

CONTRACTOR'S HSE (Industrial and Process Safety, Occupational Health and Environment) **OBLIGATIONS**

The **CONTRACTOR** is solely responsible to **ECOPETROL** and to national and local authorities for compliance with the HSE requirements and obligations it assumes under this contract, which will be extended to its subcontractors. Therefore, without exception, any subcontract will include and comply with the same HSE obligations as the main contract.

The **CONTRACTOR** is solely responsible for any HSE noncompliance with its employees, contractors, subcontractors, and suppliers. For framework contracts, the requirements described below will only apply to ODS executed within **ECOPETROL** facilities and/or where **ECOPETROL** has operational control.

1. STRATEGY AND DIRECTION

1.1. Leadership and Commitment Culture

Visible Leadership and Commitment in HSE matters is the responsibility of the **CONTRACTOR'S** Management Representative for the Contract, who will ensure that all designated line managers (managers, directors, supervisors, coordinators, residents, supervisors, crew leaders, and anyone else in charge) assume their responsibility as leaders in the implementation of HSE plans and programs and the assurance of all controls for the safe development of activities. This Leadership and Visible Commitment will be manifested at all levels of the **CONTRACTOR** company, guaranteeing a positive attitude among all employees regarding HSE issues, especially with the "Life First" principle defined in **ECOPETROL's** Comprehensive Policy.

Among the visible HSE engagement activities that the **CONTRACTOR's** line of command will carry out in the field are:

- Inspections and tours of work fronts with a focus on improving HSE aspects.
- HSE discussions and reflections with workers.
- Management of unsafe conditions and acts.
- Work cycle or procedure compliance reviews.
- Participation in HSE committees and meetings convened by **ECOPETROL**.
- Verification and assurance of compliance with HSE obligations.

The **CONTRACTOR's** highest field representative designated for the Contract will participate in the HSE audits and assessments performed on the Contract. This responsibility cannot be delegated to those who exclusively perform the HSE role in the contract (when applicable). They will attend HSE committees and meetings at the local, regional, and/or national levels to which they are convened by **ECOPETROL**. Complying with the requests for information to be submitted and the commitments generated, all within the framework of the execution of the purpose and scope of the contract.

1.2. HSE Strategy, Programs, and Plans

The **CONTRACTOR's** line of command must clearly communicate to all its employees and subcontractors **ECOPETROL's** Cultural Policy and Principles, which will govern its management throughout the performance of the Contract. The main objective of HSE is to protect life and execute the contract in a safe, healthy, and sustainable manner.

The **CONTRACTOR** must focus its efforts on achieving this objective and communicate the relevant actions to all its employees and subcontractors.

The **CONTRACTOR** must develop and ensure an HSE Plan for the Contract, which must address the identified hazards, risks, aspects, and impacts. The plan must be submitted prior to the start of operational activities within **ECOPETROL** facilities and must be updated at least annually. For short-term contracts (15

days or less), the preparation and submission of an HSE Plan is not required. In these cases, the **CONTRACTOR** must have an Occupational Health and Safety Management System (OHSMS) to anticipate, recognize, evaluate, and control risks that may affect workplace health and safety.

1.3. HSE Legal Compliance.

The **CONTRACTOR** shall ensure respect and compliance with Colombian legal standards regarding occupational health, safety, and the environment. To this end, it shall maintain a matrix identifying the HSE legal requirements applicable to the scope of the contract, establish mechanisms for compliance with such requirements, and maintain updated information on their implementation. The **CONTRACTOR** shall communicate relevant information on legal and other requirements to all workers involved and shall include applicable legal requirements in its work procedures.

The **CONTRACTOR** must have this information available in the work area, as **ECOPETROL** may request it at any time.

1.3.1. Information Required to Prepare Environmental Compliance Reports (ICA)

In accordance with the scope of the contract, THE **CONTRACTOR** must provide supporting documentation for the obligations and management measures established in the control and monitoring instrument, as input for the preparation of the Environmental Compliance Reports (ICA). This information must be submitted or uploaded to the repository defined by **ECOPETROL** for this purpose.

The following is the information that THE **CONTRACTOR** must submit for each environmental aspect, as applicable, taking into account the activities carried out within the scope of the contract:

Environmenta l Aspect	Minimum contractor requirements
Discharges	A. If the CONTRACTOR uses CONTRACTOR's wastewater collection and treatment systems to perform the service, it must comply with the following requirements: 1. Volume of non-domestic wastewater generated by the contractor in (m3/day). 2. Identification of the discharge point(s) for non-domestic wastewater to CONTRACTOR's wastewater collection systems. B. If the CONTRACTOR uses wastewater treatment and final disposal through an external service provider to perform the service, it must comply with the following requirements: 1. Volume of wastewater delivered by the contractor in (m3/day). 2. Information on the external service provider: 1.1 License and/or permit granted by the competent environmental authority. 1.2 Commercial wastewater management agreement between the CONTRACTOR and the external service provider. 1.3 Wastewater delivery certificate(s). 1.4 Wastewater treatment and final disposal certificate(s) issued by the external manager, specifying: 1.4.1 Volume of water treated and discharged. 1.4.2 Quality of the discharged wastewater. 1.4.3 Location (coordinates) of the treated wastewater discharge sites. 1.4.4 Identification of the receiving source. 1.5 Photographic records. 1.6 Monitoring and supporting documentation (according to requirements established by the competent environmental authority in the license and/or permit granted to the external manager). C. If the CONTRACTOR uses a wastewater discharge permit issued in its name by the competent environmental authority to perform the service, it must comply with the following requirements: 1. Volume of domestic and industrial wastewater generated by the CONTRACTOR (m3/day). 2. Quality of domestic and industrial wastewater discharged by the CONTRACTOR (according to the requirements established by the competent environmental authority in the discharge permit issued to the CONTRACTOR). 3. Location of the discharge point(s) (coordinates). 4. Identification of the receiving source. 5. Discharge permit issued by the competent environmental authority. 6. Internal contractor forms supporting the recorded information.. 7. Photographic records. 8. Monitoring and supporting documentation (according to the requirements established by the competent environmental authority in the discharge permit issued).

