SPONSORS/OWNER



WA POWER SOLARRESERVE®

EPC CONTRACTOR



PROJECT

ACWA POWER SOLARRESERVE REDSTONE SOLAR THERMAL POWER PLANT

DOCUMENT TITLE:

ENVIRONMENTAL AND SOCIAL MANAGEMENT SYSTEM IMPLEMENTATION PLAN

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REVISION	MAIN CHANGES/REMARKS	SECTION/PARAGRAPH



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DEFINITIONS

- **AENOR:** Spanish Association for Standardisation and Certification.
- Audit: A systematic and objective evaluation in terms of the conditions set out in the Site Documentation on a regular (periodic) basis. The degree of compliance is recorded in monthly audit reports. An audit aims to ensure that all regulatory requirements are adhered to.
- Audit Report: Means a document that provides verifiable findings and recommendations for improvement, in a structured and systematic manner, on the performance and compliance of an organization and/or project against environmental policies, objectives, laws, regulations, licenses, permits, conditions of authorisations, norms and standards.
- Contamination: The release/spillage of a substance into an environment where it is not normally found, which is detrimental to that environment, its ecosystems and to humans
- **Emergency:** a sudden, urgent, usually unexpected event or happening requiring immediate action.
- **Environment:** The environment is defined as the surroundings within which humans exist and that are made up of the land, water and atmosphere of the earth; microorganisms, plant and animal life; any part or combination of (i) and (ii) and the interrelationships among and between them; and the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well-being.
- Environmental Impact: Change in an environment resulting from the effect of an
 activity on the environment, whether positive or negative. Impacts may be the direct
 consequence of an individual's or organisation's activities or may be indirectly caused
 by them.
- **EPC Contractor (ACCIONA Industrial S. A.):** Organisation contracted by the Owner to carry out of the works for the proposed Project.
- **ESMS:** Environmental and Social Management System.
- **ESMSIP:** Document developed for the Project, describing the implementation of the Environmental and Social Management System.



- Mitigation: Measures designed to avoid, reduce or remedy the proposed adverse impacts.
- Monitoring: The repetitive and continued observation, measurement and evaluation of environmental criteria to follow changes over a period of time and to assess the efficiency of control measures.
- <u>Non-Conformity:</u> non-compliance with the requirements specified. Any projects, materials, installations, etc. which have been examined and inspected and are below the minimum level required will be considered non-conforming until corrected to the required level or discarded.
- Third Parties (or Interested and Affected Parties, I&AP): Individuals and/or peer groups that are and/or maybe affected albeit positive or negative by the proposed activity. This definition includes authorities, local communities, environmental interest groups, and the general public.





1 PURPOSE AND OBJECTIVES

The main objective of **ACCIONA Industrial S. A.** is to guarantee the proper environmental management of the CSR REDSTONE SOLAR TOWER POWER PLANT Project and to attain and demonstrate solid environmental performance by controlling the impacts of its activities on the environment.

To do so and based on the principles of environmental preservation and sustainable development held by the company, **ACCIONA Industrial S. A.** has implemented and maintains an Environmental Management System according to Standard UNE-EN-ISO 14001:2004 certified by AENOR.

This document describes the work systems used for the environmental management of the Project in relationship to the environmental aspects identified and pursuant to:

- The Organisation's Policy and Objectives
- Risks and opportunities, legal and other regulatory requirements established concerning the environment.
- Explicit requirements stated by the Customer in the Contract.
- Requirements of third parties and the communities affected.
- Implicit requirements deriving from best practices in the construction industry.

The Environmental and Social Management System (ESMS) developed in this document, along with the Procedures and Supplementary Documentation related to this Plan, determines the environmental commitment and responsibility of all staff related to the Project and establishes the methodology for the proper environmental management thereof.

During the performance of the Contract, the Environmental Department of **ACCIONA Industrial S.A.** may monitor the fulfilment of the provisions in the ESMS of the CSR

REDSTONE SOLAR TOWER POWER PLANT Project by means of formal audits and a corrective action plan will be determined, if necessary.



This Environmental and Social Management System Implementation Plan will be kept permanently updated both in paper and electronic format and available to all the Project participants.

The name and coding of the related procedures of this Environmental and Social Management System Implementation Plan for the CSR REDSTONE SOLAR TOWER POWER PLANT Project are included in <u>Appendix 1</u> of this document.

2 SCOPE

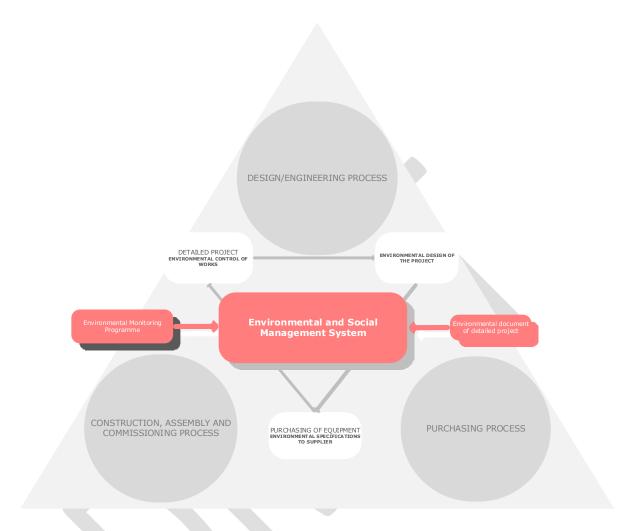
This Environmental and Social Management System applies to the CSR REDSTONE SOLAR TOWER POWER PLANT Project, to ensure the proper environmental management of the Project.

This document is issued to all parties involved in the aforementioned project that are required to follow it.

The documentary proof of fulfilment of all the requirements established for the application of the ESMS will contain the Procedures and supplementary documentation prepared for the environmental management of the Contract, along with all records that provide evidence of the level of fulfilment.

The ESMS of the CSR REDSTONE SOLAR TOWER POWER PLANT Project comprises this document, Procedures, Supplementary Documentation and the Environmental Monitoring Plans and Programmes written specifically for the works along with the records deriving from the operational monitoring and specific work procedures.





