

CONTRACTOR OBLIGATIONS IN HSE MATTERS (Industrial and Process Safety, Occupational Health, and Environment)

The **CONTRACTOR** is solely responsible before **ECOPETROL** and before national and local authorities for complying with the HSE requirements and obligations assumed under this contract, which shall extend to its subcontractors; therefore, without exception, any subcontract must include and comply with the same HSE obligations as the main contract. The **CONTRACTOR** holds exclusive responsibility for any HSE non-compliance related to its employees, contractors, subcontractors, and suppliers.

For framework contracts, the requirements described below shall only apply to the ODS executed within **ECOPETROL** facilities and/or where operational control is held.

1. STRATEGY AND DIRECTION

1.1. Leadership Culture and Commitment

Visible Leadership and Commitment in HSE is the responsibility of the **CONTRACTOR's** Managerial Representative for the Contract, who shall ensure that all designated management personnel (managers, directors, heads, coordinators, residents, supervisors, team leaders, and anyone responsible for personnel) assume their responsibility as leaders in implementing HSE plans and programs and ensuring all controls for the safe execution of activities. This Visible Leadership and Commitment shall be demonstrated at all levels of the **CONTRACTOR's** organization, ensuring a positive attitude among all employees regarding HSE matters, especially in adherence to the "Life First" principle established in **ECOPETROL's** Comprehensive Policy.

The **CONTRACTOR's** management line in the field shall carry out visible HSE commitment activities, including:

- Inspections and walkthroughs of work fronts focusing on improving HSE aspects.
- HSE conversations and reflections with workers.
- Reporting and management of unsafe conditions and acts.
- Work cycle reviews or procedural compliance checks.
- 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 shall participate in all HSE audits and evaluations conducted on the Contract and cannot delegate this responsibility exclusively to personnel performing HSE roles (where applicable). They shall attend HSE committees and meetings at local, regional, and/or national levels as convened by **ECOPETROL**, fulfilling information requests and commitments arising in the framework of the contract's execution.

1.2. HSE Strategy, Programs, and Plans

The **CONTRACTOR's** management line must clearly communicate **ECOPETROL's** Policies and Cultural Principles to all employees and subcontractors, which shall govern their management in executing the Contract.

The primary objective in HSE is to protect life and execute the contract safely, healthily, and sustainably. The **CONTRACTOR** must focus efforts on achieving this objective and communicate relevant actions to all employees and subcontractors.

The **CONTRACTOR** must define and ensure the execution of an HSE Plan for the contract, addressing identified hazards, risks, aspects, and impacts. The plan must be delivered prior to the commencement of operational activities within **ECOPETROL** facilities and updated at least annually.

The **CONTRACTOR** shall submit a monthly follow-up report on HSE Plan compliance to **ECOPETROL's** Technical Leader and/or Contract Management professional, or whenever requested.

If a bridging document is deemed necessary as part of contract planning, the **CONTRACTOR** shall develop it jointly with **ECOPETROL** representatives, and it must be approved by the highest management representatives of both parties within the first month of contract execution.

1.3. HSE Legal Compliance.

The **CONTRACTOR** shall ensure compliance with Colombian legal standards regarding occupational health, safety, and environment. To this end, the **CONTRACTOR** shall maintain a matrix of applicable HSE legal requirements relevant to the contract scope, establish mechanisms to comply with these requirements, and keep information on implementation up to date. The **CONTRACTOR** shall communicate relevant legal requirements to all involved personnel and incorporate applicable legal requirements into work procedures. This information must be available in the work area, as **ECOPETROL** may request it at any time.

1.3.1. Information Required for Environmental Compliance Reports – ICA: According to the contract scope, the **CONTRACTOR** shall provide supporting documentation for obligations and management measures established in the control and monitoring instrument, as input for preparing the Environmental Compliance Reports – ICA. This information must be submitted or uploaded to the repository defined by **ECOPETROL** for this purpose.

The following lists the information that the **CONTRACTOR** must provide for each environmental aspect, as applicable, considering the activities performed within the contract scope:

Environmental Aspect	Minimum Contractor Requirements
Discharges	A. Use of ECOPETROL wastewater collection and treatment systems: The CONTRACTOR must comply with the following: 1. Volume of non-domestic wastewater generated by the contractor (m³/day). 2. Identification of the discharge point(s) of non-domestic wastewater into ECOPETROL's wastewater collection systems. B. Use of external wastewater treatment and final disposal: The CONTRACTOR must comply with the following: 1. Volume of wastewater delivered by the contractor (m³/day). 2. Information on the external manager: 1.1 License and/or permit issued by the competent environmental authority. 1.2 Commercial agreement for wastewater management between the CONTRACTOR and the external manager. 1.3 Handover certificate(s) of wastewater. 1.4 Certificate(s) of treatment and final disposal issued by the external manager specifying: 1.4.1 Volume of water treated and discharged. 1.4.2 Quality of discharged wastewater. 1.4.3 Location (coordinates) of discharge sites of treated wastewater. 1.4.4 Identification of the receiving source. 1.5 Photographic record. 1.6 Monitoring and supporting documentation (according to requirements set by the competent environmental authority in the license and/or permit issued to the external manager).

