

GENERAL SPECIFICATION

Seismic Acquisition

GS EP GPA 202

Seismic HSE for Land Activities

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General Specification		GS EP GPA 202
Seismic HSE for Land Activities		
Rev.: 01	Effective date: 06/2015	Page: 2 of 97

Contents

1. Scope	5
1.1 Purpose	5
1.2 Applicability	5
1.3 Safety regulations	5
2. Reference documents	6
3. Personal Protective Equipment	6
4. Occupational Health and Medical Care	7
5. Security	8
5.1 Summary and Security Management Policy	8
5.2 Security Management Process	9
5.3 Information Security	21
5.4 Contractor(s)s security quick evaluation questionnaire	21
6. Environment	23
6.1 Waste management	24
6.2 Water management	24
6.3 Fauna and flora – archaeology and history	24
6.4 Societal issues	25
7. Land Transport	26
7.1 All vehicles	26
7.2 Desert Driving	31
7.3 Cold Weather Driving	33
7.4 Mountain Driving	36
7.5 Jungle Driving	37
8. Journey Management System	38
8.1 Fleet tracking system	38
8.2 Speed control device	39
9. Camps and Field workshops	39
9.1 Generalities	39

9.2	Camp installation	43
9.3	Workshop standards	50
9.4	Electrical Network/Standards	55
9.5	Natural hazards.....	55
10.	Arctic and Desert Survival & First Aid.....	56
10.1	General.....	56
10.2	Arctic.....	57
10.3	Desert.....	61
11.	Survey and Line Operations.....	67
11.1	General.....	67
11.2	Surveyors.....	72
12.	Shot Hole Drilling	72
12.1	Generalities.....	72
12.2	Drilling rig.....	74
12.3	“Flushing” drilling.....	75
12.4	Pop-shot drilling	75
12.5	Airboat/jack-up drilling.....	75
12.6	Portable Drills	76
12.7	Fuel handling	76
12.8	Environment protection	77
12.9	Personnel.....	77
13.	Energy Source/Explosives	77
13.1	Surface Energy Sources	77
13.2	Explosives Generalities.....	79
14.	Vibroiseis	87
14.1	Generalities.....	87
14.2	Vibrators	88
15.	Recording Operations.....	91
15.1	General.....	91
16.	Cranes and Lifting Devices	92



General Specification		GS EP GPA 202
Seismic HSE for Land Activities		
Rev.: 01	Effective date: 06/2015	Page: 4 of 97

16.1	Equipment.....	92
16.2	Personnel.....	94
16.3	Weather conditions	94
Appendix 1	List of PPE	96

General Specification		GS EP GPA 202
Seismic HSE for Land Activities		
Rev.: 01	Effective date: 06/2015	Page: 5 of 97

1. Scope

1.1 Purpose

The purpose of this Land activities specification is to define the main Company HSES standards to be adhered by the Contractor(s).

These standards, based on IAGC and OGP ones ([OGP Report N°432](#)), concern the HSES Minimum Expectations and the specific requirements for each operation aspect.

1.2 Applicability

The following document is part of the Company Referential. It lays down the Company HSES requirements for seismic acquisition operations.

It is a contractual document in seismic operations and specifies the general standards of HSES exhibit. Thus, this specification is considered by Company as an applicable standard and shall be respected.

1.3 Safety regulations

When working in, and/or around Oil and Gas Field Installations whether belonging to Company or not, Contractor(s) is required to fully comply with all the Safety and Environment Instructions given by the Oil Field Authority and all the related documents and procedures available with the Oil Field Authority Representative and/or with Company Representative.

In this particular situation, Contractor(s) shall observe the following requirements:

- Minimum Safety distances to all installations as defined in the Company's oil and gas safety manual and/or specific requirements such as in situ determination derived from particular methodology ("peak particle velocity").
- Safety inspection and briefing to be conducted before entering or approaching any oil and gas field installations.
- Permanent co-ordination with the Company's oil and gas field Logistics and/or Safety Departments regarding the operations in progress (e.g. with regard to rig moves...).
- Special care and supervision when working close to oil and gas field constructions and pipes.
- The implementation of any equipment on oil or gas field installations shall be considered as an operation in hazardous areas and shall be ruled under the Permit To Work (PTW) system in force on site.
- Operations that involve cutting, welding or burning etc., within the perimeter of any field installations shall not be carried out without obtaining the necessary PTW.
- Personnel H₂S training, dedicated alarms (detectors), protective equipment (masks) and specific procedures when H₂S risk is identified.
- Any other specific training when required.

2. Reference documents

The reference documents listed below form an integral part of this General Specification.

External Documents

Unless otherwise stipulated, the applicable version of these documents, including relevant appendices and supplements, is the latest revision published at the effective date of this document.

Reference	Title
ICAO Annex 6 Part I	International Commercial Air Transport - Aeroplanes
ICAO Annex 6 Part II	International General Aviation – Aeroplanes
ICAO Annex 6 Part III	International Operations – Helicopters
IAGC Safety Manual	Land Geophysical Safety Manual
OGP Report N°365	Land transportation safety recommended practice
OGP Report N°398	Health aspects of work in extreme climates. A guide for oil and gas industry managers and supervisors, OGP, December 2008
OGP Report N°432	Managing HSE in a geophysical contract
IATA	International Air Transport Association

Total General Specifications

Unless otherwise stipulated, the applicable version of these documents, including relevant appendices and supplements, is the latest revision published in the applicable yearly collection.

Reference	Title
GS EP MED 061	Medical support for E&P sites
GS EP MED 062	Hygiene in bases and living quarters
GS EP MED 063	Specific risks: clinical and therapeutic elements
GS EP LSO 202	Personnel transfer between watercrafts and between watercrafts and offshore structures
GS EP CIV 403	Temporary construction camps and associated facilities (onshore)
GS EP SAF 221	Safety rules for buildings

3. Personal Protective Equipment

Contractor(s) shall provide all the necessary and appropriate Personal Protective Equipment (PPE) to all personnel (including Company's personnel and visitors) upon their arrival on the survey area. In addition to a minimum of two coveralls for each employee (one for visitor), a full complete set of PPE shall be provided. This includes but not limited to: helmet, goggles, ear protections, gloves and safety shoes.

General Specification		GS EP GPA 202
Seismic HSE for Land Activities		
Rev.: 01	Effective date: 06/2015	Page: 7 of 97

Visitors' means: Company Representatives, Auditors, Company Personnel from affiliate, Company Personnel from Head Quarters and all Officials.

Positions like mechanics, drillers and any other dealing with hydrocarbons and/or water shall be provided with three coveralls. Bakers, cooks, waiters and all personnel working in the kitchen will receive a minimum of two uniforms.

Hard hats shall be replaced as per expiry date or if any crack is observed on it.

Gloves shall be provided at need, as well as dust mask and ear plugs. Leather gloves and rubber gloves are not recommended for drillers. Safety glasses shall be replaced when worn. Depending on weather and terrain condition, sunglasses and dust masks can be requested by Company Representatives.

A list of PPE and schedule of renovation shall be provided to the Company Supervisor within the first month of operations.

A sufficient stock of PPE(s) shall be present all time on site to avoid any shortage and kept up to date. A log book or a data base shall be available to ease the PPE(s) management. Once a month, a physical inventory shall be done and figures provided to the Company Representative. Contractor(s) is eventually responsible of PPE(s) wearing by all workers regardless of damaged or lost equipment by the employee.

