

**ANNEX 5  
REQUIREMENTS FOR GRANTING OF THE ENVIRONMENTAL  
PERMIT OF PAS 94 PER SECTOR**

**ALTO MAIPO HYDROELECTRIC PROJECT “INDUSTRIAL QUALIFICATION  
OF THE CONCRETE PRODUCTION PLANT”**

**1. GENERAL BACKGROUND**

This document provides all the background requested for the granting of the environmental Permit per Sector of the Art 94 of D.S. 95 of 2001, Environmental Impact Assessment Study Regulations. Such article is referred to the qualification that the industrial or storage institution mentioned in article 4.14.2 of D.S. N° 47/92 of the Ministry of Housing and Urban Development, General Ordinance on Urbanism and Constructions. The requirements for the granting of the quoted permit and technical and formal contents necessary to accredit its compliance, are those pointed out in such article. In the Environmental Impact Study, the characteristics of the establishment must be pointed out, considering the following background:

- . Technical memoir of the characteristics of construction of the installation;
- . Plant map;
- . Technical memoir of the productive processes and its relative flow chart;
- . Control measures preliminary plan of biologic, physical and chemical pollution;
- . Qualitative and quantitative characterization of hazardous substances to be handled; and
- . Risk control measures for the community.

In the case of PHAM, the installation referred to the environmental permit in question, corresponds to the Concrete Production Plants, known from now on as PPH. In total, 9 PPH located in the working faces of the tunnel arcades of El Volcán (V1 and V6), Alfalfal II (VA2), Las Lajas (VL2, VL4, VL5, VL7, VL8 and the Maipo river discharge tunnel are planned to be enabled. The exact location of each one of the PPH is pointed out in section 2.2 of this document.

In fact, the PHAM construction requires the onsite construction of approximately 170.000 m<sup>3</sup> of concrete, which will be mainly used for the construction of tunnels.

The dry goods will be used in the preparation of concrete, which will be obtained from the surplus of excavations of the existing works in El Morado, Las Placas, Colina and La Engorda streams and the Yeso River, such as intakes, siphons, bridge abutments and protection rockfill dam. While for those works located in the Colorado river basin, the dry goods will be obtained from the surplus of the excavations of the existing works in the waterway, complementing them with the purchase of material processed by authorized third parties located in La Obra area.

It is worth to mention that the scope of this permit is made up of the entry of the dry goods to the PPH up to the end of the concrete elaboration. The above, due to the dry goods extraction activity is not an activity that requires an application to PAS 94, further details about it are presented in Reply 2.1.2 of the main body of the Addenda.

On the other hand, the information in this document corresponds to the general alignments which will operate in each one of the nine PPH. On this regard, if there were any significant changes in each one of the PPH, the Contractor of construction, will present all the background to SEREMI of Health.

It is important to bear in mind that this plants will have a temporary use and limited exclusively to the construction works of PHAM and which correspond to an installation already declared in EIA and which is part of the description of the working faces and work installations, detailed in it. Therefore all the control, mitigation, compensation and environmental follow up measures issued by EIA (chapters 6, 7 and 8), are applicable to each PPH.

## **2. REQUIREMENTS OF PERMIT GRANTING**

### **2.1 TECHNICAL MEMOIR OF THE INSTALLATION CONTRUCTION CHARACTERISTICS AND THE PRODUCTIVE PROCESS DESCRIPTION**

In general, the activities that will be carried out in each one of the PPH basically, will be crushing the dry goods once these are entered into PPH and to the proper elaboration of the concrete.

The facilities that PPH will comprise correspond mainly to; a selecting/crushing plant, a concrete plant and a decanting well, where water from the washing of the concrete mixer trucks will be treated. Additionally, there are other facilities such as offices (management and a laboratory), a warehouse and car park area.

