



VALE

Health, Safety and Environment (HSE) Guide for Vale Suppliers

Reference Document:
PNR-000067 - HSE
Management Procedure for Vale
Contractors – Version 06



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1 INTRODUCTION

1.1 Purpose

Informing suppliers about Health, Safety and Environment (HSE) requirements necessary for them to qualify to provide materials and services to Vale or any of its affiliates (subsidiaries, controlled companies, affiliates, or companies subject to common control with Vale), assisting bidders in the preparation of Technical and Commercial Proposals, as well as in the elaboration of the HSE programs. The requirements contained in this document extend to subcontractors.

1.2 Application of the guide

This document applies to suppliers that are in the qualification or competition process or that already execute controlled activities at Vale. In the case of uncontrolled activities, the applicability of Vale's HSE requirements will be defined by the contract manager and the local HSE area.

All requirements presented in this guide and those defined in the Technical Specification or Technical Requisition of the contract must be entirely observed by the contractors and subcontractors in the contract mobilization, management, and demobilization steps at Vale.

By signing a contract or amendment with Vale, the contractor agrees to act in accordance with Vale's HSE rules. Vale will inspect the performance of contractor employees, demanding documentation, training, and commitment to the matter in the execution of activities.

The HSE requirements in this guide are mandatory, as well as the local legislation, which will prevail over the guide. Failure to comply with any of these requirements will represent a serious fault, subject to penalties.

1.3 Vale Production System – VPS

The VPS (Vale Production System) is the path we must take to become a safe and reliable company. It strengthens Vale's organizational culture through people development, best practice standardization, operational discipline, and routine fulfillment.

The VPS is focused on results and provides deep and comprehensive implementation of policies and practices to make safe and environmentally responsible operations feasible and assure the integrity of our assets.

The VPS contains practices that must be adopted daily by all Vale employees and contractors and are based on three dimensions: leadership, technical and management, which have 17 elements, as shown below.



Elements		
<p>Leadership</p> <ol style="list-style-type: none"> 1. Leadership Behaviours and Commitment 2. People Management 3. Organizational Design 	<p>Technical</p> <ol style="list-style-type: none"> 4. Risk Perception and Risk Management 5. Health, Safety, Environment and Community (HSEC) 6. Projects and Construction 7. Operations 8. Maintenance 9. Change Management 10. Systems and Technology 11. Supplies and Services 12. Emergency, Crisis and Business Continuity Plans 	<p>Method</p> <ol style="list-style-type: none"> 13. Strategy Deployment 14. Routine Management 15. Processes and Standardization 16. Problem Solving and Continuous Improvement 17. Assessment of Management System and Results

It is a model under constant evolution, which consolidates and continuously improves in its approach, methods, techniques, and tools used according to the obtained knowledge.

Suppliers may use their own HSE Management System, tools, and documents, if they meet the mandatory requirements of the VPS and are formally approved by the Vale team at the Kick-off meeting.

1.4 Golden Rules

In line with our “Life matters most” value, Vale's Golden Safety Rules are shields that protect our lives. There are 10 standardized and mandatory Rules worldwide for all Vale areas, whether operational, projects or administrative.

Violations of the golden rules will be addressed in internal committees to be assessed on a case-by-case basis, as well as applying the consequence policy, when applicable.

Suppliers must make their employees fully aware of the Golden Rules and the need to fulfill them.



1. Alcohol and other drugs - Fitness-for-work

Never work under the influence of alcohol, drugs, or substances that reduce fitness for work.



2. Working at height - CAR 01

Never perform work at height ($\geq 1.8\text{m}$) without proper training, authorization, and always use a safety harness secured to an appropriate anchor point.



3. Vehicles and mobile equipment - CAR 02 e 03

Never operate motor vehicles or mobile equipment without proper training, authorization and safety devices. Respect the traffic plan.



4. Lockout, Tagout and Zero Energy - CAR 04

Never perform maintenance or interventions on installations or equipment without confirming that all sources of energy have been blocked, identified and tested to be in a state of "zero energy"



5. Lifting Loads - CAR 05

Never place yourself under a suspended load or enter an isolated area. Only use certified lifting devices.



6. Confined spaces - CAR 06

Never work in a confined space alone, without training, authorization, an entry permit and appropriate PPE.



7. Restricted areas - Operational discipline

Never enter into production areas, tailings areas, electrical rooms/substations or any other restricted areas without authorization.



8. Tools and equipment - Operational discipline

Never use improvised or faulty tools, machines, or equipment to execute work.



9. Risk analysis - Operational discipline

Never perform any work without understanding the risks and comply with all required controls.



10. Electronic Devices - Operational discipline

Never use cell phones or other electronic devices while using equipment or in an operational area where they are unauthorized and while using stairs and crossing streets.

Para mais informações sobre as regras de Ouro, consulte o site:

<http://www.vale.com/brasil/PT/aboutvale/our-commitments/Paginas/default.aspx>



2 GENERAL GUIDELINES

Vale values the physical integrity of contractor employees who perform activities in its areas, providing a healthy and safe environment. Vale has established minimum HSE requirements that should be considered by all companies during the bidding step to ensure compliance during the term of the contract, such as:

- i. Employees of contractors and subcontractors must not access Vale's own areas or third-party areas on behalf of Vale without proper authorization;
- ii. The contractor is responsible for coordinating the services of its subcontractors;
- iii. Working hours, rest periods and breaks must be observed as defined in local legislation or specific agreements;
- iv. For the dimensioning of the HSE field teams, it is important to consider the local legislation, the geographic dispersion of the service fronts and the number of employees.
- v. Vale may interrupt any work whenever there is a serious and imminent risk to the health and safety of people, facilities, the environment, and community, until the risk conditions are eliminated or controlled.

2.1 Legal and Other Requirements

The contractor must meet the legal and other HSE requirements applicable to its activities, products, and services, and under no circumstances may it claim ignorance of them. If there is overlap between local legislation and Vale's internal rules, the most restrictive and comprehensive rules in relation to HSE should prevail.


All documents proving compliance with the legal and other requirements related to the scope of the contract must be available at any time for the purposes of internal or external inspections or audits.

During the effective term of the contract, the contractor shall assure that legal non-conformities and/or non-conformities that impact HSE processes are identified, recorded, followed, and solved efficiently, avoiding their recurrence, with Vale being allowed to assess the implications of this non-conformity with the law.