PPE(s) are mandatory where required during work hours, field trips and/or visits.

PPE(s) described as regular PPE(s) needed for specific tasks and worksites are mandatory (see Appendix 1). In some cases some PPE(s) could not be worn because of a specific situation. This shall be approved or not by the Company Representatives on site.

All specific crews or activities not initially planned or not mentioned in (s) PPE(s) table, will be subject to mandatory health and safety hazard analysis to establish list of mandatory PPE(s) together with relevant safe work procedure. Same analysis shall be needed for unusual work conditions or sudden condition changes. Company Representative has to agree on new PPE(s) assignment or change.

When river(s), lake(s), swamp areas, etc. are present on the survey area, all field personnel shall be swim tested. Specific PPEs (Life jackets) shall be worn at all times when working on or near by these obstacles. River crossing procedures shall be enforced.

4. Occupational Health and Medical Care

Following fields of action shall be addressed by Contractor(s) before operations and means of control and recovery documented and available at worksite:

- **Noise:** Noise analysis shall be performed at each noisy work site and for vibrators and generators. Ambient noise, average noise and peak noise shall be monitored in Db (A) following a noise analysis method. The noise limit shall respect the specifications of the **GS EP SAF 221** (appendix 6).
- **Hot/Cold climate:** as per local occupational health regulation, working temperature indoor must be controlled within comfort range, depending on exposure duration and air moisture (kitchens, workshops, tent based workshops, offices...). Outdoor working temperature cannot be controlled, but must be monitored to adapt work and rest periods and adapted clothing and PPE(s). Prevention and proactive measures shall be proposed by Contractor

General Specification		GS EP GPA 202
Seismic HSE for Land Activities		
Rev.: 01	Effective date: 06/2015	Page: 8 of 97

wherever identified as significant hazard. Rest periods, PPE(s), limitation of exposed people and efficient Medevac plan are main basement. Working in a hot/cold environment shall respect the specifications of **GS EP MED 063**. In addition, please refer to **OGP Report N°398**.

- Stress at work to be taken into account (long work hitches, high expected production, security threat, poor entertainment, work conditions, living conditions...).
- Task monotony and break periods to be assessed.
- Lighting: lighting shall be adapted to activity such as meticulous work (as in cable repair), office work, work on computer, kitchen work...
- Ergonomics: all existing and new worksites shall be designed with due consideration to basic ergonomic parameters such as above mentioned once, and body positions (seats, standing up), repeated movements, loads, handles locations, information location (screen, gauge...), task monotony and break periods, etc.
- Vibration, concerning mainly vibrator drivers. Kidney belt recommended.
- Worked hours: balance between worked hours and rest/sleeping time.
- Rest periods (holidays): duration of work periods on the crew and holidays adapted to local regulation.
- Religion and adapted work planning, dedicated cult places.
- Entertaining and communication to family: entertainment on the crew is recommended. Exercising and TV are recommended. Wherever applicable, Contractor(s) should make easier communication between employees and family.
- Quality, quantity, temperature and variety of food shall be controlled by crew Doctor and catering department (refer to **GS EP MED 062**).

5. Security

5.1 Summary and Security Management Policy

The security organization for seismic operations shall comply with the requirements of the Corporate Security Policies of the Company. It shall remain consistent at all times with these policies and shall be updated as and when necessary by the Company.

The General Manager of the Company subsidiary shall approve the organization and the subsequent plans.

This organization has the following basic goals:

- Help the Company developing a Security Plan to ensure protection of all persons involved in the seismic operations and effectively reduce loss of assets due to criminality and other factors by ensuring the application and “building-in” of all relevant security guidelines and directives at all phases of the operations.
- Develop measures to ensure that the application of security requirements by the Company, the Company personnel, Contractor(s) and Contractor(s) personnel, Sub-Contractor(s) and Sub-Contractor(s) personnel alike are in agreement with the overall

General Specification		GS EP GPA 202
Seismic HSE for Land Activities		
Rev.: 01	Effective date: 06/2015	Page: 9 of 97

seismic operations deliverables within the framework of the General Corporate and seismic operations specific security aspirations and Respect for Human Rights.

- Ensure compliance with all applicable International and National Security Regulations.

These goals are achievable through:

- Identifying all security tasks for all seismic operations phases with clear assignment of responsibilities and time frames in cooperation with the Company,
- Developing early warning systems in concert with E&P security to ensure that seismic operations personnel receives the relevant security advice for all seismic operations locations,
- Increase awareness of all seismic operations personnel for personal security and knowledge of general seismic operations security requirements,

And by:

- Respect of the National laws and regulations and security policies for every seismic operations location,
- Respect of relevant supplementary International Rules and Regulations including as a minimum the Voluntary Principles on Security and Human Rights (VPSHR),
- Ensuring adoption of all relevant Corporate security guidelines and specifications,
- Ensuring that seismic operations security activities are in phase with the subsidiary goals.

The security of personnel and assets on a Contractor(s) worksite is the primary responsibility of the Contractor(s). The Company shall ensure that differences arising from the Company recommendations and Contractor(s) security practices are solved through the issuance of relevant Bridging Documents stating the procedures to address such differences. The Bridging Documents shall clearly outline the definition of responsibilities for security. Such Bridging Documents shall be approved by the General Manager of the Company subsidiary in liaison with Company Security Department.

5.2 Security Management Process

A comprehensive security approach is to be processed throughout the preparation and conduct of seismic operations.

5.2.1 Responsibilities

Three levels of responsibility are considered: Country national authorities, Company, and Contractor(s).

1. **The National Authority** ensures the general security of seismic operations area, thus allowing freedom of work and movement. Conditions of security assistance of national agencies towards the Company are organised and implemented by the Company management. Security policies and procedures are implemented in accordance with the Universal Declaration of Human Rights, with the international and National laws and with the Voluntary Principles on Security and Human Rights.
2. **The Company** overlooks the seismic operations security perimeter with C2i function (control, coordination and information). The Company liaises with the seismic operations

supervisor/manager in order to control and supervise the Contractor(s)'s security arrangements and liaises with the National Authority for all issues related with security of the seismic operations.

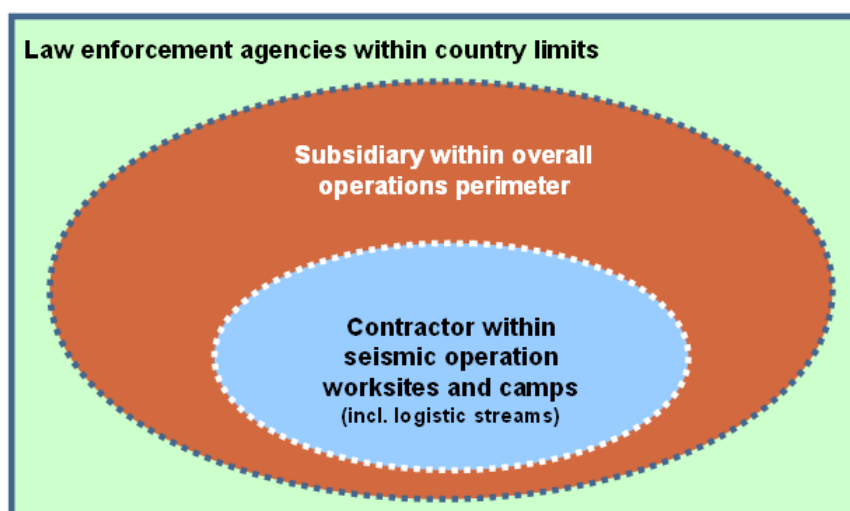
3. **Contractor(s)** is responsible for the execution of the seismic operations and therefore ensures the development of the Seismic Operations Security Plan, the control, supervision and integration of Sub-Contractor(s) security plans (if applicable) and the development and maintenance of appropriate security measures at all owned or operated locations where Corporate, Company subsidiary or seismic operations personnel have activities or have personnel supervising activities.