All involved parties in the Project will be deemed bound to the ESMSIP and therefore the operational monitoring to the environmental aspects established in this ESMS will apply.

3 PROJECT DESCRIPTION

ACWA Power SolarReserve Redstone Solar Thermal Power Plant (RF) (Pty) Ltd intends to construct and operate a Concentrated Solar Power Plant (CSP) utilising the Central Receiver Power Tower technology (with molten salt storage). The ACWA Power SolarReserve Redstone Solar Thermal Power Plant (hereinafter referred to as the "Project") is proposed on the Farm 469, the Hay RD, situated in the Northern Cape.

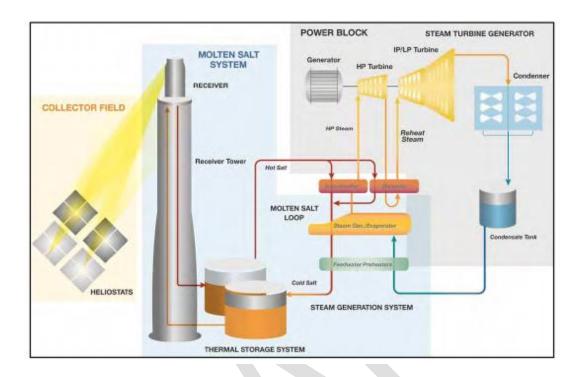


The proposed Project entails the construction and operation of a concentrating solar thermal power plant with associated infrastructure and services for the generation of renewable electricity to the national power grid. The project will be capable of producing approximately 480 000 gigawatt-hours (GWh) net of renewable energy annually, with a nominal net generating capacity of approximately 100 megawatts (MW). It is envisaged that the CSP plant will be operated as a mid-merit or base load plant. The power plant will utilise either hybrid or dry cooled technology, dependent on the detail design of the project. Total construction and development costs of the plant are estimated at R6.5 billion.

The CSP plant, as shown in the figure, primarily comprises of four subsystems as summarised below:

- Solar Collector Field: consists of all systems and infrastructure related to the control and operation of the heliostats;
- Molten Salt Circuit: includes the thermal storage tanks for storing low and high temperature liquid salt, a central solar-thermal tower receiver, pipelines and molten salt to steam heat exchangers
- The Power Block: consists of the steam turbine and generator, as well as the air-cooled condenser and associated feed water system.
- Auxiliary facilities and infrastructure: consists of the switch yard, step-up transformers, power transmission lines, access routes, water supplies and facility start-up generators (gas or diesel-fired – dependent on detailed design).





4 PARTICIPATING COMPANIES AND RESPONSIBILITIES

This document is established and maintained by ACCIONA Industrial, S. A.

The main companies involved in the Project are:

- SPONSORS/OWNER: ACWA Power SolarReserve Redstone Solar Thermal Power Plant (RF) (Pty) Ltd
- EPC CONTRACTOR: ACCIONA Industrial S. A.

The responsibilities assigned to each one of the members of **ACCIONA Industrial S. A.** are established in the Project Contract and in the agreements signed by the different parties.

The highest level of accountability for the Environmental Management System applied to the Project by **ACCIONA Industrial S. A.** lies with the Project Manager.



The Site Environmental Manager of **ACCIONA Industrial S. A.** is responsible for disseminating the Environmental and Social Management System.

5 ORGANISATION CHART

<u>Appendix 2</u> of this document contains the Organisation Chart of **ACCIONA Industrial S. A.**, where the key roles and hierarchic relationships among them are established.

Functions and responsibilities of the key positions are defined in following chapters.

The Project Management is responsible for keeping the organisation chart updated without the need to revise this ESMSIP.

6 REGULATORY FRAMEWORK

6.1 References

- **Final Environmental Impact Report:** FINAL ENVIRONMENTAL IMPACT ASSESSMENT REPORT: PROPOSED HUMANSRUS SOLAR THERMAL ENERGY POWER PLANT, POSTMASBURG, NORTHERN CAPE PROVINCE.
- **Environmental Authorization:** issued by the Department of Environmental Affairs. (DEA REFERENCE: 12/12/20/2316).
- Final Environmental Management Programme: ACWA POWER SOLARRESERVE REDSTONE SOLAR THERMAL POWER PLANT, POSTMASBURG, NORTHERN CAPE (DEA REFERENCE: 12/12/20/2316) FINAL ENVIRONMENTAL MANAGEMENT PROGRAMME Revision 2: October 2015.
- Health, Safety and Environment Specification (Appendix D, EPC Contract)

6.2 Legislation

- Constitution of South Africa (Act No. 108 of 1996).
- National Environmental Management Act (Act No. 107 of 1998) NEMA.
- National Environmental Management: Waste Act (Act No. 59 of 2008).
- National Water Act (Act No. 36 of 1998).

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- National Heritage Resources Act (Act No. 25 of 1999).
- Electricity Regulation Act (Act No. 4 of 2006).
- National Environmental Management Biodiversity Act (NEMBA) (Act 10 of 2004);
- Electricity Act (Act 41 of 1987);
- Promotion of Administrative Justice Act (Act 2 of 2000);
- Civil Aviation Act (Act 13 of 2009) and Civil Aviation Regulations (CAR) of 1997;
- Civil Aviation Authority Act (Act 40 of 1998);
- White Paper on Renewable Energy (2003);
- Integrated Resource Plan for South Africa (2010);
- Conservation of Agricultural Resources Act (Act No. 43 of 1983);
- Astronomy Geographic Advantage Act (Act 21 of 2007);
- Land Use Planning Ordinance (Ordinance 15 of 1985); and
- Subdivision of Agricultural Land Act, Act No. 70 of 1970
- Mineral and Petroleum Resource Development Act No 28 of 2002
- Mineral and Petroleum Resource Development Regulations GNR 527 of 2004
- National Environmental Management: Air Quality Act No 39 of 2004
- National Forests Act, Act No 84 of 1998
- Water Services Act, Act No 108 of 1997
- National Road Traffic Act (Act No. 93 of 1996).
- Occupational Health and Safety Act (Act No. 85 of 1993).
- National Environmental Management: Air Quality Act (Act No. 39 of 2004).
- Atmospheric Pollution Prevention Act (Act No. 45 of 1965).

