Specificity of Issuing Environmental Permissions to Mining Companies in the Federative States including the Arctic Ones

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Abstract. Exploitation of various types of minerals is one of the main economy sectors in many countries. The mining industry and its impact on the environment are regulated by the state. Besides, in every country, though this sphere is economically important, recently, the environmental component also acquires increasing importance. This is especially true for the Arctic regions, whose ecosystems are especially fragile. For mining companies, environmental responsibility is a prerequisite for image success in the international context. The purpose of issuing permits for any mining activity is to avoid, limit, control or compensate for environmental damage that may arise from such activities. State authorities provide licenses, including making decisions about the feasibility of projects basing on a potential threat to the environment. Permits are issued in all countries, but in federal states it is complicated by multi-level administration. Studies show that, despite this fact, the efficiency of issuing permits varies from country to country, does not directly depend on the complexity of management, but is determined by other factors. Setting clear time limits for the tasks of agencies of different levels and competences in the considered countries and simplifying the procedure helps to eliminate delays in issuing various permits for mining projects.

1. Introduction
The mining industry in the Russian Federation is one of the key sectors of the economy. Revenues from the mineral sector account for over 50% of the federal budget and 80% of export earnings [1]. At the same time the permitting process is always associated with a number of difficulties, especially when it comes to a federal state. Among the problems in the permitting procedure with respect to use of mineral resources in Russia are excessive bureaucracy, gaps in its legal regulation and the inflexibility of the decision-making process [2, 3, 4]. In this connection it is interesting to study the positive and negative aspects of the process of issuing permits for mining activities in other federal states.

2. Situation in the USA
Out of all developed countries in the United States, unforeseen delays in obtaining mining permits occur most frequently. Despite the fact that the country possesses rich reserves of mineral resources, the share of the United States in global expenditures on mineral exploration is about 7%, and production in this area currently depends on the already established enterprises. The average life of already developed fields and the share of mining projects in total development have also declined in recent years [2]. Nevertheless, the demand for mineral raw materials from the defense industry,
energy, high-tech electronics, medicine and transport is increasing. The United States, being a leader in the production of technologies for these industries, is lagging behind in the production of the mineral raw materials necessary for them.

A study by SNL Metals & Mining, a consulting agency, showed that a typical mining project loses more than one third of its value as a result of unforeseen delays in obtaining the numerous permits required to start production. In the United States, the requirement for multiple permits and the involvement of many different agencies in the process is the norm, as well as the involvement of diverse stakeholders, including indigenous peoples, the public and non-governmental organizations. Due to the imperfection of the permitting system in the country, the period for obtaining all necessary permits to start mining operations takes on average from 7 to 10 years. In Canada and Australia, countries with similar strict environmental legislation, the average permit period is 2 years. In these countries, the response time of state authorities to applications for permits is defined more clearly, the list of such authorities is more specific, and the responsibility for preparing well-structured environmental impact assessment lies not with the government, but with the mining company [3].

The purpose of issuing permits for any type of mining activity is to avoid, limit, control or compensate for environmental damage that may arise from such activities. For large mining projects that are supposed to be implemented on federal lands, it is possible to involve 30 or more federal, regional (at the state level) or local regulatory agencies in the process of issuing permits. All permits necessary to go through all stages of a field’s life cycle from exploration to completion of operation and restoration of a site destroyed by mining activities can be divided into four groups:

- Environmental permits. In accordance with the federal environmental laws and land use laws, most major mining projects require comprehensive permits. Permits for various activities. They include federal and regional permits for exploration, the creation of the necessary infrastructure (roads, power lines, gas supply, etc.).
- Recovery obligations. They represent a written contract confirming the guarantee that the lands disturbed by the mining activity will be restored.
- Recovery activities. They are represented by a written contract confirming the guarantee that the lands destroyed by mining activities will be recovered. Permission to restore the land of the mining site is associated with activities at the stage of completion of the field exploitation. Such permits tend to vary between states, but their main function is to estimate costs and recovery plans.

The main legislative act in the field of environmental management and environmental protection in the United States is the “National Environmental Policy Act” (NEPA), which entered into force on January 1, 1970. The law prescribes the mandatory consideration of environmental components when making decisions by federal agencies. Decisions are made both in relation to the proposed activity and in relation to possible alternative activities. As a rule agreement on the compliance of the planned activities with the requirements of the Law is the longest part of the process of issuing mining permits. As noted in the reports of the National Academy of Sciences of the USA, excessive delays in issuing permits are caused by the lack of coordination between the relevant departments.

The process of granting permissions includes the following three stages:
- Identifying the scale of ecological expertise;
- Draft ecological expertise with various appeals/petitions taken into consideration;
- Draft report on environmental expertise and a public notification of its completion.

NEPA envisages consideration by the relevant agencies of all comments to the ecological expertise, identification of the least ecologically dangerous alternative and mitigation of possible negative impact. All the consequent necessary permissions are issued on the basis of this decision [4].

On average, the process of obtaining a permit to carry out mining in the framework of NEPA takes from three to five years. However, the preliminary and final stages of environmental expertise may require additional research, reorganization of mining plans, as well as additional time for consulting and analysis. Thus, this process can take more than seven years. Taking into account the fact that
implementation of a mining project also requires other types of permits, in general, the period of time
to obtain all the necessary permits may exceed ten years.

According to the regulatory and legal acts of the Council on Environmental Quality, it takes about
six months to complete the project from the notification of intention to environmental review. However, the practice of implementing various projects shows that in reality this process takes from
18 months to eight years.

