

SUPPLY MANAGEMENT HSE MANAGEMENT

GAB-G-012 Prepared Version 3

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AT ECOPETROL.



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1. OBJECTIVE

Establish the requirements and obligations for HSE Management (Occupational Health, Industrial and Process Safety, and Environment) of ECOPETROL S.A. in the Supply Management process in order to ensure adequate and consistent planning, selection, initiation, execution and closing and balance of contracts, implementing a suitable control system to prevent HSE incidents associated with the activities entrusted to the contractors.

2. GENERAL CONDITIONS

The application of this guide extends to contracts whose execution or preparation is carried out within the facilities of ECOPETROL S.A. and under its operational control; also, the purchases and supplies for which the supplier includes tests, guarantees or additional services that involve one or more of the following services: i) installation and commissioning, ii) start-up, and iii) preventive maintenance (of any kind), or iv) other intrusive activities, embedded therein, which are performed within the facilities or in areas under the operational control of Ecopetrol S.A. In the latter case, the Requesting Official for the purchase or supply, reviews and adapts the requirements included herein and, once this is done, the Administrator and/or Inspector will ensure compliance with all the HSE requirements to be met by the supplier.

This document is not applicable for contracts or purchases or supply which execution or preparation take place outside the facilities of ECOPETROL S.A. and its operational control¹; in such event, the Contractor must comply with the HSE legal regulations.

On the other hand, should it be necessary to expand the object and/or the scope of a contract being performed, or to change the execution time agreed initially, it is the responsibility of the Contract Administrator and the Supply Officer, to review, validate and, if necessary, to adjust to the new conditions the definition of the maximum level of Risk of the activities of the contract and the HSE requirements thereof, and to include them in the respective contractual document; it is required to previously verify the suitability related to HSE for the third party to assume said level of risk, in accordance with numeral 3 hereunder.

3. DEVELOPMENT

The definition of HSE suitability requirements in Ecopetrol contracts is based on the classification of HSE risks, aligned with the subcategory/grouping of the service. For this purpose, document GAB-T-003 Category Tree Table, lists the service subcategory and HSE requirements as defined by the HSE Management, together with the businesses.

In line with the implementation of the new supplier management process, the verification of said requirements in the Contractor Selection Methods will be conducted during the registration and qualification of the supplier in the Ecopetrol Supplier Information System (SIPROE), according to the subcategory/grouping of the service in which it is registered, and according to what is defined herein below.

¹ Contracts developed outside Ecopetrol facilities in which, as part of its nature, it is necessary to hold meetings prior to the start-up, alignment of the contractor, and presentation of results within Ecopetrol facilities, these will be considered as executed 100% outside the Company's Facilities.





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A. IF THE MAXIMUM HSE RISK OF THE CONTRACT IS L

"Minimum HSE Requirements"

In the case of PROPONENTS operating in Colombia, the PROPONENT or ALL AND EACH member of the PROPONENT (in the case of Joint PROPONENTS), must prove that it has a Safety and Occupational Health Management System in accordance with Colombian laws; accredited by certification of its ARL issued in the last year.

B. IF THE MAXIMUM HSE RISK OF THE CONTRACT IS M, H, or VH

"Minimum HSE Requirements"

The PROPONENT or ALL AND EACH members of the PROPONENT (in the case of Joint Proponents), must prove that:

- 1. It has **any** of the following certifications, <u>associated with the nature of the contract²</u>, currently valid:
 - a. RUC, with a rating of at least 80%, issued by the Colombian Security Council, or
 - b. OHSAS 18001/2007 Certification issued by a certifying agency; or
 - c. Certification under other standards recognized by the oil industry, such as the IGS/ISM Code or Norsok S-006, or STOW, issued by a certifying agency.

