

Activity of Industrial Enterprises as a Social Risk Factor (on the Example of JSC Electrozinc)

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Abstract – The paper considers adverse ecological situation as a factor of social risk. It studies the perception of environmental risk by the society through the example of Electrozinc Iron and Steel Works in Vladikavkaz. Using media materials and sociological survey it analyzes protest moods and actions after fire at the plant leading to victims and forms of public consolidation. The study reveals the reaction of official authorities to requirement of the public, opinion of deputies, public organizations, city authorities. It makes the conclusion that the shutdown of a harmful enterprise became the result of active public initiative, which was supported by power structures and businessmen. However, contrary to expectations, the social tension related to adverse ecology was given a renewed momentum. The liquidation of the enterprise resulted in the unemployment of about 2000 thousand people, in the closure of critical social objects and reduction of budget revenues. The analysis of the situation raises a question on insufficient readiness of environmental policy, in particular, on the need to develop high-quality management of environmental risks. At the same time, it was clear that the public activity, including social responsibility of the business world, was created as a mechanism of civil society.

Key words – social risks, industrial enterprises, environmental risk

I. INTRODUCTION

The improvement of environmental policy is one of the priority directions for Russia. According to the Ministry of Natural Resources and Environment of the Russian Federation, about 60 % of the country's population live in adverse ecological conditions [1]. The environmental problem becomes an integral part of public discourse. Public reaction to environmental hazards is quite intense. If before the topic of adverse ecology was included into the public discourse only in relation to large environmental disasters, today the society also reacts sharply to potential environmental hazards. Adverse ecological situation becomes an incentive for the civil society, especially if it is much-publicized and the information on unsystematic and poor environmental protection measures is widely discussed in social networks.

Minimization of negative environmental and social impacts of industrial enterprises requires complex study covering a considerable range of phenomena and processes: safety of urban environment, level of maturity of environmental consciousness of citizens, place of ecology in the system of risk perception, assessment of the overall environmental condition and the level of environmental

pollution, assessment of environmental responsibility of production, assessment of community participation in the solution of environmental problems of the city, assessment of environmental policy of the city.

In this regard complex monitoring gains tremendous value in assessment and forecasting of the above situation. With the development of environmental perspective it becomes critical not only to utilize these chemical, geographical, physical and medicobiological measures, but also to carry out sociological studies.

II. PROBLEM STATEMENT

JSC Electrozinc is one of the leading non-ferrous metals producer in the Russian Federation, the largest industrial enterprise of the Republic of North Ossetia-Alania. Since December, 2003 it is a part of Ural Mining and Metallurgical Company (UMMC).

Electrozinc is located in the industrial region of Vladikavkaz. Environmental pollution caused by the plant is the biggest problem in the region. Harmful emissions into the atmosphere, pollution of rivers, continuous excess of maximum allowable concentration of some harmful elements in air and soil – all this cannot but lead to detrimental consequences on human health.

On the night of 21 October 2018 in the tank room of the plant a fire broke out, which continued within 12 hours. One firefighter died, two were injured. The residents of Vladikavkaz, being afraid of heavy metals emission, started massively leaving the city.

It is known that after the fire the plant ceased its operation for two months. According to a professor, the head of the Department of Ecology and Technosphere Safety of North Caucasian Mining and Metallurgical Institute I. Alborov, "The samples taken after the fire at Electrozinc (subsidiary of UMMC) showed the presence of heavy metals in air: zinc, cadmium and copper" [2].

In fact, thus followed outrage of the civil society concerning the production activity of JSC Electrozinc led to socio-political tension in the republic.

III. MATERIALS AND METHODS

The object of the present study covers socio-political consequences related to the activity of JSC Electrozinc in the Republic of North Ossetia-Alania. The key ones include the

following: activation of the civil society supporting the termination of JSC Electrozin in the territory of North Ossetia and a possibility to increase the social tension in the republic connected with the closure of the plant and mass dismissal of its staff. In total, potential socio-political consequences represent the system of multidirectional processes and the phenomena, which in the short-term and medium term perspective can form both positive trends in the social space related to the closure of the plant and improvement of environmental situation in Vladikavkaz and the negative trends and social risks connected with the pressure upon labor market and increase of unemployment rate due to released human resources of JSC Electrozin.