Contractor(s) has to organise the security within their perimeter of activity such as camps, yards and transportation between the locations of different sites of work. Contractor(s) has to issue and to implement their security plan taking into account the Company Security Standards. This plan has to be submitted to the Company subsidiary's General Manager.

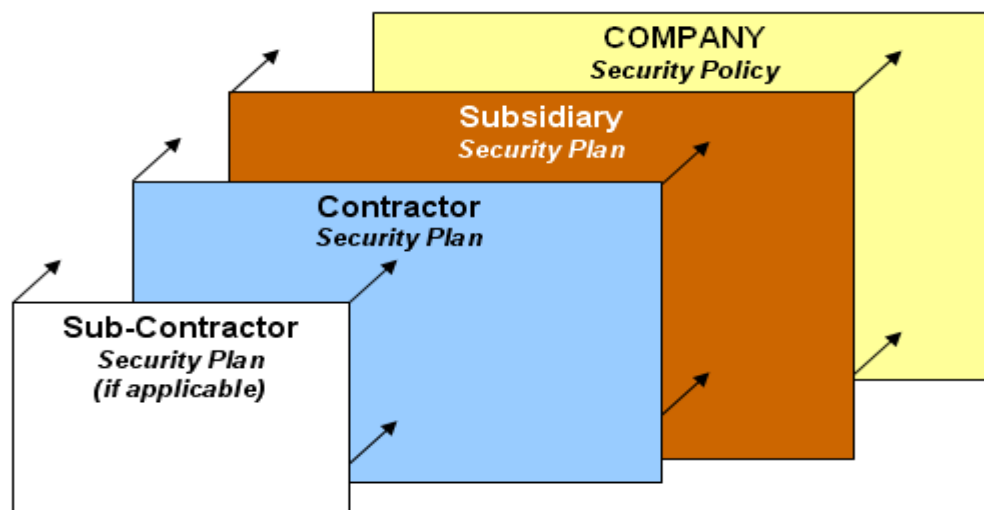
The ability of Contractor(s) to endorse this responsibility should be a primary requirement in the award of contracts.

The organization of seismic operations security is described by a Seismic Operations Security Plan, which is to be integrated in the Company Security Plan.

Perimeters of responsibility



Integration of security plans



5.2.2 Security of employees

The following principle shall be respected: ***“The security and protection of employees must be the overriding priority of all business activity”.***

Throughout the seismic operations, security of personnel shall be a primary goal. Adequate procedures and control measures shall be put in place to achieve this goal.

These shall include the following actions as a minimum:

- Ensure the development and maintenance of adequate personnel protection procedures and measures at all locations where the Company and Contractor(s) will have permanent activities or have Corporate personnel supervising activities,
- Develop and maintain adequate Personnel On Board (POB) databases for all seismic operations locations,
- Ensure the existence of facilities to achieve the Corporate Security recommendations for personnel evacuation,
- Develop and maintain adequate Site Emergency Response and Crisis Management plans.

5.2.2.1 Corporate Owned and/or Operated Sites

For the Company owned and/or operated sites, the Company shall be responsible for taking seismic operations personnel into account in the POB and evacuation procedures and other emergency response measures.

Contractor(s) shall be responsible for ensuring the security of their personnel during transfer from their point of entry into the country to the Corporate operated site.

Seismic HSE for Land Activities

Rev.: 01

Effective date: 06/2015

Page: 12 of 97

5.2.2.2 Contractor(s) Operated Sites

Contractor(s) sites shall have and shall maintain an up-to-date personnel security and evacuation plan covering, as well as their own personnel, all Company Corporate and subsidiary personnel. In situations where the Contractor(s) may not be able to manage the required logistics for such an effort, the Contractor(s) has to develop a minimum plan that shall ensure the Security of the personnel until such time as the Company can safely and securely evacuate the personnel from the Contractor(s) site or develop plans that will enable the Contractor(s) to safely and securely deliver the personnel to a pre-identified the Company evacuation point.

Contractor(s) shall provide a dedicated security plan for the Company's Subsidiary approval for all operated sites where personnel are permanently assigned and accommodated or where personnel are present for temporary assignments or short term spot visits. This Contractor(s) security plan shall be developed accordingly and regularly updated and may be audited by the Company at commencement of work on the site.

5.2.3 Respect for Human Rights

The following principle shall be respected: ***"Security policies and procedures must be implemented according to the Universal Declaration of Human Rights, the international and national laws, and the Voluntary Principles on Security and Human Rights. Respect for human dignity is paramount at all times."***

The Company and Contractor(s) subscribe to the *Voluntary Principles on Security and Human Rights (VPSHR)*. Guarantees to ensure that the Human Rights are respected shall be enforced through:

- Developing awareness of VPSHR and requirements for seismic operations personnel and Contractor(s) through the Company organised awareness and Corporate Security Division directives,
- Ensuring that the seismic operations activities are in phase with the Corporate VPSHR implementation action plan,
- Development of conflict management procedures by Contractor(s) and Sub-Contractor(s) (if applicable),
- Inclusion of riots and crowd management procedures in security plans,
- Ensuring that community related issues are captured in global HSE and sustainable development efforts that relate to the seismic operations. This is in realisation of the fact that community related actions/protests generally impact security and human rights issues, ensuring that community issues related to the seismic operations are captured in global HSE and sustainable development efforts.(community actions/protests generally impact security and human rights issues)
- Ensuring clear definitions in the deployment and use of security forces (see below 5.2.4).

All security procedures and practices that are developed during the seismic operations shall ensure that respect for human rights is sustained. The possible impact of all security related seismic operations activities shall be carefully identified and appraised in order to be mitigated as far as possible.

General Specification		GS EP GPA 202
Seismic HSE for Land Activities		
Rev.: 01	Effective date: 06/2015	Page: 13 of 97

5.2.4 Security Responsibilities

The following principle shall be respected: ***“Line management must be continually aware of and take responsibility for the security aspects of its business activities. Security organisation and resources must reflect this commitment.”***

Contractor(s) and all persons on the seismic operations shall be made aware of and fully understand the individual and group responsibilities to ensure his/her personal security. To ensure this, a Security Induction shall be implemented on the seismic operations. This Security Induction shall include:

Awareness of basic requirements to ensure individual security,

- Security of Corporate and the subsidiary assets and information
- Security implications of his/her action on other Corporate and the Company personnel and image.

This security awareness/induction shall be organised for each seismic operations person already on the operations as well as all new entrants.