Aspects to be taken into account:

- ☐ The agency that issues the certification must be recognized by the control entity of the country of origin and must be verifiable, for example, on the IAF website http://www.iaf.nu/, or on the page of the ONAC (National Accreditation Body of Colombia http://www.onac.org.co), etc.
- In case of an evaluation under the Norsok S-006 scheme, those issued in the past two years by agencies accredited for OHSAS 18001 and ISO 14001 evaluations will be valid.
- Self-Certifications or self-declarations are not acceptable.
- It has a Safety and Occupational Health Management System, in accordance with Colombian legislation, accredited by certification of its ARL issued in the last year. This is the case of PROPONENTS operating in Colombia.

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² Understanding the nature of the contract, such as the type and/or generic classification under which the object and scope of the activity that is contracted is framed; an example of this may be: construction of civil works, food service, consulting, hydrocarbon transport, personnel transport, mechanical maintenance, electrical maintenance, civil works maintenance, among others.



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C. ACCORDING TO THE QUADRANT WHERE THE SERVICE CATEGORY IS PLACED: THE PROPONENT or ONE of other members of the PROPONENT (in the case of a Joint Proponent), must accredit their experience in the subcategory of the service that is the object of the contracting. For the Lever quadrant, at least one (1) certification; for the minimum bottleneck quadrant, two (2) certifications; for the Critics quadrant, three (3) certifications.

The execution time and price of the contracts to be certified will be defined for each subcategory as part of the supply strategies.

With regard to Selection Methods in which providers not registered in SIPROE are participating, they must register and accredit the HSE requirements so that they can participate in the Selection Method once they are enabled in the tool, a circumstance that must be indicated in this type of process.

In the event that the Category Leaders or Authorized Officials consider substituting the HSE participation requirements defined for any subcategory, they must submit it to the Supply Strategies Committee for consideration with the justification and the substitute verification mechanism of the HSE suitability of the supplier, validated by HSE Management. Said verification of suitability will be valid for two years and the respective certification provided will remain in the SIPROE tool for suppler qualification purposes.

On the other hand, should it be deemed pertinent to define the HSE factors for analyzing offers for a specific subcategory, these must be submitted for consideration of the Supply Strategy Committee, including their justification. In any event, for services in which the risk in its environmental dimension is high, it will be included as an HSE factor in the analysis of offers that the PROPONENT or one of the members of the PROPONENT (in case of JOINT PROPONENTS) has ISO-14001 / 2004 or subsequent, which assigned score will be that defined in the strategy, being able to incorporate more HSE evaluation factors.

3.1 Planning Phase

Once the need for the contracting has been established, the Requesting Official must ensure that:

- (a) The contract object of planning is within the subcategories of the supply matrix and that the risk assessment indicated therein is aligned with the nature of the contract and its actual performance. Otherwise, in the first case, this should be consulted with the Supply Management or its equivalent area for inclusion of the corresponding subcategory, and also with the Vice Presidency for Sustainable and Environmental Development to define the risk in the aforementioned matrix. In the second case, this should be consulted with the HSE function of the area for final definition of the risk.
- (b) While planning M, H and VH risk services, at least one official who is knowledgeable of the activity object of the contracting should participate, who will ensure that the requirements are established so that all tasks can be completed safely, according to procedures and/or safe work practices, and that these are consistent with the essential principles and characteristics of the Process Safety Administration (PSA). Further, that the HSE function of the business or whoever assumes the role, assists in establishing specific HSE requirements, based on document GAB-F-208, guidelines for establishing specific HSE requirements in M, H and VH risk contracts, and budget parameters for HSE contract management, if appropriate.



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For such purpose, the activities to be carried out, the place of execution of the job (including support facilities such as camps and temporary offices, etc.), the work methods to be used will be identified; additionally, the lessons learned and incidents occurred in the area of execution of services and in similar contracts must be reviewed. The jobs to be performed during contract performance are analyzed to apply the best process technology and select equipment that will allow to reduce risk exposure to the lowest possible risk that is reasonably feasible. Thus, when during contract planning it is deemed pertinent, the aforementioned Annex and the contract technical specifications must include other HSE requirements to be met by operation and maintenance contractors and by those who are exposed to process risks. To such end, technical authorities related to process safety and/or the company's HSE Professional should be consulted, as necessary.

