

**INTER-AMERICAN DEVELOPMENT BANK**



**CNO SURETY BOND FACILITY**

**(RG-L1016)**

***ENVIRONMENTAL AND SOCIAL MANAGEMENT REPORT***  
***(ESMR)***

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## **A. Project Description**

1. CNO, *Construtora Norberto Odebrecht S.A.* (the “Company”), is the largest Brazilian engineering and construction group and is very active internationally, with major contracts throughout Central and South America, as well as in the U.S.A., Portugal, Southern Africa and the Middle East. At yearend 2006, the company had a portfolio of 108 ongoing construction contracts, 64 of which in Brazil and 44 abroad. Of these, 18 are in Central and South America, 16 in Angola, 6 in Portugal, 3 in the U.S.A. and 1 in the Middle East.
2. To meet construction contract bonding requirements, CNO has established a facility with AIG Group. However, because the company’s international portfolio is expanding rapidly, this facility is reaching AIG’s exposure limits. In view of this, CNO has asked the IDB to provide capacity relief to AIG in the form of an uncommitted PCG line covering up to 50% of AIG’s portfolio of bonding for existing and new eligible projects. This will permit AIG to write new bonds for CNO and for CNO to continue its growing contribution to infrastructure development in the region. The eligible projects would be those projects located in IDB Borrowing Member Countries and which comply with the IDB’s environmental and social requirements.
3. The amount of AIG-bonded eligible projects (both existing and projects in the pipeline) is estimated at approximately US\$400 million. The PCG would therefore cover up to US\$200 million, or 50% of each eligible project bonded by AIG. The average tenor of the bonds issued by AIG is approximately 3 years. The Availability Period of the Facility would be up to 3 years, renewable each year for a further 12 months, enabling AIG and CNO to recycle capacity during the availability period, with the Bank’s Facility achieving a multiplier effect by facilitating multiple projects over a period of time. The maximum tenor for each PCG issued under the Facility would be seven years.
4. The first PCGs issued under the Facility would be for selected existing eligible projects where AIG has already issued bonds. After closing, the IDB would, on an uncommitted basis, issue further PCGs for projects presented to the Bank by AIG and CNO, assuming they complied with the Bank’s eligibility conditions and environmental and social requirements.

## **B. Environmental and Social Compliance**

5. CNO reports that all its operations are in compliance with all applicable legal and regulatory environmental, social, health and safety, and labor requirements, including permits and authorizations applicable to its engineering and construction contracts globally.
6. Additionally, as it be described in Section D, compliance with local environmental, social, labor and health and safety regulation and provision of all relevant permits is a requirement for all CNO contracts to move forward.

7. It is important to note that IDB was engaged on a similar project with CNO in 2004 (BR-L1014, which never reached financial closure). Under this project, the Bank would have provided a partial credit guarantee in the amount of US\$28 million, enabling CNO to issue a US\$100 million equivalent bond that would receive a better rating than otherwise possible. Proceeds from the bond would be applied to the Company's capital expenditure program, and payback would be sourced from certain projects in CNO's backlog. During the Environmental and Social Due Diligence (ESDD) assessment conducted in 2004, the Bank reviewed CNO's corporate environmental and social capabilities, and well as three representative projects to verify the way in which the corporate Environmental and Social Management System was applied at the individual contract level. The 2004 ESDD assessment concluded that CNO's ESMS was satisfactory regarding health and safety issues, though not all relevant procedures were fully implemented throughout the Company's portfolio, particularly in the case of international contracts. Furthermore, corporate environmental management procedures were found to be insufficient and a series of recommendations regarding project screening and environmental governance were made. (See ESMR at <http://www.iadb.org/projects/Project.cfm?project=BR-L1014&Language=English>).
8. Based on the ESDD of 2004, IDB set forth the following recommendations regarding further development of Corporate Environmental, Social and Health and Safety Management Systems:
  - Implement Worker Safety Management Systems on contracts abroad as well, including use of the same performance indicators adopted on contracts in Brazil, within 6 months of Financial Closure.
  - Implement Occupational Health Management Systems and corresponding performance indicators on contracts abroad, within 12 months of Financial Closure.
  - Establish a screening procedure in order to classify contracts according to their level of environmental and social risk, within 6 months of Financial Closure.
  - Establish an environmental monitoring procedure, prioritizing contracts classified as high risk, within 6 months of Financial Closure.
  - Implement an Environmental Management System based on environmental performance indicators, by end 2004.
  - Implement a social impact monitoring procedure in order to verify proper implementation of proposed social programs (usually by clients), by end 2004.
9. Even though as already stated, the 2004 operation never reached financial closure, CNO continued to implement the action plan agreed with the IDB, and currently all of the above recommendations can be considered to be implemented, as follows:
  - Worker Safety and Occupational Health Management Systems and corresponding performance indicators were implemented on contracts outside of Brazil by early 2005. However, occupational health indicators are not fully