Aspecto ambiental	Requisitos mínimos del contratista
Catchment	A. If, for the purposes of performing the service, the CONTRACTOR uses water from ECOPETROL's water supply system(s): 1. Volume of water used for non-domestic activities (m3/day). 2. Identification of the water intake point(s) for non-domestic use. 3. Volume of water reused/recirculated for non-domestic use (m3/day) (when applicable). B. If, for the purposes of performing the service, the CONTRACTOR purchases water for non-domestic use from a company that provides water sales services, it must comply with the following requirements: 1. Volume of purchased water (used for non-domestic activities (m3/day)). 2. Volume of water reused/recirculated for non-domestic use (m3/day) (when applicable). 3. Information on the company providing the water sales service: 1.1 License and/or permit granted by the competent authority(ies). 1.2 Commercial agreement for the supply of water between the CONTRACTOR and the water supply company. 1.3 Document(s) proving the delivery of purchased water issued by the water supply company, specifying: 1.3.1 Volume of water supplied (m3/day). 1.3.2 Quality of water supplied (according to the requirements of the competent authority(ies)) that grants the license(s) and/or permit(s). 1.3.3 Location (coordinates) of the freshwater collection site. 1.3.4 Identification of the source of supply where the freshwater is collected. C. If, for the purposes of performing the service, the CONTRACTOR uses a water concession permit granted in its name by the competent environmental authority, it must comply with the following requirements: 1. Volume of water collected and/or reused, broken down by source(s) of supply (surface source, underground source, rainwater, seawater, wastewater, and/or production water) (m3/day). 2. Location of the water collection point(s) (coordinates). 3. Identification of the source(s) of supply (name of the water body and Hydrographic Subzone; and/or activity that generates the wastewater/production water to be reused). 4. Volume of Water by type of use (domestic and non-domestic (specify)), (m3/day). 5. Water concession permit(s) granted by the competent environmental authority. 6. Calibration certificate for the flow meter used to monitor water intake. 7. Internal contractor forms supporting the recorded information. 8. Photographic records. 9. Monitoring and supporting documentation (according to the requirements established in the concession permit(s) granted by the competent environmental authority).
Forestry Utilization	1. Forest harvesting information report: affected area, volume, species name, location and coordinates, total area affected by the change of use 2. Internal contractor forms supporting the recorded information 3. Forest harvesting permit Wood movement safe-conduct, if applicable 4. Photographic record
Riverbed occupations	1. Report of channel occupation information: coordinates, type of occupation, duration, date of activities, and name of source 2. Channel occupation permit 3. Photographic record 4. Report of activities carried out during channel occupation
Emissions	1. Mobile source information report: description of the emission source 2. Combustion equipment list format 3. Combustion equipment technical sheet 4. Machinery and equipment maintenance record 5. Contractor's internal forms supporting the recorded information 6. Photographic record
Noise	1. Monitoring and supporting documentation (When applicable).
Quarry material	1. Quarry material information report: volume record, material type, area, and source 2. Current environmental license and/or permit for the source of the material 3. Mining concession record and contract 4. Mining record 5. Proof of volume of material acquired 6. Contractor's internal forms supporting the recorded information 7. Photographic record 8. Commercial agreement (if applicable)
Towing material	1. Trailing material information report: volume record, source of exploitation, and exploitation site 2. License and/or environmental permit for the exploitation of trailing material 3. Proof of the volume of material purchased 4. Internal contractor forms supporting the recorded information 5. Photographic record 6. Commercial agreement (if applicable)

Aspecto ambiental	Requisitos mínimos del contratista
Solid waste	1. Waste information report: Reports on the handling, disposal, and transportation of solid waste generated. Include information on drilling cuttings as applicable. 2. Environmental license and/or permit for the companies providing the service. 3. Final disposal certificate. 4. Record of segregated CDW generation and CDW utilization report, if applicable. 5. Copy of hazardous waste transportation manifest. 6. Delivery of portable toilet waste, if applicable. 7. Contractor's internal forms supporting the recorded information. 8. Photographic record. 9. Commercial agreement (when applicable). 10. Monitoring and supporting documentation (when applicable).
Environmental training and education	1. Training report and/or records based on the monitoring and control instrument's management sheets and topics according to the environmental strategic pillars. 2. List of training topics based on the monitoring and control instrument's management sheets and the environmental strategic pillars applicable to the service. 3. Training support and assistance from the contractor's personnel. 4. Photographic records

Notes:

- **ECOPETROL** may request additional information or supporting documents beyond those listed above, which must be submitted by the **CONTRACTOR** within the defined timeframes, in accordance with the environmental management measures established in the Environmental License and/or Comprehensive Environmental Management Plan (PMAI) and/or environmental permits, and other administrative acts.
- The cartographic information and coordinates used for the Environmental Compliance Reports must be submitted at the Magna Origen Nacional (National Magna Origin) source in accordance with applicable national regulations.

