DEVELOPMENT OF PROPER METHOD FOR EGYPT

Institutional Strengthening of the Egyptian Environmental Affairs Agency to Improve its Environmental Policies Formulation and Environmental Management Capabilities

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EXECUTIVE SUMMARY

The World Bank proposed in 2005 that in EPAP II a public environmental performance ratings program would be established on a pilot scale in major polluting industries "hot spots" on the basis of the Program for Pollution Control, Evaluation and Rating (PROPER).

The methodology has been developed and tested in several projects (Indonesia, Philippines, China, India, etc.) in collaboration with a team from the World Bank's Policy Research Department (PRDEI). This methodology represents so called 3rd generation environmental management strategies (after "command and control" and "market-based instruments") and can be categorized to "public participation" methods. The PROPER ranks companies to one of the five categories according to their environmental performance. The categories are represented by the following color codes from best to worst: gold, green, blue (emissions compliant with law), red (non-compliant) and black. The list of companies and their color code will be published in media.

Confidentiality and security limits of information publishing are quite seldom a reason to block environmental disclosure activities because detailed information e.g. on products and hazardous materials are not distributed in the PROPER procedure. The experiences of environmental rating and public disclosure systems are very positive. For example, in China many of the participating companies were motivated to improve their performance and receive better rating results accordingly.

Environmental reputation matters for firms whose expected costs or revenues are affected by judgments of environmental performance by employees, customers, suppliers, and stockholders. The purpose is to keep the PROPER system as simple as possible so that public audience can easily understand its message. The system was planned so that it is easy to implement, publish and that it does not create unnecessary quarrel and extra work in the enterprises or authority organizations.

The PROPER rating format for Egypt was developed together with relevant experts and stakeholders and finalized after testing. The questionnaire is simple and easy to answer. There are questions where the company representative can answer either "yes", "no" or "not relevant". The criteria include concentrations of emissions to air and waste water discharges but also questions about general environmental management in the company. The sectors can be added later and e.g. waste management and certifications can be assessed.

The involvement of the public, NGOs and media will be planned together with EEAA in the following stages of the project. The purpose will be to make the results of the rating well-known as a part of general environmental awareness raising campaigns.

A methodological testing was carried out by applying the PROPER system for 22 enterprises located in the 6th-of-October and for another 6 in south of Cairo. The project team interviewed the company management in 6th-of-October and requested the needed information for the PROPER. For other 6 companies we obtained materials related to environmental audits and CAPs. The purpose was to assess the applicability of the approach and the questionnaire in different kinds of companies. The companies were of different size and represented many different sectors as metallurgy, chemicals, building materials, electronic equipment, food and textile. It is clear that enterprises operating in heavy industrial sectors using lots of natural resources have difficulties to perform well across environmental issues.

The results of the test of 28 plants show that the example enterprises become ranked quite evenly to different rating classes. However, none of the plants received green rating but two plants were rated gold. Blue rating was achieved by 7 plants, red by 11 and black by 8 plants. The results show that it is rather easy for many companies to achieve better rating whenever their management understands the criteria of the method.

Whenever the PROPER system will be taken to operational use, the inspectors must fill the formats in the connection of ordinary inspections. The RBOs should control the validity of the answers using laboratory analyses, monitoring devices and other available data and correct any possible errors in the data provided by the enterprises. The credibility of public disclosure depends on the credibility of the information that is used for ratings.

1- INTRODUCTION

Environmental Authorities in Egypt are facing major problems in enforcing industries to achieve compliance with national environmental law. The duties of authorities have continuously increased but the financial and human resources have remained inadequate. Therefore, it is necessary to develop the efficiency and methodology to be used in the environmental administration and management.

At present, a proactive approach is strongly stressed in the new policy of the Ministry that values compliance and improvement of environmental performance by providing financial incentives for industrial pollution control investments. The World Bank proposed in 2005 that in EPAP II a public environmental performance ratings program would be established on a pilot scale in major hot spots on the basis of the Program for Pollution Control, Evaluation and Rating (PROPER).

Law 4/1994 of the Environment has stipulated that the Egyptian Environmental Affairs Agency (EEAA) may, in order to achieve its objectives, "…regularly collect national and international information on the environmental status and their changes, in collaboration with information centres in other entities, assess and employ these information in environmental management and disseminate such information" (Article 5, chapter 2). The Law allowed civil society to have a voice heard in the press, in the media and in public hearings concerning environmental issues. It also enabled NGOs to monitor compliance and even win court cases against the State. Article 103 of the law states: "Every citizen and organization concerned with the protection of the environment shall have the right to report any violation of the provisions of this Law". Consequently, there is no legal basis not to publish names of non-compliant companies in media.

One of the key approaches to achieve EEAA's communication objectives is urging the public, organizations, and institutions concerned with environmental issues to participate in planning and implementing environmental policies and emphasizing the joint responsibility for environmental problems (National Strategy for Environmental Communication, 2005). The PROPER method is one of the tools serving this purpose.

Public consultation is not mandatory in the Egyptian EIA system, and as a result, is not undertaken. Public participation is mainly taking place for overseas funded projects, when required by the international donors and public hearings have been organized by NGOs for debating environmental issues. NGOs and the

media have shown interest in participating in raising environmental awareness and information distribution to the public.

The private sector is getting more and more environmentally responsible through complying with environmental regulations, especially when it exports its products or is in joint ventures with international firms. Many private companies are investing in new and cleaner technologies to increase their profitability while complying with environmental regulations. Many companies have established a self-monitoring system and some have already acquired IS0 14000 and IS0 14001 certification (Self-Monitoring Manual – General Guidebook; EEAA & EPAP 1999).

The present project has applied the "Program for Pollution Control, Evaluation and Rating" (PROPER) approach for Egypt. The methodology has been developed and tested in several projects (Indonesia, Philippines, China, India, etc.) in collaboration with a team from the World Bank's Policy Research Department (PRDEI). This methodology represents 3rd generation environmental management strategies (after "command and control" and "market-based instruments") and can be categorized to "public participation" methods. The method is related to the Corporate Environmental Report (CER) which is a tool to communicate a company's environmental performance. CER is used to demonstrate company-wide integrated environmental management systems, corporate responsibility and the implementation of voluntary initiatives and codes of conduct. The PROPER approach is not a part of enforcement (command and control) mechanism but a system which gives an opportunity for the industries to demonstrate their environmental responsibility and for the community (and all the stakeholders) to verify it and hold them accountable. Consequently, the PROPER approach will not replace anyhow the ordinary inspections and other control mechanisms of the environmental management. Merely it provides incentives and disincentives for enterprises to comply with national regulations.

The PROPER ranks companies to one of the five categories according to their environmental performance. The rating system with the color coding has been standardized but the questionnaire to be filled together with industries had to be adjusted to local conditions of the country. Confidentiality and security limits of information publishing are very seldom blocking environmental disclosure activities because detailed information e.g. on products and hazardous materials are not distributed in the PROPER procedure.

The experiences of environmental rating and public disclosure systems are very positive. For example, in China many of the participating companies were

motivated to improve their performance and receive better rating results accordingly. A similar system is the "Performance Rating and Information Disclosure on the Environment" (PRIDE) scheme of EECCA.

In the meetings among the EPAP II World Bank team, RBOs of Cairo and Alexandria, and the Project Team, the implementation of the Project was discussed. A general view was that the PROPER approach could be useful for Egypt.

2- PROPER APPROACH

2-2 Purpose of PROPER

The PROPER approach can be applied in any country whenever environmental regulations have been introduced for e.g. water, wastewater, solid and hazardous waste and air (and polluted soil, electromagnetic radiation, and radioactive contamination). The standardized PROPER has two main objectives:

- Promote compliance with existing regulations;
- Reward firms whose performance exceeds regulatory standards.

Environmental reputation matters for firms whose expected costs or revenues are affected by judgments of environmental performance by employees, customers, suppliers, and stockholders. Many factors can affect firms' evaluation of their environmental reputation, including company size, export orientation, and multinational ownership. For corporative image-sensitive companies, public certification of good or bad performance may translate to large expected gains or losses over time.