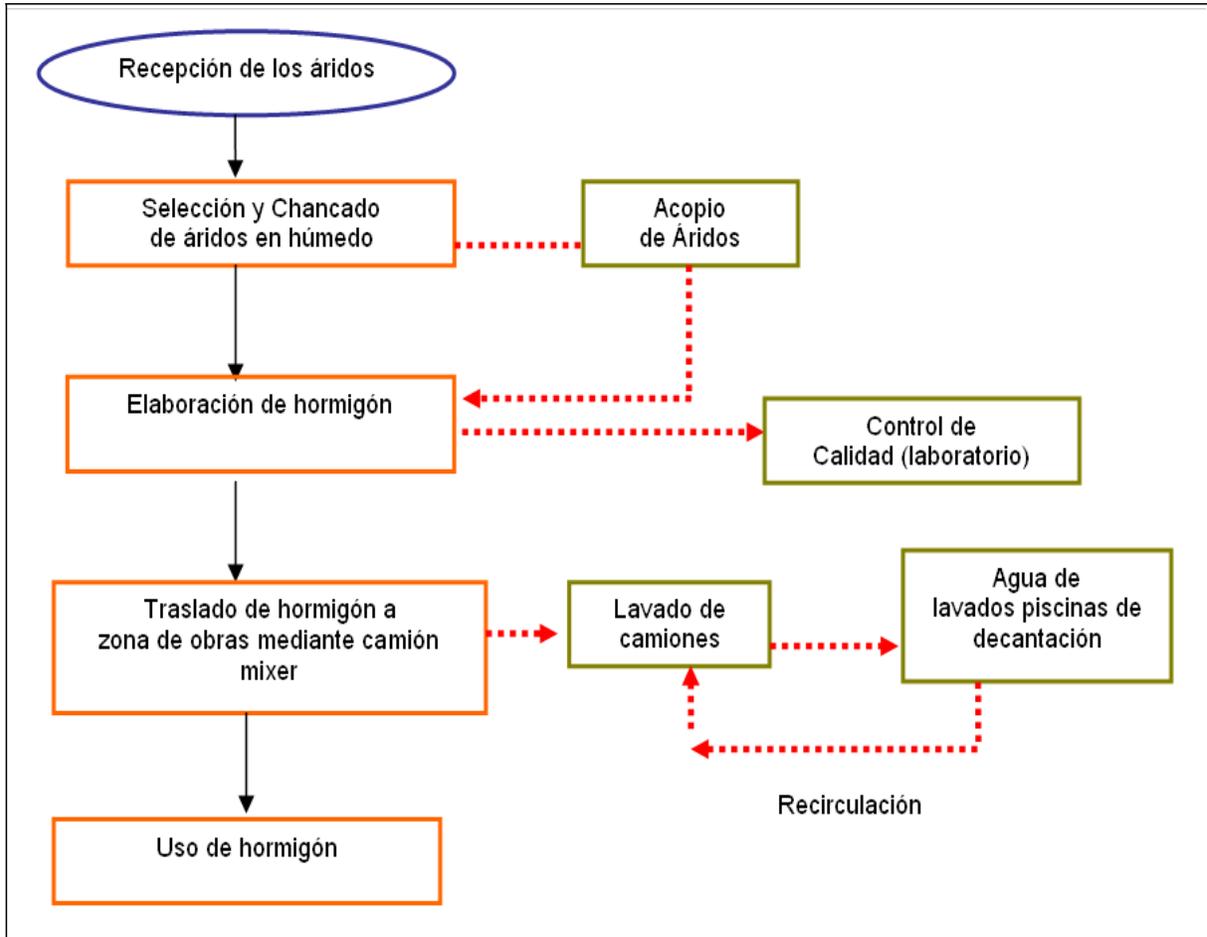
In total, it is foreseen that each PPH will use an approximate area of 3000 m<sup>2</sup>, within the total defined area for enabling of the working faces<sup>1</sup>.

The next flow chart shows the sequence of the activities that will be carried out on each PPH:

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<sup>1</sup> For each Working Face, it has been estimated an area of 10.000m<sup>2</sup> (1hás), out of which approximately 3.000 m<sup>2</sup> will be destined to the enabling of the PPH. These surfaces have been considered as requirements of the land of the project (See section 2.2.1 letter D of Chapter 2 of EIA). Therefore, the Forestry Management Plan, Re-vegetation Plan and other measures associated to the vegetation intervention (See Chapter 6, section 6.4.1.5 of EIA), constitute compensation, mitigation and control measures applicable to PPH.

**Figure 1**  
**Flow chart of PPH production**



Details, in a sequential way, of each one of the activities of the concrete production process and the description of the associated facilities in each one of them are next.

### **A. Reception of dry goods to the PPH**

As it was previously pointed out, the dry goods that will be used in the preparation of concrete, will be obtained from the surplus of excavations of the existing works in El Morado, Las Placas, Colina and La Engorda streams and the Yeso river, such as intakes, siphons, bridge abutments and protection rockfill dam. While for those works located in the Colorado river basin, the dry goods will be obtained from the surplus of the excavations of the existing works in the waterway, complementing them with the purchase of material processed by authorized third parties located in La Obra area.

The reception area of dry goods will correspond to the tunnel arcade access platform where the entry of dry goods to the PPH will be registered. The dry goods entered will be directly conducted to the selecting/crushing plant.