6.3 International Conventions and Agreements

- South African Status Convention on Biological Diversity (29 December 1993).
- Convention on Wetlands of International Importance (Ramsar) (21 December 1975).
- United Nations Framework Convention on Climate Change Kyoto Protocol (23 February 2005).
- Montreal Protocol on Substances That Deplete the Ozone Layer (1 January 1989).
- United Nations Convention to Combat Desertification (26 December 1996).
- United Nations Framework Convention on Climate Change (21 March 1994).
- Sources: United States Central Intelligence Agency World Fact book (www.cia.gov/library/publications/the-world-factbook/index.html)



- Stockholm Convention on Persistent Organic Pollutants (POPs) (17 May 2004).
- The Fourth ACP-EEC Convention 15 December 1989 (Lome).
- Convention concerning the Protection of the World Cultural and Natural Heritage 1972 (Paris).
- Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (24 February 2004).

6.4 International Standards

- ISO 14001:2004 Environmental Management Systems.
- International Finance Corporation Performance Standards.
- Equator Principles.
- The World Bank Group Environmental Health and Safety (EHS) Guidelines.

7 PREPARATION AND REVISION OF THE ESMS

The ESMSIP is the base document of the Environmental and Social Management System which outlines the policy and general guidelines of **ACCIONA Industrial**, **S. A.** in the field of environmental management as applied to the CONCENTRATED SOLAR POWER REDSTONE Project. It provides a general description of the methods, resources and positions involved with the Environmental and Social Management System in order to ensure compliance with the requirements of the reference standard. The ESMSIP must be considered as a permanent reference when it comes to developing the different procedures so they respect the basic principles established therein.

The ESMS for the Project is structured in the form of independent documents (Environmental and Social Management System Implementation Plan, Procedures, Supplementary Documentation, etc.) in order to permanently allow for its adjustment to the various needs that may arise while it is being implemented by means of successive revisions.

The Project Manager is responsible for the implementation of every document developed by the ESMS, as well as for demanding their compliance. The different key roles in the Project will



support the Project Manager in the fulfilment of the Procedures by communicating any potential deviations.

The Procedures and Supplementary Documentation comprising the ESMS for the Project are prepared by the Head of Environmental Affairs for the Project who may delegate this responsibility to the Site Environmental Manager. Each document must be revised and checked before it is approved. The key positions in charge of the approval flow for the documents included in the ESMS for the Project are listed below:

- Head of Environmental Affairs for the Project (or the Site Environmental Manager)
 as concerns the section entitled Preparation/Production.
- Head of Environmental Affairs for the Project (or the Site Environmental Manager)
 as concerns the section entitled Verification/Checking.
- Project Manager as concerns the section entitled Approval.

Once approved, the Document Manager will file and distribute the document electronically in the corresponding file so that all the involved parties may look it up more easily, giving notice of such action to the Project Manager and the Heads of Department or Field of Specialisation involved.

The recipients of a copy of the documents comprising the ESMS for the Contract in a physical mean (paper) must keep it updated and in appropriate conditions of order and conservation, replacing and destroying obsolete copies.

Any person directly or indirectly related to the Project has the duty and the authority to suggest improvements to this document. Said improvements will be proposed to the Head of Environmental Affairs for the Project or the Site Environmental Manager. Subsequent revisions will be issued according to the indicated process, as was the case for the initial issue.

8 COMPANY POLICY AND COMMITMENT



8.1 Institutional Commitment

ACCIONA Industrial S.A. wants to communicate to its Clients, Collaborators and particularly to its Employees which are the principles for action in order to guarantee quality in the execution of the different activity areas as well as to protect and respect the environment. This commitment is reflected in:

- **Profitability** To reduce non-quality costs, avoiding defective works, increasing productivity and contributing to the improvement of the company.
- Creating value for clients To identify and meet their requirements and expectations.
- **Creating value for the human team** To create a participatory environment, to encourage satisfaction of the work will done and to take profit from continuous learning.
- **Creating value for society** To protect the environment and minimise the impacts that our activities may cause.
- **Cooperation with suppliers** Creating relationships based on trust, loyalty, accountability, mutual respect and mutual contribution.

8.2 Environmental and Social policy

Statement of intent

The preservation and respect for the environment is one of ACCIONA's basic pillars of action, apparent in the company's compliance with the best environmental practices in all its activities, through the prevention and minimization of adverse environmental impacts and conservation of natural resources.

ACCIONA's environmental strategy is structured around the commitment against climate change, promoting energy saving, rationalization of water use and management, responsible use of resources, effective waste management, pollution prevention and protection of the natural environment and biodiversity.

Principles



- Comply with environmental legislation as a basic premise of ACCIONA's commitment to the environment.
- Reduced environmental impact ACCIONA takes care of environmental aspects in all stages of development of the company's activities in order to minimize the impact on the environment, promoting the rational use of resources at all times.
- Promoting sustainable business ACCIONA promotes business development
 opportunities based on renewable generation, development of new clean technologies
 and focused on energy savings, offering solutions to meet water imbalances.
- Efficiency and excellence ACCIONA promotes efficiency and excellence in internal
 management with the implementation of an environmental management system that
 integrates economic, technical and social aspects, with a clear focus on continuous
 improvement.
- Risk management ACCIONA manages environmental risks through a plan of ongoing identification, evaluation and control.
- Environmental Awareness and Protection ACCIONA promotes collaboration in protecting the environment, developing awareness-raising, training and outreach activities for employees and stakeholders.
- Reducing the supply chain impact ACCIONA promotes the involvement of its suppliers in projects aimed at environmental protection to reduce the impacts of its supply chain.
- **Transparency** ACCIONA reports its environmental actions in a transparent manner by publishing public documents targeting its stakeholders.
- Monitoring and measurement ACCIONA develops the necessary indicators to
 obtain quantifiable information in order to help implement actions to improve its
 products, services and management processes at all times and promoting rational use
 of resources and maximum efficiency with the best technologies available

8.2 Social action policy

ACCIONA Industrial S.A. will develop a **Community Engagement Plan in coordination with ACWA POWER-SOLARRESERVE** considering those social impacts which were assessed in the Final Socio-Economic Impact Assessment (SEIA) included in the Final Environmental Impact



Report (EIR) as well as the Client's Requirements (Appendix O- Economic Development Obligations) and the Legal Regulatory.