The PROPER system will rate enterprises according to their environmental performance, classify them to categories represented by the following color codes:

Code	Color	Performance
	Gold	Excellent
	Green	Good
	Blue	Adequate
	Red	Poor
	Black	Very Poor

For the public sector, PROPER will cost much less than conventional enforcement because it doesn't rely on time-consuming legal procedures. For some private firms, pursuing green or gold status may be very costly as significant investments for environmental technologies may be needed. Since the continuous development of environmental performance is voluntary, it is reasonable to assume that firms won't undertake it unless the expected gains warrant the costs.

Public disclosure may motivate improved environmental performance through the following mechanisms:

- *Output market pressures*. Disclosure may affect the demand for firms' goods.
- *Input market pressures*. Disclosure may affect the demand for firms' securities and the firms' ability to hire and retain employees.
- *Judicial pressures*. Disclosure may encourage private citizens to initiate court actions against polluters, motivate private suits to force firms to undertake abatement, and give rise to judicial actions in countries whose constitutions guarantee citizens the right to a healthy environment.
- *Regulatory pressures*. Disclosure may build support for new pollution control legislation or better enforcement of existing legislation.
- *Community pressures*. Disclosure may enhance pressures that community groups and NGOs place on polluters to cut their discharges.
- *Managerial information*. Disclosure may provide new information to managers about their plants' emissions and options for reducing them.

Well-informed market agents can play an important role in creating pressures for environmental protection. Banks may refuse to extend credit because they are worried about environmental liability; consumers may avoid the products of firms that are known to be heavy polluters. The evidence suggests that multinational firms are important players in this context. These firms operate under close scrutiny from consumers and environmental organizations in the high-income economies. Investors also appear to play an important role in encouraging clean production. Heavy emissions may signal that a firm's production techniques are inefficient. Investors also weigh potential financial losses from regulatory penalties and liability settlements. Numerous studies suggest that stock markets in both developed and developing countries react significantly to environmental news.

2-2 Global Criteria in PROPER Approach

The rating criteria of the PROPER shall be selected considering the circumstances of the industries of the country. The purpose is to find a set of simple questions reflecting the practices of environmental management in the companies. Subsequently the questions must be organized so that the easiest are followed by the more demanding ones. In setting the questions to certain performance categories, there is one common rule – the non-compliant companies are either

red or black and the compliant blue or better. In the following table the general principles (applicable in most countries) of the rating are shown:

Sector	Gold	Green	Blue	Red	Black
Water pollution	Own treatment plant; Clean effluents; Water circulation	Emissions < 50% of standard; Effluents to treatment plant	Compliant with regulations (>6 months); Adequate monitoring	Emission standards modestly exceeded; Sedimentation tank; Occasional monitoring	Emission standards seriously exceeded; Poor monitoring
Hazardous materials	Controlled handling in all the stages; Transportation to best available storage or treatment plant	Controlled handling in all the stages; Safe storage	Compliant with regulations(>6 months); Adequate monitoring; Register and license to handle	HW handling and collection somehow controlled; No register in place	HW handling and collection poorly controlled; No register in place
Solid waste	Recycling; Reuse; Classification; Transportation to re-users, treatment plants and landfills well organized	Recycling; Planned transportation to official landfills	Compliant with regulations(>6 months); Waste collection to official landfills; Adequate monitoring	Waste not classified; Disposal sites not well known	Waste not classified and collection poorly controlled; Possibly illegal landfills
Soil pollution	Materials handling only on pavements where closed drainage system	Leaks controlled; Storage and handling of chemicals controlled	Compliant with regulations (>6 months)	Occasional soil pollution; Chemicals stored on unpaved ground	Contaminated soil at the site; Regular leaks of chemicals
Air pollution	Modern combustion modifications; flue gas treatment; HAP control; Clean fuels used	Emissions < 50% of standard; Combustion modifications; Simple particle control	Compliant with regulations(>6 months); Adequate monitoring; Cleaner fuels used	Emission standards modestly exceeded	Emission standards seriously exceeded
Management	ISO EMS and certification; Risk Management; Eco-label; EIA and EMP fully applied	Environmental team nominated; Accident management; EIA and EMP; End-of-pipe technologies used	Environmental experts nominated; Self-monitoring in place; Emergency facilities; EIA; Adequate monitoring	Environmental responsibilities allocated to staff	Occasional efforts; Poorly organized EM

Table. A description of the general principles of the ratings using the PROPER. These principles can be used in most countries and exact requirements should be adjusted to the circumstances of each country. Explanations for the table above:

Best Available Techniques, BAT - concept addressing environmental performance of a bundle of activities affecting all environmental aspects of a plant's or industry's operations, such as procedures, techniques, technologies, maintenance, operating standards, de-commissioning of plants and energy and efficiency audits;

Combustion modifications - technologies for reducing NOx emissions from a boiler, such as decreased excess air, air staging, low NOx burners, re-burning, and flue gas recirculation;

EIA – Environmental Impact Assessment

Emissions control on combustion plants - installations of emission control on combustion plants, relying on e.g. increased efficiency of fuel use, pre-combustion measures, combustion measures and most often flue gas treatment, used separately or in combination;

EMP – Environmental Management Plan (providing environmental guidelines to workers and contractors);

End-of-pipe - technologies which remove pollutants from exhausts and emissions at the point where they leave a factory or other unit to be returned to the environment;

Fabric filters (bag-houses) - a high-efficient collector of particles in flue gases;

HAP control – control of hazardous air pollutants;

ISO EMS – ISO 14,000 series Environmental Management System;

Particle control - technologies for control of particles in emission from combustion plants, e.g. mechanical collectors such as cyclones, electrostatic precipitators (ESP) and fabric filters;

Self-monitoring – see e.g. the Self-Monitoring Manual – General Guidebook (EEAA & EPAP 1999);

Depending from the type of industry, the compliance analysis may include all the regulated emissions or just a selection of key indicators as e.g. chemical oxygen demand, suspended solids, oil, volatile hydroxybenzene, chromium, cyanide, lead, arsenic, mercury, cadmium, flue dust, industrial dust and sulfur dioxide. Whenever reasonable, pollutant discharges are rated by total quantity and concentration. Solid wastes are rated in three dimensions: production, disposal, and recycling. Indicators of social impacts include the firm's record with respect to public complaints, pollution accidents, illegal pollution, and administrative penalties. Company's environmental management systems assessed include the documentation and functionality of internal responsibilities and communication with authorities and the public.

To be judged compliant, a polluter must meet the discharge standard for every pollutant it is expected to control. Even if the standard is violated for only one of many pollutants, the polluter is judged non-compliant. Further on, companies must show long-lasting compliance (e.g. 0.5 yrs) and they cannot call monitoring to be conducted at a certain time suitable for them.

The purpose of the use of PROPER approach is firstly to encourage industries to achieve compliance with environmental laws and regulations. At this point the method assumes that the emission standards and any other conditions given to a company reflect a certain base level of the environmental performance. Beyond this purpose, other factors can be taken into consideration when the environmental performance of the plant is evaluated. Other standards binding individual polluters can be divided into product, process, and performance standards. Product standards are always the same for a category of products (volume of pollution per production using BAT). They may regulate, for instance, the concentration of pollutants in fuels. Process standards define the characteristics of the industrial process to be carried out - as certain production methods, practices, protection measures or raw materials (e.g. height of the chimneys and certain type of purification plant). Such factors may be a part of EIA documentation, BAT or other quality systems. The purpose of the PROPER method is to motivate industries to continue their environmental management further after the level of regulatory standards has been achieved.

2-3 PROPER Rating Format

The PROPER rating format must be developed together with relevant experts and stakeholders and finalized after testing. The questionnaire must be simple and easy to answer. There will be questions where the company representative can answer either “yes”, “no” or “not relevant”.

Ratings should be clear and easily communicated to the public, in order to mobilize continuous pressure on firms to improve their performance. The ratings parameters should be as objective as possible, and it is generally best to avoid constructing indices that assign varying weights to different parameters. However, the questions should be also descriptive and not only direct references to emission standards of single substances. The questions should be also guiding in nature so that industries will get a clear view what is needed to become more respected and better rated in environmental terms.