in place in some countries due to differences in legislation and lack of doctors with occupational health experience. Training of doctors abroad on application of procedures in the PI-SSTMA by CNO occupation health specialists has been conducted.

- A system of environmental performance indicators (known as ISAM – *Indicadores Sócio-Ambientais*) was initially implemented in pilot scale in 2005 and fully implemented in 2006. This system includes a screening procedure for classification of projects according to their level of environmental and social risk. Monitoring of high-risk contracts and some medium risk contracts by the corporate HSE group is reportedly taking place since 2006.
  - Verification of the social impacts of projects was incorporated into the ISAM procedure in early 2007, through inclusion of Social Responsibility criteria in the ISAM scorecard. Furthermore, under ISAM reporting requirements, all individual contracts are required to inform to the Corporate Environmental Unit, on the relevance, implementation, and compliance with CNO's three Social Safeguard Policies regarding involuntary resettlement, indigenous peoples and cultural property.
10. A detailed description of the Environmental and Social Management System, including the project screening procedure and the set of performance indicators, is presented in Section D herein.
11. Additionally, in 2002 the IFC arranged a US\$280 million loan to improve CNO's financial structure. In its evaluation IFC concluded that CNO met the applicable World Bank/IFC environmental and social policies and the environmental and health and safety guidelines, and successfully implemented the agreed mitigation measures. IFC evaluated CNOs' compliance on a yearly basis until the IFC loan was repaid in 2006.

### **C. Environmental and Social Impacts and Risks**

12. The potential key environmental, social, health and safety, and labor negative impacts and risks associated with this operation are those related to or caused by the specific infrastructure projects constructed by CNO that would be subject to Surety Bond Facility. These impacts can be diverse and their significance will depend on the project characteristics (e.g. sector, type, location, etc.).

### **D. CNO's Organizational Structure**

13. *Organização Odebrecht S/A* (holding company) is structured according to the set of operational principles that were set forth in a book written by the company's founder ("Sobreviver, Crescer e Perpetuar – Tecnologia Empresarial Odebrecht - TEO"). These operational principles are applied in all of the group's companies, including CNO. They establish clear guidelines for distribution of responsibilities at all levels of the company's hierarchy.

14. TEO, or Odebrecht Business Technology, includes a Code of Ethics that specifies the way in which the group's companies relate to clients, shareholders, employees, public entities, suppliers, competitors and other civil society stakeholders. It also includes basic rules of conduct with regards to accounting records, legal compliance, health and safety, social responsibility and care for the environment.
15. TEO is widely disclosed internally and provides employees at all levels with a clear understanding of their role. At the same time, TEO sets the ground rules that make decentralization and delegation of authority possible. This constitutes a central aspect of corporate policy and is applied at the contract level at which the contract management teams have a great degree of autonomy covering all aspects, including social, environmental and health and safety issues.
16. CNO's organizational structure includes various hierarchical levels, with a Business Leader (LE) at the top.
17. Superintendent Directors (DS) occupy an equivalent business level in the hierarchy and report directly to the LE. Each DS is responsible for a portfolio of contracts. Definition of this portfolio can be on the basis of geography or of business areas. Each DS is responsible for business development within his geographical region or business area. Currently, there are 16 DS in CNO's structure.
18. Contract Directors (DC) report directly to each DS. They are directly responsible for execution of work under assigned contracts and need to comply with pre-established performance goals, which are set in Action Plans negotiated at the beginning of each contract. These Action Plans include targets regarding environmental, social and health and safety performance. DCs have great autonomy and can, within the limits imposed by the TEO, operate almost as independent companies.
19. A highly structured incentive policy provides for complementary remuneration for DCs and main contract management team members that need to meet or exceed specific contract performance goals, including, but not limited, to financial results.
20. Thus, in CNO's organizational structure it is essential to induce commitment of the DCs with legal compliance and with environmental, social and health and safety performance, since it is this hierarchic level that is mostly responsible for contractual and legal compliance, and it is important to ensure that an adequate balance is reached between the search for financial results and performance with regards to environmental, social and health and safety issues.
21. Consistent with their degree of autonomy, responsibility assigned to DCs is greater than usually given to construction managers and they need to involve themselves with proposal preparation and contract negotiations. Upon contract start-up, they are required to structure the contract management team, which

includes health and safety and environmental experts as deemed necessary on a case-by-case basis.

