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*Regional Government*

**REGIONAL OFFICE OF ENERGY AND MINING – ICA**

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**“A year of good service to the public.”**

**LEGAL TECHNICAL REPORT No. 005-2017/GORE-ICA/DREM-AT-AL/PSIA-OMB**

**To:** Mr. Renzo Jacob Echeverria Ardiles  
Regional Director for Energy and Mining of Ica

**From:** Mr. Percy Saul Irigoyen Aquis, Auditor – Investigator, DREM-ICA  
Ms. Omaidá Marquina Ramos, Legal Department, DREM-ICA

**Subject:** Mining-Environmental Supervision Report carried out at  
The TULIN PILOT PLANT Code No. P610000110 administered by TULIN  
GOLD CO S.A.C

**Reference:** Memo No. 118-2017-GORE-ICA/DREM, dated 14 Nov 2017

**Date:** Ica, 27 December 2017

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**I. INTRODUCTION**

This Mining-Environmental Supervision Report is carried out in compliance with the SUPREME DECREE No. 024-2016-EM “Occupational Health and Safety Regulation in Mining”; modified by D.S. No. 023-2017-EM; LEGISLATIVE DECREE No. 1101 – “Establishes measures for strengthening environmental auditing as a mechanism to combat illegal mining; MINISTERIAL RESOLUTION No. 353-2000-EM-VMM – Approves a series of fines and penalties for non-compliance of the Single Revised Text (TUO) provisions of the General Mining Law and its regulatory norms,” on smelting activities of the “TULIN PILOT PLANT,” Code No. P610000110, located in the Tulin Village, El Ingenio District, Nasca Province, Ica Region of the administration.

**II. LEGAL FRAMEWORK**

- 2.1. MINISTERIAL RESOLUTION No. 179-2006-MEM/DM** – Transfer of Sector Functions with respect to Energy, Mining, and other applicable legal provisions.
- 2.2. SUPREME DECREE No. 006-2017 JUS** – Single Revised Text (TUO), law 27444 – “General Administrative Proceeding Law.”
- 2.3. LAW No. 27446** – “Environmental Impact Assessment System Law.”
- 2.4. SUPREME DECREE No. – 019-2009-MINAM** – “Regulation of the Environmental Impact Assessment System Law.”
- 2.5. SUPREME DECREE No. – 054-2013-PCM** – “Approves Special Provisions for Administrative Proceedings of Authorizations and/or Certifications for Investment Projects.”
- 2.6. SUPREME DECREE No. 024-2016-EM** – “Occupational Health and Safety Regulation.”
- 2.7. SUPREME DECREE No. 023-2017-EM** – “Modifies several articles and annexes of the Occupational Health and Safety Regulation in Mining, approved by the SUPREME DECREE No. 024-2016-EM.”
- 2.8. SUPREME DECREE No. 057-2004-PCM** – “Norm that approves the regulation of the Law No. 27314, General Law of Solid Waste.”
- 2.9. LEGISLATIVE DECREE No. 1101** – “Establishes measures for strengthening environmental auditing as a mechanism to combat illegal mining.”
- 2.10. MINISTERIAL RESOLUTION No. 247-2013-MINAM** – “Approves a Common Environmental Audit System for small mining and artisanal mining.”
- 2.11. Law No. 29338** – “Regulation of Water Resources Law.”
- 2.12. RESOLUTION OF THE EXECUTIVE COUNCIL No. 046-2013-OEFA/CD** – “Approves regulation for the voluntary amendment of non-compliance of minor significance.”
- 2.13. RESOLUTION OF THE EXECUTIVE COUNCIL No. 027-2017-OEFA/CD** – “Approves the regulation of Administrative Disciplinary Proceeding of the Environmental Assessment and Audit Organization – OEFA.”
- 2.14. Single Revised Text, Law No. 27444** – “General Administrative Proceeding Law.”