3- DEVELOPING PROPER FOR EGYPT

3-1 Introduction

The purpose is to keep the PROPER system as simple as possible so that public audience can easily understand its message. The system should be planned so that it is easy to implement and that it does not create unnecessary quarrel and extra work in the enterprises or authority organizations. The national law or e.g. the EPAP loan scheme does not include any mandatory public disclosure systems from enterprises, but provision of information on the environmental compliance is necessary. An intention of the project has been to identify any possible barriers hindering the implementation of the PROPER system (confidentiality of information, data quality and monitoring difficulties, etc.). The project has also tried to find out what resources are available and needed in the EEAA (and especially in RBOs) for implementing the approach. A purpose was also to assess what benefits the implementation of PROPER may generate to the EEAA, environment and the industries.

In the Pilot Stage the project was asked to concentrate to two sectors of environmental management – waste water and air pollution. More sectors (as e.g. solid and hazardous waste management, soil pollution, certificates) can be added later whenever e.g. related services and information will be available in Egypt. The project tested the methodology first and subsequently conducted a Pilot Study in selected areas.

3-2 Regulatory Background for Compliance

The project studied the earlier PROPER programs used in other countries and developed the methodology to be applicable in the Egyptian conditions. The PROPER rating and the whole procedure should be based on national environmental laws and regulations. According to the law 4/1994 the relevant authorities must have access to the establishment and carry out periodic follow-up of the environmental register that records the effect of the its activities on the environment (environmental register) and to take the necessary samples, carry out the required tests to investigate the effect of these activities and to insure the compliance of the establishment with the set standards for environmental protection (articles 5 and 22 of law 4/1994 and articles 17 and 18 of its executive regulations). The allowable limits were set by the law and are stated in the annexes of the executive regulations.

The criteria of the PROPER method employs as much as appropriate the statements of the environmental law and regulations as well as guidelines for

defining violations and sanctions (e.g. General Environmental Inspection Procedures Manual, Annex A, 2002).

The law 4/1994 has been modified by law 9/2009 but the executive regulations for that law have not yet been issued. The new amendments to the environmental law will make it easier to collect data for the PROPER as e.g. pollution loads can be regulated. However, the definition of critical loads is not an easy task and setting the level of allowed loads needs rather sophisticated regulatory system (BAT and ecological quality standards; cf. EU Water Framework Directive).

Air Pollution

Protection of Air Environment, article 35 of law 4/1994 and article 36 of the executive regulations has obliged the industrial establishments to ensure that emissions or leakages of air pollutants do not exceed the maximum limits permitted for ambient air and determined in annex 6 of the executive regulations. The overall limit for P_{10} is 70 microgram/m^3 and for CO_2 60 microgram/m^3. Article 40 of Law 4/1994 and article 42 of the executive regulations have set the conditions for the usage and burning of fuels or other substances in industrial establishments, the law has also prohibited the usage of fuel oil (heavy oil; mazot) in residential areas. Maximum limits e.g. for SO_2 and CO in exhaust are 2500 mg/m^3 (SO_2 limits vary depending on the industrial sector). Best available emission control technology for air pollution includes criteria for air pollutants, such as oxides of nitrogen and sulfur, carbon monoxide, particulate matter, volatile organic compounds, and hazardous air pollutants. In certain industrial sectors significant amounts of hazardous air pollutants (HAP) as e.g. heavy metals may be released. They should be included to the analysis if they have been regulated. The fines can be defined in the following cases, for example (see the laws and regulations; General Inspection Procedures Manual):

- Articles 36 and 86: Using machines, engines or vehicles whose exhaust emissions exceed the limits set by the executive regulations of the law.
- Articles 35, 87: Exceeding the maximum permissible levels, for emissions or leakages of air pollutants, as permitted by laws and decrees in force and determined in the executive regulations of the law (article 36 of the executive regulations and annex 6 set the permissible limits of air pollutants in emissions and the maximum limits of gas and fume emissions from industrial establishments).
- Articles 40 and 87: Not taking the precautions necessary to minimize the pollutants in the combustion products in order to meet the permissible limits for harmful smoke, gases and vapors resulting from the combustion process.

- Articles 37 and 87: Throwing, treating or burning garbage and solid waste in sites other than the ones designated for such purposes which are far from residential, industrial or agricultural areas as well as from water ways (article 38 and 39 of the executive regulations sets the specifications for throwing, treating and burning solid wastes).

Water pollution

Concerning wastewater the environmental law includes limit values for COD/BOD5, pH, temperature, chlorinated organics (AOX), total suspended sediments (TSS), oil and grease and in some cases also for phosphorus and nitrogen. Certain industries should monitor other substances and total volumes as stipulated in the documents needed to operate a plant.

Protection of Marine Environment, according to item 38 of article 1 of law 4/1994, EEAA is one of the entities concerned with protecting the marine environment within the scope of the responsibilities stated in law. These responsibilities address the industrial establishments in articles 26, 70 and 71 of the law and article 58 of the executive regulations. Annex 1 of the law 4/1994 has set the standards and specifications for the discharge of a number of substances in the marine environment, and annex 10 has identified the polluting substances with are non biodegradable and are prohibited to be discharged in the marine environment by industrial establishments. Fines can be defined for the following violations, for example (General Inspection Procedures Manual):

- Discharging untreated substances, wastes and liquids which may cause pollution along the Egyptian sea shores or adjoining waters either directly or indirectly, intentionally or unintentionally.

Protection of the Nile River and the Public Sewer Networks, the environmental inspector is responsible for inspecting the wastewater of industrial establishments being discharged on public sewer networks (law 93/1962) or fresh water bodies (law 48/1982). In case a violation is detected the Competent Administrative Authority (Ministry of Public Works and Water Resources or the General Organization for Sanitary Drainage) is solely responsible for proving the violation through sampling and taking the enforcement procedures towards the violating establishment. Fines can be defined for the following violations, for example (see the laws and regulations; General Inspection Procedures Manual):

- Articles 89 of law 4/1994 (reference to articles 2 and 3 of law 48/1982): Discharging or disposing of solid or liquid or gaseous wastes in watercourses without a license.
- Article 89 of law 4/1994 (reference to article 4 law 48/82): Discharging treated liquid wastes, not meeting the standards and specifications, to

watercourses after notifying the owner of the establishment of removing pollutants.

- Articles 69 and 87: Discharging untreated substances, wastes and liquids which may cause pollution along the Egyptian sea shores or adjoining waters either directly or indirectly, intentionally or unintentionally.
- Articles 37 and 87: Throwing, treating or burning garbage and solid waste in sites other than the ones designated for such purposes which are far from residential, industrial or agricultural areas as well as from water ways (article 38 and 39 of the executive regulations sets the specifications for throwing, treating and burning solid wastes).

Parameter (mg/l or as indicated)	Law 4/94 Discharge Coastal Environment	Law 93/62 Discharge to Sewer System (as 44/2000)	Law 48/82 Discharge into:			
			Underground Reservoir & Nile Branches / Canals	Nile Main Stream	Drains	
					Municipal	Industrial
BOD (5 day, 20 C)	60	<600	20	30	60	60
COD	100	<1100	30	40	80	100
pH (Grease)	6 - 9	6 – 9.5	6 - 9	6 - 9	6 - 9	6 - 9
Oil & Grease	15	<100	5	5	10	10
Temperature C°	10 C > avg temp.	<43	35	35	35	35
Total Suspended Solids	60	<800	30	30	50	50
Settable Solids	-	<10	-	20	-	-
Total Dissolved Solids	2000	-	800	1200	2000	2000
Chlorine	-	<10	1	1	-	-

Table. Comparison of Egyptian legal requirements for industrial wastewater discharges into different receiving environments or systems.

3-3 Setting the PROPER Criteria

The following list provides a set of general environmental requirements which shall be met in each rating classes. In principle, in order to be rated to a certain class, all the conditions of a column and in all the rows below should be met. The conditions shown in the table are rather descriptive as they are given to industries of different sizes and sectors. These criteria were used in defining the questions shown in the PROPER format attached. Later, some of the issues were left out from the questions in order to simplify the system.

