



Represented in Chile by the Universidad de Colonia

**DOCUMENTS FOR WORK ABOVE 5.500 MASL
CERRO CHAJNANTOR, SAN PEDRO DE ATACAMA**

GENERAL MANAGER: Jim Blair

SIGNATURE _____

INSTRUCTIVE CCAT-007



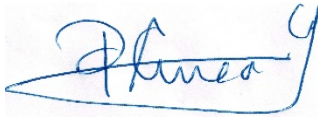


 <p>CCAT-prime Represented in Chile by the University of Cologne</p>	OCCUPATIONAL SAFETY MANAGEMENT SYSTEM CCAT	Date: April 2020
	EVACUATION PLAN IN CASE OF MEDICAL EMERGENCY	Version: 02
		Page: 2 de 7

Table of Contents

1. Objective
2. Scope
3. Responsibilities
4. Definitions
5. Procedures
6. References
7. Annexes

Prepared by	Reviewed by	Approved by
Raúl Aguilar	Pedro Correa	Jim Blair
Expert in occupational risk prevention	Construction Manager	General Manager
October 2019	April 2020	April 2020
 Signature	 Signature	 Signature

	OCCUPATIONAL SAFETY MANAGEMENT SYSTEM CCAT	Date: April 2020
	EVACUATION PLAN IN CASE OF MEDICAL EMERGENCY	Version: 02
		Page: 3 de 7

1. Objective

To have a procedure that specifies the evacuation of workers who are affected by a medical emergency. In this way, one of the requirements demanded in the Technical Guide on Occupational Exposure to Chronic Intermittent Hypobaric at High Altitude, published by the Ministry of Health for work above 5,500 masl, is fulfilled.

2. Scope

This instruction must be known and complied with by all the personnel that directly or indirectly participate in the CCAT Project by carry out work at or above 5,500 masl.

3. Responsibilities

The CCAT Project, through its line of command, is responsible for having an evacuation plan in the event of medical emergencies affecting personnel, caused by exposure to altitude, occupational accident, or common illness, during exposure to work at or over 5,500 masl. Supervisors and workers that are on site, witnesses, or affected by an emergency must proceed as indicated in this instruction manual to achieve timely and effective care of the health problem presented, or the condition creating a medical emergency.

4. Definitions

Ambulance M1: Vehicle designed to transport patients with first aid equipment, emergency life support, immobilization elements and non-invasive airway management. Its crew considers two people; a driver and a paramedic technician, both duly trained in pre-hospital care and with a system of communication with referral medical centers.


Extreme altitude: above 5,500 masl.

Medical emergency: Acute condition that occurs in the field and compromises the health of a person by preventing them from carrying out regular activities or threatening their life, the origin of which may be associated with exposure to extreme altitude, work accident, common disease, or other condition.

Medical facilities and contact Information:

- **Asociación Chilena de Seguridad (ACHS), Calama:** Administrator of Law 16,744, which provides emergency medical care for its members.

It is located at Av Granaderos N° 2924, Calama and its emergency contact telephones are: +56225157781 and +56225157730 and its switchboard line is 600 600 2247 and Rescue extension 1404, and Clínica El Loa +56552424831 (non-working hours).

 <p>CCAT-prime Represented in Chile by the University of Cologne</p>	OCCUPATIONAL SAFETY MANAGEMENT SYSTEM CCAT	Date: April 2020
	EVACUATION PLAN IN CASE OF MEDICAL EMERGENCY	Version: 02
		Page: 4 de 7

- **Mutual de Seguridad**, de la Cámara Chilena de la Construcción, **Calama**: Administrator of Law 16.744 with Emergency Medical Attention service for its members.


It is located in Central del Sur 1813, Calama. Its direct emergency contact numbers are: +56552330026, +56552332255 and its central switchboard line 600 2000 555 and the Emergency extension is 1407.

- **IST, Instituto de Seguridad del Trabajo**: Its health care service for members is located at Granaderos 3251, Calama. Its Calama telephone numbers are: +56552361068 - 222360991
- **Hospital del Cobre, Calama**: Medical Center Hospital del Cobre Dr. Salvador Allende Gossens with capacity of attention of High Complexity, located in Ave. Chorrillos N° 689, Calama. Its number in case of emergency is +56552320112, has the exempt resolution N°509 of the Superintendence of Health.
- **Clínica El Loa, Calama**: A medical center of Calama with capacity of attention of medium complexity located at Ave. Granaderos N°2924, Calama. Its main emergency numbers are +56552893499, +56552424831 and its call center +565522424817, with exempt resolution N°1601 of the Superintendence of Health.
- **Hospital Dr. Carlos Cisternas de Calama**: Located in Carlos Cisternas 2253, Calama. Provincial reference hospital of high complexity with telephone +5655655700. Center where cases may be referred that indicate the clinics that have provided the respective emergency care according to the affiliation of the worker has the exempt resolution No. 1726 of the Superintendence of Health.