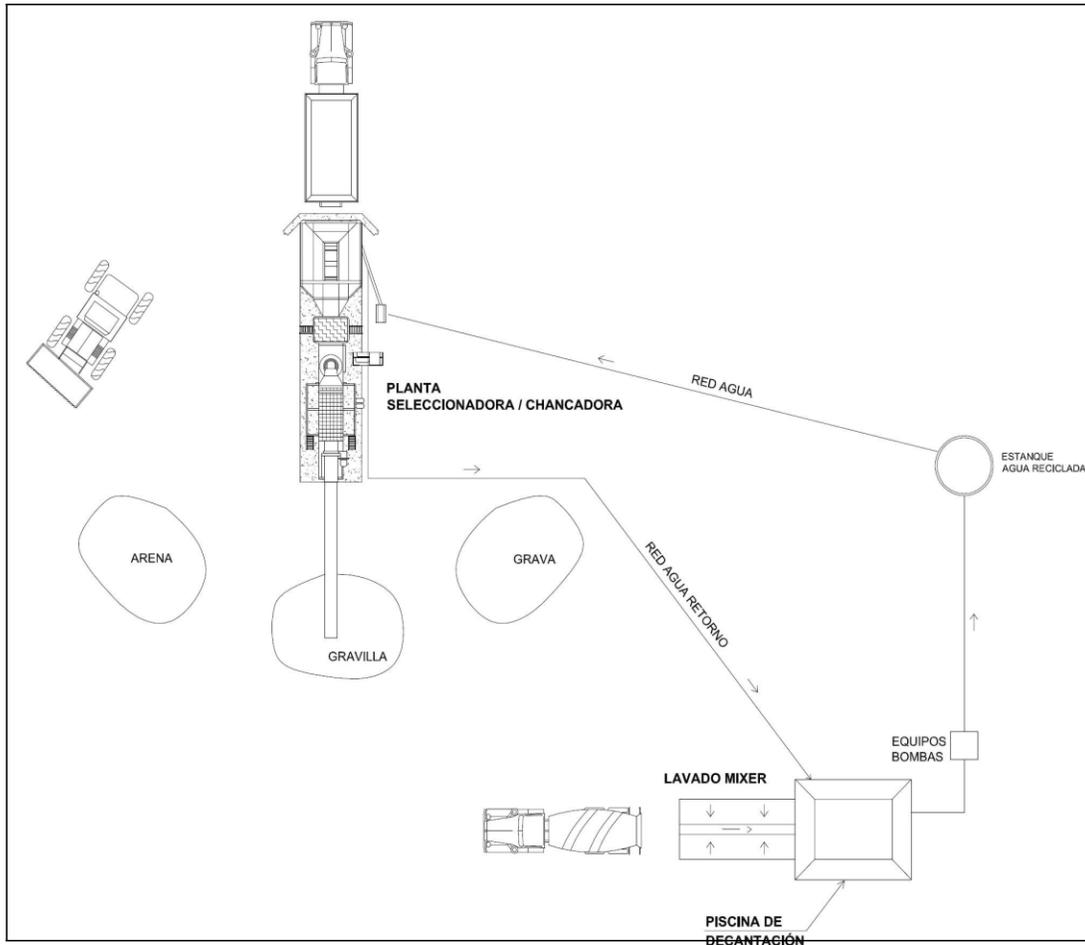
## B. Selecting/crushing plant

Metallic structure of modular type. Here, the entered dry good is directly deposit in a feeding hopper, selected and crushed up to it reaches the required diameter for the concrete elaboration. It has been estimated that for each PPH, an approximate total of 36.800 Ton will be process for the Project which allows the use of a smaller size plant.

Later on, through the use of conveyor belts, the dry goods are stored, according to their granulometry in an adjacent area to the plant waiting for its transport (in front loader) to the concrete elaboration plant which is not further away than 50 meters.

In order to prevent the emission generation, it has been contemplated the use of conveyor belts.

**Figure 2**  
**Selecting and Crushing Plant Functioning Scheme to be Used by PHAM**



On the other hand, during the whole crushing process, the dry goods are washed and they are continuously wetted. The water resulting from this operation, is conducted through a gutter into a decanting well of fines, where is treated for later on be re-used in the same process (see section 2.1, Letter D of this document). Additionally in the storage zones, automatic sprinklers will be enabled which will allow to permanently wet the material.

The next photograph shows a selecting/crushing plant type, of similar characteristics to the one which will be used by PHAM.



**Picture 1:** Selecting/crushing plant type (reference picture)

### **C. Concrete Plant**

It is foreseen the use of concrete plant of electric "modular" engine type, automatically commanded through a board (dosing, mixture times, water control systems, etc.)

The already crushed and selected dry goods are stored through three independent compartments and transported through a mobile loading arm to the receptive hopper of the concrete plant, at the same time cement is incorporated.

The cement used is in bulk and stored in a silo specially designed for this effects, with capacity of 37.5 ton<sup>2</sup>., not having dust released to the atmosphere during the discharge process from the tipper truck or up to the transfer between the silo to the plant, given that it is going to be used in a closed pipeline which will be activated through a worm gear.

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<sup>2</sup> The project, as a whole, will use 86.000 tons of cement.

Later on, and once the dry materials are within the hopper of the plant, water and the corresponding additives will be added. The mixing will be of the drum turning system type where cement, water and the additives will be in loaded through a worm gear, preventing completely the generation of emissions or spillages of the mixtures.

The water required for the concrete elaboration will be stored in an independent tank, using a daily average of 5 m<sup>3</sup> by PPH.

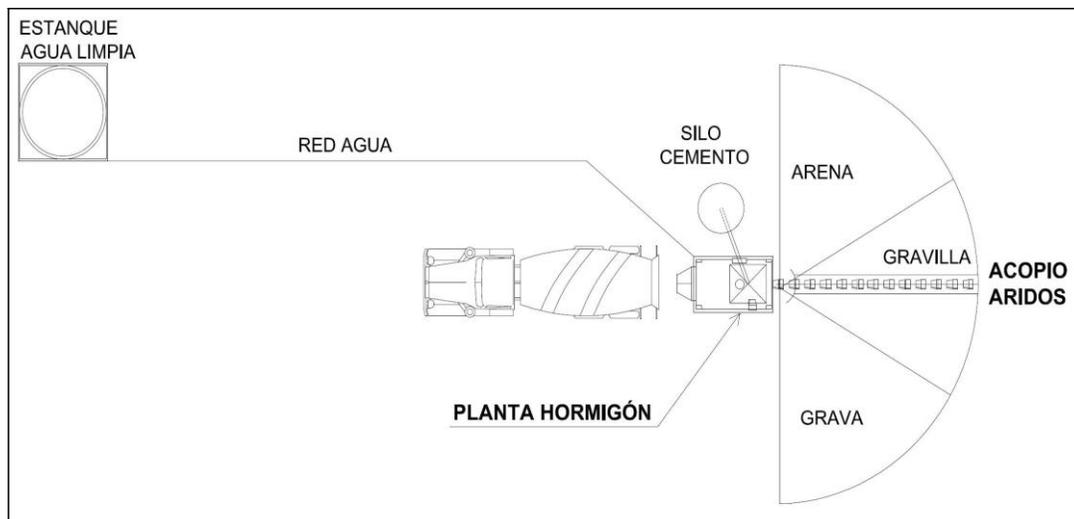
With regards the additives to be used for the production of concrete, these will essentially consist in set-accelerator admixture and superplasticizer (See section 2.4 of this document).

