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This document is designed to advise and define guidelines for the development of Vale's Projects. Its application and adequacy is under the responsibility of the Project Team. Principles of safety and value maximization for Vale shall be taken into account.

Alternative solutions, that may be proposed by the contracted designers, should be directed to Vale's Project Team with the justification for approval.

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1.0 PURPOSE

This document defines guidelines to assist bidders regarding health, safety and environment (HSE) in preparing technical and commercial proposals for Vale Capital Projects.

2.0 APPLICATION

This specification applies to all Vale Capital Projects.

3.0 REFERENCE DOCUMENTS

Vale's Mobilization Process Guide

List of Prohibited Products

Guidelines for Critical Activity Requirement (CAR) Qualification and teaching material for CAR training

Critical Activity Requirements (PTP-000813)

The aforementioned documents are available on Vale's site (www.vale.com)

4.0 PROCESS DESCRIPTION

4.1 INTRODUCTION

Companies that will participate in the bidding process for providing services in Vale Capital Projects shall use their own Management Systems, tools and documents, as long as they meet the minimum requirements described herein.

Upon evaluating the proposals, the focus will be directed to the understanding of how the company performs HSE management, and whether it is aligned with the requirements described below. Descriptions submitted shall depict the conditions the bidder took into account in preparing its proposal.

Golden Rules and Critical Activity Requirements are the only requirements bidders will apply in full, in accordance with a pre-defined standard.

The bidders HSE Management System may be submitted in an integrated manner, or separately, by discipline.

The selected company shall present the detailing of the Health, Safety and Environment Management System within 60 days after the purchase order has been issued.

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4.2 FATALITY PREVENTION/ CRITICAL ACTIVITY REQUIREMENTS

Critical Activity Requirements (CAR) shall be adopted by the contractor in accordance with the assessment of each CAR applicability to the contract scope. These requirements are provided in PTP-00813 – Critical Activity Requirements. It is important to emphasize that, in addition to these requirements; the contractor shall comply with all requirements included in the local legislation that apply to the contract scope.

The bidder shall state that all CAR applicable to the contract scope will be complied with along their execution.

Keeping in mind the preservation of life of all employees acting in Vale areas, contractors shall include, in their Health, Safety and Environment System, the initiatives that focus on Fatality Prevention.

Initiatives shall address lock out actions, best practices and safety guidelines, which aim at preventing fatal accidents and incidents with potential severity classified as critical (permanent incapacitation incidents or 01 (one) fatality) or catastrophic (incident resulting in multiple fatalities), considering contract activities.

4.3 GOLDEN RULES

The Golden Rules defined for Capital Projects shall be complied with, in full, by contractors.

The Golden Rules consist of ten simple and tangible behaviors, designed to save lives. Contractors' employees shall be trained for these rules and, later, they shall sign the "commitment to life statement".

Golden Rules do not replace the bidders' Health, Safety and Environment Management System, and they represent unbreakable principles to be applied in Vale Capital Projects and by all contractors.

The golden rules are:

- 1. Do not work under the influence of alcohol or illegal drugs.
- 2. Lock out all powered equipment and facilities before performing maintenance/inspection work, and use the compulsory PPE.
- 3. Wear your seatbelt and respect speed limits.
- 4. Wear a properly attached safety harness to do work at heights.
- 5. Report all work accidents.
- 6. Only perform critical activities if you are able, trained, qualified and authorized.
- 7. Stay outside cordoned-off areas where cargo is being handled.
- 8. Only perform activities in areas and on equipment approved for work and with necessary lockouts in place.
- 9. Only start special tasks after carrying out a risk analysis, and only conduct critical activities if you have an approved Special Work Permit.

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10. Implement the preventive measures established by Vale to prevent malaria at workplaces and company accommodation.

Regarding Golden Rule 01, the resources required to perform toxicological tests included in the Program for Undue Use of Alcohol and Other Illicit Drugs will be supplied by Vale, at no costs for the contractor.

4.4 HEALTH, SAFETY AND ENVIRONMENT MANAGEMENT

Bidder shall describe their health, safety and environment management processes so as to ensure the requirements described below are managed throughout contract execution:

Policy, Goals and Targets

The bidder shall submit its policy, goals and targets, as well as the results obtained in the previous 12 months.