Regarding the general HSE contractual obligations to be fulfilled by the Contractor, its subcontractors and suppliers, these will be consulted in the open text application or in P8, and included in the Selection Method Documents by the person accountable for planning, according to the risk level of the contract: Annex General Obligations of the Contractor on HSE Matters with codes GAB-F-206 for contracts with L/N risks, and GAB-F-207 for contracts with M, H/VH risks.

3.2 Selection and Contracting Phase

3.2.1 Briefing and field visit: Its purpose is to clarify any doubts regarding the scope of the contract and its specific HSE requirements; these are intended for major risk contracts (H/VH), where the risks of the Selection Methods become relevant.

Its execution and the participation of the PROPONENTS will be mandatory for the subcategories that are defined.

in the matrix located in the link <u>mailto: http:</u> //gentepila/comunidades/CPRedAbastecimientoEcopetrol/Paginas/MiComunidad.aspx, and optional for the rest of subcategories. These will be carried out in accordance with that established in the planning stage and defined in the Selection Method documents by the Authorized Official.

These will be used to advise the interested parties about the dates of the meeting for clarifying doubts related to the content of the contract, as well as the dates for the reconnaissance visit to ECOPETROL facilities where the pertinent services will be performed It is the responsibility of the Requesting Official to participate, through a representative, in the informative meeting and to accompany the field visit.

The visit of the PROPONENTS to the facilities that will be used to perform the contract must be monitored by a business representative on site who knows and understands the scope of the contract; thus, the supplier can visualize in advance any critical elements, including known potential for fire, explosion, or toxic emission risks related to the work and the process (for contractors working in or near a process that contains dangerous substances); facility safety rules and procedures, including safe work practices for risk control and entry to process areas; applicable elements of the facility's emergency response and control plan.

3.3 Execution Phase

Once the contract has been awarded, and to ensure the commitment of the Contractor with all the contractual terms, including HSE commitments, alignment actions will be conducted before starting contract performance, added to the tracking, monitoring and evaluation of the implementation

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of the HSE plan during performance of duties, emphasizing direct, clear communication between ECOPETROL and the Contractor.

3.3.1 Pre-execution Activities: To clarify expectations, responsibilities and the expected scope of the HSE plan, these will be carried out in accordance with that set out in contract planning, pre-work meetings, pre- mobilization inspections, roadmaps and connecting documents.

In contracts with M, H/HV risks, during the kick off meeting or a meeting focused on HSE issues, the contractor leaders (first representative of management or contractor's supervision), the contract Administrator, the Inspectorship, if applicable, and the HSE function, depending on the scope of the contract, will address the following aspects:

- a. ECOPETROL Comprehensive Policy
- b. HSE Objectives and goals of the contract and HSE performance indicators to be monitored throughout its execution.
- c. HSE Plan of the contracted company, specific to the contract and in agreement with the Annex related to HSE obligations.
- d. Responsibilities of each of the parties, and communication lines.
- e. Procedure and frequency of HSE meetings, verifications, inspections and HSE assessments.
- f. Personnel and equipment certification.
- g. HSE Reports and frequency of issue.
- h. Legal requirements and internal HSE regulations of ECOPETROL, as well as data and guidance related to HSE risks, characteristics, demands and difficulties, inherent in the scope of the contract.
- i. Verification of compatibility of emergency procedures and response plan of the Contractor vis-avis those of ECOPETROL.
- j. Scope of the procedure to be implemented for work monitoring.
- k. Location and condition of provisional facilities, if applicable.
- I. Review all of the environmental license, the administrative acts and commitments, should it be applicable.

In the minutes of the meeting, it is required to identify and register the representatives of ECOPETROL and of the contractor who will be facilitators for HSE issues throughout the term of the contract.