The production capacity of each plant will be approximately to 10 m<sup>3</sup>/hr., although it is foreseen that each working face will use 25 m<sup>3</sup>/day<sup>3</sup>.

The concrete quality will be obtained through a control process of the goods and calibration of the amounts added to the mixture. With regards this, samples in the working face will be taken in order to achieve final calibration of the process of elaboration of concrete. Such samples will be transported to a small laboratory, located inside each PPH with basic instrumentation.

The following figure shows the arrangement of the equipments which will be part of the concrete elaboration plant.

**Figure 3**  
**Concrete Plant to be Used by PHAM**



<sup>3</sup> The plant itself will be over dimensioned for the daily consumption, but due to the quality of the concrete and shotcrete required, it will be used this type of plant because they are reliable due to its controlled automation through a microprocessor (PLC).

For the transport of concrete to the workplaces, mainly inside the tunnels, mixer trucks will be used of approximately 5 m<sup>3</sup> volume. Trucks will be parked when they are not in service. Regarding this, at the end of each working day, these trucks will be washed in an area specially set for this (see following section "washing and decanting well zone").

#### D. Washing of trucks and decanting well zone

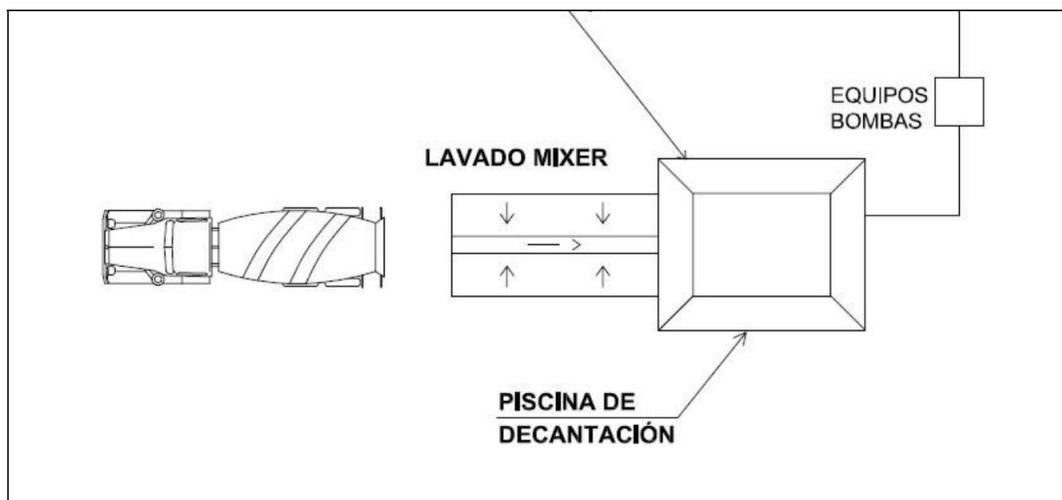
Just as it has been stated, the mixer trucks which will transport concrete will be daily washed. The washing area will consist of a platform (foundation) with a central gutter which will transport waters up to a drain will collect them and from there will be conducted to a sequential sedimentation system, comprised by a decanting well which will allow the separation of the liquid industry wastes in clear waters and sedimentable mud.

Other tools or machineries that might generate tracks of oils or grease, or some other substances different from the ones used in the concrete elaboration process will not be washed. In fact, the washing of trucks and dry good material washing activities will only generate waters with sediment remains of the concrete preparation and small fractions of fine sand. By part of the mixer truck washing, this will be referred to the extraction of concrete remains. According to what has been previously presented, the liquid wastes generated during the construction stage of PHAM, will basically consist of suspended solid water, mainly; sands, clays and cement and concrete remains.

With regards the separation of clear waters in the decanting well, the sedimentation is a process through which particulate matter is separated by gravity.

The decanting well will be built with firm material parapet and stabilized with a waterproof membrane. The following figure illustrates the construction scheme of the projected well for each PPH.

**Figure 4**  
**Decanting Well Scheme to be used in each PPH**



Once the waters will be ready to be re-used, these will be pumped up to the accumulation tanks to be re-used in the dry goods and trucks washing, and wetting surface works. Discharge of waters is not considered, re-using 100% of them.

On the other hand and as result of the sedimentation treatment, mud will be generated, which will be mechanically withdrawn through the use of a frontal loader with a weekly frequency.

It is worth to mention that usually this type of mud, from washing of concrete waters, are re-used in stabilizer bases, pipe seats, filling material, compacting material, fabrication of sub products for construction, among others.

### **E. Additives Storage Warehouse**

The elaboration of concrete will require the use of additives mainly corresponding to a set-accelerating admixture and a superplasticizer. The chemical compounds of these substances are; sodium aluminate and calcium hydroxide. It is not possible to establish in advance the exact amount of additive to be used, given that it will depend on the characteristics of the concrete which will define at the very moment of construction of the works. Nevertheless and based on the experience of the projects, the total amount of additives is 1 ton of set-accelerating admixture and 51 Ton of superplasticizer per working face.