2.2 Leadership, roles, and responsibilities

The contractors are responsible for:

- i. Implementing HSE processes and programs according to local legal requirements, the HSE Guide for Suppliers and Vale's specific HSE guidelines described in the Technical Specification or Technical Requisition;
- ii. Demonstrating active leadership, through participation, promotion of HSE activities and initiatives, engaging all employees, in addition to ensuring the resources and support necessary for effective management;
- iii. Conducting field inspections at least as defined by Vale's contracting area;

- 
- iv. Performing critical analysis of inspections, non-conformity actions, implementation and functionality of controls related to the activities under their responsibility and demonstrating the continuous improvement of HSE performance;
 - v. Participating in HSE meetings according to the schedule established by the contracting area and in the Technical Specification or Technical Requisition;
 - vi. Implementing the Golden Rules
 - vii. Communicating any occurrence of events (personal, material, environmental or involving the community) to Vale's contract manager or inspector and HSE area and participating in the analysis thereof in accordance with Vale's standards
 - viii. Sharing knowledge and lessons learned with Vale and contractors' employees;
 - ix. Collecting and consolidating information and HSE indicators of the company, making them available.

2.3 Documents, records, and information

The contractor must ensure that HSE documents and records, updates, and information regarding compliance with HSE legislation and standards applicable to the scope of the contract are available (in physical or electronic media) and managed during the execution of activities, for inspections or audits.

Location-specific information or documents are made available in the Technical Specification or Technical Requisition or at the Kick-off meeting, and the update of this information or documents should be available by the contract manager or inspector.

The operational procedures for the execution of activities and their records, must be prepared by the contractor with its logo, observing compliance with HSE requirements established by law and by Vale.

2.4 Mandatory HSE Training

Before mobilization, the contractor must have completed all employees required training for their functions and activities, in accordance with legal requirements and Vale requirements, in addition to the Basic HSE Training (BHSET).

The contractor must ensure that all its employees have their training needs identified by position and role, that they are properly trained, qualified, and licensed according to legal requirements and internal VALE rules according to its applicability, due date, training hours and refresh needs.

Evidence of training and the updated training matrix must be always available for mobilizations, verifications, inspections, and audits during the effective term of the contract.

The training matrix shall contain at least:

- i. Position or role;
- ii. Qualifications related to their activities:



- a. specific contractor procedures, including the types of risks the employee will be exposed to;
 - b. environmental aspects and impacts
 - c. legal requirements;
 - d. Vale standards and procedures;
 - e. behavioral contents.
- iii. Refresh date and deadline;
 - iv. Training hours.

2.4.1 Basic HSE Training (BHSET)

The BHSET will be offered by Vale and will present basic guidelines before workers access Vale facilities to start their activities, containing at least:

- i. Ethics and Conduct Code.
- ii. Human Rights Policy.
- iii. Sustainability Policy.
- iv. Risks of Vale's area and operational processes.
- v. Guidelines on the local emergency plan.
- vi. Flow and guidelines for communication of events according to PNR 000070.
- vii. Vale's HSE programs, procedures, and guidelines.
- viii. Local legal HSE requirements.

The contractor may ask the Vale HSE Team for authorization to contractor's HSE professional be allowed to minister the BHSET, according to local requirements.

Before entering Vale's areas, visitors must be instructed on basic HSE requirements, local risks, control measures and emergency response procedures.


2.4.2 Legal Training

The contractor must ensure that all legal training required for its employees are compliant and valid.

2.4.3 CAR Training

If the employees' role involves performing critical activities, all these employees must be trained in the related CARs and carry some type of identification of the approved CARs. CAR training is responsibility of the contractor.

Training must be conducted in accordance with PGS-005235 - Global Guideline for CAR Training, observing the indicated training hours and using, at least, the CAR Teaching



Material. All documents are available in the “I am a Supplier” section at Vale's website. CAR instructors must be approved by the local HSE team, according to PGS-005235.

CAR training programs can be reused if they have been conducted at other Vale units, if they are within their validity period.

The Guidelines for CAR Training Actions are available on Vale's Supplier Page Website

2.5 Communication and engagement of the employees

The contractors are responsible for developing effective communication processes and awareness campaigns with their employees to share HSE information and guidelines regarding the contract scope considering, at least:

- i. Communication of HSE events;
- ii. HSE indicators;
- iii. Programs and information for the prevention of illnesses and accidents established in local legislation.

The following can be used as a means of communication, among others:

- i. Awareness campaigns;
- ii. HSE meetings;
- iii. HSE Dialogues.

The contractor must keep records that provide evidence of communication with its employees and evaluate the effectiveness of communication, dealing with identified improvement opportunities.

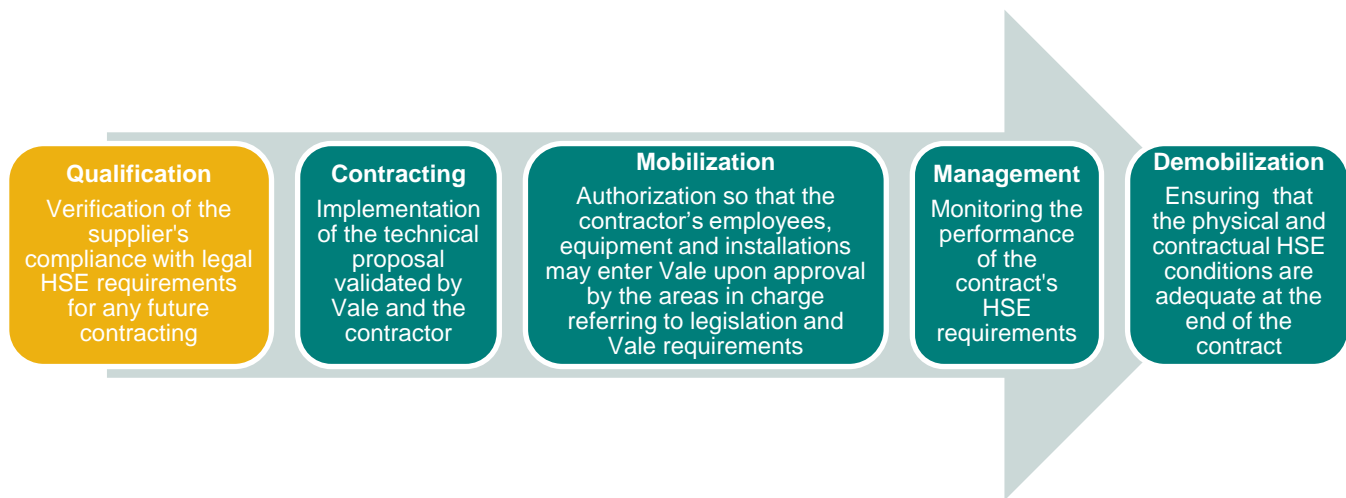
The contractor may use its own methodology and forms of HSE dialogues if this process is systematized.