Note: For hiring **short term services** (which duration is less than fifteen calendar days per year and risk is rated N, L and M); or in case the formalization in writing of the contractual instrument is impossible (for example, in case of Emergency or Rush):

- a. The execution of the service will be accompanied, through a representative of **ECOPETROL**, formally appointed during the contract kick-off meeting.
- b. The **CONTRACTOR** will be provided with the basic HSE information of the area or facilities where the work is to be conducted, as well as the applicable emergency procedures, the site risks and the work control scheme. Based on the information provided, the **CONTRACTOR** will prepare its HSE Plan pursuant to the scope of the **Contract**, with the following structure:
- 1. Panorama of risk factors, identifying the hazards that can affect the integrity of the workers engaged in the contract to be performed, the environment and/or infrastructure, and the control measures to be implemented.
- 2. The emergency plan, including MEDEVAC and response capacity in case of emergencies throughout performance of the Contract.



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- 3. List of critical jobs and the respective procedures and instructions on safe work for each of them, including risk assessments and competence certificates for the specialties so requiring.
- 4. Inspection and maintenance program for tools and equipment, if applicable.
- 5. Procedure for management and disposal of domestic and industrial waste, if applicable.

NOTE: Regardless of the foregoing, compliance with all applicable legal requirements - or of other nature, as applicable, is required.

- **3.3.1.2 Mobilization:** Before the mobilization of equipment, in the event that this activity is under the operational control of ECOPETROL, the Contractor must present a mobilization plan and make sure that all the personnel involved comply with the basic training, including specific inductions at the work site. Furthermore, the ECOPETROL areas and/or facilities to be used by the contractor, as applicable, will be delimited to secure their administration and supervision.
- **3.3.2 HSE meetings and committees:** In order to advise the Contractor about its performance results, and to clarify any doubts related to the expected HSE management, it is necessary to always implement a permanent communication strategy or plan for the contract. Thus, in a systematic manner, the Contractor, the contract Administrator and the HSE function Inspector, when applicable, must analyze the incident and accident investigation reports, and the potential incidents occurred to the Contractor, the trends of Behavior Assurance. the outcome of performance inspections and evaluations, so as to provide feedback with recommendations and possible improvement to the Contractor.

Furthermore, committees will be established with contractors in the different areas, led by the HSE function, aimed at achieving their alignment with ECOPETROL's comprehensive policy, identifying their best practices implemented, sharing HSE lessons to be learned, highlighting good performance, and reviewing action plans based on the improvement opportunities identified throughout contract performance. (See Annex 1).

3.3.3 Monitoring and verification: The monitoring and verification of the Contractor's performance includes tracking compliance with contractual obligations, HSE audits, scheduled and unscheduled inspections, behavioral assurance, follow up on HSE indicators, performance evaluations, and other.

The evaluations and monitoring must ensure the operating discipline relative to compliance with the following items:

- a. Operational procedures and emergency response, including drills.
- b. Work control procedure, including the training plan of modules in the work control manual, when applicable.
- c. Applicable legislation and HSE contractual requirements
- d. Action plans associated with fulfillment of contractual objectives and goals and requirements set out by ECOPETROL
- **3.3.4 Demobilization:** The Contract Administrator and/or Inspector shall define, together with the contractor, the demobilization strategy. For such purpose, they will assess HSE risks and their controls and identify legal and ECOPETROL requirements that need particular follow-up, to which end they can rely on



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the HSE function of the Area. The contractor's resources, organizational structure and implementation of HSE plan must be upheld during demobilization.

3.4 Completion or Closing Phase

3.4.1 After-contract evaluation: The consolidation of Contractor performance evaluation for all levels of risk will be carried out after the completion of the services or works, and it must consider the records of inspection results, verifications, audits, meetings, all in agreement with the performance procedures for Ecopetrol contractors.

In the case of H and VH risk contracts, the results will be communicated to the Contractor in a formal feedback meeting, which will be promoted by the Contract Administrator and, if necessary, will involve the Financial Controller (as appropriate), the HSE function, and the representatives of ECOPETROL areas involved, together with the Contractor's HSE and operations representatives. Said meeting will be registered in the minutes, documenting all the points discussed, and then sent to the Contractor's representatives to formalize the conclusion of the contract, disseminate the information to the interested parties, and enter the registration in SAP. It is relevant to register both, improvement opportunities of the contractor management process, focused on ECOPETROL's HSE, and those related to the own HSE management of the Contractor.