For storage of these additives, a warehouse inside each PPH will be enabled, whose surface is estimated in about 15m<sup>2</sup>. The warehouse characteristics will be:

- Walls of structural material with roof and protection for environmental conditions such as humidity, temperature and solar radiation.
- Waterproof, washable and non-porous floor;
- Natural or forced ventilation;
- Evacuation emergency doors whose opening will be done in direction of the evacuation without use of keys or mechanisms which might require special knowledge;
- Any electric installation inside the warehouse will be done according to the current regulation and will be declared in SEC;
- The fire control system will contemplate the implementation of control and fire extinguisher equipments, leakage and spillage control and implements of personal protection and decontamination equipments.

Further details, with regards the additive management, is presented in section 2.4 of this document.

### **F. Annex facilities**

Additionally, it will be necessary the enabling of the following facilities:

- . Management office of the PPH and concrete laboratory: comprised of modular facilities of container type whose supporting structure of walls, roof and floors will be made of metal, lined with insulating material inside of it (see picture 2);

- . Portable toilets, according to what has been established in D.S. 594/99 of MINSAL, especially regarding the amount and distance to the working faces;
- . Car parks: signaled area enabled inside PPH for the parking of mixer trucks which will be permanently wetted.
- . Treated waters accumulation tank which will be connected to a pumping system from the decanting well. This well will be cylindrical, made of polyester resin and with a capacity approximately of 20 m<sup>3</sup>.



**Picture 2:** Facility container type used as offices and laboratory

## **G. Necessary goods for the PPH functioning**

### **G.1. Fuels**

Fuels to be used in each PPH will correspond to diesel oil and petrol, used for the functioning of the vehicles and the motorized vehicles. The supply of these fuels will be done through the use of tank trucks of authorized supplier companies, from the established stations in the Metropolitan Region.

The transport will be done according to what has been stated in D.S. N° 298 "Transport of Hazardous Substances on Highways", especially according to flammable substances.

Storage of fuels inside the PPH will not be done. Eventually, Contractors could enable temporary tanks for the storage of fuels in areas specially enabled in the installation of works or camp sites. Its installation and later enabling will comply with the current regulation and will count with the corresponding permit per sector processed by the Contractors and contractually demanded by Gener, while its management will be done according to what has been stated in section 2.3.2.4 of Chapter 2 of EIA.

## **G.2. Electric energy**

Electric energy towards the PPH will be supplied through work lines of 23 KVA, from the generation sources of energy belonging to GENER existing in the zone. Regarding this, El Volcán, El Yeso, and Lo Encañado areas will be supplied by the grid from Queltehues Power Plant. The works from El Colorado will be supplied through a connection from Alfalfal I and Maitenes Power Plants. The distribution of this power supply will be done through poles adjacent to the roads.

## **G.3. Water**

The water used for the elaboration of concrete will mainly come from existing ravines within the areas where PPH will operate, previous to an authorization from the owner of the rights. Collection of this water will be temporary and, in any event, will not continue beyond the abandonment stage of the facilities.

Inside the PPH, water will be stored in an independent tank, using a daily average of 5 m<sup>3</sup>, considering the used in truck and dry goods washing, for the concrete elaboration.

With regards the availability of potable water or the workers, this will be supplied in suitable water dispenser.

## **G.4. Machinery to be Used Inside the PPH**

The machinery required for each PPH in order to operate the concrete elaboration works will be; two (2) mixer trucks of 5 m<sup>3</sup>, one (1) frontal loader, two (2) steer dumper of 7 m<sup>3</sup> (occasional) and one (1) tanker truck.

## **H. Work logistic inside the PPH**

The operation period of each PPH will correspond to the functioning of each working face where they will be located, detailed in the Timetable attached to Annex 2 of EIA.

In terms of the amount of personnel which will work in each PPH, it has been calculated in 10 people per PPH. The work schedule in each PPH will vary, but is estimated that 3 shifts of 8 hours each one will operate, which will allow the continuous operation of 24 hours (by exception of the populated zone of Alfalfal, where works will be limited to the day schedule).

It is not contemplated to enable canteens or some other precinct for feeding of the workers, given that the canteen enabled in each camp site will be used.

## 2.2 SPECIFIC LOCATION AND MAP OF THE PHH PLANT

Just as it was previously pointed out, PHAM considers the enabling of 9 PPH located in the working faces of the tunnel arcades of El Volcán (V1 and V6), Alfalfal II (VA2), Las Lajas (VL2, VL4, VL5, VL7, VL8 and the Maipo river discharge tunnel).