22. At the corporate level (reporting to the LE), CNO has an Environmental and Health & Safety Advisory Group (the corporate HSE group). This department is currently staffed with a six (6) member team, including one coordinator, one senior environmental expert, one senior safety expert, one occupational health expert (medical doctor) one environmental lawyer, one safety engineer and an administrative assistant. The corporate HSE group is responsible for the design and development of environmental, social and health and safety guidelines and management systems, as well as for supervision of their proper implementation at the contract level. CNO has also a written directive setting the main guidelines about the company environment policy signed by the LE.
23. The corporate HSE group also assists DCs with planning environmental and health and safety management systems (ESMS) as required in each contract. With this purpose, it maintains a reference library, which can be accessed by all DCs and contains model procedures, engineering specifications and other information that may facilitate ESMS development by the DCs.
24. Environmental and health and safety teams at the contract level are structured by the DCs. Staffing of these teams varies from contract to contract, depending on project characteristics and legal and contractual requirements. Staffing is established by the DCs during contract start-up phases, when development of environmental and health and safety management plans needs to be concluded.
25. Currently, CNO has approximately 50 occupational health experts (medical doctors) allocated to contracts in the portfolio. Occupational health teams may also include nurses, first aid attendants and ambulance drivers, depending on project needs. Furthermore, a total of 80 worker safety engineers are allocated to ongoing contracts (data reported for 2007).
26. To date, CNO has largely adopted a strategy of concentrating environmental management responsibilities on the worker safety engineer. Exceptions to this occur in the case of projects in environmentally sensitive regions or others where environmental performance is deemed to be a critical success factor.
27. Pursuant with this strategy, CNO has provided environmental training to its safety engineers. Between 2003 and 2005, 34 safety engineers completed a 6 module – 360 hour environmental management course at the University of São Paulo (USP).
28. In order to control and supervise compliance with corporate environmental, social and health and safety policy and procedures, the corporate HSE group relies mostly on compulsory reporting requirements. Monthly worker safety reports (statistics) are submitted by the DCs on each contract. This is also the case with occupational health statistics on contracts within Brazilian territory. In the case of occupational health statistics for contracts abroad, this reporting procedure is only

partially operational since there are significant differences in legally required occupational health practices that make a uniform report difficult to implement in some cases. Reporting on contract environmental and social performance is required on a quarterly basis.

29. As possible, all reports are based on numerical (statistical) data and include calculation of performance indicators that are common to all contracts. In practice, this is much more the case with regards to health and safety performance than with regards to environmental and social performance.
30. Further to the reporting procedures described above, the corporate HSE group conducts periodic inspection of some contracts, with focus on those that represent higher environmental risk or which report less than satisfactory health and safety performance.
31. Finally, the Corporate Health and Safety Management System has successfully incorporated H&S performance into the contracts' incentive structure, such that variable remuneration of the DC and other contract management team members is penalized if health and safety indicators are below average. This effectively contributes to ensure that health and safety is a priority at the contract level.

#### **D. Environmental and Social Management**

32. CNO has an Integrated Health and Safety and Environmental Program, which is fully compatible with ISO 14.0001 and BS 8800. The Integrated Program (IP) Manual is the main corporate document reflecting CNO's system for managing environmental and H&S aspects of its operations, and includes (i) EHS Policy, (ii) General Requirements, (iii) Organization and Responsibilities, (iv) Training, (v) Communication, (vi) Measurements and Monitoring, (vii) Inspection and Corrective Actions, (viii) Documentation and (ix) Auditing Program, among other aspects. Additionally, specific corporate procedures complementing the IP Manual include, (x) EHS Management Plan, (xi) EHS Risk and Impact Evaluation Procedure, (xii) Emergency Planning and Preparedness, and (xiii) Internal Auditing Procedures.
33. The Integrated EHS Program of CNO holds ISO 14000 certification of compliance issued by Bureau Veritas Quality International for the areas of petrochemical plants and thermoelectric power plants, being the first Brazilian engineering construction company to hold such certification. Additionally, in order to keep these certifications, EHS audits are conducted twice a year in all contracts where it is applicable.
34. Some CNO construction and engineering projects may be located near protected areas or involve population resettlement (e.g. hydropower projects or highways), but typically the responsibility over such issues are of the clients for which CNO is building the project. Nevertheless, CNO acknowledges its responsibilities with environmental, social, and cultural impacts and risks associated with the projects in which it participates. Therefore in addition to the IP Manual, CNO has