Statement of intent

ACCIONA believes that social action must provide effective responses, within its natural capabilities, to the challenges of the communities it serves.

To achieve this goal, ACCIONA seeks to align social collaboration and its business activity, reinforcing the trust between the company and societies in which it operates and increasing its positive contributions in accordance with the OECD's Guidelines for Multinational Enterprises.

Principles

- Consistency between business and community needs ACCIONA's social activity
 focuses mainly on issues related to its business that are in turn essential for
 development: energy, water, infrastructure and services.
- Medium and long term commitment ACCIONA gives its social action initiatives and community relations a durable medium and long term focus, just as its business efforts.
- Collaboration ACCIONA cooperates with institutions, NGOs, private companies and others, for the effective development of its social actions. Relationships and partnerships with public and private institutions are intended to combine efforts to support the community.
- Positive added value ACCIONA understands that its contribution should be seen as a contribution to the welfare of communities. Its actions, not necessarily compensatory or replacement, go beyond its business obligations.
- Transparency ACCIONA seeks transparency in its collaborations with entities so they are not used for purposes contrary to applicable law at all times.
- Adaptability ACCIONA is committed, in every project, to initiatives flexibly adapted to local needs and local demands of the societies in which it operates.



 Employee involvement — Social action initiatives also represent an opportunity to channel solidarity and commitment concerns. This is why ACCIONA promotes volunteerism among its workforce.

9 PLANNING

9.1 Environmental Aspects

Before initiating the design for the Project, the Engineering Team will study the documents related to environmental issues delivered by the Customer.

The assessment method in this case will be defined by applicable environmental laws and the provisions established concerning environmental monitoring and protection.

Taking into account the environmental information, the Site Environmental Manager will identify and assess the environmental aspects related to the construction, assembly and commissioning of the Project prior to the start of construction work pursuant to the provisions established in the Company procedure concerning the identification and assessment of environmental aspects.

The assessment of environmental aspects establishes whether a certain aspect is significant from an environmental perspective based on three parameters:

- Quantity: Mass, volume, area or affected area, distances or frequency of the phenomenon.
- Toxicity or Nature: Level of effect on living beings or things that are characteristic of the aspect.
- Effect on the environment: Effects on the environment, type of environmental protection, capacity of environmental recovery, etc.

Normal situations will be distinguished from those that arise under abnormal conditions or in emergency cases. Some of the aspects identified which are not considered significant in a normal situation, in abnormal or extraordinary or emergency situations could cause relevant environmental impacts.



9.2 Environmental Requirements

The management of the applicable legislation and regulations and the subsequent identification and assessment of the level of compliance with the legal requirements associated to said legislation is defined in the Company procedure named Identification and Assessment for legal requirements and other requirements.

Once the environmental requirements affected by the construction, assembly and commissioning of the facility have been identified, the Site Environmental Manager will proceed to assess its level of compliance pursuant to the Company Procedure named Identification and Assessment Procedure for legal requirements and other requirements.

9.3 Objectives and Goals. Environmental Management Program

9.3.1 Environmental Objectives and Goals

The Head of Environmental Affairs for the Project and/or the Environmental Site Manager during the construction phase will propose the environmental objectives to be achieved while developing the Project.

The objectives proposed will take into account the Environmental and Social Policy and some of the following criteria:

- Significant environmental aspects.
- Legal and regulatory requirements.
- The results of environmental audits.
- · Environmental Commitments not fulfilled in prior fiscal years.
- The updated regulatory and legal requirements and other environmental requirements generated during the prior fiscal year.
- Accidents, emergency situations or environmental risks that have occurred.
- Internal and external communications records.
- Other aspects believed to foster the ongoing improvement of environmental behaviour.
- Other requirements such as financial, operational, safety, etc.



Whenever possible, the objectives and goals should be defined so the actions determined to attain them may be quantifiable and assessable. The objectives are approved by the Project Manager.

The environmental objectives and goals will be analysed by the Head of Environmental Affairs for the Project at least once a year as part of the Environmental and Social Management System Review activities.

9.3.2 Environmental and Social Management Programme

An Environmental and Social Management Programme should be implemented indicating the deadlines for fulfilment and the personnel responsible for establishing and enforcing compliance with each project objective or goal in order to achieve the environmental objectives and goals in a planned manner.

The Head of Environmental Affairs for the Project will take the following into consideration when structuring the Environmental and Social Management Programme:

- · The environmental objectives and goals established for the project.
- The means and resources available to attain them.
- Critical deadlines for the fulfilment of objectives and goals.

The Project Manager will approve the Environmental and Social Management Programme during the construction phase and will indicate the personnel responsible for implementing and enforcing compliance with each objective and goal in accordance with the role and level required.

Fulfilment of environmental objectives and goals will be assessed on a quarterly basis during the construction phase, assembly and commissioning so they may be updated in order to attain them.



10 IMPLEMENTATION AND OPERATION

10.1 Functions and Responsibilities of Key Positions

<u>Appendix 3</u> of this ESMSIP details the main responsibilities of the relevant positions in the organisation of **ACCIONA Industrial S. A.** for the project and the format for recording authorised signatures is attached as <u>Appendix 4</u>. It will be kept up to date by the project secretariat.

10.2 Qualification of Personnel

The human resources employed by **ACCIONA Industrial S. A.** to develop the Project have the necessary skills in accordance with the tasks they are going to perform.

The qualification of the assigned personnel is the result of academic training, skills and knowledge acquired through courses or training programmes and professional experience.

An annual Training Plan will be developed by **ACCIONA Industrial S. A.** in order to meet the Project requirements and keep personnel up to date regarding their knowledge of the impact of their activities on the environment. The Training Plan will include environmental training activities. The system to be followed with regards to the qualification of inspectors, auditors and head auditor is outlined in the general procedure of **ACCIONA Industrial S. A.** named CSR-00-QA-PR-ACC-0002 Training.