Code	Color	Performance	Criteria
	Gold	Excellent	Developed sophisticated pollution control techniques for water and air; E.g. Best Available Technologies, recycling and closed water circulation applied; Risk, fire and accident management; Possibly EMS, ISO 14,001 certification; Open information sharing to public.
	Green	Good	Emissions generally less than 50 % of regulatory standard; Proper disposal of wastes; Good housekeeping; Self-monitoring in place; Accurate emissions records (Environmental Register); Waste water treatment and air pollution control applied; Responsibilities for environmental management organized and implemented; Basic information available.
	Blue	Adequate	Emissions to water and air in the main components below regulatory standards; Wastewater management and air pollution prevention organized; Responsible person nominated; No serious notifications on violations received from inspectors.
	Red	Poor	Some pollution control effort but emissions exceed regulatory standards in main components to water (1 – 5 times) and air (1 – 10 times); Poor housekeeping; Information sharing inadequate; Corrective actions required in inspections.
	Black	Very Poor	Either no effort to control pollution or responsible for serious environmental damage; EIA and compliance action plan are not properly applied; Violations of law reported. Emissions to water more than 5 times and to air more than 10 times the standards.

The emission limits were set according to the interviews and results of the testing project. A company should have only half of the regulated emissions in order to obtain the green rating. In the gold rating there are no tighter requirements in emissions, but adoption of many modern environmental management tools is requested. The following table shows the emission limits for water and air in relation to the legal standards.

WATER x		AIR x
0.5		0.5
1		1
5		10
10		20

Table. The emission limits for water and air in each category. The environmental compliance is indicated by the multiplier x = 1.

3-4 Legal Basis for Publishing the Rating Results

The debate of whether the PROPER program and publishing its results should be a voluntary or involuntary program was raised and discussed with stakeholders. In case of a voluntary program, obviously there are no pressing or critical legal challenges, especially as far as publishing the results of the program is concerned. However, the credibility of and benefit from a voluntary program were questioned by most stakeholders, including the representatives of the Business Association. The following arguments apply basically in case of an involuntary program.

At the outset of the assignment, the opinion of a local legal expert concerning publishing of the rating results of industries was solicited. Again and after having implemented the testing and piloting activities, a second legal opinion was sought. Both legal opinions did not reflect explicit and/or strong legal basis for publishing rating of environmental performance.

However, on the request of the consultant, the legal experts analyzed the existing legislation and searched various legal precedents for publishing the ratings of the environmental performance, i.e. the findings of PROPER. The details of the legal opinion are presented in Appendix 2.

4- PROPER Pilot Project in Egypt

4-1 Testing the System

A Testing Phase was used internally to evaluate the PROPER system and design the final questionnaire. The test was done by selecting 5 enterprises located in 6th-of-October and another 6 in Helwan and Tourah. The project team interviewed the company management in 6th-of-October and requested the needed information for the PROPER. The management of the companies received the method with appreciation and told that they will get benefits when receiving good rating results. The managers also were interested to learn how they can perform better in their environmental management and subsequent rating. The PROPER questionnaires from these companies are attached in Annex 2. In addition, the team analyzed environmental reports, audits and CAPs from 6 other enterprises and filled the questionnaires accordingly. The project team also interviewed representatives of industries in the Business Association.

4-2 Pilot Phase

In the further methodological development the project team interviewed the main stakeholder groups and this work was continued during the Pilot Phase. The Pilot Phase was implemented in the area of 6th-of-October. After receiving feedback from the authorities, the questionnaire was simplified by reducing the number of questions from 28 to 20. Subsequently, 17 companies were visited in order to fill the formats (see the final format in Annex 1 and the results in Annex 3).

The purpose was to obtain views on the effectiveness of the PROPER system and its practical application. Another aim was to find out what are the actual incentives driving better environmental management in the enterprises and what are the benefits to the environment and administration. Subsequently, the project team studied possibilities to extend the application of PROPER nation-wide. The team also collected opinions on what will be the best method to collect data and fill the PROPER questionnaire.

4-3 PROPER in Operation

Whenever the PROPER system will be taken to operational use, the inspectors must fill the formats in the connection of ordinary inspections. The representatives of EEAA (RBOs) and enterprises will fill out the rating format using the data available. The quality of this data must be assessed and EEAA has a right to inspect the firms and require verified information. Bigger enterprises are

using consultants and independent laboratories in their environmental monitoring. The principle is that there should be a quality assurance system in the laboratories conducting the monitoring. Monitoring belongs to the ordinary inspection procedure of EEAA and there will be no any such activities serving especially the PROPER approach.

The RBOs should control the validity of the answers using laboratory analyses, monitoring devices and other available data and correct any possible errors in the data provided by the enterprises. The credibility of public disclosure depends on the credibility of the information that is used for defining the rating.

The inspectors should be trained to provide advices on better environmental performance to the management of enterprises in the connection of the filling of the PROPER format. The inspectors should also describe the constructive purpose and outcome of the assessment.

An important part of the scheme is the follow-up activities to support enterprises' efforts to improve performance and preparation of the second rating after 12 months.

4-4 Information Sources for PROPER

The ratings system draws on four principle sources of information - reports on industrial firms' polluting emissions; inspection reports on their environmental management; records of public complaints, regulatory actions and penalties; and surveys that record characteristics of the firms that are relevant for rating environmental performance.

The PROPER format should be filled usually in the connection of official inspections by EEAA/RBO staff together with the representatives of the industries as the method has also an educative role. Inspectors will select the key indicators (the most important and/or problematic ones) to be considered in the analysis. The inspectors can calculate the multipliers included to the questionnaire (measured value divided by the standard value). Other questions are more or less descriptive and the answers can be assessed by the inspector.
Egyptian industries do not conduct regular self monitoring activities, or do not present all the results of the self monitoring activities. Environmental Registers, if available, do not present data and/or information that could be credibly utilized in the PROPER approach. Data are missing, inaccurate and/or are not presented with any reasonable periodicity. Environmental Registers are often selective in presenting the results of self-monitoring activities and they may present only those parameters that meet legal standards. Currently there is no motive for

industries to record and/or present reliable and credible monitoring results except if they are within regulated limits.

EEAA has installed a comprehensive environmental management information system EREMIS (Egyptian Regional Environmental Management Information System) with the support of the Danida funded ESP project. The system has the potential for compiling, processing, managing and retrieving data describing the environmental performance of industries. The information system EREMIS covers, but is not limited to, the following data and information on industries: Environmental registers, inspection results, EEAA Laboratory analyses, legal actions taken, CAPs and complaints. The system has been installed in most if not all Regional Branch Offices (RBOs). The system is however, not efficiently fed, updated nor utilized. Accordingly, although the system can be potentially useful for the PROPER program, yet two main concerns remain:

- Credibility of the data presented in the Environmental Registers;
- The system is not efficiently updated and utilized.

In order to achieve the PROPER testing and piloting activity, the consultant had to compile data from a number of sources:

- Inspection visits in industries that included: (i) filling-in a questionnaire with input from the industry representative; (ii) reviewing sampling, measurements and laboratory analysis; (iii) reviewing of Environmental Registers, when available.
- Compiling data presented in Compliance Action Plans.

4-5 Involving Public and Media

According to the law 4/1994 public has the right to receive information on the environmental issues and the national policy highlights that the compliance of industries is among these rights (National Strategy for Environmental Communication September; 2005). The question remains whether environmental performance of individual companies can be described or is the information which should be available only general and summarized data. The principal idea of the PROPER system is that it provides information on environmental performance of companies to the public.

The involvement of the public, NGOs and media will be planned together with EEAA in the following stages of the project. The purpose will be to make the results of the rating well-known as a part of general environmental awareness raising campaigns. The EEAA may also organise training workshops for the representatives of NGOs and media on the use of PROPER information. The

project has presented strategic outlines for information delivery and communication.

Whenever the system will be operative, the publishing of the results will take place through the EEAA. A description of the system and later only the results can be published in nationwide newspapers specialized to environmental and commercial issues. There is at least a governmental newspaper published by the Ministry of Health. So far, NGOs are not publishing any appropriate newspaper.

4-6 Extending PROPER Nationwide

The PROPER approach can be extended to a nation-wide use as the results of the pilot projects are promising. The forms can be filled in the connection of regular inspections and enterprises may also voluntarily participate to the process. The inspectors should receive short training on the PROPER methods so that they are capable of writing the formats, provide advice, conduct the rating and submit the information to the person responsible for the reporting.