2. RISKS AND CONTROLS

2.1. Comprehensive HSE Risk and Impact Management:

The **CONTRACTOR** is responsible for the comprehensive management of environmental risks, opportunities, and impacts arising from the activities covered by the contract and that may affect the safety and health of its workers, subcontractors, and other parties arising from the employment relationship.

The **CONTRACTOR** must submit its hazard identification, risk assessment, and evaluation matrix for the contract activities, including the specific risks at the site where the work will be performed (information provided by **ECOPETROL**, if applicable). This matrix will be updated at least annually, or when serious or fatal accidents or catastrophic events occur, or changes occur in processes, facilities, machinery, or equipment. To this end, the **CONTRACTOR** will ensure:

- The identification of new hazards and risk assessments to ensure their preventive control. The **CONTRACTOR** will communicate these risks, along with the consequences and controls, to its workers.
- That the hazard identification and control measures are considered in its operational and equipment maintenance procedures.
- That it will maintain effective communication among stakeholders involved in risk management in the area where it will perform its activities.

The **CONTRACTOR** must submit its matrix for identifying environmental aspects and assessing the impacts that may arise from the execution of contract activities, as well as the management measures and other environmental obligations associated with the control and monitoring instruments and environmental permits. This matrix will be updated at least annually, or when serious environmental incidents or catastrophic events occur, or when changes in processes or facilities occur.

The **CONTRACTOR** will keep the aforementioned matrices available for verification by **ECOPETROL**, should

it deem it appropriate.

2.1.1. Industrial and Process Safety

The **CONTRACTOR** must ensure the prevention and control of hazards and risks arising from the scope of the contract and that may affect people, the environment, and infrastructure. To this end, it must identify, evaluate, and assess the hazards and risks, as well as define and implement the necessary controls to guarantee the safe execution of activities.

The **CONTRACTOR** must review and implement the HSE requirements defined in the Work Control Practice, critical tasks, and compliance with safe practices.

To prevent incidents, the **CONTRACTOR** will consider the following:

- Comply with the guidelines defined in the Work Control Practice.
- Not perform any work without first assessing the risks according to the established requirements.
- Ensure that no worker intervenes in equipment or facilities that are not related to or outside the scope of this contract.
- Suspend activities if risks are identified that have not been identified or analyzed in the operating procedures.
- Prepare the risk analysis in multidisciplinary work teams with the participation of the workers. For risk analyses related to changes in technology or equipment, specialists will be involved as required.
- When simultaneous operations are carried out or interference occurs, preventive and protective measures for people, the environment, and facilities must be implemented, and the risk analysis for these simultaneous operations must be documented.
- Review and inspect the workplace to ensure it is safe. Notify **ECOPETROL** of deviations so that appropriate measures can be taken and comply with the specific guidelines for the operating areas.
- Use the authority to stop work when observing behavior or conditions that pose imminent risks to people or the environment.
- It will provide its personnel with Personal Protective Equipment (PPE) appropriate for the activity to be performed (including inherently fire-resistant equipment) and the environment in which they perform their duties, and will have immediate availability at the worksite of any equipment that may be required during this activity. To this end, the **CONTRACTOR** will develop a matrix of personal protective equipment by position and will assume the costs of restoring it, when required.
- If the performance of the activities covered by the contract involves the storage, handling, transportation, and disposal of chemical substances, it must have a comprehensive chemical risk management program and ensure the implementation of the classification and hazard communication of chemical products, in accordance with the Globally Harmonized System (GHS) and other current legal regulations related to chemical risk.

2.1.2. Occupational Health

The **CONTRACTOR** shall ensure the promotion, prevention, and control of the health of all workers under the contract, protecting them from occupational risk factors. To this end, it shall identify, evaluate, and assess health hazards and risks and implement the necessary controls, train workers, and monitor their health status.

The **CONTRACTOR** shall include in the HSE Plan the Preventive and Occupational Health activities carried out in the performance of the contracted work, including the performance of applicable medical, clinical, and paraclinical examinations.

The fitness certificates shall contain proof of paraclinical examinations, fitness conditions for high-risk work, and conditions for activity restrictions or job relocation. The **CONTRACTOR** must have this information available, as **ECOPETROL** may request it at any time.

The **CONTRACTOR** shall comply with current legal regulations on addiction prevention, including specific campaigns aimed at promoting the prevention and control of drug dependence, alcoholism, and smoking,

aimed at its workers.

The **CONTRACTOR** shall implement the health promotion and prevention activities required according to the health diagnosis and health risks specific to each job, implementing applicable epidemiological surveillance programs, the mental health and psychosocial risk program, compliance with the vaccination schedule, self-care programs (emotional, physical, intellectual, spiritual, and social), healthy lifestyles (healthy nutrition, physical activity, weight control, healthy sleep), prevention of endemic diseases specific to the region, and recreational, cultural, and sports activities.