The inspections and tests will be performed by duly qualified internal inspectors holding the relevant qualifications and certifications in the area of activity affected, or by external bodies with proven solvency contracted for said purpose.

10.3 Communication

The requirements and documentation related to the application of the ESMSIP for the Project will be communicated by the Head of Environmental Affairs for the Project or the Site Environmental Manager during the construction phase. The requirements, documents and modifications thereto



will be communicated to the various responsible parties who will transmit this information to the personnel under them.

The mechanisms of communication will differ based on the documentation mean and the access to it by the recipient. These may be:

- Electronic communications: email @, internal system intranet, etc.
- Paper communications: fax, internal note, letter, etc.
- Public notice: announcement boards, signs, etc.

10.3.1 Internal Communication

When actions are identified that could generate impacts causing an unforeseen effect on the environment and/or proposals for improvement, their personnel working on the Project will communicate this information to the head of the Department affected or immediate superior.

Those responsible will then notify the Head of Environmental Affairs for the Project, or Site Environmental Manager during the construction phase and they will jointly decide upon the appropriate measures to correct or mitigate the consequences of the appearance of situations with undesirable effects on the environment. Moreover, the Head of Environmental Affairs for the Project must inform the senior management of **ACCIONA Industrial S. A.** of the performance of the Environmental and Social Management System which will be used as the basis for the Revision by the Director of the Environmental Management System implemented and for its improvement.

All contributions to the improvement of the Environmental and Social Management System by all personnel related to **ACCIONA Industrial S. A.** will follow the process established below:

- Directly to the Head of Environmental Affairs for the Project, or the Site Environmental Manager during the construction phase.
- During meetings, by notifying the highest superior over the position who will be responsible for communicating the contributions to the Construction (Site) Foreman or the Project Director.



The Site Environmental Manager will hold periodical awareness talks so the Project Team maintains the ideal behaviour as concerns environmental affairs at all times and is aware of the extent of the effects of its activity.

10.3.2 External Communication

Meaning all type of communication between **ACCIONA Industrial S. A.** with external stakeholders.

All external communications will be kept adequately coded and filed in the appropriate conditions of order and conservation. Access to them by duly authorised personnel must be guaranteed.

A correspondence reception and dispatch log will be kept listing the code, date, sender, recipient and subject.

All records (fax, email, letters, notes, certificates, etc.) may be kept on a physical medium (paper) or electronic medium as long as the appropriate safety measures are adopted to prevent their theft, loss or accidental deterioration.

A description of the communications system is defined in the CSR-00-QA-PR-ACC-0013 Internal and External Communication Procedure.

10.4 System Documentation

The name and coding of the procedures of the ESMSIP of the Project are included in **Appendix**1 of this document.

The Environmental and Social Management System applied to the Project includes the basic documents listed below:

I. <u>ENVIRONMENTAL AND SOCIAL MANAGEMENT SYSTEM IMPLEMENTATION PLAN</u> (ESMSIP):



The document that indicates the steps to be taken for the sustainable development of the Project and to mitigate its negative impacts on the environment. The plan covers the procedures and actions the organisation must comply with and offers the necessary tools to develop the Project, all while guaranteeing the achievement of its environmental objectives.

II. PROCEDURES AND PROGRAMMES:

The procedures and programmes are supplementary documents to the Environmental and Social Management System Implementation Plan and the essential purpose is to define and document the practical completion of all activities related to environmental management so as to maintain the operational and functional development of the system and provide evidence of compliance with the Environmental and Social Policy. They describe activities inherent to environmental management and are applicable to all departments of **ACCIONA Industrial S. A.** When deemed necessary, they include the forms to be used to record the data related to the environmental behaviour of **ACCIONA Industrial S. A.** These procedures are controlled pursuant to the provisions established in the Document Preparation, Coding and Control procedures.

III. Other Detailed Engineering Project documents:

Documents that describe the environmental design criteria and corrective measures applicable to the Project related to the significant environmental impacts.

10.5 Documentation Control

Documentation control must ensure that the documents are distributed up to the level necessary, always based on the scope of action. For such purpose, a DOCUMENT MANAGER will be used and available to all authorised posts with different access levels to be granted by a System Administrator according to their role in the development of the Project.

This DOCUMENT MANAGER will contain all documents in force, with the possibility to access, read-only and download, depending on the authorisations granted.

Whenever someone who needs a document from the Document Manager is not authorised to access the databases, the Head of Environmental Affairs for the Project will distribute a copy

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so that it is known and used. In such cases, a record of distribution of controlled copies will be kept in order to ensure that changes are communicated and new versions are distributed.

When non-controlled copies are printed for information purposes, such condition must be indicated on the documents.

A backup copy of the system documents will be made in accordance with the mechanisms and procedures established by the IT department of **ACCIONA Industrial S. A.**

The documents subject to control are kept at least for the duration of the project and are delivered to the Customer according to contract provisions.

The Procedures and Supplementary Documentation (Programmes, Monitoring Plans, Reports, etc.) will be prepared in accordance with the CSR-00-QA-PR-ACC-0001 Coding Documents and Communications Procedure.

Document coding is defined in the Procedure to prepare and control documentation and its annexes.

Document approvals as well as revision of documents flow charts are defined in the aforementioned Procedure.

The documents will be controlled in order to ensure that:

- The coordination process to guarantee the consistency of the document among the various participants of the Project is met.
- The updated versions of the documents are distributed and available to the posts involved.
- Obsolete documentation is voided as soon as possible.
- Obsolete documents kept for legal reasons or for traceability purposes are adequately identified, filed and available to authorised persons.

The documents must be issued and distributed so that those who take part in an activity are aware of and use the appropriate documents to carry out such activity. All documents must



state their purpose to avoid an inadequate use. All the documentation distributed to third parties will be sent requesting an acknowledgement of receipt.

The categories to identify the "purpose" of the different documents will be, in general:

- FOR INFORMATION PURPOSES: useful documents for information purposes, to gather comments or solve disagreements. Those documents marked as "NOT for APPROVAL" on the List of Project Documents will also be included in this category.
- PRELIMINARY: documents containing preliminary information and considered as non-final for construction and assembly or any other similar purpose that, in general terms, are not to be applied in the project. They do not entail any responsibility.
- FOR APPROVAL: documents requiring approval by the customer.
- FINAL: final documents to be sent to the customer. They will be the documents for construction.
- AS BUILT: when a document is used to reflect actual supply, construction, manufacturing and assembly.