Many foreign and domestic researchers, including N. Luman [3], A. Giddens [4], U. Beck [5], G. Bekhmann [6], O.N. Yanitsky [7], K.A. Platonov [8], put their efforts to analysis and study of risks. They note that in the development conditions of the information society many risks gain features of constructs and thus the traditional concept of risk is substantially transformed. As O.N. Yanitsky notes, even in objective cases of risks, they are in many respects designed by the society and acquire the most diverse forms depending on cultural-historical and political circumstances. Among others G. Bekhmann identifies cultural and sociological approach to risks thus drawing a special attention to the relevance of the risk in the context of social structure, which makes it possible to “analyze conflict potentials”. K.A. Platonov defines features of objective environmental conditions that the population of modern cities is facing, considers the main characteristics of environmental risk as a social construct and its relation to trust phenomenon.

The paper utilizes the method of media content analysis and the results of the sociological survey conducted by SOCIETY – the North Ossetia Center for Public Opinion.

IV. RESULTS

At present, many regions of Russia are concerned with sustainable development strategy affecting environmental risks. The agenda of the development strategy of the Republic of North Ossetia-Alania covers the issue of the Electrozin Plant in Vladikavkaz.

In recent years Vladikavkaz was for the first time facing the phenomenon of individual and mass protests and other manifestations of civil activity caused by dissatisfaction with environmental problems, especially after the fire at the Electrozin Plant. JSC Electrozin is a part of UMMC. This is the largest industrial enterprise of North Ossetia, which was producing and selling zinc, cadmium, sulfuric acid, alloys. The matter of closing the harmful plant was repeatedly raised, frightening data on the first place of the region in terms of mortality periodically appeared in media alongside with expert opinions of health professionals. But the authorities disproved these data and declared lack of the real threat. It shall also be noted that the issue of Electrozin became even more aggravated during elections and change of power.

The fire at the plant in October, 2018 covering the area of 4500 m², with the victims and casualties, caused panic and protest moods, petitions to country’s top leadership, collection

of signatures to close the plant, furious resentments in networks. Spontaneous meeting brought together about 300 people at the Government House, the protesters wanted to see the Head of the Republic and threatened to storm the building. There were leaders at the meeting that were strongly supported by young people, among them there were assistants to deputies, one of whom burned his certificate as a sign of protest. The Head of the Republic, members of the government, deputies who promised to support the demand of closing the plant appeared in front of protesters. It was not the only action. The authorized picket, which participants were subjected to judicial proceedings for excess of the stated number of participants, took place after a while. The Internet petition collected 7 thousand signatures per one day, and in total – 28 300 signatures. The meeting against the plant was also organized in Moscow.

It shall be noted that such protest activity is not typical for the population of the republic, in particular for the citizens of Vladikavkaz. The protest actions of the society had unprecedented consequences. The deputies of North Ossetia prepared an official message addressed to quite a few heads of federal departments led by the Prosecutor General of the Russian Federation Yury Chaika, as well as to the CEO of Ural Mining and Metallurgical Company and UMMC-Holding Andrey Kozitsyn seeking to cease the operation of the Electrozin plant in the territory of Vladikavkaz. They recognized that the terms of agreement with Rospotrebnadzor of the republic on interaction for the sake of favorable sanitary and epidemiologic situation in the territory of Vladikavkaz are not satisfied, the action plan for the creation of sanitary protection zone is not observed, that the plant is the enterprise of 1 class of hazard, and that the hazard of injury infliction of citizens is very high. The deputies realized that safe environmental situation can guarantee stable and healthy development of the people of North Ossetia and demanded to cease the activity of the plant [9].

Public organizations also supported the decision of deputies. The chairman of the International Social Movement – the Supreme Council of Ossetians – openly called the UMMC owners to close Electrozin plant. He said that the leadership of the plant failed to fulfill its obligations to ensure safety of the people working at the plant, as well as environmental safety of the population. “We cannot any longer stand the disregard of requirements of the population of the republic by the plant owners. Therefore: 1. We demand impartial investigation of the incident and legal evaluation of the activity of the plant management regarding compliance with the law and contracts on ensuring environmental safety of the population. 2. Expressing the will of the vast majority of the population of the Republic of North Ossetia-Alania and in view of the fact that the Electrozin management fails to fulfill agreements to ensure safe production, we demand from UMMC owners to close the Electrozin plant since this enterprise causes irreparable harm to ecology of the republic and health of its population. 3. We require specially authorized nature protection bodies to carry out continuous environmental monitoring in Vladikavkaz and its suburbs, and to provide the population with reliable information”, said the chairman [10].

Similar statements were also made by other public organizations.

