stopped on the basis of the Government Resolution No. 502 from 11th June 1962 on the *necessity to lower the investment construction in the following years in comparison to the existing prerequisites*. The overall value of the already carried out construction works of the plant was 4,668,000 CSK. The total expenses amounted to 8,270,850 CSK, including the project planning and other investments

and equipment at the building site.[410] On 19th September 1963, the State Planning Committee informed the investor *that the construction of limeworks in Loděnice was stopped, among other reasons, for insufficient geological survey of raw material base, and the technology of the lime burning in this works has not been specified yet*. Based on the norms of the main arbitrator of ČSSR of 25th February 1963, the direct investor, ie Radotínské cementárny a vápenice, n. p., Radotín was forced to take over the equipment of the building site from the general supplier of the construction works and pay for it. This equipment was leased to Gramofonové závody Supraphon, n. p., Loděnice (Record Player Company Supraphon), with a notice period of one year for an in6definite period.[411] Today, there is an industrial area with a number of business activities.

Loděnice Lime works

NEW CEMENT WORKS IN RADOTÍN

In 1964, the new cement works were switched to permanent operation. The break-down rate of the machinery was lowered; idle time was decreased and therefore the utilization of funds of working hours was also reduced. During the entire first decade, the works was lacking proper work force and suffering from frequent staff fluctuation. The cement production plan was exceeded by 8,380 tons, ie by 1.4 %, and the clinker production by 2,404 tons, ie. 0.5 %.[412] In the following year of 1965, the production was significantly influenced by the crash of an clinker cooler and a gear box of the cement mill in June of that year. Frequent breakdowns proved that clinker grate coolers, supplied by an engineering plant from Přerov were not capable of cooling such an amount of clinker which would comply with the performance capacity of the rotary kilns, properly. It was connected with a high breakdown rate of drives and grate bars. Therefore it was decided to exchange the current coolers for bigger ones from a company CPAG from Hamburg. The following year, 4 mil. CSK was invested into the operation equipment. In 1967, the investment into the works equipment soared up to 15,683,000 CSK. Grate coolers of the clinker were changed for new

Rotary kiln

ones with the performance of 1,000 tons/24 hours from the company CPAG from Hamburg. To ensure the increase in performance of the homogenizing equipment, three pieces of vertical air transport of ground material, the airlift type, including the sources of necessary pressurised air were installed. New weighted feeder of material into exchangers of the rotary kilns, the Schenck type, increased the performance up to 60 tons per hour. Also, new burners of the Unitherm Company from Vienna were installed in the rotary kilns. The last project was the replacement of the weighted feeders in the CM complex for the AVD 15 and AVD 70 types for smooth feeding of individual components into the cement mills.[413]

In 1968, for the first time since the initiation of production, the set annual performance rate of clinker production was exceeded by 37,000 tons and the cement production was exceeded by 51,450 tons. Favourable conditions as far as the production was concerned, were complicated by the mining area. Limestone deposits had very inconsistent figures of the content of $CaCO_3$. For the lack of corrective limestone with a higher content of $CaCO_3$, in November 1968, the stone mining in the western part of the Kosoř quarry was discontinued. Problems with a hammer crusher arose, the hammers were of poor quality and the break down rate was very high, which showed when crushing a harder type of limestone. The main product of the plant was in 1969 prime quality cement ŽPC 350. The production, however, was influenced by a number of breakdowns in the first half-year and difficulties presented by an unfavourable silicate module of the Hvížďalka location, which could not be balanced neither by regulating the pyrite cinder nor by pneumatic homogenization. The pyrite cinder itself was influenced by bad quality of lining and little experience with new technology of clinker burning with the help of burners of a company Unitherm. Towards the end of 1969, the reconstruction of a boiler room took place. The operation did not avoid a number of accidents during the year 1970. The raw material mill no.1 and the cemrnt mill no.1 suffered serious damage and the head of the cement mill ruptured. Also the lining quality issues persisted. Despite all these issues the cement works met the production plan of that year. The following two decades were quite good to the cement works; there were no major breakdowns or production problems. In the scope of industry, results of the cement works were consistently above the average.

The amount of planned clinker and produced clinker in the first decade of the new cement works in tons.[414]

Year	Plan	Production	Year	Plan	Production
1961	62,220	25,397	1966	446,000	446,550
1962	346,540	257,200	1967	373,720	382,150
1963	433,240	439,324	1968	475,000	489,000
1964	442,000	444,407	1969	440,000	429,680
1965	450,000	439,245	1970	470,000	470,010

The amount of planned and produced cement in the first decade of the new cement works in tons.

Year	Plan	Production	Year	Plan	Production
1961	74,000	30,870	1966	610,000	622,200
1962	518,000	380,800	1967	520,000	538,750
1963	546,500	563,717	1968	650,000	661,450
1964	583,300	591,380	1969	630,000	613,696
1965	610,000	594,550	1970	655,000	657,600

Profit and loss in the first decade of the management of the new cement works in korunas.[415]

Year	Profit	Loss	Year	Profit	Loss
1961		3,511,000	1966	26,041,000	
1962		4,173,000	1967	6,374,000	
1963	1,621,000		1968	24,243,000	
1964		9,980,000	1969	32,406,000	
1965	14,761,000		1970	53,178,000	

PROBLEMS WITH EMISSIONS

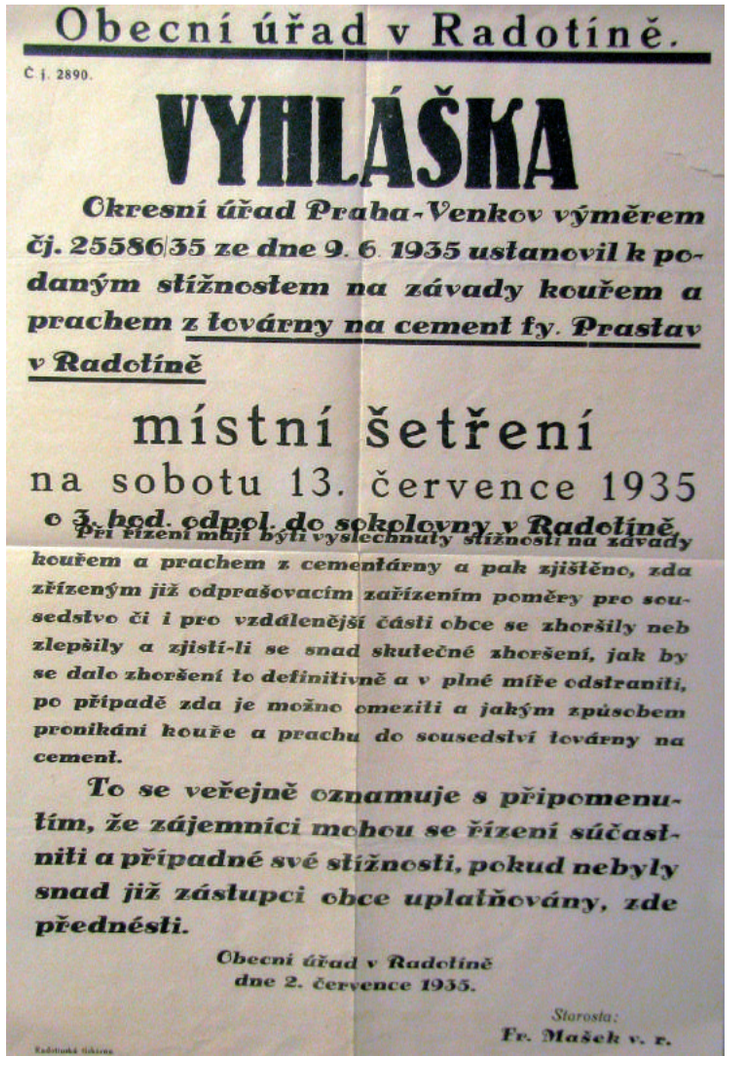
In 1961, Jednotné zemědělské družstvo in Radotín (JZD) (Integrated Agriculture Cooperative IAC) sued the Cement and Limeworks in Radotín for blinding the glass of a greenhouse with dust from the Cement works and therefore decreasing the value of the cooperative products. The cooperative quantified the amount of damage to 14,982 CSK.[416] First the works management did not take any notice of this complaint as indeed it was customary of the time. The complaint of 17th October 1961, where the cooperative is describing the damage to the cultivated plants with the dust from the cement works, had writing on it: "Who will pay for the limestone fertilizing." It was a hint regarding the ground limestone, which the works supplies the cooperative with for fertilizing, therefore the dust should be paid for.

The IAC planned the beginning of the dispute for the time when government agencies started to pay attention to pollution and damage to the property of agriculture and forestry caused by emission. The state intervention against pollution was not provoked by the cement works, but by power plants, which were the biggest source of pollution.

After 1948, rapid industrial development was not accompanied by adequate protection of air against pollutants from new works. Therefore, at the end of the fifties, the government began to impose tasks on ministries to mitigate adverse impacts on the environment. On the basis of the Government Resolution of 1960, departments and enterprises were to be equipped with a new current capacity device, which was supposed to restrict the escape of emissions into the atmosphere. For not fulfilling the listed duties, *penalties* of thousands up to a million CSK per year were introduced, depending on the degree of health hazard and damage to agricultural products.[417] The Government Resolution No. 494 of 3rd June 1960 was complemented with directives of the Ministry of Health and Ministry of Agriculture, Forestry and Water Management of 25th June 1960 "The maximum accepted concentration of pollutants in the air." These directives, among others, fixed the maximum permissible fall-out of dust containing SiO_2 up to 20 % (flue dust of lime kilns) for 150 tons/ km^2 per year.

Initial lax attitude of the Radotín cement and limeworks towards the complaint of the IAC was probably related to the fact that the polluter of that time was the old plant, which was about to be demolished. However, the penalties for damaging agriculture with emissions, which were under the threat of the mentioned government resolution, forced the management of the works to take the requirements of the IAC more seriously. The management of RCV turned to the National Industry Association for Companies Producing Cement and Asbestos Cement (NIACPCAC) in Radotín asking how to proceed. NIACPCA questioned the presented report, which was developed for the IAC Radotín by the Central Office of Control and Testing in Agriculture in Prague and it proved that the amount of dust polluters was not even as high as it is in Prague, London, Leningrad or New York. The Cement works management soothed the situation saying: *According to our information, claims for damages caused by dust emissions of the cement works to the agriculture or forestry have not been successful and they are not to be satisfied because, among other reasons, level of these emissions has not been proven to be of such extent as reported in the claim*. It also recommended for RCL to turn to other cement works that had had to deal with a similar problem.[418]

The cement works in Králův Dvůr answered on 27th November 1961, that in 1960, IAC in Jarov, Popovice and Zahořany filed for compensation, but on the basis of a decision of MRD Beroun proceedings were not pursued. Slezské cementárny a sádrovcové doly (Silesian Cement Plant and Gypseous Quarry) in Ostrava announced that even though they were facing an action filed by the IAC in Štitína, the local beekeepers association and MNS, nobody was able to determine the percentage of perniciousness and therefore the lawsuit was not going to proceed. They also sent the Silesian cement works a copy of an article in Staub magazine of the year 1961, issue 6. The magazine published results of a research on the effects of cement kiln dust on soil and plants, which was conducted in the years 1958–1959 by Agrochemical and Soil Science Institute of a university in Göttingen in the BRD.



Obecní úřad v Radotíně.

Č. j. 2890.

VYHLÁŠKA

Okresní úřad Praha-Venkov výměrem čj. 25586/35 ze dne 9. 6. 1935 ustanovil k podaným stížnostem na závady kouřem a prachem z továrny na cement fy. Prastav v Radotíně

místní šetření

na sobotu 13. července 1935

o 3. hod. odpol. do sokolovny v Radotíně.

Při řízení mají býti vyslechnuty stížnosti na závady kouřem a prachem z cementárny a pak zjištěno, zda zřízeným již odprašovacím zařízením poměry pro sousedstvo či i pro vzdálenější části obce se zhoršily neb zlepšily a zjistí-li se snad skutečné zhoršení, jak by se dalo zhoršení to definitivně a v plné míře odstraniti, po případě zda je možno omeziti a jakým způsobem pronikání kouře a prachu do sousedství továrny na cement.

To se veřejně oznamuje s připomenutím, že zájemníci mohou se řízení súčastniti a případné své stížnosti, pokud nebyly snad již zástupci obce uplatňovány, zde přednésti.

Obecní úřad v Radotíně
dne 2. července 1935.

Starosta:
Fr. Mašek v. r.

Problems with emissions appeared during different periods

Perhaps the sum of 779,007 CSK, which IAC Radotín quantified as the total damage sum for the year 1961, forced the management of RCL, on 8th January 1962, to turn to NIACPCA for help again with a request *because this matter concerns the whole industry, it should be dealt with by the Czechoslovak Academy of Agriculture Sciences in Prague in an effective scientific manner*. They further noted that *this matter considering all enterprises producing cement should be essentially solved*. At the joint meeting of the representatives of RCV, n. p., District Hygienic and Epidemiologic Station in Prague-West, Institute of Ventilation Research, NIACPCA Radotín and District Committee for Healthy and Natural Environment, held on 4th April 1962 in Radotín, the company management committed to the reconstruction of the mechanical grid and automatic fuel feeder, sealing all places in order to prevent false air-intake, reconstruction of the existing pipes and fans to the correct amount of burnt gas, building mechanical equipment for extraction of the dust from a fume duct and also mechanization, dust removal and modification of a dust collector of the old cement works. An investment task for these modifications was developed and the money for the project implementation in the amount of 480,000 CSK was mobilized by the Ministry of Construction. The dead line for the new dedusting equipment to be put in to commission was set to 1st July 1963. At the same time the cement works management ordered the operation maintenance crew to remove all dusty places in the the Radotín works by the end of June (welding of leaking pipes, replacement of deformed lids, etc.).

On 29th May, the Ministry of Justice sent all the major air polluters, including the Radotín cement works, a proposal of a government decree on compensations of damage caused by emissions. The works management had only one comment to make: *It would be useful to place a duty to socialist agricultural and forestry companies to consider the emissions when planning production and delivery tasks to take into consideration negative effects of emissions so that possible speculative planning of high production and delivery tasks of such crop that does not cope well with the pollution conditions and not crops that are adopted to such conditions could be avoided.*[419]

In July 1962, new cement works in Radotín was put into trial operation and immediately got involved in polluting the environment. On 6th Septmeber 1962, the Regional Hygienic-epidemiology Service of Prague ordered the general designer of the new cement works, Keramoprojekt to cover the side and front walls of the clinker storage of the new works to reduce dustiness. The letter of 19th September caused IAC Radotín to be concerned that waiting for an expert opinion might cause them to lose claim to damage compensation from the year 1961. On the basis of IAC Radotín urgency the cement works, on 23rd October 1961, turned to the Agricultural University in Nitra, which was discussing the questions concerning the effect of dust from cement works on agriculture crops. Silesian Cement and Gypsum Quarries in Ostrava sent a copy of expert opinions of Ing. dr. Vladimír Zach from Central Control and Testing Institute of Agriculture in Brno and academic Bohuslav Mařena. Both expert opinions, however, concerned only the influence of gypsum dust on agriculture. In January, Silesian Cement and Gypsum Quarries notified the management of Radotín cement and limeworks about the decision made by the Supreme Court of ČSSR No. 63/62, which was directly related to dustiness of cement works. Department of General Chemistry of the Faculty of Agronomy of the University of Agriculture in Nitra in 1963 sent a report, which admitted the perniciousness of cement dust on works. Furthermore, in order for the experts

from the university to take a critical position on the issue, the university management advised to carry out practical measuring of the dust fall-out during a vegetation period and re-examine the conditions of agricultural crops in different phases of their development.

The management of Radotín Cement and Limeworks, n. e. had to deal with the issue of air pollution also in the village of Týnčany. Local LNC, on 17th April 1963, lodged a complaint about emissions of a works in Skoupý. On the basis of binding instructions issued by the District Hygienic and Epidemiologic Station in Příbram of 6th May "a filter and other necessary equipment" were implemented.[420]

Another phase of the dispute with IAC Radotín was provoked by a meeting of representatives of RCL, n. e., IAC Radotín, District Court Prague-West, District Hygienic and Epidemiologic Station in Prague-West, LNC in Radotín, the University of Agriculture in Nitra, NIACPCA and Agricultural Production Management MRD Prague-West. At the meeting it was decided that there were going to be carried out precise measurements and on the basis of the results an assessment was going to be developed. The measurements and assessment will be carried out by the University of Agriculture – Department of General Chemistry of the Faculty of Agronomy in Nitra. Due to the inhibition of production since the beginning of the year 1963, and the operation in the old Radotín works was terminated, the issues with dustiness concenred the new Radotín works. New measurements were based on a directive of the chief health officer of CSSR of 14th March 1963, which set the maximum acceptable flue dust of cement kilns.

A trial operation of a cement works in Lochkov made the works management to negotiate about the application of compensation of damage caused by emissions this time on the land of National Farm Zbraslav. The area of dust affected land was 260 ha. On 27th July 1963, NIACPCA wrote a letter regarding the increasing number of requests of agricultural companies for compensation for emissions from RCL, n. e., se IACPCA. The company management was, according to NIACPCA, to refuse all compensation requests for the following reasons: 1) *If the project complies with the proposed values of pulverulence, it is on the contrary the agricultural and forestry companies who have to adjust their crop plans and planting.* 2) *First, an agricultural company has to prove production was lower not due to failed economic activity but due to the cement plant.* 3) *It must be established that the dust is actually from cement works and the surrounding. That implies that a chemical analysis of the dust would have to carried out, its fractional curve would have to be determined and actual amount of dust originating in the plant would be evaluated. The management of RCL, n. e., answered that requirements would be discussed in court.* An expert, who was suggested by the court to the management was an employee of Research Institute of Crop Production of Czechoslovak Academy of Science and with his personal research he found out that *emissions from the cement works do not have a negative influence on agricultural crops*. For the hearing, the management provided a translation of an article from the magazine Zement-Kalk-Gibs, issue 3 of March 1961. The article discusses the effect of dust from cement kilns on plants and animals. A copy of the article was sent by the management to Silesian cement works and gypsum mines. In return they sent a copy of an article from Rovnost, published on 1st September 1963, which describes cement dust increasing profits of potatoes in Voskresensk in SSSR. Hearing, which took place on 21st 1963, did not put the dispute to the rest, the court required additional expertise. In February 1964, IAC Radotín submitted their losses inventory for the year 1963 caused by emissions from the works. A team of company experts appreciated the damage at 463, 729. 90 CSK. In

December 1964, the Faculty of Agricultural Chemistry sent the Faculty of Economics at the Agricultural University in Nitra an expected expert opinion. It stated that a vegetation period of cauliflower, kale and kohlrabi had prolonged due to emissions and the dusty glass panels of a greenhouse decreased the light penetration and "crop depression". At the end it stated that results were of a one-year trial character and it was not possible to generalize.[421]

During another trial, held on 12th March 1965, besides the damage done to the greenhouse and hothouse, the damage to agricultural crops was discussed. The trial was again postponed and an expert opinion for damaged glass panels of the greenhouses and a hothouse caused by emissions was requested. The Research Institue of Glass in Hradec Králové and Research Institute of Tabular Glass In Řetenice were asked to present their expert opinions. Furthermore, on 1st April, Hydro-meteorological Institute in Prague was asked *to indicate a frequency of the wind direction in percentages in the area of the village of Lochkov and Radotín for the past years and write a weather report or the proportion of windy days in a year which could to a lesser or a greater degree carry dust from the cement workst in Lochkov to the crops of IAC Radotín.*

Because IAC Radotín applied their damage compensation of almost 2.5 mil CSK, the RCL, n. e. manager Jan Kryhut decided on 7th May 1965 to inform Central Manager Ferdinand Fencl, technical production manager dr. ing. Hradský of the industry management CELI, in a form of a letter about an increasing issue of damage compensations paid by RCL, n. e., and other companies asked for a long-term cooperation with the Department of Agricultural Chemistry of the Agricultural University in Nitra on an issue, which we all are familiar with. A letter from Stupavké cementárny n.p. Stupava (Stupava Cement Works N.E.) of 15th May 1965 was a surprise to the expert opinions of the Department of Agricultural Chemistry of the University of Agriculture in Nitra, which said: *We were surprised by your report that the Department of Agricultural Chemistry of the University of Agriculture in Nitra found negative influence of fall-down in the vicinity of your works. So far, the Deaprtment has not informed us about such a thing and no agricultural company has claimed any damage for reasons you have stated. On the contrary, we have been supplying our caught up dust to many agricultural companies in the western Slovakia region for fertilization, but until today none of them have objected to their dustiness. Until recently we had been also supplying agricultural companies in Moravia with this dust, but due to unsettled cost issues further supplies were stopped.*[422]

In the report sent on 1st June 1965 by Research and Development Centre of Tabular Glass in Řetenice, it was found that the tablets of greenhouses were not covered only with the dust from the cement works.

At the end of June 1965, the Department of Agricultural Chemistry of the University of Agriculture in Nitra proposed a method how to deal with the issue of the effect of a Lochkov works dust on yields and quality of vegetables. According to the proposed methodology it was necessary to dig pits to a depth of 1 m, which were to be lined with a polyethylene film and filled with a 40 cm layer of gravel, 30 cm layer of soil from beneath the topsoil and 30 cm layer of topsoil. Size of one experimental patch was to be 2 x 2 m and each section had to include five of these experimental patches. The total size of the patches was to be 20 m². In agreement with IAC Radotín, cauliflower of one kind was going to be planted in the experimental patches. Experimental patches were to be on municipal land of the villages of Lochkov, Radotín and Modřany. The measurement methodology was agreed by IAC Radotín as well as RCL, n. e., and an industrial company CELI, which suggested for the University of Agriculture in Nitra to carry out a similar survey in the vicinity of

a cement works in Čížkovice and Prachovnice. In July, The National Research Glass Institute in Hradec Králové sent an assessment of damage of glass panels of a hothouse of IAC Radotín. The management of RCL was satisfied with this assessment. The request of 16th November 1965 to postpone the trial stated: *Given that this assessment of the named research institute contradicts all previous assessments, the assessment of the Development and Research Department of Tabular Glass in Řetenice especially, we asked the Department of Silicate Technology of Inorganic Chemistry Faculty of the University of Chemical Technology in Prague to develop a substantial expertise*. A report developed by the Department of Silicate Technology ICT Prague trailed in favour of RCL, n. e. The measurement results of 13th October 1965 showed that cement stack fume of the works formed only 30.73% of the film on the glass tablets. Other substances in the sediments did not originate in the cement plant.

In October, the people of Lochkov complained about the pollution caused by the cement works. A number of citizens complained to the Office of the President about considerable pollution in the vicinity of the works. One applicant even sent a sample of dusty plant leaves. The complaint was joined by a village organisation of CCP and a civic committee. The Office of the President requested the Secretariat of the Minister for Housing *to pay his full attention to this issue.*[423] The company management answered to the President's Office *that deficiencies in the air pollution preventions have been reflecting more or less continuously since the cement works has been put into operation and despite all the efforts of engineers and the management it has not been possible, for considerable technical complexity and the need to incurring high financial costs, for these deficiencies to be removed*. In addition it informed the President's Office *that the company management and operational management perform during an operational management of running maximum possible operational measures to reduce dust, proper maintenance and checking functions of all dedusting equipment in the cement works*.

1962 – test run

The following year 1966, the air pollution significantly deteriorated. The cause and source of the increased flue dust was a trial operation of slag fluid dryer. The management of the cement works communicated with LNC in Radotín that during a trial operation on from 22nd April to 27th April 1966, pollution in the vicinity of the plant increased. When testing a prototype of a fluid drying kiln, which was supposed to replace an RS8 slag flash dryer of Přerovské strojírny, some issues in operation appeared and the company management did not expect any defects in the equipment that would make an impact on excessive flue dust, therefore LNC in Radotín was not informed. At the same time, on 27th April 1966, at LNC in Radotín the cement plant management was discussing a request to extend the sanitary protection zone around the plant from 600 m to 1000 m. The required extension of the zone had no connection with the testing of the fluid drying kiln because the request was lodged in February. LNC in Radotín, Lochkov

and Kosoř agreed with the extension of the zone. The deputy of the Regional Hygienic-epidemiological Station pointed out that in the safety zone it is not allowed to build facilities for physical activities and residential houses.

A complaint from the citizens of the district Radotín-Sady of May 1966 had a probable connection with the testing of the fluid drying kiln. This time the complaint was lodged to the Central Committee of the Communist Party. The response sent to the citizens of Radotín-Sady by the fifth department of CC CCP was not preserved.

On 9th June 1966, a hearing regarding the compensation of damaged glass tablets of the greenhouses of IAC continued. Both parties submitted expert opinions on the effect of cement works flue dust on glass tablets and they both varied. The assessment of the State Glass Research Institute in Hradec Králové indicated the cement works flue dust as the cause of the corrosion of the glass tablets. On the contrary, the assessment of the Department of Silicate Technology in Prague stated that 69. 27 % of the dust on the glass tablets did not originate in the cement works. At the end, on 20th July 1966, IAC Radotín and RCL, n .e. Radotín Cement and Limeworks, n. e. reconciled and IAC was paid 70,000 CSK for cleaning expenses of the greenhouse glass tablets and they dropped any other charges concerning the damage done to the agriculture crops.