Other "purposes" are acceptable when so required, provided that they clarify the scope and use of the document ("for requesting offers", "for award", "for construction", etc.). Every document will be replaced by its subsequent version or revision.

Past revisions that are kept on paper will be marked as "Obsolete", "Void" or "Past copy" and those in digital formats will be identified in a similar way and will be separated from revisions in force to avoid an inappropriate use, keeping at least one copy of each revision to allow traceability of the final document, particularly paying attention to this fact at the worksite.

When a document is voided, it must be communicated in writing to the addressees of such document.

Document files, such as Internal Notes, coordination, verification or checking reports, etc. will be filed along with the document.



The environmental criteria for the design and corrective measures applicable to the Project related to the significant environmental impacts are reflected on drawings, specifications, programmes and other documents on paper and/or computerised mediums as contractually agreed with the Customer. Controlling documentation and data guarantees the adequate execution of the Project. Distributing a new version and including it on the list of documents should be enough to avoid an involuntary use of replaced documents.

Once approved, all Project documents as well as their official revisions will be filed by Document Management so the documentation is permanently updated.

The documentation subject to control is kept at least for the duration of the Project and is delivered to the Customer according to the provisions of the contract.

The documents generated are coordinated and distributed in accordance with the provisions of the agreements of **ACCIONA Industrial S. A.** and the contents of the relevant Procedure on documentation preparation and control.

The documents that require "APPROVAL" by the Customer are listed in the Contract. Said documents will be sent to the Customer stating "FOR APPROVAL" in the purpose of the version.

The Customer will review the documents and send comments to **ACCIONA Industrial S. A.** within the period established in the contract.

The number and type of copies to be sent to the Customer must be set forth in the Contract.

The documentation will be monitored on-site according to the relevant procedure. This procedure describes the distribution, identification and filing of documents and records generated by the different departments that take part in the execution of Works, including Subcontractors and works services.

10.6 Operational Control

The person responsible for identifying and describing the operations and activities associated with significant environmental aspects of the Project is the Site Environmental Manager. The

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operational criteria are included in the procedures, plans and programmes indicated in the list of documents.

The Environmental Programmes and Monitoring Plans approved during the construction phase, assembly and commissioning of the Project make it possible to guarantee compliance with the environmental requirements applicable to the Project.

These technical and administrative procedures will be applicable under normal, abnormal and emergency conditions.

The activities and operations associated with significant environmental aspects will be monitored during the construction phase and performed in accordance with the operational monitoring procedures indicated in this ESMSIP.

The procedures, plans or programmes will be modified if necessary in order to ensure compliance with the environmental requirements identified or those deriving from environmental aspects not previously considered and implemented at headquarters to new developments and activities that may generate new, modified or previously unconsidered environmental aspects.

Design Phase

The environment requirements will be reflected in the technical specifications for the supplies (equipment and materials) needed to undertake the corrective measures established in the Detailed Engineering Project.

Procurement Phase

During the supply and subcontracting procurement phase, the Head of Purchasing for the Project will communicate the environmental requirements to all suppliers and subcontractors. The Head of Engineering, with the necessary support from the Head of Environmental Affairs, will monitor compliance in the design with a technical revision of the conditions established for supplies (equipment and materials) related to the environmental requirements established in the Detailed Engineering Project.



Construction Phase

During the construction phase and in order to monitor possible environmental impacts of the activities and services of the subcontractors in the Project, the Site Environmental Manager will communicate the required conditions and requirements of the Environmental and Social Management System to them and will be responsible for monitoring the works in regards of this.

The monitoring of compliance with the control measures established in the construction phase, assembly and commissioning will include monitoring of permits and.

10.7 Emergency Plans and Response Capacity

The Site Environmental Manager will identify potential environmental accidents and emergency situations in order to establish the measures and procedure of action to prevent and reduce any impacts they may cause on the environment.

The organisation of the plant, lines of actions, procedures and resources available to respond to the various emergencies that may arise during the Project when faced with an accident or emergency situation that could involve environmental risks during the construction phase are described in the H&SE Plan and in the CSR-00-MA-PR-ACC-0002 Environmental Emergencies Response Procedure.

Likewise, periodical revisions will be made and environmental audits conducted of the emergency plans established and procedures stipulated, particularly after an accident or emergency situation.

11 VERIFICATION

11.1 Monitoring and Measuring

Monitoring and measuring activities include:

Those aimed at recording the environmental aspects over which ACCIONA Industrial S.
 A. has an influence and control.

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- Those involving the inspection of the proper implementation of this ESMSIP for the Project.
- Those related to the calibration and control of the equipment used.

With these activities, the Head of Environmental Affairs for the Project will control the effects related to significant environmental aspects in order to prevent and minimise the environmental impacts generated.

When identifying the indicators subject to monitoring and measuring, the System requirements along with the impacts associated with Significant Environmental Aspects and operational control will be taken into consideration.

11.2 Assessment of Legal Compliance

The assessment of the level of compliance with legal requirements associated with applicable environmental legal requirements is defined in the Identification and Assessment Procedure for legal requirements and other requirements.

11.3 Non-Conformity and Corrective Action

Non-conformity means a breach of an established environmental requirement. The requirements may be legal, contractual, and regulatory or associated with internal standards.

The adoption of the corresponding corrective measures to eliminate the non-conformity detected will be ensured at all times. The Head of Environmental Affairs for the Project will monitor these tasks, integrating the information provided during the various phases of the Project.

Anyone who participates in the development of the Project may notify the Head of his/her Department or field of specialization or the Head of Environmental Affairs for the Project (Site Environmental Manager if during the construction phase) of the appearance of a non-compliant situation (real or potential).

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All non-conformities will be assigned a type as per their nature in accordance with a code for later joint classification and analysis. The Head of Environmental Affairs for the Project will be responsible for preparing the list of non-conformity types.