In contracts classified as medium, high, or very high risk for HSE, the HSE dialogues must be held daily.

3 SUPPLIERS MANAGEMENT STEPS

The HSE guidelines applicable to contractors and subcontractors aim to ensure uniformity and transparency in the relationship with product and service suppliers in the 5 steps of supplier management:

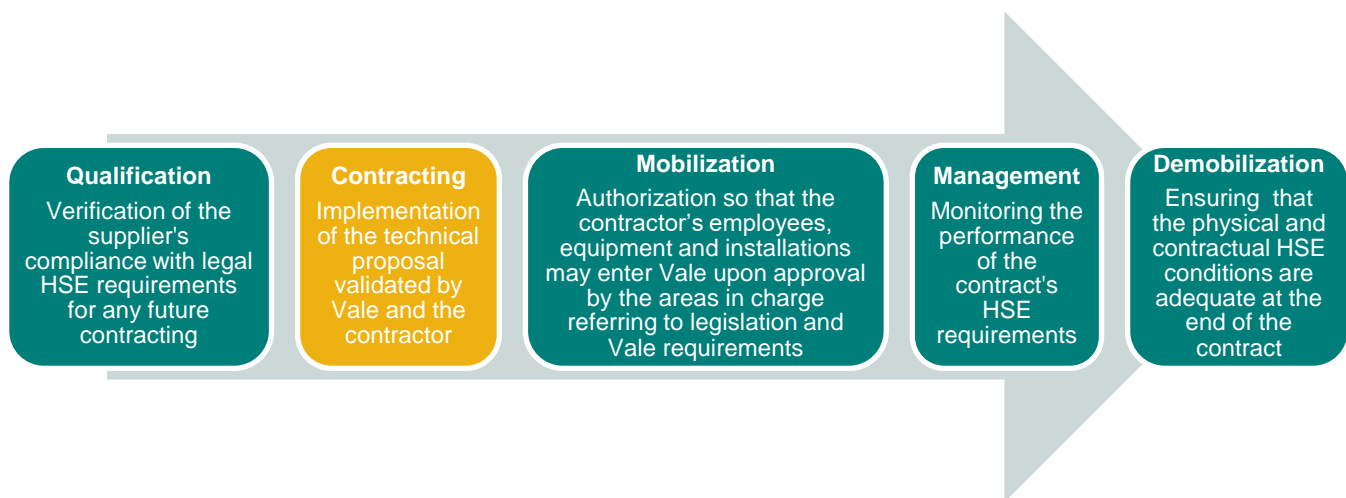
3.1 Supplier Qualification



Companies interested in becoming Vale suppliers should undergo a certification process that consists of evaluating various requirements (including HSE). A register of companies qualified in HSE is kept in the Supplies database, being periodically reassessed in terms of certification conditions.

To register in Vale's supplier base, access <http://www.vale.com/suppliers> and proceed with the registration.

3.2 Supplier Contracting



Vale's contracting process considers the suppliers' HSE practices and historical performance, through proactive and reactive indicators.

In contracts that involve subcontracting (which requires authorization from Vale), the subcontracted companies must comply with all contractual clauses, HSE standards and current legislation, in addition to all the requirements presented in this guide. Vale contractors are responsible for ensuring compliance with these items and must provide Vale with all the subcontractor's HSE documentation or information.



3.2.1 Technical Specification or Technical Requisition

Vale uses the Technical Specification or Technical Requisition to inform the classification of the contract according to the HSE risks identified in the scope, based on Vale's Risk Matrix. HSE risks can be classified as low, medium, high, and very high.

The Technical Specification or Technical Requisition will inform the particularities that may interfere with the performance of the scope of the contract and that must be considered in the technical proposal that will be prepared by the bidder, as well as items identified throughout this document.

3.2.2 Technical Visit

In the Technical Specification or Technical Requisition, the need or not for a technical visit is informed, which aims to resolve doubts, including HSE issues. For contracts with medium, high, or very high risk, the participation of a professional from the bidder who has knowledge in HSE is required.

Examples of items that can be addressed, but not limited to these:

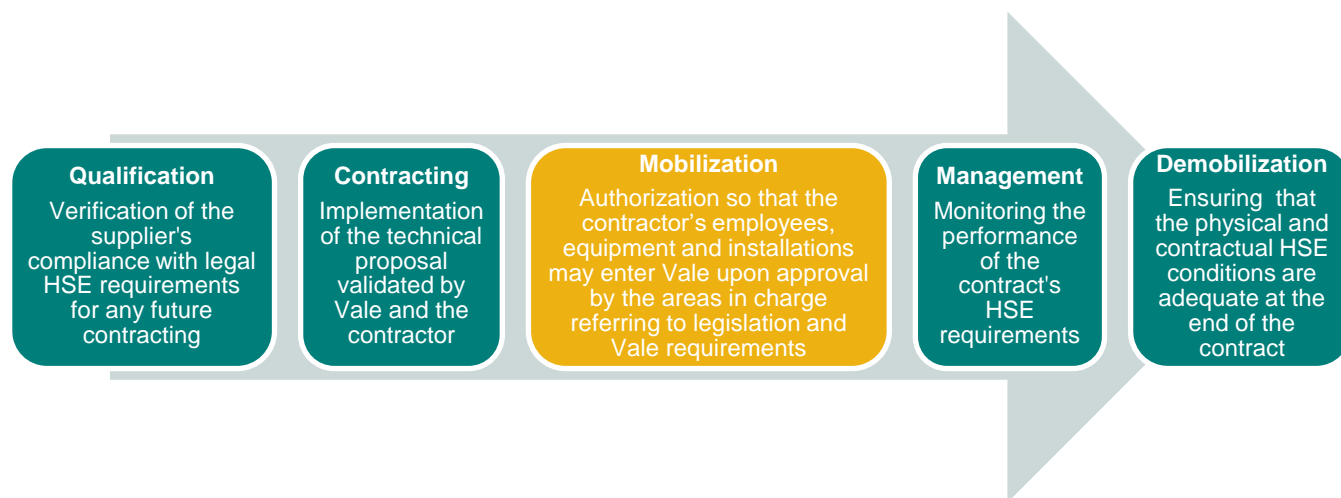
- i. Risk scenarios and HSE aspects of processes.
- ii. Know the Vale locations where the service will be performed and activities that interface with the scope.
- iii. Obligations of contractors with HSE aspects.
- iv. Location for installation of construction sites (if applicable) and minimum HSE conditions.

