

LICENSING AND PERMITTING OF THE ANTAMINA PROJECT

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Introduction

The development of the Antamina Project was a milestone in Peruvian mining history. It was not only the largest private investment in the history of the country, but also the largest Greenfield mining investment in history. The project faced many difficult challenges, such as its remote location, high altitude, lack of infrastructure, and difficult technical issues such as the transport of concentrate through a 302 km. Concentrate pipeline. In spite of these challenges the project was constructed a head of schedule and under the original \$2.3 billion budget.

The financing agreement for the project also set a new standard in terms environmental protection. It required full compliance with Peruvian legal requirements, and World Bank guidelines pertaining to open pit mining. This agreement required that all licenses and permits required by Peruvian law be obtained in order to legally construct and operate the project. In order to obtain these authorizations a comprehensive legal review was conducted in order to fully identify the licenses and permits that were required. In addition, due to the lack of such comprehensive efforts in the past in Peru, a number of interviews and meetings were required with regulatory authorities to fully identify the procedures to be followed during the regulatory process. Finally, consultation was incorporated into the permitting process in order to obtain the buy in of stakeholders.

Although Peru has a well-developed regulatory body of environmental law, actual compliance with environmental and regulatory requirements has not been a tradition. As a result, the comprehensive permitting effort by Antamina was a first time experience for many regulatory agencies and regulators. This effort has helped to set a

new standard of regulatory compliance in Peru with regard to the development natural resource projects.

This article is based on Antamina's experience gained during the licensing and permitting process and presents information regarding the obstacles and flaws in the process that were encountered. It is the intent of this article to inform the national and international mining community about the lessons learned during the licensing and permitting of the Antamina project, in order to improve the process for future mining projects, reducing permitting costs and improving the timeframe to obtain the required authorizations. Finally Antamina's experience shows that licensing and permitting can be an opportunity for capacity building for the local and nationally regulatory agencies and an opportunity for building social capital with the project stakeholders. These opportunities fit in well with the principals of sustainable development, in providing skills that will last beyond the life of the project.

Project Description

The Antamina project owned by BHP Billiton Plc, Mitsubishi Corporation, Noranda Inc., and Teck Cominco Ltd., is a \$2.3 billion copper/zinc project, located in the Ancash Department in Perú. The project consists of an open pit mine, a 70,000 ton per day concentrator, a 302 Km. long concentrate pipeline, port facilities, a new access road, power line, and town site. The project is designed to produce up to 1.5 million tonnes per year of copper and zinc concentrates over a 23-year project life, and will be the third largest producer of zinc and the seventh largest producer of copper in the world. Compañía Minera Antamina (CMA) is a Peruvian company that operates the project.

This mega project is the largest mining investment in the country and, during its construction stage, was the most important construction project worldwide. On May 28th, 2001, Antamina commenced testing operations and four months later, it reached commercial production. Antamina was officially inaugurated on November 14th, 2001 by Peruvian president Alejandro Toledo.

Regulatory setting

The Peruvian regulatory framework in which the project was developed defined CMA's permitting process. Numerous regulatory agencies were involved in the process, due to the complexity of the project (mine-site, access roads, power lines, port facilities, etc.).

Regarding aspects of environmental control and private investment regulations, the Government passed the Private Investment Promotional Law, Decreto Legislativo N° 757 that established the competent sectoral authorities (the various ministries) in matters related to the application of the regulations contained in the Environmental and Natural Resources Code. This principle is known as "Principio de Ventanilla Unica".

Following is a brief description of the institutional and referential framework applicable to CMA's project:

The National Environmental Council, CONAM, is the highest-ranking environmental authority in Peru. Its role is that of a coordinator / facilitator to ensure that all sectors regulate environmental media (land, water, air and biota) following established parameters and standards.

The Ministry of Energy and Mines (MEM) is CMA's competent authority. The environmental authority in the MEM is exercised through the General Directorate of Environmental Affairs (DGAA) and the General Directorate of Mining (DGM). The General Directorate of Hydrocarbons (DGH) deals with matters related to hydrocarbons, and those related to power, are regulated by the General Directorate of Electricity (DGE) and the Supervisory Agent for Investment in Energy (OSINERG).

The DGAA is the entity in charge of ensuring compliance regarding environmental legislation and establishing standards and procedures to be followed for the preparation and approval of the Environmental Impact Studies (EIA's) submitted to the MEM.

The General framework for the environmental legislation applicable to mining and metallurgical activities was set up by Supreme Decree N° 016-93-EM " Reglamento

para la Protección Ambiental en las Actividades Minero-Metalúrgicas”, further modified by Supreme Decree N° 059-93-EM.