The issue of dirty windows of the greenhouse did not end with the reconciliation of 20th July 1966. Chemist Antonín Plevka and gardener Otakar Chládek put charges against IAC Radotín that it used their patent No. 113403 "How to remove porous sediments of an agricultural glassed area" without their permission and demanded 12,000 CSK from the IAC. It is not known how the dispute ended because the cement works refused to enter any negotiations, and this dispute no longer concerned them.[424]

Another complaint of the citizens of Radotín-Sady "about excessive pulverulence of the cement works and insufficient maintenance of the cement works access rode" was sent to Československý rozhlas (The Czechoslovak Radio). The new's room sent the complaint of 143 citizens to the president of ONV Prague-West. At a public meeting, which was orgnised on 8th Septmeber 1967 by ONV Prague-West, the deputy director of the works promised the citizens regular sprinkling of roads, therefore removing dust disturbed by cars and lowering the pollution after installing a new BMM dust collector for grate coolers.

In 1967, air pollution caused by the plant exceeded the acceptable limit and the Water Management of the Central Bohemia Regional National Department increased a charge of pollution for the year 1967 up to 138,273.30 CSK. RCL, n. e. management appealed against the increase of the fee and used their technical inability to rid of the dust of the grid coolers as an argument. These arguments were supported by a testimonial of Kremaprojekt and Plants for Production of Ventilation Equipment (ZVVZ) Milevsko. The state technical inspection of environemental protection did not consider the expertise of Kremaprojekt and ZZV Milevsko as unbiased and with a letter of 1st April 1968, they required an expertise from the Department of Environmental Engineering of CTU in Prague. At the same time, on 23rd April, they carried out an operation inspection of the Lochkov cement works. Results of the inspection were summarized in a report: *Considering the state of air pollution caused by the cement works in Lochkov is regarded as crucuial, the State Technical Inspection of Enviornment Protection will insist on developing a study of a complex pollution solution in the cement works of Lochkov*.

Under the pressure of the Technical Inspection of Environment Protection the management of RCL turned to the Department of Environmental Engineering of the Faculty of Mechanical Engineering of CTU in Prague to develop an expertise for a segregation of solid emissions according to the Act No.35/67 Coll.

In May 1968, the claimants of pulverulence were joined by LNC in Radotín and the Regional Prosecutor's Office of Prague-West.[425] Both institutions asked the works management to explain what the cause of high pulverulence was, what measures were taken to remove the pulverulence and what prevented them from setelling the dust. The cement works management answered both institutions with a letter of 4th June 1968. It said that in the cement works there were fifteen sources of air pollution, out of which eight of them were under the limit of flue dust with no suggested precautions. The major sources of pollution: crusher of the second degree, grate coolers of clinker 1 and 2, rotary kilns and raw material mills no. 1 and 2, fluid dryers and an R8 slag fast dryer and their issues with pulverulence had been dealt with by experts of ZVVZ Milevsko. It also reported that the dust fall-out of the cement works was being monitored at 11 stations by the Regional Hygienic Department Prague-West. Finally, they assured both institutions that the works management was striving to deal with the emission issue and therefore they were in contact with the Department of Environmental Engineering of CTU in Prague and the Institute for Ventilation Research in Prague.

Production limits in a cement works in Králův Dvůr were lowered due to emissions, which were ordered, on the basis of notice of the procurator's office of Beroun and resolutions of citizens, by a health department of KNV of Central Bohemia, the management of RCL became significantly unsettled. The company manager of RCL, on 27th June 1968, turned to Vice-president and Chairman of agricultural committee of goverment JUDr. Lubomír Štrougal with a letter. In the letter he stated that due to a press release that the cement works in Králův Dvůr had to limit their production provoked an avalanche of protests of the citizens of Radotín against the pulverulence in the cement works in Lochkov. He also pointed out that the works management had been striving to solve the pulverulence issue to lower it in cooperation with leading research institutes. He referred to the damage that could cause some limitations to the national economy in cement production in Lochkov. The conclusion of the letter said: *I am writing to you to appeal to the economic council to consider the effects of limiting the cement works operation for emissions being harmful to human health without any scientifically proven evidence and to take a stand on this issue.*[426]

The unfavourable situation was solved at the beginning of the 70s, when new air-conditioning equipment and components for the existing dust collectors from home and abroad were installed to the major pollution sources. A major domestic supplier of air-conditioning was ZVVZ Milevsko, which installed a MHA 5, a water level filter, to the second stage of crushing., an FH twelve-chamber hose filter and a cyclone seperator for mills. As for foreign suppliers, a Swiss company Elex, west Germany company Humboldt and a French company Prat Daniel were approached. In 1979, a reconstruction of a dust exhaust was carried out. A new electrostatic precipitator by a company ZVVZ Milevsko under the licence of the Lurgi Company and sand bad filter of the Lurgi Company for dedusting grate coolers were installed.[427]

After the year 1970, the volume of investment greatly expanded into construction of flats, power stations, mines, chemical plants, iron works, transit gas pipes, a metro in Prague and the motorway. Thanks to that the overall amount of building material rapidly increased. A remarkable increase of the cement production in 1968 was from 6.5 to 10.9 mil of tons, which rated CSSR in 1989 as a fifth country in the world with the highest cement production per person (696 kg) after Greece, Switzerland, GDR and Spain.[428]

During the first five-year plan the cement plant in Radotín produced 657,600 tons of cement and contributed to the national economy with a profit of 53,178,000 CSK. The cement plant managed to deal with the automatization of grinding of a tube mill with a mechanical circuit and dedusting at the most difficult segments of production by introducing wet levelled separators and purging automatization.[429]

Mortar works in Srbsko

In 1970, the production of dry mortar in Srbsko was completed and gradually put into operation. A new VT-2N jawed crusher was installed and applied in the production. A trial operation of the new mortar works started in December 1970.

In Loděnice intensive preparations for building new lime works were in progress. In April 1969, a number of negotiations about new suitable location were taking place.

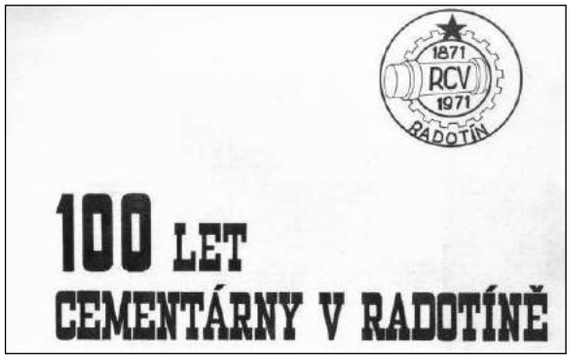
In the following year of 1971, the production of cement and lime kept increasing even though the cement works were not regularly and in sufficient amount supplied with granualated blast furnace slag from the iron works. Therefore it was necessary to grind a larger amount of clinker without any additives and produce more single-component cement and cement of higher grade. The cement works in Lochkov was supplied with slag from SONP Kladno, NHKG Ostrava, VŽKG Ostrava and Třinecké železárny (Třinec Iron Works). The market was fed with cement continuosly, with the exception of autumn months, for a short period there was a lack of cement. Reversly, lime demand decreased and therefore the production of lime in some works had to be limited.[430] Despite theses difficulties the cement works produced 692,300 tons of cement.

In April 1972 Ing. Jan Matoušek was appointed a new enterprice Manager.
On the Day of Builders on 8th July, the RCL accommodation of a hotel type with 240 beds in Radotín

was ceremonially put into use. The investment of the construction was shared by Radotín Cement and Limeworks, n. e., directorate-generals CELI, Janka, n. e., and Technometra, n. e.

Hotel house

Lime works and the quarry Skoupý



Front cover of a publication for the 100th anniversary of cement production in Radotín

In the same year in Lochkov there was introduced a production of limestone gravel. Limestone gravel had been produced there for only three years and in 1975 the production was stopped.

In January 1972, a new limestone grinding hall with a jaw crusher PB VII worth 1,069,520 CSK was put into operation in Skoupý. In the works in Skoupý there was a production of lime, ground limestone for glass works, ground limestone for fertilization and terazzo gravel. In 1972, in Skoupý there was extracted and processed 54,006 tons of limestone (in 1971, it was 30,316 tons). Good limestone, containing a smaller amount of aluminous ratio, was processed as a limestone for fertilization. Clear limestone was used for processing limestone for glass industry.[431]

In February 1972, the State Planning Committee approved an appendix of an original plan of Kermaprojekt Brno for a construction of a new lime plant in Loděnice. Complicating negotitations preceded the approvement. Finally, it was decided that for different chemism of individual types of limestone in the Loděnice location it would be better to use powder firing of lime in rotary kilns. Very good results of a material burning trial from Loděnice in a new shaft furnace in Čebín (Maloměřice Cement and Limeworks, n. e., Brno-Maloměřice) in 1965 influenced the approval of the construction of the limeworks.[432] The management of Radotín Cement and

Limeworks, n. e., as the investor started in 1972 to negotiate the construction of a new works "V Báních" using limestone deposits in a quarry called Na Branžovech. The mining area was 1500m long and 400m wide, it consisted of a late Devonian and mid-Devonian limestone. The main part of the deposit was made of bottom and upper Koněprusy, Slivenec, Loděnice and Řeporyje limestone, which were suitable for burning lime.[433]

In 1972, a hundred year anniversary of the cement production in Radotín and a 10th anniversary of the cement plant in Lockhov were remembered. On this occasion a publication and a tombac commemorative medal were issued.[4334]

Also in 1973, the cement plant exceeded the planned production of cement. It produced 690,000 tons.

In December 1973, the production of lime in the old Loděnice lime works was closed down and the following year the old works was taken down. Out of three quarries "Na Branžovech", after closing down the production at the old lime works, there was only one quarry left and it was the quarry "Obecní lom". At the same time in the years 1973–1974, a temporary crushing hall was built as part of the preparations for the construction of the new lime works. A trial operation of the crushing hall started in September, even though final works lasted until December 1974.

Money was also invested in the base works of the company. During the fifth five-year -plan, many projects were implemented in the Radotín cement works. In the homogenizing and cement silos thre were installed some level markers. Both grinding halls had installed electro acustic sensors, including an automatic regulation, which allowed the operation to be more even and increased the output. The automatization of tube mills with a mechanical cycle was successfully solved.[435] Implementation of temperature measurement in the sintering section with a pyrometer from Přerovské strojírny was succesfull. To speed up the loading time of cement, an APHO 1 automatic filling tube from the Institute of Building Material Reasearch was installed. To increase the capacity of the material transport to the shipping area, a low-pressure pneumatic elevator with the output of 180 tons/hour was put into commission. To increase the hygiene at workplace silencers were installed to the air-lift. By injecting water in between the first and second stage of exchangers of the rotary kilns it was managed to cool down fume gas and improve the function of the existing electrofilters. For removing dust from the roads connecting the raw material grinding mills and silos, two twelve-chamber house filters were installed there. To dry the slag a fluid dryer with better energetic characteristics than the RS 8 fast dryer was built.

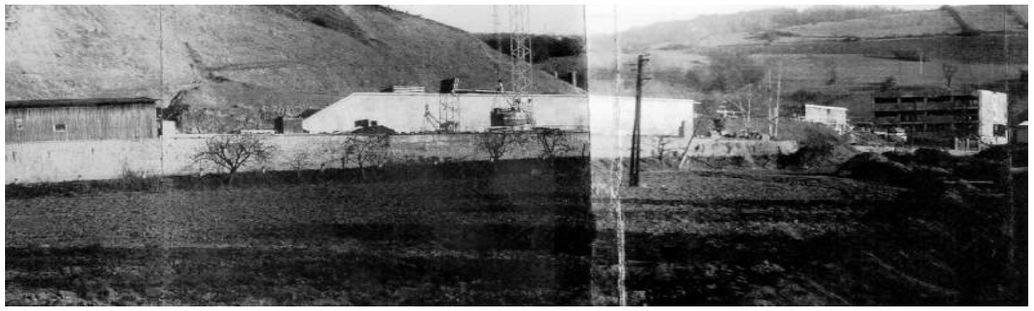
The following year the enterprise Manager and the head of the Lochkov cement works were replaced. In July 1975, the new enterprice Manager was ing. Ivan Kratochvíl and the manager of the plant was František Dvořák.

The year 1975 was the last year of the five-year-plan. Similar to the previous years, that year was under the sign of the production increase of cement, lime, plaster and limestone mining. The best results of the five-year-plan were reached. It was the last period until 1989, when most of the planned tasks were exceeded. However, tasks, which were supposed to increase the effectiveness of economy and speed up the science-technical development, were not completed, which had deplorable

consequencies. The cement works produced 708,500 tons and for the first item it exceeded the limit of 700 thoudsand tons. To speed up the dispatch of products, other unloaders of cement were installed and a modern effective packaging machine from the Haver-Boecker Commapny and a system of telescopic belts of the Beumer Company were introduced. This way, queues of road tankers for bulk cement and trucks for bagged products were reduced. Queues were quite often a number of kilometres long.

In Janské u České Kamenice in 1975, with the amount of 1,400,000 CSK a summer camp for children of the works employees was set up.

The sixth five-year-plan set a slower pace, considering the objective circumstances of the economical growth compare to the growth during the previous five-year-plan. Thanks to the planned extensive investments mainly into fuel and energetics the producers of building material were facing a great opportunity. It was a construction of a fuel-energetic compound Tušimice-Prunéřov, nuclear power plants in Jaslovské Bohunice and an initial phase of the construction of the Temelín



The beginning of the construction of the new limeworks in Loděnice

In 1976, in the first year of the sixth five-year-plan, the cement works produced the record breaking 712,600 tons of cement, which was the largest amount in the history of the cement works since 1989.[436]

At the beginning of the year, a construction of a new works for lime production in Loděnice started. The prime project engineer of the works in Loděnice was Keramoprojekt Brno, n. p., the construction was carried out by Konstruktiva Praha, n. p., and the technology was supplied by Přerovské strojírny, n .p., Přerov, air technology was supplied by ZVVZ Milevsko. Foreign companies were also involved in the supplies. A company Unitherm installed burners, the Pfister Company installed feeders, Hartman-Braun supplied gas analyzers and Svedala Arbra supplied the packing machine.[437] The technology of the lime production applied in the lime works was a Czechoslovak patent, where limestone was burnt in a powdered state in a rotary kiln with a heat-exchanger. The produced lime is distinguished by high reactivity and it is suitable for lime hydrate production. A by-product of this kind of technology is ground limestone for agricultural and industrial purposes. The works was put into a trial operation in July 1981 and one yea later on 1st August 1982, the new works was set into full operation.[438]

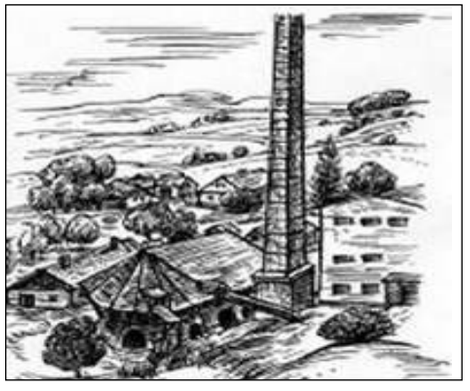
In March 1976, the burning of lime was stopped in the old, unsuitable circular kiln in lime works in Skoupý and the production programme was changed into mining and limestone adjusting only.

At the gala conference on 18th June 1976 in Kulturní dům pracujících ve strojírenství in Prague 5-Smíchov, the cement works employees commemorated 15 years of the new cement works. On the occasion of the anniversary a commemorative publication was issued.[439] In the seventies, twinning links with a cement works in Rüderdorf in GDR were established and later on also with a cement works in Michajlovka in the Volgograd region in the USSR. The twinning relations belonged to the then political atmosphere. The advantage was that workers could spend their holiday in recreational facilities of the twin companies.

In 1979, dust collecting equipment in the cement works was reconstructed. Dust collectors of the Lurgi Company were installed. In that year, the cement works produced 710,500 tons of cement and again exceded the limit of 700 thousand tons.

In 1980, the area of the cement and lime production was reorganised. As of 1st January 1980, Radotín Cement and Limeworks, n e., Praha 5-Radotín were closed down and of 1st January 1980 Cementárny a vápenice, koncernový podnik, Praha 5-Radotín came into existence. (Cement and Lime Works Concern) The new concern company established the following works: Cement Works Radotín, the central works of the concern. Lime Works Loděnice with Plaster Production Works in Srbsko, Limestone Griding Works in Skoupý and Cement and Lime Works in Čížkovice. The manager of the concern was ing.Václav Šebek and the manager of the central works in Radotín was Jaroslav Šilhánek.[440]

All the works of the new concern used base material from their own quarries. The Cement works Radotín mined in quarries Hvížďalka (Kosoř), Špička (Radotín), Požár (Řeporyje). The raw material in the quarry Hvížďalka started to have increased silica modulus and the content of $CaCO_3$ was decreasing and there was a risk of the quality being adversely affected. The supply of material from Velkolom Čertovy schody and a quarry in Loděnice could not be considered for its unsuitable chemical structure. After a detail analysis the quarry Kuchařík (Kuchař) was opened.[441] The Limeworks Loděnice took limestone from the municipal quarry Na Branžovech, the limestone grinding hall in Skoupý extracted material from quarry Skoupý-Týnčany and the Plaster Producer in Srbsko took limestone from the quarry Chlum.



The Skoupý limeworks

The unsuccessful results of the sixth five-year-plan necessitated certain improvements in managing the national economy. Therefore in 1981, The Set of Measures to Improve the Planned Management of the National Economy after the Year 1980 was imposed. This reform attempt was, however, unsuccessful. For the building material production the Set of Measures brought, among other things, significant cut-down in fuel and energy. The conditions of the national economy at that time were indicated

by the fact that in 1981, when the Measures were supposed to be implemented, the State Planning Committee was not able to formulate a plan for the years 1981–1985, so the first two years of the non-existent five-year-plan the economy was managed only by yearly plans.[442] Economic results of the concern were influenced by changes in prices. During the years 1978–1981 fuel prices and energy were annually increased by 1–2 %, so from 1st January 1981 adjustments of wholesale prices entered into force at which the prices of products of the concern were increased.[443]

In 1981, the cement works in Radotín produced 559,810 tons of cement, which was 102,390 tons less than in 1980. Due to the reduction of supplies of fuel and energy the plan was modified even in the years to follow.

In autumn, the operation of branch works in Srbsko was stopped and on 31st December the limestone grinding works in Skoupý was handed over to JZD Sedlčany.[444]

To celebrate 20th anniversary of the Radotín cement works, the management issued a promotional publication.[445]

In 1983, the management of the concern and the Radotín cement works was changed. On 1st April 1983, Josef Vítek was appointed a new manager of the Radotín cement works as well and on 11th July Karel Siatka was appointed the director of the concern.

On the basis of the State Enterprise Law No. 88/88 Coll. of 14th June 1988, the Minister of Construction and Building founded a state-owned enterprise Českomoravské cementárny a vápenky Brno (Bohemian-Moravian Cement and Lime Works Brno), part of which was the concern company Cementárny a vápenky Praha. (Cement and Limeworks Prague)[446] Státní podnik Českomoravské cementárny Brno had, however, an ephemeral life. On 4th January 1990, an assembly of delegates, at the initiative of the Ministry of Construction and Civil Engineering was convened. Thus the assembly of delegates formally closed down the state-owned enterprise Českomoravské cementárny a vápenky Brno. The state-owned enterprise was closed down without liqiudation and was divided into nine separate state-owned companies.[447] In 1990, before privatization, a gasification of the Radotín cement works was largely carried out. A construction worth 13,682,000 CSK was launched in December 1987. High pressure pipe lines were laid from the main range in Kladno towards Lochkov and from Lochkov via a valley to the works, where a new control station was built. Individual parts of separate use were gradually transferred to the operation. In February 1989, the interworks gas distribution and a gas-boiler opened, in May a first rotary kiln was connected to a gas burner and in October, the second rotary kiln was connected to a gas burner. In the second half of 1990, gas heating was introduced in all three boilers.[448] Gasification of a slag dryer was completed in 1991. This event had a positive impact on the population because it helped a number of municipalities in the region to tap into the gas line.

The amount of produced cement in the Radotín cement works (Lochkov) in the years 1971–1985.[449]

Year	Amount in Tons	Year	Amount in Tons	Year	Amount in Tons
1971	676,300	1976	712,600	1981	559,810
1972	692,300	1977	682,100	1982	622,600
1973	690,000	1978	640,400	1983	622,500
1974	700,700	1979	710,500	1984	659,600
1975	708,500	1980	652,150	1985	606,400

The amount of produced clinker in the Radotín cement works (Lochkov) in the years 1971–1985.

Year	Amount in Tons	Year	Amount in Tons	Year	Amount in Tons
1971	458,290	1976	497,800	1981	393,400
1972	495,660	1977	498,000	1982	444,000
1973	490,900	1978	455,200	1983	460,000
1974	497,510	1979	480,018	1984	450,500
1975	498,300	1980	469,240	1985	424,400

Profit and loss of the Radotín cement works management (Lochkov) in the years 1971–1985.

Year	Profit	Loss	Year	Profit	Loss
1971	47,462,000		1979	44,021,000	
1972	59,407,000		1980	26,902,000	
1973	60,300,000		1981		3,869,000
1974	60,833,000		1982	4,810,000	
1975	62,853,000		1983		797,000
1976	62,384,000		1984	11,329,000	
1977	55,456,000		1985		3,666,000
1978	40,647,000				

~ THE RADOTÍN CEMENT WORKS IN ECONOMIC TRANSFORMATION ~

In the years 1989 and 1990, due to the fall of the communist regime in Czechoslovakia there were major societal changes. One of the main objective of the government of "national understanding" of M. Čalfa was to carry out an economic reform towards a market economy. The most difficult task of the economic transformation included the ownership transformation of state enterprises. Czechoslovakia, out of all the post-communist countries, showed the greatest degree of nationalization, which, together with big collective farms, was close to 100 % and also intervened with the area of crafts, trade and agriculture.[450] The legal basis for so called large privatization, which was supposed to lead to the privatization of large and medium-sized enterprises, became Act No. 92/91 Coll. The law set conditions for the transfer of state property to other persons and determined exceptions from property, which was not subjected to the privatization. These transformations reflected in the organizational structure of enterprises.

Of 31st December 1989, the state enterprise Českomoravské cementárny a vápenky Brno decomposed and of 1st January 1990, from individual cemet works and limeworks rose new separate businesses. Decision No. 4/1990 of the Ministry of Building and Construction of CSSR of 5th January 1990, **státní podnik Pragocement** (State Enterprise Pragocement) with headquarters in Prague 5-Radotín was founded. Part of the state enterprise was the cement works in Radotín and the lime works in Loděnice. The cemet works and lime works in Čížkovice became an independent state enterprise. Jaroslav Šilhánek was commissioned the manager of the state enterprise Pragoecement. On 1st April, Ivan Kratochvíl, CSc. was elected CEO of the state enterprise.[351] The state enterprise Pragocement existed until 31st December 1990, when it was closed down without liquidation. On 31st December 1990, a new company **Pragocement, akciová společnost (joint stock company)**, with headquarters in Prague 5-Radotín, based on the decision of the Ministry of Industry with a prior consent of the Government of CR under Resolution No. 350 of 19th December 1990, was entered in the Commercial Register with a capital of 392,395,000 CSK with a nominal value of 1,000 CSK in the quantity of 392,395 pieces held by the state. On 6th Decemer 1991 an agreement between Pragocement, a.s., Heidelberg Zement AG and the Department of Industry of the Czech Republic was concluded

State enterprise PRAGOCEMENT

PRAGOCEMENT a. s.

and the arrangements for an additional subscription of shares was entered in to the Commercial Register of the capital amount of 567,572,000 CSK and with shares with a nominal value of 1000 CSK in the number of 567,572 pieces. Heidelberger Zement AG received a total amount of 227,029 pieces, ie 40 %. Heidelberger Zement AG as a strategic partner was selected after a consultation with the consulting firm Bankers Trust International Limited.

Heildelberg Zement has a long tradition. It was founded at the same time as the Radotín cement works. It was founded in 1873 in Heidelberg in then the Palatinate (now Baden-Württemberg). In the 20th century, it began to expand its business into foreign markets. Itr currently ranks third on the world market for construction materials. In the cement manufacturing it occupies a fourth place in the wolrd. Its subsidiaries are operating in fifty countries on five continents.

On 8th June 1993, the general meeting of shareholders of Pragocement, a.s. increased the nominal value to 1,022 billion CSK[452] in shares with a nominal value of 1,000 CSK in the number of 1,022 million CSK, ie an increase by 454,428 shares, which, in terms of a purchase agreement, are purchased by the main shareholder and obtains a total of 681,457 pieces of shares, ie. 66.67 % of all shares.[453] Subsequently, at the stock exchange the main shareholder buys shares of Pragocement, a. s., as of 87,500 pieces.