3.2.3 Technical Offer Assessment

Suppliers must submit HSE information in their technical proposals as requested in the technical specifications.

In the analysis of the technical proposal prepared by the contractor, the contract manager will verify the adherence to this Guide and to the HSE items defined in the Technical Specification or Technical Requisition. At this step, the bidder will have the opportunity to resolve doubts about the HSE requirements.

3.3 Contractor mobilization



For the mobilization and access to Vale's areas, whether for employees, equipment or facilities, the contractor must observe the guidelines set forth in the Service Provider Mobilization Guide, technical specification, and local procedures.

The contractor must provide or upload the documents for the mobilization containing all mandatory information in accordance with the legislation and Vale's requirements, committing to the consistency and the reliability of the data. If the documents require adjustments, the contractor must regularize said documents under penalty of demobilization, notifications, and fines.

Throughout the execution of the contract, the contractor must update the documents in Vale's systems following the legal requirements and when requested by Vale.

The Contractor Mobilization Guide is available on Vale's Supplier Page Website.


3.3.1 Contract Kick-off meeting

This meeting is held prior to the start of the supplier's activities to ensure knowledge of important HSE matters in the Vale location. The meeting is also intended present, clarify, and disclose the attributions of the contract manager, contract inspector, contractor's representative, Vale's, and contractor's HSE teams and Security Team in compliance with Vale's HSE guidelines and local legislation, in addition to providing clarifications regarding the process of mobilizing contractor employees.

The supplier's representatives should take advantage of this meeting to clarify all doubts related to HSE for the mobilization, execution, and demobilization of the contract, such as deadlines for demands, access to systems (if required), provision of reports, information, and indicators, to make the execution of these steps more efficient throughout the contract's effective term.

At the meeting, at least the following topics will be discussed:

- i. Environmental risks of locations where the activities will be executed;
- ii. Alignment regarding Vale HSE programs, procedures, and guidelines, including:

- 
- iii. Presentation of Vale's inspection program;
 - iv. Incidents communication procedure;
 - v. Applicable legal requirements;
 - vi. Distribution of Vale's HSE team and its contacts;
 - vii. Representative designated by the company;
 - viii. Supplier performance management;
 - ix. Schedule of HSE meetings between suppliers and Vale;
 - x. Monthly reporting process of staff and worked hours;
 - xi. Alignments on demobilization.

For contracts with medium, high, and very high HSE risk, the participation of an HSE professional from the supplier or one with HSE knowledge is highly recommended.

3.3.2 Mobilization of temporary facilities/living areas

The contractor must comply with Vale's internal standards, technical specifications, and current legislation regarding the mobilization of temporary facilities and living areas, containing at least:

- i. toilets and adequate sanitary conditions,
- ii. firefighting resources,
- iii. safe paths and safety signs,
- iv. selective waste collectors,
- v. easily visible management board,
- vi. signaled and segregated parking lot for vehicles and equipment,
- vii. escape routes and muster points with corresponding signs.

After installing the construction sites, the contractor must ask the contract manager to conduct an inspection for approval and clearance.

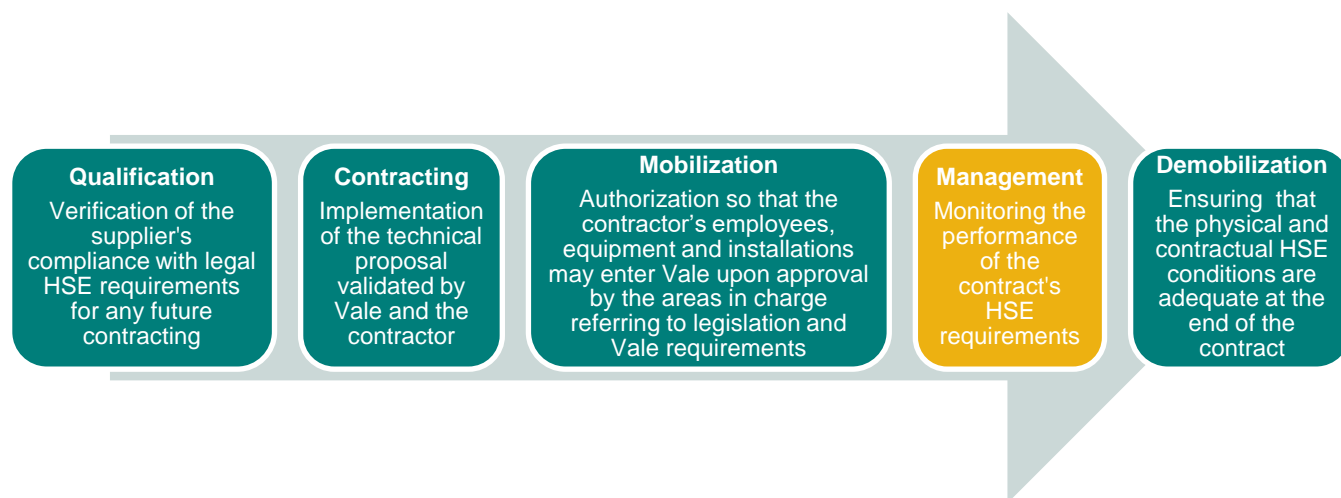
3.3.3 Equipment mobilization

The contractor shall only start moving vehicles and equipment to the area where the contract will be conducted after confirming that all operating and safety conditions are met, including CAR guidelines and local legislation.

Vehicles and equipment must have a preventive maintenance plan based on the manufacturer's guidelines or prepared by a qualified technician.