The UTM coordinates of this facilities presented in the following table:

**Table 1**  
**Coordinates in each PPH to be enabled in PHAM**

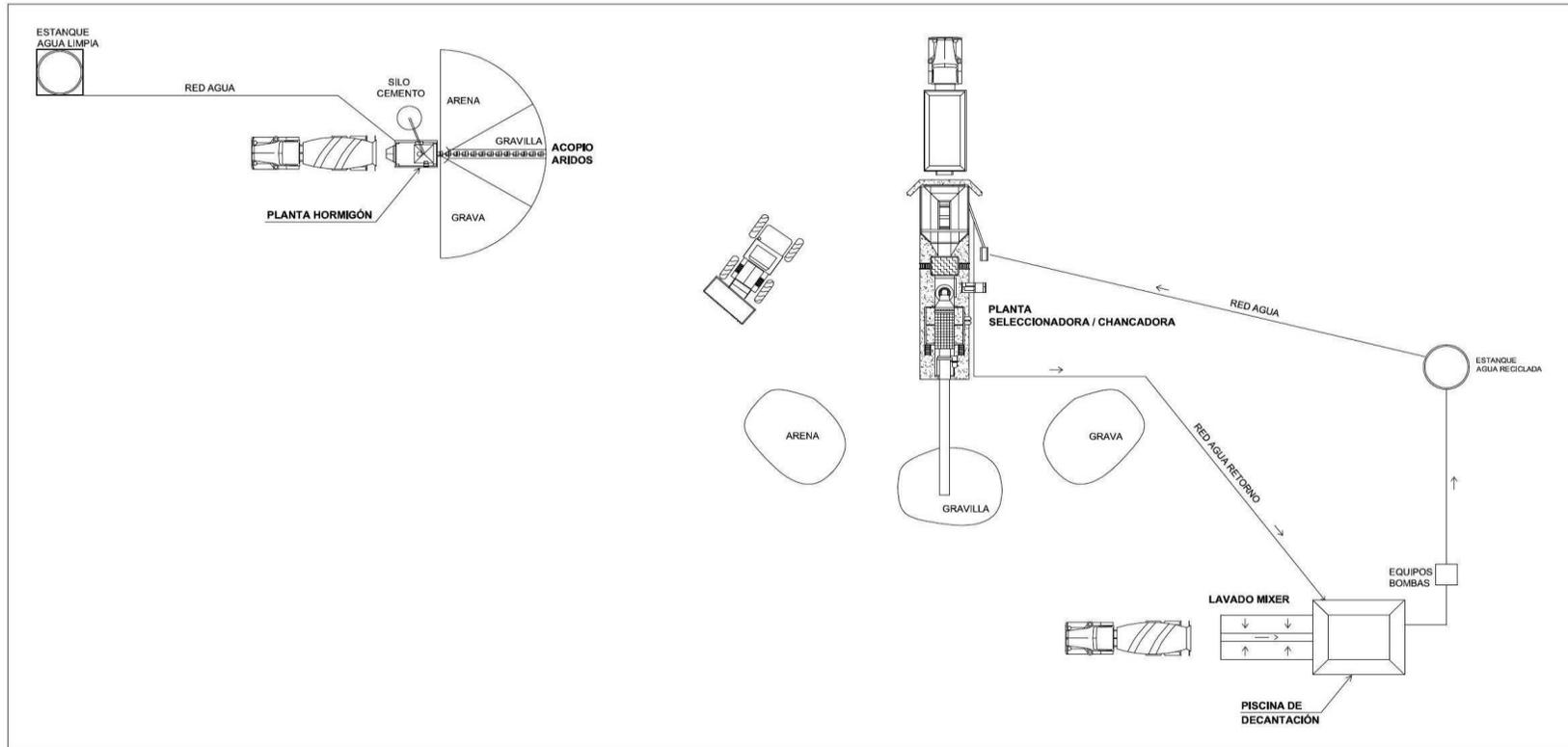
<b>Working face</b>	<b>Coord. East (UTM)</b>	<b>Coord. North (UTM)</b>
Volcán Tunnel Arcade V1	405.250,00	6.260.880,00
Volcán Tunnel Arcade V6	399.200,00	6.272.860,00
Alfalfal II Tunnel Window Arcade VA2	385.132,00	6.285.756,00
Las Lajas Tunnel Window Arcade VL5	380.300,00	6.287.461,76
Las Lajas Tunnel Arcade VL8	387.701,00	6.291.445,00
Las Lajas Tunnel Arcade VL7	386.380,00	6.290.750,00
Las Lajas Power Plant access Arcade VL4	379.211,00	6.287.126,00
Las Puertas Window Arcade VL2	376.623,06	6.285.531,06
Las Lajas Tunnel Arcade L1 (Maipo River)	368.064,94	6.284.084,35

The location of the installation of works, where the PPH will be located is illustrated in Figure 5 to 13.

While the distribution of the installations which will comprise the PPH, are shown in Figure 14.

**Insert Figures 5 to 13**

**Figure 14**  
**Distribution of the Installations which will Comprise the PPH**



## 2.3. CONTROL MEASURES PRELIMINARY PLAN OF THE BIOLOGIC, PHYSICAL AND CHEMICAL POLLUTION

### A. Atmospheric Emissions

The emissions generated by the operation of the PPH are considered of low importance, because;

- . In the work areas of El Volcán and Yeso the dry goods to be used in the concrete elaboration will be extracted from the same areas of the works of the waterways, adjacent to the working faces, therefore the transport of dry goods will be done over small and limited distances, in internal roads of the Project.
- . While part of the dry goods to be used in the work zones of El Colorado and Maipo Discharge will be supplied from La Obra area and it has been considered in the Emissions Study presented in Annex 4 of EIA;
- . There is no traffic flow as per concrete transport concept. The above, because the PPH are located in the tunnel arcades and near the superficial works;
- . The dry goods crusher plant will work through wetting;
- . The cement used is in bulk and stored in a silo specially designed for these effects. Regarding this, the discharge of cement from the tipper truck up to the silo will be done through a closed pipeline and from the silo to the plant by a closed pipeline activated through a worm gear, thus preventing the generation of atmospheric emissions.