**III. BACKGROUND**

- 3.1. That, through Regional Directorial Resolution No. 017-2007-GORE-ICA/DREM, dated 10 Sep 2007, a Semi-Detailed Environmental Impact Study (EIASd) of the Expansion Project of the Metallurgical Plant – the “TULIN PILOT PLANT” by RUSSIAN TECHNOLOGY S.A.C., is approved.
- 3.2. That, through Regional Directorial Resolution No. 002-2011-GORE-ICA/DREM/M, dated 27 May 2011, it was resolved to grant a license to the “TULIN PILOT PLANT” with an installed capacity of 100 TMD for a activated carbon pulp agitation process over 1.5 Has, in favor of holder of the ID No. , located in the El Ingenio District, Nasca province, Ica department, within the following UTM coordinates:

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<b>Boundaries</b>	<b>Department</b> ICA	<b>Province</b> NASCA	<b>District</b> EL INGENIO
<b>Letters</b>	<b>Code</b> 3034	<b>Address</b> PALPA	<b>UTM Zone</b> 18
<b>[ILLEGIBLE]</b>	<b>WGS94 Coordinates</b>		
	<b>North</b>	<b>East</b>	
1	8.381.590,75	492.508,51	
2	8.381.685,36	490.621,34	
3	8.381.560,82	492.604,05	
4	8.381.596,79	492.485,61	
5	8.381.645,75	492.485,61	
6	8.381.637,78	492.485,61	

- 3.3. That, the “TULIN PILOT PLANT” is assigned to the company TULIN GOLD CO S.A.C., with TAX ID No. 20392485571.
- 3.4. That, by occupational health and safety investigation, other complementary measures in mining, corresponding to the year 2012, carried out on 12 June 2012, report No. 21-2012-GORE-ICADREM/AT/FA/CRRA was generated, which includes observation No. 05 that states “*the tailing pond requires reinforcement in its slopes, and the outer edge of the slope shall be increased since there is a material break-off which is made up of tailing. It is necessary to implement and apply an adequate environmental standard and implement a closing plan for the tailing pond.*” To this effect, a 06 UIT infraction was imposed through Regional Directorial Resolution No. 074-2016-GORE-ICS/DREM, a sum of 19,750.00 was paid to the GORE ICA account in the national bank, receipt No. 31120099.
- 3.5. That through a visual inspection conducted on 27 November 2012 in order to verify the alleged spillage of tailing, the report No. 017-2012-GORE-ICA/DREM-AT/PRO was generated in which the investigator observes a liquid spillage that begins in the Tailings and extends for approximately 210 m. Said spillage leaves a “film,” indicates the investigator that “*is composed of lye used in activated carbon.*” The starting point of the spillage is in tailing No. 1 at UTM PSAD56 East 492660 and North 8381945. The spillage ends at coordinate UTM PSAD56 East 492666 and North 8381726. This is punishable by a 05 UIT infraction per Regional Directorial Resolution No. [ILLEGIBLE], dated 11/03/2013 and confirmed in legal technical report No. 104-2016-GORE-ICA/DREM/AL/IEMA, dated 26 July of this year in legal technical report No. 019-2017-GORE-ICA/DREM/AL/MECVS. A deposit for the sum of S/ 20,250.00 in account No. 00-601-015285 was made via receipt No. 366200146. It is worth mentioning that in said spillage trajectory, there were Nazca lines and geoglyphs, and there is no document in which the events were communicated to the Ministry of Culture. In the previous investigation, it can also be observed that the administrator was already warned that “*slope reinforcement is needed since material break-off from the trailing basin is noted*” and since then a Closing Plan for the tailings has been requested.
- 3.6. That: via the annual occupational health and safety investigation and other complementary

Mining measures corresponding to the second investigation in 2012 carried out on 21 December 2012, report No. 40-2012-GORE-ICADREM/AT/FA is generated. In this report, observation No. 03 indicated: *“the tailing pond requires reinforcement in its slopes, and the external border of the slope needs to be increased since it is noted that the edge of the tailing is about to collapse, and it is not well designed. It is necessary to implement and apply an adequate environmental standard and implement a closing plan for the tailing pond.”* This is punishable by a 05 UIT infraction per Regional Directorial Resolution No. 011-2013-GORE-ICA/DREM. A payment of S/ 18,500.00 was made to National Bank via receipt No. 53740837.