3.5 Roles and Responsibilities

The following are the roles, responsibilities and critical knowledge associated with Contractor Management - HSE focus of ECOPETROL. For further details, see Annex 2, RACI Matrix of HSE Management for activities contracted at Ecopetrol S.A.

Furthermore, Annex 3 describes the HSE technical requirements to be included in Inspectorship contracts. In such cases, it is prohibited to contract any support or Inspector exclusively dedicated to HSE without approval from the Safety and Occupational Health Management.

General roles and responsibilities associated with Contractor HSE Management

ROLE	RESPONSIBILITIES	KNOWLEDGE
Participants of Contractor Management Subcommittees	Show proactive leadership in the continuous improvement process of Contractor Management - HSE Focus.	Understanding of the guidelines contained in this Guide and those in ECOPETROL Contracting Process.
Line Leaders: Managers/Superintendents/Heads/INsitu Leaders	 Ensure in his responsibility area the evaluation of Contractor Management - HSE Focus. Identify and correct, through its work teams, the gaps in Contractor Management - HSE Focus. Lead HSE committees with the Contractors. 	Understanding of the guidelines contained in this Guide and the HSE Management model of ECOPETROL S.A. Education in Leadership and ASP Culture for middle management.



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ROLE	RESPONSIBILITIES	KNOWLEDGE
Contract Administrator	 Will lead the ECG of the Contract. Will promote with the contractor team work and organizational empowerment. Will manage the HSE performance evaluation process of the contractors. Will apply clauses relative to sanctions or fines. Will lead the HSE meetings of his contracts. 	Understanding of the guidelines contained in this Guide and the HSE performance evaluation of the contractors. Operations and maintenance contract administrators, training on Leadership and ASP Culture for middle management.
Inspectorship or its equivalent (in contracts where there is no Inspector, the equivalent role is that of Adminsitrator)	Carry out monitoring and control of the healthy, safe and clean fulfillment of the contractual object.	Training on: Management of Incidents and Control Failures; Administrative Work Control and Behaviors Assurance. Inspectors of operations and maintenance contracts, Training on Leadership and ASP Culture for middle management. Knowledge of HSE Performance Evaluation of the contractors.
HSE Function of the Business/Project or its equivalent	Provide HSE technical support for managements and Administrators and Inspectors secure risk management associated with contractors' operations, in accordance with that established in the RACI matrix.	Training on: Contractor Management - HSE Focus, HSE Regulations, BASIC ASP, Work Control, Management of Incidents and Control Failures, and Behavioral Assurance.
Thematic Leader of HSE Management	 Issue instructions and define control mechanisms. Advise the HSE Function of the business and the command line on the application of this document. Assess the adherence to the Guide by the business units, identifying deviations. The gaps identified feed business annual plans and process improvement. 	Competent with respect to the guidelines contained in this Guide, the HSE performance evaluation of the contractors and the HSE Management model of ECOPETROL S.A.

4. GENERAL CONDITIONS

Not applicable



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LIST OF VERSIONS

	Previous document						
Version	Date	Old Code and Title	Changes				
		ECP-DHS-G-043-	Document update: additions to numeral 3.1 Resources for HSD Management; modification of numeral 3.14 Definition (scoring) and change of acronym ARP for ARL				
	New Document						
Version	Date		Changes				
1	13/02/2015	Change of HSE factors in of For alignment with Genoma	ffer evaluation, updating of RACI matrix processes.				
2	07/07/2016	Alignment with new Supply Management process. Adjustment of the RACI Matrix to the Contractual Execution Model. Inclusion of annexes related to HSE committees with contractors and technical HSE requirements for Inspectorship contracts at Ecopetrol.					
3	28/12/2017	Alignment with the new sup	oply process.				

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Document signed electronically, in accordance with that provided for in Decree 2364 of 2012, whereby it regulates article 7 of Law 527 of 1999, concerning electronic signatures and other provisions are set out.

To verify compliance with this mechanism, the system produces an electronic report showing the traceability of review and approval actions by the responsible parties. If you need to verify this information, request said report from the Service Desk.