On the other hand and given that the PPH are located within the working faces, the control measures of emissions will be the same that those pointed out in Chapters 2, 3 and 6 of EIA, this is;

- . Interior surfaces of PPH will be wet, especially in dry season. It is considered the use of a tanker truck during the whole construction of the works with daily frequency;
- . The contractors will receive instructions so trucks parked for a lengthy amount of time in the works will keep their engines off;
- . Inside the PPH, the burn of wastes and flammable materials (timber, vegetable material surplus, leafs or wastes and any other type of waste which is originated in the construction stage) at open sky during the operation of the works will be prohibited;

- . Control of compliance of the associated environmental standard (Chapter 3 of EIA) pointed out next:
  - i. DS N° 144/61 of MINSAL. It establishes standards to avoid emissions or atmospheric pollutants of any nature;
  - ii. DS N° 58/03 of MINSEGPRES. Reforms and Updates the Preventing Plan and Atmospheric Decontamination for the Metropolitan Region (PPDA)
  - iii. DS N° 59/98 of MINSEGPRES. It establishes a standard of primary quality for the breathable particulate matter MP-10, specially the values which define emergency situations;
  - iv. DS N° 75/87 of the Ministry of Transport and Telecommunications. It establishes conditions for the Transport of Loads;
  - v. DS N° 4/94 of the Ministry of Transport and Telecommunications. It establishes emissions of pollutants Standards applicable to motorized vehicles and sets the procedures for its control;
  - vi. Supreme Decree N° 55/94 of the Ministry of Transport and Telecommunications. Emission Standard to heavy motorized vehicles.

On the other hand, and as it will be pointed in Chapter 6 of EIA, as a compensation measure, the Owner of the Project contemplates measures in the current access routes to the area of the project, corresponding to the tranches of route G-455, between route G-25 and El Yeso Reservoir and the tranche of route G-25 between the El Yeso bridge and the areas of work of the Project, through the re-grading of the platform, plus the irrigation with Magnesium Chloride (Bischofite). This measure will allow reducing the current emissions generated by the current traffic flow in 1.170 ton/year, letting to comfortably comply with article N° 51 which establishes the PPDA of the Metropolitan Region. For further details of this compensation measure, please refer to Annex 4 of EIA.

## **B. Noise emissions**

With regards the noise emissions generated by PHAM, and specifically by the works to be developed in each one of the PPH, these are basically associated to the truck transit and the operations of the concrete plant.

According to the conclusions of Annex 30 of the EIA "Emissions Study", it has been determined that the zone with sensitive receptor corresponds to the Alfalfal town. For this zone, the Owner of the Project will implement specific measures of environmental safeguard, such as mobile screens, establishing works during the day, semi-enclosing of machineries and equipments, among others (please, refer to Annex 30 of EIA and to reply 27 of section 6 of this Addenda where more information about it is provided).

PCRL will be implemented by the contract in charge of each one of the installations of the project, included in the PPH, and it will be part of the Risk Prevention General Plan. With regards the contents that will be addressed in the PCRL, will correspond to the implementation of auditory protection measures and the follow up and continuous control of the compliance of the associated standard. Full details of this plan are pointed out in reply 8 of the section 2 of this Addenda.

### **C. Liquid wastes**

The only sewage which will be generated in the PPH, will be those from the portable toilets and will be managed by the Sanitary Authority, arranging wastes of this units according to the current regulation.

For further details with regards the generation and treatment of sewage of the project, please refer to Annex 18 of EIA.

Finally, and in relation to the waters from the mixer truck and trays washing, is important to clarify that although correspond to sewage, these will be re-entered into the washing system, previous to the treatment in the decanting well.

### **D. Solid wastes**

The wastes that will be generated inside the PPH, will correspond to the mud generated in the decanting well and household wastes from the workers of PPH.

The sediment mud will be extracted from the decanting well with a frequency of weekly withdrawal from the well.

With regards the household wastes, these will basically be packages, papers, cartons, among others. There will be no food waste, because workers will use the canteens enabled in the camp sites.

The household wastes or similar to residential will be arranged in polyethylene bags and differentiated in containers according to the type of material with potential recycling in each generation point. These residual material will be directly sent to an authorized sanitary landfill and operated by third parties.

The non-organic wastes similar to residential and of construction such as metals, cans, etc. that have recycling or re-use potential will be transported to the waste management yard. It will prioritize the reuse of these materials in the working face and/or third party sales. Those wastes that cannot be re-used, recycled or sold, will be placed in a sanitary landfill, according to the detail pointed in Annex 18, attached to the EIA.

It is important to specify that inside the PPH, hazardous solid wastes will not be generated (toxic, flammable, corrosive or reactive). The above because the maintenance activities and machinery or vehicle repairs will be carried out in the exterior facilities areas marked out for the PPH in the installation of works. Regarding this, the generated wastes due to this activity such as solvents, used oils, grease, batteries and oil filters will be managed under strict control standard and safety pointed out in Annex 18 of the EIA and according to the current legislation.

## 2.4 QUALITATIVE AND QUANTITATIVE CHARACTERIZATION OF HAZARDOUS SUBSTANCES TO BE MANAGED.

### A. Hazardous chemical substances to be used

The chemical substances to be managed will correspond mainly to two types of additives to be used in the elaboration of concrete, consisting of an set-accelerating admixture and a superplasticizer.