5.2.4.1 The Company's Subsidiary General Manager

The Company's Subsidiary General Manager shall ensure the execution of following points:

- Provides the necessary management support to ensure the effective implementation of Security for the seismic operations. He checks and approves Company and Contractor(s) Security plans. He is in charge of the implementation of agreements/arrangements with the National Authority regarding security of the operations, including commitment to VPSHR considerations,
- Appoints a Security Coordinator (recruitment to be approved by Company Corporate Security) to implement the Operations Security Plan,
- With support and assistance of HSEQ/ESSH/SUR, defines a structure for security organisation, including the different security forces deployed for the seismic operations protection,
- Report any security issues to HSEQ/ESSH/SUR and Corporate Security Division.

5.2.4.2 Security Coordinator for seismic operations

The Company's Subsidiary Security Coordinator for seismic operations directly manages the Security content of the seismic operations. His principal tasks shall include:

- First line approval of all Security related documents and activities in the seismic operations,
- Ensures coherence of Security requirements with seismic operations security plan,
- Manages interfaces between Security with other operational managers,
- Informs the Company's Subsidiary General Manager of the current local Security levels, status of travel restrictions,
- Provides feedback on other Security issues to the Company's Subsidiary General Manager.

General Specification		GS EP GPA 202
Seismic HSE for Land Activities		
Rev.: 01	Effective date: 06/2015	Page: 14 of 97

The Company's Subsidiary Security Coordinator for seismic operations shall also provide advice and assistance on Security issues across the complete spectrum of the seismic operations by:

- Issuing and implementing Security Plan for the seismic operations in close coordination with HSEQ/ESSH/SUR,
- Liaising with HSEQ/ESSH/SUR for all issues related to Security Plan and procedures,
- Identifying International and National Security requirements that impact the seismic operations,
- Ensuring that the mines and UXO (uneXploded Ordnance) threat is thoroughly addressed through due assessment and mine-clearing operations,
- Liaising with HSEQ/ESSH/SUR for follow-up of Corporate Security recommendations,
- Notifying the Company's Subsidiary HSE Manager of any restrictions for travel/missions to seismic operations locations,
- Reporting security issues including incident and near miss to the Company's Subsidiary General Management,
- Controlling the update of the seismic operations personnel-on-board information with Contractor(s),
- Providing seismic operations personnel with specialist security advice and support,
- Providing Contractor(s) with the threat assessments issued by Corporate Security,
- Preparing and reviewing the security aspects of future tender documentation and Contractor(s) selection,
- Auditing and reviewing the security activities of seismic operations Contractor(s),
- Ensuring that where armed security guards are used on the Company or Contractor(s) sites, the National rules of engagement (RoE) are displayed and known by everybody. These rules must be clear and should not contain any ambiguous instructions for the use of force. RoE must stipulate when and how force can be used. The RoE must:
 - Respect human dignity and human rights of all persons,
 - Give priority to non-violent means first. Force is used only when necessary,
 - Use only the minimum force required that should be proportional to the threat.
- Ensuring that none of the security measures is oppressive towards members of local communities.
- Identifying international and national security requirements that will impact the seismic operations,
- Interfacing between Contractor(s) and National Authorities regarding dedicated protection provided by National Army,
- In case of National Army deployment, making sure that all armed personnel deployed for the seismic operations protection are trained and briefed on their mission, the VPSHR and the RoE,

General Specification		GS EP GPA 202
Seismic HSE for Land Activities		
Rev.: 01	Effective date: 06/2015	Page: 15 of 97

- Assisting, supporting and controlling Contractor(s) for the implementation of a Seismic Operations Security Plan,
- Coordinating rescue and evacuation plans for the whole seismic operations perimeter of activity,
- In liaison with HSEQ/ESSH/SUR providing Contractor(s) with guidance for the design of security and the specification of security equipments throughout the seismic operations different phases,
- Following up the situation where the Contractor(s) activities are carried out and providing threat assessments throughout the different phases of the seismic operations; adjusting the level of alert accordingly and providing recommendations and directions to Contractor(s) regarding security,
- Integrating this Seismic Operations Security Plan in the Company security plan,
- Liaising and coordinating with the Country authorities. It is emphasised that the Company is the only mandated level of coordination for issues related to the overall seismic operations,
- Controlling security organisation and security procedures of Contractor(s),
- Auditing regularly the security organisation of the seismic operations.

5.2.4.3 Seismic Operations Personnel

Seismic Operations personnel shall abide by Security recommendations relating to the seismic operations activities as well as regulations and guidelines guiding Security behaviour while on Corporate official assignment.

5.2.4.4 Contractor's Security Responsibilities

Each Contractor(s) has the responsibility and duty to ensure that all Security aspects/requirements within his area of activity are properly identified, assessed and implemented in accordance with the Company's Subsidiary Security Plan and requirements. Contractor(s) is also to take responsibility for the actions of their Sub-Contractor(s).

Contractor(s) shall be required to produce and maintain their own Security Plan and dedicated site bridging documents which shall document the Security procedures, processes, studies and activities which shall be undertaken to comply with the requirements of this Security Plan especially for sites where Corporate will have personnel on a permanent basis.

The development of this Security Plan will require that the Contractor(s) nominates/dedicates senior specialist in his organisation to manage the Security resources of the Site and where necessary to seek advice from the Company's Subsidiary Security Coordinator.

Contractor(s) shall ensure its personnel and activities to comply with all Corporate and International recommendations in its area of activity, participate in and abide by recommendations of Security audits.

Regarding the mine and UXO threat, the Contractor(s) shall issue and enforce specific procedures related to vehicle and pedestrian movements on and around the corridor.

General Specification		GS EP GPA 202
Seismic HSE for Land Activities		
Rev.: 01	Effective date: 06/2015	Page: 16 of 97

5.2.4.5 Control and Coordination with Sub-Contractor(s)

Each Sub-Contractor(s) is liable for making its own security arrangements under the supervision and responsibility of the Contractor(s). The organization of that control and coordination system is part of the Contractor(s) security plan.

5.2.5 Security prevention priority

The following principle shall be respected: ***“Prevention must be the first priority. Threats analysis and risk evaluation should be carried out on a continuous basis.”***

One of the primary goals of Security requirements is to ensure that the risks to personnel and assets are as low as reasonably practicable. In order to meet this goal, assessment of Security risks shall be continuously undertaken throughout the design process and shall continue throughout the remaining life of the seismic operations.

In order to meet these goals, Security management tools such as Security studies shall be carried out during the different seismic operations phases. Security risk assessments shall be regularly carried out with input from HSEQ/ESSH/SUR for the different seismic operations locations especially where Corporate personnel will be based, or where the Corporate will/intends to carry out permanent activities.

5.2.5.1 Security Management Tools

Throughout all seismic operations phases, a number of key Security Management tools are utilised. These shall include:

- The Company's Subsidiary and Contractor(s) Security plans

The Seismic Operations Security Organization is presented herein; a Seismic Operations Security Plan has to be developed accordingly.

Contractor(s) shall maintain a Security plan for any site where Corporate, subsidiary and Contractor(s) personnel are permanently assigned or accommodated. These plans shall be submitted to the Company for comment and approval. Where substantial differences exist between Contractor(s) Security practices and the Company recommendations, these shall be itemised and a bridging document issued to address them.