2.1.3. Environmental Management

The **CONTRACTOR** must ensure the execution of the following actions:

- **Planning and legal compliance:**

- It will comply with the environmental management measures established in the Environmental License and/or Comprehensive Environmental Management Plan (PMAI) and/or environmental permits, and other administrative acts, as well as the Environmental Management Measures (MMA) as a voluntary instrument of the project when applicable, and other administrative acts.
- It will timely and provide high-quality documentation, records, and evidence that comply with the obligations contained in the administrative acts issued by environmental authorities in the licenses, procedures, environmental permits, administrative acts of environmental control and monitoring, environmental management measures, and other obligations mentioned above, which are used as input for the Environmental Compliance Report. This information will be submitted in the corporate tool provided for this purpose.
- It will carry out the necessary management to comply with the applicable environmental legal regulations at the national and local levels.
- Will continuously communicate Environmental Management requirements to its employees and ensure their understanding and compliance.
- Will undertake inspections and monitoring of its activities by national or regional environmental authorities.
- Will carry out activities within the framework of environmental legal compliance, ensuring that they do not cause impacts that could lead to sanctions from the competent environmental authorities, such as the use of natural resources outside the scope of the permits or authorizations granted by the environmental authorities.

- **Materials and Waste:**

- Will ensure compliance with current Colombian legal regulations applicable to comprehensive waste management. To this end, it will rely on **ECOPETROL's** corporate document, the Guide for Comprehensive Waste Management and its annexes (HSE-G-004), as a guide for the development of its activities, or any document that modifies or replaces it, applicable to the scope of the contract.
- Will establish mechanisms for compliance with the requirements listed in the aforementioned Guide and will maintain updated information on its implementation.
- Will submit monthly, within the first five (5) business days of the month and upon termination of the contract, a consolidated report on its management of hazardous and non-hazardous waste using the SIGAR - Waste format or any document that modifies or replaces it. The foregoing is not limited to all the information that the **CONTRACTOR** must provide related to waste as part of the specific scope of its activities.
- It must strive for continuous improvement in the development of its waste utilization and/or reduction strategies aligned with the Waste Management Hierarchy established in the Guide for Integrated Waste Management and its annexes (HSE-G-004).

- **Water:**

- If, for the purposes of performing the service, the **CONTRACTOR** uses **ECOPETROL's** water supply system(s) and/or wastewater collection and treatment systems, it must ensure compliance with the requirements established by **ECOPETROL** at each of its facilities.
- If, for the purposes of performing the service, the **CONTRACTOR** uses a water concession permit and/or a wastewater discharge permit, granted in its name by the competent environmental authority, it must ensure compliance with the requirements of national regulations and environmental control and monitoring instruments related to water management, and implement initiatives to reduce the negative impact on water resources. In this regard, the **CONTRACTOR** must:
 - o Have the respective water intake and/or discharge permits valid for the entire period of the service it will provide to **ECOPETROL**, issued by the competent environmental authority.
 - o Do not exceed maximum flow rates or operating times.
 - o Comply with current discharge quality standards (e.g., Res. 631 of 2015, Res. 883 of 2018, Res. 699 of 2021 of the Ministry of Environment and Sustainable Development (MADS), or any regulations that modify them).
 - o Develop and implement a plan for the efficient use and conservation of water based on the "Guide for the Efficient Use and Conservation of Water - A collective vision for the sustainable and responsible use of water" (Decree 1090 of 2018).
 - o Have a Risk Management Plan for Discharge Management (if applicable).
 - o Evaluate the possibility of utilizing rainwater to reduce freshwater withdrawals, in accordance with the guidelines for maximizing the use of rainwater from the Ministry of Environment and Sustainable Development (MADS).
 - o Evaluate the possibility of recirculating/reusing water to reduce withdrawals and discharges, if operating conditions permit.
 - o Evaluate the possibility of delivering effluents to other areas of **ECOPETROL**, if operating conditions permit.
 - o Evaluate the possibility of reusing effluents (delivering them to third parties) to reduce discharges, in compliance with the provisions of current regulations (Resolution 1256 of 2021 or any regulations that modify it), if operating conditions permit and authorized in the environmental instrument.
 - o Comply with other applicable regulatory provisions.
- Additionally, in the case of drilling and completion services, the **CONTRACTOR** must:
 - o Evaluate the possibility of implementing best practices for the management of drilling mud and cuttings with new technologies that contribute to reducing freshwater withdrawal and/or discharges and maximize water recirculation, if operating conditions permit.

- **Biodiversidad:**

- If the **CONTRACTOR** uses wood to perform the service, it must demonstrate that it comes from recycled or reused materials, and/or commercial forest plantations. If it comes from a natural forest, it must have a valid forest harvesting permit.
- If the **CONTRACTOR** needs to collect and/or capture flora and fauna specimens for the purposes of performing the service, it must guarantee the permits required by current environmental regulations issued by the Environmental Authority, as defined by Section 2, Chapter 9, Title 2, Part 2, Book 2 of Decree 1076 of 2015, or any other decree that modifies, replaces, or repeals it.
- The **CONTRACTOR** must guarantee the preservation of flora and fauna species that are in any category of threat or vulnerability
- The **CONTRACTOR** must avoid carrying out activities in areas in any protection category, such as areas of high biodiversity value, to reduce the risk of impacts and/or avoid mismanagement.
- The **CONTRACTOR** must avoid the introduction of non-native species and identify whether the activities to be carried out pose threats to flora and fauna.