5- RESULTS OF TESTING AND PILOT PROJECTS

5-1 Introduction

A methodological testing was carried out in Testing and Pilot Phase by applying the PROPER system for 22 enterprises located in the 6th-of-October and for another 6 in south of Cairo. The project team interviewed the company management and requested the needed information for the PROPER. The purpose was to assess the applicability of the method and the questions in different kinds of companies. In the pilot projects a simplified questionnaire was used as proposed by the EEAA.

The companies were of different size and represented many different sectors as metallurgy, chemicals, building materials, electronic equipment, food and textile. Six of the companies were participating to the EPAP grant and loan scheme and they were known to be incompliant. The methodology was well received among the company management staffs and many saw that they will be better motivated in their environmental efforts when receiving publicity. Some managers also understood the value of PROPER rating in marketing the products. Of course, companies which received low ratings were concerned about their public image.

5-2 Provision of information

The questions in the PROPER format were rather easy to answer if the companies had good bookkeeping as requested by the law and monitoring data frequently checked by the environmental inspectors. The person responsible for the environmental issues in the company was able to say easily what the key parameters mostly causing concerns are. Reliable statistics were available at least in companies which also have the best environmental housekeeping. However, it is difficult to assess the quality of data in smaller and remotely located plants. The conclusion is that it will be easy for environmental authorities to fill the format together with the company staff. Maybe it will take 10 minutes if the authorities also advise the companies how to perform better in the future.

The problems identified so far include the lack of regular observations (usually one per year) and the reliability of data. It is difficult to assess how well the monitoring results of few annual analyses represent the overall emission figures of a plant. This problem can be solved when the inspection system, controlling emissions and setting pollution charges and penalties is developed.

It would be useful later to include also other environmental sectors than water and air to the questionnaire. Management of solid and hazardous waste would be

important even if the country does not provide services for HW collection and treatment. Assessment of general environmental management, internal awareness raising and use of best environmental practices within the company would also be important.

5-3 Analysis of Approach

The PROPER approach can easily be applied for enterprises of different size and sectors. The main problems are related to the interpretation of pollution figures as they may change a lot - sometimes being at a low level and occasionally well exceeding the regulated levels. Emission graphs from automatic monitoring devices used especially in the cement industries clearly show the complexity of the problem. Even if the general level of emissions is reasonably low, there are frequently peaks when the regulated levels are surpassed. The question also is how many accidental pollution releases are acceptable in a year. However, these problems belong to the decisions of the inspectors in their daily routines and the PROPER methodology should be consistent with the inspections.

Difficult questions may arise when major part of an industrial plant is compliant but its small unit is not. Is it fair to rank the whole enterprise worse due to this unit? Major companies should have better resources than smaller ones to make all their units compliant with environmental regulations. The PROPER method can be used to pressurize the company to perform better in all the details.

One problem is related to the "key pollutants" which are used in the inspections and then also in ranking. They must be selected so that they represent the major problems in that industrial sector or have caused negative impacts on population and natural life. Magnitude of the problem should be taken into consideration. This will not be a problem as long as the monitoring is targeted only to the main smokestacks or sewers. This problem will be easier to solve whenever the pollution loads are also regulated.

Questions related to the organization of environmental management in companies may be difficult. However, it may be rather easy for inspectors to assess if there is enough environmental expertise available. If it is difficult to obtain information on the environmental issues related e.g. to the production processes, the PROPER may be a tool to request more resources to such tasks. It is also recommended that the new regulations would require certain environmental management capacities to be available in companies which are major polluters.

In the case of industrial pollution sources, known sets of technical factors and random effects have significant impacts on sampling results. A sound methodology for testing the reliability of compliance results must therefore incorporate engineering knowledge as well as statistical principles. It is recommended that PROPER's compliance analysis methodology should include the following:

- Correlation analysis of pollution levels from different sources of data;
- Trend analysis of pollution rather than reliance on spot samples;
- Analysis of the relationship between emission/effluent sampling estimates and the known characteristics of the purification technology (e.g. filters and waste water treatment systems) in place;
- Analysis of the relationship between emission/effluent sampling variation and the batch or continuous nature of the production process.

5-4 Feedback from Stakeholders

Consultant's conclusion was that the consultations with industrial and non-industrial stakeholders reflected a general acceptance of the program. However, one point on which there was no consensus is whether the program should be a voluntary or involuntary program. The key concerns raised and recommendations put forward during consultations could be summarized as follows:

- The PROPER program should clarify to the public that its ratings does not address nor assess the products of the enterprise but its overall environmental performance.
- The ratings should be shared with the industries prior to disclosure. When in disagreement with a rating, the industry should be allowed to re-measure the environmental parameters in dispute using an "accredited" laboratory in presence of EEAA.
- If the environmental performance and accordingly the rating of an industry improves over time, the improved rating should be published in a timely manner. The cost of re-publishing could be covered by the industry.
- A common opinion of industries was that the rating could have major impact on their image, marketing and success especially if they can use green or golden "label" in their marketing.

One issue discussed with the EEAA experts was whether the implementation of the PROPER program should at first cover certain geographical area or only selected industrial sectors (as e.g. cement and fertilizer industries). The priority areas could be the most problematic industrial sites (as e.g. Helwan, Abu-Zaabal

and 6th-of-October). If the sector-wise approach is taken the rating would be fair and equal as the program is applied to all competing enterprises in a certain industrial category. As such it is anticipated that the opposition to the program would likely be less. Reliable data and information are already available and accessible through on-line monitoring for the cement industry. In addition, there are plans to expand on-line monitoring to include other priority industrial categories.

5-5 Rating Test in Selected Enterprises

The results of the test of 28 plants show that the example enterprises become ranked quite evenly to different rating classes. However, none of the plants received green rating but two plants were rated gold. Blue rating was achieved by 7 plants, red by 11 and black by 8 plants. The results show that it is rather easy for many companies to achieve better rating whenever their management understands the criteria of the method. Many companies rated blue would receive green rating with minor efforts.

It is clear that enterprises operating in heavy industrial sectors using lots of natural resources have difficulties to perform well in environmental issues. However, environmental standards have been made considering best available technologies (considering the characteristics of the country) and compliance should be obtained. It seems that the PROPER method can be a promising tool in this process.

Rating	Enterprise	Sector	Main problems	Achievements
Gold	Unilever	Chemical	COD	EMS ISO 14000
Gold	El-Masreya for Plastics	Chemical		EMS ISO 14000
Green	-	-	-	-
Blue	Juhayna	Food	COD, acids	ISO 9000 QMS
Blue	Universal	Electronic equipment	Paint, vapor	Good housekeeping
Blue	Egyptian British Company	Chemical	Wastewater and air emissions	Environmental management organized
Blue	Alfa Group for Ceramics Manufacturing	Ceramic	Housekeeping	
Blue	Al-Lo'lo'a for Glass	Glass	Waste management	ISO 14000
Blue	The National Company for Meat Manufacturing	Food	Pre-treatment of wastewater missing	

	(Beefi)			
Blue	Servier Masr for Manufacturing	Pharmaceuticals	Phenols	
Red	Helwan Cement Company	Building materials, cement	CO_2, SO_2, CO, NOx, dust, soot	Later investments on environmental technology
Red	Concrete	Textile	solids	Emission levels comply
Red	Egyptian German Electric System	Electrical industries	No environmental register, and no environmental team	
Red	National Cement Company	Building materials, cement	TSP, NOx, SOx, CO_2,CO, waste oil	Environmental management organized
Red	Starch and Glucose Manufacturing Company	Food	PM, VOC, P, CO_2, CO, SOx, dust	Later investments on environmental technology; own waste-water treatment
Red	Ceramics Technology and Essentials	Ceramic	Dust	
Red	Cazareen for Garments	Textile	Housekeeping	Self-monitoring
Red	El-Ahram for Paper Industry (Flora)	Paper	Noise Waste management	
Red	Black Forest (El-Bohsoly) for Dessert Manufacturing	Food (sweets)	Environmental management	Compliant in emissions
Red	Khodair Pack	Paper products	Environmental management	
Red	South Valley for Pharmaceuticals Industry (SEDECO)	Pharmaceuticals	Phenol	Self-monitoring; Advanced waste management; ISO 14000
Black	El Nasr Company	Chemical, Metallurgy	Several (air and wastewater)	Later investments on environmental technology
Black	Egyptian Iron and Steel Company, EISCO	Metallurgy	Acids, wastewater pond	Later investments on environmental technology
Black	TERACO Egypt for Chemicals Industry	Chemical	Phenols	Waste management questionable
Black	Unilever East for Personal Care	Chemical	Phenols (other indicators are good)	Environmental team of 5 experts in place. Monthly monitoring.
Black	El-Marwa for	Food	Phenols	

	Food Industry			
Black	Global Napi G.N.P	Pharmaceuticals	Phenols	Self-monitoring ISO 14000
Black	Helw El-Sham for Powder Manufacturing	Food (powder)	Phenols BOD/COD	Monitoring by Cairo University and EEAA; Occupational health and safety assessment OHSA
Black	TechnoSteel	Plastic Products	Housekeeping	

Table. Results from the methodological testing and pilot projects where the applicability of the PROPER method was assessed.