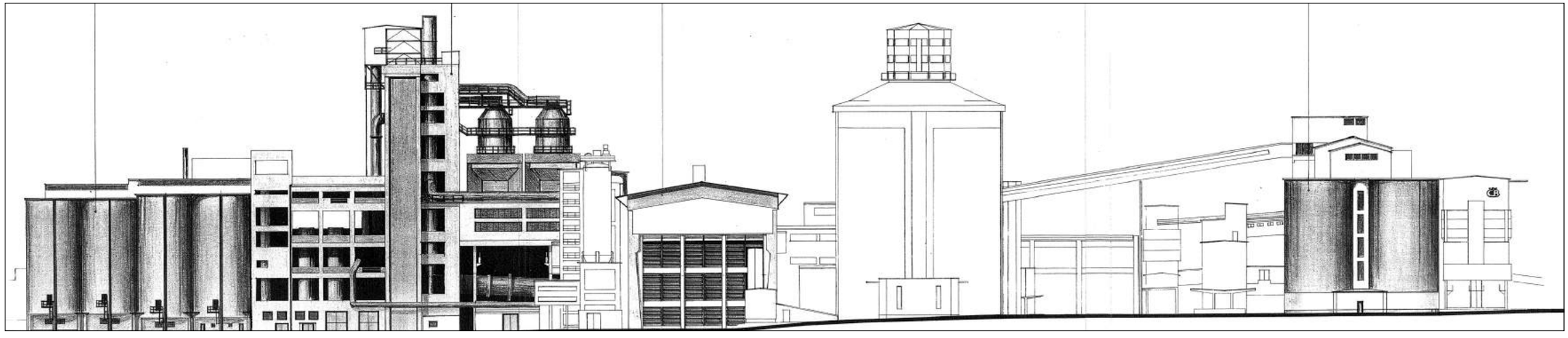
After the first wave of voucher privatization and stock market transactions the split of shares was as follows[454] :

Heidelberger Zement AG	768,957 pcs	ie.	75.240 %
Investment Privatization Funds	81,983 pcs	ie.	8.022 %
Individual Shareholders	88,241 pcs	ie.	8.634 %
Surrounding Villages	35,316 pcs	ie.	3.455 %
Restitution	3,924 pcs	ie.	0.384 %
Employee Stock	5,924 pcs	ie.	0.580 %
National Property Fund	37,655 pcs	ie.	3.685 %

For a future activity of the cement works a study for the development of the works with a time horizon of 30 years was elaborated. The study was elaborated by Keramoprojekt, š. p., Trenčín in the presence of the cement work's technicians and experts from Heidelberg, the Research Institute of Mortars and specialists in the field of building material. A fundamental condition was established and it still applies today. It is not allwed to increase the production in the plant and all new technology must be at the highest achievable level with the basic objective to reduce the burden on the Environment. Subsequently, an environmental study was prepared and it was discussed with the representatives of local authorities and state administration. The study discussions did not always run smoothly.

Repair of pipes running to the electric filters

The years 1991 and 1992 were years of the transition to a market economy. The expected large in inflation and increase in fuel prices and energy did not happen and the economic results were satisfactory. At the same time the company took this opportunity to proceed to a substantial increase in repairs and renovations of the production equipment. The following reconstructions were carried out: the second cooler of the kiln line, first line of the grinding hallr, including dedusting, also dedusting of the clinker outlet and the crusher hall. The state of the cement dispatch was unsatisfactory. High dustiness during handling and loading cement onto cars and wagons, standing cars around the works and the rail siding of the former narrow-gauge railway communication forced the company to have a study developed on maximizing utilization areas nearby storage cement silos and building a new loading ramp. The wrapper and manual loading of bags onto cars and railway cars were cancelled. The dispatch of the works in Radotín



Keramoprojekt Trenčín, architectonic solution of the cement works

focused on bulk loading onto RAJ wagons and road tankers. First, the loading of wagons was reconstructed and equipped with modern outlets from a company Beumer, including dedusting. Subsequently, an area of two shipping lines for four basic types of cement was built. Keramoprojekt Trenčín, Přerovské strojírny Přerov, a foreign company Beumer and a domestic agency of company Schenck participated on the project. A construction of a new yard office of the upper yard and a track reconstruction was performed by Železniční stavitelství Praha (Railway Engineering Company Prague). The upper yard was fully automated, a through wagon-weigh bridge was built.[455] A compressor room was also upgraded and the construction of the Bencalor storage tanks for diesel was completed. Construction of the storage tanks already started in December 1987. The visual appearance of the company was refined, ie. surfaces, sidewalks and roads. Park modifications at the cement works in Radotín were in the hands of the Renoflor Company and they started in the same year. The basic condition of all these modifications was to include the plant and its greenery into the countryside. In Loděnice there was a company taking care of the greenery since 1993, Perfekt zeleň from Beroun, and later it was a company Ekon from Vysoký Újezd.[456]

Repair of the rotary kiln jacket

Since 14th March 1991, Pragocement, a. s. became a member of the **Association of Cement and Lime Producers in Boheima, Moravia and Silesia**. The first chairman was Pragocement MD Ing. Ivan Kratochvíl, CSc.

In 1993, all loans of the company were repaid and free resources were created to cover current funds, and so the company could fulfil their main strategic objective, the rapid modernization of the cement production equipment to be comparable with the level of other European cement plants. Clinker cooler, cement mill separators and heavy oil distributors were reconstructed. Laboratories had undergone modernization and a central control of the main aggregates was built. In 1993, the board of Pragocement decided to build a coal mill hall, whose product was supposed to replace expensive foreign fuel. The building was built to withstand any explosion. Therefore, a large amout of steel reinforcement and high-quality concrete was used. In terms of fire safety and noise reduction, the construction was walled with concrete blocks. The heart of the whole mill was a Krupp Polysius vertical mill, which had to be built on the site in cooperation with Skoda Pilsen. All belt conveyors were supplied by Transporta Chrudim.

The situation of the cement market in 1993 was influenced by the disintegration of the common state and the transition to the new tax and accounting system. This led to a reduction in investment and decline in cement consumption in the Czech market. Despite these negative phenomena, the Company sold 538,600 tons of cement. The sales of lime and plaster, because they were used primarily to repair flats

and sanitary units, improved slightly. 9,400 tons of ground lime, 34,300 tons of lime hydrates and 15,400 tons of plaster mixtures were sold.

The head of the joint stock company board of directors consisted of: Chairman Ivan Kratochvíl, CSc., Vice Chairman Ing. Jan Krejčí and member Dipl-Ing. Helmut Erhard. The Supervisory Board consisted of: Chairman Antonín Lukeš and memebrs Walter von Glass and ing. Josef Gráfek.

From 1st January 1993, products of Pragocement, a. s., were sold by a company **Cement Bohemia Praha, Ltd.** It was founded by Královdvorská cementárna,a.s., (Královdvorská Cement Works, plc.) Pragocement, a. s. and Heidelberger Zement AG. The agreement establishing the company was signed on 25th November 1992[457] and Pragocement had a 55% share of the new company.[458]

The new company Cement Bohemia Praha, s r. o., founded in Septmeber 1993, together with a German company Vulkan GmbH Leimen a company Vulkán Bohemia, s r. o. **Vulkan Bohemia, s r. o.**, was developing its activities in the area of transport of concrete, mining and manufacturing aggregates (gravel and crushed stone) and precast and concrete products.

At the beginning of the year, on 25th January 1994, a corporate agreement concerning a joint venture of **Mořina Quarry Ltd**.was signed with the representatives of a. s. ČEZ Praha (Czech Energetic Works Praha– CEW) with the asset share of 51 % for CEW and 49 % for Pragocement. The production programme of the subsidiary was mining and treatment of high percentage of limestone for desulphurization in power plants using residual undersize fractions as a cement raw material, mining, purification and production of full sortiment of aggregates graded according to norms for building purposes and production of finely crushed stone and dry mortars.

In the same year, the company Pragocement, a. s., founded a transport and forwarding agency Transportcement, s. r. o., with headquarters in Radotín.

Opening ceremony at PRAGOELAST

Pragocement was also at the origins of a company **Pragoelast, s. r. o.,** in 1995, they founded it together with Heidelberger Elastomertechnik GmbH Hassmersheim. The company specializes in the production and sale of elastomers. They are produced by thermal processing of rubber granules and polyurethane. The products are used for noise and anti-vibration systems and for footpaths and fall proof paving.

The fourth year of Pragocement, a. s., was succesfull. Workers in the subsidiary company Cement Bohemia managed to increase the volume of sales of virtually all products of Pragocement. In 1994, the Radotín cement works produced 446,738 tons of clinker and 569,391 tons of cement. From the investment plan a new production line of dry mortars was implemented in the works in Loděnice. This modern production facilities had a capacity of 60,000 tons per year and their technical level

corresponded with a comparable standard of modern facilities. The line construction lasted 10 months and it cost 170 mil CSK. The level of the equipment corresponded with the quality of sales. Bagged product was sold on pallets and bulk material in special containers. Other important buildings, which were completed in 1994 in the Radotín works, were two new powerful loading stations for road tankers. The next stage of the construction of the central control system of the works in Radotín went on.[459] The year 1994 was the last year of Pragocement, a. s. as an independent company.

Jiří Hanzl in PRAGOELAST

CEMENT BOHEMIA PRAHA

In 1992, Královdvorská cementárna, a. s., Pragocement, a.s. and Heidelberger Zement AG founded their own business organisation Cement Bohemia Praha, s r. o. As of 9th February 1995, with the agreement of shareholders it was changed into a corporation. General Meeting of shareholders of Pragocement, a. s., (19th April) and Cement Bohemia Praha, a. s., (25th April) agreed on the abolition of companies without liquidation and the merging with a company Královdvorská cementárna, a. s. On 28th April 1995, the General Meeting of shareholders approved the merging of Královodvorská cement works with Pragocement and the Cement Bohemia, a.s. Company. As of 1st July 1995, by the merging of three of these companies a new joint-stock company arose. At the same time, as of 1st July, the joint-stock companies Pragocement and Cement Bohemia Praha were deleted without liquidation from the business register and the joint-stock company Královdvorská cement works was renamed **Cement Bohemia Praha, a. s. (CBP)**. The share capital was increased from 400 million CSK to 1,757,750,000 CSK and the number of shares increased to 1,292,465 pieces. The nominal value of shares also changed to 1,360 CSK. A major company with a turnover of about 1.7 billion crowns arose. The decisive share of the assets, as of 31st December 1996, was 81.3% and it was owned by Heidelberger Zement AG.[460] The production plan of the new company formed in addition to cement and lime products, the dry mortar, aggregates, addiments and unconventional building material.[461] Production works of the company were cement works in Králův Dvůr, Radotín and limeworks in Loděnice. Cement Bohemia invested in these

Logo of Cement Bohemia Praha

Quarries Mořina

Former hotel Litava in Beroun

Vehicle of the TRS spol s.r.o. Company for cement transportation

companies: **TRANS-SERVIS, s. r. o.** (50 %), **Lomy Mořina, s. r. o.** (49 %), **Velkolom Čertovy schody, a. s.** (50 %), **Vulkán Bohemia, s. r. o.** (25 %), **Pragoelast, s. r. o.** (49 %) a **Litava, a. s.** (6 %).

New statutory bodies of the following members of the company were elected: Chairman Ivan Kratochvíl, Vice Chairman Milan Svašek and members Jiří Zouplna, Helmut Erhard, Meinhard Thrul. The Supervisory Board consisted of: Walter von Glass, the Chairman, Peter Otto, the Vice Chairman and members Bernard Boon-Falleur, Rudolf Šubrt, Miroslav Melichar a Vladimír Tůma. Shortly after its establishment the company Cement Bohemia Praha stood at the birth of a company, which Zpravodaj a. s. Cement Bohemia *CB newspapers* called "the first grand-daughter in the world". On 3rd July 1995, an agreement of general cooperation was signed between the joint stock companies Heidelberg Zement,

Cement Bohemia Praha and Metrostav. One of the points of the agreement was to establish a new joint venture between the Prague Metrostav and Vulkán Bohemia s. r. o., which bears the name **TBG Metrostav**.[462] Products and services of the company are widely used. Concrete from TBG Metrostav is used for tunnels, bridges, and water constructions, residential and commercial buildings.

Health centre

In addition to the production and business activities, the company focused, also due to a campaign against the construction of a new cement works in Králův Dvůr, on building good relationships with the region in which they ran a business. There were new contacts with the representatives of the surrounding towns and villages, their public and the representatives of professional institutions. The company also supported numerous humanitarian and cultural projects. On 16th September 1996, with the participation of Mayor of Prague Jan Koukal, a newly renovated health centre in Radotín was inaugurated. The company Cement Bohemia Praha, a. s., paid 11 milion CSK for the reconstruction of a former company day care centre into a health care centre. Further expansion of the health care centre with a specialist's office and a pharmacy was covered by the municipality by selling their shares in Cement Bohemia. It successfully continued its cooperation with the Academy of Science and the National Museum in Prague, and it culminated in a big and successful exhibition in a historical building of the National Museum called *Člověk a jeskyně Českého krasu (Man and the Bohemian Karst Caves)*. Particularly positive response from the public was received for the popular science book on the subject of history of cement production and lime in the Beroun area[463] and a comprehensive exhibition on the subject at the Museum of Czech Karst in Beroun. Both events were organized with the direct support of CBP Museum of the Czech Karst in Beroun.

To celebrate the 125th anniversary of founding the cement producing company in Radotín and the 15th anniversary of the start of the lime production in a new works in Loděnice, Cement Bohemia Praha organised a number of events in October, which were to remember the beginnings of the cement and lime production in Radotín and Loděnice, and at the same time to highlight the company's operation and its works. On 18th Ocotber, there was a professional technical conference held in the Forum Hotel. The conference was held under the auspice of Prague Mayor Jan Koukal. The programme, among other things, introduced the various works; technical presentations on the use of efficient technologies, the return of excavated space back to the nature and effect of the works in regions were given. The next day on 19th October, the works management organised an open day in a cement works in Radotín and limeworks in Loděnice. The public could see the modern equipment of both works and see the company's activities in the field of environmental protection. By 1998, CBP had invested into the environment resources, which

exceeded the amount of 115 mil CSK. The celebrations culminated in a social evening on 25th October at the Congress Centre in Prague.[464]

In order for the public and employees to be adequately informed about the objectives of the company and the tasks set for their achievement, CBP began publishing their own newsletter CB noviny *(CB Newspaper)*.

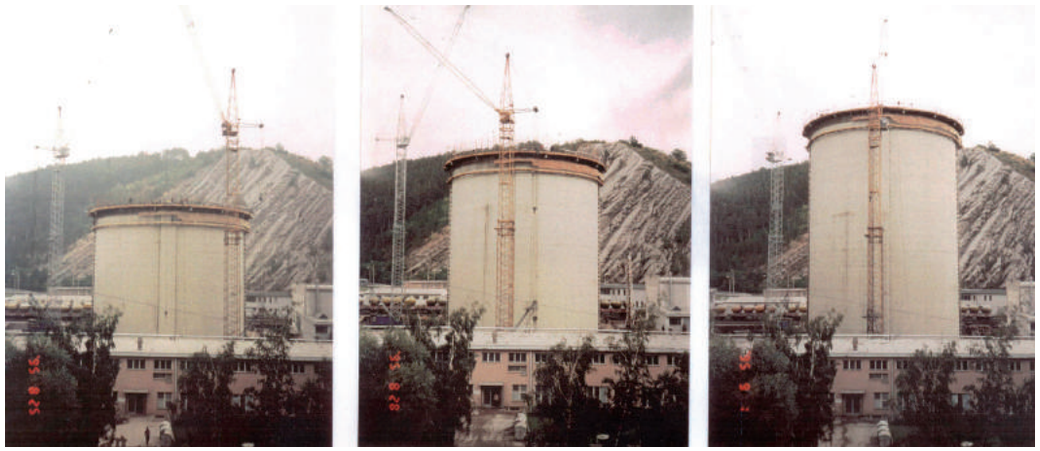
The management of the Cement Bohemia Praha company was trying for the invested resources to bring maximum effect and provide the most efficient and effective development of the company. Therefore, sub-investment plans of foremer independent companies had to be corrected and they were set the following principles for development.

The cement works in Králův Dvůr was supposed to take over all the production and dispatch of bagged cement, including export, and maintain the production in the old works until the construction of a new works. Therefore, investment funds were supposed to be spent only where strictly necessary.

In addition, the management was supposed to prepare documents for the construction of the new works.

The works in Loděnice was to increase the production of dry mortar mixes and expand the range of products. The operation of the new works proved that the projected output of 60,000tons per year was feasible and in high quality and appropriate range.

Construction of the coal mill



Construction of the clinker silo – the pictures always taken after one week

The high quality of products was contributed by a new dryer of material for the mortar mixing works. The construction of the dryer took place from January to June 1997. It is able to produce 40 tons of raw material per hour. Combustion chamber and a burner are from an Austrian company Binder, other equipment is from Czech subcontractors. The investment amounted to approximately 28 mil CSK.[465]

The cement works in Radotín was supposed to complete the modernization of the production in 1997 so it was to reach European levels and top quality. In 1995, coal heating in the cement works was completed.

In the context of a complete reconstruction of transport routes for clinker, and elimination of unsatisfactory clinker storage at an open stock yard, construction of a clinker silo with diameteres of 66 m high and 30 m wide began and it became a new landmark of the Radotín works. The storage capacity of the silo is 40,000 tons. This construction deserves attention with regard to its unique structure solution. It was being decided between building a steel silo or a concrete one. After some ill experience with a steel silo in a cement works in Čížkovice, it was decided to build a concrete one. Its project plan was developed by a German company Peter and Lochner in cooperation with Keramoprojekt, a. s., Trenčín. The construction preparation itself was difficult. The terrain where the silo was to be placed had to be intricately adjusted. During the construction, a technological process provided by a Swiss company VSL was used and it provided the possibility for the silo wall, without any switching lesenas, to be 300 mm thick. The roof is made from concrete beams and boards with a hardening collar on the silo. The shape and colour were consulted with the Office of the Architect of Prague. The colours red and white and a light beacon of the silo have been used for the air traffic safety precautions. The transport of clinker to the silo has been impleneted with covered conveyors of a company Beumer. The construction was carried out by a company Metrostav and it cost 203 mil CSK[466].

Pre-homogenization stock yard (PHS)

View of the PHS from a water works to the quarries

All transport routes of other substrates for cement production were gradually restored and a pre-homogenization stock yard was built in the amount of 180 mil CSK. It was commissioned on 11th September 1997. It is a circular mixing device placed in a hall with a diameter of 77 m, 23 m high and the weight of the construction is 420 tons. The supplier of the most important part of the machine was a German company Koch. In the construction participated many Czech companies, such as Metrostav or Vodní stavby and Geokonsorcium. The construction part was provided by a company Stavex Brno, Kepák-steel constructions, PSP Light Machinery, Montážní podnik Přerov, ZVVZ Milevsko, Krušnohorské strojírny, EZ Praha and TMT Chrudim.[467] The construction was to provide sufficient supply of limestone raw material and eliminate problems with fluctuations of the chemical composition of the feedstock, resp. eliminate the need for homogenization of ground raw material. The pre-homogenization stock yard was at the expo FOR ARCH 98 nominated for the construction of the year and the company was awarded by the Office of Industry and Trade CR.[468]

The company management decided to terminate the uneconomical dispatch of bagged cement in Radotín and to focus on bulk goods. Therefore, the constructions of packing and palletizing lines were stopped and the construction of underpass approach silos for dispatch trains (RAJ) began and so did the modernized loading of bulk cement into road tankers. In 1997 other technological nodes were connected with the central control system, including the preparation for a connection of new buildings to the central control room. To reduce the energy consumption of the production, a project "the use of waste heat" was implemented, where thermal power is being drawn from clinker coolers and used for drying slag in the dryer. In full, drying with the natural gas was replaced with the waste heat.[469]

They devoted their attention to establish an integrated policy of sales, logistics, goods handling and shipping facilities and sales offices with compatible devices. A single information network and a uniform circulation of documents and accounting documents served for those purposes. Therefore, in 1995, they began to install an integrated information system SAP R3 version, which is a leading world-class product.

The last year of the Cement Bohemia Praha, a. s. company was succesfull. It earned 1,645,909,000 CZK for the products, which was by 96,466,000 CZKmore than in 1996.

Dispatching of bagged cement

The last general meeting of the joint stock company Cement Bohemia, a. s., was held on 31st December 1997. It approved a project of merging the CBP Company with a joint stock company Cementárny a vápenky Mokrá, a. s. with its headquarters in Mokrá u Brna. The general assembly also made changes in the statutory bodies of a company Cement Bohemia Praha. Antonín Lukeš was appointed the Chairman of the Board and members were Milan Stodola and Jiří Zýma. The supervisory board consisted of: André Jacquemart, Georgie Kouwenhoven, Jiří Los, Miroslav Melichar, Daniel Romeier and Vladimír Tůma. Newly elected statutory bodies administered the company Cement Bohemia Praha until 30th April 1998, when two companies Cement Bohemia Praha and Cementárny a vápenky Mokrá, a.s. merged.

The joint-stock company Cementárny a vápenky Mokrá was founded as of 1st January 1991. The strategic partner was a Belgium company S.A. Cimenteries CBR which in mid-nineties was joined by Heidelberg Zement AG. Part of the company was a cement works in Maloměřice and lime works in Čebín, Mikulov and in Tlumačov. The main works of the company in Mokrá was built with some interruptions from 1961 to 1968, when it was inaugurated later that year by the ignition of the rotary kilns, which were called “Republika” and “Morava”. All equipment was imported and belonged to the most modern equipment in the industry.

~ THE RADOTÍN CEMENT WORKS AT THE END OF THE MILLENIUM ~

The joint stock company Cement Bohemia Praha merged with Cementárny a vápenky Mokrá, a joint stock company and as of 30th April 1998 ceased to exist. This merger created a new company Českomoravský cement, akciová společnost (ČMC, a. s.). The new company was entered in the commercial register on 1st May 1998. The reason for creating this company was, as Chairman and CEO Ing. Miroslav Weber, CSc. said in the opening word: *Czech economy experienced recession in 1998, which showed a significant reduction in material consumption. Therefore it was important to create a quality and a new organization and quickly and efficiently take advantage of all synergies (cost savings, optimization of existing production capacity, efficient use of funds).*[470]

Works of the company were: cement works in Mokrá, Králův Dvůr, Radotín, and Maloměřice[471], lime works in Loděnice and Mokrá. Also works in Mikulov and Čebín, which focused on the production of ground limestone and operations producing dry plaster and ready-mix-plaster in Loděnice and in Čebín. The Českomoravský cement, a. s. Company, had ownership interests in companies: BETON MIX, a. s., Vápno Mokrá, a. s., Ká & Pí, a. s., Cemtech, a. s., DS-BETONMIX ,s. r. o., CVM-A, a. s., CVM-B, a. s., Lomy Mořina, spol. s r. o., Pragoelast, s. r. o., Velkolom Čertovy schody, a. s., Vulkan Bohemia, s. r. o., TRANS-SERVIS, spol. s r. o. and BEMIX, a. s.

The Mokrá Cement Works

A new company with capital of 2,298,993,500 CZK became the largest producer of construction material in the Czech Republic. It issued 9,195,974 shares with a nominal value of 250 CZK. The largest shareholders of the company were a Belgium company SA Cimenteries CBR, which owned 46.46 %[472], and Heidelberger Zement AG, which held 34.27 %.

During the year 1998, the company was managed by the board of directors composed of: Chairman and CEO Ivan Ivan Kratochvíl, Deputy Chairman Miroslav Weber and members Rostislav Fianta, Pavel Michek, Milan Svašek and Jiří Zouplna. The Supervisory Board consisted of: Chairman Daniel Gauthier, Deputy Hans Erwin Bauer and members Helmut Siegfried Erhard, Daniel Lamoureux, Rudolf Šubrt, Jiří Vilím, Otakar Jahoda, Vladimír Košut and Pavel Kučera. At the proposal of the Supervisory Board of 27th November 1998 there were changes in the Board effective of 1st January 1999. The Chairman of the Board was Miroslav Weber, Vice Chairman was Jiří Zouplna and members Rostislav Fianta, Pavel Michek and Milan Svašek.

At the beginning of its operation the company was dealing with a few problems. The first difficulty was the construction of a new cement works in Králův Dvůr. At the end of 1997, the High Court in Prague, on the basis of procedural mistakes in zoning, annulled the decision on the location of a new cement works in Králův Dvůr by Tmaň. The court's decision and the culmination of the campaign against the construction of the new cement works led the management of the company to a decision to give up on building the new works. However, in 1992, the National Property Fund enforced a requirement for the privatization project and a subsequent agreement that the investor Heidelberger Zement AG will apply its best efforts to build new works on a greenfield. Because the investor was prevented from implementing the requirement, he asked his attorney to discuss with the National Property Fund the conditions in the agreement so it could be a replacement for the modernization of the existing works in Králův Dvůr. It was also decided to terminate the production of cement and demolition of the production facility in the works in Maloměřice and to stop the production of lime in the works in Čebín.

In 1998 in the Radotín cement works, one stage of modernization of a laboratory was completed. Other technical equipment for testing the properties of cement and carrying out chemical analysis was implemented in the years 1993 and 1994 in connection with the transition to the new European standards and the decision of the management of the Heidelberger Zement Concern to unify all laboratory equipment. Analytical scale was purchased from a company Sartorius and a photometre from a company Metrohm to carry out photometric titrations. The Tonitechnik Company supplied a vibrating table and a mixer and Betonsystem Brno, s. r. o., supplied a press for testing the strength of cement prisms and a cabinet for moist storage. The laboratory was gradually equipped with other devices such as a dryer, annealing furnace and a hot plate. In 1997, new water storage of cement prisms was built and an overall reconstruction of the interior rooms of the laboratory was carried out.