- **Noise:**

- The **CONTRACTOR** must ensure compliance with national regulations regarding noise emissions, in accordance with Resolution 0627 of 2006 of the MINISTRY OF ENVIRONMENT, HOUSING AND TERRITORIAL DEVELOPMENT (now MADS), which establishes the national noise and environmental noise emission standards. The noise limits established therein must be met within the boundaries of the facility, in accordance with the classification of the area where the equipment is installed. To comply with the noise levels established in said resolution, the **CONTRACTOR** may install the necessary noise barriers to soundproof and attenuate noise emission and noise impact levels at the source, thereby reducing noise levels in the surrounding areas and communities to the levels established in the aforementioned resolution.

- **Atmospheric Emissions:** The **CONTRACTOR** must ensure compliance with national regulations regarding air pollutant emissions and mitigate emissions to avoid impacts on air quality in the areas where activities are carried out:

- Regarding emissions from internal combustion engines for power generation and external combustion activities, where applicable, the **CONTRACTOR** must adhere to the provisions of Article 4, “Permissible Emission Standards for Industrial Activities,” of Resolution No. 909 of 2008 of the Ministry of Environment, Housing, and Territorial Development (now MADS), which establishes the norms and standards for permissible emissions of pollutants into the atmosphere from stationary sources and dictates other provisions.
- Establish a strategy for controlling particulate matter on tertiary roads used for the mobilization of machinery, equipment, and supplies during the development of activities.
- For mobile sources, the provisions of MADS Resolution 0762 of July 18, 2022, apply.

2.1.4. Change Control

The **CONTRACTOR** shall ensure that any modifications made to equipment, infrastructure, the implementation of new technologies or new processes, changes in operating conditions or operational procedures, or personnel changes (minimum equipment) are documented and supported by the corresponding HSE risk assessment and analysis. To this end, the **CONTRACTOR** shall implement a change management procedure, which must comply, when applicable, with **ECOPETROL's** plant and personnel change management documents.

3. PEOPLE

3.1. HSE Roles and Responsibilities by Position:

The **CONTRACTOR** shall ensure that HSE roles, functions, and responsibilities are clearly defined in the organizational job descriptions of all employees associated with the Contract. Additionally, it must develop the habit, skill, and ability to identify behaviors that need improvement, review compliance with critical procedures, conduct audits, and conduct internal evaluations, among others, and take action when deviations occur.

3.2. Competency Management:

The **CONTRACTOR** must ensure that its personnel are competent and trained to perform tasks in a healthy, safe, and environmentally responsible manner, ensuring legal compliance, **ECOPETROL** standards, and the Work Control Practice, where applicable.

The **CONTRACTOR** shall ensure that its workers and subcontractors have competency certification for the required specialties. These certifications must be issued by nationally or internationally recognized institutions, in accordance with Colombian legislation and the technical specifications of the contract.

ECOPETROL may request personnel substitution when the **CONTRACTOR** does not prove that the worker has the skills to perform the work requested in the Selection Method documents. The **CONTRACTOR** may not invoke **ECOPETROL**'s request for replacement as just cause for termination of personnel employment contracts. The **CONTRACTOR** shall provide its workers and subcontractors with HSE induction and comply with the provisions of the "INSTRUCTIONS FOR THE PROMOTION OF SAFE, CLEAN, AND HEALTHY WORK AT ECOPETROL S.A.," or any document that modifies, complements, or repeals it, including the specific inductions defined in the operational areas.

The **CONTRACTOR** must ensure that its workers, visitors, and suppliers are aware of the following: the hazards and risks of the tasks they will perform and of the environment, the consequences, and the controls they must apply to prevent events that affect their integrity, that of the environment, and/or assets; the emergency response procedures that may arise; the safety rules for the area, including specialized requirements for Personal Protective Equipment, applicable safe work practices, among others, providing reinforcements when required at least annually, or when the standards or the specific activity to be performed by its workers are modified. substantially.

The **CONTRACTOR** shall ensure that its workers and subcontractors who perform activities critical to process safety and industrial safety have accreditation and certification of competencies for the required specialties. Certifications must be issued by nationally or internationally recognized institutions, in accordance with Colombian legislation, the technical specifications of the contract, and the requirements defined in the HSE standards.

In order to ensure worker knowledge regarding the safe, healthy, and sustainable performance of their duties, the **CONTRACTOR** shall design a training and development matrix by position and function, including the applicable **ECOPETROL** manuals, guides, procedures, instructions, and formats. The **CONTRACTOR** shall maintain the status of the training execution up to date and retain the training execution records, which **ECOPETROL** may request.

Contractor personnel may access safe practices with their learning content through the CLAP digital tool or the mechanism **ECOPETROL** may provide, without limiting the contractor's responsibility to train its personnel and ensure the level of competence required for the performance of the position and/or role.

3.3. HSE Function:

The **CONTRACTOR** shall ensure the availability of human talent, and the technical and financial resources that guarantee compliance with the HSE plan established for the contract. The **CONTRACTOR** is responsible for establishing the appropriate work team, associated with the execution of the purpose and scope of the contract. The **CONTRACTOR** shall have at least one HSE manager on the work team, if the contract meets the following characteristics:

Number of simultaneous workers on a work front	HSE Function
≥50 - 200	One (1) HSE Manager and one more for every two hundred (200) simultaneous workers

Note: The work front is considered to be the physical area where operational activities are carried out, where it is not necessary to travel by vehicle to maintain visual control of workers.