• Hazards and Risks, Aspects and Impacts, and Change Management

The bidder shall describe its methodology and submit the model (tool) used to identify, evaluate, control, prevent and minimize hazards/risks and aspects/impacts.

The change management process shall also be described.

Legal Requirements and Others

The bidder shall describe its methodology to identify HSE legal requirements applicable to the contract, as well as other requirements the company has committed to, and to keep these updated. In lack of local legislation, international standards shall be adopted.

• Leadership, Roles and Responsibilities

The bidder shall submit a responsibility matrix for the health, safety and environment management system. Bidder shall consider, in addition to leadership, the key positions that ensure system performance.

In addition to the matrix, the bidder shall also submit the charts with the number of HSE professionals, their qualifications and actions planned.

Skill, Training and Behavioral Development

The bidder shall describe, for the contract scope:

- Training sessions regarding HSE, based on the planned activities and positions, as well as their records and evaluations;
- Motivation and human behavior development programs.

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• Communication, Participation and Consultation

The bidder shall describe how the communication process will take place with employees, contracting party, and other stakeholders.

• Documents, Records and Information

The bidder shall describe the recording, filing, traceability and confidentiality system for information associated to the HSE Management System.

Operational Control

The bidder shall describe how the operational controls considered for the contract scope will be enforced.

Among the items listed below, those considered in the proposal (but not limited to them) shall be highlighted: residue; water resources; atmospheric emissions; environmental vibration and noise; recovery of degraded areas; demobilization of temporary facilities; chemical products; health programs (occupational hygiene, ergonomics, fatigue, chemical addiction, absenteeism management, professional rehabilitation and readaptation, promotion of health and well-being, control of endemic diseases, and travelers' health); collective and personal protection equipment; maintaining the integrity of hand tools, installations, machines, equipment and automotive vehicles.

The majority of the controls mentioned above as examples are requirements already addressed by the legislation.

The bidder shall ensure its proposal does not provide for the use of chemical products whose use is prohibited at Vale, as per the List of Prohibited Products available on Vale's site (www.vale.com).

Preparation and Emergency Response

The bidder shall list, in its proposal, the items considered for responding to health, safety and environment emergencies.

Note: after being hired, the contractor shall prepare an emergency response plan (ERP).

• Treatment of Incidents and Non-Conformances

The bidder shall submit the methodology for reviewing and treating incidents and non-conformances, considering records, classification and communication.

Inspections and Audits

The bidder shall describe its inspection and audit program, with actions and frequency planned.

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• Monitoring, Performance Indicators and Continuous Improvement

The bidder shall submit its HSE performance indicators (reactive and proactive) and its compliance levels planned for contract execution, as well as its monitoring/management methodology, aiming and continuous improvement.

The contractor shall report indicators to Vale monthly, and shall ensure this information is recorded and available upon request.

Vale will evaluate the contractor's performance in health, safety and environment periodically, as well as review the contractor's HSE Management System.

4.5 MOBILIZATION MANAGEMENT FOR HEALTH, SAFETY AND ENVIRONMENT

The contractor is responsible for its employees' records and/or for formalizing contracts with subcontractors that will perform activities for the projects.

The mobilization process for health, safety and environment shall comply with Vale's Mobilization Process Guide, available on Vale's site (www.vale.com).

4.6 PERSONAL PROTECTION EQUIPMENT (PPE)

The bidder shall submit its PPE management model: mapping, delivery, storage, maintenance, training, and return, in conformance with the legislation.

The contractor shall use PPE appropriate to the existing risks in its activities for Vale projects, in accordance with the applicable local legislation.

For services in Vale's operational areas, the specific PPE required for access to the area will be specified in the contract technical specification.

5.0 FINAL PROVISIONS

All instructions in this document shall be met during work execution at Vale projects. The contractor shall be responsible for ensuring its representatives, employees or subcontractors know, understand and comply with the provisions in this specification.

QUESTIONS, COMMENTS OR SUGGESTIONS

For questions, comments or suggestions regarding the SPE, please access the online central SPE Responde, available on the Project Portal, or contact us via email at spe@vale.com.

Your participation is essential for the SPE collection improvement and maintenance processes.