Environmental Aspect	Minimum Contractor Requirements
	C. If, for the execution of the service, the CONTRACTOR makes use of a wastewater discharge permit issued in their name by the competent environmental authority, they must comply with the following requirements: 1. Volume of domestic and industrial wastewater generated by the CONTRACTOR (m³/day). 2. Quality of the domestic and industrial wastewater discharged by the CONTRACTOR (according to the requirements established by the competent environmental authority in the discharge permit granted 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 granted).
Water Intake	A. If, for the purposes of executing 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 that is reused/recirculated for non-domestic use (m³/day) (when applicable). B. If, for the purposes of executing the service, the CONTRACTOR purchases water for non-domestic use from a company providing water sales services, the following requirements must be met: 1. Volume of water purchased (used for non-domestic activities) (m³/day). 2. Volume of water that is reused/recirculated for non-domestic use (m³/day) (when applicable). 3. Information on the company providing the water sale service: 1.1 License and/or permit granted by the competent authority(ies). 1.2 Commercial supply agreement for water between the CONTRACTOR and the water supplier company. 1.3 Document(s) certifying the delivery of purchased water issued by the water supplier company specifying: 1.3.1 Volume of water supplied (m³/day). 1.3.2 Quality of the water supplied (according to the requirements of the competent authority(ies) issuing the license(s) and/or permit(s)). 1.3.3 Location (coordinates) of the fresh water intake site. 1.3.4 Identification of the water supply source from which fresh water is collected. C. If, for the purposes of executing the service, the CONTRACTOR uses a water concession permit issued in their name by the competent environmental authority, the following requirements must be met: 1. Volume of water captured and/or reused, broken down by source(s) (surface water, groundwater, rainwater, seawater, wastewater, and/or produced water) (m³/day). 2. Location of the water intake point(s) (coordinates). 3. Identification of the supply source(s) (name of the water body and hydrographic subzone; and/or activity generating the wastewater/produced 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. Flow meter calibration certificate used to control water intake. 7. Internal contractor forms supporting the recorded information. 8. Photographic record. 9. Monitoring and supporting documentation (according to the requirements established in the concession permit(s) granted by the competent environmental authority).
Forest Utilization	1. Report on forest utilization information: affected area, volume, species name, location and coordinates, total area affected by land-use change. 2. Internal contractor forms supporting the recorded information. 3. Forest utilization permit and timber transport pass, if applicable. 4. Photographic record.
Watercourse Occupations	1. Report on watercourse occupation information: coordinates, type of occupation, duration, date of activities, and name of the water source. 2. Watercourse occupation permit. 3. Photographic record. 4. Report of activities carried out during the watercourse occupation.

Environmental Aspect	Minimum Contractor Requirements
Emissions	1. Report on mobile sources: description of the emission source. 2. Combustion equipment list form. 3. Technical datasheet of combustion equipment. 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. Report of quarry material information: volume record, type of material, areas, and source 2. Current environmental license and/or permit for the material source 3. Mining concession registration and contract 4. Mining record 5. Supporting documentation for the volume of material acquired 6. Contractor's internal forms supporting the recorded information 7. Photographic record 8. Commercial agreement (when applicable)
Alluvial Material	1. Report of alluvial material information: volume record, source of extraction, and extraction site 2. Environmental license and/or permit for alluvial material extraction 3. Supporting documentation for the volume of material acquired 4. Contractor's internal forms supporting the recorded information 5. Photographic record 6. Commercial agreement (when applicable)
Solid Waste	1. Report on waste information: management, disposal, and transportation of generated solid waste. Include information on drilling cuttings as applicable. 2. Environmental license and/or permit of the service companies 3. Final disposal certificate 4. Record of generated C&D waste segregated and report on C&D waste recovery, if applicable 5. Copy of hazardous waste transport 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. Reports and/or training records according to the management sheets of the control and monitoring instrument and topics aligned with the strategic environmental pillars. 2. List of training topics according to the management sheets of the control and monitoring instrument and the strategic environmental pillars applicable to the service. 3. Supporting documentation of trainings and attendance of contractor personnel. 4. Photographic record

Notes:

- **ECOPETROL** may request additional information or supporting documentation beyond those listed above, which must be provided by the **CONTRACTOR** within the defined deadlines, 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.
- Cartographic information and coordinates used as input for the Environmental Compliance Reports must be delivered in their original national reference system (Magna Origen Nacional) 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 risks, opportunities, and environmental impacts arising from the activities under the contract, which may affect the safety and health of its workers, subcontractors, and others related to the employment relationship.

The **CONTRACTOR** must provide a hazard identification, risk assessment, and evaluation matrix for contract activities, including site-specific risks where the work will be carried out (information provided

by **ECOPETROL** if applicable). This matrix must be updated at least annually or when serious or fatal accidents, catastrophic events, or changes occur in processes, facilities, machinery, or equipment. To this end, the **CONTRACTOR** shall ensure:

- Identification of new hazards and risk assessment to ensure preventive control, communicating these hazards, consequences, and controls to its workers.
- That hazard identification and control measures are incorporated into operational and maintenance procedures for equipment.
- Effective communication among stakeholders involved in risk management for the area where activities are carried out.