- Security reporting

Security activities undertaken on each site under the Company recording perimeter shall be reported. Lessons learnt as well as status of implementation of Security action plans shall also be captured.

Serious security related events have to be reported immediately.

- Security audits

The Company shall maintain Security audit tools to measure compliance with recommended preventive actions and where necessary develop remedial action plans to complement the risk assessment action plans.

- Risk Assessment

The Company shall ensure that Security risks for every seismic operations phase are periodically analysed. Where necessary, expert advice on Security assessment models and resources will be sought from Corporate Security Division.

The use of Company and seismic operations personnel in each work location shall be subject to the requirements of the Corporate Security Division recommendation for country level risk analysis. Adequate arrangements shall be implemented to ensure the Security of personnel on missions or permanently present in work locations and accommodations.

5.2.6 Security preparedness

The following principle shall be respected : ***“Preparedness is essential to mitigate incidents rapidly and effectively. Response plans must be developed and tested to deal with assessed risks.”***

5.2.6.1 Seismic Operations General Security Arrangements

Security preparedness involves a deliberate effort to ensure that all security requirements are captured, put in time lines and responsibilities assigned. The global Security Management system is handled by this document.

Security travel advisory services shall be put in place by the Company and be accessible to all Contractor(s) personnel on request. This analyses the security conditions of the locations where the seismic operations are being carried out and apply the proper SG/DSG recommendations.

5.2.6.2 Evacuation and emergency planning

Majority of the work to be carried out on onshore sites shall be on Contractor(s) locations.

Contractor(s) shall develop evacuation or shut-down plans to manage cases of evacuation resulting from security crises in their sites. The Company shall ensure that the Contractor(s) evacuation plans are capable of handling evacuation of both Contractor(s) and Company employees.

Where Contractor(s) and Company personnel are present on Contractor(s) locations and evaluation has shown that the Contractor(s) lacks the resources to provide safe evacuation, the Contractor(s) shall produce a bridging document showing that additional resources and plans are in place to:

- ensure the safety of the Contractor(s) and Company personnel on its site until such time as the local subsidiary is able to safely and securely evacuate the personnel

Or

- safely and securely move the Contractor(s) and Company personnel to a place of safety or a Company location.

This plan shall include a provision to provide on a daily basis, the name and location of any Contractor(s) and Company personnel working or accommodated on site. The information given will depend on the local conditions and area security level.

These evacuation plans shall be approved by the Company.

General Specification		GS EP GPA 202
Seismic HSE for Land Activities		
Rev.: 01	Effective date: 06/2015	Page: 18 of 97

5.2.6.3 Drills and Exercises

Periodic drills and exercises shall be organised for sites. Drills and exercises shall be organised with the objective to test response of all persons and action groups in emergencies.

Each Contractor(s) shall maintain the details of drills and exercises as well as schedules for the site as part of the general Security Plan.

5.2.7 Validation of security measures

The following principle shall be respected : ***“Security measures and procedures must be submitted to regular inspections, validations and verifications by security specialists so as to maintain high levels of security standards in TOTAL Operations worldwide.”***

5.2.7.1 Inspections and Audits

Security audits shall be carried out for all key areas of the seismic operations. A program of internal Security audits shall be proposed by each Contractor(s) within the Contractor(s)'s Security Plan and submitted to the Company's Subsidiary for review and inclusion into the specific bridging document.

To ensure that the relevant Company recommendations for Security protection of personnel and assets are followed and enforced on the site to generate early warning systems and instigate the necessary remediation measures, Contractor(s) shall develop and maintain an appropriate audit ranking document especially for sites where Contractor(s) or Company will have permanent presence or a number of personnel.

5.2.8 Professionalism, knowledge and staff integrity

The following principle shall be respected: ***“The level of professionalism, knowledge and integrity of staff involved in security matters on behalf of TOTAL must be tightly controlled and exemplary. Appropriate training plans, recruitment and contracting procedures must be established and implemented.”***

Security awareness training shall be vigorously pursued during all seismic operations phases and activities. All persons shall be made aware of the minimum Security requirements relating to individual Security, knowledge of Security regulations and Security of Corporate and Company assets and image.

The Company's Subsidiary Security Coordinator shall develop a Security training content to the seismic operations personnel to impact the required staff knowledge and assure integrity of persons.

General Security information and guidelines shall be developed showing the basic knowledge of Security behaviour for personnel. Relevant country specific advisory in form of pocket booklets may be distributed to Contractor(s) staff.

5.2.9 Incident reporting

The following principle shall be respected: ***“All incidents, including security breaches and irregularities must be reported and recorded. Corrective action should be taken and followed up through the regular verifications to improve the overall security standard.”***

All Security incidents and occurrences relating to seismic operations activities shall be reported.

General Specification		GS EP GPA 202
Seismic HSE for Land Activities		
Rev.: 01	Effective date: 06/2015	Page: 19 of 97

All incidents involving Security forces shall be both immediately reported and formally documented in the Contractor(s) Incident Report database.

All incidents / actions in violation of this procedure shall be investigated and appropriate sanctions imposed for each defaulter. Where proven cases of abuse exist by a Security agent, the Company's Subsidiary shall take efforts to ensure that the Security agent is removed from the seismic operations.

The Contractor(s) has the responsibility to ensure that appropriate incident reporting forms exist on site. Each reported incident shall be investigated and proper reports forwarded by the responsible Contractor(s) Security person on site to the Company's Subsidiary Security Coordinator.

The Company's Subsidiary reserves the right to carry out its own investigation into incidents or verify the reports received from the site. In this case, the Contractor(s) and its personnel shall fully co-operate and shall provide all facilities and assistance necessary to complete the investigation.

5.2.10 Use of security forces

The following principle shall be respected: ***“Generally security forces used by TOTAL are non-armed guards. However if no other alternative exists to properly manage the risk, armed guards could be used within the scope of legally and governmentally approved practices. Armed guards must be selected carefully, trained regularly and supervised closely”***

The use of Security forces shall be guided by the following basic actions, in accordance with Corporate policies.

5.2.10.1 Define a structure for Security organisation

A structure shall be defined for Security organisation showing the different Security Forces used and the responsibilities for each.

The Security organisation for each Contractor(s) site where Contractor(s) or Company will have permanent personnel shall be defined. This structure will show all the different personnel that make up the Security team and ensure that all Security personnel fully understand their roles and responsibilities, and that such understanding is based on structured rehearsal.

5.2.10.2 Define the process of requesting and deployment of Security Forces

The Security forces to be used at all phases of the seismic operations and for the affected sites should be selected to ensure that individuals with past criminal records are not recruited. Where Government Security forces are to be used, their activities shall be monitored to ensure that they respect applicable national laws and regulations.

The Company's Subsidiary shall implement control mechanisms and eliminate all actions that may blemish the image/reputation of the Company. The Company's Subsidiary shall ensure that the coordination of Security forces on their site is in line with applicable national regulations. The Company's Subsidiary should ensure too that training programs, induction and bridging instructions shall be developed, updated and administered to security forces at the beginning of their assignment where lapses are found to exist.