- 3.7** That: via inspection on 18 November 2014, it is mentioned that tailing pond No. 1 and No. 2 are filled to capacity according to report No. 08-2014-GORE-ICA/FREM/AT/FA with registration No. 04768, dated 30 December 2014 indicates that “the administration would soon assume management of the closure and its respective remediation.” In this report, a 02 UIT infraction was given due to non-compliance with SSO and environmental norms. A legal report No. 038-2015-GORE-ICA/DREM/AL/JEMA was generated, opening an Administrative Infraction Procedure in Regional Directorial Resolution No. 063-2016-CORE-ICA/DREM. A payment of S/ 7,900.00 was made to National Bank account via receipt No. 311000044.
- 3.8** That: via the investigation carried out on 04 June 2015 per the Norms for Occupational Health and Security and other complementary mining measures, and via report No. 008-2015/GORE-ICA/DREM-AT/FA, it can be found in observation No. 09 that in tailing No. 2 domestic *“BLACK PLASTIC”* is used instead of geomembranes. This provokes a 05 UIT infraction via Regional Directorial Resolution No. 015-2017-GORE-ICA/DREM. A payment of S/ 20,250.00 was made to National Bank account via receipt No. 14737839-5-D.
- 3.9** That: On 16 Aug 2016, [the] owner of the “TULIN PILOT PLANT,” submitted a modification of the Semi-detailed Environmental Impact Study for the Increase of smelting capacity to 350 TMD and an additional increase of the smelting concession area of 7.9756 Ha which, combined with the previous 1.5 Ha, gives a total of 9.4756 Ha. Law No. 29338 “Regulation of the Law of hydrological resources” Article 115 - *“Prohibited activities in the marginal strip for purposes of human settlement, agriculture or any other activity that impacts it. The National Water Authority, together with local governments and the Civil Defense, shall promote relocation mechanisms for populations settled in marginal strips.”*
- 3.10** That: the administrator presents the sampling of observations under register No. 049785 dated 22 November 2017.

#### IV. SUPERVISION DATA

That, on 15 November 2017 at 10:00 am, Environmental Mining supervision at the Tulin Pilot Smelting Plant, located at UTM WGS 84 Zone 18, East 0492614, North 8381617, in El Ingenio District, Nasca Province, Ica Department, began with representatives of the company TULIN GOLD CO S.A.C.

- \* Manuel De Los Santos Quispe Mayhuay, ID 44015609
- \* Eng. Arnold Eddy Cantoral Yarihuaman, ID 47872801
- \* Benjamin Teodato Palomino Fernandez, ID 22074256

and with officials from DREM ICA:

- \* Eng. Luis Yoshinobu Nakagawa Nishikawa, ID 21413440
- \* Percy Saul Ingoyen Aquise, ID 22101392
- \* Omaidia Marquina Ramos, ID 43149230

The Supervision of Safety, Occupational Health, and the Environment ended at 2:00 pm in which the following equipment was used:

- \* Mobility via the DREM-ICA Nissan pickup truck with license plate No. YIA-801.  
Driver: Mr. Felix Muñante Vasquez.

- \* GPS GARMIN
- \* CANON Camera

**OBSERVATIONS**

That: at the moment of Mining-Environmental Supervision carried out at the Tulin pilot plant, some shortcomings in compliance with Mining-Environmental, Safety, and mining Occupational Health norms were observed. They are described below:

**5.1 - VERIFICATION OF SAFETY AND OCCUPATIONAL HEALTH OBLIGATIONS**

**5.1.1 - INFORMATION REQUIREMENTS ABOUT SAFETY AND OCCUPATIONAL HEALTH**

The following requested information was verified and provided by the Administrative Office of the Smelting Plant per D.S. No. 024-2016-EM and are attached to this report.