The set-accelerating admixture is used in powder for the slurry and foundation bolts mortars to reduce the setting time. The chemical compounds of this substance are sodium aluminate and calcium hydroxide. The physical shape which, this additive is usually used, is in solid state.

The superplasticizer is used in the pumped concrete (shotcrete) to improve its manageability, thus using less amount of water in the elaboration of concrete and allowing maintenance of its properties.

These substances are stable in normal conditions of operation and storage. The set-accelerating admixture is potentially reactive to big amounts of acid substances, while the superplasticizer can form Nitrogen oxides, sulphurs and possibly Cyanide in front of combustion events.

With regards the storage mode, this is done through closed-tight packages, which will be arranged in the additive storage warehouse, described in section 2.1 letter E of this document.

### B. Description of the additive management and control

In the storage warehouses:

- . In order to comply with their functions, only trained and authorized personnel will operate;
- . As control measure, a registration of specific procedures to act in case of having some contingency will be kept. This registration will count with all the safety sheets of the products stored, according to NCh 2245 Nt. 93. This is the identification of the risks to people, handling and storage ways, control and protection, among others.
- . Each one of the additives must count with signs identifying type of substance stored, in accesses and sides (NCh 2190 Nt. 93).
- . The storage warehouse of the additives will remain at all times fresh, dry and aired.

## 2.5. RISK CONTROL MEASURES FOR THE COMMUNITY

Each one of the PPH will be distant from the population or urban centers. Thus, measures of risk control are mainly focused to the safety control for the workers. Regarding this, PHAM contemplates the operation of the following safeguard measures:

### **A. Risk Prevention Plan and Contingency Plan<sup>4</sup>**

These plans deliver the regulatory dispositions and mandatory ones, in terms of prevention and emergency control, which will run for all those hiring or works and/or services that the Owner performs with third parties including those in charge of the PPH operation.

Thus, the risks that workers will be exposed to are identified, including those which operate within the PPH facilities, specific measures which will be implemented to prevent occupational accidents and professional illnesses, the adequate personal protection gear which will be used by the workers, and the specific control measures in case of declaration of an emergency.

Additionally, and once the work contracts are awarded, the contracting company in charge of each PPH management must re-assess, in its corresponding workplace and its potential specific associated risks, according to stated in section 6 of the Risk Prevention Plan (Annex 32 of EIA). The above will be done through a methodology of identification, assessment and administration of risks associated with Safety and Labour Health of the workers and which is part of the Prevention Plan (Appendix A of the Risk Prevention Plan, attached in Annex 32 of EIA).

### **B. Strict control of the compliance of the current legislation on the matter**

The Contractor of the construction will implement a Labour Surveillance Plan which will look after the compliance of the measures and legal dispositions associated to matters of health and labor safety. Especially to the Act N° 16.744 about Labour Accidents and Professional Illnesses, of D.S. 40/1969; "Regulation on Professional Risk Prevention, of D.S. 594/98 "Basic Sanitary Conditions at Workplaces", of the Law 20.123 about subcontracting and the sector standard associated to each activity involved in the Construction works.

### **C. Personnel training plans**

Depending on the type of training required, a complete training plan will be designed which will address at least the following safety subjects;

- DAS: The Right to Know: Safety talk according to D.S. N° 40 (The Right to Know) in which all the workers that will participant of the works must be addressed about risks to

<sup>4</sup> Attached to Annex 32 of EIA

which they will be exposed and the control measures to control them. The talks will be given by an Expert on Risk Prevention, or a supervisor of the contracting company.

- . General Training of the AES Gener S.A. Risk Prevention Regulation for Contracting Companies: Each contracting or subcontracting company will train its personnel according to the subjects arranged in the AES Gener General Regulation of Risk Prevention and how they are aligned to the specific risk prevention measures of the company which they belong to (Annex 32 of EIA).
- . Instruction about the Internal Regulation of Order, Hygiene and Safety of the contracting and subcontracting companies. Training where all the measures that the worker must observe and comply with during the development of his/her functions and which are specific to each contracting or subcontracting company will be pointed out. Also, the evacuation and safe areas enabled in each facility of the project. This regulation will be previously aligned with the general strategy of risk prevention, detailed in Annex 32 of EIA.
- . Specific procedures of safety: Instruction about the specific tasks that each worker must do. This training will allow the personnel to have a full labor qualifications, before starting and putting a job in order, in relation to the function which was hired for. On the other hand, in this training the risks identified in the activity and the prevention measures and contingencies associated to them will be detailed. Also, they will be trained on the communication programs and the role of each one of the participants of the work. Finally, they are trained with regards the personal protection gear which are necessary to develop each one of the works which the worker was hired for and the support equipments to face contingencies such as the use of the fire extinguisher.
- . Demands and requirements of the Environmental Qualification Resolution (RCA) which approves the project and other demands of environmental management: Each worker will be educated with regards the demands issued by RCA and other environmental management marked out to the work which each worker will perform. Training with regards the importance of preserving the care and cleanliness of each environmental component involved in the project, and the legal compulsory of these demands will be done.

Each one of these talks will be accredited through documents where the date of carry out, full name, ID Number and signature of the participants, subjects and risks or hazards treated in the meeting and full name, ID Number, position and signature of the speaker will be clearly registered. The register will be available in case that the authority might require them, in the management zones of each installation of works, working faces and camp sites.