5.2.10.3 Define rules of engagement

Where armed Security personnel are used on Company or Contractor(s) sites, the national rules of engagement and site guidance containing clear and unambiguous instructions for the use of force by the security forces must be maintained on the site. This instruction shall stipulate when and how force may be used and that specifically they shall:

- respect human dignity and the human rights of all persons,
- attempt non-violent means first; only use force as a final resort,
- use only the minimum force required, and keep it proportional to the threat,
- operate strictly within the law and the authority given to them to use force,
- minimise damage and injury,
- Be told that they will be accountable for any excessive use of force.

Security forces shall be issued with pocket-sized cards detailing the requirements for the use of force.

5.2.10.4 Use of firearms on the premises

As a general rule, Company and Contractor(s) employees are not allowed to bear firearms while on the Company and Contractor(s) premises or operated sites. The carriage and use of firearms is restricted to law enforcement authorities and armed forces, which will have been issued with the relevant rules of engagement and guidelines on use of force.

5.2.10.5 Security forces operations

While it may not be possible to list every scenario, the basic principle for all phases of the seismic operations and applicable sites is that threat scenarios or situations that arise shall be estimated by combining the aggressors' capability and intent with the possibility that their actions will:

- endanger life,
- damage equipment, shut down operation or cause other financial loss,
- prevent free access or egress of persons and goods,
- Damage the Corporate reputation.

In every case, Contractor(s) shall concentrate the security efforts on protecting Contractor(s) and Company personnel and property and shall ensure that the security forces are acting accordingly. These guards shall be made fully aware of what they are to protect, and the manner in which they are to protect it, in line with the applicable regulations in particular that force shall be used only when strictly necessary and to an extent proportional to the threat;

Contractor(s) for sites where Company or Contractor(s) will have a permanent presence shall develop and maintain similar instructions as part of their security plan.

General Specification		GS EP GPA 202
Seismic HSE for Land Activities		
Rev.: 01	Effective date: 06/2015	Page: 21 of 97

5.2.10.6 Impact of security measures on local communities

The following principle shall be respected: ***“Mindful of the need to introduce security measures to protect its employees and local personnel, TOTAL nonetheless makes every effort to minimise the impact of these measures on local communities.”***

The security measures to be adopted for the seismic operations shall have the primary goal of protecting personnel and assets. No security measure shall be implemented with the goal of intimidating or harassing local communities.

Activities of security forces shall be routinely monitored to ensure that this objective is adhered to. Where a security measure is identified to be oppressive to innocent members of local communities, efforts shall be made to modify that security measure and remove the unwanted aspects.

Contractor(s) shall be encouraged to maintain cordial relationships with the local communities and abide by this regulation.

5.3 Information Security

Contractor(s) shall maintain, in separate locations, duplicate files in either hard copy or electronic format of all project correspondence and documents, including electronic data and information. These files shall be maintained in a current state and in a fireproof environment. Contractor(s) shall provide for Company's review its Document and Information Security System.

Contractor(s)'s Procedures shall include the following:

- Identification of areas of exposure,
- Methodology for classifying Confidential Information,
- Methodology for handling, securing, storage, restriction of access, and disposal of confidential information provided by Company, Contractor(s), and third parties,
- Requirement for a written confidentiality agreement between Contractor(s) and third parties prior to release of Confidential Information,
- Methodology for ensuring that all employees having access to Confidential/Restricted information are obliged by an employment contract to honour the confidentiality requirements of the contract,
- Segregation of Company's Confidential/Restricted Information from information belonging to Contractor(s) or received from others by Contractor(s),
- Implementation of computer security controls and protection of electronic information.

5.4 Contractor(s)s security quick evaluation questionnaire

Organisation

Does the Contractor(s) have a security policy? Does the Contractor(s) have a Security Manager?

Are site or subsidiary employees familiar with his/her role?

Does the Security Manager report directly to the General Manager?

General Specification		GS EP GPA 202
Seismic HSE for Land Activities		
Rev.: 01	Effective date: 06/2015	Page: 22 of 97

Is there a written reporting procedure for security events?

Are there any procedures for the selection and the appointment of security firms?

Is there a written reporting procedure for near-misses to help the Contractor(s) anticipate a deteriorating situation and inform the Corporate?

Are the Contractor(s) and its Security Manager familiar with the Group/subsidiary security policy and how to implement it?

Does the Contractor(s) have a business continuity plan (BCP)?

Staff security

Does the Contractor(s) have an emergency response plan (risk assessment, emergency communications, emergency response, stand-fast and evacuation, etc.)?

When these procedures were last tested?

Does the Contractor(s) maintain an up-to-date list of employees including those on business travel and visiting family?

Are there written procedures on the reception of visiting and/or rotational staff?

Are these procedures applied in the field?

Are security inductions organized?

Reputation issues

Does the Contractor(s) use armed guards? If so, is there a procedure for checking what training they have received?

Are the Contractor(s) and its Security Manager familiar with the *Voluntary Principles On Security and Human Rights* and ensure that they are applied?

Does the Contractor(s) have regular contacts with the local authorities?

Has the Contractor(s) established selection procedures for the appointment of security firms?

Has the Contractor(s) set up a monitoring system to anticipate events that could tarnish its Corporate image (communications, legal services, etc.)?

Site Security

Has a plan for protection against hostile acts been drawn up for sensitive sites? At the very least, does it include access control procedures?

Do facilities subject to the ISPS code have a valid certificate of compliance with the provisions of the code?

If the site is responsible for a pipeline, is it covered by a security plan?

Information Security

Does the Contractor(s) have implemented and communicated basic rules for information security (offices) and ensure they are applied? Such as wearing a badge at all times and ensure it is visible, systematically escort visitors to and from reception, and lock all lockers and offices every time you leave even briefly, protect sensitive information by encryption, locked cabinets or double envelope system, shred all sensitive material...)

Is the Contractor(s) management aware of the need for information security?

General Specification		GS EP GPA 202
Seismic HSE for Land Activities		
Rev.: 01	Effective date: 06/2015	Page: 23 of 97

Are the computers of key personnel equipped with encryption software?

Are the laptops used outside Contractor(s) premises equipped with encryption software? Is data encrypted?

IT security

Industrial computer systems

Is the Contractor(s) familiar with the Industrial Network Security briefing and are the recommendations applied?

Does the Contractor(s) employ a consultant Industrial IT manager who is not a member of staff?

Is the industrial IT network protected by a special barrier?

Are there procedures for managing industrial IT systems?

Intranet Site (if the Contractor(s) has developed an Intranet site)

Are there written procedures for setting up local intranet sites and are they part of detailed specifications that include security and information protection ?

Are there procedures for managing the confidentiality and content of information published on the intranet?

Are there procedures for checking what type of information is accessible on the intranet sites of the Contractor(s) facilities?

Are there procedures for managing the closure of an intranet site with a view to protecting the information published on the site?

6. Environment

Company Environmental Standards and Concerns are of the utmost importance. Contractor(s) must strictly obey to the Local Environmental Laws and Regulations, the IAGC and OGP recommendations and the Contract requirements.

Where required by the local Law and Regulations and/or by the local Environmental Authorities an "Environmental Base Line Study" (EBS) and/or an "Environmental and Societal Impact Assessment" (ESIA) have been preliminary conducted by Company. Copies of the ESIA will be provided to Contractor(s) who shall be required to strictly observe the ESIA recommendations.