The **CONTRACTOR** must also provide a matrix for the identification of environmental aspects and impact assessment generated by the execution of contract activities, including management measures and other environmental obligations associated with control instruments, monitoring, and environmental permits. This matrix must also be updated at least annually or when serious environmental incidents, catastrophic events, or changes in processes or facilities occur.

The **CONTRACTOR** shall maintain the above matrices available for verification by **ECOPETROL** as deemed necessary.

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 that may affect people, the environment, and infrastructure. This involves identifying, evaluating, and assessing hazards and risks, as well as defining and implementing the necessary controls to ensure safe execution of activities.

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

To prevent incidents, the **CONTRACTOR** must:

- Comply with guidelines defined in the Work Control Practice.
- Not perform any task without first evaluating the risks according to established requirements.
- Ensure that no worker operates equipment or facilities outside the scope of this contract.
- Suspend activities if previously unidentified or unanalyzed risks arise in operational procedures.
- Conduct risk analyses in multidisciplinary teams including workers. For risk analyses related to technology or equipment changes, specialist participation will be included as required.
- Implement preventive and protective measures for people, the environment, and facilities when simultaneous operations or interferences occur, and document the associated risk analysis.
- Review and inspect the worksite to ensure it is safe. Notify **ECOPETROL** of deviations so that corrective measures can be taken, complying with specific operational area guidelines.
- Apply authority to stop work when observing behavior or conditions that pose an imminent risk to people or the environment.
- Provide its personnel with Personal Protective Equipment (PPE) appropriate to the activity and environment, in compliance with applicable legislation and **ECOPETROL** internal procedures (including inherently fire-resistant elements, electrical work equipment, welding gear, chemical handling, etc.). Immediate availability of PPE on-site must be ensured. The **CONTRACTOR** will develop a PPE matrix by position and cover costs for replacement when necessary.
- If the execution of the contract activities involves the storage, handling, transport, and disposal of chemical substances, the **CONTRACTOR** must implement a comprehensive chemical risk management program and ensure the classification and communication of hazards for chemical products, in accordance with the Globally Harmonized System (GHS) and other applicable legal regulations related to chemical risk.
- If the execution of the contract activities involves the intervention of electrical equipment or

systems, or entails electrical hazards, the **CONTRACTOR** must comply with the provisions of the Ecopetrol Electrical Safety Manual (MASE) and the current Technical Regulation for Electrical Installations (RETIE) issued by the Ministry of Mines and Energy, including the applicable requirements for activities in Temporary Electrical Installations (IEP). Likewise, the **CONTRACTOR** must ensure that all activities involving electrical equipment or systems related to planning, execution, control, and monitoring are carried out in accordance with the occupational health and safety guidelines established by the Ministry of Labor for the generation, transmission, distribution, and commercialization of electrical energy.

- If the contract activities are carried out in areas for processing, storage, or transport of gases, vapors, dust, or flammable or combustible materials, the **CONTRACTOR** must incorporate into the planning and execution of the activity the required controls for hazard and risk management, taking into account the classification of the area (Class, Division, and/or Zone). Additionally, all systems, equipment, devices, vehicles, or tools, whether temporary or permanent, used by the **CONTRACTOR** must meet the required level of protection for the Class, Division, and/or Zone in which they are intended to be used, moved, or located, in accordance with the area classification, as defined in the HSE Area Classification Manual HSE-M-012.

2.1.2. Occupational Health

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

The **CONTRACTOR** shall include in the HSE Plan the activities of Preventive and Occupational Medicine relevant to the contracted tasks, including the performance of applicable medical, clinical, and paraclinical examinations. Fitness certificates shall include confirmation of completed paraclinical exams, conditions of fitness for high-risk work, and any activity restrictions or job reassignments. The **CONTRACTOR** must maintain this information available at all times, as **ECOPETROL** may request it at any moment.

The **CONTRACTOR** shall comply with the current legal regulations regarding addiction prevention, including specific campaigns aimed at promoting prevention and control of drug dependency, alcoholism, and tobacco use among its workers.

The **CONTRACTOR** shall implement health promotion and prevention activities required according to health diagnoses and work-specific health risks, executing applicable epidemiological surveillance programs, mental health and psychosocial risk programs, compliance with vaccination schemes, self-care programs (emotional, physical, intellectual, spiritual, and social), healthy lifestyle promotion (healthy nutrition, physical activity, weight management, healthy sleep), prevention of endemic diseases in the region, and recreational, cultural, and sports activities.

The **CONTRACTOR** must review the results of industrial hygiene studies of the areas where the contract activities will be executed, when applicable, in order to incorporate them into risk analyses and implement appropriate health control and promotion activities. Additionally, when the area where the contract activities are performed falls under the **CONTRACTOR's** responsibility, the **CONTRACTOR** shall carry out the industrial hygiene studies indicated by its hazard identification and risk assessment. For measurements, the **CONTRACTOR** must use calibrated measurement equipment operated by competent personnel or perform monitoring through qualified providers.