During an autumn lay-off in 1998, a reconstruction of raw material storage began. A building from the year 1960, where the main components for production were stored, was fully reconstructed. The project of modernization of a storage was developed by Keramoprojekt, a. s., Trenčín. During the first stage of modernization, the stockyard was roofed, the concrete structions were reinforced and

improved. Winter shutdown was used to modernize the crusher hall. It was one of the parts of the technology which had not been invested in for a long time. Service life of some of the equipment had expired, and so it was necessary to carry out a complete overhaul of hammer crushers and complete technological lines with new machinery or to replace them. The cost of the reconstruction of the crushing hall was planned in the amount of 27 million CZK.[473]

Stock of raw material before reconstruction

Within the project "Return of Excavated Areas Back to the Nature" the ČMC Company had the GET Company to develop a comprehensive plan of renovation and recultivation works in quarries in Radotínské údolí, Hvížďalka and Špička. At the same time the operation at the quarry Kuchařík was stopped.[474]

Czech-Moravia Cement Company, Inc., participated in the 5th year of the "Award of Health, Safety and Environment" project "Modernization of the Radotín Cement Works" *The modernization of the works in Radotín, worth 2.1 billion CZK, managed to reduce the energy intensity of clinker production by 12.5% and emissions of pollutants had been reduced 6.8 times to the value reaching the the level of the contemporary world technology* is stated in the project, which was awarded a sixth place.[475] In the Loděnice works, a reconstruction of an unnecessary palletising line Möllers from the Králův Dvůr cement works was carried out and put into operation.[476]

In the cultural, humanitarian and sporting area, new company Českomoravský cement, a. s., followed in the footsteps of its predessesor. On 26th July 1998, a contract on cooperation between Czech-Moravian Cement and the National Museum was signed. The agreement followed the previous six-year support. In 1998 the company provided the National Museum with 230,000 CZK to extend and complete the computerized database and publishing activities of the museum.

The ČMC Company continued its sponsorship of the Social Care Establishment for mentally handiccaped children in Suchomasty. In 1998, it donated to the static measurements and facade repairs of the institute an amount of 800,000 CZK. Support for the institute began in 1993. The logo of the Českomoravský cement was on a green jersey of the best cyclist of the international cycling race Bohemia Centralis. The race was held on the territory of Central Bohemia on 3rd –7th June 1998 and the ČMC Company was the main sponsor of the race.

In October 1998, celebrations of the 100th anniversary of the start of the lime production in Loděnice were held. On 25th Ocotber, an open house was held and a social evening was organized in a restaurant Na Staré Loděnici. Celebrations continued on 30th October with meeting the customers,

government and municipalities' officials. On this occasion a book "Paths of Life. 100 Years of Cement Production in the plant Loděnice u Berouna" was published".

After ing. Ivan Kratochvíl, CSc., retired, on the basis of recommendation of the principal shareholders, Ing. Miroslav Weber, CSc., was appointed the General Manager effective as of 1st January 1999.

The decission of the general meeting of the Českomoravksé cementárny of 30th June 1999, had effect on other activities of the company. The general meeting approved a project of dividing the company into two successor companies. The reason for the division of the company was to increase effectiveness of the production of two key areas of business, ie the cement and lime production. As a result of the decision of the general meeting, the Českomoravský cement Company ceased to exist without liquidation; new companies emerged and one of them was to carry the name of the vanishing company, ie **Českomoravský cement**, and the other was to carry the name **Českomoravské vápno (Czech-Moravia Lime)**. Shares of then shareholders were being exchanged in a ratio of one old share of Českomoravský cement with a nominal value of 250 CZK per share for one new share of Českomoravksý cement with a nominal value of 250 CZK and one share of Českomoravské vápno with a nominal value of 250 CZK per one piece.[477]

In March, tests of two new hammer crushers in a modernized crushing hall in Radotín were carried out. Hourly capacity of one hammer crusher was 300 tons per hour. The reconstruction of the hammer crushers was to be followed by the upgrading of the first stage of crushing (jaw crusher hopper).[478]

In the Loděnice works a comprehensive reconstruction of transport routes and routes from mixing centre was carried out. Modernization of cement grinding in Králův Dvůr began.[479] That year, the company supported the development of health, culture and sport in regions where it has its works. It signifficantly supported the international cycling stage race YTONG – Bohemia Tour, which took place in the Central Bohemia Region from 30th June to 4th July 1999. It was the major sponsor of the international music festival Talichův Beroun, which was held in late October and November 1999 in Beroun. It remains the major sponsor until today.

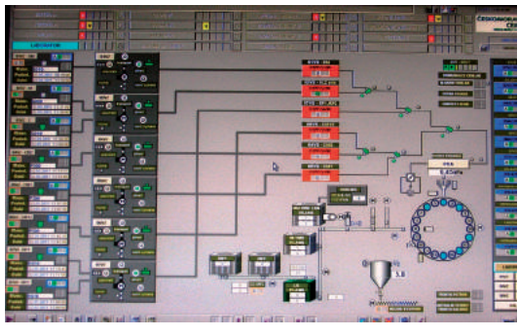
At the end of the year, the final stage of readiness review of electronic systems for the transition to the year 2000 took place.

The last year of the millenium was a year of significant events for the company. It managed, even though with some complications, to fulfill the intention of the management to separate the cement and lime production. The general meeting, held on 30th May 1999, approved the project of dividing the company into two successor organizations Českomoravský cement, a. s., a Českomoravské vápno, a. s.

The proposal assumed that the company was to expire on 31st December 1999 and the successor companies were to arise on 1st January 2000. As a result of two lawsuits of shareholders of the Českomoravský cement Company for invalidity of the decission of the general meeting it was not possible to carry out the division of the lime and cement production in the intended time. Based on this fact, the general meeting of the company approved the revocation of the decision made by the general assembley on the division of the company at its meeting on 19th June 2000. The board of the Českomoravský cement, a. s. Company, on 3rd July 2000, adopted a resolution which approved the investment in a subsidiary Českomoravské vápno, s. r. o. (original name of the company was to be NOVÝ RETEN, s. r. o.).

Subsequently, the general meeting of a company Českomoravské vápno approved an increase of the capital of the company. The companies Českomoravský cement, a. s., and Českomoravské vápno, s. r. o., concluded a contract on the transfer of works in Mokrá, Mikulov, and Loděnice. Furthermore, it was decided to detach part of the company engaged in manufacturing dry plasters and mortar mixtures. Here, the aim was also to increase the effectivity of the production. For these reasons, the board of directors of Českomoravský cement, a. s., adopted a resolution at their meeting on 7th November 2000, which approved the investment of the part of the company engaged in manufacturing dry plaster and mortar mixtures to the subsidiary company Českomoravský maxit, s. r. o.,[480] as of the date 1st January 2001.[481] The board of Heidelberger Zement Company decided in 1999, when it acquired a majority share in a plastering company MAXIT Holding GmbH, that all activities in the area of sales of dry plaster and mortar mixtures were going to be implemented under the trademark MAXIT in all business units.[482]

In 2000, the first stage of laboratory automatization in the cement works in Radotín was completed. This investment, worth 46,500,000 CZK, enabled automated collection and evaluation of samples during a technological process of the cement production. Linking with the central control system enabled monitoring, evaluation and timely correction of the production. Roofing, cladding and the overall construction works completed the reconstruction of the stockyard of raw materials. The costs of upgrading the stock yard amounted to 59,941,000 CZK.[483] The reconstruction of the stockyard removed any secondary dustiness when handling the substrates, and therefore the investment was a major ecological project. This construction ended the ten-year cycle of basic modernization of the Radotín works and it had a significant impact on the ecological effects of the works. In January 2000, a gearbox of the cement grinding hall on the line 2 was replaced. The new gearbox, a product of the Flender Company (BRD), was, in comparison to the old part, approximately half the size, with three-speed and branched into two branches and it cost almost 10 million CZK.[484]



Automatic laboratory – controlling diagram

Stock of raw material during reconstruction

In the Loděnice works, the drying machine for raw materials for dry plasters and mortar mixtures in the amount of 26,142,000 CZK was completed and on 31st December 2000, the production of lime products was ended.[485]

The company, within the project "Be a Good Neighbour" supported various activities, which were beneficial to the general public. For example in 2000, the company provided sponsorship of 1,000,000 CZK and a subsidiary company Velkolom Čertovy schody provided another million of Czech crowns to repair a church of St. George in Tmaň.[486]

SOMS production in Loděnice

Since June 2000, from Vol. 2, the newsletter of the joint stock company Českomoravský cement had a new name: *Českomoravský lev (Czech-Moravia Lion). Noviny společností Českomoravský cement (Czech-Moravia Cement), Českomoravské vápno a Českomoravský maxit (Czech-Moravia lime and Czech-Moravia Maxit).*

AT THE BEGINNING OF THE NEW MILLENIUM

The first year of the new millenium was the first year of the new company producing and supplying cement. An amendment of the Commercial Code became effective as of 1st January 2001, and it was meant to reconcile the Commercial Law in the Czech Republic with EU law. Under this amendment there was newly implemented an institute of disolution of a stock company without its liquidation by transferring its capital to the main shareholder. One of the conditions for implementing the transfer is also the fact, that the main shareholder has to own shares of nominal value of 90 % of the vanishing company and the company has to be based in the Czech Republic. The main shareholder of the company Českomoravský cement, a. s. , at the end of the year 2000, became a company ENT Holding, a. s., a wholly owned subsidiary of a company CBR Construktion Materiále B.V. based in Netherlands, which falls within the group Heidelberger Zement. The number of shares of the company Českomoravský cement, a. s., owned by the ENT Holding, a. s. Company, was almost 98 %. The company ENT Holding, a. s. changed its business name and address so that it was a company Českomoravský cement, a.s., with headquarters in Beroun 660. On the basis of the resolutions of the general meeting of 31st May 2001 and on the basis of a decision made by the sole shareholder of Českomoravský cement, a. s., also of 31st May 2001, ceased to exist without liquidation by the transfer of its business assets, including rights and obligations of labour law relations, to the main shareholder, which was the company Českomoravský cement, a. s., headquartered in Beroun 660. The takeover of assets was carried out by the company Českomoravský cement, a. s.,

a business company of the vanishing company indicating the amendment designating the legal succession. From 1st November 2001 it bears the name of **Českomoravský cement, a. s., nástupnická společnost (the successor company**).[487]

The new company was managed by a board of direcotrs consisting of: Chairman Miroslav Weber, Vice Chairmen Luděk Bogdan and Jiří Zouplna and members Roman Molík and Milan Svašek.
On the supervisory board were: Chairman Daniel Gauthier and members Andreas Kern, Robert Šubrt and Jiří Vilím. CEO Miroslav Weber was replaced by Luděk Bogdan. On 31st May 2002, the sole shareholder of the company decided to amend the articles of the company, and, among other things, to increase the number of board members from five to seven. Elected were Pavel Reich and Karel Okleštěk.[488]

As a result of dissolution of company Českomoravský cement, a. s., 9,195,974 pieces of book-entry shares with a nominal value of 250 CZK per share also ceased to exist. Publicly traded shares, ISIN CZ0005112144, were excluded from trading on public markets for the reasons mentioned above and the Securities and Exchange Commission abolished the ISIN of these shares. The shareholders, who were registered as shareholders on the date of dissolution of the company Českomoravský cement, a. s., ie on 31st October 2001, were entitled to financial settlement of non-existent shares, which was 753 CZK per share. The amount of the settlement was established on the basis of expert opinion. The shareholders received the amount for their shares in a form of a checque voucher.[489]

In February 2001, a new subsidiary company TBG Bohemia, s. r.o., arose with 100 % ownership interest. This company has been called Vulkan Bohemia since 1992. On 27th August 2001 Českomoravský cement, a. s., sold a business share of the company Českomoravský maxit, a. s., to a company LB Trading Limited, which was part of a group Lasselsberger.

For successful presentation of the **HeidelbergCement** Group a new logo has been selected and it was meant to distinguish the group name from the name of Heidelberger Zement AG. The common logo was under the patronage of all companies included in the group HeidelbergCement. Since mid 2003, all companies of the HeidelbergCement Group in the Czech Republic had to have a similar name – Českomoravský cement, Českomoravské štěrkovny and the TBG Bohemia Company changed its name to Českomoravský beton and similar graphic identity, including colours and logos. For all three companies the identity was supplemented with "colour cubes" in green, grey, yellow and white. The main colours are green and white, the colours of HeidelbergCement. These colours were then complemented with yellow and grey, which were used by the TBG Company. Logos and cubes in colours correpsonding with an identitiy of the HeidelbergCement Group appeared on company vehicles and equipment, on letterhead, business cards and other items related to the activities of the company.[490] Principles of the new corporate policy of the group were presented by eight principles "for better building" announced in September at a meeting of the high management of the group in Stockholm. Eight principles composed of the following points: *image of the company, business culture, personal policy,*

ČESKOMORAVSKÝ CEMENT
HEIDELBERGCEMENT Group

Logo

market strategy, customer philosophy, quality standard, the relationship of the company to the environment and efforts of the company to innovate. For the employees there was a new publication „Firemní hodnoty a pravidla chování." (Corporate Values and Code of Conduct).[491]

Cutting a ribbon at the Open Day, 2001

The Českomoravský cement Company remembered the 130th anniversary of the Radotín cement works and 40th anniversary of the launch of the new works. On Friday 28th 2001, in the Radotín works there was an open day to public.

On 26th March 2002, the board of directors approved of the joint management in Králův Dvůr and Radotín. The management of the joint works was under control of Director Ing. Jaroslav Vávra and Director of the Radotín cement works ing. František Hůlka left to fill the post of a CEO assistant.[492]

Since 2001, in the Radotín cement works a trial operation of clinker burning with solid alternative fuel for both rotary kilns started. In 2002, the feeding device of solid alternative fuels was improved.[493] The entire project on the use of solid alternative fuels was developed by Keramoprojekt, a. s., Trenčín and Spektra Beroun. From a former stockyard of clinker a reinforced box for storing alternative fuels was built. The treatment process of the alternative fuel, its transportation, feeding and transportation to the burners was supplied by companies Zeno and Schenck, which were very experienced in implementing this kind of technology in Germany. Using the solid alternative fuel for clinker burning is an important contribution to the ecological solid waste utilization, reduction of production costs and saving fossil fuels. Seperated waste, which contains plastics, paper, textiles and other combustible material is processed by specialized companies and transported in bulk containers to the cement works. Every delivery is checked to make sure it does not contain a larger amount of chlorine, PCB, heavy metals and other pollutants than it was limited by the contract. Every year, approximately 15,000 tons of this fuel has been used with heat content 26 GJ/tons and its consumption is increasing.[494]

Another alternative fuel, which is used in the Radotín cement works in the production process, is kormul, which base is formed from organic sludges which was arised during oil refining . First attempts at using the kormul in the Radotín works dates back to the year 1998. In 2004, in the Czech cement industry there was 65,000 tons of kormul used.[495] In 2003, equipment for other alternative fuel, animal meal, was installed. Almost half of the produced animal meal cannot be used for feeding purposes. Combined burners in the roatary kilns enable joint combustion of various fuels and therefore the animal meal can be accurately dosed in sufficient quantity so it complies with strict emission limits. Animal meal has a useable heat value of about 17 GJ/ ton.

Also, when preparing the raw materials it was possible to implement some provisions of the environmental policy. The dosage of fly ash in raw meal allowed for more effective use of deposits at a quarry Hvížďalka and conservation of limestone in a quarry Špička. Otherwise, all the high percentage correction limestone was supplied by Velkolom Čertovy schody, where the fraction is of no use.

By introducing the environmental management system in 2002 according to ČSN EN ISO 14 001 in works Mokrá, Radotín, Králův Dvůr and Železniční doprava the Českomoravský cement, a. s. Company, as the successor company commited to respect all applicable provisions of all laws relating to the environmental protection, occupational safety and fire protection. Continuous improvement of technical parameters of production facilities was to reduce the impact of production for all components of the environment. Works were to implement cost-effective and preventive measures in the area of energy and raw material consumption; creation and utilization of waste, particularly by increasing the efficiency of our processes or substitute for natural raw materials and fuel, and alternative materials and fuels where possible. There has been introduced and regularly checked an environmental management system of the company. The training programme was to increase the awareness of employees about the principles of environmental protection. Works are expected to cooperate with relevant authorities, neighbouring communities and interest groups so the state and regional environmental policy is respected.[496] Consistent implementation of given conditions had the Czech-Moravian Cement, Int. successor company, to acquire a an environmental management system certificate. On 16th December 2002, CEO Luděk Bohdan took over a certificate ISO 14001, which is an international standard for companies' approach to the environmental protection, from the representative of certification body of the Technical and Testing Institute for Construction, Prague.[497] The company has been successfully defending this certificate.

In 2002, the TBG Bohemia subsidiary celebrated ten years since its formation. From modest beginnings it has developed into a respectable company. The quality of their products is supervised by seven specialized laboratories of Betotech.

Massive floods that hit Bohemia in 2002, did not affect the cement works in Radotín and Králův Dvůr. The cement works in Radotín is on high ground; therefore the production did not have to be terminated. Production in Králův Dvůr was terminated and storage halls of finished products and chemicals were secured against water. Cellars were flooded and the work's own source of drinking water was damaged. After the water receded, both cement works participated in clearing the damages. The town of Radotín was offered a part of a quarry for temporary storage of debris from the town. The cement works in Králův Dvůr lent loaders and containers for the transportation of silt from Králův Dvůr. The Českomoravský cement Company provided financial support to its employees who suffered any damage during the floods. The financial support was offered by the company to the mayors of Králův Dvůr, Beroun and Radotín.

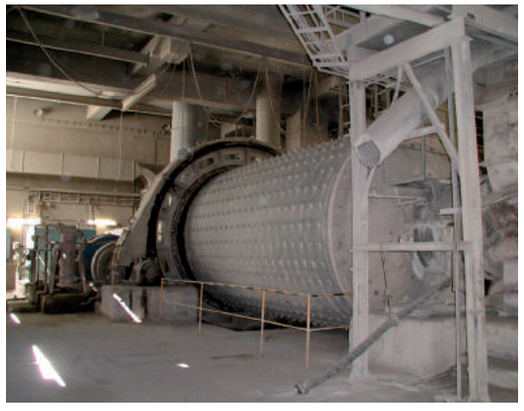
At the end of 2005, the sole shareholder of HeidelbergCement Central Europe East Holding B.V. decided to reduce the number of members of the statutory bodies of the company. Since January 2006, the supervisory board of the Českomoravský cement, a. s. Company, the successor company had three members instead of six and three members of the board instead of seven.[498] Since 1st August 2007, the board of directors has been directed by Jan Hrozek, the Chairman.[499] As of 1st April 2005, the director of the works in Králův Dvůr-Radotín was Ing. Ladislav Damašek and he replaced longtime director of the works Ing. Jaroslav Vávra, who retired.

Major investment in 2004 in Radotín was presented by the installation of equipment for the dosing of reducing agents in the production of bulk and bagged cement in order to eliminate Cr+6 in manual

processing.[500] For greater reliability of operation, a new exhaust kiln fan No.1 was put into operation. The equipment of a company Sirocco had, compared to typical fans, narrower wheel with a diameter of 2,300 mm and specially curved blades. This creates self-cleaning effect, which reduces the risk of material sticking.[501] New showers, locker rooms and a canteen in Radotín underwent modernization. In the first quarter of 2004, there was a significant change in dispatch of bagged cement. Cement packing in 25 kg bags only instead of 50 kg ones were introduced. It accommodated customers who preffered smaller and easier to operate packages of all loose building material. The modification of storage of the filled bags on pallets was related to the change of packaging. There was a reduction in weight of one pallet by 0.1 ton. To limit the movement of single bags on pallets during shipment, the packing line was completed with equipment for fixating bags using special glue.[502]

Since 2005, within the European Union there was introduced a system of allocating emission allowances and trading them. Based on the National Allocation Plan, in 2005, there were 1,142,692 tons of emission allowances in the book value of 700,991,000 CZK.[503] In January 2006, the Environment Department of the City of Prague issued an integrated permit according to Act No. 76/2002 Coll. equipment for the production of clinker in rotary kilns.[504]

The rotary kiln No. 1 had installed a scanner measuring the shell temperature of the kiln along its entire length. Thus manual measuring was removed and the operator at the central control room is immediately informed of any changes in temperature of the kiln shell. Both kilns had automatic spray lubrication of the rim of the main drive installed.[505] In the raw material grinding hall in the material stockyard there was a new steel tank with mechanical discharge built for powdered wet gypsum to the crushed material prior to precrushing. This gypsum replaced the dry briquetting gypsum, which was fed through a bunker No. 5. During the year, reconstruction of walls and the bottom and an overall cleaning of cement silo No. 4 and 5 was carried out. Subsequently, new cement aeration was installed in both silos. It resulted in reduced dead stock and thus an increase in capacity of each silo by 1,000 tons.[506]



Raw materials mill

In early 2006, a self-service loading for road tankers was commissioned using card system. This step made it possible to extend the loading up to 24 hours, seven days a week. The control system CEMAT 6 of the Siemens Company automatically supplements four dispatch silos out of 10 cement silos.[507] There were also some adjustments made to the interior of a mechanical workshop, electric workshop and a reconstruction of canteen facilities to meet the hygiene regulations.[508]

In Králův Dvůr there was completed a new dispatch terminal for the loading of bulk cement into trucks.[509]

On 17th June 2006, an open day was organized. Over 700 visitors could see the plant in full operation. Part of the open day was a rich accompanying program for both adults and children.

During the winter repairs, a sand bed filter for a cooler of rotary kiln No.1 was demolished and replaced with a bag filter with an air mass precooler for filtration from a company Redecam. To reduce the alkali chlorides, ie bonding of raw material in a raising duct and a fourth cyclone, a bypass filter at the kiln line No.1 was introduced. Both kilns had their flaps under the fourth cyclone replaced for modern ones.[510] The Introduction of the new bag filters from the Redecam Company significantly reduced dust emissions and the installation of a bypass prevented the exchanger from material sticking, which reduced the the frequency of shutdowns of the kilns. In terms of environmental protection, dust emissions were reduced during start up and shutdown of kilns.[511]

The installation of the automatic measuring of a shell of kiln No. 2, continuous measuring of emissions of SOx, TOC, C1, F[512] of kiln No.1 was completed. During a shutdown of kiln line No.1 there was an upgrade of the control system of this line, including the transport routes to an clinker silo. All these measures enabled the increase of use of solid alternative fuel up to 35 %.

Engines of main drives SM1, CM1 and CM2 were replaced.

In the stockyard of substrates, there was a concrete bunker for slag demolished and it was replaced with a steel slag bin and gypsum bin with a mechanical discharge. During the year, renovation of walls and bottoms of some other cement silos No. 3 and 8 was carried out, including a clean-up. Both silos had new

Self-service loading tank trucks in Radotín

Dispatching terminal for VLC in Králův Dvůr

Open Day, 2006

cement aeration installed. Dead stock was reduced and the capacity of each silo was increased by 1,000 tons.

A dispatch coal silo was rebuilt to a silo for unloading lignite coal multi-dust and a connection o this silo with a silo for dust coal was built.

Dispatching of coal dust

The central compressor station had a new Atlas Copco compressor and a freezer of air was installed.

Sheathing the fifth floor of a raw material grinding hall with drives of elevators and covering the spiral casing of the SM circulating fan significantly reduced noise.[513]

Lift bridges on the substrates unloading ramp were reconstructed and so was built the fat trap between the works kitchen and a wastewater treatment plant. Half of the wastewater treatment plant was also replaced.

Construction works wer performed at the administration building. On the first floor there was a new conference and training room set up. Three chimneys of the former gas boiler room were disposed of. Before the end of the year, works on building a new entrance weigh bridge at the main gatehouse began.

Significant reduction of noisiness was achieved by jacketing the raw material mill

The EKOLA Company, in the autumn of 2007, conducted measuring of the main source of noise in the works with a noise camera, and works on a digital map of the works and passportization of buildings continued.

In the autumn of 2007, an international music festival Talichův Beroun was held. It was the tenth year of the festival, which the Českomoravský cement Company and its predecessors sponsored.

During the following year 2008, the raw material grinding hall had the original elevator replaced with a new one. The engine of the main SM2 drive was also changed. For the dosing of fly ash in raw material, a new dosage equipment from the Reimann Company was installed and it replicated the

existing rotary feeder. During the winter repairs, a sand bed filter behind the cooler of rotary kiln No. 2 was dismanteled and replaced with a bag filter with a mass air precooler for filtration from an Italian company Radecam. To reduce the concentration of Alkali chlorides, a bypass filter was built on kiln line No. 2. During a shut down of kiln line No. 2, the control system for this line was upgraded, including the homogenization of raw meal and transportation of this material to the kilns. A phase of upgrading the Siemens control system from CEMAT 2 to CEMAT 7 for the production stage 40 was completed.[514] The Uhitherm Company carried out a reconstruction of both burners for both kiln lines. All these measures enabled the use of alternative fuel for clinker burning at 38 %.[515] The transport between an animal meal container and solid alternative fuels, a belt conveyor was replaced with an drag conveyor.[516] During the year, cleaning and renovation of walls and the bottom of another two cement silos No. 7 and 1 was carried out. Subsequently, a new cement aeration was installed in both silos. The central compressor station was enhanced with an Atlas Copco low-pressure compressor. The jacketing of the southern wall of the raw material grinding hall between the first and fourth floors was carried out as an anti-noise measure. In addition, a storage hall for spare parts was built. The hall was originally in a quarry Branžovy, where it was of no use.[517]

The second half of the sewage treatment plant was also replaced. The entrance weigh bridge at the main gatehouse was, in May 2008, put into operation. The central control room was moved to the administration building and thus merging the analytical laboratory in a single workplace. Collection of documents for the environmental impact assessment was approved, so it was possible to increase the amount of waste coincinerated in rotary kilns; and before Christmas, the Environmental Department of the Magistrate of the City of Prague was asked to change the integrated permit IPPC.[518]

In Králův Dvůr the loading of bulk cement at the works 2 was supplemented by an underpass weigh bridge and a card system for self-service loading of bulk cement.[519]

To maintain good relations with neighbours, in October 2008, the management of the works organized a meeting with the representatives of surrounding municipalities, where they were introduced a study on the protective barrier between the village Kosoř and the quarry Hvížďalka.[520]

In 2009, effects of the economic ressesion started to show and investments were severely limited. The connection between the bypass filters with clinker coolers and a place for loading micro fillers was completed. The otpimization of the whole kiln system further increased the use of solid alternative fuels up to 44 %. The cleaning continued, as well as the renovation of walls and a bottom of another cement silo No.9. Then a new cement aeration was installed. In January, it was decided to change the production range. Instead of CEM I 52.5 N cement a production of CEM II/ A-LL 52,5 N cement started. The original CEM I 52.5 N cement was moved to silos in Králův Dvůr.