Before being used for the first time at Vale, vehicles and equipment must undergo a formal inspection by a professional employed by the contractor or by Vale and be registered.

3.4 Contractor management



During the term of the contract with Vale, the contractor must fully apply the VPS (Vale Production System) as well as the HSE requirements that are available on Vale's website.

The documents listed in this chapter are available on Vale's Supplier Page Website.

3.4.1 HSE risk management

The contractor shall assure that the HSE risks, aspects and impacts related to the contract are identified, analyzed, mitigated (or controlled) and monitored. The contractor must also instruct all its employees about the risks and controls of the activities in which they are involved, as well as empowering employees to use the right of refusal whenever there is a situation of serious and imminent risk to their safety or their colleagues in which there is no consensus on control measures required for the task to be performed safely.

The identification of risk/aspect and impact scenarios must be made in accordance with the guidelines set in the Preliminary Risk Assessment (PRA) and Environmental Aspect and Impact Assessment and the Job Safety Analysis (JSA).

The contractor may use its own methodology and forms to make Unsafe Condition Reports, if it shows the systematization of this process and receives approval from Vale's Contract Manager and HSE professionals.

To ensure greater effectiveness in eliminating / controlling risks, the contractor's leadership must consider the application of a control hierarchy, always prioritizing the most efficient controls.



Figure 1 - Control Hierarchy for risk management

The results of Vale's Risk Assessments and Environmental Aspect and Impact Assessments that have relations with the scope of the contract will be informed in the Technical Specification or Technical Requisition.

3.4.1.1 JSA – Job Safety Analysis

The Job Safety Analysis (JSA) is a risk analysis method that consists of identifying, at each step of this task, the causes, risk or hazard situations and control measures that must be applied so that an event does not occur or so that the consequences of these events are mitigated. Once this information is established, the risk classification is performed in each step of this task, based on probability and severity. The JSA must be developed by a Vale employee or contractor employee who has expertise about the methodology and by a Vale employee or contractor employee who has expertise on the task to be performed, during the planning step of this task.

The contractor's internal procedures may be requested for assessment by Vale. The procedures are expected to present the activity step-by-step breakdown for its safe execution or equipment operation in a simple and suitable language for users.

In addition to the procedures described above, the contractor must fully comply with the local procedures and training programs applicable to each function, which will be made available in the Kick-off meeting of the Contract.

3.4.1.2 Safe Work Permit - SWP

The SWP process involves the steps of pre-planning, planning, scheduling, and execution of a certain task through the prior knowledge of risks and definition of controls. It must be conducted before the start of the activity, to protect the executors of high or very high-risk tasks that are conducted in the area of another owner. The SWP must also be issued whenever required by a legal or other external requirement, under any circumstances.

The designation and training of issuers and acceptors to comply with the SWP process must follow guidance from the areas in accordance with the criteria established in PNR-000031.

The training material is available on Vale's Supplier Page Website.



3.4.1.3 PRA – Preliminary Risk Analysis

The Preliminary Risk Analysis (PRA) is a risk scanning methodology, based on the mapping of physical areas and processes.

The PRA methodology provides for the listing of all physical areas and the mapping of all production processes that take place in each of these areas. Once all processes are identified and located, the risk analysis begins by identifying all risk situations in each process, by physical area. This approach, despite allowing a sweep with a high degree of risk coverage, the APR has a low level of depth since it is only intended to be a preliminary assessment.

The PRA is the starting point of any process risk assessment initiative and allows: (i) to identify the risk scenarios with the greatest potential for severity (ii) in addition to acting to reduce the risk, as it indicates which risk scenarios need risk reduction actions.

3.4.1.4 LAIA - Environmental Aspect and Impact Identification

The Environmental Aspect and Impact Identification (LAIA) is a process that aims to identify and assess the environmental aspects and impacts associated with activities, inputs, products, and services that occur within Vale's operating units.

Thus, it aims to determine its significance to the environment, ensuring:

- i. Correct identification of Significant Environmental Aspects of activities, inputs, products and services;
- ii. Definition of the Operational Controls necessary to deal with significant environmental impacts.

3.4.2 Operational control


The contractor shall establish operational controls based on the assessment of risks and aspects/impacts, applicable legal requirements, and VALE's procedures, ensuring the implementation of effective actions to mitigate risks and control the identified aspects. Vale's main operational HSE controls are described below:

3.4.2.1 Critical Activity Requirements (CAR)

The CARs are crucial controls of our VPS with the purpose of preserving lives of employees during the execution of the activities.

The contractor must analyze the Technical Specification to map the applicability of the CARs and evaluate the applicable controls for each CAR. Some of these requirements involve the purchase of adequate equipment and PPE, specific training programs, among others. These requirements need to be previously known, planned, and fully applied before contract execution starts. Thus, it is highly recommended that the contractor read and understand these requirements for correct contract pricing.

Throughout the contract's duration, the CARs must be fully met by the contractors and their subcontractors, and the contractor is responsible to perform periodic self-assessments to ensure 100% compliance with the requirements applicable to its activities, including recent reviews.



For access to the complete CAR material, including specific definitions, check the complete CARs documents available on Vale's Supplier Page Website.

The current critical activities are:

- i. CAR-01 - Working at Heights.
- ii. CAR-02 - Automotive Vehicles.
- iii. CAR-03 - Mobile Equipment.
- iv. CAR-04 - Lockout and Tagout.
- v. CAR-05 - Lifting of Loads.
- vi. CAR-06 - Confined Spaces.
- vii. CAR-07 - Machine Guarding.
- viii. CAR-08 - Ground Stability.
- ix. CAR-09 - Explosives.
- x. CAR-10 - Working with Electricity.
- xi. CAR-11 - Molten Metal.

3.4.2.2 Fatality Prevention Program (FPP)

Its purpose is to establish requirements and standards to continuously manage potential risks of high severity scenarios, prioritizing the prevention of serious accidents, changed lives and fatalities, always seeking to have leadership as a role model and to ensure employee engagement.

The contractor is considered in Vale's fatality prevention strategy, according to corporate guidelines and legal requirements. The FPP requirements of the area where the contract will be executed will be considered in the Technical Specification or Technical Requisition. Vale's FPP allows contractor to having its own program.