2.1.3. Environmental Management

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

- **Planning and Legal Compliance:**

- The **CONTRACTOR** shall comply with the environmental management measures established in the Environmental License and/or Comprehensive Environmental Management Plan (PMAI) and/or environmental permits, as well as other administrative acts, and with Environmental Management Measures (MMA) as a voluntary project instrument when applicable.
- The **CONTRACTOR** shall provide timely and quality delivery of all supporting documents, records, and evidence demonstrating compliance with the obligations contained in administrative acts issued by environmental authorities regarding licenses, procedures, environmental permits, administrative acts of environmental control and monitoring, environmental management measures, and other obligations previously mentioned, which serve as input for the Environmental Compliance Report. This information shall be submitted through the corporate tool provided for this purpose.
- The **CONTRACTOR** shall carry out the necessary actions to ensure compliance with applicable national and local environmental legal requirements.
- The **CONTRACTOR** shall continuously communicate environmental management requirements to its employees and ensure their understanding and compliance.
- The **CONTRACTOR** shall allow inspection and monitoring of its activities by national or regional environmental authorities.
- The **CONTRACTOR** shall execute activities in accordance with legal environmental requirements, ensuring that no actions cause impacts that could result in sanctions by the competent Environmental Authorities, such as the use of natural resources beyond the permits or authorizations granted by the Environmental Authorities.

- **Materials and Waste:**

- The **CONTRACTOR** shall ensure respect for and compliance with current Colombian legal standards applicable to integrated waste management. For this purpose, the **CONTRACTOR** shall use **ECOPETROL's** corporate document, Guide for Integrated Waste Management and its annexes (HSE-G-004), as guidance for performing its activities, or any document that modifies or replaces it, applicable to the scope of the contract.
- The **CONTRACTOR** shall establish mechanisms to comply with the requirements set forth in the aforementioned guide and maintain up-to-date information on its implementation.
- The **CONTRACTOR** shall submit monthly, within the first five (5) business days of the month and at the conclusion of the contract, a consolidated report of its management regarding hazardous and non-hazardous waste using the SIGAR – Waste format or any document that modifies or replaces it. This requirement is without limiting any other waste-related information the **CONTRACTOR** must provide within the specific scope of its activities.
- The **CONTRACTOR** shall strive for continuous improvement in its strategies for waste utilization and/or reduction, aligned with the waste management hierarchy established in the Guide for Integrated Waste Management and its annexes (HSE-G-004).

- **Water:**

- If the **CONTRACTOR** uses **ECOPETROL's** water supply system and/or wastewater collection and treatment systems for the execution of services, it must ensure compliance with the requirements established by **ECOPETROL** at each of its facilities.
- If the **CONTRACTOR** uses a water concession permit and/or wastewater discharge permit issued in its name by the competent environmental authority, it must ensure compliance with national regulations and environmental control and monitoring instruments related to water management, and implement initiatives to reduce negative impacts on water resources. Specifically, the **CONTRACTOR** shall:
 - o Maintain valid water abstraction and/or discharge permits throughout the service term provided to **ECOPETROL**, issued by the competent environmental authority.
 - o Not exceed maximum flow rates or operation times.
 - o Comply with current effluent quality standards (e.g., Resolutions 631 of 2015, 883 of 2018, 699 of 2021 of the Ministry of Environment and Sustainable Development (MADS), or any

- o amendments thereto).
 - o Develop and implement a plan for efficient use and conservation of water based on the Guide for Efficient Water Use and Conservation – A collective vision for sustainable and responsible water use (Decree 1090 of 2018).
 - o Have a Risk Management Plan for Discharges (if applicable). Evaluate the possibility of using rainwater to reduce fresh water abstraction according to the Ministry of Environment and Sustainable Development guidelines.
 - o Evaluate the possibility of recirculating/reusing water to reduce abstraction and discharges, if operational conditions allow.
 - o Evaluate the possibility of supplying effluents to other **ECOPETROL** areas, if operational conditions allow.
 - o Evaluate the possibility of reusing effluents (providing to third parties) to reduce discharges, complying with current regulations (Resolution 1256 of 2021 or any amendments thereto), if operational conditions allow and it is authorized in the environmental instrument.
 - o Comply with all other applicable regulatory provisions.
- Additionally, for drilling and completion services, the **CONTRACTOR** shall evaluate the possibility of implementing best practices for managing drilling mud and cuttings using new technologies that help reduce fresh water abstraction and/or discharges and maximize water recirculation, if operational conditions allow.
- **Biodiversity:**
 - If the **CONTRACTOR** uses wood in the execution of services, it must demonstrate that it comes from recycled, reused, and/or commercial forest plantation sources. If the wood originates from natural forests, a valid forest exploitation permit is required.
 - If the **CONTRACTOR** needs to collect and/or capture flora and fauna specimens, it must ensure the necessary permits issued by the competent environmental authority in accordance with Section 2, Chapter 9, Title 2, Part 2, Book 2 of Decree 1076 of 2015, or its amendments, replacements, or repeals.
 - The **CONTRACTOR** shall ensure the preservation of flora and fauna species that are categorized as threatened or vulnerable.
 - The **CONTRACTOR** shall avoid conducting activities in protected areas or zones of high biodiversity value, mitigating impacts and preventing mismanagement.
 - The **CONTRACTOR** shall prevent the introduction of non-native species and identify whether its activities pose threats to local flora and fauna.
- **Noise:**
 - The **CONTRACTOR** must ensure compliance with the national regulation on noise emissions, in accordance with Resolution 0627 of 2006 of the **MINISTRY OF ENVIRONMENT, HOUSING AND TERRITORIAL DEVELOPMENT** (now MADS), which establishes the national standard for noise and environmental noise emissions. The noise limits established therein must be complied with at the facility boundaries, in accordance with the zoning 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, in order to soundproof and attenuate the levels of noise emissions and sound impact at the source, so as to reduce noise levels in the surrounding areas and communities to the levels established in the aforementioned resolution.
- **Air emissions:** The **CONTRACTOR** must ensure compliance with national regulations regarding emissions of air pollutants, and mitigate emissions so that air quality is not affected in the areas where the activities are carried out:
 - With respect to emissions from internal combustion engines for power generation and external combustion activities, where applicable, the **CONTRACTOR** must comply with the provisions of Article 4, Admissible 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 admissible emission standards of air pollutants from stationary sources and issues other