- \* Pension insurance Policy documentation of 47 workers of TULIN GOLD CO S.A.C.
- \* Product safety datasheet: Sodium Cyanide
- \* Sodium Cyanide Handling Safety Certificate
- \* Diffusion-Induction Registry: Sodium Cyanide
- \* Pay Stub of the worker Marcial Salomon Esquivas Luna
- \* Certificates of Occupational Medical Aptitude of some workers:
  - \* Rosalina Aurora Landeo Huaytalla
  - \* Rosa Mercedes Misalco Huaytalla
  - \* Marcial Salomon Esquivas Luna
- \* Sanitary Authorization for Septic Tank Use and burials DRSI No. 010-2016-GORE-ICA-DIRESA-DESA.
- \* 02 Mineral receipt list from the provider Martin Agapito Ramirez Ciancas.
- \* Sol de San Jose Mine packing list from Martin Agapito Ramirez Ciancas

The following information is not available in the plant administrative office. The DREM-ICA hereby gives the administration five working days to provide this otherwise they will be subject to an infraction for non-compliance (Art. 26 inc. "q" D.5 No. 024-2016-EM)

- \* Work incident and accident registry
- \* Safety indices
- \* Inspection systems (daily, weekly, monthly)
- \* Annual Mining Safety and Occupational Health Plan

**5.1.2 - SUPERVISED AREAS OF MINE SAFETY ASPECTS**

In the occupational health and safety supervision, the following areas and components located at the following coordinates were received:

POINT NO.	LOCATION UTM (WGS 64) - ZONE 15		DESCRIPTION
	NORTH	EAST	
1	8381605	0492581	Mineral receipt
2	8381501	0492559	Transfer Belt
3	8381584	0492540	Electrical panel
4	8381605	0492531	Capacitor Bank
5	8381629	0492533	Electrical panel, Mills and agitation tanks
6	8381633	0492624	Cyanide Deposit
7	8381637	0492621	Emergency Shower
8	8381581	0492638	Camp area
9	8381572	0492633	Fuel storage

**5.1.3 - OCCUPATIONAL HEALTH AND SAFETY OBSERVATIONS FOUND:**

- ❖ **OBSERVATION No. 1:** In the location of Point 1, three (3) workers without security gloves were found (Photo No. 1 and No. 2). Per Art 81 of D.S. No. 024-2016 EM, leather gloves should be immediately provided, and they should be obligated to use PPE. If they refuse, they will be subject to work suspension.
- ❖ **OBSERVATION No. 2:** In the location of Point 2, the following was found: the unloading belt of the grinder was operating without its protective dust covering despite having it installed (Photo No. 3). This is a regulatory infraction per Art. 325 of DS No. 023-2017 EM and Art. 317 of DS No. 024-2016-EM.  
Observation made per reg. No. 049785 dated 22/11/2017.  
It was also observed that the transfer belt lacks an emergency shutdown cable over its whole length. This is an obligation per Art. 377 of DS No. 024-2016-EM. Observation made per reg. No. 049785 dated 22/11/2017.
- ❖ **OBSERVATION No. 3:** In the location of Point 3, the grinder and transfer belt's electrical control panel was found to be open without its security padlock (Photo No. 4). This is an infraction per Arts. 346, 347, 348, 360 and 364 of DS No. 024-2016-EM. Observation made per reg. No. 049785 dated 22/11/2017.
- ❖ **OBSERVATION No. 4:** In the location of Point 4, the electrical Capacitor Bank Area is found. The following was found:
  - An open electrical panel without rear covering and security padlock (Photo No. 5) is an infraction per Art. 346, 347, 348 and 360 of DS-024-2016-EM. Observation made per reg. No. 049785, dated 22/11/2017.
  - The external protection fence at the entrance to the Capacitor Bank area is not entirely closed (Photo No. 6). This is an infraction per Arts. 346, 347, 348, 360 and 364 of DS-024-2016-EM. Observation made per reg. No. 049785 dated 22/11/2017.  
Fire extinguisher No. 11 does not have a monthly inspection registered per Art. 404 and 405 of DS-024-2016-EN. Observation made per reg. No. 049785, dated 22/11/2017.
- ❖ **OBSERVATION No. 5:** In the location of Point 5, the mill and agitation tank's electrical control panel was found to be open without its padlock. Unprotected electrical cables were also exposed. This is an infraction per Arts. 318, 346, 347, 348, 360 and 364 of DS-024-2016-EM. Observation made per reg. No. 049785 dated 22/11/2017.
- ❖ **OBSERVATION No. 6:** In the location of Point 6, corresponding to the sodium cyanide deposit, the following observations were found:
  - Lack of studies, incurring in an infraction of Art 404, and 405 of DS-024-2016-EM. Observation noted according to reg. N° 049785 dated 22/11/2017.
  - Lack of order and tidiness, incurring in an infraction of Art. 398 of DS-024-2016-EM. Observation noted according to reg. N° 049785 dated 22/11/2017.
- ❖ **OBSERVATION N° 7.-** Location 7, corresponding to the emergency shower station in front of the cyanide storage doesn't work due to a lack of water, incurring in an infraction of Art. 335 of DS-023-2016-EM.  
Observation noted according to reg. N° 049785 dated 22/11/2017
- ❖ **OBSERVATION N° 8.-** Location 8 is in the camp area and doesn't have a standard fire extinguisher. Only it's base and signage is found, incurring an infraction of Art 404, and 405 of DS-02-2016-EM