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ANNEX 1 HSE committees with contractors

Next, the parameters under which the HSE Committees will be held with contractors at the company area level, different from the contractual meetings established by the contract administrator for the optimal execution of the work or service.

1. Scope of the committees. Two possibilities for HSE committees with contractors are considered, which descriptions are shown in Table 1.

2. Typical meeting agenda

No	THEME	RESPONSIBLE COMMENTS		TIME SUGGESTED (min)
1	HSE Moment	Leader	It is recommended to present the lessons learned lesson learned from a high potential incident at ECP.	15
2	Policy Review ECP objectives and goals	Leader	Include a board of HSE indicators and analysis of trends.	10
3	Review the status of the commitments	Leader	Por non-compliances, agree on recovery actions, Include indicators	20
5	Central theme	Contractors	Previously select one or more various experiences from contractor companies to be presented; related to the central theme chosen	30
6		Representative of Ecopetrol	Central theme previously established	30
7	Recognition of the HSE meeting of the Contractors	Representative of Ecopetrol	The leaders of the meeting will define the manner in which it will perform the recognition-	35
8	Reading and agreements of new commitments	Secretary		20
9	Meeting evaluation	Leader and Secretary		10



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Туре	Objective	Duration	Minimal Frequency	Target Contractors	Participants For Ecopetrol	For the Contractor
A. At Operations Vice Presidency Level	Review HSE performance and results, perform alignment of policies, goals and objectives of ECOPETROL with those of contractors and communicate good practices.	Three (3) hours	Annual	High-Impact contractors for: Contribution of contract to the achievement of business results. Number of workers.	Vice President, Managers and Leaders of supply category. Administrators of target contracts. HSE functions support of the Vice Presidency	General Manger or contract manager; optional support of the Contractor's HSE Leader
A. Management/ Projects Level	HSE Performance and Results Review for the period; alignment of policies, goals and objectives, and communication of good practices. Planning of activities and review of standards, programs and campaigns.	Two (2) hours.	Every three months.	The Contractors are invited by ECOPETROL according to their level of impact on the performance of the management or project.	Managers, operational or project leaders / Representative of the Contractors Subcommittee / Contract Administrators and Inspectors by invitation / Representative of the HSE Department or GIRO.	Responsible for contract at the field (first representati ve of the operational line). Optional support of the Contractor's HSE Leader.

3. Start of the committees

Aimed at structuring the meetings properly, the following will be reviewed:

- ✓ Contractual commitments
- ✓ Legal and regulatory obligations
- ✓ Preventive and reactive indicators established goals.
- ✓ Commitments from previous meetings.
- ✓ Accident investigations.
- ✓ Lessons learned.
- ✓ Good practices implemented by the contractors.
- ✓ Central theme and key messages that the organization will manage at the level of Vice Presidencies, and at Managements thereof, in order to uphold uniformity.
- ✓ Others according to the nature of the theme to be addressed.

4. Closing of the committees.

The following are considered as expected results from the meetings:

- ✓ Support documents according to the assurance theme discussed.
- ✓ Commitments form the meeting
- ✓ Adjustments to the action plans, if applicable
- ✓ Other according to the nature of the central theme addressed

5. Committee records.

As deliverables of systems used with contractors, there will be:

- ✓ Minutes of the meeting in Ecopetrol format
- ✓ Evaluation of the Meeting in the meeting portal
- ✓ Meeting Agenda Invitation by mail
- ✓ Presentations used in the meeting, including revised indicators
- ✓ List of commitments in portal and tracking thereof.
- ✓ Attendance roll, in Ecopetrol format



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ANNEX 2. RACI Matrix for HSE Management of contracts at Ecopetrol