From the noise-control measures, jacketing the top of the building of the cement grinding hall was implemented. For four high-pressure fans for rotary kiln coolers No.1 and 2 there were placed FM conventors and these fans were soundproofed with mineral wool. The fans for shell cooler and outlet of rotary kiln No. 2 were soundproofed in the same way. After the winter repairs, the control of the entire technical process was set up from the new central control room located on the ground floor of the administration building.

As part of an understanding with the representatives of the neighbouring municipalities, in October, there was a meeting of all representatives of the neighbouring villages, where they were introduced five-year lineage imission concentration measurements of ozone, PM 10 dust particles, nitrogen oxides from controlled points around Radotín, Lochkov and Kosoř.[521]

Also in 2010, the Czech economy still did not reel from the economic crisis. One of the sectors where the recession was most apparent was the building industry. This decline also reflected on the producers of building material. Therefore, the Českomoravský cement Company strongly reduced its investments, and in the middle of the year it stopped completely except for activities which were necessary for safety reasons. There were, however, implemented projects focused on the reduction of costs. For example, GSP (Group Spare Parts), which focused on reducing the inventory spare parts. Despite the austerity, an upgrade of the control system of the crushing hall was carried out, including the reconstruction of a small control room right above the jaw crusher. The laboratory received a device for rapid determination of sulphur content. From the noise control measures there was the jacketing of four fan drives for clinker coolers carried out and fans for dedusting the bins of components in CM1 and CM2 were covered. The cleaning, renovation of walls and a bottom of cement silo No.10 was carried out, including other minor adjustments and repairs.

Over the fifty years of its existence, the "new" Radotín works has gone through a complex technical development – from a dusty and smoking works to an environmentally friendly works. Even though the present economic recession is deadening industrial business, modern operation of the cement works and experienced workers are a guarantee of a successful development in the future.

~QUARRIES OF THE RADOTÍN CEMENT WORKS ~

The main raw material base of the cement works in Radotín had alwys been nearby quarries. The old works sourced limestone from quarries *Lochkov (Čistá)* and later from the quarry Cikánka. In 1945, a shelf quarry *Špička* was opened. The quarry is located 3 km northwest of Radotín, opposite the quarry Hvížďalka. The deposit consists of limestone Slivenec, Řeporyje and Dvůr-Prokop.[522] In 1950, the area of the quarry was 100x30m. The limestone in the shelf quarry was mined by bench blasting in two benches. The first bench blasting was carried out on 15th May 1954.

The quarry Hvížďalka

On the opposite side behind the road there was opened a quarry *Hvížďalka*. The quarry is located on the right bank of the Radotín Creek, 2.5 km northwest of Radotín. The deposit consists of complex Dvůr-Prokop mudlimestones with underlying Řeporyje, Slivenec and Kosoř limestone. It was founded in the years 1958–1959 as the main raw material source for the new cement works. In determining the profitability of the quarries Hvížďalka and Špička in the years 1958–1959, the workers of a national company Geoindustria Praha used for the first time in Czechoslovakia a method of calculating reserves using microblocks and mackroblocks.

Building quarry economy for the new cement works was planned in part II of the construction. The quarry had been designed as shelfed with four benches. The project documents were prepared by Keramoprojekt Praha. When adjusting the terrain, the new quarry was overlayed in the amount of 15,000 m^3 and another 30,000 m^3 had to be removed to adjust the access roads and open space infront of the crushing hall.

Opening of the Hvížďalka quarry

In the early days of mining, the material was being extracted from the upper third and fourth benches because the original ground profile sharply rose from a valley of the Radotín Creek. Only after the advance of the two benches southwest, there was enough space to expand the

second and first benches of the quarry. The mining was carried out by bench blasting (drilling and subsequent blasting of vertical wells based on the bench). After the break off of oversized pieces with a cuttingblast or a bore blast (today this method is used only in the quarry Bražovy), the limestone was loaded with an electric excavator on to a Tatra truck with loading capacity of 10–12 tons. Today, wheel loaders are used for loading and the transportation is provided by dumpers with loading capacity of 30–35 tons. The limestone was then transported to the crushing hall, which was built together with the quarry. Crushing of the limestone muck was carried out in two stages. During the first stage, a double-toggle jaw crusher VN 10 2N with the power of 250–350 t/hour and output of 220 mm was installed. In the second phase, two two-rotar hammer crushers 16 D/150 PS with capacity of 170t/hour each with the output of 63mm were installed. After the reconstruction of the hammer crushers in 1999, the performance of the crushers increased up to 300t/hour with output of 45 mm. Crushed material was transported to a crushed limestone stockyard, where it was stored separately according to the content of $CaCO_3$.[523]

In the quarry Hvížďalka, in 1962, it was the first time they tested the primacord millisecond delay elements during a time igniter bench blasting. The blasting was conducted by the workers of the Institute of Research in Engineering Technology and Economics Research in Prague. Due to the large-scale blasting operation, the quarry Hvížďalka began to implement measurings of seismic effects. The first measuring was conducted on 4th January 1963 by the Geological Survey Prague. Systematic measuring of seismic effects, however, did not start until the year 1992. Monitoring was provided by the INSET, s. r. o., Praha Company. They measure all bench blasting. Since 1994 the measuring has been done by automatic, permanently located stations.

In 1998, in the quarries, for a timed millisecond igniter, there were introduced non-electric INDETSHOCK initiations.

The first passage through tunnel Belazem to the quarry Hvížďalka

Another quarry, where the works got its limestone from, was a quarry Branžovy (also called Na Branžovech). The quarry is located 2 km south of the village of Loděnice, by the road Loděnice – Lužce. A high percentage of Koněprusy, Slivenec limestone and Loděnice, Řeporyje, Dvůr-Prokop and Zlíchov limestone sludge were mined.[524]

In 1994 a unique project was implemented, which contributed to the reclamation of the mined area. In the quarry Hvížďalka, in the nineties there was a problem where to place strippings and burrow material because the existing store did not have enough capacity. There was a possibility of free space in an excavated part of the quarry, but across the excavated segment there was an access road to the mining part of the quarry. Then manager of the raw material base Jiří Šulc thought of placing the access road into a tunnel, and the excavated area was gradually covered up

to 50 or 60 m. The tunnel was built in two phases, in the years 1994 and 1998. In the first stage, the Subterra Company built a tunnel 224 m long. In the second stage, the tunnel was extended by the Energie Kladno Company by another 108 m. The tunnel was made from reinforced concrete and the thickness of the lining was 40 cm at the final portal and it was up to 85 cm at the temporary portal. This construction allowed for maximum height of infilling up to 60 m. The ceiling had build-in pressure monitoring boxes. The tunnel floor had concreted draining ditch for mine water from the quarry.

Prolongation of the tunnel to 332 meters

The dump capacity is possible to expand by extending the body of the tunnel by about 100 m. The extension would connect to the temporary portal.

For further development of the quarry economy it was important to gain a permit of the District Mining Office in Kladno. In December 2006, a permit to perform a mining activity was issued in accordance with an approved plan of opening, preparation and extraction in the quarry Hvížďalka. This permit was valid until there was nothing left to excavate in the mining area Zadní Kopanina I – the quarry Hvížďalka. Based on the size of the production, the lifetime of the quarry is estimated up to the year 2045. A similar decision was issued for the quarry Špička with the validity until the all the quarry was exhausted. Many natural objects in Hvížďalka, Špička and Cikánka II were declared natural monuments. In the vicinity of the cement works there are two EVL locations – Lochkov profile and Radotín Valley.

The quarry Branžovy was approved by the EIA and the District Mining Office in Kladno issued a permit for mining in the quarry until about the year 2045.

Raw material from quarries will provide the future of the operation of the cement works for the next few decades. Quarries will be then reclaimed by the nature of the Bohemian Karst.

~ RAILWAYS IN THE SERVICES OF THE PRAGUE JOINT-STOCK FACTORY FOR HYDRAULIC CEMENT AND THEIR SUCCESSORS ~

An interesting chapter in the history of a cement works and limeworks of the Prague Stock Factory for Hydraulic Cement and their successors from the railways, both rails and cable tracks, which played an important part in the production of cement and lime.

In Radotín, together with the cement works there was a rail connection with standard gauge (1435 mm) built between the works and train station in Radotín. The single-track 298.5 m long was commissioned on 20th July 1872.[525] The siding was connected to crossover No.18 on 9.884th km on track Prague-Pilsen, the Imperial Privileged Czech Western Railways. In connection with the development of the works the siding also developed. In 1912, the Windhoff Theine-Westfálen Company provided equipment marshalling the rail wagons.[526] Another expansion of the works railway sidings comes from the twenties of the 20th century. The length of the rails increased to 802 m and it was complemented by four hand driven turntables with the capacity of 40 tons.[527] Wagons were moved by winches with ropes. After 1930, all equipment involved in handling wagons was electrified. Most of the shunting devices were supplied by the Demag Duisburg Company. In 1940, in the cement works new wagons weighing-machine was built. By 1963, the siding had been reconstructed several times. In 1963 it was destroyed in connection with the abolition of the old cement works in Radotín.

Delivery of raw materials from quarries in Lochkov to the works in Radotín had been carried out by a narrow horse-gauge. A permit to operate was issued by the Imperial District Marshal Office in Smíchov on 3rd September 1873, under No. 12 713. The track gauge was 750mm; rail was 75 mm high and 1,843 m long.[528] In 1911, a gasoline locomotive was purchased to supplement the horses. In 1940, after the last pair of horses was reassigned to the army, the horse power at the narrow-gauge track came to the end and it was replaced with

Narrow-gauge track in quarry Cikánka, now Špička

Loading raw materials on carriages of the narrow-gauge track

locomotives running on wood gas. After the year 1945, the track was extended to the quarry Cikánka (also known as Na Cikánce). Wood gas driven locomotives were replaced with diesel locomotives. The track had one shunting switch[529] in place of today's Vinohrady Street. In 1959, the track was cancelled. The narrow-gauge line is today remembered by the name of a street U Drážky, where the former tracks used to run.[530]

Railway to the new cement works

A new cement works in Lochkov, which was built in the years 1959–1961, is connected with the train station in Radotín with a train line with gauge of 1,435mm. Ground alterations for building the works siding line started on 8th October 1958[531] and it was put into operation in 1962. Its transfer rail tracks, under the housing estate Radotín, are entered from a direction of Dobřichovice gridiron[532] station, on the right hand side from the tracks from the perspective from Prague. The siding itself is connected to the transfer tracks with a turning back.[533] On the three kilometres long track there are three culverts (0.66 km, 1.193 km and 1.962 km) and a 4 m wide concrete bridge. The shunting had been provided by diesel locomotives T 435.0553, T 435.0554 and T 435.0555 from the very beginning. In the nineties, the fleet of locomotives was gradually diversified. The following machines were used: 701 663-7 (T 211.1663), 703 530-6 (T 212.1530), 740 850-3 (T 448.0850), 740 408-0 (T 448.0908) and 740 578-0.[534] Currently, the Českomoravský cement, a. s. Company is using their own locomotive 740 850-3.

The Prastav Company and its successors had other quarries and lime works in Prokop Valley. The factory sidings were connected to the rail tracks between the stations Hlubočepy and Řeporyje. This track was built in 1873 as part of the Imperial Privileged Railways of Prague-Duchcov. From the gridiron Hlubočepy towards the station Řeporyje, the siding of 1,435 mm turned right on the 4.354th kilometre to the lime works Prastav in Hlubočepy. Limestone for this lime works was delivered from the Prokop quarry. The expansion of the quarry gradually destroyed all the known places of pilgrimage – Prokop's Cave, where, according to the legend, Saint Prokop lived, and the church of St. Prokop from 1711. This quarry also supplied a lime works in Jinonice, which was from 1st July 1963 until 1st January 1969 a part of Radotínské cementárny a vápenky, n. p. The quarry had three benches. The railway system of the first bench was headed to the northern slope of the valley around the hill. In 1924 the mining on the first bench stopped. The railway system of the second bench was connected to the poppet head in the western part, where the excavated limestone was lowered to the first bench and from there it was hauled, as before, via the narrow-gauge railway to the lime works. In 1940, the third bench of the quarry opened and the limestone was hauled from there via a newly built narrow-gauge to a falling track[535] with dukeys[536] to kilns. The line was 250 m long and the falling track had 180 m. Operation on the third bench was provided by a BN 30 diesel locomotive. The quarry lines had gauge of 600mm.[537] The quarry was closed down on 1st March 1966. The narrow-gauge track was demolished and the quarry was reclaimed.[538]

At the state railway to Řeporyje on the 7.098th km there was a left turn to a circular kiln of the Prastav Company. The kiln was located opposite the Holyně station. This lime works was called Holyň. On the 7.988th km a double line track turned left to another limeworks of the Prastav Company. In the papers it was reported as Holyně 7. The train was 415 m long. On the 8.405th km it again turned left for another 347 m to limeworks of Prastav, which was called Holyně 8. Both lime works, Holyně 7 and 8 were connected with each other and a quarry with an extensive system of tracks with rail gauge of 600mm. The system had two tunnels and a bridge running over the state railway tracks on the 8.353rd km. The bridge was 15 m long, 6 m high and 3 m wide.[539]

Old quarry with the narrow-gauge track in Loděnice

The last industrial railway track in the Prokop Valley, associated with the company Prastav, was located 9.362 km to the left from a loading ramp. The railway that was 529 m long was demolished in 1961. From the ramp a narrow-gauge track led to quarries Na Požárech (also called Požár I. and Požár II.) and they were connected with a 60 m long tunnel. After opening the quarry Požár III in 1940, a tunnel between the quarries Požár II and III was completed. All quarries were interconnected with a line with gauge of 600 mm. The narrow-gauge tracks gradually phased out as the individual parts of the quarries were being closed down. The industrial railway track was closed down in October 1961.[540]

The only one cableway that was owned by the company Prastav was in Loděnice. In 1907, with the permission of the Prague governorship No. 191 693 of 20th August 1907, Jindřich Cífka built a cableway. He connected the lime works with the quarries Na Branžovech and eliminated the transfer of limestone from the quarries to the lime works by carriers. At the same time he had built a 550 m long works railway track with a turntable and a wagon scale in the courtyard of the works.[541] The frame of the cableway was wooden and the equipment was provided by a company Pohlig. It was 1,450 m long. It was interesting that the route was angular. After 1,128 m, four-axle trucks got detached at a divide station, passed through it on train tracks and in the next section they were re-attached to the rope. In the "angualar" station there was a breaking device. This station, however, due to carelessness of the workers burned down in 1942[542], but it was renewed that year. The track height difference was 120 m and it was based on a very simple principle. Full carts descended by gravity pulling empty carts up. The drag rope had 16 mm in diameter and it was common for both sections. The carrying rope of full carts had 30 mm in diameter and the carrying rope of empty carts had only 22 mm in diametre. They transferred 40 tons in one hour.[543] In 1953, the cableway underwent reconstruction and in 1962, it was closed down and eliminiated.[544]

After 1950, the Pragocement, n. p. Company, became an owner of two new cableways in Srbsko. The first one, 1,002 m long with elevation of 71.6 m, led from the quarry Na Chlumu to a limestone transfer terminal in Srbsko. It was built in 1917 and the equipment was provided by the Pohlig Company. In 1949, an unloading station made from reinforced concrete was built.[545] In February 1961, this cableway was demolished. Wood from the frame was donated to the Municipal Authority in Srbsko and then it was used for reconstruction of a footbridge across the Berounka River and ice barriers.[546] The second cableway was directed from the quarry Besídka (Petzold's Quarry) over the Berounka to a transfer station at the state railways. It was built in 1941 and the equipment was provided by a company Wilde. After a fire in 1947, the cableway was re-built by a company Transporta. The cableway was 250m long and the stretch across the river was 197m long.[547] The cableway was destroyed in 1964.

Most of the narrow-gauge tracks do not exist anymore; their operation did not match new safety regulations and also did not meet the economy criteria. Still, these tracks are inseparable from the history of the lime and cement production in the Bohemian Karst.

[1] The oldest cement plant in Bohemia was established in Bohosudov by Teplice in 1860.

[2] Státní oblastní archiv (State Regional Archive, hereinafter referred to as SRA) in Prague, the fund at Krajský soud obchodní (the Regional Commercial Court, hereinafter referred to as KSO) in Prague, file V/11-1597 (Ferd. Barta & Comp.), box no. 1449. In 1878 the company was closed down and was erased from the Commercial Register.

[3] Ibid., box no. 1449.

[4] Ibid., box no. 1449.

[5] I.e. 569 – 1,138 m.

[6] SOA Praha, KSO Praha, File IV/193, box no. 720.

[7] The owner of the manor and castle in Blatná.

[8] SOA Praha, KSO Praha, File IV/193, box no. 720.

[9] Ibid., box no. 720.

[10] Articles of the company § 6.

[11] Anna MATOUŠKOVÁ, Od tradičního vápenictví na území Českého krasu ke vzniku moderní továrny na výrobu portlandského cementu v Králově Dvoře v roce 1911. Královdvorská cementárna 1995, p. 40.

[12] Balance sheet on 31 December 1877. Státní okresní archiv (dále SOkA) Beroun, Podolská cementárna, box no.1.

[13] Jednatelské (výroční) zprávy společnosti za roky 1877 a 1880. Ibid., box no.1. (Reports of executive directors and annual reports reports of the company).

[14] František JÍLEK a kol., Studie o technice v českých zemích 1800–1918, díl IV., NTM Praha, 1986. p. 448. (Study about Technology in the Czech Lands).

[15] Výroční zpráva společnosti za rok 1882. SOkA Beroun, Podolská cementárna, box no. 1. (Company´s annual report for the year 1882).

[16] Výroční zpráva společnosti za rok 1885. Ibid., box no.1.

[17] Výroční zpráva společnosti za rok 1888. SOkA Beroun, Podolská cementárna, box no. 1. (Annual report for the year 1888).

[18] SOA Praha, KSO Praha, File IV/193, box no. 720.

[19] Výroční zpráva společnosti za rok 1889. (Company´s Annual Report of 1889). Ibid., box no. 1.

[20] Výroční zpráva společnosti za rok 1890. SOkA Beroun (Company´s Annual Report of 1890). SOkA Beroun, Podolská cementárna, box no. 1.

[21] The Jubilee Land Exhibition of the Czech Kingdom in Prague 1891. Prague 1894, p. 503.

[22] Výroční zpráva společnosti za rok 1892 (Company´s annual report of 1892). SOkA Beroun, Podolská cementárna, box no. 1.

[23] SOA Praha, KSO Praha, File IV/193, box no. 720.

[24] Výroční zpráva společnosti za rok 1891 (Company´sannual report of 1891. SOkA Beroun, Podolská cementárna, box no. 1.

[25] Protokoly ze schůzí ředitelství Podolské cementárny z let 1908–1915 (Records on meetings of the management of the Podolská cementárna), p. 52. Ibid., ID 1.

[26] Antonín SVOBODA, Pec Hauenschildova v Podolské cementárně, p. 2. Národní technické museum (National Technical Museum), collection of memoirs and manuscripts, ID 1057.

[27] Výroční zpráva společnosti za rok 1893. SOkA Beroun, Podolská cementárna, box no. 1.

[28] Jaroslav LÁNÍK, Miloš CIKRT, Dvě tisíciletí vápenictví a cementárenství v českých zemích, SV CEVA, 2001, p. 57. (Two Thousands Years of Lime Work and Cement Work in the Czech Lands).

[29] Výroční zpráva společnosti za rok 1894. SOkA Beroun, Podolská cementárna, box no. 1.

[30] Výroční zpráva společnosti za rok 1895. Ibid., box no. 1.

[31] Ibid..

[32] Ibid., box no. 2.

[33] SOkA Beroun, Podolská cementárna, box no. 1.

[34] SRA Praha, RCC Praha, file IV/ 187, box no. 718.

[35] In fact, both functions were joined. SOkA Beroun, Podolská cementárna, box no. 1.

[36] Jaroslav LÁNÍK, Miloš CIKRT, c. d, p. 58.

[37] Výroční zpráva společnosti za rok 1904. SOkA Beroun, Podolská cementárna, box no. 1.

[38] In 1892, new currency, Austrian crown, was introduced in Austria-Hungary which replaced Austrian florin in a ratio of 1 florin = 2 crowns.

[39] Výroční zpráva společnosti za rok 1906. SOkA Beroun, Podolská cementárna, box no. 1.

[40] Activity for streams regulation was caused by the Land Law no. 31 of 13 February 1903, On Rivers and Streams Regulation.

[41] Výroční zpráva společnosti za rok 1907. SOkA Beroun, Podolská cementárna, box no. 1.

[42] František JÍLEK and j. a., Studie o technice v českých zemích 1800–1918 (Study on Technology in the Czech Lands 1800–1918), vol. IV. NTM Prague, 1986, p. 450.

[43] Výroční zpráva společnosti za rok 1907. SOkA Beroun, Podolská cementárna, box no. 1.

[44] SOA Praha, KOS Praha , File IV/187, box no. 718.

[45] Reports from meetings of the Podolí cement plant management, 1908–1915., p.10. SOkA Beroun, ID1.

[46] Ibid., p.37, 88, 89, 110, 116.

[47] In August 1914, the First World War started.

[48] Výroční zpráva společnosti za rok 1914. SOkA Beroun, Podolská cementárna, box no. 1.

[49] Records from meetings of the Podolí cement plant management from the years 1908-1915, p. 183. Ibid., ID 1.

[50] Ibid., p. 184.

[51] Výroční zpráva společnosti za rok 1917. In the sam place, Podolská Cementárna, box no. 1.

[52] Výroční zpráva společnosti za rok 1918. Ibid., box no. 1.

[53] Výroční zpráva společnosti za rok 1919. SOkA Beroun, Podolská cementárna, box no. 1.

[54] Výroční zpráva společnosti za rok 1920. Ibid., no. 1

[55] Výroční zpráva společnosti za rok 1921. Ibid., no. 1.

[56] Výroční zpráva společnosti za rok 1922. Ibid., no. 1.

[57] Miners´ strike in the Ostrava region took place between 30 March and 7 April 1925.

[58] Účetní a výroční zpráva společnosti za rok 1923 (ccounting and Annual Report of the company). SOkA Beroun, Podolská cementárna, box no. 1.

[59] Účetní a výroční zpráva společnosti za rok 1924. Ibid., box no.1.

[60] Permission to assembly the grid and reconstruct the shaft kiln was issued by the Okresní politická správa in Královské Vinohrady on 10 May 1924. SOkA Beroun, Podolská cementárna, box no. 1.

[61] Účetní a výroční zpráva společnosti za rok 1927. Ibid., box no. 1.

[62] SOA Prague, KSO Prague, File IV/ 187, vol. III., box no. 719.

[63] Účetní a výroční zpráva společnosti za rok 1928. SOkA Beroun, Podolská cementárna, box no. 1.

[64] Účetní a výroční zpráva společnosti za rok 1929. SOkA Beroun, Podolská cementárna, box no. 1.

[65] Ibid., box no. 1.

[66] Účetní a výroční zpráva společnosti za rok 1930. Ibid., box no. 2.

[67] Ibid., box no. 2.

[68] SOkA Beroun, Podolská cementárna, box no. 5.

[69] Účetní a výroční zpráva společnosti za rok 1932. Ibid., box no. 2.

[70] Notářský zápis z 61. řádné valné hromady (Notary record of the 61st annual general meeting). SOA Prague, KSO Prague, file IV/187, vol. III., box no. 719.

[71] Účetní a výroční zpráva společnosti za rok 1933. SOkA Beroun, Podolská cementárna, box no. 2.

72 Účetní a výroční zpráva společnosti za rok 1934. Ibid., box no. 2.

73 Notary record of the 63rd annual general meeting. SOA Prague, KSO Prague, file IV/187, vol.IV., box no. 720.

74 SOkA Beroun, Podolská cementárna, box no. 2.

75 Jaroslav LÁNÍK, Velký příběh 120 let Královdvorské cementárny (The Great Story 120 Years of the Cement Plant in Králův Dvůr), 1889–2009, p. 85.

76 Smlouva o založení společnosti „Cement, a. s." (Agreement on the establishment of the company "Cement, a.s."), SOkA Beroun, Podolská cementárna, box no. 5.

77 Ibid., box no. 5.

78 It pressed charges in the Regional Commercial Court in Prague on 14 December 1938.

79 Účetní a výroční zpráva společnosti za rok 1936 (Company´s Accounting and Annual Report of 1936). SOkA Beroun, Podolská cementárna, box no. 2.

80 SOA Prague, KOS Prague, file IV/187, vol. IV., box no. 720.

81 SOkA Beroun, Podolská cementárna, box no. 5.

82 SOA Prague, KOS Prague, file IV/187, vol. IV, box no. 720.

83 Abstracts from meetings of the board of directors and executive committee of the KDC, a.s. 1889–1940. SOkA Beroun, archive of the KDC headquarters, box no. 1.

