



Development Bank of Namibia

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DBN PS3-POLLUTION PREVENTION AND CONTROL STANDARD

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a) Version Control

The table below serves to track the key revisions made to this document for change control purposes.

Date	Version	Change Description	Author/Editor
08/02/2016	0.01	Initial Draft for first review	Manager: Environment & Social Development
24/04/2016	0.02	Initial Review	Head: Risk and Compliance- John Jacobs
23/05/2016	0.03	2 nd Review	Risk and Compliance Committee
	0.04	Departmental Review	Audit Risk and Compliance
10/10/2016	0.05	Second Review	Senior Manager: Risk and Compliance- Saima Nimengobe
07/11/2016	1.00	DBN Board Approval	Chairperson: DBN Board of Directors
10/01/2019	2.00	Change logo on first page	Manager: Environment & Social Development

1. DEFINITIONS, TERMS & ABBREVIATIONS

BAT	Best available techniques
DBN	Development Bank of Namibia
CLIENT/CUSTOMER	The legally authorised and registered entity that obtained or is applying for funding from DBN to implement a project
ESMS	Environmental, and Social Management System
ESMP	Environmental and Social Management Plan
GHS	UN Globally Harmonised System of Classification and Labelling of Chemicals
REACH Regulation	Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
ISO14001:2015	International Standards Organisation: sets out the criteria for an environmental management system and can be certified to. It maps out a framework that a company or organization can follow to set up an effective environmental management system
ISO18001	OHSAS 18001 standard also be referred to as ISO 18001, OHSMS etc) is the internationally accepted and recognised management standard for occupational health and safety. ISO 18001 is used as a method of assessing and auditing occupational health and safety management systems.

2. BACKGROUND

The International Finance Corporation (IFC) Performance Standards are an international benchmark for identifying and managing environmental and social risk and has been adopted by many organizations as a key component of their environmental and social risk management.

IFC's Environmental, Health, and Safety (EHS) Guidelines provide technical guidelines with general and industry-specific examples of good international industry practice to meet IFC's Performance Standards.

In many countries, the scope and intent of the IFC Performance Standards is addressed or partially addressed in the country's environmental and social regulatory framework.

All human activities and especially those with land-use changes have a direct impact on land, air, water and use natural resources. The Pollution Prevention and Control Standard specifies a number of integrated environmental approaches against which DBN financed projects and operations will be monitored and audited.

This means that emissions to air, water (including discharges to sewer) and land, plus a range of other environmental effects, must be considered together. Integrated Pollution Prevention and Control (IPPC) gives requirements to prevent emissions and waste production and where that is not practicable, reduce them to acceptable levels.

The Standard generally addresses what must be done but does not specify how each clause should be implemented. In assessing a projects compliance with the Standard, promoters should expect general conformance to this Standard unless the project can demonstrate that it meets the intent of the Standard by an alternative approach.

3. SCOPE

The Standard applies during the environmental, occupational health and safety and social impacts and risks identification process of a project. The implementation of the actions necessary to meet the requirements contained in this Standard is managed by the promoter overall environmental and social management plan, the elements of which are outlined in the DBN PS1-ESMS Standard and the requirements of the Environmental Management Act No 7 of 2007.

This standard is applicable to all Development Bank of Namibia's (DBN) clients and extends to their assets, facilities, operations, projects and activities, including activities undertaken by any contractor on behalf of the Company, business units and managed operations including corporate/administration offices and other facilities located off site.

Failure to comply with the implementation of this standard requirement will be treated as an Event of Default. A no Event of Default will occur if the failure to comply is capable of remedy and is remedied within timeframes as stipulated in the DBN Term Loan Facility Agreement with the promoter.

4. INTENT

The intent of this standard is to prevent spillage and environmental contamination from handling, storage and processing of material and non-mineral wastes. Control measures must be commensurate with risks to the environment, and ensure that environmental impacts due to spills or other releases are minimised. For those cases where site contamination has occurred, the intent of the standard is to ensure that contamination is properly characterised, managed and remediated where necessary.