This regulation recognizes the MEM as the governmental agency responsible for setting the environmental protection policies applicable to mining and metallurgical activities and approving Environmental Impact Studies (EIA's) and Environmental Adjustment and Management Programs (PAMA's).

The National Institute of Natural Resources (INRENA) is in charge of the Administration of renewable natural resources. It has five General Directorates by which they supervise compliance with environmental regulations.

The law establishes that for any project that could cause the modification of the current state of any natural resource (water, soil, flora or fauna), the sector authority, in this case MEM, should request INRENA's technical opinion in the EIA's submitted to them, prior to its formal approval by MEM. INRENA's opinion should be issued in not more than 20 days.

The Ministry of Transport and Communication (MTC) is the competent authority for authorizing road design and construction projects and supervising rehabilitation and maintenance of rural roads and road projects. It has a specialized environmental impact unit to carry out this function.

With regard to the port operations and marine navigation, the Ministry has a General Directorate of Aquatic Transport (DGTA) in charge of controlling any maritime operations carried out in Peruvian waters, within 200 miles from the adjacent coastline.

The Environmental responsibilities of the Ministry of Defense are enforced by the General Directorate of Captaincies and Coastguards (DICAPI). DICAPI is responsible to control, prevent and mitigate the effects of pollution of navigable waters that may cause ecological damage, and determining civil responsibility for pollution.

The Ministry of Health regulates the National Health System. Its role is to promote, protect and improve the health and life of the population. The General Bureau of

Environmental Health (DIGESA) is part of this ministry and is the entity in charge of granting authorizations for the discharge of residues to surface or marine waters; it enforces compliance related with the discharge of solid, liquid or hydrocarbon residues that could contaminate waters; and it verifies the quality of the residues discharged.

The National Institute of Culture (INC) is the regulatory agency responsible for the protection, preservation, restoration and dissemination of Peru's Cultural Heritage. All cultural property, whether archaeological or historical, is protected by law. Therefore, any urban construction work, agriculture activity, mining, power systems, etc, in barren lands, valleys or urban areas, must obtain the required authorization prior to commencement of work, in the form of a certificate granting the non existence of archaeological remains (CIRA).

Requirements of the Antamina Project financing agreement

Antamina's project financing included the securing \$1.32 billion of senior loans from 22 international financial institutions, which included 5 import - export credit agencies. Financing requires the project to comply not only with environmental and social guidelines and regulations as specified in Peruvian Law, but with World Bank Guidelines regarding environmental and social performance. The project financing was the largest in history for a green fields mining project.

Authorizations required

In order to legally construct and operate the project, Antamina was required to obtain all licenses, permits and authorizations in force by Peruvian regulations.

At first stage, Antamina identified more than 200 authorizations required for the construction phase. This authorizations covered key components of the project such as the construction of the mine, concentrator, port, road, pipeline, and campsites. They also covered permits needed for ancillary facilities in these areas such as power, water and telecommunication systems.

This permitting process was conducted with the assistance of outside legal counsel and it took more than 3 years to complete. At the end of the process, Antamina obtained 243 licenses and authorizations during the entire construction phase.

The main licenses and authorizations issued by MEM, the competent authority were the EIA approval, the benefit concession, the energy concession, the certificate of mining operations, and the mineral transport concession. The certificates of non-existence of archaeological remains were granted by the INC.

The aquatic concession area and permits for the installation of buoys were granted by DICAPI and all permits regarding construction of new roads, access roads, as well as radio towers installation, and telecommunication systems implementation, were granted by the MTC.

Sanitary authorizations such as discharge permits, water treatment authorizations, landfills constructions and kitchen and warehouse facilities, were granted by DIGESA, while the plans for provisions of fuel and the authorizations for tanks installation, use and operation were granted by OSINERG.

Drainage of Lake Antamina, water licenses, temporary water authorizations, gravel extractions and authorizations to perform hydraulic works in the rivers, were granted by the General Directorate of Water and the Water District Authority of the correspondent river basin.

Antamina's irrigation system at the port was authorized by MEM considering the favorable technical opinion from INRENA. Later, it was also included under the EIA commitments.

The use and manipulation of restricted chemicals was authorized by MITINCI and the use and storage of explosives by DISCAMEC.

During operation phase of the mining project, Antamina required 77 additional authorizations, 63 of them, already been obtained. This results in a total permitting list of 320 authorizations needed for the Antamina Project.

A number of these permits require regular renewal, such as the certificates of mining operations, the global explosive licenses, discharge permits and re use of water for irrigation permit.