84 SOkA Beroun, Podolská cementárna, box no. 5.

85 Výroční zpráva společnosti za rok 1940. Ibid., box no. 2.

86 Ibid., KDC headquarters, box no. 237.

87 SOA Praha, KOS Praha, file IV/187, vol. IV, box no. 720.

88 SOkA Beroun, Podolská cementárna, box no. 1.

89 Main Committee for machines of the regional commissioner of Wehrmacht. German names of Reichs-institution in documentation were not translated into Czech.

90 Data in this table are from annual reports, minutes of the management meetings and correspondence and from materials of the Shop for meetings of the cartel members. From 1906, the amount of cement was stated in one wagon with load capacity of 10 tonnes.

91 The table is formed on the basis of data from annual reports that were presented at annual general meetings of the joint-stock company.

92 In 1892, new currency was introduced in Austria – Austrian florin was replaced by Austrian crown (koruna – K).

93 Biographical data on Josef Kučera can be found in Otto´s Encyclopedia, fol XV, p.322, entry Kučera Josef.

94 Alois Oliva (1822-1899), industrialist and deputy of the Imperial Council.

95 Jan Stanislav Skrejšovský (1831–1883), politician, journalist.

96 Josef NOŽIČKA, History of the Joint-Stock Plant for Hydraulic Cement in Radotín, typescript, Archive of the National Technical Museum, sig. D 187, p. 2.

97 Rudolf BÁRTA, c. d, p. 5. Magazine PRŮMYSLNÍK dedicated to the interest of all industries. It was published in Prague in the years 1869–1874. Editor, Karel Otakar Čech. ČVUT – Czech Technical University, VŠCHT – Institut of Chemical Technology.

98 SOkA Praha-západ, Archiv obce Radotín (OA), box no. 24.

99 Rudolf BÁRTA, c. d. p. 5.

100 According to Prof. Kučera technical equipment of the plant should have cost about 60,000 florins and buildings 40,000 florins. Josef NOŽIČKA, c. d. p. 2.

101 SOkA Praha-západ, OA Radotín, box no. 24.

102 Ibid., Prastav, box no. 11.

103 Ibid., OA Radotín, box no. 24.

104 SOkA Praha-západ, AO Radotín, box no. 24.

105 Rudolf BÁRTA, c. d. p. 6.

106 He remained the director until the bankruptcy of the company.

107 The current Czech National Bank is a different company and it was established at other times and for the different purpose.

108 František VENCOVSKÝ a kol. Dějiny bankovnictví v českých zemích, Bankovní institut a. s., Praha 1999, p. 120, 130. (History of Banking in the Czech Lands, Bank Institute).

109 Jaroslav LÁNÍK, Historie a současnost podnikání v Praze, vol. I. Žehušice 2003, p. 75. (History and the Present of Enterprise in Prague).

110 Josef NOŽIČKA, c.d. p. 4.

111 Allegedly for 44 % of the appraisal value.

112 SOA Praha, KSO Praha, file XI/ 251, box no. 796.

113 Unfortunately they do not exist any more.

114 Rudolf BÁRTA, c. d. p. 6.

115 SOkA Praha-západ, OA Radotín, box no. 24.

116 Ibid., box no. 24.

117 Ibid., Pamětní kniha obce Radotína z let 1921–1955, (Visitors Book of Radotín from the years 1921–1955), p. 112.

118 Ibid., Prastav, box no. 6.

119 Jaroslav LÁNÍK, Velký příběh (A Great Story). 120 let KDC, Českomoravský cement 2009 (120 Years of the Králův Dvůr Cement Plant), p. 38.

120 Ibid., p. 6.

121 They all had the title Director of the plant.

122 Rudolf BÁRTA, c. d. p. 6 and 7.

123 Ing. Otto SCHOTT, Beschreibungen der Fabrikanlagen der Firma Max Herget, Prag. SOkA Prague-West, Prastav, box no. 9.

124 Ibid., OA Radotín, box no. 24.

125 SOkA Praha-západ, Prastav, box no. 11.

126 Ing. Otto SCHOTT, c. d. p. 23.

127 Karel BEDNÁŘ, Rozmístění průmyslu v českých zemích na počátku 20. století, Praha Akademia 1970, p. 107 (Allocation of Industry in the Czech Lands at the early 20th century).

128 SOkA Praha-západ, Prastav, box no. 6.

129 Ban on smoking was probably applied only to the workers. Clerks and supervisors fumed mostly sigars, Virginia cigarettes and cigarettes which were not so commonly used. The author of the plant rules presumed that only pipe tobacco is affordable for workers.

130 Rudolf BÁRTA, c. d. p. 9, 10.

131 Rudolf Bárta, c.d. Ibid., p.10, 11.

132 SOkA Praha-západ, Prastav , box no. 11.

133 Rudolf BÁRTA, c.d., p. 21.

134 Ibid., p. 2.

135 Ibid., p. 2.

136 The new joint-stock company paid experts 155,928 CSK, 61 hel., and private consultants 215,704 CSK. SOkA Praha-západ, Prastav, box no. 9 and 10.

137 Ibid., box no. 10.

[138] Výroční zpráva za obchodní rok 1921. Ibid., box no. 1.

[139] Establishing general meeting of the company Spojené pražské továrny na staviva (SPT – Joined Prague Plants for Building Materials). SOkA Beroun, Prastav, box no.1.

[140] Articles of the company. Ibid., box no. 1.

[141] The cableway cost about 750,000 CSK.

[142] Schůze správní rady z 29. října 1921 (the board meeting on 29 October 1921). SOkA Praha-západ, Prastav, box no.1.

[143] The machines with the value of 2,270,000 marks ordered in 1922 cost the company 65 mil. inflation marks one year later. The board meeting of 21 December 1923. Ibid., box no. 1.

[144] Schůze správní rady z 16.prosince 1921. SOkA Praha-západ, Prastav, box no. 1.

[145] Schůze výkonného výboru správní rady z 14. ledna 1924 (the meeting of the executive committee of the board of directors). Ibid., box no. 6.

[146] It was usual that domestic companies were partially paid for equipment and reapairs by cement and other products of the company. These included also the Škoda Works and the Blecha Company.

[147] The board of directors also decided to be interested in results of the experiment. SOkA Praha-západ, Prastav, box no. 1.

[148] Schůze správní rady z 3. ledna a 22. února 1922. Ibid., box no. 1.

[149] Schůze správní rady z 4. října 1923. Ibid., box no. 1.

[150] One of the big debtors was also the company of Karel Barta which owed the SPT 191,622 CSK for delivery of fireclay for the glassworks in Romania.

[151] Schůze výkonného výboru správní rady z 26. června 1924 (the meeting of the executive committee of the board of 26 June 1924). SOkA Praha-západ, Prastav, box no. 6.

[152] Schůze správní rady z 30 března 1923. Ibid., box no. 1.

[153] František VENCLOVSKÝ a kol., c. d. p. 240.

[154] The company received this name on 17 May 1930.

[155] Rudolf BARTA, c. d. p. 15.

[156] The lime works was established by Jindřich Cífka in 1907. In 1914, it was bought by the Josef Procházka and Comp. The owner of the company Rudolf Weinmann extended the plant by a marble workshop and introduced milling limestone for the pulverized limestone production. In 1919, he extended lime production by the second ring kiln and started production of artificial fertilizers using low quality limestone.

[157] Finanční schůze správní rady z 27. září 1928 (Financial meeting of the board of directors of 27 September 1928). SOkA Praha-západ, Prastav, box no. 1.

[158] The contract was signed at the board meeting on 4 April 1924. Ibid., box no.1.

[159] The report was read at the recapitulating meeting of the board of directors from 25 May and at the general meeting on 17 July 1925. Ibid., box no. 1.

[160] The Knights owned 1000 shares and had 40 voices at the general meeting. The Knights got the shares from 81 ha of estates in Slivenec.

[161] Damage was covered by the insureance but losses from stoppage of production were big and the market was con trolled by competitors.

[162] Schůze správní rady z 30. března 1923 a z 30. června 1925. SOkA Praha-západ, Prastav, box no. 1.

[163] Finanční schůze správní rady z 26. ledna 1925 (Financial meeting of the board from 26 January 1925). Ibid., box no. 3.

[164] Finanční schůze správní rady z 17 listopadu 1926. Ibid., box no. 3.

[165] Schůze správní rady z 15. prosince 1926. Ibid., box no. 3.

[166] Finanční schůze správní rady z 15. prosince 1926. Ibid., box no. 3.

[167] Finanční schůze správní rady z 15. února 1926. Ibid., box no. 3.

[168] 6,000 tonnes of cement were used for the central pavilion, 90 wagons of iron for ferroconcrete and 250 wagons of timber for formwork. Karel PAVLÍK, The Exhibition Grounds, Brno in the Past and Today, no. 1, Proceedings of the town history and construction, 1959, p. 180.

[169] Finanční schůze správní rady ze 17, srpna 5. prosince 1927. SOkA Praha-západ, Prastav, box no. 3.

[170] Properties prices are adjusted.

[171] Schůze správní rady z 30. dubna 1929. SOkA Praha-západ, Prastav, box no. 1.

[172] Schůze správní rady z 2. října 1929. Ibid., box no. 1.

[173] In 1928, the company distpatched 50,000 tonnes of cement.

[174] Ing. Josef Fuksa, professor of industrial accounting at the Czech Technology University in Prague.

[175] Finanční schůze správní rady z 2. prosince 1929 (Financial meeting of the board on 2 December 1929). SOkA Praha-západ, Prastav, box no. 3.

[176] It is also started Na Požáru.The Požáry quarry is placed in the cadaster of Řeporyje.

[177] Schůze správní rady z 2. a 21. prosince 1927. SOkA Praha-západ, Prastav, box no. 1.

[178] Finanční schůze správní rady z 4. ledna 1933. SOkA Praha-západ, Prastav, box no. 3.

[179] Finanční schůze správní rady z 2. Prosince 1929 (Financial board meeting from 2 December 1929).Ibid., box no. 3.

[180] The name of the lime works was done according to the milestone of the railway Smíchov-Rudná (Dušniky).

[181] Schůze správní rady z 23. února 1922. SOkA Praha-západ, Prastav, box no. 1.

[182] Finanční schůze správní rady z 27. října 1928 (Financial board meeting from 27 October 1928). Ibid., box no. 3.

[183] Finanční schůze správní rady z 28. července 1926. Ibid., box no. 3.

[184] Schůze správní rady z 3. ledna 1923. Ibid., box no. 1.

[185] Rudolf BARTA, c. d. p. 14.

[186] Commercial marble names were approved by the Obchodní a živnostenská komora (Commercial and Trade Chamber) in Prague in 1929. Finanční schůze správní rady z 15. ledna 1930. SOkA Praha-západ, Prastav, box no. 3.

[187] It is more known as Petschkův palác (the Petschka palace).

[188] Finanční schůze správní rady z 27. března 1935 (Financial meeting of the board of 27 March 1935). SOkA Praha-západ, Prastav, box no. 4.

[189] Schůze správní rady z 25. května 1925. Ibid. box no. 1.

[190] Finanční schůze správní rady z 21. prosince 1927 (Financial meeting of the board of 21 December 1927). Ibid., box no. 3.

[191] Finanční schůze správní rady z 2. prosince 1929. Ibid., box no. 3.

[192] Finanční schůze správní rady z 19. prosince 1935. SOkA Praha-západ, Prastav, box no. 4.

[193] Schůze správní rady z 30. září 1936 (board meeting of 30 September 1936). Ibid., box no.1.

[194] Zpráva ředitele Ing. Maye pro finanční schůzi správní rady z 30. března 1938. (Report of director Ing. May for the financial meeting of the board of 30 March 1938). Ibid., box no. 4.

[195] SOkA Beroun, Československé cementárny a vápenice (Czechoslovak Cement and Lime Works, hereinafter as ČCV), box no. 57.

[196] X. valná hromada společnosti z 17. května 1930 (the 10th general meeting of the company of 17 May 1930). SOkA Beroun, Prastav, box no. 1.

[197] Finanční schůze správní rady z 25. září 1930. SOkA Praha-západ, Prastav, box no. 3.

[198] Finanční schůze správní rady z 30. července 1930. SOkA Praha-západ, Prastav, box no. 3.

[199] Finanční schůze správní rady z 19. prosince 1931. Ibid., box no. 3.

[200] Finanční schůze správní rady z 9. března 1932. Ibid., box no. 3.

[201] The board meeting of 18 October 1933. Ibid., box no. 1.

202 XV. valná hromada společnosti z 15. května 1935 (the 15th general meeting of the company from 15 May 1935). SOkA Beroun, Prastav, box no. 1.

203 Schůze výkonného výboru správní rady z 30 července 1931 (the meeting of the executive committee of the board of 30 July 1931). SOkA Praha-západ, Prastav, box no. 6.

204 Antonín Malý, a member of the board of directors of Prastav and director of the Czech Bank.

205 JUDr. Epstein was a secretary of the Prague stock market.

206 JUDr. Kudela was a representative of the Ministry of Finance.

207 The board meeting of 12 May 1934. SOkA Praha-západ, Prastav, box no.1.

208 The loan was a state loan declared according to the Law no. 48/33 Coll. It was used for increasing unemployment.

209 Schůze správní rady z 5. května 1933. SOkA Praha-západ, Prastav, box no.1.

210 The second exception was made in 1935 when President T. G. Masaryk resigned.

211 Schůze správní rady z 30. září 1935. SOkA Praha-západ, Prastav, box no. 2.

212 Protokol o schůzi výkonného výboru KDC z 8. května 1934 (Report on the meeting of the executive committee of KDC of 8 May 1934). SOkA Beroun, KDC, Company management, box no. 8.

213 SOkA Praha-západ, Prastav, box no. 3.

214 Finanční schůze správní rady z 19. prosince 1935. SOkA Praha-západ, Prastav, box no. 4. Finally the problem with the Lepiš Company was solved in 1942.

215 Schůze výkonného výboru správní rady z 11. prosince 1935 (Meeting of the executive committee from 11 December 1935). Ibid., box no. 6.

216 Finanční schůze správní rady z 14. dubna 1937. Ibid., box no. 4.

217 Finanční schůze správní rady z 29. listopadu 1937. Ibid., box no. 4.

218 Rudolf BÁRTA, c. d. p. 17–18.

219 Schůze správní rady z 30. března 1938. SOkA Praha-západ, Prastav, box no. 1.

220 Finanční schůze správní rady z 30. března 1938. Ibid., box no. 4.

221 Trade Certificate was issued by the District Office in Pardubice on 14 March. The board meeting of 30 March 1938. SOkA Praha-západ, Prastav, box no. 1.

222 Schůze správní rady z 21. prosince. 1938. Ibid., box no. 1.

223 Josef Vomáčka was a strong opponent of the cement plant. On 27th July 1935 he submitted a successful complain to the Ministry of Railway regarding dust and fumes bothering the Radotín railway employees when on duty.

224 Official name of the committee was Obecní komise pověřená obecním zastupitelstvem k vyšetření poměrů mezi obcí Radotínem a továrnou na cement firmy Prastav v Radotíně (the Municipal Committee uthorized by the Municipal Council to investigate relations between the Radotín Municipality and the Prastav Cement Plant in Radotín).

225 SOkA Praha-západ, AO Radotín, box no. 24.

226 SOkA Praha-západ, AO Radotín, box no. 24.

227 The municipal authorities in Horní Mokropsy, Dolní Mokropsy, Řevnice,Velká Chuchle, Lipany, Lipenec, Lahovice, Horní Počerne, Dolní Počernice, Horní Černošice, Dolní Černošice and Zbraslav were approached.

228 The Municipal Authority in Horní Černošice stated that *tourism is threteaned and this village has a character of the villa and weekend place*.

229 SOkA Praha-západ, AO Radotín, box no. 24.

230 Gazette of the National-Democratic Party. Evening edition of the Národní listy (National Gazette).

231 Evening edition of Právo lidu (The Right of People).

232 Office of the state administration of the second instance with general authority on the territory of Bohemia.

233 On 8th June, the Dictrict Authority in Praha-venkov charged for the sudden inspection 275 CSK and 60 hellers.

234 In another expert opinion the height of the chimney was presented as follows: *at least 80 m high eventually higher above the terrain of the plant yard*.

235 The company paid for measurements 1000 crowns and sent a small gift to the professor – a marble statue on the desk.

236 A Gazette of the Czechoslovak National-Socialistic Party.

237 The Land Office in Prague was the highest part of the territorial administration in Bohemia.

238 A Gazette of the National Unification.

239 Evening edition of the agrarian daily Venkov (The Country).

240 A central gazette of the Czechoslovak National-Socialistic Party.

241 A gazette of the Czechoslovak National-Socialistic Party.

242 A gazette for merchants and craftsmen.

243 A central daily paper of the Czechoslovak Social-Democratic Labour Partyně.

244 An independent gazette oriented on the support of the group in Hrad (Castle).

245 A central gazette of the Republican Party of Agricultural and Farming People.

246 A broadcasting and information gazette of the Communist Party of the Czechoslovakia (CPC).

247 Central daily paper of the CPC.

248 The impuls for the ministry question was given by interpellation of PM V. Knotek (the Czechoslovak People´s Party) and J. Krosnář (CPC).

249 Schůze správní rady z 30. března 1938 (the board meeting of 30 March 1938). SOkA Praha-západ, Prastav, box no. 2.

250 The chimney of 82 m height was built by the company of Ing. V. Fischer a spol. in Letky – Libice for 466 860 crowns. Financial meeting of the board from 3rd November 1938. Ibid., box no. 2.

251 The Central Union of Industrialists for Bohemia and Moravia, the Union of the Lime Industry in Bohemia and Moravia, the Central Union of Stone Industry and Owners of Quarries and Union for Improvement of Brick Industry in Prague called on its members to do Aryanization of the organizations, corporations and companies´ management.

252 Ing. K. Ullmann and JUDr. L. Kraus were members of the boards of the Retail Shop of the cement plant and Registration Office of lime works.

253 Aryanization was applied to the companies in which boards of directors only one Jewish was or where a share of the Jewish capital participation achieved 25%. SOkA Praha-západ, Prastav, box no. 1.

254 Finanční schůze správní rady z 20. prosince 1939. Ibid., box no. 4.

255 After the Munich Conference in 1938, all the territory of the Czechoslovak Republic (CSR) assigned to Germany was called Sudetenland. From April 1939 to May 1945, the name was Territorial Administrative Unit of the Greater German Reich Sudetenland, resp. Sudetengau or Gau Sudetenland.

256 The name "Altreich" (Germany) had to be used in documents written even in the Czech language.

257 The qarry Požáry lies in the cadastral territory of the municipality Neporyje. In 1982, it was announced the National Cultural Monument.

258 Rudolf BÁRTA, c. d. p. 20.

259 Finanční schůze správní rady z 20. prosince 1939. SOkA Praha-západ, Prastav, box no. 4.

260 The National Help was the organization which was established at the end of the 30th and it was supposed to support suffering members of the Czech nationality. The first severe trial of the National Helpt was a support of refugees from the borderlands in 1938. After the war finished it transformed into the Czech Social Help.

261 SOkA Praha-západ, Prastav, box no. 2.

262 Věstník nařízení říšského protektora 1940 (Bulletin of the regulations of the Reich Protector 1940), p. 47.

263 Marie DURMANOVÁ, Řízené hospodářství a správa Ústředního svazu průmyslu za nacistické okupace. Sborník archivních prací, vol. XVI/1966 (Controlled Economy and Administration of the Central Union during the Occupation), p. 372.

[264] Schůze výkonného výboru správní rady ze 17. července 1940 (the meeting of the executive committee of the board of 17th July 1940). SOkA Praha-západ, Prastav, box no. 6.
[265] Schůze správní rady z 22. května 1940. Ibid., box no. 2.
[266] In February the Union of power plants stopped supplying power because the power plant in Lány stopped power supply because of the lack of coal.
[267] Schůze výkonného výboru správní rady z 17. července 1940. SOkA Praha-západ, Prastav, box no. 6.
[268] Václav PRŮCHA a kol., Hospodářské a sociální dějiny Československa 1918–1992 (Economic and Social History of Czechoslovakia 1918–1992), Brno 2004, p. 459.
[269] Finanční schůze správní rady z 20. prosince 1939. SOkA Praha-západ, Prastav, box no. 4.
[270] This ban was cancelled by the Government Regulation no. 334 of 1 October 1940. The number of hours of the working week gradually increased.
[271] Schůze výkonného výboru správní rady z 11. července 1940. SOkA Praha-západ, Prastav, box no. 6.
[272] The provisional measure was originally valid until the end of July, then by the end of September and finaly by the end of 1940.
[273] Schůze správní rady z 22. května 1940. SOkA Praha-západ, Prastav, box no. 2.
[274] Schůze správní rady z 6. března 1940. SOkA Praha-západ, Prastav, box no. 2.
[275] The Essas Company was established on 26th November 1936.
[276] Schůze výkonného výboru správní rady z 20. května 1941. SOkA Praha-západ, Prastav, box no. 6.
[277] The board meeting from 2nd July 1942. Ibid., box no. 2.
[278] The meeting of the executive committee of the board from 3rd July 1941. Ibid., box no. 6.
[279] The board meeting of 11th November 1941. Ibid., box no. 2.
[280] The board meeting of 18th December 1941. SOkA Praha-západ, Prastav, box no. 2.
[281] Protektorátní politika Reinharda Heydricha (Protectorate Policy of Reinhard Heydrich), ed. Miroslav KÁRNÝ and Jaroslava MILOTOVÁ in cooperation with Margita KÁRNÁ, Praha 1991, p. 45.
[282] SOkA Beroun, Firmy začleněné do ČCV (Companies included in ČCV), box no. 11.
[283] The board meeting of 2 July 1942. SOkA Praha-západ, Prastav, box no. 2.
[284] Vládní nařízení č. 13/1942 sb. z 10. prosince 1941 (the Government regulation no. 13/1942 Coll. of 10 December 1941).
[285] Schůze správní rady z 26. března 1942. SOkA Praha-západ, Prastav. SOkA Praha-západ, Prastav, box no. 2.
[286] The loan for the defence of the state was declared by the National Assembly of the CSR of the Law no. 142/1936 Coll. of 29th May 1936.
[287] The Present was a gazette of the Národní souručenství, it was published from 1942 to 1945.
[288] The Noon Gazette was a press body of the Národní souručenství, it was published from 1939 to 1945.
[289] Schůze správní rady z 2. července 1942. SOkA Praha-západ, Prastav, box no. 2.
[290] SOkA Beroun, Prodejna cementáren (the Retail Shop of the cement plant), box no. 6.
[291] SOkA Praha-západ, Prastav, box no. 24.
[292] Schůze správní rady z 16. prosince 1942. Ibid., box no. 2.
[293] Schůze správní rady z 25. března 1943. Ibid., box no. 2.
[294] Schůze správní rady z 28. května 1943. Ibid., box no. 2.
[295] Schůze výkonného výboru správní rady z 18. března 1943 (meeting of the executive committee of the board of 18 March 1943). SOkA Praha-západ, Prastav, box no. 6.
[296] Fritz Todt, the Reich Minister of the Arms Industry established a building organization "Organisation Todt" in the years 1940–1942 and it built military premises around all occupied Europe.
[297] The national employee union center organized recreational activity for the workers from Protectorate between 1943 and 1944. It was named after Reinhard Heydrich who except for repression, tried to increase employee´s performance in Protectorate by different recreational and provisioning activities.

[298] SOkA Beroun, Prodejna cementáren., box no. 6.
[299] Schůze správní rady z 25. června 1943. SOkA Praha-západ, Prastav, box no. 2.
[300] Ibid., box no. 2.
[301] As the beginning of declaration of the total war in Germany the Goebels´ speech is stated wchich took place in the Berlins Sport Palace on 18th February 19A43.
[302] Schůze správní rady z 10. prosince 1943. SOkA Praha-západ, Prastav, box no. 2.
[303] Schůze správní rady z 21. července 1944. Ibid., box no. 2.
[304] Prastav paid for the accounting inspection 50,370 crowns.
[305] Board meeting from 5th December 1944. SOkA Praha-západ, Prastav, box no. 2.
[306] The table is made on the basis of data on the general meetings and board meetings.
[307] From March 1939 the Protectorate koruna.
[308] The table is drafted on the basis of data on the general meetings and board meetings.
[309] Until 31st May 1945.
[310] On 24th October 1945, President Beneš signed edicts no. 100/45 Coll. on Nationalization of Mines and Some Industrial Enterprises, no.101/45 Coll. on Nationalization of Some Enterprises of Food Industry, no. 102/45 Coll.
[311] František ČAPKA, Odbory v českých zemích v letech 1918–1948, (Trade Unions in the Czech Lands in the Years 1918–1948), Brno 2008, p. 159, 160.
[312] There is a lack of clarity regarding the works council. It is confirmed by the fact, that in documents it is called as works committee, works council, enterprise committee, enterprise council but it is still the same body. At the end the name was clarified as the enterprise council to distinguish it from the works councils in the plants. SOkA Beroun, České cementárny a vápenice (The Czech Cement Plants and Lime Works), hereinafter referred to as ČCV, box no. 5.
[313] Chairmen of the central works council alternated in the function after one month.
[314] SOkA Beroun. Prastav, box no. 2.
[315] Třetí schůze podnikové rady Prastavu z 23. června 1945 (the third meeting of the works council of the Prastav Company of 23rd June 1945). SOkA Beroun, ČCV, box no. 5.
[316] Čtvrtá schůze podnikové rady Prastavu z 23. června 1945 (the fourth meeting of the works council of the Prastav Company of 23rd July 1945). Ibid., box no. 5.
[317] Pátá schůze podnikové rady Prastavu z 3. září 1945. Ibid., box no. 5.
[318] Zpráva č. 2 z 31. srpna 1945. Příloha k páté schůzi podnikové rady Prastavu (Report no. 2 of 31st August 1945. Appendix to the fifth meeting of the works council of the Prastav). SOkA Beroun, ČCV, box no. 5.
[319] Today, Gramofonové závody Digital Media in Loděnice.
[320] Karl Hermann Frank, State Reich Minister executed on 22nd May 1946.
[321] Josef Pfitzner, deputy Prague mayor, executed on 6th September 1945.
[322] Kurt von Burgsdorf (1886–1962), state undersecretary, deputy to K. H. Frank.
[323] Šestá schůze podnikové rady Prastavu z 19. září 1945 (the sixth meeting of the enterprise council of the Prastav of 19th September 1945). SOkA Beroun, ČCV, box no. 5.
[324] Mimořádná schůze podnikové rady Prastavu a podnikové rady Královdvorské cementárny z 2. října 1945. SOkA Beroun, ČCV, box no. 5.
[325] Meeting was held at the occasion of commissioning of the newly reconstructed cement plant.
[326] SOkA Beroun, ČCV, box no. 5.
[327] Ibid., box no. 10.
[328] Sedmá schůze podnikové rady Prastavu z 22. října 1945. SOkA Beroun, ČCV, box no. 5.