The intent of this standard is:

- avoidance of any deterioration in the quality of human health or the environment, and any loss of biodiversity, by avoiding, reducing and, if possible, compensating/remedying significant adverse effects of projects supported by the DBN;
- enhancing resource efficiency, that will ease pressures on the environment and bring increased competitiveness through cost savings from improved efficiency, commercialisation of innovations and better management of resources over their whole life cycle; and,
- promotion of an integrated approach to prevention and control of emissions into air, water and soil, to waste management, to energy efficiency and to accident prevention for the protection of the environment as a whole and therefore, avoiding the shift of pollution from one environmental medium to another.

5. PLANNING

- 5.1. The promoter should adhere to the requirements of the Environmental Management Act No 7 of 2007 and best international environmental practice (ISO14001:2015) and to any obligations and standards in the applicable multilateral environmental agreements to which Namibia is party to.
- 5.2. Where ISO14001:2015 and ISO18001 standards are more stringent than national laws and standards, the higher ISO standards are required, if practical and feasible, taking local conditions into account. In such cases the DBN will agree the applicable requirements with the promoter on a project by project basis.
- 5.3. The promoter is responsible for legal compliance whereas regulatory and enforcement tasks remain with the relevant authorities.

- 5.4. In order to prevent, reduce and as far as possible eliminate pollution arising from different activities and to establish a general framework for the control of these activities, giving priority to intervention at source, ensuring prudent management of natural resources and taking into account, when necessary, the economic situation and specific characteristics of the location in which the activity is taking place, during the whole project lifecycle.
- 5.5. This includes project design, construction, operation and decommissioning. The promoter shall provide, as a basic obligation, that the following general principles are applied:
- all the appropriate preventive measures are taken against pollution;
 - the best available techniques and/or any emerging techniques are applied, including those already defined
 - no significant pollution is caused and a high level of protection of the environment taken as a whole is achieved;
 - the generation of waste is prevented and where waste is generated, it is prepared for re-use, recycled, recovered or, where that is technically and economically impossible, it is disposed of while avoiding or reducing any impact on the environment;
 - energy and resources are used efficiently, providing for significant opportunities in terms of competitiveness, cost reduction, improved productivity and security of supply; and,
 - the necessary measures are taken to prevent accidents and limit their consequences.
- 5.6. The application of best available techniques, meaning the most effective and advanced stage in the development of activities and their methods of operation and including both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned, as well as of any emerging techniques that could provide either a higher general level of protection of the environment or at least the same level of protection of the environment and higher cost savings, should take into account the geographical location and/or the local environmental conditions of the installation concerned, thereby avoiding disproportionately higher costs compared to the environmental benefits.
- 5.7. In determining the applicable best available techniques or any emerging techniques, the promoter shall use the available reference documents based on:
- the performance of installations and techniques in terms of emissions, expressed as short- and long-term averages, where appropriate, and the associated reference conditions, consumption and nature of raw materials, water consumption, use of energy and generation of waste; and,
 - the techniques used, associated monitoring, cross-media effects, economic and technical viability and developments therein
- 5.8. The promoter will ensure that the project is designed, constructed and operated applying relevant pollution prevention measures. The promoter will also ensure that the release of

emissions into air, water and soil, is controlled and, under normal operating conditions, does not exceed the associated levels recommended by the available reference documents for best available techniques, having regard to their nature and their potential to transfer pollution from one medium to another.

- 5.9. Over the lifetime of the project, the promoter must consider avoiding the deterioration of the quality of soil and groundwater. Therefore s/he should put in place adequate measures to prevent emissions to soil and groundwater and regularly monitor these measures so as to avoid leaks, spills, incidents or accidents occurring during the use or storage of different equipment and/or materials.