❖ **OBSERVATION N° 9.-** The following was found at Location 9, which corresponds to the fuel storage area:

- The electrical distribution box (photo N° 12) doesn't have any protection, roof or lock, which incurs infractions of Arts. 346, 347, 348,360 and 364 of DS-024-2016-EM. Observation noted according to reg. 049785 dated 22/11/2017
- Fuel canisters (photo N°13) are found without their respective drip pans, incurring an infraction of Art. 388 of DS-02-2016-EM  
Observation noted according to reg. 049785 dated 22/11/2017
- Extinguisher N°2 (Photo N°14) has a valid expiry date, but doesn't have a log of monthly inspections, incurring an infraction of Arts. 404 and 405 of DS-02-2016-EM  
Observation noted according to reg. 049785 dated 22/11/2017

According to the Unique Consolidated Text of the Law for General Administrative Procedure- Law 27444, article 255.- **Exemptions and extenuating responsibility for infractions, paragraph F), the voluntary correction by the party subject to a fine for the act or omission attributable as constituting an administrative infraction prior to the notification of charges referred to in Article 253, paragraph 3).**

Therefore, the observations found and reported in Letter Reg. N°049785 dated 22/11/2017 are hereby considered corrected.

## 5.2.- VERIFICATION OF ENVIRONMENTAL OBLIGATIONS

### 5.2.1. REQUIRED INFORMATION ON ENVIRONMENTAL OBLIGATIONS. -

The following information was not available; therefore five (05) working days were given for its submittal to the DREM-ICA, which is subject to a monetary fine if the deadline is not met ( Art. 26, DS N° 024\_2016-EM)