3.4.2.3 Personal Protective Equipment (PPE)

The contractor must define and use PPE appropriate to the risks of its activities and in compliance with legal requirements. The particularities regarding the specification of PPE for access to Vale's areas are defined in the Technical Specification or Technical Requisition. The company must enforce the use of standardized uniforms that enable easy identification of employees at work areas.

Uniforms and PPE must be supplied and switched by the contractor according to their validity or conservation. Vale reserves the right to inspect and, if necessary, demand their replacement, under penalty of restricting the employee's access to the service fronts until the situation is regularized.

3.4.2.4 Occupational Health Controls

Controls	Description
Chemical Dependency Program	Possession or consumption of any alcoholic beverages or illegal substances on Vale's premises is prohibited. The contractor is responsible for monitoring its employees before entering Vale's areas and during their work shift, in accordance with local legislation. Employees found under the influence of alcohol or drugs at Vale must be removed from the area. Vale may request the development of a Chemical Dependency Program, with the purpose to prevent the access the work front any employee who is under the influence of alcohol or drugs.
Endemic Diseases and Traveler's Health	The contractor must design and implement a Program for the Prevention of Endemic Diseases and Traveler's Health when working in remote areas and in cases of severe endemic diseases, such as malaria and yellow fever.
Occupational Hygiene	The exposure of contractors' employees to chemical, physical and biological agents must be managed to identify and control exposures above the occupational exposure limits determined by local legislation.
Ergonomics	The contractor must have a program that includes criteria for managing the ergonomic risks to which its employees are exposed.
Fatigue	If fatigue is identified as a risk factor mapped in the risk analysis of the contractor's activities, such as in contracts that include driving light vehicles or operating heavy equipment, there must be a procedure to prevent fatigue, according to the Vale's Fatigue Prevention Guidelines (PGS-004099).
Functional capacity assessment program for the CAR's execution	Any contractor that performs activities related to CARs must develop a program of medical control for employees who perform critical activities.

Other occupational health controls:

- i. For any activity performed outdoors or activities that cause thermal stress, a rehydration program must be maintained, and measures should be taken for sun protection.
- ii. If applicable, the occupational medical examinations must be conducted in accordance with local legislation and before the employee is hired, assessing their physical and emotional capacity in relation to the tasks they will perform. This medical examination must consist of a clinical evaluation with occupational anamnesis, plus complementary examinations directly related to the risks of the work environment and the characterization of functional capacity.
- iii. The contracted company must manage the health of its employees, including efforts to prevent cardiovascular diseases. Employees aged 40 years or older must undergo clinical examinations, directed questionnaires and laboratory tests to calculate the cardiovascular risk score (Framingham score).
- iv. The occupational physicians must follow legal recommendations for activities, considering specific occupational hazards and critical activities risks. See table below.

Description of the Examination	RAC					
	1	2	3	5	6	10
Physical Examination	X	X	X	X	X	X
Occupational Eye Exam*	X	X	X	X	X	X
Conventional 12-lead ECG**	X				X	X
Glucose	X				X	X
Biennial Spirometry ***					X	
Frequency of examinations:	<i>Pre-employment, Periodic, and Change of position</i>					
<p><i>*Must include at minimum Snellel Table.</i></p> <p><i>** ECG is applicable at admissions only.</i></p> <p><i>***It may be required with more periodicity than biennial when there is exposure to the environmental risk agent and it is requested in legal programs (e.g., fibrogenic dust, dust and breathable fumes, exposure to chemical substances with a harmful effect on the respiratory system).</i></p>						

3.4.2.5 5S

The contractor must implement, maintain, and verify the efficiency of the 5S Program, which is important to increase productivity, optimize resources, avoid accidents, and increase employee satisfaction with the workplace.

3.4.2.6 Environmental Controls

The needs and specifics of the area related to the contract, such as water consumption, treatment or disposal of effluents, disposal of waste, atmospheric emissions and others are defined in the Technical Specification or Technical Requisition.

Controls	Description
Biodiversity	Removal of any type of vegetation is not permitted without prior authorization from Vale and the competent environmental bodies. Documents informing the origin of natural inputs, such as sand, gravel and wood originating from forests, must be presented to Vale.
Water Resources	The Contractor must implement controls and/or physical barriers to avoid possible impacts on soil and water resources during its activities, such as: supply, washing, cleaning, drainage, maintenance, and storage. In case of incident involving equipment that results in impacts on soil/water, the Contractor must remedy the damage caused and inform Vale immediately. Effluents (treated and/or untreated) generated by the Contractor must not be sent to receiving bodies, rainwater drainage networks, and treatment stations without prior authorization of Vale.
Atmospheric Emissions	Activities involving particulate emissions (earthworks, bulk transport, handling, or storage of powder materials, among others) must have adequate controls



Controls	Description
	<p>such as enclosure, wetting, water spraying, use of binders, dust suppressors or other dedusting systems.</p> <p>The Contractors that use diesel-powered vehicles for transportation of cargo or passengers must comply with local legislation as to monitoring of air emissions. Painting activities must be conducted preferably in cabins equipped with suitable gas exhaust and treatment systems for control of organic vapors.</p>
Residues	<p>The Contractor must ensure segregation and adequate storage of waste so as not to mix the distinct types of waste generated, according to waste program of the local unit. Containers such as drums, plastic drums, and others must be kept closed and properly covered to avoid spills and/or leaks, retention of rainwater, and proliferation of vectors.</p> <p>If the contractor is responsible for transporting or disposing of waste, environmental permits, specific conditions, and applicable legislation must be met and evidence of said compliance must be available during the term of the contract.</p> <p>The following actions are not allowed:</p> <ul style="list-style-type: none"> • Burning waste in external areas. • Disposing any type of waste directly on soil or water bodies. • Disposing waste in piles without Vale's authorization
Greenhouse Gases	<p>If requested in the Technical Specification or Technical Requisition, the contractor must prepare a Greenhouse Gas Inventory, archive its records, and present it to Vale when requested.</p>
Chemicals management	<p>The Contractor must identify the risk scenarios resulting from the acquisition, transportation, handling, storage, transfer, use, and after use of chemicals. The MSDS or emergency sheet for each chemical must be easily accessible (in the local language and that of its users) for consultation, and its recommendations must be fully complied with, including their identification and storage.</p> <p>The use of chemicals on the prohibited list at Vale is not allowed. The use of chemicals on the restricted list must be justified by the contractor and approved by Vale, and it is recommended that they be replaced.</p> <p>Lists of Chemicals with restricted and/or prohibited use at Vale are available on Vale's Supplier Page Website. Link: Vale's Suppliers.</p>
Social and human rights impact management	<p>The contractor must conduct the identification, assessment, and treatment of the social impacts arising from its activities to prevent, mitigate, and compensate for the negative impacts and maximize positive impacts, meeting the legal and Vale's requirements.</p> <p>The contractor must respect social diversities and cultural aspects and ensure good relationships and coexistence with the communities, with particular care towards vulnerable groups.</p> <p>The contractor must establish prevention and control measures to avoid or minimize the potential risks and impacts on the health and safety of communities that may arise from its activities, such as:</p> <ul style="list-style-type: none"> • Excessive noise, vibrations, and particulate emissions. • Traffic accidents or speeding involving contractor employees in local communities. • Exposure of community to hazardous substances.



