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Politechnika Śląska w Gliwicach

Polska Grupa Górnicza S.A. w Katowicach

Dyscyplina naukowa: Inżynieria mechaniczna

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SUMMARY OF DOCTORAL THESIS

pt. "CERTIFICATION OF PRODUCTS, MACHINES AND DEVICES USED IN UNDERGROUND MINE WORKINGS"

Certification processes are configured in the provisions of EU law, established by the Council of Europe of the European Union Parliament in international consultation, in legal acts called directives, including primarily in the field of using productsin underground mine workings - in the Machinery Directive and the so-called Atex Directive, ensuring safe work in potentially explosive atmospheres. These provisions are complemented by national law regulations in the form of acts and ordinancesand regulations that enable the incorporation of directives into the legal systems of the European Union Member States. From the point of view of the user of certified products, the provisions of applicable corporate law also play an important role in enterprises, including mining companies.

The use of the certification procedure translates directly into the high quality of products, occupational health and safety, quality of work and ergonomics. Difficult working conditions in the hard coal mining industry in Poland result in the need in many situations to use certification that ensures high safety of use of machines, devices and products used in underground mine workings, among others because the decision to grant or refuse to grant a certificate concerns the fulfillment or not of technical requirements, which are set at a high quality level. It is also important that such a decision is issued by a specialized, independent entity, a notified body.

Currently in Polska Grupa Górnicza S.A. there are regulations regarding certification, which are located at various stages of entry into use of products, starting from the preparation of offers, tender proceedings, drawing up a contract, implementation, acceptance and acceptance of warehouse deliveries, finally ending with the stage of possible handling of non-compliant deliveries, ensuring the possibility of verifying the certification process of machines, devices and products. However, these provisions are incomplete and located in various procedures, regulations and instructions. The research work led to the proof that EU certification procedures are somewhat general and that the lack of precision in these provisions is intended so that they can be incorporated into the legal systems of the European Union Member States, which are different. Such intentional generality results in the possibility of circumventing the law and appropriate use of such inaccuracies by contractors offering for sale devices and products that are not necessarily of the highest quality in order to achieve their business goals, and then taking into account the occupational health and safety of the user of such products, or work ergonomics. During the doctoral thesis, this possibility was proven by illustrating such circumstances with specific events through a case study and comparative analysis and a number of tests carried out during the delivery and quality acceptance of products in the warehouses of the mines of Polska Grupa Górnicza S.A. Problems occurring in purchasing practice were indicated, with particular emphasis on the procedure of circumventing legal requirements. Examples are presented to illustrate the difficulties involved with the interpretation and practical application of formal and technical requirements for the certification of products used in underground mine workings.

It was also shown how important it is for each mining company to have appropriate services that, using appropriate procedures, will ensure proper verification of certification already at the purchasing stage, and then at the stage of generally understood entry of the material into use by the user, so that the machines, devices and products used in underground mine workings were of the best quality and safe in use so that they comply with the customer's requirements. In order to argue this position more fully, it was necessary to determine what the effects of introducing uncertified products into use were. For the purposes of this study, such consequences are divided into three categories:

1. technical consequences,

2. organizational consequences,

3. economic consequences.

Each of the mentioned categories is illustrated with specific examples encountered by the author of the doctoral dissertation during the research. The difficulties of verifying certification are divided into two criteria:

1. verification difficulties on the part of the recipient of certified machines and devices and products influenced by the employee and legal awareness of employees responsible for purchasing processes and responsible for receiving/accepting such products at the stage of entry into use, a clear, clear and understandable procedure or records regarding the entry of certified products to the user, training and exchange of information between individual Branches/KWK PGG S.A., as well as the number and readability of internal corporate law regulations,

2. verification difficulties resulting from actions/omissions of contractors offering certified machines, devices and materials - conscious actions and omissions, as well as unconscious actions and omissions.

The analysis of a number of internal regulations of a mining company leads to the conclusion that there is no procedure for purchasing and accepting certified products into stock; the existing provisions in this respect, located in various internal procedures, completely omit voluntary certification and all other conformity assessment processes in this area. As a result, the warehouse employee will not know, even assuming that he is familiar with the contractual provisions, how to verify the existence of the need for certification in a specific case and how to subsequently check specific quality parameters contained in the certificate. Therefore, the flow of information between the warehouses of individual mines is also important in situations where non-compliant deliveries are dealt with, especially in the application of the institution of refusing to accept the delivery and accepting the material in deposit. As a consequence, it should be considered that the creation of a certification procedure or the introduction of certification provisions in existing procedures, appropriately adapted, will adequately protect the recipient of certified products against irregularities confirmed in the described scope.

Polska Grupa Górnicza S.A. are 7 single- and multi-operation mines - a total of 13 hard coal mines. Products ordered and delivered to the user are divided into hundreds of product

groups and thousands of material groups. Many of them are of strategic importance for underground mining. The Company employs 39,790 employees - 30,604 underground workers, 6,951 surface workers and 2,235 administrative and office workers. The annual value of received and accepted material deliveries amounts to hundreds of millions of zlotys. Such a huge size of the company results in the need to constantly verify the quality of received products, taking into account the need to ensure the occupational health and safety of the Company's employees, proper work ergonomics and business goals.

Introducing internal, corporate procedures into use can prevent law from being circumvented. It may result in the user of the product receiving a device that is safe and of good quality, although not always cheaper, and in receiving a compliant product with the presented technical requirements. The development of such an internal procedure to enable proper verification of certification and its implementation became the main implementation goal of the described doctoral dissertation.

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