5. Procedure

5.1 While waiting for the ALMA Polyclinic to be certified:

If a worker is affected by a medical emergency, whether due to an accident at work or a common ailment, first aid will be provided on site, keeping him/her with a permanent oxygen supply, providing shelter and proceeding to evacuation to a lower altitude site with the assistance of the on-duty Chajnantor paramedic. With the information from this initial assessment, the emergency service of the medical facility corresponding to the worker's affiliation will be contacted. In accordance with the instructions received, the injured person will be transferred by the CCAT project ambulance accompanied by the paramedic to the corresponding establishment in Calama.

 <p>CCAT-prime Represented in Chile by the University of Cologne</p>	OCCUPATIONAL SAFETY MANAGEMENT SYSTEM CCAT	Date: April 2020
	EVACUATION PLAN IN CASE OF MEDICAL EMERGENCY	Version: 02
		Page: 5 de 7

5.2 Once the ALMA polyclinic is certified:

If a worker is affected by a medical emergency, whether due to an accident at work or a common ailment, first aid will be provided on site. As soon as possible, the worker will be moved to an area with a permanent supply of oxygen and that provides shelter while responding personnel prepare to evacuate the worker to a lower altitude. The ALMA emergency response team will be notified to expedite transportation to the ALMA Polyclinic. The appropriate mutual insurance company will also be contacted by phone as soon as possible and response personnel will follow their instructions. When ready and safe to do so, the worker will be transported to the ALMA Polyclinic with the help of the working paramedic or other trained personnel. Depending on the severity of the medical emergency, medical response personnel may be required to further stabilize the worker at the ALMA Polyclinic before transporting him/her by ambulance to the appropriate medical facility in Calama or as directed by the appropriate workers' mutual insurance company.


6. REFERENCES

Technical Guide on Exposure to Chronic Intermittent Hypobarica due to High Altitude, Sanitary authorization for work above 5,500 meters of altitude, page 20.

7. ANNEXES

Annex 1: Map of the geographical area.

Annex 2: Transfer in the event of a medical emergency.

	OCCUPATIONAL SAFETY MANAGEMENT SYSTEM CCAT	Date: April 2020
	EVACUATION PLAN IN CASE OF MEDICAL EMERGENCY	Version: 02
		Page: 6 de 7

Annex 1: Map of the geographical area.



LOCATION OF THE CCAT PROJECT


ANNEX 2 Transfers in a medical emergency

Means of transfer

- Transfer from Cerro Chajnantor operations (CCAT worksite) to the ACHS Unit or Mutual or Clinics in Calama.
- Injured worker can be transported from the worksite with the support of the ALMA emergency response team, which will be transported by means of an ambulance with a driver and paramedic through a contract with the specialized company "Rescate Familiar" or other approved means.

Distance to care centers

- Distance from Cerro Chajnantor operations to the ACHS Calama unit is approximately 1 hour and 45 minutes at a speed not exceeding 100 km/hr.
- Distance from Chajnantor to the emergency services of Mutuales or Clínicas in Calama is approximately between 1 to 2 hours, considering the high traffic flow of the main street in Calama.

	OCCUPATIONAL SAFETY MANAGEMENT SYSTEM CCAT	Date: April 2020
	EVACUATION PLAN IN CASE OF MEDICAL EMERGENCY	Version: 02
		Page: 7 de 7

Road and terrain conditions

- The roads within the works on Cerro Chajnantor are stabilized, of regulated inclination and ample curve diameters, because they are prepared to transport the telescope for its installation. From the base of Cerro Chajnantor to the crossroads of route 27CH, there is a distance of 10 kilometers of unpaved road stabilized and cleared that allows speed of 60 km/hr. Route 27H is paved, international, with maximum speed allowed of 100 km/h.

Weather Conditions

- The Chajnantor plateau and hill have an extreme climate, due to environmental cold, high altitude, high thermal variation during the day and night, and times of thunderstorms and snowstorms. The Atacama Astronomical Park and nearby ALMA Observatory have weather stations and alarm systems for dangers of thunderstorms, strong winds, and blowing snow. When alerted of a meteorological alarm, evacuation of all people on CCAT work sites to designated sites under 3,000 masl is mandatory. The CCAT Project is permanently connected via radio to this emergency notification system. Therefore, there will be preventive evacuation in each event of any extreme weather conditions.