Enclosed are the PROPER questionnaires filled in the testing and pilot project. The information in the formats has not been checked and has been collected in order to test the questions and fix the levels of the rating and color codes.

5-6 Lessons Learned

From the above section, which gives the outline of PROPER's pilot and testing phases, the following lessons can be learnt:

Legal issues for public disclosure

- Legal opinions sought during the piloting did not reflect explicit and/or strong legal basis for publishing ratings of environmental performance and hence firm legal clearance should be obtained prior to disclosure and roll out of PROPER.

Voluntary or involuntary

- A voluntary scheme would overcome any legal hurdles for disclosure however most stakeholders questioned if such a scheme could be credible and if any real benefit could be derived if it remained voluntary.

Methodology

- A simplified questionnaire was used to pilot PROPER based on air and wastewater compliance. This should be fine tuned to take into consideration that BLUE, RED and BLACK should be strictly based on the regulatory requirements for environmental compliance including other issues such as the management of hazardous waste. GREEN and GOLD ratings should more reflect voluntary environmental factors.

Data Collection

- The lack of regular observations (usually one per year) and the reliability of data was a major problem.

- A sound methodology for testing the reliability of compliance results must therefore incorporate engineering knowledge as well as statistical principles. Compliance analysis methodology should include: a) trend analysis of pollution rather than reliance on spot samples; b) correlation of analyses from different sources; c) reporting on operational conditions at the time of sampling.

Ratings evaluation

- The ratings were based on the questionnaire survey drawing on sometimes limited supporting data. This could lead to disputes with companies on ratings. It is recommended that the ratings are first discussed with companies prior to release and if necessary new measurements should be taken. For PROPER to succeed it is absolutely essential that the ratings are transparent, credible and defensible.

- PROPER results for non-compliant companies should be republished when the company becomes compliant.

Geographic or Sector Approach

- By implementing the PROPER system in a geographical area, some difficulties have arisen as follows:
  - The diversity of the size, sector, and activity of the enterprises in the same geographical area.
  - The difficulty of the inspectors to inspect different kinds of industries quite efficiently.
  - General pollutants common between all industrial sectors do not give correct ratings.
  - The lack of the required data to implement PROPER quite successfully specially, environmental management documents.
  - Concern was expressed that some companies could be unfairly treated if they are located in the selected geographic sector particularly if other companies in the same industrial sector but located elsewhere are even greater polluters.

- It is felt that an industrial sector approach would overcome these difficulties as:
  - The rating would be fair and equal if applied to all competing enterprises in a certain industrial category.
  - Inspectors could be trained better on a sector by sector basis thus facilitating a more efficient application of PROPER.
  - Data and reporting requirements could be transmitted to the sector well in advance of it being included in PROPER. This will help to improve self monitoring, online monitoring and check analyses.

- Most industrial zones in Egypt would be covered due to the wide distribution of the factories of the same sector.
- Key pollutants for each industrial sector can be selected to be among the PROPER rating criteria.
- Companies will have time to improve their performance if they know in advance the roll out of the sectors for PROPER rating

APPENDIX 1 – PROPER FORMAT

Test version 2 (Final)

ENVIRONMENTAL RATING REPORT FOR EGYPTIAN ENTERPRISES - THE "PROPER" METHOD FOR AIR AND WATER POLLUTION

BASIC INFORMATION

Enterprise:		**Rating Period:**	
		Final Rating:	Color
		Previous Rating:	Color
		Rating 2 y ago:	Color
		Rating 3 y ago:	Color
Date	**Authors (from RBO and Firm)**	**Position**	
Sector	**Main Production**	**Main Environmental Concerns**	

RATING LIST

#	Criteria	Description of Situation	y/n/-
1	Are key pollution indicators (*) in wastewater less than 10 times the standard allowed?		
2	Are the emissions of key indicators (**) to air less than 20 times the standards?		
3	Is concentration of key pollution indicators in wastewater less than 5 times the standard?		
4	Are the emissions of key indicators to air (stacks and work environment) and noise pollution less than 10 times the standard?		
5	Are there any technologies used to reduce significant emissions to air?		
6	Is there a specialized expert responsible for the environmental management?		

#	Criteria	Description of Situation	y/n/-
7	Have authorities verified the environmental compliance recently (with no enforcement actions)?		
8	Are the last records of effluents in wastewater compliant with the standards?		
9	Are emissions to air and noise pollution compliant with the standards?		
10	Have all the regulations of environmental management been applied (as e.g. EIA)?		
11	Has industrial wastewater been treated before discharged to the main sewer?		
12	Are the key pollution indicators (*) in wastewater < 0.5 times the standard?		
13	Are the emissions of key indicators (**) to air < 0.5 times the standard?		
14	Is the storage facilities of chemicals and fuel secured with leak prevention and paved floors?		
15	Is there periodical self-monitoring for pollution control?		
16	Has a team of environmental experts being nominated to apply the EMS?		
17	Are there wastewater circulation, own treatment or other clean effluent systems?		
18	Are there modern combustion modifications and flue gas control technologies in place?		
19	Is there ISO 14,000 ser. certification?		
20	Have Accident Management Plan and Fire System Plan been prepared?		

The answer may also be "-" not relevant. Final Color Code will be set to the lowest color level where none of the questions shows "n" (no).

(*) The key water pollution indicators according to law include: COD/BOD5, pH, temperature, chlorinated organics (AOX), total suspended sediments (TSS), oil and grease.

(**) The key air quality parameters include: PM_{10} and SO_x .

Test version 1

ENVIRONMENTAL RATING REPORT FOR EGYPTIAN ENTERPRISES - THE "PROPER" METHOD FOR AIR AND WATER POLLUTION

BASIC INFORMATION

Enterprise:		**Rating Period:**	
		Final Rating:	Color (#)
		Previous Rating:	Color (#)
		Rating 2 y ago:	Color (#)
		Rating 3 y ago:	Color (#)
Date	**Authors (from RBO and Firm)**	**Position**	
Sector	**Main Production**	**Main Environmental Concerns**	

RATING LIST

#	Criteria	Description of Situation	y/n/-
1	Are key pollution indicators (*) in wastewater less than 10 times the standard allowed?		
2	Are the emissions of key indicators (**) to air less than 20 times the standards?		
3	Are the wastewater and air pollution loads less than 10 times the standards (if regulated)?		
4	Is the company lead staff taking responsibility for the environmental management?		
5	Is concentration of key pollution indicators in wastewater less than 5 times the standard?		
6	Is all wastewater discharged trough treatment or to the controlled public sewer?		
7	Do sampling and analyses give a well representative image on water pollutants?		
8	Are the emissions of key indicators to air less than 10 times the standard?		
9	Are the wastewater and air pollution loads less than 5 times the standard (if regulated)?		
10	Are there some technologies used to reduce significant emissions to air?		
11	Is there a specialized expert responsible for the environmental management?		