The **CONTRACTOR** must ensure that the HSE manager, if applicable to their contract, meets at least the following responsibilities:

Profile	Requirements	Minimum experience	Minimum experience related to the purpose of the contract
Professional of any specialty, such as an engineer, Occupational health Professional, or environmental engineer.	1. License in occupational health or occupational health and safety. 2. 50-hour SG-SST course certified by SENA, ARL, or an entity approved by the Ministry of Labor	4 years in HSE	2 years
Industrial hygiene and safety technologist or other technological specialties related to the subject matter of the contract		5 years in HSE	2 years
Technician in any specialty related to the subject of the contract		4 years in HSE	3 years

Note:

- To ensure functions related to environmental aspects of the contracts, environmental professionals are not required to have a license in occupational health or occupational health and safety.
- In the specific case of plant shutdowns in VRP, the Engineer or Occupational Health Professional must have at least four (4) years of experience in HSE in process plants and have participated in at least three (3) plant shutdowns in the hydrocarbon and/or petrochemical industry.
- In the specific case of plant shutdowns in VRP, the Technologist in industrial hygiene and safety or other technological specialties related to the subject matter of the contract must demonstrate at least five (5) years of experience in HSE in process plants, or five (5) contracts in plant shutdowns in the hydrocarbon and/or petrochemical industry.

4. INFORMATION AND KNOWLEDGE

4.1. Operational Procedures

The **CONTRACTOR** must ensure compliance with and implementation of the standards and documents applicable to the purpose of the contract as defined by **ECOPETROL**. Additionally, the **CONTRACTOR** must ensure that the documents necessary to execute the scope of work are available. These documents will be prepared under its management system and must comply with the stages of availability, quality, communication, and compliance.

ECOPETROL may use the HSE-F-562 “Operational Documented Information Tool Format” to assess, through observation, the implementation and application of the documents by the executors or collaborators in any task or activity and may use the results as input for the HSE performance evaluation of the contract.

The latest versions of the documents can be viewed online at the following location:

[HSE Documents for Contractors](#)

5. RESOURCES

The **CONTRACTOR** shall ensure the availability of human talent, technical, and financial resources to guarantee compliance with the HSE aspects arising from the execution of the contract.

The **CONTRACTOR** shall provide the necessary resources for the implementation of Colombian HSE legislation and the action plans required to eliminate deviations identified during the execution of the Contract.

5.1. Management of Subcontractors and Suppliers:

If the Contract permits subcontracting and **ECOPETROL** authorizes it, the **CONTRACTOR** must stipulate with its subcontractors and suppliers entering ECOPETROL facilities the same HSE requirements agreed upon in this annex, and will regularly review their compliance. The **CONTRACTOR** shall be directly, solely, and exclusively responsible to **ECOPETROL** for any incident, damage, or injury caused by the action or omission of the Subcontractor or supplier in compliance with these requirements.

THE **CONTRACTOR** shall ensure that all its visitors and suppliers are supervised at all times by an authorized and responsible CONTRACTOR employee, who must be familiar with all HSE practices and procedures and shall instruct and supervise the visitor or supplier regarding these practices.

The **CONTRACTOR** shall ensure that its suppliers and visitors are aware of the risks and safety rules specific to the area and the site's emergency procedures, as applicable, monitoring and controlling their entry and exit, as well as their activities in hazardous process areas.

5.2. Asset Integrity

The **CONTRACTOR** shall implement predictive and preventive maintenance programs for the machinery, equipment, tools, facilities, lighting, and electrical networks under its responsibility, and shall implement functional testing for control systems and reliability engineering to prevent loss of containment of hazardous fluids or energy; testing and inspection of equipment, tools, equipment, and facilities, and instrument calibration.

The **CONTRACTOR** shall implement a procedure for the safe use of portable tools, their permanent inspection and maintenance, considering the use of pre-operational checklists, the use of tools that are in safe condition for use, and, where applicable, certified; as well as the implementation of a color code for the safe release of hand tools. The use of handcrafted tools is not acceptable.

6. OPERATIONS

6.1. Comprehensive Emergency Management:

6.1.1 Preparedness for Response

- **Emergency Scenarios:** Before beginning activities or operations, the **CONTRACTOR** must ensure that its workers are familiar with the emergency scenarios, maximum and minimum radii of impact, protection, safety, and evacuation zones, for events of various origins: technological, natural, socio-natural, electrical, environmental, medical, or occupational, and other operational factors that apply to them, in accordance with current national legislation, identified from the corresponding risk analyses within the scope of the activities or operations to be carried out.
- **Emergency and Contingency Plans (ECP):** THE **CONTRACTOR** must have documented, disseminated, tested, and applicable Emergency and Contingency Plans (ECP) for the facilities, locations, or areas where it will carry out the activities and operations for which it has been contracted. These plans must consider all emergency scenarios applicable within the scope of the contract and those specific to the area where the work will be performed. These plans must include actions and procedures for the effective control and response to emergencies that may arise. This document must be duly executed and approved by the **CONTRACTOR'S** Managing Representative for the Contract and available for consultation and review when required by Ecopetrol. The Emergency and Contingency Plan (ECP) must be developed and implemented ensuring compliance with applicable national legislation, which includes, among others:

- Coordination, alert, alarm, activation level, notification, training, equipment, and resource inventories.
 - Specific escalation and communication lines disseminated to all employees, regardless of shift and relief schedules, and tested through drills and simulations developed jointly with other partners who may be working in the same Ecopetrol area.
 - Conduct drills in their work area, in accordance with the Emergency Plan, providing information about the activities planned during the contract, as well as a report on their compliance.
 - Facility evacuation measures, work-related accident response, pre-hospital care (PHC), and medical evacuation (MEDEVAC), taking into account access, geographic location (river, air, land), nationality, since for foreign personnel, the use of insurance, and other applicable medical care requirements must be included. In the case of Prehospital Care and MEDEVAC procedures, these must be validated prior to the start of activities by the corresponding ARL or its representative.
 - Rescue actions in the execution of critical tasks, control and response to technological events (loss of containment, fires, spills, explosions, HAZMAT events), response to natural, socio-natural, environmental, and other operational events that may be applicable, such as those that may arise during land or river transportation of personnel, among others, and all other requirements that facilitate emergency response.
- **Roles, responsibilities, and competencies:** The **CONTRACTOR** must define the personnel and organization necessary to carry out emergency preparedness and response activities, in accordance with legal requirements, according to the scope defined in its own Emergency and Contingency Plan and in joint or coordinated actions with **ECOPETROL** operations.

The **CONTRACTOR** shall be responsible for having trained and qualified personnel and maintaining their competencies to respond to the various emergency scenarios that may arise within the scope of the activities and operations covered by the contract. It shall establish brigades to provide timely response, attention, and initial control of any emergencies that may arise, in order to prevent or minimize their escalation.

- **Response capacity:** The **CONTRACTOR** must size and have on-site the equipment, personnel, supplies, and logistics necessary to provide an initial response to emergency scenarios that may arise in the development of the activities and operations covered by the contract, within the scope defined in its Emergency and Contingency Plan and any other requirements that **ECOPETROL** has considered in the contract, in order to minimize impacts on people, the environment, infrastructure, and the escalation of such emergencies.

The **CONTRACTOR** must define and have minimum resources to provide an initial response to emergencies according to their origin, which includes, among others:

- Management of fires, chemical emergencies, spills on land or water.
- First-aid kits equipped according to the type of injuries that may occur and as defined in their specific care procedures (Example: a cooling blanket in the case of burns)
- Communications means with coverage for the area where the activities are carried out (radios, cell phones, etc.)
- Ground, river, or air transportation in case the transfer of their workers who may be affected to health centers is required, in agreement with their ARL or whoever acts in their place, and any other matters that may be required depending on the type of emergency that may arise in the performance of their activities and operations for which they were contracted, access to the work area, and the geographic location.

The **CONTRACTOR** must have the necessary agreements, conventions, and affiliations to cover the major risk identified in the performance of its activity, for the supply of equipment and services, to the extent established in the respective plans of the **CONTRACTOR** and **ECOPETROL**. In the case of several **CONTRACTOR** companies working in the same area, they may have agreements between

them that allow for integrated support of the most critical emergency scenarios, and may agree to share resources, if possible.

The emergency response teams available on-site must be periodically reviewed to ensure their availability at all times, and the inventory of these resources must be reported to **ECOPETROL** as part of the corresponding emergency and contingency plans.

6.1.2 Response

- **Unified Command and Control:** To ensure the execution of the emergency response, the **CONTRACTOR's** Emergency and Contingency Plans (PEC) must include decision-making structures or organizational charts that clearly identify the highest authority in the area at the time of an emergency. This authority will be responsible for escalating and coordinating its own Emergency and Contingency Plan with the Emergency and Contingency Plans of other partners or Ecopetrol applicable to the facility or operation.

Every declared emergency must have a leader designated by the **CONTRACTOR** in its Emergency and Contingency Plans, who will be responsible for ensuring the organization and initial and timely response to emergencies that may arise in the area where the activities and operations under the contract are carried out.

- **Deployment of protection and control actions:** In the event of any emergency, regardless of the cause, the **CONTRACTOR** must immediately activate the Emergency and Contingency Plan and execute the protection and control actions defined in said Plan, ensuring a timely response and the development of response actions taking into account the following priorities:
 - Protect and safeguard the life, health, and integrity of people who may be affected by the adverse event, including workers in general, communities, and personnel responsible for responding to the event.
 - Avoid or limit impacts to the environment and livelihoods, such as intakes or collections of drinking water for human and domestic consumption, as well as other potentially exposed elements that have been identified in the corresponding response plans.
 - Control the source, contain, and recover the product.
 - Protect assets and infrastructure
- **Communication and escalation:** The **CONTRACTOR** must immediately notify **ECOPETROL**, through defined communication channels, of any emergency that arises in the course of its activities. This notification will include information on the incident, the development of events, and the actions implemented to address it. Additionally, the **CONTRACTOR** must report and notify relevant information to the corresponding entities within the scope of the reports established in its Emergency and Contingency Plan.
- **Restoration of safe conditions:** The Contractor must establish and agree with Ecopetrol the administrative, operational, environmental, and safety criteria, in accordance with current national legislation, for declaring the end and closure of emergencies before normal operations are restored.