6. IMPLEMENTATION AND OPERATION

- 6.1. In addition to the standard monitoring measures regulated under national legislation, the promoter will put in place measures for controlling the release of pollutants outside the normal operational phase (e.g. such as start-up and shut-down operations, leaks, malfunctions and momentary stoppages and all other non-routine or accidental circumstances) so as to minimise local, regional, or transboundary pollution.
- 6.2. In order to detect possible pollution of air, water and soil at an earlier stage and, therefore, taking corrective measures avoiding spreading the pollution, the promoter shall put in place processes to ensure that all emissions are monitored on a regular basis.
- 6.3. The monitoring requirements of emissions into air and water, the implementation measures, as well as the appropriate requirements for the regular maintenance and monitoring measures taken to prevent emissions to soil and groundwater, will be described in the clients/customers overall environment and social management plan and will be integrated into the environmental and social management system.
- 6.4. The results of the emission monitoring shall be properly communicated and made available by the client/customer, thereby ensuring increased transparency of the promoters overall management system.
- 6.5. Where historical pollution such as soil or ground water contamination exists and/or any environmental damage has been caused due to emissions released into the environment, the promoter will seek to determine whether it is responsible for remedial measures.
- 6.6. If it is determined that the promoter is legally responsible, then these liabilities will be resolved in accordance with relevant national legislation or, in the absence of any legal framework, based on internationally disseminated best practice that will be defined with the DBN on a case-by-case approach.

- 6.7. By tackling noise emission at source, the promoter shall ensure that the project is designed, constructed and operated so as to avoid, prevent or reduce the harmful effects, including nuisance, as a result of exposure to environmental noise by humans.
- 6.8. The promoter shall reduce noise emissions using one or a combination of techniques identified and recommended by the available reference documents for best available techniques.
- 6.9. The promoter shall address the adverse project impacts on ambient conditions by considering, but not limited, to the following conditions:
- the environmental sensitivity of geographical areas likely to be affected by projects, with particular regard to existing and planned land use, including land take and fragmentation, the relative abundance, availability, quality and regenerative capacity of natural resources in the area and the absorption capacity of the natural environment.
 - The size of the project, the cumulation with other projects or activities, the use of natural resources, the overall pollution and nuisance, the natural and man-made disaster risks, with particular regard to hydro morphological changes, the impact of the project on climate change and contribution to an improved resilience; and,
 - Characteristics of the potential impacts in terms of: magnitude and spatial extent, the nature, including their transboundary nature, the intensity, complexity and probability, the duration and reversibility, the speed of onset the impacts, etc.
- 6.10. When the project is likely to constitute a significant source of emissions in an already polluted environment, and where environmental quality standards require stricter conditions than those achievable by the use of best available techniques, the promoter will, in addition, develop alternative solutions and measures with the aim to contributing to the improvement of ambient conditions and overall compliance with environmental quality standards.
- 6.11. In all operations, the promoter will prevent waste generation and will reduce its hazardousness to human health and the environment, by strictly applying the waste hierarchy and the requirements defined for specific waste “streams” as requiring specific priority, ensuring high quality of reusing, recycling, recovering, and reaching the target that the recycled waste is used as a major, reliable source of raw materials.
- 6.12. Turning waste into energy should be a priority for the client/customer, the energy recovery being limited to non-recyclable materials.
- 6.13. Where waste generation cannot be recycled or reused, the promoter should promote improved environmentally-friendly practices for the treatment, destruction and final disposal of the waste where disposal in a landfill is final resort.
- 6.14. Hazardous waste will need to be reduced and, if not possible, safely managed so as to minimise adverse effects on human health and the environment, following a strict control regime. This

includes labelling, record keeping, monitoring and control obligations. The promoter should also be encouraged to identify relevant market-based alternatives for its environmentally sound disposal.