The extensive permitting list is not only due to the complexity of the project, but is also due to adjustments made to the project during construction and operation. Minor changes in operations phase lead to new activities not foreseen in advance, which lead to modifications to the EIA regarding design, amendments to original alignment of a power line, incorporation of Recuperation Plans for Lakes Conococha and Canrash, which were impacted by the Project. These EIA modifications often required additional permitting.

CMA obtained the aforementioned authorizations during the construction and operational phase of the Antamina Project. These were obtained according to the legislation and compliance with regulatory requirements and obligations of the financing agreement.

In order to obtain the corresponding permits, CMA and its outside legal counsel completed a thorough legal and regulatory research effort which included a field study that helped the company to better understand the methodology required for licensing and permitting.

Texto Unico de Procedimiento Administrativo (TUPA): origin, scope and objectives

After the passing of Decreto Ley N° 757, the Private Investment Promotional Law, the relationship between the Public system and Private enterprise improved. A clean and clear set of laws were issued for the promotion of the private investment. Foreign investors were granted tax benefits and the stability of contracts was guaranteed.

The Decreto Ley N° 757, gave way to the creation of the Textos Unicos de Procedimientos Administrativos (TUPA), whose goal was unifying, reducing and simplifying procedures as well as administrative paperwork required for regulatory procedures.

The TUPA became the standard in every entity of the public sector, regulating all the administrative procedures such as the description of the requirements, the evaluation of each procedure, and the rights and duties to be paid, which cannot exceed the real cost of the service and has to be the equivalent to the current UIT (taxing unit used in Peru – in 2003 1 UIT = S/. 3,100).

The Constitution of 1993 strengthened the ideas contained in this ordinance. Article 62° of the Constitution, established, the theory of the Acquired Rights by which the terms of agreements between parties could not be modified or altered with new legislation. Previous rules applicable in the moment the agreement was executed remained in force for the particular case. This article also referred to Contracts-Law with the Peruvian State, which were also protected and respected, within time, by the same principles and theory.

Later, in the year 1994 the law “Ley de Normas Generales de Procedimientos Administrativos, Decreto Supremo N° 02-94-JUS” was created. This law was applied to the administrative processes executed in the entities of the public sector, and to the administrative acts, inspections and supervision. The Decreto Supremo N° 02-94-JUS was substituted by the Ley N° 27444, current as of 2001.

Implementation of the legal framework established in the TUPA

It was believed that the legislation created in the 90’s would provide an objective and complete legal framework and administrative procedures for obtaining permits and/or licenses. Actual experience during the licensing and permitting of the Antamina project showed the opposite to be true, that is that the TUPA process was not uniformly established throughout all sectors and at all levels of the regulatory agencies

Actual experience with the TUPA: Obstacles and solutions encountered

The following represents situations encountered by CMA during the licensing and permitting process and what strategies were implemented to resolve them.

- **Logistical problems**

Many times during the permitting process CMA encountered problems regarding the authorities' abilities to physically carry out their jobs in the field. The authorities often lacked the resources required to undertake the inspections required by the regulatory process. In these cases, CMA offered logistical support in the form of lodging and transportation in order to expedite the permitting process.

The mining project was developed in remote rural areas where authorities were seldom in their offices, and their offices were often closed during working hours, until "the authority" arrived.

To illustrate this point, we offer the following example: When we were planning to file the technical information for pipeline river crossings authorizations before a local water district, we experienced a major communications problem as the authority did not have a telephone at his office, or at the small town in which the offices were located. We had to contact him by radio, from a town located 100km from his resident area, by leaving him messages.

The day the site inspection was scheduled we went to pick him up. We traveled four hours from the area where the river crossing was located, which was three hours away from the campsite. He was not at his office and we waited him like 3 hours outside until he finally arrived (*in his motorcycle and apologized for his delay due to a flat tire!*). We could see that he worked alone and his office was an old computer and a desk.

- **Not all the administrative authorities have a TUPA and not all the required authorizations are identified in the TUPA**

In many cases the authority did not have a fully approved and current TUPA for use in the regulatory process administered by that agency. CMA worked with the regulatory authorities to "create" ad hoc procedures or follow a TUPA from another similar public entity so that the authority could have an idea of what is typically required.

For example, CMA's river crossings permitting involved the participation of 5 Water District Authorities, as the pipeline alignment (302 km longitude) crossed 5 different river basins (Barranca, Huaraz, Pomabamba and Alto Marañón).