#	Criteria	Description of Situation	y/n/-
12	Have authorities verified the environmental compliance (no enforcement actions)?		
13	Are the last (1 yr) records of effluents in wastewater compliant (***) with the standards?		
14	Are emissions (1 yr) to air compliant with the standards?		
15	Is the last (1 yr) pollution load to water and air per unit compliant with the standards?		
16	Are air pollution purification technologies used (as regulated in the sector)?		
17	Have all the regulations of environmental management been applied (as e.g. EIA)?		
18	Has a team of environmental experts being nominated to each section of the enterprise?		
19	Are the last (1 yr) key pollution indicators (*) in wastewater < 0.5 times the standard?		
20	Are the last (1 yr) emissions of key indicators (**) to air < 0.5 times the standard?		
21	Is the last (1 yr) pollution load to water and air per unit < 0.5 times the standard?		
22	Are the storage facilities and handling of chemicals organized and controlled?		
23	Has a special self-monitoring team for pollution control being nominated?		
24	Are there waste water circulation, own treatment or other clean effluent systems?		
25	Are storage facilities of chemicals secured with leak prevention and paved floors?		
26	Are there modern combustion modifications and flue gas control technologies in place?		
27	Are there self-monitoring, environmental register, EMS and ISO 14,000 ser. certification?		
28	Are Risk, Accident and Life Cycle Assessment / Management, fully applied?		

The answer may also be "-" not relevant. Final Color Code will be set to the level where all the answers in the list are "y" (yes) and none of the questions shows "n" (no).

(*) The key water pollution indicators according to law include: COD/BOD5, pH, temperature, chlorinated organics (AOX), total suspended sediments (TSS), oil and grease.
(**) The key air quality parameters include: PM_{10} and SO_x.
(***) Compliance may possibly be achieved even if standards have occasionally been exceeded as a result of accidental and investigated events.

APPENDIX 2 – PROPER FORMATS FROM TESTING

ENVIRONMENTAL RATING REPORT FOR EGYPTIAN ENTERPRISES – THE "PROPER" METHOD FOR AIR AND WATER POLLUTION

BASIC INFORMATION

Enterprise:	Unilever	**Rating Period:**	2009
	6th of October	**Final Rating:**	Color: Gold
	Greater Cairo Region	**Previous Rating:**	Color (#)
		Rating 2 y ago:	Color (#)
		Rating 3 y ago:	Color (#)
Date	**Authors (from RBO and Firm)**	**Position**	
12 Oct 2009	(method testing team)		
Sector	**Main Production**	**Main Environmental Concerns**	
Chemical	Every-day cosmetics and household chemicals	COD	

RATING LIST

#	Criteria	Description of Situation	y/n/-
1	Are key pollution indicators (*) in wastewater less than 10 times the standard allowed?		Y
2	Are the emissions of key indicators (**) to air less than 20 times the standards?		Y
3	Are the wastewater and air pollution loads less than 10 times the standards (if regulated)?		Y
4	Is the company lead staff taking responsibility for the environmental management?		Y
5	Is concentration of key pollution indicators in wastewater less than 5 times the standard?		Y
6	Is all wastewater discharged trough treatment or to the controlled public sewer?		Y
7	Do sampling and analyses give a well representative image on water pollutants?	Cairo University monitors	Y
8	Are the emissions of key indicators to air less than 10 times the standard?		Y
9	Are the wastewater and air pollution loads less than 5 times the standard (if regulated)?		Y
10	Are there some technologies used to reduce significant emissions to air?		Y
11	Is there a specialized expert responsible for the environmental management?		Y

#	Criteria	Description of Situation	y/n/-
12	Have authorities verified the environmental compliance (no enforcement actions)?		Y
13	Is the last (1 yr) records of effluents in wastewater compliant (***) with the standards?		Y
14	Are emissions (1 yr) to air compliant with the standards?		Y
15	Is the last (1 yr) pollution load to water and air per unit compliant with the standards?		Y
16	Are air pollution purification technologies used (as regulated in the sector)?	Natural gas used - emission purification methods applied	Y
17	Have all the regulations of environmental management been applied (as e.g. EIA)?		Y
18	Has a team of environmental experts being nominated to each section of the enterprise?		Y
19	Is the last (1 yr) key pollution indicators (*) in wastewater < 0.5 times the standard?	Main problem COD 0,5 times the standard). Septic tank - sludge to landfill	Y
20	Are the last (1 yr) emissions of key indicators (**) to air < 0.5 times the standard?		Y
21	Is the last (1 yr) pollution load to water and air per unit < 0.5 times the standard?		Y
22	Are the storage facilities and handling of chemicals organized and controlled?		Y
23	Has a special self-monitoring team for pollution control being nominated?		Y
24	Are there waste water circulation, own treatment or other clean effluent systems?	Septic tank system could be better but is just good enough	Y
25	Is storage facilities of chemicals secured with leak prevention and paved floors?	Very good housekeeping	Y
26	Are there modern combustion modifications and flue gas control technologies in place?	Combustion not important. Emissions modest as natural gas is used.	Y
27	Is there self-monitoring, environmental register, EMS and ISO 14,000 ser. certification?	EMS at place (well organized environmental management)	Y
28	Are Risk, Accident and Life Cycle Assessment / Management, fully applied?	RA scenarios made.	Y

ENVIRONMENTAL RATING REPORT FOR EGYPTIAN ENTERPRISES - THE "PROPER" METHOD FOR AIR AND WATER POLLUTION

BASIC INFORMATION

Enterprise:	Juhayna	**Rating Period:**	2009
	6th of October	**Final Rating:**	Blue
	Greater Cairo Region	**Previous Rating:**	Color (#)
		Rating 2 y ago:	Color (#)
		Rating 3 y ago:	Color (#)
Date	**Authors (from RBO and Firm)**	**Position**	
12 Oct 2009	(method testing team)		
Sector	**Main Production**	**Main Environmental Concerns**	
Food	Canned juice and other food products	COD, acids, soda	

RATING LIST

#	Criteria	Description of Situation	y/n/-
1	Are key pollution indicators (*) in wastewater less than 10 times the standard allowed?		Y
2	Are the emissions of key indicators (**) to air less than 20 times the standards?		Y
3	Are the wastewater and air pollution loads less than 10 times the standards (if regulated)?		-
4	Is the company lead staff taking responsibility for the environmental management?		Y
5	Is concentration of key pollution indicators in wastewater less than 5 times the standard?		Y
6	Is all wastewater discharged trough treatment or to the controlled public sewer?	Own treatment unit	Y
7	Do sampling and analyses give a well representative image on water pollutants?	Own laboratory for basic studies (COD, pH, TDS)	Y
8	Are the emissions of key indicators to air less than 10 times the standard?		Y
9	Are the wastewater and air pollution loads less than 5 times the standard (if regulated)?		-
10	Are there some technologies used to reduce significant emissions to air?	Only natural gas is used	Y
11	Is there a specialized expert responsible for the environmental management?	Part-time; no environmental degree (needs to be considered)	Y

#	Criteria	Description of Situation	y/n/-
12	Have authorities verified the environmental compliance (no enforcement actions)?		Y
13	Is the last (1 yr) records of effluents in wastewater compliant (***) with the standards?	COD monitored every day. Closed circulation for soda washing (should be checked)	Y
14	Are emissions (1 yr) to air compliant with the standards?		Y
15	Is the last (1 yr) pollution load to water and air per unit compliant with the standards?		-
16	Are air pollution purification technologies used (as regulated in the sector)?	Not significant in the sector; natural gas is used in boiler	Y
17	Have all the regulations of environmental management been applied (as e.g. EIA)?		Y
18	Has a team of environmental experts being nominated to each section of the enterprise?	The sector is not especially polluting (part-time person responsible)	-
19	Is the last (1 yr) key pollution indicators (*) in wastewater < 0.5 times the standard?	COD 600-700 (law 1000)	N
20	Are the last (1 yr) emissions of key indicators (**) to air < 0.5 times the standard?		Y
21	Is the last (1 yr) pollution load to water and air per unit < 0.5 times the standard?		-
22	Are the storage facilities and handling of chemicals organized and controlled?		Y
23	Has a special self-monitoring team for pollution control being nominated?		N
24	Are there waste water circulation, own treatment or other clean effluent systems?		Y
25	Is storage facilities of chemicals secured with leak prevention and paved floors?	(should be checked)	?
26	Are there modern combustion modifications and flue gas control technologies in place?		-
27	Is there self-monitoring, environmental register, EMS and ISO 14,000 ser. certification?	ISO-9000 QMS	N
28	Are Risk, Accident and Life Cycle Assessment / Management, fully applied?	Fire RA conducted	?