- Solid waste management plan. Observation noted according to reg. 049785 dated 22/11/2017
- Authorization of tailings storage on Pad N°1 were not presented.
- Authorization of Construction with cyanidized adobes. (cylinders, Sodium hydroxide transport bags, Scrap steel, and waste activated carbon storage). These areas are found outside of the concession area and are not duly authorized. Not presented.
- Recyclable Waste Manifest. Updated management manifest from 2018. According to SUPREME DECREE N° 057-2004-PCM art 43. Article 43- Manifest Management- *"The waste generator and the EPS-RS to ED-RS, according to the case where they intervene up to final disposal, will issue and maintain the manifest indicated in the previous article, adhering to the following:*
  1. *The generator will issue the original accumulated manifests from the previous month to the corresponding authority in the area during the first 15 days of each month (...)*
  2. *The corresponding authority in the area indicated In the law will issue a copy of the information to the DIGESA mentioned in the foregoing numeral, fifteen days after it is received.*
  3. *The Generator and the EPS will keep a copy of the manifests for five years, which must be duly signed and sealed as indicated in the previous article.*
- Updated Septic Tank Sanitary Authorization.
- The subject must replace the septic wells with portable restrooms. According to Mining Occupational Health and Safety Regulation D.S. N° 024-2016-EM in article 207" The septic wells must be replaced by portable restrooms, which must be kept in good working condition and located far from dining and cleaning areas.

### 5.2.2. - VERIFIED AREAS AND COMPONENTS

The environmental supervision verified the following areas and their components, located at the following coordinates, according to the WGS 84 system.

Location N°	LOCATION UTM (WGS 84) - ZONE 18		DESCRIPTION
	NORTH	EAST	
1	8381613	492499	Tailings field N°1
2	8381716	492491	Tailings field N°2
3	8381682	492363	Pad south-east of tailings
4	8381630	492620	Cyanide Deposit
5	8381539	492609	Septic Well
6	8381572	492633	Fuel Storage
7	8381569	492581	Mess hall and bathrooms

### 5.2.3.- ENVIRONMENTAL OBSERVATIONS FOUND

\* **OBSERVATION N°10.** – Tailings field N°1 was found to be overloaded (Photo N°15 and 17°). It should be noted that this observation is reoccurring, therefore the subject should have closed the tailings pond definitively (illegible) of it's Closing plan approved in its (illegible) through Regional Direction Resolution N° 017-2007-GORE-ICA/DREM dated Sept. 10<sup>th</sup>, 2007.

\* **OBSERVATION N°11.** – Tailings field N°2 was found to be overflowing (Photo 18°). It should be noted that this observation is reoccurring, therefore the administration should have closed the tailings area definitively, this falling in non-compliance with its Closure plan approved in its EIA through Regional Office Resolution N° 017-2007-GORE-ICA/DREM dated Sept. 10<sup>th</sup>, 2007.

\* **OBSERVATION N°12.** The company has been observed making some 10 thousand adobe bricks approximately, using cyanide tailings as the raw material, while possibly mixing them with cement and lime, which are loosely stacked on the north -west border of Pad N° 1 (Photo N° 19), and an unknown volume of cyanide tailings bricks that have been used to build its storage facilities, cyanide storehouse, industrial solid waste storage area, scrap metal storage area, etc.

The Owner, \_\_\_\_\_, submitted a study titled “ Design and Construction of Pavement Blocks, Bricks and Masonry”, prepared by DAG CORPORATION S.A.C. and the study is a process to Encapsulate Heavy Metals (Lead, Zinc, Manganese etc) for FLOTATION tailings, which isn't applicable for CYANATION; therefore, the heavy elements, gold and silver, have been washed by the cyanidation process. The **most dangerous and contaminating element**, the **cyanide free radical CN** (made up of carbon and nitrogen, which are non-metallic elements and not heavy) are highly soluble and therefore such study to encapsulate heavy metals in cyanide tailings IS NOT APPLICABLE. Such metals aren't part of the problem itself, but rather the excess of free cyanide that could remain in the tailings is the problem.

Being that the beginning of the cyanide tailings block manufacturing by owner

and/or subject TULIN GOLD CO. S.A.C. is unknown, or both, the following information must be submitted to the DREM-ICA

- ✓ Authorization that approves the Manufacturing Study for blocks and masonry
- ✓ The authorization for manufacturing a new Finished Product for use in civil works such as the Storage Area and several deposits for the storage of cyanide, scrap metal, etc. in the same smelting plant.
- ✓ A declaration from the plant owner and the company stating whether or not the blocks, bricks and masonry were given to third persons outside of the plant, in which case the owner shall provide said information

The owner and the administration shall demonstrate that the finished products (blocks, bricks and masonry) using cyanide tailings is harmless to human health; therefore we recommend that the tests be done on the tailings deposited on Pad N°1 and analyzed for total cyanide, free cyanide, and heavy metal (lead, mercury) content.