The Head of Environmental Affairs for the Project (or Site Environmental Manager if during the construction phase) will analyse the cause originating the non-conformity and will establish the necessary actions and close the event once the actions are proven to be effective.

If a corrective action is adopted, the Head of Environmental Affairs for the Project (or Site Environmental Manager if during the construction phase) will propose the measures to be adopted and will notify the interested parties of their responsibilities as far as the execution of the measures or their monitoring and control. The action taken may be considered effective if the cause of the source that led to the opening of the event has been eliminated. If the measure was not effective, the process will be restarted, analysing why the measure adopted was not effective and proposing a new action.

Non-conformities and corrective and preventive actions will be treated in accordance with the CSR-00-QA-PR-ACC-0006 Non Conformance Procedure.

11.4 Internal Audit

ACCIONA Industrial S. A. will periodically evaluate the effectiveness of this ESMSIP through internal audits.

With the mutual agreement of the Project Manager and the Construction Manager, the Head of Environmental Affairs for the Project will plan and conduct environmental audits to verify the ESMSIP is being properly implemented. These audits may be internal, within the **ACCIONA Industrial S. A.** organisation; or external undertook by an independent company.

They will be conducted to include the responsibilities of the different project areas depending on the phase it is in and in accordance with the circumstances (Engineering, Purchasing/Procurement, Site and Commissioning).

The audits will evaluate whether:

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- All aspects and requirements specified in the PEMP are being complied with.
- Procedures and Programmes are followed and feature the necessary control records.
- The PEMP is effectively implemented.
- Non-conformities are closed within reasonable periods of time.
- Corrective actions are implemented and effective.

The heads of the different departments audited will provide the Audit team with all documentation and information requested in relation to the scope of the audit.

A report will be written as a result of the audit and will contain the following:

- Objectives of the audit, the organisation conducting it and any general aspect considered of interest.
- Departments that were audited.
- List of the members of the audit team and people contacted during the audit.
- A list of documents audited with a copy of those the audit team deems appropriate attached in the annex.
- Facts observed by the audit team during the audit through interviews as well as the analysis of the documentation and activities subject to the audit will be included as an annex to the report.

The audit report will be distributed by the Head of Environmental Affairs for the Project to the Project Manager, Head of Engineering, Head of Construction, and the heads of the departments or field of specialization audited.

The frequency of the audits will be increased when the results of the audits demonstrate excessive non-compliant situations.

By means of periodical reviews, the Head of Environmental Affairs for the Project will check that the actions proposed to close the non-compliant events have been implemented.

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APPENDIX LIST

APPENDIX 1 APPLICABLE DOCUMENTS

Applicable Environmental and Social Management System Documents

CSR-00-QA-PL-ACC-0001 Quality Plan

CSR-00-QA-PR-ACC-0001 Coding Documents and Communications.docx

CSR-00-QA-PR-ACC-0002 Training

CSR-00-QA-PR-ACC-0003 Internal Audit

CSR-00-QA-PR-ACC-0006 Non Conformance Procedure

CSR-00-QA-PR-ACC-0012 Document Management

CSR-00-QA-PR-ACC-0013 Internal and External Communication

CSR-00-MA-PN-ACC-0002 Environmental and social management system implementation plan

CSR-00-MA-PN-ACC-0002 Waste Management Plan

CSR-00-MA-PG-ACC-0001 Contractor Environmental Monitoring Program

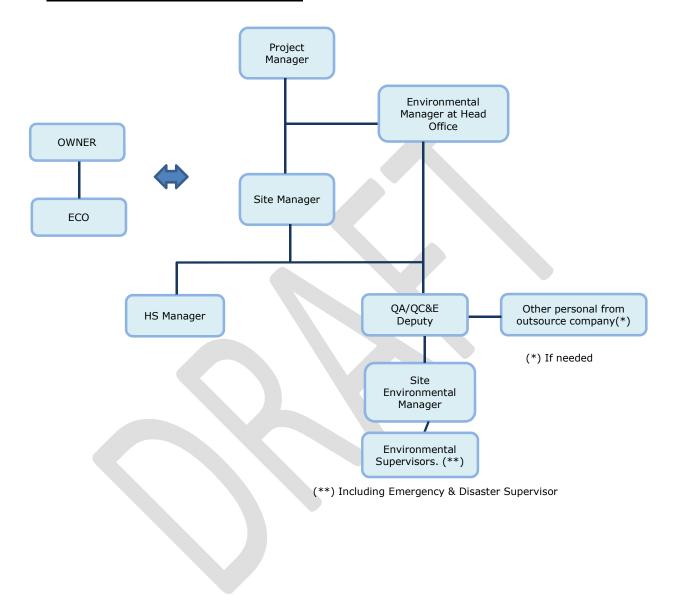
CSR-00-MA-PR-ACC-0001 Identification and Evaluation of Legal Requirements and Environmental Aspects

CSR-00-MA-PR-ACC-0002 Environmental Emergencies Response Procedure

PCS01 Ed01 Social Impact Management of Projects Corporate Procedure



APPENDIX 2 ORGANIZATION CHART





APPENDIX 3 FUNCTIONS AND RESPONSIBILITIES

Project Manager (PM)

- He/she is responsible for the proper implementation of the Environmental and Social Management System pursuant to the provisions of this ESMSIP and the Contract.
- Define Project's Organization.
- Establish and monitor the Environmental and Social objectives.
- Conduct periodic reviews of the Environmental and Social Management System introduced.
- Make sure both human and material resources are available for the System to perform appropriately.
- Ensure fulfillment of continuous improvement.
- Make certain that personnel are motivated and trained and awareness raised about the importance of environmental system.
- Approving documents included in the ESMSIP.
- Adopting the necessary corrective actions.
- Informing the Customer of any actions to be adopted in order to solve claims.
- Acting as the contract person for the Customer as regards Contract fulfilment monitoring.
- Ensure the organization's communication systems operate two ways, both up-down and down-up.
- Coordinating the engineering and procurement services so they are consistent with environmental requirements and requisites.
- Assure that all environmental data required are included in monthly reports.