- developed three socio-environmental guidelines: (i) Involuntary Resettlement, (ii) Cultural Properties, and (iii) Indigenous Populations. These are compatible with IDB and World Bank policies and guidelines.
35. CNO's Corporate Environmental and Social Management System was developed and initially implemented in 2005-2006. This includes basically a screening procedure, which classifies projects according to their level of environmental and social risk, and a performance evaluation procedure, that applies a scorecard to each contract on the basis of compliance with a diversified set of environmental and social indicators. A final score, which considers jointly the project's risk classification and performance scorecard results, constitutes the basic indicator of contract performance with regards to environmental and social issues. This indicator is known as ISAM (*Indicadores Sócio-Ambientais*). For further details on the ISAM system please see Annex 1.
  36. Environmental and social performance evaluations include a requirement for reporting on all inspections conducted by environmental authorities, certification agencies, client environmental auditors, lending institutions and CNO's corporate HSE group. These reports must include mention of any non-conformities raised during the inspections as well as a description of ensuing corrective action. Results of inspections are not allocated any score in the context of the ISAM evaluation.
  37. DCs are required to evaluate their contract's environmental and social performance and determine their ISAM score on a quarterly basis during the contract's duration.
  38. CNO contracts are only considered finalized when all environmental responsibilities in the contract scope have been fulfilled. Instruction N° 02/03 (revised in 2007) issued by the LE establishes a list of environmental documents that need to be obtained before a contract is closed (and hence, before bonus compensation can be calculated). These include, as pertinent, environmental permits, water use authorizations, monitoring data, evidence of proper disposal of contaminated materials, among others.
  39. The corporate HSE group will monitor environmental and social performance on all high risk contracts and will conduct the ISAM evaluations directly. In the case of medium risk contracts, inspections and ISAM evaluations by the corporate HSE group takes place on a selective basis. Low risk contracts are evaluated exclusively by the DC and his team.
  40. Inclusion of the ISAM evaluations in the Complementary Compensation Fund (*Câmara de Compensação*) procedure in order to provide a financial incentive for environmental performance, has not yet been decided upon. However, it is important to note that ISAM target scores are an integral part of the Action Plans which are agreed with the contract managers (DCs) at the beginning of all contracts.



## **F. Environmental and Social Requirements**

41. As part of the Facility documentation, the Bank will require that all Projects guaranteed under the Facility comply with each of the following:
  - a. All applicable environmental, social, health and safety, and labor regulatory requirements of the host country, including those associated with any applicable environmental, health and safety related permits, authorizations, or licenses.
  - b. All applicable aspects of CNO's Corporate Environmental, Social, and Health and Safety Management Systems, including reporting and monitoring of CNO's ISAM.
  - c. All applicable aspects of the IDB Environmental and Safeguard Compliance Policy, Involuntary Resettlement Policy, and Indigenous Peoples Policy.
  - d. Applicable aspects of the World Bank General Environmental Guidelines (World Bank Pollution Prevention Handbook, July 1, 1998).
  - e. Applicable aspects of the World Bank Monitoring Guidelines (World Bank Pollution Prevention Handbook, July 1, 1998).
  - f. Applicable aspects of the International Finance Corporation Guidelines for General Occupational, Health and Safety (2003).
  - g. Send written notice of any and all non-compliances with any environmental and social requirement of the Facility documentation and any significant environmental, social, health and safety, and labor accident, impact, event, and/or claim. In all cases in which there are material gaps between CNO's Safeguard Policies on involuntary resettlement, indigenous peoples and cultural property, and the way in which those issues are being dealt with by CNO's clients or other third parties, IDB shall be notified.
42. Prior to Financial Closure, the IDB will require, in form and content satisfactory to the IDB, that CNO presents an Environmental, Social, Labor, and Health and Safety Action Plan, including:
  - Screening of projects should include an additional category in order to group separately all projects in IDB's "List of Excluded Activities for Non-Sovereign-Guaranteed (NSG) Operations". It is understood that no projects in this category will be proposed for inclusion in the bonding facility.
  - While autonomy of the contract management team is an essential part of CNO's policies and operational procedures in general, corporate minimum requirements should be established with regard to staffing for environmental and social management at the contract level. This should ensure that cost considerations do not result in understaffed environmental or social contract management teams.