Thus, it was decided to create the Commission to consider the issues of further activity of Electrozinc, which clearly defined further objectives and tasks – stage-by-stage termination of the activity of the enterprise of the first class of hazard, which, according to experts, causes harm to ecology and health of the residents of North Ossetia.

The decision on complete shutdown of JSC Electrozinc was made. This decision was the result of civil activity of the population, which the authorities faced for the first time and were forced to react adequately.

However, the closure of the plant did not defuse social tension. Moreover, the “victory” for the majority of the population caused a new round of tension. Now it was the turn of the plant workers that were left without work. The production personnel comprising over 1500 people were inactive, except employees of structural divisions dealing with economic activity of the enterprise. The workers that were on holidays without pay (296 people) were not able to keep their families. [11]. The situation caused protests of plant employees and their families. Besides, the Electrozinc board of directors announced termination of its participation in such social objects as Public Catering, ROSNA kindergarten, Pine Grove health care center. All property of the specified objects remained the property of JSC Electrozinc [12]. In 2017–18 Electrozinc allocated over 70 million rubles to activity, maintenance and development of the Pine Grove health care center. The core capital included expenses on leisure and health promotion of workers and pensioners of Electrozinc, as well as residents of the industrial district of Vladikavkaz [13].

The authorities of the republic expressed their readiness to create all conditions for UMMC to open a new safe production facility in the territory of the republic. However, the UMMC management is not discussing this option yet [14].

The suspension of operations of the enterprise resulted in the fact that the budget of the republic will not receive additional 350-400 million rubles. In this regard the head of the region Vyacheslav Bitarov called the concerned businessmen for help in compensating these means. The first one to react to the appeal was the management of SOM Shopping Center in the person of the CEO Zhanna Beroeva who was ready to transfer 1 million rubles during 2019 into the budget of North Ossetia. “We believe that each person shall have a civic stand, especially a businessman. This is the distinctive feature of the civil society” – she emphasized. [15]. Eleven enterprises of North Ossetia were ready to employ workers of Electrozinc [16].

The shutdown of the Electrozinc Plant was recognized as the main event of the last year. This was revealed through the survey conducted on the website of the 15th Region where the readers had to choose the most significant event in 2018. Following the results of the vote, the majority – 46 % of respondents voted for the “Shutdown of JSC Electrozinc” [17]. For residents of the city adverse ecology can be compared to economic problems and problems of housing and public utilities. The SOCIETY – the North Ossetia Center for

Public Opinion – conducted a study showing the attitude of the population of the republic to the Electrozinc Plant. More than 500 people participated in the survey. The age of respondents on average varied from 30 to 50 years, the majority of them had higher education. The respondents answered 19 questions, which were all focused on the main point – to close or not to close Electrozinc? 77.9 % of respondents did not in favor of the plant, unlike 22.1 %, which do not want Electrozinc to stop its production. Each person was offered to justify the answer in detail. Those who supported the closure of the plant came up with the following arguments:

- “It kills people”
- “Such toxic production facilities shall not be located within the city”
- “This is the death machine for people”
- “The fact of excessive mortality due to oncology”
- 22.1 % of plant supporters also proved their position:
- “It is not so harmful as people describe it”
- “It finances the republic and gives jobs”
- “It is a pity for people who will be left without jobs”
- “There are no proofs of harm. There are no results of analyses of air, water, etc.” [18].

The demand to close or change the core activities of the plant has some problems that the authorities of the republic shall tackle:

1) Disposal and reclamation of waste, which to date for over more than 100 years of the plant’s activity made 2 million tons. It is clear that UMMC, which has been the owner of the plant for 15 years, will hardly want to bear responsibility and to undertake a commitment for reclamation of this volume of waste. The content of toxic components in this territory reaches 800 of the maximum allowable concentrations. Mercury-selenium slime is stored in a dump field, other substances of the 2–3rd classes of hazard – in the open air.

2) Alienation of sanitary and hygienic territory, which all plants of the 1st class of hazard shall have, including Electrozinc. 4.5 thousand people live in this territory, there is also a railway hospital, a railway technical college, schools, kindergartens, etc. Who will undertake for resettlement of residents and transfer of public institutions beyond the sanitary and hygienic zone.

V. CONCLUSION

The considered situation with the Electrozinc Plant in Vladikavkaz demonstrates that the adverse ecology is a factor of social risk. The attempts to remediate its consequences also bear potential risks and require further improvement of environmental policy. Modernization of management in the field of environmental protection is an indispensable condition for creating the qualitative system of environmental monitoring, which is reflected in actions of the government,

business representatives, in the consciousness and behavior of the population focused on the civil society.

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