Environmental Manager (at Head Office)

- Establishing and designing the Environmental and Social Management Policy, preparing and fostering the Environmental and Social Management System for the Project.
- Informing the Project Manager of the performance of the Environmental and Social Management System, proposing improvements for periodical revisions.
- Proposing, in coordination with the Project Manager and the Site Environmental Manager, the environmental objectives for the Project.



- Analysing the environmental objectives of the Project at least once a year as part of the Environmental and Social Management System Review activities.
- Planning and conducting environmental audits to verify the ESMSIP is being correctly implemented.
- Coordinating the implementation of corrective actions throughout the project along with the Project Manager and the Owner.
- Preparing or adapting the Procedures and Supplementary Documentation of the Project comprising the ESMSIP of the Contract to the Owner's requirements.
- Controlling and keeping environmental management documentation generated over the course of the Project.
- Participating in Project Management meetings.
- Communicating any deviations in the implementation of the procedures so the various suppliers comply with:
 - The environmental requirements of the Project;
 - The specifications;
 - Environmental procedure monitoring;
- He/she is the highest authority for monitoring NON-CONFORMITIES (real or potential)
 under the Project and for the opening and closing of these situations, the final
 resolution and the inclusion of any information provided during the various phases of
 the Project.
- Proposing the measures to be adopted and communicating to the interested parties their responsibilities as regards the execution of non-conformities.
- Preparing a list of non-conformity types.
- Monitoring and integrating information on the status of environmental monitoring plans and programmes.
- Working with Owner-ordered inspectors and auditors.
- Having the applicable legislative and statutory provisions available and facilitating access to all legal requirements applicable to the project.

Site Manager (SM)

- Establishing, implementing and ensuring compliance with the ESMSIP during the construction process of the Project.
- Fostering strict compliance with this ESMSIP on-site by all staff and subcontractors.



- Maintaining an updated site organisation chart and recording of authorised site signatures.
- Fostering coordination and communication between the Site Environmental Manager and the construction team and assembly supervisors to ensure the Execution Procedures, inspections and tests required are completed in accordance with the environmental requirements and specifications indicated.
- Establishing and ensuring the adequate control, distribution and filing of field documents.
- Monitoring non-compliant situations to ensure they are corrected.
- Defining the responsibilities of the works team and coordination among personnel.

QA /QC and Environment Deputy Manager (also named Site Environmental Manager)

- The Site Environmental Manager is responsible for disseminating the Environmental Management System.
- He/she must act as the contact person for the customer on all issues related to environmental management.
- He/she is the highest authority for monitoring NON-CONFORMITIES (real or potential) on site and for the opening and closing of these situations, the final resolution
- He/she will issue periodical reports to the Project Management with the status of these situations based on the documentation provided from the Site.
- Working with Owner-ordered inspectors and auditors.
- Proposing the measures to be adopted and communicating to the interested parties their responsibilities as far as the execution of non-conformities during construction and commissioning.
- Preparing or adapting the Procedures and Supplementary Documentation of the Site comprising the ESMSIP of the Contract to the Owner's requirements.
- Selecting the environmental requirements applicable to the construction, assembly and commissioning of the Project and assessing compliance.
- Proposing, in coordination with the Environmental Manager for the Project, the environmental objectives during the construction phase.
- Identifying and assessing the Project Environmental Aspects during the construction and commissioning phase.



- Identifying and describing the operations and activities associated with the Significant Environmental Aspects during the construction and commissioning phase.
- Leading awareness talks with the works team on the environmental management system and the impact of their activities on the environment.
- Communicating the conditions requires and requisites of the Environmental Management System to subcontractors and conducting environmental monitoring as this relates to the subcontractors.
- Identifying possible environmental accidents and emergency situations.
- Establishing the measures and procedures for action to prevent and reduce the impacts that may be generated in the environment.

Environmental Supervisors

- Verify that work site waste are managed correctly
- Detect Non conformities, analyses and contribute to find solutions. Correct them.
- Monitor the right execution of works adjusted to environmental procedures.
- Make the environmental inspections according the Environment plans.
- Collaborate in internal audits
- Communicate with site personnel and check waste control and equipment
- Collaborate in environment emergency situations.
- Collaborate in the proposal of corrective actions for Non-Conformities.
- Check the corrective actions for non-conformities.

Emergency & Disaster Supervisor

- Determine the Non-conformities and analyze, provide solutions and correct them.
- Identify potential emergency situations that may occur at different stages of the project.
- In environmental emergencies, intervene to mitigate the effects and monitor follow-up situations created.
- Acting on environmental emergencies, and keep track of those produced.
- Establish and communicate the environmental emergency plans.
- Analyze after any environmental emergency, the measures contained in the environmental emergency plan.



- Carry out periodic reviews of the emergency plan.
- Organize and analyze simulations if necessary.
- · Collaborate with internal audits.

HS Manager

- Prepares safety studies and plans and occupational risk assessments.
- Supervising and/or conducting studies, safety plans and risk evaluations specific to the different types of work.
- Prepares safety studies and plans and occupational risk assessments for the company's operations.
- Detecting the training needs of personnel in his/her responsibility.
- Drafting reports and/or conducting health and safety audits following a visit to the site and forwarding the information to the person responsible.
- Dealing with labor authorities in relation to prevention matters, initiating and coordinating the reports that must be submitted to the labor authorities.
- Proposing risk control and reduction measures in view of the results of the inspections conducted by the prevention specialists and verifying the implementation and effectiveness of those measures.
- Planning the prevention activities, proposing safety-related goals and objectives.
- Overseeing the control of existing risks and periodically evaluating working conditions.
- Taking part in the investigation of accidents and preparing statistical analyses of accident rates.
- Supervising the coordination of business activities from a prevention perspective.
- Holding meetings with the Owner to analyse the level of implementation of the system and any deviations that may have occurred.
- Keeping statistics for the Site and reporting them to the Project Manager.



APPENDIX 4 AUTHORISED SIGNATURES

acciona Industrial	REGISTER OF AUTHORISED SIGNATURES						
NAME	INITIALS	ABBREVIATED	COMPLETE		DATE		
NAME	111111111111111111111111111111111111111	SIGNATURE	SIGNATURE	IN	OUT		
			/				