ROLES AND FUNCTIONS *	official	ADMINISTRATOR	ANALYST STATEMENT OF THE STATEMENT OF TH	RESPONSABLEDELAR EA(*)	TO THE WEST OF THE STATE OF THE
PLANNING					
Structure the planning team including the HSE function for M, H and VH risk contracts	R				
Define contractor HSE specific obligations, in accordance with ECP internal regulations	A I				R
SELECTION AND CONTRACTING					
Participate, through a representative, in the briefing and field visit when applicable.	A R				
EXECUTION					
Guarantee deployment of the HSE management model,					
guidelines, procedures, corporate programs, rules and standards of ECOPETROL, and of the Contractors.		I	I	Α	R
Secure execution of Phase III of the FTLS program.		I	I	R, A	С
Validate the HSE plan (for M and H/VH risk contracts), verifying its agreement with the scope of the contract.		Α	С, І	I	R
Monitor the healthy, safe and clean service of the contractors in					
his area, reporting any deviation to the inspector or his			_	ъ	Colt.
equivalent.		Α	I	R	C*
Follow up contractors' HSE and effectiveness of the action plans					
and improvement relative to the findings from evaluations, audits, inspections, behavior assurance, incident reports, etc.		Α	R	С	C*
Lead the HSE performance evaluation of the contractor in			TX.		
accordance with the established procedure.		Α	R	С	C*

CONTRACTO	OR MA	NAGE	MENT	GUIDE - HS	E FOCUS			
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Review the HSE self-management report submitted by th contractor related to M, H, VH risk contracts.	e		Α	R	C	C*		
Manage delivery by the contractors of information ner for the Environmental Compliance Reports (ICA), RU/Environmental Register of the Hydrocarbon Secto IDEAM), Control Bodies Reports, and environmental incestablished in the Green Contracting Clauses, as applicab Secure control, during contract commencement termination of documents that evidence compliance Contractor's HSE management, and their remittance central archive.	A (Sole r with dicators le. t and e with		R A,R	C		I		
COMPLETION OR CLOSING								
Upon completion of the H/VH risk contracts, gather lesso learned that could give rise to improvement in HSE management of Ecopetrol contracts, registering them in pertinent corporate site.		I	A, I	С	I	R		

R:_ Responsible A: Guarantor/Accountable C: Consulted/*Support I: Informed

(*) Heads, Coordinators or Supervisors of the area where the contractor is to perform the contract.

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ANNEX 3 HSE technical requirements for Inspectorship contracts at Ecopetrol.

The HSE functions of the Inspectors, the deliverables of their execution, the training required for performing the tasks, and the service quality indicators are described below. These considerations will be recorded as technical requirements in all the Inspectorship contracts entered into by Ecopetrol.

It is to be noted that the inclusion of Inspectors or any support with an exclusive role in HSE in said contracts, requires the prior approval of HSE Management, without prejudice to the authorizations of the Supply Management for inspections contracted with third parties.

FUNCTION	DELIVERABLE/EXECUTION SUPPORT	FORMATION*	COMMENTS
Follow up the HSE performance of the contractors and the effectiveness of the action plan and improvement of findings derived from evaluations, audits, inspections, behavior assurance, incident investigation, etc.	Randomly reviews of the three FTSLS phases om the contract tracking folder. Behavior assurances and/or observation walkthroughs uploaded in the tool designated by ECP (at least one/week). Results of HSE inspections of work locations (at least one/month); contractor action plans and closing follow up supports in the contract's folder. Incidents and their management, uploaded in GRI or the technological enabler established by ECP, within the timing established by ECP, within the timing established by ECP's procedure. Results of the review of the four phases of Operational Discipline (O.D) of the critical procedures of the contract, when applicable.	Knowledge of HSE Annexes and the obligations and prohibitions relative to the Environment, including those contained in the Environmental Assessments and administrative acts applicable to the contract. Training on hazard identification, risk assessment, implementation of controls that are specific to the contracts managed, and incident investigation. Behavior assurance, behavior-based safety or similar, including behavior analysis vs accident rates. Knowledge of the procedure for ECP Management of Control Failures and Incidents. Instructions for Promoting Safe, Clean and Healthy Work (GHS-I-008) and Operational Discipline of Ecopetrol.	Training pm hazard identification, risk assessment and implementation of controls must be face to face for at least 3 hours, provided by the ARL, or another competent person or entity. There should be a refresher session of at least one hour every three months throughout service performance. As regards ECP work control, the inspectorship company will establish knowledge multipliers, to whom Ecopetrol will provide basic training by Ecopetrol or that of modules in the Work Control Manual during the first fifteen days once the contract has been signed. NOTE: The Inspectors authorized by the contract to issue Work Permits on behalf of Ecopetrol must be trained for that role, after performing the job, according to the provisions of the Work Control Manual of ECP.