provisions.

- Establish a strategy for the control of particulate matter on tertiary roads used for the mobilization of machinery, equipment, and supplies during the execution of activities.
- For mobile sources, comply with the provisions of Resolution 0762 of July 18, 2022, of MADS.

2.1.4. Change management

The **CONTRACTOR** shall ensure that any modification made to equipment, infrastructure, implementation of new technologies or new processes, changes in operating conditions or operational procedures, or changes in personnel (minimum staffing), is documented and supported with the corresponding HSE risk assessment and analysis. To this end, the **CONTRACTOR** shall implement a change management procedure, which shall, where applicable, be consistent 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 linked to the Contract. Additionally, the **CONTRACTOR** shall promote the habit, skill, and ability to identify behaviors to be improved, review compliance with critical procedures, carry out audits, internal evaluations, among others, and take action when deviations occur.

3.2. Competence management:

The **CONTRACTOR** must ensure that its personnel are competent and trained to perform tasks in a healthy, safe, and environmentally responsible manner, ensuring compliance with legal requirements, **ECOPETROL** standards, and the Work Control Practice where applicable. The **CONTRACTOR** shall ensure that its workers and subcontractors have competency certifications for the specialties that so require; such certifications must be issued by nationally or internationally accredited institutions, in accordance with Colombian legislation and the technical specifications of the contract.

ECOPETROL may request the replacement of personnel when the **CONTRACTOR** does not demonstrate that the worker has the competencies to perform the tasks requested in

the Method of Selection documents. The **CONTRACTOR** may not invoke as just cause for termination of employment contracts the fact that **ECOPETROL** requests their replacement.

The **CONTRACTOR** shall provide HSE induction to its workers and Subcontractors and shall comply with the provisions of the "GUIDELINE FOR PROMOTING SAFE, CLEAN AND HEALTHY WORK AT **ECOPETROL** S.A.", or the document that modifies, supplements, or repeals it, including the specific inductions defined in the operational areas, in which the **CONTRACTOR** must ensure that its workers, visitors, and suppliers are aware of: the hazards and risks of the tasks they will perform and of the environment, the consequences and the controls to be applied to prevent events that could affect their integrity, the environment, and/or the assets; the emergency response procedures that may materialize; the safety rules of the area, including specialized requirements in Personal Protective Equipment, applicable safe work practices, among others, reinforcing them as required with a minimum frequency of once per year, or whenever the standards or the specific activity to be carried out by its workers is substantially modified.

The **CONTRACTOR** shall ensure that its workers and subcontractors who perform critical activities for process safety and industrial safety hold the required accreditation and competency certification for the

specialties that so require. The certifications must be issued by nationally or internationally accredited institutions, in accordance with Colombian legislation, the technical specifications of the contract, and the requirements defined in the HSE standards.

In order to ensure workers' knowledge regarding the safe, healthy, and sustainable execution of their duties, the **CONTRACTOR** shall design a training and education matrix by position and function, including **ECOPETROL's** manuals, guides, procedures, instructions, and forms, as applicable. The **CONTRACTOR** shall keep its execution status up to date and preserve the training execution records, which may be requested by **ECOPETROL**.

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

All construction, operation, and maintenance activities involving electrical equipment and installations must be planned, scheduled, and supervised by competent personnel and executed by duly authorized personnel in accordance with ANNEX 10 of MASE – Ecopetrol's Electrical Safety Manual – and the applicable legal compliance requirements.

For the execution of complementary activities related to electrical installations or equipment, such as civil works, they may be carried out by competent non-electrician personnel previously trained in the hazards and controls for the prevention of electrical hazards as defined in MASE, always under the supervision of authorized personnel in accordance with ANNEX 10 of Ecopetrol's Electrical Safety Manual – MASE. The **CONTRACTOR** shall not access **ECOPETROL's** electrical infrastructure or installations

without due authorization from the person responsible for them. To this end, before starting activities, the **CONTRACTOR** must submit, for the issuance of the work permit, the list of qualified persons who will perform the work, attaching for each one a copy of their professional license (in the case of engineers and technologists). For technicians, they may only perform work in the Classes and Activities assigned to them under the resolution of their Professional Registration. The supplementary information to GAB-F- 214 shall be the forms defined in ANNEX 10 of MASE.

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 object and scope of the contract.