- CNO's Safeguard Policy on Involuntary Resettlement should be adjusted to include prior preparation and submittal to IDB for review, of Resettlement Action Plans in form and content compatible with OP-710, in the case of projects in which resettlement is CNO's contractual responsibility.
  - Similarly, in cases where CNO's contract requires direct engagement with indigenous peoples, the corresponding Safeguard Policy should be adjusted to include prior preparation and submittal of an Indigenous Peoples Development Plan in form and content compatible with OP-765, for review by IDB.
  - As a complement to the Safeguard Policy on Cultural Property, a corporate procedure on chance finds should be developed and established as a compulsory element of the ESMS on projects where chance finds are a possibility.
  - With regard to the scoring criteria in the ISAM procedure, CNO will include soil run-off and siltation as an additional (6<sup>th</sup>) item in the section on *Environmental Monitoring Programs*. This is necessary to verify the effectiveness of erosion control procedures punctuated in the section on *Environmental Control Systems and Procedures*.
43. Prior to the issuance of any Partial Credit Guarantee under the Facility the IDB will require CNO to present a summary of the project containing:
- A brief description of the project, including the main technical characteristics and quantities associated to the construction contract, but also focusing on vulnerable habitats and/or communities which may be affected and on the social and economic rationale for its implementation (expected benefits).
  - Institutional framework with regards to the project's environmental, social and health and safety aspects, including but not limited to: environmental, social and health and safety supervision procedures by the client, supervision procedures and capabilities of the environmental agency; information on other IFI involvement with the project and specific ESH requirements, and any proposed supervision by civil society
  - Main aspects of the legal framework applicable to the project, with focus on legislation relative to environmental permitting, public consultation, expropriation and resettlement, indigenous peoples, cultural property and worker's health and safety, as pertinent.
  - Status of the project's environmental permitting process.
  - Description of public consultation conducted to date, including reference to key stakeholders that have expressed concern about the project and to the way in which said concerns have been responded to.
  - Summary description of the social and environmental characteristics of the project's direct area of influence (i.e. that which may be affected by construction in the contract scope).

- List of the project's expected environmental and social impacts as assessed in the Environmental Impact Study or other permitting procedure, with comments on the thoroughness of this assessment as pertinent.
  - Detailed description of all environmental, social and health and safety requirements of the contract in particular and of the project as a whole.
  - Assessment of environmental, social and health and safety management of the project as a whole, including not only a gap analysis with respect to applicable IDB guidelines and policies, but also comments on the adequacy of distribution of responsibilities, of the client's capabilities with regards to tasks to be performed directly, of public entities' expected performance with regards to enforcement of applicable legislation, of planned procedures for supervision of construction, and similar aspects.
  - Status of implementation of CNO's ESMS on the project (project risk classification, environmental management plan, contract staffing regarding H&S, environmental and social management, environmental performance reporting and monitoring to date, etc.).
  - Recommendations regarding environmental, social and health and safety mitigation and management.
44. The IDB will also require for all new Partial Credit Guarantee an Environmental and Social Compliance Certificate, stating that the Project is fully compliant with all environmental and social requirements and provisions of the Facility documentation.
45. During the life of the Facility, the Company must prepare and submit an Environmental and Social Compliance Report (ESCR), in frequency, form and content acceptable to IDB. The ESCRs should include a summary of the previous period's ISAM evaluation reports and corresponding results for all the projects in the bonding facility, as well as a brief explanation of any significant unexpected impacts during the corresponding period.
46. The Bank will monitor the project's environmental, social, health and safety aspects via internal Bank supervision actions (e.g., site visits, review of documentation, etc.) and, as necessary, will contract an external independent environmental consultant to perform more detailed supervision/monitoring actions during the operation of the Facility. In addition, the Bank will have the right, as part of the Facility Documentation, to contract for the performance of an independent environmental, health, and safety audit, if needed.