Their TUPA's did not have a procedure to follow in this case. CMA together with the Water General Directorate from Lima, created an ad-hoc procedure and coordinated previous meetings with the 5 Water District's Authorities to inform them about the permit requested and the procedure to follow.

Sometimes CMA had to accept as valid, "informal" TUPA's developed without any legal criteria. This occurred when dealing with the Municipalities from small towns that were located close to the pipeline alignment. Mayors from these towns wanted to charge CMA with a right of way fee and for burying the pipeline in the roads adjacent to their towns. Therefore, they created a TUPA especially for CMA activities and charged the company according to their "informal TUPA", which lacked legal formality and contained irregular fees.

After submitting an application before any local authority, we often received many observations and requests of additional information. Sometimes, local authorities imposed permitting fees, which exceeded the maximum amount, established by Law (1 UIT). Due to these problems, the permitting procedure was stopped and we were not able to obtain the necessary permits from the local authorities. For example, CMA's construction permitting process initiated before the Local Government at Huarmey is currently paralyzed due to a dispute with the Municipality regarding the payment fee. In these cases, guidance from the national authorities was usually required in order to resolve the dispute and get the procedure back on track.

Coordination before permitting

It is necessary to have coordination meetings with the regulatory officials, in order to explain the scope of the project, the necessary or required permits and the absolute willingness of the company to obtain such permit in order to legally construct and operate the project in full compliance with Peruvian Law.

A meeting held prior to the presentation of the permit application helps the officials to understand the objectives and the technical scope better, especially in the case where the responsible authority has never granted the required permit. In this way, the

officials have a better understanding of the process and the project, allowing the regulatory authority to conduct a rapid review of the permit application.

Follow up

The next step for obtaining permission continues after the presentation of the information to the regulatory authorities. Experience has shown that in order to ensure the process continues in a timely manner, it is best that the company and the authority agree on a time frame for processing the application and granting of the permit if one is not contained in the TUPA. Even if this is done, experience has shown that most of the officers do not comply with the 30 days that the Law typically sets to conclude an administrative procedure.

From our experience, we know that a long term planning regarding permits is sometimes impossible. Constant follow up with the technicians involved and reminders to the heads of the regulatory divisions are required in order to keep the process moving. In some cases, other authorities can provide additional reminders for the need to provide the required authorizations in a timely manner.

Provide technical training to the authorities and public officers

The characteristics of the permits for mining projects such as Antamina are extremely technical and many times contain information that exceeds the basic technical knowledge of the authorities charged with administering the process.

As a result of this lack of knowledge of the process and the project, the permitting file is often left in stand by or submitted to Lima or to the authorities main office to obtain a favorable technical opinion. These extra steps draw out the process and the permit takes longer to obtain.

Technical training should be provided to the authorities so that they can understand the information presented to them. This will, in turn, avoid delays in the evaluation and granting of the permit. CMA undertook several such efforts during the permitting process providing additional background technical information from company officials or through the use of consultants.

The technical authorities should be provided with case studies similar to the ones being presented and with reference models of other public entities.

Maintain good relations with the authorities

It is important to know the characteristics and personality of each authority in order to achieve a fluent and constant communication. In the mining projects, the majority of the stakeholders live in small towns and isolated communities. The people of these areas have a totally different ideology and culture, and they show a fearful resistance to any changes or any new responsibilities, such as the permitting of a large mining project.

The authorities will review the documents and take into account the attitudes of the applicants, and their relationships with local stakeholders, when granting the required authorizations.

The company should maintain a good image in the area and cooperate with its development

The majority of the mining projects are located in the rural areas, communities and towns whose main economic activity is agriculture, or fishing.

The company must maintain a close friendly relationship and cooperate with the local communities surrounding the project. They must know the townspeople, the authorities and their main social problems. In this way, they can be assisted in a much better way and it will show that the company is concerned with their well being, which, in turn, will result as a benefit to the company. The principals of sustainable development applied properly will not only help in maintaining a good relationship with the surrounding community, but will aid in support of the permitting process as well. If a community is in favor of a project, the regulatory authority is much more willing to grant an authorization than if the community is opposed.

It is very common that the authorities ask for cooperation in order to execute works that will benefit the community or improve the services provided by the authorities, for example office equipment, faxes, computers, etc. This requests should be incorporated into the overall community development process, and obtain community buy in, in order to not be interpreted as trying to influence the regulatory authority.

Be “strict” with the authorities that abuse their power when exercising their functions

During the permitting process, CMA encountered a few authorities that attempted to abuse of their political power and transform the administrative procedures into social conflicts in order to obtain a greater popularity within the town and consolidate their political interests.