The **CONTRACTOR** shall have at least one HSE officer on the work team if the contract meets the following characteristics:

Number of simultaneous workers on a work front	HSE Function
≥20 - 200	One (1) HSE Manager and one more for every two hundred (200) simultaneous workers

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

The **CONTRACTOR** must ensure that the HSE officer, if applicable to the contract, complies at a minimum

with the following competencies:

Profile	Requirements	Minimum experience	Minimum experience related to the purpose of the contract
Engineer or occupational health professional, environmental engineer or environmental professional.	1. Occupational health or occupational health and safety license. 2. 50-hour SG-SST course certified by SENA, ARL, or an entity approved by the Ministry of labor.	4 years in HSE	3 years
Technologist in Industrial Hygiene and Safety or other technological specialties related to the purpose of the contract.		5 years in HSE	3 years

Notas:

- To ensure functions related to environmental matters in the contracts, it is not necessary for environmental professionals to hold an Occupational Health License or a license in Occupational Safety and Health.
- In the specific case of plant shutdowns at VRP, the Engineer or Occupational Health professional must have a minimum of four (4) years of HSE experience in process plants and must have participated in at least three (3) plant shutdowns in the hydrocarbons and/or petrochemical industry.
- In the specific case of plant shutdowns at VRP, the Technologist in Industrial Hygiene and Safety or other technological specialties related to the purpose of the contract must demonstrate at least five (5) years of HSE experience in process plants, or in five (5) plant shutdown contracts in the hydrocarbons 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. In addition, the **CONTRACTOR** must have documents for the critical activities and tasks under the Contract; in both cases aligned with the Guide for the Management of Operational Documented Information or the document that amends or repeals it. Depending on the nature of the contracts, the following situations may arise:

- Documents owned by **ECOPETROL** and delivered to the **CONTRACTOR**: In this case, **ECOPETROL** provides the documents to the **CONTRACTOR** under an information confidentiality agreement, and the **CONTRACTOR** must comply with the stages of Communication and Compliance under its management system, as defined by applicable Colombian legislation and the Guide for the Management of Operational Documented Information or the document that amends, complements, or improves it.
- Documents owned by the **CONTRACTOR**: In this case, the **CONTRACTOR** has its own documents, prepared under its management system, and must comply with the stages of availability, quality, communication, and compliance, as defined by applicable Colombian legislation and the Guide for the Management of Operational Documented Information or the document that amends, complements, or improves it.
- Documents owned by the **CONTRACTOR** requiring process technology information: In this case, **ECOPETROL** provides process technology information under an information confidentiality agreement, so that the **CONTRACTOR** may prepare the documents solely for the execution of the activities under the Contract. The **CONTRACTOR** must comply with the stages of availability, quality,

communication, and compliance under its management system, as defined by applicable Colombian legislation and the Guide for the Management of Operational Documented Information or the document that amends, complements, or improves it.

ECOPETROL may use the form HSE-F-562 "Operational Documented Information Tool Format" to assess, through observation, the implementation and application by 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 may be consulted online at the following location:

[HSE Contractor Documents](#)

5. RESOURCES

The **CONTRACTOR** shall ensure the availability of human talent, and technical and economic resources to guarantee compliance with HSE aspects derived from the execution of the Contract.

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

5.1. Management of Subcontractors and Suppliers:

In the event that the Contract allows 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 shall regularly review their compliance. The **CONTRACTOR** shall be the sole, direct, and exclusive party responsible to ECOPETROL for any accident, damage, or loss caused by the action or omission in meeting said requirements by the subcontractor or supplier.

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 knowledgeable of all HSE practices and procedures and shall instruct and supervise the visitor or supplier accordingly.

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

5.2. Asset Integrity

The **CONTRACTOR** shall ensure the prevention of hazardous fluid or energy containment losses in critical equipment within the scope of its activities, through the systematic application of standards, codes, procedures, etc., in the design, construction, supply, installation, operation, maintenance, and decommissioning of equipment and systems, ensuring that asset integrity is not compromised. The **CONTRACTOR** must comply with the manufacturers' recommendations or industry standards (API, NFPA, IEEE, ASME, ASTM, NTC, BS, Norsok, ANSI, ISA, IEC, etc.), and align with those of **ECOPETROL**.

The **CONTRACTOR** must implement the quality plan or the inspection and testing plan for the construction process, where compliance with technical specifications, the use of defined materials, the application of procedures, and the generation of required documentation are monitored.

The **CONTRACTOR** shall implement predictive and preventive maintenance programs for machinery, equipment, tools, facilities, lighting, and electrical networks under its responsibility, and shall

implement functional tests for control systems and reliability engineering in order to prevent hazardous fluid or energy containment losses; testing and inspection of equipment, tools, and facilities, and calibration of instruments.

The **CONTRACTOR** shall implement a procedure for the safe use of portable tools, their ongoing inspection and maintenance, considering the use of pre-operational checklists, the use of tools in safe working condition and, where applicable, certified; as well as the implementation of a color-coding system for the safe release of hand tools. The use of handmade tools shall not be accepted.