## Annex 1

1. The total ISAM score is 20% dependent on risk classification and 80% dependent on results in the performance scorecard. Final ISAM scores are classified as follows:
  - Excellent over 90 points
  - Very good between 80 and 90 points
  - Good between 70 and 80 points
  - Fair between 60 and 70 points
  - Insufficient under 60 points.
2. Compliance with permitting requirements is not assigned a specific score but is nonetheless an important element of the performance scorecard, since non-compliance with this item automatically means that the contract's ISAM will be considered insufficient. The corporate minimum standard for ISAM is 70 points (i.e. Good).
3. Project classification on the basis of environmental and social risk considers three categories: high, medium and low risk projects.
  - Projects are classified as high risk when they affect environmentally protected areas, require relocation of indigenous communities, form reservoirs larger than 100 hectares or permanently alter flow conditions of rivers, imply in use of significant quantities of dangerous substances, may generate severe environmental liabilities such as aquifer contamination or loss of representative habitats, or may generally be expected to produce other negative impacts with limited mitigation possibilities, as identified in the respective Environmental Impact Assessment.
  - Projects are classified as medium risk when most of their impacts are geographically contained or are easy to mitigate, and when none of the conditions that characterize high risk are present.
  - Low risk projects are those that imply in minor and easily controllable impacts and which are predominantly located within confined and controlled environments.
4. Classification of projects according to environmental and social risk is initially a responsibility of the DCs with support of the contract management team. This classification is verified and can be altered by the corporate HSE group. In some cases, a site inspection is conducted in order to level criteria and decide on the project's risk classification.
5. Initial project risk classification usually takes place at the time of signature of the contract. In the case of some projects with high risks, the corresponding classification is established prior to contract signature.

6. Once construction starts, at any time the corporate HSE group can alter a pre-established project's level of risk if necessary as a result of unforeseen events (i.e. landslides, earthquakes, social unrest, other).
7. The ISAM score which is dependent on risk classification (20%) is allocated on the following basis: 20 points for low risk projects, 15 points for medium risk projects and 10 points for high risk projects. Thus, in effect, higher risk projects start with a handicap and it is more difficult for them to meet the minimum corporate requirement for a final ISAM of 70 points.
8. Contract environmental and social performance, on the basis of which 80% of the ISAM score is allocated, is assessed according to a scorecard based on the following items and weights:
 

• Availability of Environmental and Social Management Plan	10%
• Implementation of environmental control systems / procedures	30%
• Adequacy of monitoring programs	20%
• Impact prevention and sustainability program	10%
• Compliance with social policies and directives	20%
• Contract Social Responsibility programs	10%
9. With regards to the Environmental and Social Management Plan (ESMP), the total score is attained on the basis of the nine (09) items listed below with their respective weight on the final score:
  - Organization and distribution of responsibilities (10%);
  - Adequate identification of all applicable environmental requirements, both legal and voluntary (10%);
  - Adequate identification of all environmental aspects and impacts associated to each phase of construction (15%);
  - Contract specific environmental performance goals and objectives (10%);
  - Impact control and prevention systems, including both procedural and engineering aspects (15%);
  - Training and preparation for environmental control (10%);
  - Monitoring and measurement of impacts (10%);
  - Emergency preparedness (10%);
  - Evaluation procedures and continuous improvement (10%).
10. As with the case of the Health and Safety Management Plan, each contract management team is responsible for preparation of the contract's Environmental and Social Management Plan (ESMP). To assist in this process, CNO's data bank of environmental plans, programs, procedures and projects can be accessed. Among projects in this data bank, one known as "kit canteiro" deserves highlighting. This was developed in 2003 and includes a diversified set of procedures, specifications and projects which provide guidance for implementation of proper environmental control devices at construction camps and other provisional construction infrastructure. The main items included in the "kit canteiro" are:

- Controlled sanitary landfill;
  - Effluent treatment ponds;
  - Oil/water separators for mechanical shops;
  - Sanitary installations, including septic tanks, filters, infiltration grids, etc.;
  - Oil/water separators and containment devices for fuel tanks and other areas where toxic liquids are stored;
  - Incinerators for garbage, hospital waste and oil contaminated materials;
  - Procedures for reforestation with native vegetation;
  - Best practice notes on spill prevention and containment;
  - Best practice notes on erosion control;
  - Monitoring procedures manual;
  - Monitoring of water quality, liquid effluents and solid wastes;
  - Environmental check lists;
  - Instructions for evaluation of ISAM scores.
11. Based on project specific construction camp requirements, other items are included by the contract management team as necessary to complete the ESMP.
12. It is important to highlight that contract managers have great autonomy in preparation of each contract's ESMP. This needs to cover all aspects listed above, but there are no minimum corporate guidelines or standards other than those that constitute a specific requirement of the contract. Thus, for instance, there are no minimum staffing requirements established at the corporate level and the contract manager has full flexibility on how to staff his management team.
13. Proper implementation of the contract's ESMP receives 60% of the performance scorecard's total score, on the basis of implementation of proper *environmental control systems and procedures* (30%), adequacy of *monitoring programs* (20%) and *impact prevention and sustainability programs* (10%).
14. *Environmental control systems and procedures* are assessed on the basis of the following six (06) criteria, all of which have the same weight on the final score:
- Control of domestic effluents;
  - Control of industrial effluents;
  - Handling of oil, fuels and other dangerous substances;
  - Control of atmospheric emissions;
  - Solid waste management;
  - Erosion control and sediment containment.
15. Similarly, *environmental monitoring programs* are assessed on the basis of the following five (05) evenly weighted criteria:
- Monitoring of domestic effluents;
  - Monitoring of industrial effluents;
  - Monitoring of air emissions;
  - Monitoring of solid wastes (volume and classification);
  - Groundwater monitoring.

16. With regard to *impact prevention and sustainability*, the score is based on six (06) equally weighted criteria as follows:
- Reduction of clearing of vegetation and of the size of camp facilities;
  - Implementation of previous preparatory measures for subsequent reclamation of affected areas;
  - Clean production practices (i.e. rationalization of energy and water use);
  - Environmental training in adjacent communities;
  - Waste recycling and segregation;
  - Other (as established by the evaluator).
17. It is important to note that in all the above cases, maximum score with regards to each aspect is attained in two ways: through fully satisfactory implementation of applicable measures, or because the particular aspect does not apply to the project. Thus, low risk projects on which many of the criteria included in the performance scorecard will not apply will automatically obtain a high score. Because of this, a high score is in effect more an indicator of absence of impact due to either excellence in environmental management or non-applicability of some of the evaluation criteria where impacts are very limited or absent. Nonetheless, it provides a standard measurement rule through which the environmental impacts of a highly diversified project portfolio can be compared.
18. Another aspect which is worth mentioning is the fact that under the established scorecard system, relative weights of evaluation criteria are fixed and do not vary on the basis of the nature of construction work to be performed. Thus, for instance, erosion control has the same weight on the total score in the case of a major highway or of a high-rise building. This is a shortcoming and a way to emphasize project-specific critical aspects without losing the basis for comparison between projects should be pursued.
19. The remaining 30% of the ISAM score is assigned on the basis of social aspects. Of this, 20% depends on compliance with CNO's three Social Safeguard Policies, with the HIV prevention program and with the requirements relative to Health and Safety management, all of which have equal weight of 4% on the final score.
20. It is important to note that the score for compliance with the Social Safeguard Policies, in contracts where responsibility for involuntary resettlement, indigenous peoples and/or cultural property are not within CNO's scope, is assigned on the basis of proper verification of the compliance of the procedures adopted by the responsible party with CNO's policy. Thus, ISAM score on these aspects is based on verification of proper execution and on adequate reporting on the way in which they are implemented by the responsible 3<sup>rd</sup> party (client or other) in order to enable the corporate HSE group to assess the need for action. The ISAM score is not affected by the 3<sup>rd</sup> party's performance with regards to such issues.
21. Finally, the other 10% of the ISAM score is assigned on the basis of implementation of social responsibility programs by the contract. This includes

nine (09) types of initiatives which are based on the United Nations (UNDP) Millenium Goals and cover:

- Poverty reduction and food supply;
- Reduction of illiteracy and educational campaigns;
- Equal opportunity promotion (gender based);
- Reduction of infant mortality;
- Family health promotion;
- Reduction of HIV, malaria and other diseases;
- Job opportunities for the handicapped;
- Promotion of sustainable development and environmental preservation;
- Contribution to development of local economic opportunities.

22. As with other criteria, contracts where such kinds of initiative are not applicable or pertinent will receive the full score.