329 On 1 November 1945, currency reform was implemented. Valid banknotes handed in (protectoral and some from the first republic, coupons with the date of 1944 and stamped Slovak money) were exchanged for the new Czechoslovak crowns (CSK) in a ratio of 1:1. It was paid out only 500 CSK in cash per one person and the rest was deposited in so-called fixed deposit which withdrawel was limited.

330 Devátá schůze podnikové rady Prastavu z 23. listopadu 1945. SOkA Beroun, ČCV, box no. 5.

331 Desátá schůze podnikové rady Prastavu z 21. prosince 1945. Ibid., box no. 5.

332 Jedenáctá schůze podnikové rady Prastavu z 22. ledna 1946. Ibid., box no. 5.

333 Jedenáctá schůze podnikové rady Prastavu z 22. ledna 1946. Ibid., box no. 5.

334 Regulation was published in Úřední list republiky Československé I. (Official Gazette of the Czechoslovak Republic) under no. 992 of 11th April 1946, díl normativní (normative vol.), částka 63, p. 775.

335 Ustavující schůze představenstva ČCV z 6. listopadu 1946 (Establishing meeting of the board of ČCV of 6th November 1946). SOkA Beroun, ČCV, box no. 1.

336 Tzv. Promemoria pro ředitele (Promemoria for directors) z 5. listopadu 1946. SOkA Beroun, ČCV, box no. 1.

337 Společná schůze podnikové rady a závodních rad ČCV z 28. března 1946 (Joined meeting of the corporation council and works council of ČCV of 28th March 1946). Ibid., box no. 4.

338 Schůze podnikové rady ČCV z 14. května 1946. Ibid., box no. 4.

339 Schůze podnikové rady ČCV z 19. července 1946. SOkA Beroun, ČCV, box no. 4.

340 Schůze podnikové rady ČCV z 4. října 1946.. Ibid., box no. 4.

341 III. schůze Představenstva ČCV z 27. ledna 1947. SOkA Beroun, ČCV, box no. 1.

342 Schůze podnikové rady ČCV z 25. ledna 1947. Ibid., box no. 4.

343 Schůze podnikové rady ČCV z 14. března 1947. Ibid., box no. 4.

344 The fourth meeting of the board of ČCV of 27 February. Ibid., box no. 1.

345 The seventh meeting of the board of ČCV of 20 June 1947. Ibid., box no. 2.

346 The tenth meeting of the board of ČCV of 29 August 1947. Ibid., box no. 2.

347 Schůze zástupců závodních rad a závodních důvěrníků ČCV z 6. listopadu 1947. (Meeting of deputies of works councils and works confidents of ČCV of 6 November 1947). SOkA Beroun, ČCV, box no. 4.

348 Property of the Germans, Hungarians, betrayers and collaborators.

349 XIII. schůze představenstva ČCV z 5. prosince 1947. Ibid., box no. 3.

350 Schůze podnikové rady ČCV z 13. ledna 1948. Ibid., box no. 4.

351 Schůze podnikové rady ČCV z 13. února 1948. Ibid., box no. 4.

352 Gift from the Sweden Government, parts of uniforms and clothes of the Sweden army.

353 XIV. schůze představenstva ČCV z 9. ledna 1948. SOkA Beroun, ČCV, box no. 3.

354 Regulations were published in Uřední lis (the Official Gazette) of 1st February 1948, part 19 and 4th February 1948, part 20.

355 XV. schůze představenstva ČCV z 10. února 1948. SOkA Beroun, ČCV, box no. 3.

356 Since this meeting they started using a title comrade and in mining industry they removed greeting "Zdař Bůh"(greeting God) and started using "Pětiletce zdar!" (greeting the five-year plan).

357 On 26th February only three plants of 18 had the action committee estasblished.

358 SOkA Beroun, ČCV, box no. 5.

359 Schůze podnikové rady ČCV z 24. června 1948. SOkA Beroun, ČCV, box no. 5.

360 Schůze podnikové rady ČCV z 10. března 1948. Ibid., box no. 4.

361 In some documents the counter plan is called plus-plan.

362 Schůze podnikové rady z 16. dubna 1948. SOkA Beroun, ČCV, box no. 4.

363 Dekret prezidenta republiky č. 88/45 Sb. o všeobecné pracovní povinnosti, zákon č. 192/46 Sb., § 9 národní mobilizace pracovních sil, zákon č. 87/47 Sb.,§ 36,§ 37 trestání provinění proti pracovnímu pořádku.(Decree of the President of the Republic no. 88/45 Coll. on General Work Obligation, Law no. 192/46 Coll., § 9 national mobilization of workforce, law no.87/47 Coll.,§ 36,§ 37 punishment for offence against the working order).

364 Schůze podnikové rady ČCV z 24. června 1948. SOkA Beroun, ČCV, box no. 5.

365 Ibid., box no. 5.

366 Schůze podnikové rady ČCV z 24. června 1948.. SOkA Beroun, ČCV, box no. 5.

367 Schůze podnikové rady ČCV z 22. července 1948. Ibid., box no. 5.

368 Former factory of Chýnovská vápenka, spol. s r. o., in Prague. (Lime Factory in Chýnice).

369 The centre carried out blasting and demolition work fro companies covered by the Ministry of Construction. They had 6 technicians, 8 blasters, a miner and a pyrotechnician. SOkA Prague-west, Radotínské cementárny a vápenice (dále RCV), box No. 22.

370 Václav PRŮCHA a kolektiv, Hospodářské a sociální dějiny Československa 1918–1992, vol. 2, Brno 2009, p. 263.

371 SOkA Beroun, ČCV. Korespondence ředitelství podniku, box No. 25, 26, 51.

372 Václav PRŮCHA a kol. c. d. pp. 269, 273.

373 Ibid., pp. 277, 278.

374 During the years 1949–1953 expenses for the army and national defence amounted to 235.7 billion CSK, which was back them half of the national economy investments. Karel PŮLPÁN, Nástin českých a československých dějin do roku 1990, vol. II. Praha 1993, p. 433.

375 Inscription by the Ministry of National Defence 13.3 1951. SOkA Beroun, ČCV. Korespondence ředitelství podniku, box No. 51.

376 SOkA Beroun, ČCV. Korespondence ředitelství podniku, box No. 45.

377 SOkA Praha-západ, RCV. Korespondence ředitelství podniku, box No. 24.

378 Ibid., box No. 16.

379 Dumping equipment was ordered in 1948. The manufacturer kept postponing the the delivery and alabied with other important taks. The order fulfillment ended up at the arbitrage department of the Ministry of Construction Industry. Ibid., box No. 20.

380 Ibid., box No. 17.

381 Ibid., box No. 21.

382 Ibid., box No. 16.

383 SOkA Praha-západ, RCV, box No. 16.

384 SOkA Praha-západ, RCV, box No. 17.

385 On 30th May 1953, a currency reform took place. Ibid., box No. 22.

386 Ibid., box No. 24.

387 Ibid., Závodní kronika, p. 16. (Plant Chronicle).

388 Projekt búracích prác starej cementarne Radotín (The Project of Demolishing Works of the Old Cement Plant). SOkA Praha-západ, RCV, box No. 11.

389 The aerial cableway was demolished in 1962 when it was not in a good shape regarding safety and economic conditions. Ibid., box No. 10.

390 Jaroslav LÁNÍK a Miloš CIKRT, Dvě tisíciletí vápenictví a cementárenství v českých zemích, Praha 2001, p. 129.

391 Monoclinic minerale - hydrated calcium borate. It is important for obtaining boron and its compounds.

392 From 1956 Lučebné závody Kolín (Chemical Plants), závod Uhříněves, and then in 1960 Synthesia Pardubice, provozovna Uhříněves.

393 SOkA Praha-západ, RCV, box No. 22.

394 Ibid., box No. 21.
395 Yearbook CEVA Radotín, 1968, CEVA 1969, p. 3.
396 Yearbook CEVA Praha, 1970–1975, CEVA 1981, p. 10.
397 Yearbook CEVA Praha, 1976–1980, CEVA 1983, p. 14.
398 Projekt průzkumných prací průzkumného úkolu č. 36/2. Cementářské suroviny Radotín. SOkA Praha-západ, RCV, box No. 21. (The project of research works of the research task no. 36/2. Cement materials for Radotín).
399 Ibid., box No. 21.
400 The geological survey proved about 45mill of tons of limestone, which correspomded with the operation of the new plant for 62–70 years. Ibid., box No.1.
401 Vladimír CHALOUPEK, Novodobá historie Cementárny Radotín (vzpomínky), strojopis. (The Modern History of the Radotín Cement Plant – memoirs, typed copy).
402 SOkA Praha-západ, RCV, Závodní kronika, p. 35, 36, 38.
403 SOkA Praha-západ, RCV, Závodní kronika, p. 39.
404 Ibid, p. 45.
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409 Souborná situační zpráva o průběhu výstavby centralizované akce vápenka Loděnice z 4. května 1964. SOkA Praha-západ, RCV, box No. 10. (The collected situation report on a course of construction of the cement plant Loděnice centralized project of 4th May 1964).
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412 The production plan for the year 1964 was 583,300 tons of cement and 442,000 tons of clinker.
413 SOkA Praha-západ, RCV, Závodní kronika, s. 75.
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415 Ibid.
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417 Václav PRŮCHA a kol. Hospodářské a sociální dějiny Československa 1918–1992, díl 2., Brno 2009, p. 585, 856. (Economic and Social History of Czechoslovakia 1918–1992).
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419 This regulation was issued in the following year under number 40/63 Coll. SOkA Praha-západ, RCV, box No. 13.
420 SOkA Praha-západ, RCV, box No.13.
421 Ibid, box no. 13.
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423 Ibid, box no. 13.
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425 The letter of MNV in Radotín was sent on 24th May and the official leter of the prosecutor´s office is of 28th May.
426 It is strange that director Kryhut called Dr. Štrougal, a Deputy Prime Minister, Ladislav instead of Lubomír. SOkA Praha-západ, RCV, box No.13.

427 Pragocement, 1871–1991. 120 let výroby cementu v Radotíně, 30 let výroby cementu v novém závodě v Radotíně a 10 let výroby vápna v novém závodě Loděnice. Radotín 1991, p. 9. (120 years of the cement production in Radotín, 30 years of the cement production in the new plant in Radotín and 10 years of the lime production in the new plant in Loděnice.
428 Václav PRŮCHA and al. d. c. p. 797.
429 Yearbook CEVA Praha 1970–1975, Praha 1981, p. 16.
430 Ibid., p. 17.
431 SOkA Praha-západ, RCV, box No. 110.
432 Ibid., box No. 110.
433 Eduard GÜNTHER, David COZL, Cesty života 1898–1998. 100 let výroby vápna v závodě Loděnice u Berouna. RCV Radotín 1998.
434 On the obverse side of the medal the emblem of the RCV Company is placed. At the top the years 1871-1971 are separated by two couples of the linden leaves from the bottom expression 100 LET+VÝROBY+CEMENTU. On the reverse side a picture of the cement plant is placed and above it the expression 10 LET CEMENTÁRNY LOCHKOV is placed. On the bottom edge between the linden branches the year 1971 is placed. The diameter of the medal is 51mm and it weights 57g. There were coined 500 pieces of them. Antonín LHOTÁK, Cementárny a vápenky, n .p., Radotín, ŠMK 1971.
435 Yearbook CEVA Praha 1970–1975, Praha 1981, p. 16
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444 Ibid., p. 12.
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451 Memoirs of Ing. Ivan Kratochvíl CSc., EUR Ing., general director emeriti of the Pragocement Company a.s.
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454 Pragocement, a. s., Praha 5-Radotín. Výroční zpráva za rok 1993, p. 7.
455 Vladimír CHALOUPEK, c.d. p. 3.
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522 Zdeňka BRUNNEROVÁ, Těžba nerostných surovin v chráněné krajinné oblasti Český kras, Bohemia centralis, Praha 1974, p. 84.
523 PRAGOCEMENT 1871–1991. 120 let výroby cementu v Radotíně, p. 10.
524 Zdeňka BRUNNEROVÁ, c. d., p. 85.
525 SOkA Praha-západ, OA Radotín, box No. 24.
526 Ibid., box No. 24.
527 The turning platform no. 1 of 1926 with a diameter of 6530mm, the platform no. 2 of 1926 had a diameter of 5,580mm, the platform no. 3 of 1927 had a diameter of 7,000mm and the last turning platform with a diameter of 5,000 mm came from 1926. Michal MARTÍNEK, Vlečky Českého krasu, příloha dvojmagazínu Grand EXPRES- ČD, duben 2008, p. 4 (Railways of Český kras, appendix to the double magazine Grand EXPRES-ČD, April 2008).
528 SOkA Praha-západ ,Prastav, box No. 9.
529 The point is a place which enables crossing of passing trains.
530 Ulice a jejich původ. Letopisecká komise městské části Radotín. Duben 1996.
531 SOkA Praha-západ , RCV, Závodní kronika, p. 35.
532 Junction is a part of the operating control point with rail branching in which the trackrail is branching into other transport rails.
533 Dead centre is a place whre trains had to change direction of travel.
534 Michal MARTÍNEK, Vlečky, p. 5.
535 Mining corridor going uphill serving for transportation of carriages with muck.

[536] Dukeys are underframes on which carriages are transported when bigger slopes are in the place. Tey are pulled and decelerated by the hoist.

[537] Michal MARTINEK, Bohuslav ZEMAN, Dráhy Českého krasu II, karlštejnská a pražská oblast, Český kras, XXII, Beroun, 1996, p. 34, 35.

[538] SOkA Praha-západ, RCV, box No. 9.

[539] Michal MARTINEK, Bohuslav ZEMAN c. d. p. 35.

[540] Michal MARTINEK, Vlečky, p. 20.

[541] Eduard GÜNTHER, David COZL c. d., p. 5.

[542] SOkA Praha-západ, Prastav, box No. 2.

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[544] SOkA Praha-západ, RCV, box No. 10.

[545] SOkA Beroun, Obecní úřad Srbsko, Obecní kronika z let 1902–1976, p.32.

[546] Ibid., box No. 3.

[547] Michal MARTÍNEK, c. d, p. 33.

[548] On 9th March 2006, the company´s headquarter was transferred to Mokrá no. 359.

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CEMENT PLANT IN PRAGUE-PODOLÍ

1871	Establishment of the company První pražská továrna na portlandský cement v Podole u Prahy (The First Prague Factory for Portland Cement in Podole by Prague).
1872	Establishment of Česká akciová společnost k vyrábění a zužitkování staviva (Joint-Stock Company for Production and Use of Building Material).
	The first 1026 barrels (1750 q) of cement were manufactured in the new works in Podolí.
1873	Diploma from the World exhibition in Vienna.
1877	Big fire in the cement works.
1885	Reconstruction of the works and introduction of new production methods.
1891	Diploma from the Jubilee Land Exhibition in Prague.
	The company was a member of the Cement Cartel in Austria.
	The new name of the company: *Podolská cementárna, česká akciová společnost k vyrábění a zužitkování staviva (The Podolí Cement Plant, the Czech Joint-Stock Company for Production and Use of Building Materials).*
1893	Commissioning of the new periodic kiln of the Hauenschild system.
1895	Extended modernization of the cement works.
1899	The new name of the company: *Podolská cementárna v Praze (Podolí Cement Plant in Prague).*
	Operation of the works railway started in Podolí-Bráník.
1904	Three shaft kilns of the Libas system were built.
1912	Commissioning of three shaft kilns of the Schneider system.
1914–1918	Reduction of production during the First World War.
1925	Reconstruction of the works and commissioning of the overhead railway from the quarry to the works. Assembly of the revolving grid for an automatic revolving kiln and building of new shaft kiln with revolving grid of the Grueber system.
1929	Fire of the works.
1932–1935	Economic crisis.
1935	The company Podolí Cement Plant became a member of the statewide Cement Cartel .
1937	Královdvorská cementárna (Králův Dvůr Cement Plant) obtained 80 % of shares of the Podolí cement works and became its owner.
1942	End of production in the Podolí cement Plant.
1942–1945	Premises of the works served as warehouses.
1951	Relocation of the shaft kiln and the cement mill from Podolí to Radotín.
after 1953	Liquidation of premises of the former cement works.
	Establishment of *První pražské akciové továrny na hydraulický cement (The First Prague Joint-Stock Factory for Hydraulic Cement).*
	On 30 October 1871 a permission was granted to build the Radotín cement works.

CEMENT WORKS IN RADOTÍN

1871	Establishment of *První pražské akciové továrny na hydraulický cement (The First Prague Joint-Stock Factory for Hydraulic Cement).*
	On 30 October 1871 a permission was granted to build the Radotín cement works.
1873	Final inspection of the cement works in Radotín (16 March 1873).
	Building of the horse narrow-gauge railway from the quarry to the cement works.
1874	Company in bankruptcy.
1876	Company in bankruptcy.
1877	Establishing the company *Portland Cementfabrik Radotin. Max Herget.*
1897	Building of two shaft kilns of the Schneider system.
1907–1908	Reconstruction of the works according to the plan of the company Friedrich Krupp A.G. Grusenwerk Magdeburg-Buckau.
1911	Start of running the petrol locomotive on the narrow-gauge railway from the quarry to the works.
1921	Fusion of companies Barta & Tichý and Max Herget and establishing the company *Spojené pražské továrny na staviva, a. s., dříve Barta & Tichý, Max Herget (Joined Prague Company for Building Materials)* with seat in Prague.
1930	Completion of the company´s name by the name *Prastav*. All the name of the company was *Prastav. Spojené pražské továrny na staviva, a. s. v Praze Prastav. Joined Prague Company for Building Materials, plc. in Prague).*
1931	Reconstruction of the works and its full electrification.
1934	Introduction of the shares of the Prastav Company to the Prague stock market.
	Granting the patent for equipment for production of nodule elements on the slope granulation plates.
1935	The *Prastav* Company became a member of the state wide Cement Cartel.
1937	Dispute of the *Prastav* Company with the company *Wales* over the company trademark.
1939–1945	The Second World War, reduction of production.
1943	Company *Klinker Zement GmbH Posen* (Poznaň) obtained 55 % of shares of Prastav and became practically the owner of the company.
1945	Introduction of the national administration into the *Prastav* Company.
1946	Formation of the new national enterprise *České cementárny a vápenice* se sídlem.
	v Praze (the Czech Cement and Lime Works n. e. with seat in Prague). Incorporation of the *Prastav* Company into the new national enterprise.
1949	Housing estate was built for the company´s employees in Slavojova Str. in Radotín.
1950	Formation of the new national enterprise *Pragocement* with seat in Radotín.
	The cement works became a fundamental workst of the new national enterprise.
1951	A new modern dining room for the cement employees was opened.

CEMENT WORKS IN RADOTÍN

1952	A hammer crusher with an inclined conveyor for crushing the raw material was installed and a drying drummer was built up.
	Construction of the third shaft kiln and cement mill Rekord (the kiln and mill were transferred from the cancelled cement works in Praha-Podolí).
1953	Works in Srbsko, Chýnov, Loděnice and Zdice were incorporated in the national enterprise.
	Establishement of a new recreational facility in Kokonín by Jablonce nad Nisou.
1954	On 15th May the first aperture blasting was performed in the Hvížďalka quarry.
1954–1958	The center for the blasting technique and new forms of extraction in Prague became a part of the national enterprise Pragocement.
1958–1961	Construction of the new cement works in Radotín (Lochkov).
1960	Formation of the new economic unit CEVA.
1961	Delimitation of lime works in Chýnov.
	From 1st January 1961, the new national enterprise *Radotínské cementárny a vápenice* was established with a seat in Radotín.
1963	The lime works in Jinonice was incorporated in the national enterprise.
	Putting the new Radotín (Lochkov) cement works into permanent operation.
	Closure of the old cement works in Radotín.
1964	Delimitation of the branch works in Zdice.
1965–1966	Demolition of the old cement works in Radotín.
1967	Incorporation of the works in Kunčice nad Labem in the national enterprise.
	Replacement of the grate coolers and installation of the air transportation of ground raw material, replacement of the rotary kiln burners.
1969–1970	Construction of the new works for plaster production in Srbsko.
1969–1971	Construction of the new grinding hall in Skoupý.
1976–1981	Construction of the new lime works in Loděnice.
1976	Lime burning was finished in the works in Skoupý.
1979	Introduction of new electrostatic dust collectors and sand bed collectors for dedusting the grate coolers.
1980	Formation of the new concern company Cementárny a vápenky Praha with a seat in Praha 5-Radotín and the Radotín cement works, cement and lime works in Čížkovice and lime works in Loděnice were its part.
1981	Shutdown of the branch works in Srbsko.
	Delimitation of the works Skoupý.
1988	Establishment of the state enterprise *Československé cementárny a vápenky Brno*, its part was the concern enterprise Cementárny a vápenky Praha.

CEMENT WORKS IN RADOTÍN

1990 Establishment of the independent state enterprise *Pragocement* with a seat in Praha 5-Radotín, its part was the cement works in Radotín and lime works in Loděnice, within reorganization of the company the delimitation of the cement works in Čížkovice was executed.
Gas installation in the Radotín cement works.
The beginning of cooperation with the joint-stock company *Heidelberger Zement*.
The beginning of the Radotín works modernization.

1992 Establishment of the *Cement Bohemia Praha, s. r. o.* Company.

1993 The *Heidelberger Zement A. G.* Company obtained 75,240 % of shares of the joint-stock company *Pragocement*.
Construction of the coal-grinding hall in the Radotín works.
Establishment of the *Vulkán Bohemia, s. r. o.* Company.

1994 The new line for production of dry mortar and plaster mixtures in the works in Loděnice.
Establishment of the joint-stock company *Cement Bohemia Praha*.
Construction of a tunnel in the Hvížďalka quarry.
Establishment of the *TGB Metrostav* Company.

1995–1996 Construction of the clinker silo in the works in Radotín.

1996–1997 Construction of the prehomogenization storage in the cement works in Radotín.

1996–1998 Extensive modernization of the works laboratory in Radotín.

1998–2000 Reconstruction of the store yard for raw materials in Radotín.

1998 Establishment of the joint-stock company *Českomoravský cement* with a seat in Mokrá.

1999 Division of the *Českomoravský cement, a. s.* Company into *Českomoravský cement, a. s.* and *Českomoravské vápno, a. s.*.

2001 Formation of the new company Českomoravský cement, a. s., nástupnická společnost (the successor company).
Cold commissioning of burning clinker with solid alternative fuels started in Radotín.

2002 Introduction of the system of environmental management in works of the *Českomoravský cement, a. s., nástupnická společnost* Company.

2004 Introduction of equipment for batching of reducing agents in the cement production in order to remove Cr^{+6}.

2004 Introduction of packaging cement in 25kg bags.
Categorization of localities in the quarries Hvížďalka and Špička to the system of localities NATURA 2000.

2005 Introduction of the system of emission permits and trading in them.

2006 Self-service loading of road tankers by a card system in Radotín and Králův Dvůr.

2007 Introduction of new hose filters from the Radecam Company.

2007–2008 Reconstruction of the sewage treatment plant.

2010 Introduction of the control system upgrade in the crushing hall and completion of the Radotín laboratory modernization.