If the area where mining is supposed to take place, is completely located on lands of federal
significance, then the norms of federal legislation that require obtaining multiple government permits
(for example, regarding air and water quality) are applied. If the site is entirely located on the state
land or private land tenure, then federal permits are also often required, and obtaining them involves
environmental due diligence. Even if the location of the site does not require obtaining federal permits,
a lengthy procedure similar to the procedure within the framework of NEPA cannot be avoided, since
several states with developed mining industry have adopted laws similar to NEPA.

In addition, the company often has to make changes to the project of the future mining enterprise in
accordance with the requirements of the process of obtaining permits, which leads to the need to
reassess the new project of the enterprise by various agencies and, as a result, delaying environmental
impact assessment. For example, in the Mineral Permits Guide, this process is described as “...extremely inefficient, creating confusion, causing disappointment, both for mining companies and for
relevant departments ...” [5].

The process of issuing environmental permits is based on gathering information that takes a
significant amount of time and, by definition, cannot be limited to a few months. The study of the area
of proposed mining and adjacent territories, as well as the collection of the necessary basic data may
take up to two years. However, these factors alone do not explain the delays in issuing permits in the
United States. Other federal states, such as Australia or Canada, which also adhere to strict
environmental standards for the mining industry, have efficient permit procedures that take about two
years to complete.

3. Situation in Australia

Australia at the federal level does not have any single permitting regime. Each project is evaluated on
an individual basis, the location of the field and its development plans are the basis for determining
which permits (if they are needed at all) are required and which departments should issue them.

Permits for mining and environmental permits are required for all prospective mining enterprises. However, as a rule, this applies to noise, air and water as well as waste for each planned mining
production.

Environmental Impact Assessment (EIA), similar to ecological expertise carried out in the United
States, in Australia, is done by the mining company itself, with submission of a report on the results to
the corresponding federal agency. In the USA, an applicant can finance an examination, and most
companies choose this path in order to speed up the process. In Australia, after submitting an EIA
report, the relevant minister or another person who is given decision-making authority informs the
mining company about the possibilities or impossibility of further actions to promote the project. In
case of disagreement with the result of the EIA, an appeal may be filed.

From the point of view of the time spent on obtaining permits in Australia, each project is
individual, but, in general, permits are issued much faster than in the United States. For example, in
Western Australia, the Department of Mining, Regulation and Safety of Industry must review
proposals for exploration or mining for 30 business days [6].

When conducting an assessment, the Department may seek advice from other departments. The
duration of such consultations is usually determined by negotiation depending on the nature of the
consultation required, but usually it does not exceed 20 working days. If consultations are required
between different subdivisions of the Department itself, this work is usually carried out in parallel with
the general permitting activity.
In Queensland, for example, only one agency is responsible for issuing environmental permits - the Department of Environmental Protection and Heritage, which is different from the situation in the United States, where many agencies are involved. At the same time, the environmental assessment procedure is similar to the procedure conducted in the USA, with the only difference being that the applicant himself carries it out rather than the relevant federal agency. At the same time, the environmental impact assessment guideline stipulates a period not exceeding 18 months (except for the cases when its extension is allowed), while in the USA this time period is considered as the minimum for conducting environmental impact assessment.

Despite the already obvious advantages of the process of issuing environmental permits for mining in comparison with the United States in Australia, its improvement continues. For example, the Australian Productivity Commission initiated a series of reforms to reduce the complexity and improve the efficiency of environmental assessment and the permitting process for most mining projects.

4. Situation in Canada
In Canada, each state has its own environmental permitting mechanism, with a different regulatory framework governing the state of air, land, and water. Sometimes regulations act together.

Environmental assessment is required for all significant mining projects, although its scope may vary across states. Before project preparation can continue, final approval from the Canadian Environmental Assessment Agency (CEAA) is required. All other approvals, whether at the state or federal level, are subject to CEAA approval. In Canada, as well as in Australia, environmental assessment is carried out by the applicant and approved by CEAA. Similar to the practice used in the United States, is to allocate time for consultation and feedback from stakeholders during the period between the project and the final version of the environmental impact assessment report.

Unlike the United States, the schedule of the review process at the federal level, the role and responsibility of each agency and tasks with a time frame for their implementation are agreed at the beginning of the application review process. Consequently, all parties involved in the process are aware of the deadline for approval or rejection of the application. The time frame for consideration at the federal level is set as 365 days from the time the application appeared on the Canadian Environmental Assessment Registry website (CEARIS) until the decision by the Ministry of the Environment regarding the level of the project’s negative impact on the environment if implemented [7]. Unlike the United States, where federal agencies themselves set deadlines for submission of environmental impact assessment reports, in Canada, a clear time frame is set for decision-making by all departments involved in the process.

In addition, the Government of Canada continues to search for ways to improve the permitting process. In particular, Canada has established a “one project, one review” system for most projects, meaning recognition of an assessment conducted at the regional level equivalent to the federal one, subject to the provisions of the Canadian Environmental Assessment Act.

5. Conclusion
The mining industry and its impact on the environment are subject to legislative regulation by the state. Responsible mining companies recognize the importance of minimizing the negative consequences of their activities and take environmental aspects into account in their production plans. However, cumbersome and unpredictable permitting processes significantly reduce the potential benefits from mining, both for companies and for the national economy as a whole. In federative states, the problem is exacerbated by the presence of several levels of government. However, as the experience of the reviewed countries shows, even taking into account this circumstance and the strictness of environmental legislation, setting clear time limits for the tasks of agencies of different levels and competences, as well as simplifying the procedure helps to eliminate unjustified delays in the process of issuing various permits for mining projects.
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