In all cases, Company considers environment preservation as first priority before production. Alternative solutions as detours shall be preferred rather than bulldozer use, tree cutting or entering archaeological sites or animal reserves for instance. In that case, a preliminary impact assessment (if not already performed) with limitation and restoration plans shall be submitted to authorities and Company approval.

Refer to preliminary EBS/ESIA conclusions for Environmental Management Plan (EMP) implementation.

The EMP shall address all the EIA requirements, for all operational phases (Seismic survey, Drilling, Facilities Construction and Operation) of the Project and shall cover the following aspects:

- Waste management,

General Specification		GS EP GPA 202
Seismic HSE for Land Activities		
Rev.: 01	Effective date: 06/2015	Page: 24 of 97

- Chemical management,
- Oil Spill Contingency Plan,
- Training program,
- Environmental monitoring,
- Environmental auditing.

6.1 Waste management

Please refer to **GS EP CIV 403** chapter 15.7.Waste management.

6.2 Water management

Please refer to **GS EP CIV 403** chapters 15.2. to 15.6.

6.3 Fauna and flora – archaeology and history

Based on the EBS a specific assessment-including an on site visit shall be performed and a plan to be set up with the Contractor to ensure proper follow-up of the protected area.

Respect of local resources is mandatory.

Harassing wild life is forbidden.

Hunting or fishing is forbidden.

Feeding wildlife is forbidden.

Pets are not allowed in camp (except chickens for scorpions and snakes hunt).

All kinds of flora are to be respected.

Noise map to be setup for every camp with isolated generator or compressor.

In forest area, trees with a trunk diameter over 15 cm shall be protected from cutting on seismic lines (except for Dropping Zones, Landing Zones, Helipads and pontoon construction).

The use of bulldozer in the tundra is prohibited for camp settlement; snow can be compressed but not removed so as to limit the impact on under-snow flora.

Contractor(s) keeps bulldozing and grading to a minimum. Alternative solutions such as detours shall be preferred rather than using bulldozer(s), cutting tree(s) or entering archaeological sites or animal reserves etc. Bulldozing and grading are not allowed without Company approval which shall not be unreasonably withheld.

In sensitive areas, the Contractor(s) has to show evidences of identification, preservation procedures and reporting ones concerning: preserved sites, protected areas (such as: natural parks, breeding areas) and/or monuments (such as: castle ruins, engraving, etc.) and/or any particular sites (such as: geological curiosities, fossils, dinosaur remains, etc.) encountered during the operations.

All archaeological sites encountered during the operation shall be reported to the Company responsible.

Every recognized site to be respected by the crew personnel.

General Specification		GS EP GPA 202
Seismic HSE for Land Activities		
Rev.: 01	Effective date: 06/2015	Page: 25 of 97

6.3.1 Ground

The use of bulldozer in « reg », rocky or mountainous area is submitted to Company approval case by case and reduced to a minimum.

Contaminated soil shall be removed and brought back to camp and included in the waste management.

Hazardous material spills to be reported.

Hazardous material to be isolated from ground and water bodies.

6.3.2 Restoration

Environmental Emergency Response Plan (Oil spill contingency Plan) to be implemented.

Restoration works to be done on all damaged areas.

Restoration plan for camp and field to be approved by the client representative on site before operations.

All survey markers and pegs to be removed from the field at the end of the operation.

All up-hole sites shall be restored.

All helicopter or plane landing area shall be restored.

All camps and storage locations shall be restored.

All restorations to be documented in a report attached to the final report. The various restoration reports shall consist in, but not limited to, coordinates, date of beginning and end of ground occupation, pictures before operation, during operation and picture after site restoration, final impact on environment and comments on restoration activities.

Final camp / field restoration is subject to Company approval.

Access tracks or bulldozer works can be subject to restoration depending on Company, ESIA and local regulations. Agreement shall be decided before operations start. In all cases, the use of bulldozer without Company approval shall always be subject to identical restoration under Contractor(s) full liability.

According to local regulation, reforestation can be mandatory for site restoration.

6.4 Societal issues

Contractor shall pay due regard to the neighboring Communities. He shall act responsibly demonstrating commitment to the health and safety of the neighboring Communities and shall take into consideration the socio-economic impacts of its activities.

Contractor shall preserve the local living conditions, the existing economic activities, the cultural heritage and the accesses to natural resources. Contractor shall adopt a constructive attitude based on open dialogue with the stakeholders.

Contractor shall protect the existing community infrastructures and services. In case of these are affected during operations, Contractor shall repair and/or reinstall them (roads, irrigation canals, agricultural lands, accesses to resources and energy...).

General Specification		GS EP GPA 202
Seismic HSE for Land Activities		
Rev.: 01	Effective date: 06/2015	Page: 26 of 97

Contractor shall maximize the opportunities for employment, training and capacity building to the benefit of the neighboring communities and shall develop an employment, recruitment and training procedure, in accordance with the Contract.

Contractor shall develop a local supplier and procurement procedure, transparent, public, respecting national legislation. Contractor should contact local provider before the start of operation to maximize opportunities for local suppliers.

7. Land Transport

All drivers shall be required to have at any time a valid and adequate driving license. Contractor(s) shall organize a driving test and a medical examination (view, hearing and reflexes at least) before hire. Off road and defensive driving course shall be given to the drivers by Contractor(s) during the hiring process and prior to job assignment in camp/field.

Only authorized (test passed) drivers shall be allowed to drive. All vehicles shall pass inspection through checklists before approved for field operations.

The test program and results as well as vehicles inspections shall be provided to the Company Supervisor before the survey commencement date. Only authorized vehicles shall be used. Drivers shall only use "hands free" means of communication (radio, mobile phone) while vehicle is in motion.

Vehicles age shall be less than 5 years, unless a complete overhauling has been made and approval from Company given and unless exception is made in advance to Company for specific vehicles/machines such as truck mounted up-hole rigs, recording truck...

Motorcycles, tri-cycles and open quad cycles shall not be used.

On busses, seat belts shall be worn by all passengers.

With the exception of emergency cases and activities in close support of Company approved night operations, latest permitted departure times shall be defined and enforced to avoid night time driving. Any unexpected night driving case shall be reported to the Company supervisor on site.

7.1 All vehicles

Identification plates shall be displayed as per local regulation.

Insurance shall be valid for all vehicles.

Local taxes and licenses shall be paid.

All vehicles shall be tested for safety and atmospheric emissions according to national standards.

Vehicles shall be in good mechanical order with maintenance planning and logs.

Body shall be in good condition.

Brakes shall function.

Hand brake shall function.

Tyres and spare tyre(s) shall be in good condition.

General Specification		GS EP GPA 202
Seismic HSE for Land Activities		
Rev.: 01	Effective date: 06/2015	Page: 27 of 97

Normal tyre pressure shall be written on the wings.

Windscreen and windows shall be in good condition.

Wind screen shall be clean with no visual obstruction (such as stickers, pictures...).

Wind-screen wipers shall be in good condition and function.

Defroster system shall function.

Rear view interior and side mirrors shall be clean and in good condition.

Steering system shall function and shall be tested regularly.

Exhaust gas shall be controlled regularly.

Roll bars with foam protective pads shall be in good condition.

Set of stickers shall be prominently displayed, mentioning speed limits, seat belt mandatory, no smoking and other safety rules.

Speed recording system shall be in place and operative.