The image of the company can be damaged uses their influence to make the company responsible for the overall poor quality of life experienced in the area.. This generates a high social cost and discourages local residents and other stakeholders from trusting the company.

Fortunately, cases like these were very few but definitively set a precedent. Basically we had this kind of experiences with local government of small towns along the road and pipeline route where in some communities it was believed that CMA should take care of their welfare and provide them with public services such as water, light, roads, etc.

Implementation of workshops and environmental committees

Prior to the approval of the original EIA, CMA adopted proactive actions regarding public participation by providing presentations to the local stakeholders.

CMA organized training workshops in order to assure better communication and to keep the local residents and other stakeholders informed about the development of the project. This enables the population to know more about the project and to be more confident about the development of their community.

For example, in 1998, CMA carried out voluntary public consultation in the area of influence of the project, in order to provide information and gain public consent regarding the water licenses CMA was requesting. This effort was very successful, and resulted in obtaining the licenses in a timely manner without social conflict.

Even when relationships with the community had become critical, CMA decided to tackle issues by means of participative forums. The Technical Multi-sectorial

Commission (CTM) was created in order to respond various environmental queries of stakeholders in Huarmey. In such process, regulatory authorities had to meet and explain to themselves and local residents the need for permits, permits CMA had obtained, the requirements for such permits, and compliance with permits. The final report of the CTM resulted in a more comprehensive relationship between CMA and stakeholders in Huarmey.

Since last year, CMA's EIA has been modified and additional information has been presented before the competent authority. All the process has been done with the participation of the local people and local authorities, through our different methods of communication previously implemented.

Summary and conclusions

The permitting and licensing of the Antamina project was a new experience for the country of Peru and its regulatory authorities. CMAs full commitment from the onset of the project to construct and operate the project in full compliance with Peruvian law set the stage for a productive relationship with regulatory authorities and local stakeholders. A concerted effort was required to identify all required permits, determine the appropriate procedures to follow, educate the authorities, provide the required logistical support, and provide stakeholders with information regarding development of the project, in order to support the permitting process.

An open and participatory approach to permitting has lead to CMA obtaining the required permits in a timely manner with a minimum of social conflict. In addition, the regulatory authorities have gained valuable experience, which will assist them in the licensing and permitting future projects.

This experience has shown that the licensing and permitting of a world class mining project can be done in a proactive participatory process, resulting in improved stakeholder relationships, without negatively impacting the construction schedule.

We believe that CMA's transparency and full disclosure regarding its mining activities will, in the long-term benefit the company's image, relations with our stakeholders and

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our worldwide reputation as one of the most significant and socially responsible mining projects in South America.

Legal References

Antamina's Environmental Impact Study, elaborated by Klohn Crippen – SVS S.A. year 1998.

Peruvian Constitution, 1993.

Law of Power Concessions, Legislative Decree N° 25844 and its regulation, Supreme Decree N° 009-93-EM.

Law for the Promotion of Private Investment, Legislative Decree N° 757, dated November 13, 1991.

Law of creation of the National Institute of Natural Resources, Law N° 25902.

Law of the National Environmental Council (CONAM) ,Law N° 26410.

General Law for Administrative Procedures, Law N° 27444.

General Law for Protection of the Nation's Cultural Heritage. Law, N° 24047.

Organic Law of the Transport, Communication, Housing and Construction Sector, Law Decree N° 25862, dated November, 1992.

General Water Law, Law Decree N° 17752 and modifications introduced to Titles I, II and III of its Regulations, approved by Supreme Decree N° 007-83-SA.

Law of creation of the Supervisory Agent for Investment in Energy (OSINERG), Law N° 26734.

Regulation for Environmental Protection in Mining and Mineral Processing Activities, Supreme Decree N° 016-93-EM, published May 1, 1993.

Investment Promotion Act for the Agricultural Sector, Legislative Decree N° 653, published November 11, 1991.

Unified Text for Administrative Procedures (TUPA) from the Ministry of Health, enacted by Supreme Decree N° 003-93-SA.

Regulations for the Environmental Protection in Hydrocarbons Activities, Supreme Decree N° 046-93-EM, dated November 12, 1993.

Peruvian Navy Organic Law, Legislative Decree N° 438.

Control and Vigilance of Marine, Fluvial and Lake Activities Law, Law N° 26620.

Regulations of Captaincy and Marine, Fluvial and Lake Activities, Supreme Decree N° 028-DE/MGP.

Antamina's Project: Permits and Licenses Schedule Final Status dated October 2nd, 2002.

Antamina's Project: Permit and Licenses Schedule for Operations, dated January 21st, 2003.