- 6.15. When the final disposal of waste and hazardous waste is provided by third parties, the promoter shall ensure the use of licenced contractors as required by legislation in the sector.
- 6.16. The promoter shall record and report on a regular basis the waste quantities generated, as well as their off-site transfer and documented in waste disposal certificates.
- 6.17. The promoter shall seek to avoid, reduce or eliminate the use of dangerous chemicals and substances of high concern and to consider replacing their use by less dangerous substances or technologies where suitable economically and technically viable alternatives are available, with the aim of ensuring a high level of protection of human health and the environment from hazardous effects of chemicals.
- 6.18. The promoter is responsible for the overall management of the risks from chemicals, through the assessment of hazards and risks of substances, by being encouraged to develop alternative assessment methods, providing safety information on the properties of their chemical substances and allowing for their safe handling, as well as identifying and implementing the risk management measures to protect human health and environment.
- 6.19. The risk management measures should be applied to ensure that exposure to substances of very high concern, including discharges, emissions and losses throughout the whole life-cycle, is below the threshold levels beyond which adverse effects may occur.
- 6.20. The REACH Regulation and the UN Globally Harmonised System of Classification and Labelling of Chemicals (GHS) should be used as reference for classifying and labelling chemicals as a best practice in the absence of Namibian Standards.
- 6.21. The promoter shall avoid, under any circumstances, manufacturing, trading and using chemicals and substances that are subject to international bans or phase-out due to their high toxicity to human health and to the environment.
- 6.22. When the activity includes the use of pesticides, the promoter shall seek to promote its rational and strict use, by implementing the general standards of integrated pest management approach or the use of less susceptible varieties thereby contributing to achieving;
 - minimising the hazards and risks to human health and the environment from the use of pesticides
 - reducing the levels of harmful active substances including through substituting the most dangerous ones with safer (including non-chemical) alternatives; and,

- promoting the use of codes of good practices.
- 6.23. The promoter shall handle and store waste according to legislation and international good practices by applying measures that lead to the avoidance of dangerous handling operations and prevention of unwanted releases
 - 6.24. The promoter should be encouraged to implement crop-specific standards, including integrated pest management, by shifting towards a more environmentally-friendly use of all available crop protection measures, giving priority to low-risk alternatives wherever possible, and otherwise to the products with minimum impact on human health and the environment among the ones available for the same pest problem.
 - 6.25. The aquatic environment is especially sensitive to pesticides. The promoter shall pay particular attention to avoiding pollution of surface water or groundwater by taking appropriate measures and reducing, as far as possible or eliminating, if appropriate, the use of pesticides in sensitive areas from a water management point of view (e.g. areas designated for abstraction of drinking water) or on sealed or very permeable surfaces that can lead to higher risk of pollution of aquatic environment.
 - 6.26. The promoter shall also consider reducing, as far as possible or eliminating, if appropriate, the use of pesticides in very sensitive areas, such as areas of important biodiversity, nationally and internationally protected areas (e.g. Ramsar sites), or in the areas where the risks from exposure of the public to pesticides is high.

7. PERFORMANCE MANAGEMENT

- 7.1. The promoter should be prepared to respond to any process upset, accidental and emergency situations by implementing control measures so as to prevent major accident hazards. In addition control measures should be put in place to limit the consequences of such accidents not only for humans (health and safety aspects) but also to the environment, if applicable, based on relevant identified operational risks, with a view to ensuring a high level of protection in a consistent and effective manner.
- 7.2. The promoter will set up basic principles for management systems, which must be suitable for the prevention and control major-accident hazards and limiting their effects. This includes the establishment of a major accident prevention policy, the preparation of safety reports, the development of safety management systems and the drawing-up of internal and external emergency plans, as well as, the creation of systems so as to ensure that those plans are tested, revised and implemented.
- 7.3. The need for putting in place effective systems for ensuring prevention, preparedness and response to major accidents should be identified and acknowledged as part of the

client/customers overall environment and social management systems (as described in the DBN PS11-Emergency Preparedness Standard and DBN PS11-Emergency Preparedness Standard), including at least:

- organisation and personnel; the roles and responsibilities of personnel and of subcontracted bodies involved in the management of major hazards at all levels in the organisation, together with the measures taken to raise awareness of the need for continuous improvement;
- identification and evaluation of major hazards; adoption and implementation of procedures for systematically identifying major hazards arising from normal and abnormal operation including subcontracted activities where applicable and the assessment of their likelihood and severity;
- operational control; adoption and implementation of procedures and instructions for safe operation, including maintenance, of plant, processes and equipment, and for alarm management and temporary stoppages;
- management of change; adoption and implementation of procedures for planning modifications to, or the design of new installations, processes or storage facilities;
- planning for emergencies; adoption and implementation of procedures to identify foreseeable emergencies by systematic analysis, to prepare, test and review emergency plans to respond to such emergencies and to provide specific training for the staff concerned;
- monitoring performance; adoption and implementation of procedures for the ongoing assessment of compliance with the objectives set by the client's major-accident prevention policy and safety management system, and the mechanisms for investigation and taking corrective action in case of non-compliance; and,
- audit and review; adoption and implementation of procedures for periodic systematic assessment of the major-accident prevention policy and the effectiveness and suitability of the safety management system; the documented review of performance of the policy and safety management system and its updating by senior management, including consideration and incorporation of necessary changes indicated by the audit and review.

7.4. If the need for the development of internal emergency plans has been identified during the assessment stage, this plan shall include, at least:

- the relevant persons authorised to set emergency procedures in motion and those in charge of and coordinating the on-site mitigation action;
- the relevant persons with responsibility for liaising with the authority responsible for the external emergency plan, if applicable;
- for foreseeable conditions or events which could be significant in bringing about a major accident,

- a description of the action which should be taken to control the conditions or events and to limit their consequences, including a description of the safety equipment and the resources available;
- arrangements for limiting the risks to persons on site including how warnings are to be given and the actions persons are expected to take on receipt of a warning;
- arrangements for providing early warning of the incident to the authority responsible for setting the external emergency plan in motion, if applicable, the type of information which should be contained in an initial warning and the arrangements for the provision of more detailed information as it becomes available;
- where necessary, arrangements for training staff in the duties they will be expected to perform and, as appropriate, coordinating this with off-site emergency services; and,
- arrangements for providing assistance with off-site mitigatory action.

8. REVIEW

The principles contained in this standard will be reviewed on an annual basis to facilitate improvement.

9. GENERAL REFERENCES FOR STANDARD METHODS

- DBN PS1-ESMS Standard
- Environmental Management Act No 7 of 2007
- Hazardous Substances Ordinance, 1974. (Ordinance No. 14 of 1974)
- IFC, Guidance Note 3, Resource Efficiency and Pollution Prevention
- African Development Bank Group Integrated Safeguards System (ISS) - Approved 17 Dec 2013
- REACH Regulations and GHS
- European Investment Bank (EIB) Environmental and Social Handbook, Environment, Climate and Social Office Projects Directorate, Version 9.0 of 02/12/2013

10. BOARD APPROVAL OF STANDARD



Development Bank of Namibia

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EXTRACT OF THE UNAPPROVED ORDINARY BOARD MINUTES OF THE BOARD OF DIRECTORS' MEETING HELD ON 7 NOVEMBER 2016 AT 12 DANIEL MUNAMAVA STREET, WINDHOEK, NAMIBIA

"7. RISK, COMPLIANCE AND POLICIES

7.1 The Board reviewed and approved without any amendments thereto the following environmental standards,

- 7.1.1 Environmental and Social Management System Standard
- 7.1.2 Occupational Health and Safety, Public Health and Security Standard
- 7.1.3 Rights and Interests of Indigenous People Standard
- 7.1.4 Stakeholder Engagement Standard
- 7.1.5 Labour and Working Conditions Standard
- 7.1.6 Land Acquisition and Involuntary Resettlement Standard
- 7.1.7 Cultural Heritage Standard
- 7.1.8 Emergency Prevention, Preparedness and Response Standard
- 7.1.9 Pollution Prevention and Control Standard
- 7.1.10 Biodiversity and Ecosystems Standard
- 7.1.11 Greenhouse Gas Emissions and Climate Change Standard

A handwritten signature in black ink, appearing to read 'R Brusa', enclosed within an oval-shaped stamp.

**Company Secretary
R Brusa**

14 December 2016