Real time fleet tracking system (using GPS) shall be in place and operative.

Radio VHF fitted shall be operative.

Fitted seat belts shall be operative for each seat.

Head restraint shall be in good condition on each seat.

Air conditioning and heater shall be operative.

Water tank shall be in stainless steel for desert operations.

Water of the water tank shall be changed at least every week.

Fire extinguisher shall be available, numbered and checked.

First aid kit shall be available, numbered and monthly checked.

One spare wheel minimum shall be available.

Basis tools shall be available.

Jack and shaft/spanner for jack, spanner for wheel nut shall be available.

Metal jacking plate for use in soft terrain shall be available.

Wood block shall be available.

Warning triangle or cone shall be available.

Fluorescent jacket shall be available (one minimum).

Waste plastic bags shall be available to bring back waste to the camp.

Reversing alarm and horn shall be available for all vehicles.

All lights shall be operative (high and low beams, 4 ways directors, side lights, stop lights, reversing lights and fog lights...).

Engine monitoring lights shall function (brakes, oil, temperature, diesel ...) – all gauges and speedometers shall function.

General Specification		GS EP GPA 202
Seismic HSE for Land Activities		
Rev.: 01	Effective date: 06/2015	Page: 28 of 97

Maintenance planning shall be posted and respected (oil, filters ...).

Detailed prospect area map shall be available inside the vehicle, with all key points, clinics, airstrip, camps, main roads, main obstruction/hazards etc.

"Man lost", Medevac plan and driver related procedures (job description, convoy, refuelling...) shall be available in vehicles.

Radio frequency summary, camp phone numbers and emergency phone numbers shall be available on board.

Daily check list system shall be in place. Daily check list to be available in each vehicle with pen.

Towing strap is preferred to winch cable.

Non-Company personnel shall not be transported.

Convoying shall be made as per Contractor(s) convoying procedure.

Convoy shall be planned in advance and a pre-convoy meeting is mandatory.

In addition to the above, following extra standards concern:

7.1.1 Double cabin

Equipment/material (not hazardous) shall be transported in the back side only.

Equipment/material shall be secured if light or higher than vehicle side rails.

Passengers shall not be transported on the back deck.

7.1.2 Pick-up

Equipment/material (not hazardous) shall be transported in the back side only.

Equipment/material shall be secured if light or higher than vehicle side rails.

Passenger shall not be transported in the back together with equipment/hazardous material.

Roof canvas sheet shall be in good condition.

7.1.3 Personnel transport truck

Passengers' compartment fitted with an alarm shall be accessible from front seats (without unfastening belts) to alert driver while driving (alarm button minimum, voice communication system preferred).

Passengers' compartment shall be fitted with traverse seating (longitudinal not accepted for high speed, or on hardtop), with a minimum aisle width of 45 cm.

Seats/benches shall be in good condition with soft material (foam or equivalent, but robust) for passengers comfort.

Minimum standard of 3 point belts for all seats shall be available.

Seats and seat belt attachments shall be strong enough, bolted through truck floor.

Passengers' compartment shall be fitted with proper lighting.

General Specification		GS EP GPA 202
Seismic HSE for Land Activities		
Rev.: 01	Effective date: 06/2015	Page: 29 of 97

Maximum passengers capacity shall be written at the back of the truck (Passenger Number).

Roll over protection shall at least carry weight of laden truck and not crush/shear on slow roll/tumble.

Sideboard protection shall be at least shoulder high, or higher (as per [IAGC Safety Manual](#)).

Fold away ladder system shall permit to climb and get down the truck back compartment with hand grip.

Vehicle shall have under-run protection (as per [OGP Report N°365](#)). Main body of passenger compartment shall not protrude, neither sideways nor to the rear of the truck

Minimum of two escape routes in passengers' compartment shall be displayed (main at back, secondary through the roof or side opposite to traffic).

Truck shall be fitted with lockable box(es) to store tools and devices.

Sun canvas sheets on truck side shall be displaced to protect workers from sun during rest periods.

Roof shall be in good condition to protect from sun.

Air conditioning shall be operative if truck equipped.

Set of no smoking and seat belt fasten stickers shall be prominently displayed.

Rubbish bin/bags shall be available to collect rubbish.

Locking system or door handles can be manipulated from outside and inside the cabins.

7.1.4 Liaison vehicle

SSB Radio shall be available and operative. Other communication means shall be available in the area (GSM). If there is no SSB full coverage operative between camps locations and destinations, then a satellite based communication system is mandatory. In no case a liaison vehicle shall be out of communication.

Liaison procedure shall be established and respected.

Special journey management form for liaison vehicles shall be available.

Dedicated liaison vehicles shall be available (heavy and light vehicles), with dedicated drivers trained to specific procedure.

Liaison vehicles shall be equipped with speed recording system (mandatory) and fleet tracking system upon request from Company.

Detailed prospect area map shall be available inside the vehicle, with all key points, clinics, airstrip, camps, main roads, main obstruction/hazards, etc. An extra detailed map (if destinations are outside the prospect area) is needed with all authorized roads. Country map shall be available on board.

Liaison trips shall be planned in advance and limited to a minimum with passengers' number and names.

7.1.5 Ambulance

Refer to [GS EP MED 061](#) Chapter 4.1 Land Ambulance.

General Specification		GS EP GPA 202
Seismic HSE for Land Activities		
Rev.: 01	Effective date: 06/2015	Page: 30 of 97

7.1.6 Explosive transport vehicle

See Chapter 13.2.8.

7.1.7 Fuel truck

Leakage shall be avoided on tank compartments, pipes, outlets, etc.

Absorbing material shall be available on board for at least 200 litres spill.

Outside marking shall be prominently displayed in accordance with local regulation, with at least “no smoking” and “danger – flammable”.

Vehicle shall be fitted with anti-static chain from the chassis to the ground. A safety cable with crocodile clip is used to connect the truck tank with any other vehicle or tank while transferring fuel.

Minimum of 2 fire extinguishers (CO2 and powder) shall be available and easily accessible.

24 volts or pneumatic pumps shall be available.

7.1.8 Water truck

Driver shall be certified as “food handler”.

Leakage from the tanks shall be avoided.

Tanks shall be clean and controlled/bleached regularly.

“Drinkable water” or “non drinkable water” shall be painted on both sides of the tank.

The drinkable water tank truck shall be used only for drinkable water. In no way shall it be used for up-hole or not drinkable water transport.

Water tank shall be compartmented crossway and lengthways to prevent liquid mass moves that can make the vehicle dangerously unstable in curves.

7.1.9 Scouting vehicle

Station wagon vehicle shall be preferred (2 fuel tanks available).

One vehicle minimum shall be equipped with a 12VDC GPS and roof antenna.

EPIRB: emergency beacon or Argos beacon can be available upon request by Company.

A “desert” emergency bag shall be inside the vehicle (survival blankets, food, torch light, batteries, large amount of drinkable water, etc.).

SSB radio or satellite phone shall be available and tested. The scouting shall stop its progress if entering a SSB non coverage zone and satellite phone not serviceable.

7.1.10 Recording truck

CO2 extinguisher shall be inside the recording cabin. ABC powder shall be available outside for diesel generator, different from driver’s cabin extinguisher.

Ladder with handrail shall be in good condition.

Soundproof generator with ground pole shall be available.