Controls	Description
	<ul style="list-style-type: none"> • Impact and/or complicity with sexual exploitation of children and adolescents in local communities (e.g., accommodations close to communities or homes of Contractors in the communities). • Use or complicity with child labor in the value chain. • Change in violence rates in direct and indirect influence areas. • Retention of identification documents of employees by the Contractors. • Inadequate conditions of facilities in the workplace. • In the event of claims of violation of human rights directly or indirectly involving the Contractor, it must conduct a process to treat the claims, ensuring appropriate remediation to those affected, as well as the reporting of impacts, remediation actions, and results to everyone involved, including Vale.
Maintenance of the facilities and equipment integrity	<p>The contractor's facilities, machines, equipment, and measuring/testing devices that are critical for HSE must be inventoried and have a maintenance plan to ensure their functionality within the established control parameters and with the proper quality levels.</p> <p>The execution of any type of maintenance (preventive, predictive and corrective) on machines, equipment and vehicles owned by the contractor within Vale's areas will be subject to the contractual requirements or authorization of the contract manager.</p>

3.4.2.7 Management of non-conformities and unsafe conditions

Controls	Description
Management of non-conformities	<p>The contractor must ensure that non-conformities that impact HSE (including non-compliance with requirements provided by law and by Vale) are identified, reported to Vale, recorded, analyzed, and solved effectively, preventing their recurrence through planning and execution of corrective and preventive actions.</p>
Management of unsafe conditions	<p>The contractor must identify, record, communicate, control, or eliminate unsafe conditions to prevent accidents, the development of occupational illnesses and any environmental damage.</p> <p>The contractor may use its own process to record unsafe conditions if it presents the systematization of this process and receives approval from the contract manager.</p>

3.4.2.8 Inspections and audits

Vale will conduct periodic inspections and audits at the contractor's facilities and activities to verify compliance with the applicable HSE requirements and standards. The contractor must provide the information and documentation required to carry out these inspections and audits.

The contractor must have an inspection program including, at least, the planning, recording, evaluation of results and critical analysis of the program, and must consider the entire scope of the contract, in addition to the main risks and aspects of the area where it operates.

Inspections should focus on identifying deviations, actual or potential losses that could cause damage to HSE. Inspections must use legislation as a minimum reference and must

encourage the application of best HSE practices. The contractor may use its own methodology and inspection forms if it presents the due systematization of this process and receives approval from the contract manager.

The contractor may be part of the scope of Vale's VPS audit process, in addition to Certification/Maintenance audits conducted by ISO14001 and/or ISO45001 Certification Bodies.

All non-conformities, opportunities for improvement and audit processes will be sent to the contractor and must be properly addressed.

3.4.2.9 Monitoring, performance indicators and continuous improvement

The contractor must define a system for monitoring HSE indicators, ensuring the tracking of information, monitoring of non-compliance with goals and actions for the handling of deviations. At least the indicators listed below must be implemented, monitored, and reported to Vale monthly.

Table 1 - HSE indicators

Type	Indicator name	Calculation Formula
Proactive	Treatment of Unsafe Condition	$(\text{No. of unsafe conditions treated} / \text{No. of unsafe conditions recorded}) * 100$
	Adherence to CAR protocols	$(\sum [\text{No. of CAR protocol items met}] / [\text{Total of applicable CAR protocol items}]) * 100\%$
	HSE Inspections	$(\text{No. of HSE Inspections performed} / \text{No. of HSE Inspections planned}) * 100$
Reactive	Frequency Rate of Recordable Occupational Injuries (TRIFR)	$\{([\text{Injuries resulting in Casualty}] + [\text{Injuries with Lost Time}] + [\text{Injuries with Restriction}] + [\text{Injuries with Medical Treatment}]) / \text{MH worked}\} * 1,000,000$
	Incident with Severe, Critical, or Catastrophic Real Severity for the Environment	$\sum [\text{Incidents with severe, critical, or catastrophic real severity for the Environment}]$
	Frequency rate of occupational injuries with leave of absence (LTFIR)	$\sum ([\text{Occupational Injuries with Leave of Absence}] / \text{MH worked}) * 1,000,000$
	Frequency rate of high potential health and safety incidents.	$\sum ([\text{High potential H\&S incidents}] / \text{MH worked}) * 1,000,000$

Each month, the contractor must inform the total number of personnel, worked hours and events in accordance with Vale's HSE Incident Management Procedure.

3.4.2.10 HSE performance assessment and recognition

Controls	Description
Performance assessment	The evaluation of the HSE performance of the contractors must be conducted periodically during the execution of the contract and must be recorded to ensure contractual compliance and seek the supplier's continuous improvement. The evaluation will be conducted in accordance with Vale's guidelines and the results of the evaluations will support the recognition actions, selection of the supplier in future contracts and, when necessary, the blocking thereof.
Recognition in HSE	The recognition of contractors in HSE theme should be conducted by the local HSE area with the agreement of the contract manager with the objective of reinforcing the engagement and commitment of companies in matters related to HSE. Contractors with fatalities, changed lives or environmental accidents with real critical or very critical severity will not participate in the Recognition Program until the end of the contract term

3.4.3 Management of Change

When any change that may directly or indirectly impact HSE is identified (by changing the risks of the processes/activities in the scope of the contract), the contractor must previously inform the Contract Manager/Inspector and make an analysis following the guidelines in PNR-000101 (Management of Change).