Additionally, the following information and reports from the time of manufacturing must be submitted:

- ✓ Names of the workers who participated in the manufacture of the blocks, bricks and masonry.
- ✓ Details of the manufacturing process, quantity of ingredients and reactive used.
- ✓ Daily production reports of finished products

- ❖ **OBSERVATION N° 13.-** The following details were observed on Pad N°1 (Photo N° 19, N°20 and 21):
  - ✓ Tailings fresh from the cyanidation process are being deposited on the pad without due authorization after passing through a vacuum disc filter with an approximate humidity of 20%-25%. Approximately 4,500m<sup>3</sup> has accumulated which is equivalent to approximately 8,100 metric tons. Pad N°1 does not have a geomembrane that creates an impermeable barrier and protects the soil under the cement pad from residual cyanide water being that their tailing fields are overloaded, which has caused the subject to violate the established Environmental provisions.
  - ✓ That, consequently, the owner and/or the subject (to be determined) have violated the Health and Occupational Safety standard DS N°024-2016-EM, Articles 334 and 338, due to the risk to personnel and to the health of the workers exposed to the handling of cyanidation tailings, and therefore an additional monetary fine equal to 5.0 UIT must be applied to the personnel responsible for this activity.
  
- ❖ **OBSERVATION N°14-** A lack of restrooms for women was observed throughout the whole plant, and especially in the camp and kitchen where there are woman working; therefore due to the violation of Art. 206 of DS.024.2016-EM and DISCRIMINATION, a complete and independent restroom must be installed.

**5.2.4 - GENERAL OBSERVATIONS FOUND**

- ❖ **OBSERVATION N° 15. -** According to satellite images N°1 and N°2, there are components that are found outside the of the granted concession area, which are described as follows:
  - ✓ Approximately 5% of Tailings Field N°1 is outside of the concession area and outside the authorized area for depositing cyanidation tailings
  - ✓ Approximately 40% of Tailings Field N°2 is outside of the concession area and outside the authorized area for depositing cyanidation tailings
  - ✓ Approximately 45% of Pad N°1 is outside of the concession area
  - ✓ Most of the following components are found outside of the concession:
    - Camp, mess hall and worker restrooms
    - Fuel deposit
    - Guardhouse
    - Heavy Vehicle reception area
    - Emergency eye wash/shower across from the storage area
    - Storage area
    - Cyanide storage
    - Industrial waste storage area - cyanide cylinders, Sodium hydroxide bags, and metal scrap among others.

**VI. CONCLUSIONS**

**6.1- OF THE OBSERVATIONS MADE IN THE INSPECTION, THE FINES LEVIED ARE DETAILED BELOW:**

- **OBSERVATIONS ON THE ENVIRONMENTAL AUDIT FOUND AND SANCTIONS UNDER LEGISLATIVE DEGREE NO. 1101:**

INFRACTION	FINE	SANCTION TYPE	COMPLEMENTARY MEASURES
<p><b>PERFORMING ACTIVITIES WITHOUT THE CORRESPONDING ENVIRONMENTAL CERTIFICATION</b></p> <ul style="list-style-type: none"> <li>➢ Tailings Field No. 1: Approximately 5% of the area is located outside of the concession area and outside of the area where cyanidized tailings can be dumped.</li> <li>➢ Tailings Field No. 2: Approximately 40% of the area is located outside of the concession area and outside of the area where cyanidized tailings can be dumped</li> <li>➢ A large percentage of the following components are located outside of the processing concession: Camp, dining room,</li> </ul>	<p><b>20 UIT</b></p>	<p><b>VERY SERIOUS</b></p>	<p><b>TEMPORARY SUSPENSION OF ACTIVITIES</b></p>