6. OPERATIONS

6.1. Comprehensive Emergency Management

6.1.1 Preparedness for Response

- **Emergency scenarios:** Before beginning the execution of activities or operations, the CONTRACTOR must ensure that its workers are aware of the emergency scenarios, maximum and minimum impact ranges, protection, safety, and evacuation zones, for events of different origins: technological, natural, socio- natural, electrical, environmental, medical or occupational, and other operational ones as applicable, in accordance with current national legislation, identified from the corresponding risk analyses within the scope of the activities or operations to be performed.
- **Emergency and Contingency Plans (ECP):** The CONTRACTOR must have documented, disseminated, tested, and applicable Emergency and Contingency Plans (ECP) for the facilities, sites, or areas where it will perform the activities and operations for which it has been contracted. These plans must consider all applicable emergency scenarios within the scope of the contract and those specific to the area where the work will be carried out, and must include actions and procedures for effective control and response to emergencies that may materialize. This document must be duly formalized and approved by the CONTRACTOR's Management Representative for the Contract and be available for consultation and review whenever ECOPETROL requires it.

The Emergency and Contingency Plan (ECP) must be developed and implemented ensuring compliance with applicable current national legislation, which includes, among others:

- Coordination, alert, alarm, activation levels, notification, training, and equipment and resource inventories.
- Specific escalation and communication lines disseminated to all workers, regardless of shift or rotation schemes, and tested through drills and simulations conducted jointly with other partners that may be working in the same **ECOPETROL** area.
- Carrying out drills in its work area, in accordance with its Emergency Plan, providing information about the activities planned during the contract, as well as reporting their completion.
- Measures for evacuation of facilities, response to occupational accidents, pre-hospital care (PHC) and medical evacuation (MEDEVAC), considering access, geographic location (river, air, land), and nationality, since for foreign personnel the use of insurance and other applicable provisions for medical care must be included. For pre-hospital care and MEDEVAC procedures, these must be validated prior to the start of activities by the corresponding ARL (Occupational Risk Administrator) or its equivalent.
- Rescue actions in the execution of critical tasks, control and response to technological events (containment loss, fires, spills, explosions, incidents with hazardous materials – HAZMAT), response to natural, socio-natural, environmental events, and other operational events such as those that may arise in land or river transport of personnel, among others, and all other measures that facilitate emergency response.

- **Roles, responsibilities, and competencies:** The **CONTRACTOR** must define the personnel and organization required to carry out emergency preparedness and response activities, in accordance with legal requirements, as defined in its Emergency and Contingency Plan and in the joint or coordinated actions with **ECOPETROL's** operation.

The **CONTRACTOR** shall be responsible for providing trained personnel, maintaining their skills and competencies to respond to the different emergency scenarios that may arise within the scope of activities and operations under the contract, and must form brigades to provide timely response, care, and initial control of emergencies that may occur, in order to prevent or minimize escalation.

- **Response capacity:** The **CONTRACTOR** must size and provide on-site the necessary equipment, personnel, supplies, and logistics to provide initial response to emergency scenarios that may occur during the execution of activities and operations under the contract, within the scope defined in its Emergency and Contingency Plan and other requirements **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 provide the minimum resources required to provide initial response to emergencies according to their origin, including, among others:

- Firefighting, chemical emergencies, spills on land or water.
- First aid kits supplied in accordance with the types of injuries that may occur to personnel and as defined in its own care procedures (e.g., cooling blanket for burn victims).
- Communication means with coverage for the area where activities are carried out (radios, cell phones, etc.).
- Ground, river, or air medical transport in case the transfer of affected workers to health centers is required, in agreement with their ARL or equivalent, and any other necessary resources according to the type of emergency that may materialize in the execution of their contracted activities and operations, access to the work area, and geographic location.

The **CONTRACTOR** must have the agreements, partnerships, and affiliations necessary to cover the major risks identified during the execution of its activities, for the supply of equipment and services, to the extent established in the **CONTRACTOR's** and **ECOPETROL's** respective plans.

In the event that multiple contractors are working in the same area, they may establish agreements among themselves that allow for integrated support of the most critical emergency scenarios and may agree on the shared use of resources, if possible. Emergency response equipment available on site must be subject to periodic inspections to ensure its availability at all times, and the inventory of such resources must be reported to **ECOPETROL** as part of the corresponding emergency and contingency plans.

- 6.1.2 **Unified Command and Control:** To ensure the execution of emergency response, the **CONTRACTOR's** Emergency and Contingency Plans (PEC) must provide for decision- making structures or organizational charts showing who is the highest authority in the area at the time of an emergency, who will be responsible for escalating and coordinating the **CONTRACTOR's** own Emergency and Contingency Plan with the Emergency and Contingency Plan of other partners or of **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 timely initial response to emergencies that may materialize in the area where the activities and operations within the scope of the contract are carried out.

- **Deployment of protection and control actions:** In the event of any emergency regardless of its

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 persons who may be affected by the adverse event, including workers in general, communities, as well as the personnel responsible for attending the event.
 - Prevent or limit impacts on the environment and livelihoods, such as water intakes or sources for human and domestic consumption, as well as other potentially exposed elements that may be affected, identified in the corresponding response plans.
 - Control the source, contain, and recover the product.
 - Protect property and infrastructure.
- **Communication and escalation:** The **CONTRACTOR** must immediately notify **ECOPETROL**, through the defined communication channels, of any emergency occurring during the performance of its activities. Such notification must include information on the event, the course of events, and the actions implemented for its attention. Additionally, the **CONTRACTOR** must report and notify the relevant information to the competent authorities in accordance with the scope of reporting established in its Emergency and Contingency Plan.
 - **Restoration of safe conditions:** The **CONTRACTOR** must establish and agree with **ECOPETROL** on the administrative, operational, environmental, and safety criteria, in accordance with current national legislation, to declare the completion and closure of emergencies before restoring operational normality.