3.4.4 Event communication and applicability analysis

The contractor must inform its employees of the obligation to notify their immediate superior the occurrence of any type of event. All HSE events (personal, material, and environmental), events involving the community, infraction notices, fines or notifications received from authorities, as well as complaints from interested parties, must be immediately registered, and communicated to Vale.

Should an event occur, the contractor must collaborate with the investigation of the causes, without changing the event area without prior authorization, making its employees available for interviews, presenting the requested evidence, and collaborating in the investigation of the facts.

At the end of the investigation or whenever other events are shared, the contractor must conduct an internal analysis to verify if these same causes that contributed for the occurrence of these events exist in its processes and adopt an action plan for their elimination or control.

The Incident Management Procedure is available on Vale's Supplier Page Website.

3.4.5 Emergency preparedness and response

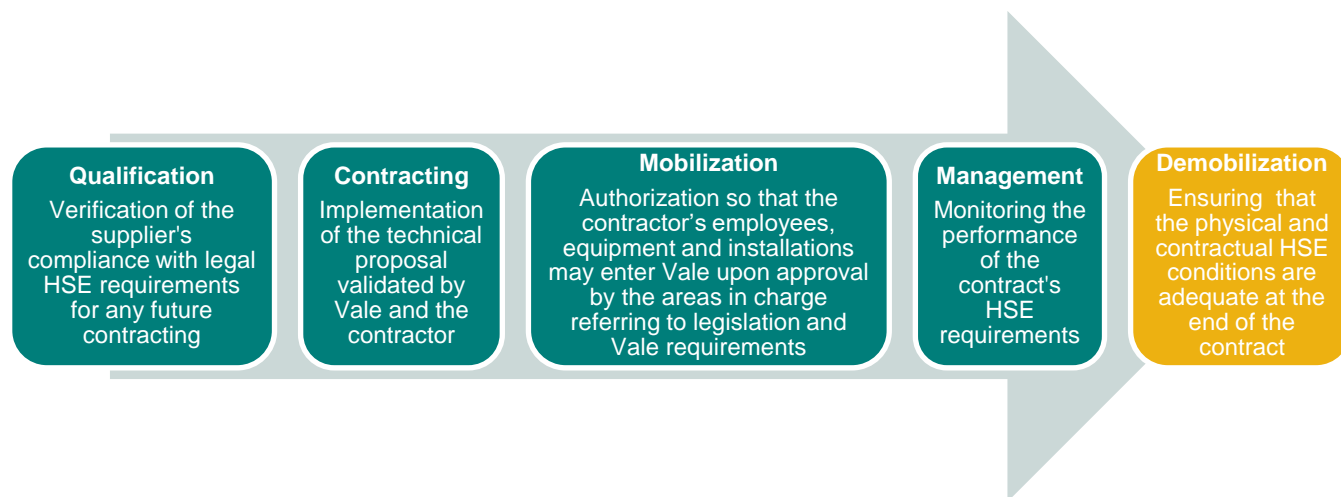
Vale will use in the Technical Specification or Technical Requisition to inform the need to prepare the Emergency Response Plan (ERP) by the contractor (including the resources it will provide for emergency response) or whether it will be included in Vale's Emergency Response Plan.

If applicable, the contractor must prepare and implement the Emergency Response Plan in accordance with local legal requirements and emergency scenarios inherent to the scope of its activities and compatible with the local Vale Emergency Response Plan, containing at least:

- i. Scenarios of its activities and resources needed to respond to emergencies.
- ii. Communication flow and mitigation and impact control actions in case of emergencies.
- iii. Schedule of training sessions and drills.
- iv. List of Hospitals to which its employees are sent.

The contractor shall assure quality medical and hospital assistance for employees who suffer accidents.

3.5 Demobilization



At the end of the contract (or in case of employee dismissal) the contractor must conduct the contractor employee demobilization through Vale's local procedure.

The return of the Vale badge is mandatory if the employee is not mobilized in another contract of the same contractor.


The demobilization of equipment, construction sites and other temporary facilities of the contractor in Vale's areas is full responsibility of the contractor, who must ensure that all conditions of HSE risks and liabilities have been eliminated or controlled.

4 GLOSSARY

Corrective Action: Action to eliminate the cause of an identified non-conformity and to prevent its recurrence.

Preventive Action: Action to eliminate the cause of a potential non-conformity; performed to prevent the occurrence; stems from a risk assessment where potential non-conformities can be identified. **Critical Activity:** Activity considered of high risk for fatalities or changed lives.

Controlled Activities: Activities or tasks in which Vale is responsible for establishing and applying its health and safety standards. Under this condition, activities performed outside the



site can also be considered as controlled activities, if they are being performed in Vale's interest.

Uncontrolled Activities: Activities in which Vale does not have the formal right and responsibility to ensure that its health and safety requirements are implemented and complied with.

Occupational examination: Occupational examinations are exams aiming at the individual assessment of the impacts of the health-work relation on health and definition of aptitude for certain tasks. They include pre-employment examination, periodic examination, examination of return to work, examination for change of position, and dismissal examination

Leading indicators: Indicators used to assess the company activities/controls that prevent losses. This type of metric is predictive, that is, it precedes or indicates future events and allows for preventive actions.

Lagging Indicators: These are the consequence indicators, used to measure performance and allow the leadership to monitor them. This type of metric is retrospective, that is, measures data relating to situations/failures that have already occurred and require corrective action.

Non-conformity: Failure to comply with a requirement provided by legislation or by Vale.

5 FINAL PROVISIONS

Contractors, when performing activities for Vale, are responsible for managing the employees, processes, services, activities, facilities, and equipment used to accomplish the scope of the contract, being responsible for the health and safety of their employees and the environment.

Compliance with HSE obligations provided herein will not exempt the Contractors from adopting, following, and complying with other measures, legal or not, that may prevent risks and ensure the health, safety, and physical integrity of their employees and the Environment.

Vale may embargo or interdict the services provided by the contractor, in whole or in part, whenever there is a situation of "severe and imminent" risk of HSE or for the communities or due to non-compliance with legislation and Vale's standards.

If the information provided in the HSE documents made available to the Contractors is not sufficient to clarify doubts, the Contract Manager must be consulted for clarification.