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Participate in the deployment of the HSE	Meeting minutes, attendance rolls in the	According to that requested by the HSE
management model, guidelines, procedures,	Inspectorship Contract folder, supporting the	Departments or their equivalent throughout the
corporate programs, HSE	involvement of the	term of the contract.
rules and standards of	inspectors in the settings	
ECOPETROL, when requested.	requested by Ecopetrol.	
Review the HSE self-	Communications for	
management report of the	validation or request of	
contractors (M, H and VH	adjustments, if applicable,	
risk contracts) under his	filed in the contract's	
responsibility.	folder.	
Manage delivery by the contractors of information	Information sent to the business HSE Function and	
required for:	uploaded in the contract's	
Environmental Compliance	folder.	
Reports (ICA), RUA		
(IDEAM's Sole		
Environmental Register of		
the Hydrocarbon Sector),		
reports to Control Bodies		
and environmental indicators established in		
the Green Contracting		
Clauses, as appropriate.		
Ensure, during the	Information on contracts	
execution and completion	that is of good quality,	
of the contract, the control	comprehensive, true and	
of documents evidencing compliance with the HSE	timely, uploaded om the platform and according to	
management system of	the frequency defined by	
the Contractors and their	Ecopetrol and/or in the	
remittance to central	contract's folder, as	
archives.	applicable.	
	Memorandums sending	
	information to ECP0s	
	Documentary Management Contractual	
	Management. Contractual alerts, in the contract's	
	folder.	
	NOTE: When there are	
	observations from the	
	contractor, a	
	communication will be	
	issued with well technically grounded	
	answers.	
	answers.	

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- ✓ Ensure the effective deployment of training to its workers.
- ✓ Uphold knowledge and keep the inspectors up to date in case of changes in Ecopetrol regulations throughout the provision of the service.
- ✓ Advise the Inspectors regarding changes to the HSE legal regulations, and carry out yearly updates thereon.
- ✓ Carry out the closing of knowledge gaps of its workers, identified as a result of investigations, audits, evaluations, inspections and follow-ups conducted by Ecopetrol, and the periodic evaluations that the contractor must perform with its workers as part of the service. Said actions will be reflected on the person-competence matrix.

NOTE: In accordance with the identification of hazards and risks of the areas where the Inspectorship service is to be provided, the request for special PPE will be secured in the technical specifications, namely:

fireproof trousers, mask for organic and/or acidic vapors, as well as the need to have personal H2S, SO2 monitors, when applicable.

SERVICE QUALITY INDICATORS

The Operational Efficiency KPIs for this type of contract will be aligned with the HSE objectives of the business/project area. and will include the following:

^{*} The contractor shall maintain control of the training matrix by Inspector. Once the multipliers receive the training given by Ecopetrol or the respective modules, it is the contractor's responsibility to:



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INDICATOR	DESCRIPTION	COMPLIANCE ASSESSMENT	GOAL*	SCORE*
Compliance Percentage	%TRIF=(Σ Contracts/Project s not meeting TRIF) =(Σ Contracts/ Projects 100%	It is considered that a contract/project meets the TRIF when the contractor's results in the contract of the managed project is less than or equal to the established TFIR limit.	the established	5
Percentage of findings management	compliant with management of HSE findings close)/	It is considered that a contract/project fulfills management for closing findings resulting from evaluations, audits, inspections, incident investigations when all the management support are of good quality, complete and entered as per the established sites and timing.	contract/Project compliant with the management of findings.	
		established sites and tilling.	TOTAL	15

^{*} The scores and goals are suggested and must be defined by the businesses.

^{*} If the established goal is not met as per the indicator, the assigned score is 0.