6.1.3 Recovery

- **Emergency response evaluation:** The **CONTRACTOR** must evaluate the response to emergencies that may arise during the development of activities or operations within the scope of the contract, in order to identify strengths and implement improvement plans for any gaps identified in said evaluation.

7. MONITORING AND IMPROVEMENT

7.1. Assessments

The **CONTRACTOR** will be assessed based on HSE aspects in accordance with the Contractor Performance Procedure in force at ECOPETROL or any procedure that replaces, complements, or repeals it.

ECOPETROL, either directly or through a designated third party, may conduct periodic inspections at the site where the **CONTRACTOR** performs work to verify compliance with standards for the protection of health, safety, the environment, and property, for which it now has the respective authorization.

The **CONTRACTOR** must include the internal assessment program in its HSE plan and will have available the results of the assessments or internal audits, along with the corrective and preventive actions that control and mitigate HSE risks. and will allow **ECOPETROL** access upon request, to conduct performance evaluations or audits of any element of the **CONTRACTOR's** HSE Plan.

7.2. HSE Incident Management:

The **CONTRACTOR** must comply with the legal regulations related to the subject matter and the procedure for managing **ECOPETROL's** HSE incidents, or any that replaces or repeals them. When an HSE incident occurs, the **CONTRACTOR** will immediately verbally notify its supervisor and/or the area manager, and the professionals from the industrial safety, process safety, and/or environmental departments of Ecopetrol S.A., depending on the impact caused by the event.

The initial incident report must be documented within **ECOPETROL** within 24 hours of the event's occurrence on the platform defined by **ECOPETROL**.

7.3. Information for HSE Performance Indicators

The **CONTRACTOR** will upload the HSE information monthly, within the first six (6) calendar days of the following month, into the software tool defined by **ECOPETROL**.

Submission of HSE documents for the start of Contract execution.

To sign the Contract Initiation Certificate, the **CONTRACTOR** must submit:

- i. HSE Plan appropriate to the activities covered by the contract.
- ii. Certificate of completion of the occupational entrance and aptitude examinations for the workers under their charge.
- iii. Certification of compliance with Phases I and II of **ECOPETROL's** Safe, Clean, and Healthy Work Promotion Program or the document that modifies or repeals it; as well as certification of competency for the specialties that require it, issued by nationally or internationally approved institutions, in accordance with Colombian law.
- iv. Environmental permits or licenses required to execute the work, when they are under the express responsibility of the **CONTRACTOR**.
- v. Proof of the Company's or Workplace's Risk Level classification in accordance with the Contract to be executed (ARL Certification, in accordance with Article 2 of Decree 1607 of 2002), when applicable.

NOTA: Obligations ii and iii are fulfilled by their declaration in the GAB-F-214 Profile Compliance Certification or any document serving as such. The **CONTRACTOR** shall keep the respective supporting documents available at the site where the contract works are performed for verification by **ECOPETROL** upon request.

PARAGRAPH ONE The **CONTRACTOR** acknowledges that it will be solely responsible for any damage or deterioration, even minor, that may occur due to itself or its employees, dependents, or subcontractors to the air, water, soil, human health, animal or plant life, or pollution or damage to roads, internal roads, streets, swamps, rivers, canals, parks, green areas, residential areas, and equipment or plants, as a result of the performance of its work, and will fully reimburse **ECOPETROL** for any sums it may pay for any reason due to these damages.

PARAGRAPH TWO. The **CONTRACTOR** must provide all necessary protection systems to keep the people and property of ECOPETROL and third parties safe, and is directly responsible for any damages caused in the performance of the Contract. For this purpose, the **CONTRACTOR** hereby accepts the relevant discounts, without prejudice to the guarantees granted under the Contract. It will avoid any inconvenience that its work may cause to the community or to **ECOPETROL** and its workers.

THIRD PARAGRAPH. Any violation of health, environmental protection, and property management regulations during the performance of the work will be immediately corrected by the **CONTRACTOR** at its own cost and risk. If the violation is not corrected, the parties, pursuant to the principle of the autonomy of private will, authorize **ECOPETROL** to suspend all or part of the work until this occurs, with the **CONTRACTOR** bearing all costs associated with the suspension.

The **ECOPETROL** official or person acting on its behalf who directs and/or determines the suspension must state this in writing, including the date, time, and reasons for the decision in question. They must assume responsibility for the matter and immediately inform the Contract Administrator and Supervisor, as well as the Work Permit Issuer, if applicable. Additionally, the **CONTRACTOR** must ensure the safe conditions of the area, equipment, and/or processes prior to the suspension of work.

The **CONTRACTOR** undertakes to remedy the reasons for the suspension as soon as possible, without prejudice to ECOPETROL imposing the penalties agreed upon in the Contract for failure to comply with the obligations arising from it.

PARAGRAPH FOUR. In the event of a violation of the HSE obligations stipulated in this Annex, **ECOPETROL** may apply the monetary penalties agreed upon in the Contract, without prejudice to the possibility of terminating the Contract early, in accordance with the current procedure. This power, which the **CONTRACTOR** declares to be aware of and fully accepts upon assignment and signing of the Contract, without any exception or condition.