CEMENT PLANT IN PRAGUE-PODOLÍ

Year	Name	Headquarters
1871	První pražská továrna na portlandský cement v Podole u Prahy	Praha
1872	Česká akciová společnost k vyrábění a zužitkování staviva	Praha-Podolí
1891	Podolská cementárna, česká akciová společnost k vyrábění a zužitkování staviva	Praha-Podolí od roku 1894 Praha
1899	Podolská cementárna v Praze	Praha

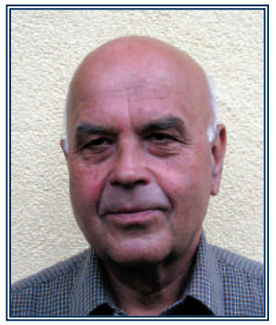
CEMENT PLANT IN RADOTÍN

Year	Name	Headquarters
1871	První pražská akciová továrna na hydraulický cement	Praha
1877	Portland Cementfabrik Radotin. Max Herget	Praha
1921	Spojené pražské továrny na staviva, a. s., dříve Barta & Tichý, Max Herget	Praha
1930	Prastav. Spojené pražské továrny na staviva, a. s., v Praze	Praha
1946	České cementárny a vápenice	Praha
1950	Pragocement, n. p.	Radotín
1980	Cementárny a vápenky Praha	Praha 5-Radotín
1988	Československé cementárny a vápenky Brno	Maloměřice
1990	Pragocement, s. p.	Praha 5-Radotín
1994	Cement Bohemia Praha, a. s.	Beroun
1998	Českomoravský cement, a. s.	Beroun
2001	Českomoravský cement, a. s., nástupnická společnost	Beroun[551]

Year	Name	Notes
1871–1875	Ing. Josef Kučera	founder of the cement works
1876–1893	Max Herget	also an owner of the works
1893–1905	Anton Herget	
1905–1909	Rudolf Grab	
1909–1920	Schirhal	
	Starý	
	Ing. Segeta	
1921–1926	Ing. Josef Živný	
1926–1945	Ing. Jan May	
1945–1948	Ing. Josef Jedlička	
1948–1949	Antonín Řepa	
1950–1959	Oldřich Pešek	
1959–1960	Václav Černý	temporary manager
1960–1962	Jaroslav Havel	
1962–1972	Jan Kryhut	
1972–1975	Ing. Jan Matoušek	
1975–1979	Ing. Ivan Kratochvíl	
1980–1983	Ing. Václav Šebek	
1983–1989	Ing. Karel Siatka	
1989	Ing. Bělohlávek	
1990	Jaroslav Šilhánek	delegated by the management
1990–1994	Ing. Ivan Kratochvíl	also a manager of the Pragocement a.s. Company
1994–2002	Ing. František Hůlka	
2002–2005	Ing. Jaroslav Vávra	from 2003 a manager of a works in Králův Dvůr-Radotín
2005–present	Ing. Ladislav Damašek	manager of the works in Králův Dvůr-Radotín

Ing. Václav Šebek

Ing. Karel Siatka



Jaroslav Šilhánek

Ing. Ivan Kratochvíl, CSc.

Ing. František Hůlka

Ing. Jaroslav Vávra

Ing. Ladislav Damašek

Share emblem of the Podolí cement plant in 1924

TEAM OF AUTHORS OF THE BOOK

From left: Miloslav Pátek, Ing. Jan Korynta, Ing. Jiří Lahovský, CSc., Ing. Milan Stodola, Ing. Ivan Kratochvíl, CSc., Pavel Malášek, Mgr. Miloš Garkisch, Jiří Hájek, Ing. Ladislav Damašek, Mgr. Ivan Kůs, Jiří Šulc, Karel Dušánek

Plant workers

View from the balloon, 2001 – the cement works in Radotín; the bridge over Lochkov Valley in the background

Aerial photo of Cikánka, 2006

Aerial photo of the area between the quarries Špička and Hvížďalka, 2006

Aerial photo – these days the housing development is located in the place of the former cement works; the current cement works is in the background, 2009

Aerial photo – the crushing mill, PHS, plant, Pragoelast

Quarries Špička and Hvížďalka

Aerial photo – quarries Hvížďalka and Kosoř

Aerial photo – quarry Hvížďalka

Aerial photo – quarry Branžovy

ČMC

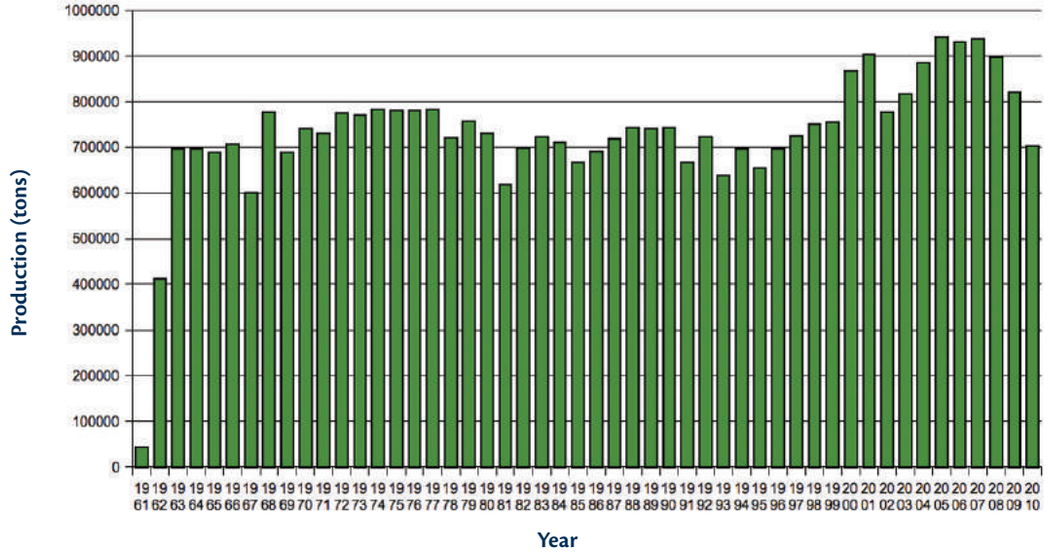
Town emblem of Loděnice which was also used by the lime works

CEVA

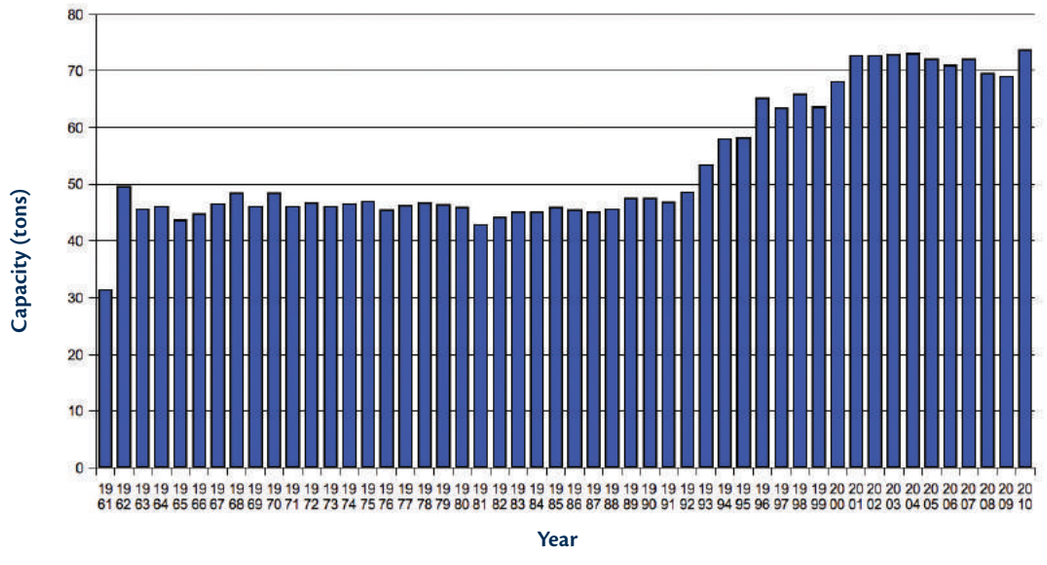
PGC

RC

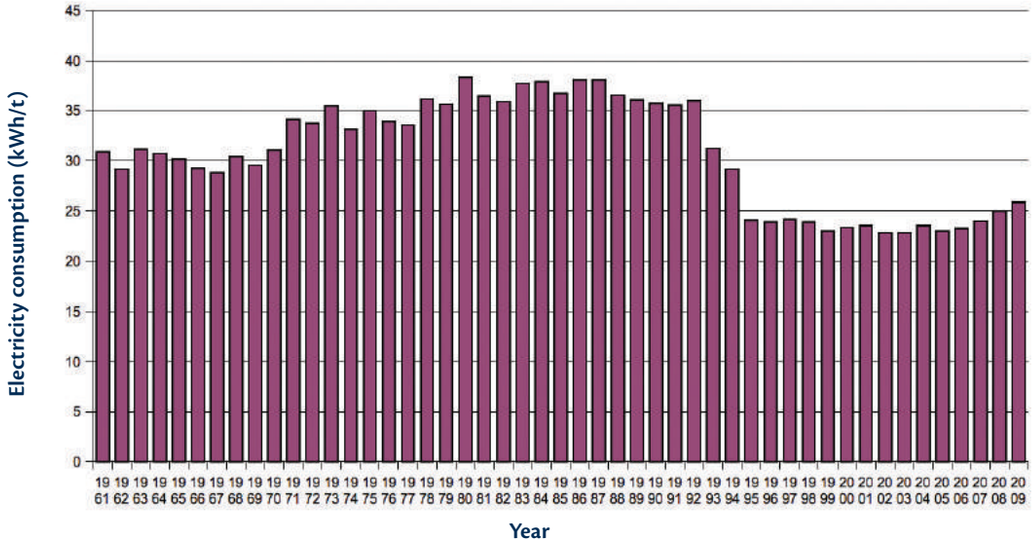
Production of raw materials in the years 1961–2010



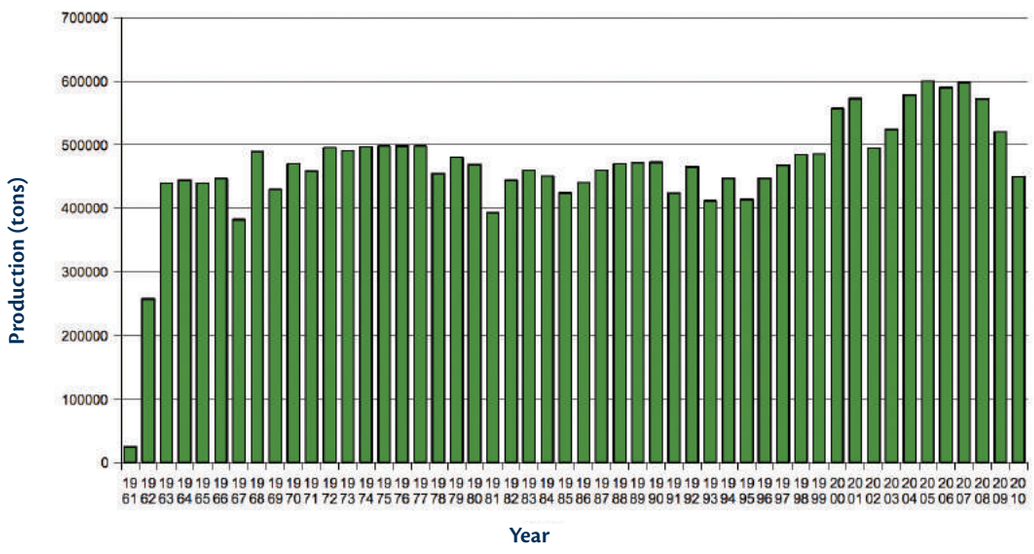
Specific capacity of the raw material mills in the years 1961–2010



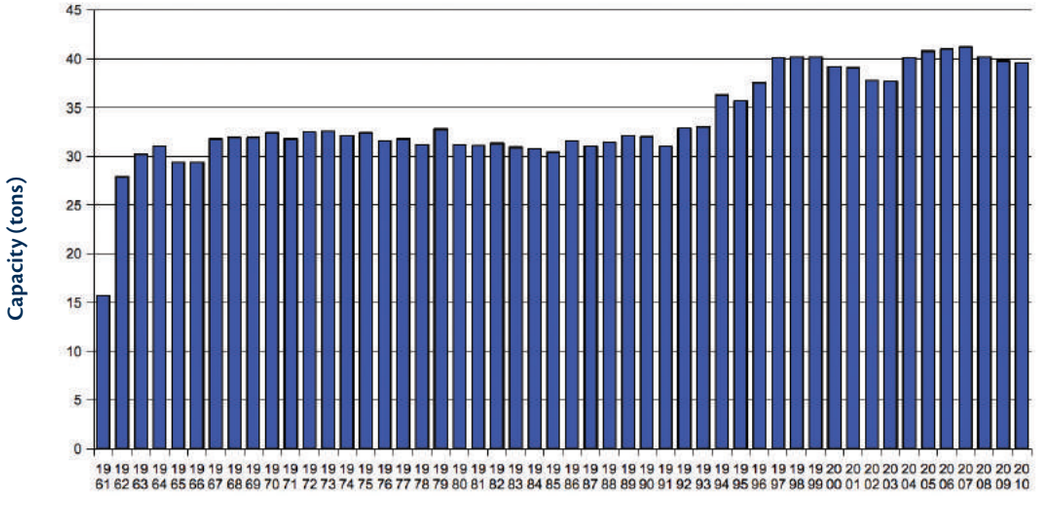
Specific consumption of electricity for grinding the raw materials in the years 1961–2010



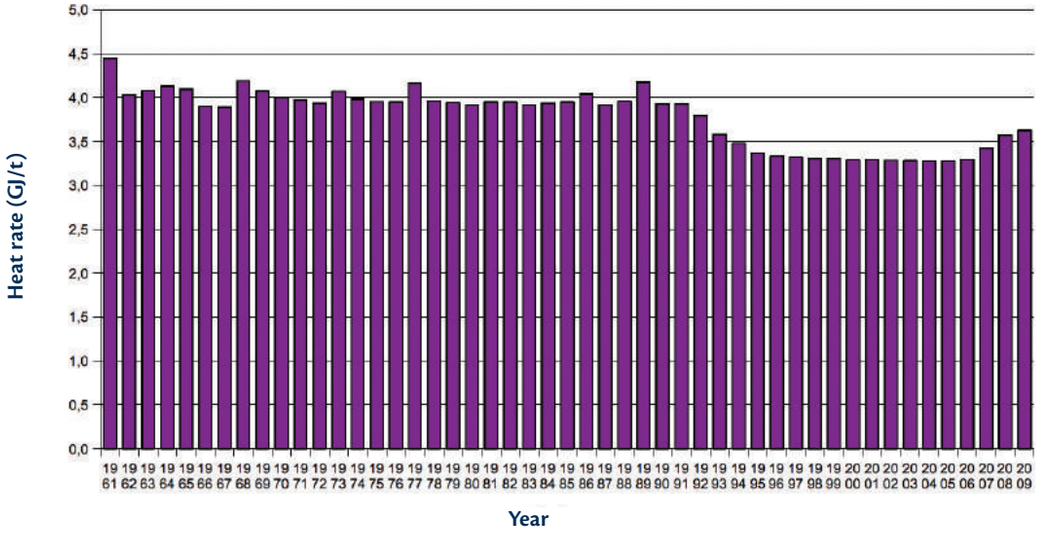
Production of clinker in the years 1961–2010



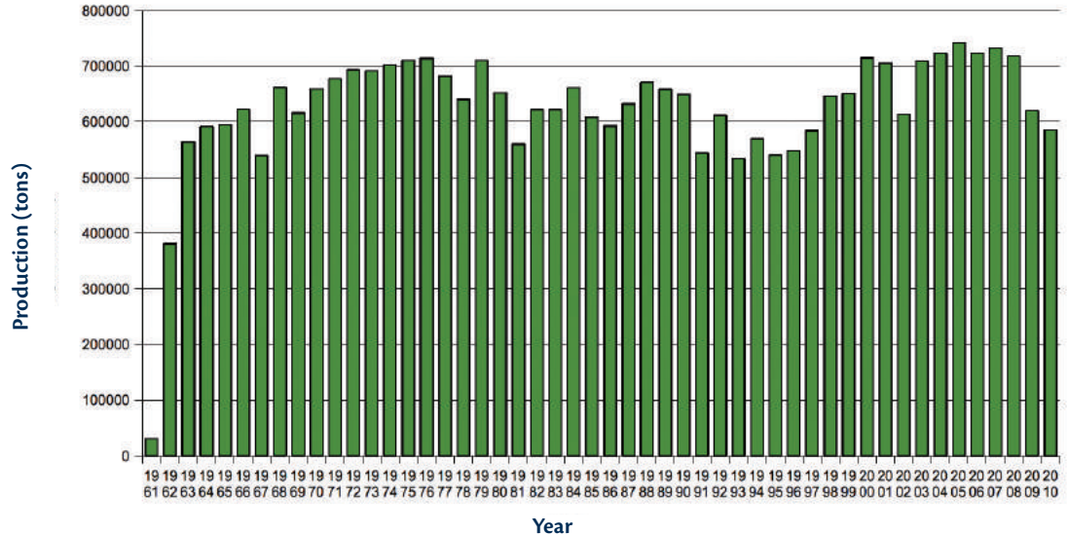
Specific capacity of rotary kilns in the years 1961–2010



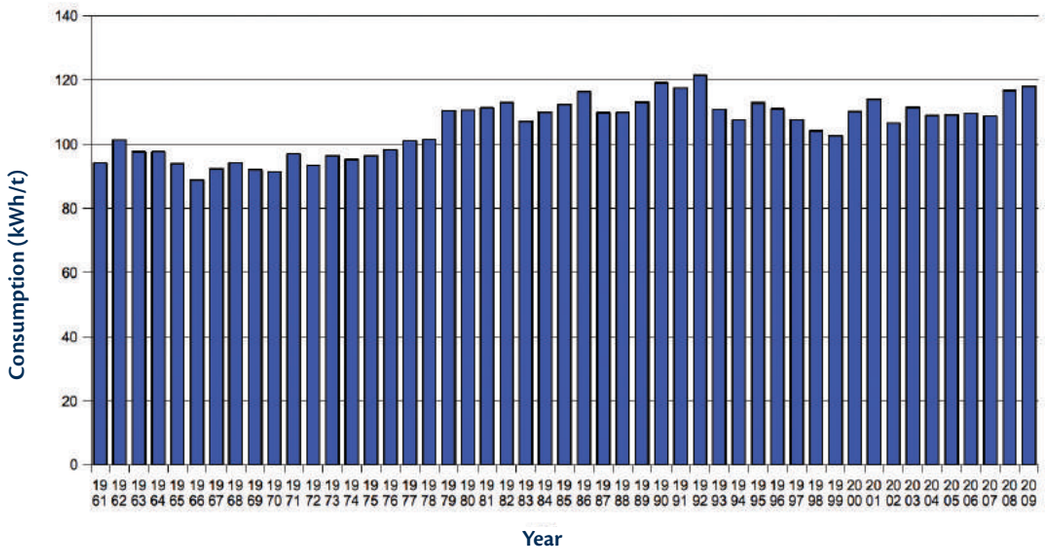
Specific heat rate for burning clinker in the years 1961–2010



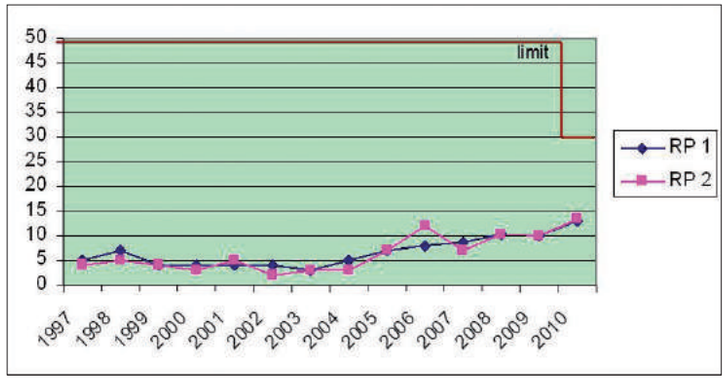
Cement production in the years 1961–2010



Specific consumption of electricity for the cement production in the years 1961–2010

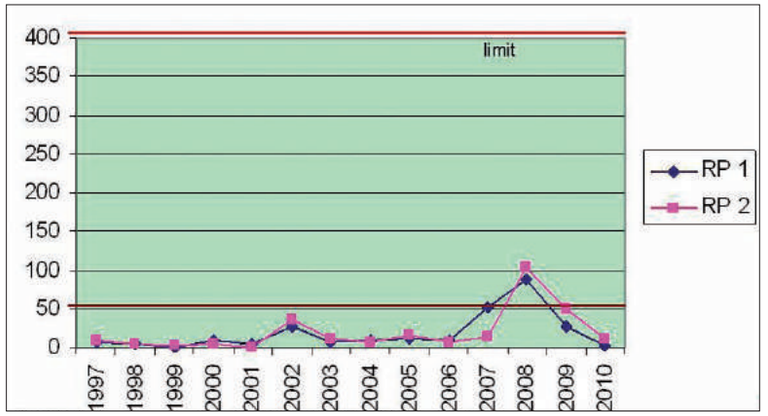


Average annual dust emissions (mg/Nm³)



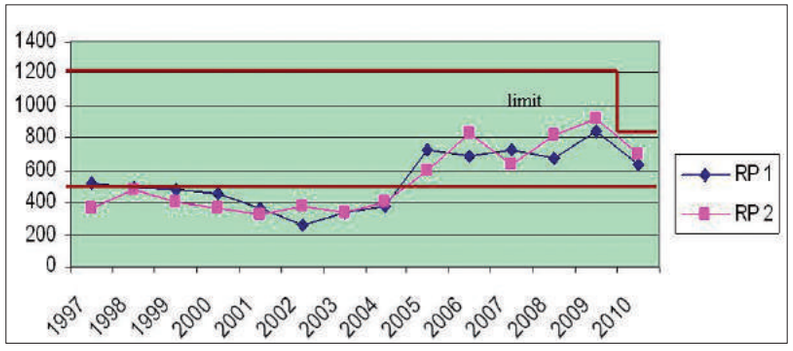
From 2005 conversion to dry gas, 10% O_2, 101,32 kPa and 273 K

Average annual emissions of SO_2 (mg/m³)

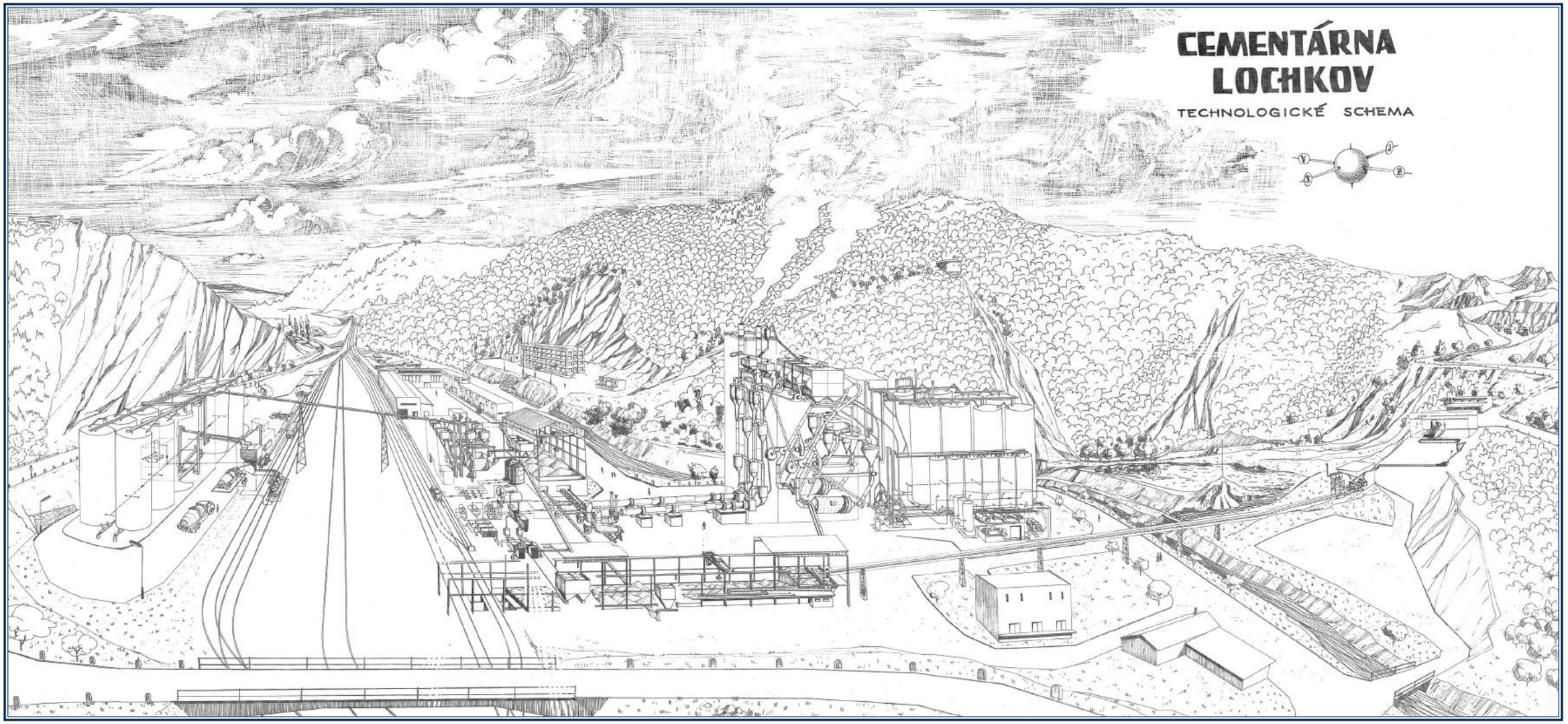


From 2005 conversion to dry gas, 10% O_2, 101,32 kPa and 273 K

Average annual emissions of NO_x as NO_2(mg/m³)



From 2005 conversion to dry gas, 10% O_2, 101,32 kPa and 273 K



Technological scheme of the Radotín works

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