6.1.3 Recovery

- **Evaluation of emergency response:** The **CONTRACTOR** must evaluate the response to emergencies that may materialize during the performance of the activities or operations within the scope of the contract, in order to identify strengths and must implement improvement plans for the gaps identified in such evaluation.

7. MONITORING AND IMPROVEMENT

7.1. Evaluations

The **CONTRACTOR** will be evaluated under the HSE aspects criterion in accordance with the current **ECOPETROL** Contractor Performance Procedure or any that may replace, supplement, or repeal it.

ECOPETROL, either directly or through a designated third party, may carry out periodic inspections at the site where the **CONTRACTOR** performs the work, in order to verify compliance with the regulations on health, safety, environmental, and property protection, for which purpose the respective authorization is hereby granted.

The **CONTRACTOR** must include in its HSE plan the internal evaluation program and shall have available the results of the internal evaluations or audits, together with the corrective and preventive actions to control and mitigate HSE risks; and shall allow **ECOPETROL** access upon request, to carry out 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 this subject matter and with ECOPETROL's HSE incident management procedure, or any that may replace or repeal it. In the event of an HSE incident, the **CONTRACTOR** shall immediately notify verbally its supervisor and/or the area manager, as well as **ECOPETROL's** occupational safety, process safety, and/or environmental professionals, depending on the impact caused by the event.

The initial incident report must be documented within **ECOPETROL** within **24 hours** after the occurrence of the event, in the platform defined by **ECOPETROL**.

7.3. Information for HSE Performance Indicators

The **CONTRACTOR** shall upload monthly, within the first four (4) calendar days of the following month, the HSE information (hours worked, kilometers traveled, number of workers, days of absence due to occupational illness, training hours, among others) in the IT tool defined by **ECOPETROL**.

Delivery of HSE Documents for the Start of Contract Execution

For the signing of the Contract Start Record, the **CONTRACTOR** must deliver:

- i. HSE Plan in accordance with the activities subject to the contract.
- ii. Certificate of completion of occupational entry medical examinations and fitness of the workers under its responsibility.
- 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 competence certification for the specialties that require it, issued by nationally or internationally accredited institutions, in accordance with Colombian legislation.
- iv. Environmental permits or licenses required to execute the work, when expressly under the **CONTRACTOR's** responsibility.
- v. Certification of the Company's or Work Center's Risk Level classification in accordance with the Contract to be executed (Certification of the ARL, in accordance with Article 2 of Decree 1607 of 2002), when applicable.

NOTA: Obligations ii and iii are fulfilled through their declaration in the Certification of Compliance with Profiles GAB-F-214 or the document that replaces it. The **CONTRACTOR** shall keep the respective supporting documents available at the site of contract performance for verification by ECOPETROL upon request.

FIRST PARAGRAPH. The **CONTRACTOR** acknowledges that it shall be solely responsible for any damage or deterioration, even if minor, that may arise due to its actions or those of its workers, dependents, or subcontractors, to the air, waters, soil, human health, animal or plant life, or pollution or damage to highways, internal roads, streets, swamps, rivers, streams, parks, green areas, residential areas, and equipment or plants, as a consequence of the performance of its work, and shall fully reimburse **ECOPETROL** for the amounts it may have to pay for any reason due to such damages.

SECOND PARAGRAPH. The **CONTRACTOR** must provide all necessary protection systems to safeguard the people and property of ECOPETROL and third parties, being directly liable for any damage caused during the execution of the Contract, for which purpose it accepts in advance the corresponding deductions, without prejudice to the guarantees granted under the Contract. It shall avoid any nuisance that its work may cause to the community, to **ECOPETROL**, or to its workers.

THIRD PARAGRAPH. Any violation of the regulations on health, environmental protection, and property management during the execution of the work shall be immediately corrected by the **CONTRACTOR** at its own cost and risk. If the violation is not corrected, the parties, in application of the principle of autonomy of private will, authorize ECOPETROL to suspend the work totally or partially until

such correction takes place, with the CONTRACTOR bearing all costs associated with the suspension.

The **ECOPETROL** official, or whoever acts on its behalf and orders and/or determines the suspension, shall put it in writing, recording the date, time, and reasons for the decision, assuming responsibility for the matter, and shall immediately inform the Contract Administrator and Inspector, as well as the Work Permit Issuer, if applicable. Additionally, the **CONTRACTOR** shall ensure 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's** right to impose the penalties stipulated in the Contract for non-compliance with the obligations arising therefrom.

FOURTH PARAGRAPH. In the event of a breach of the HSE obligations stipulated in this Annex, ECOPETROL may apply the monetary penalties agreed upon in the Contract, without prejudice to its right to terminate the Contract early, in accordance with the applicable procedure. The CONTRACTOR declares that it is fully aware of and accepts this power upon assignment and execution of the Contract, without any reservation or condition.