restrooms for workers, fuel storage area, security gate, vehicle load reception bay, emergency shower across from the warehouse, cyanide storehouse, industrial waste storage area, storage area for cyanide cylinders, and storage of sodium hydroxide sacks, scrap metal, and others			
<p><b>NON-COMPLIANCE WITH THE APPLICABLE ENVIRONMENTAL MANAGEMENT INSTRUMENT</b></p> <ul style="list-style-type: none"> <li>➤ Manufacturing adobe and other products without approval of the study submitted to the DREM-ICA and without the authorization for manufacturing such products</li> <li>➤ For risks to personnel and health of workers by exposing them to handling cyanidized tailings in the adobe manufacturing process</li> <li>➤ Pad No. 1 does not have a waterproof geomembrane to protect the soil under the cement pad from filtrating cyanidized residual waters</li> <li>➤ Not indicating how the solid waste manifest is handled.</li> </ul>	<b>10 UIT</b>	<b>MAJOR</b>	<b>TEMPORARY SUSPENSION OF ACTIVITIES</b>
<p><b>VIOLATIONS RELATED TO THE ENVIRONMENTAL LIABILITY CLOSURE PLAN AND THE GENERAL CLOSURE PLAN</b></p> <ul style="list-style-type: none"> <li>➤ Tailings Field No. 1: Found to be overloaded. See ITEM 3.6 and 3.7</li> <li>➤ Tailings Field No. 2: Found to be overloaded. See ITEM 3.6 and 3.7</li> </ul>	<b>10 UIT</b>	<b>MINOR</b>	<b>TEMPORARY SUSPENSION OF ACTIVITIES</b>

**THE TOTAL FINE LEVIED UPON THE SUBJECT RELATING TO SAFETY AND THE ENVIRONMENT IS 40 UIT ACCORDING TO LEGISLATIVE DEGREE No. 1101.**

## VII. RECOMMENDATIONS

7.1.- A joint inspection should be done with:

- The OEFA (Agency for Environmental Assessment and Enforcement) so that they can monitor the area, given that the DREM does not have the equipment necessary to do such monitoring.
- A) The Ministry of Culture, given that the area hosts Nazca geoglyphs and, according to Item 3.4, a spill occurred, affecting the archeological zone.
- The National Water Authority, ANA, given that the plant would be located in an intermittent marginal belt and, according to the Regulation to Law No. 29338 – Law on Water Resources, Art. 115, **“Prohibited activities in marginal belts:** The use of marginal belts for human settlement, agricultural uses or any other activity that affects them is prohibited. The National Water Authority, together with local governments and civil defense agencies shall promote mechanisms for relocating settlements on marginal belts.”

7.2 Perform sampling and an analysis for total cyanide, free cyanide, and heavy metals (lead and mercury) on the following project components:

- The tailings that are currently dumped on Pad No. 1.
- The final adobe products that have accumulated.
- The buildings and civil works that have used adobe and masonry made from cyanidized tailings.

It is important to indicate that the results obtained shall be subject to evaluation which could lead to further pertinent administrative fines and/or pecuniary sanctions.

7.3 Remit this technical legal report to the OEFA, the Ministry of Culture, and the National Water Authority ANA, for their knowledge and any pertinent purposes.

7.4 Remit this audit report to the legal area so that the Administrative Disciplinary Procedure can be launched.

## ANNEXES:

1. Supervisory Act of Occupational and Mining-Environmental Health and Safety (4 pages)
  2. 2 satellite images are attached (2 pages)
  3. Copies of 27 photos are attached (7 pages)
- With nothing more to add, please use this report for any corresponding purposes.

Ica, December 27, 2017.

Sincerely,

*(signature)*  
Percy Saul Irigoyen Aquis  
AUDITOR - EVALUATOR  
DREM TECHNICAL AREA - ICA

*(signature)*  
Omaida Marquina  
LEGAL ADVISOR  
DREM - ICA