ENVIRONMENTAL RATING REPORT FOR EGYPTIAN ENTERPRISES - THE "PROPER" METHOD FOR AIR AND WATER POLLUTION

BASIC INFORMATION

Enterprise:	Universal	**Rating Period:**	2009
	6th of October	**Final Rating:**	Blue
	Greater Cairo Region	**Previous Rating:**	Color (#)
		Rating 2 y ago:	Color (#)
		Rating 3 y ago:	Color (#)
Date	**Authors (from RBO and Firm)**	**Position**	
12 Oct 2009	(method testing team)		
Sector	**Main Production**	**Main Environmental Concerns**	
Machinery	Water heaters	Paint	
Electronic equipment			

RATING LIST

#	Criteria	Description of Situation	y/n/-
1	Are key pollution indicators (*) in wastewater less than 10 times the standard allowed?		Y
2	Are the emissions of key indicators (**) to air less than 20 times the standards?		Y
3	Are the wastewater and air pollution loads less than 10 times the standards (if regulated)?		-
4	Is the company lead staff taking responsibility for the environmental management?		Y
5	Is concentration of key pollution indicators in wastewater less than 5 times the standard?		Y
6	Is all wastewater discharged trough treatment or to the controlled public sewer?	Own treatment unit	Y
7	Do sampling and analyses give a well representative image on water pollutants?	Own laboratory	Y
8	Are the emissions of key indicators to air less than 10 times the standard?	Natural gas used (2 boilers)	Y
9	Are the wastewater and air pollution loads less than 5 times the standard (if regulated)?		-
10	Are there some technologies used to reduce significant emissions to air?	Gas boilers; emissions from yielding and painting collected from the hall	Y
11	Is there a specialized expert responsible for the environmental management?	Only maintenance managers (should be considered)	Y

#	Criteria	Description of Situation	y/n/-
12	Have authorities verified the environmental compliance (no enforcement actions)?		Y
13	Is the last (1 yr) records of effluents in wastewater compliant (***) with the standards?		Y
14	Are emissions (1 yr) to air compliant with the standards?		Y
15	Is the last (1 yr) pollution load to water and air per unit compliant with the standards?		-
16	Are air pollution purification technologies used (as regulated in the sector)?		Y
17	Have all the regulations of environmental management been applied (as e.g. EIA)?		Y
18	Has a team of environmental experts being nominated to each section of the enterprise?	Questionable - only technical experts with poor environmental responsibility	Y
19	Is the last (1 yr) key pollution indicators (*) in wastewater < 0.5 times the standard?		?
20	Are the last (1 yr) emissions of key indicators (**) to air < 0.5 times the standard?		?
21	Is the last (1 yr) pollution load to water and air per unit < 0.5 times the standard?		-
22	Are the storage facilities and handling of chemicals organized and controlled?		Y
23	Has a special self-monitoring team for pollution control being nominated?		N
24	Are there waste water circulation, own treatment or other clean effluent systems?	Own treatment unit	Y
25	Is storage facilities of chemicals secured with leak prevention and paved floors?		Y
26	Are there modern combustion modifications and flue gas control technologies in place?		-
27	Is there self-monitoring, environmental register, EMS and ISO 14,000 ser. certification?	ISO-9000 QMS	N
28	Are Risk, Accident and Life Cycle Assessment / Management, fully applied?		N

ENVIRONMENTAL RATING REPORT FOR EGYPTIAN ENTERPRISES - THE "PROPER" METHOD FOR AIR AND WATER POLLUTION

BASIC INFORMATION

Enterprise:	Concrete	**Rating Period:**	2009
	6th of October	**Final Rating:**	Red
	Greater Cairo Region	**Previous Rating:**	Color (#)
		Rating 2 y ago:	Color (#)
		Rating 3 y ago:	Color (#)
Date	**Authors (from RBO and Firm)**	**Position**	
3.11.09	(method testing team)		
Sector	**Main Production**	**Main Environmental Concerns**	
Textile	Textiles from ready-made garment		

RATING LIST

#	Criteria	Description of Situation	y/n/-
1	Are key pollution indicators (*) in wastewater less than 10 times the standard allowed?		Y
2	Are the emissions of key indicators (**) to air less than 20 times the standards?		Y
3	Are the wastewater and air pollution loads less than 10 times the standards (if regulated)?		-
4	Is the company lead staff taking responsibility for the environmental management?		Y
5	Is concentration of key pollution indicators in wastewater less than 5 times the standard?		Y
6	Is all wastewater discharged trough treatment or to the controlled public sewer?		Y
7	Do sampling and analyses give a well representative image on water pollutants?		Y
8	Are the emissions of key indicators to air less than 10 times the standard?		Y
9	Are the wastewater and air pollution loads less than 5 times the standard (if regulated)?		-
10	Are there some technologies used to reduce significant emissions to air?		Y
11	Is there a specialized expert responsible for the environmental management?		Y

#	Criteria	Description of Situation	y/n/-
12	Have authorities verified the environmental compliance (no enforcement actions)?		Y
13	Is the last (1 yr) records of effluents in wastewater compliant (***) with the standards?		Y
14	Are emissions (1 yr) to air compliant with the standards?		Y
15	Is the last (1 yr) pollution load to water and air per unit compliant with the standards?		-
16	Are air pollution purification technologies used (as regulated in the sector)?		Y
17	Have all the regulations of environmental management been applied (as e.g. EIA)?		N
18	Has a team of environmental experts being nominated to each section of the enterprise?		N
19	Is the last (1 yr) key pollution indicators (*) in wastewater < 0.5 times the standard?		Y
20	Are the last (1 yr) emissions of key indicators (**) to air < 0.5 times the standard?		Y
21	Is the last (1 yr) pollution load to water and air per unit < 0.5 times the standard?		-
22	Are the storage facilities and handling of chemicals organized and controlled?		N
23	Has a special self-monitoring team for pollution control being nominated?		N
24	Are there waste water circulation, own treatment or other clean effluent systems?		N
25	Is storage facilities of chemicals secured with leak prevention and paved floors?		-
26	Are there modern combustion modifications and flue gas control technologies in place?		-
27	Is there self-monitoring, environmental register, EMS and ISO 14,000 ser. certification?		N
28	Are Risk, Accident and Life Cycle Assessment / Management, fully applied?		N

ENVIRONMENTAL RATING REPORT FOR EGYPTIAN ENTERPRISES - THE "PROPER" METHOD FOR AIR AND WATER POLLUTION

BASIC INFORMATION

Enterprise:	Egyptian British Company	**Rating Period:**	2009
	6th of October	**Final Rating:**	Blue
	Greater Cairo Region	**Previous Rating:**	Color (#)
		Rating 2 y ago:	Color (#)
		Rating 3 y ago:	Color (#)
Date	**Authors (from RBO and Firm)**	**Position**	
3.11.09	(method testing team)		
Sector	**Main Production**	**Main Environmental Concerns**	

RATING LIST

#	Criteria	Description of Situation	y/n/-
1	Are key pollution indicators (*) in wastewater less than 10 times the standard allowed?		Y
2	Are the emissions of key indicators (**) to air less than 20 times the standards?		Y
3	Are the wastewater and air pollution loads less than 10 times the standards (if regulated)?		-
4	Is the company lead staff taking responsibility for the environmental management?		Y
5	Is concentration of key pollution indicators in wastewater less than 5 times the standard?		Y
6	Is all wastewater discharged trough treatment or to the controlled public sewer?		Y
7	Do sampling and analyses give a well representative image on water pollutants?		Y
8	Are the emissions of key indicators to air less than 10 times the standard?		Y
9	Are the wastewater and air pollution loads less than 5 times the standard (if regulated)?		-
10	Are there some technologies used to reduce significant emissions to air?		Y
11	Is there a specialized expert responsible for the environmental management?		Y

#	Criteria	Description of Situation	y/n/-
12	Have authorities verified the environmental compliance (no enforcement actions)?	There was an enforcement action but for the storage of hazardous waste not wastewater or air emissions.	?
13	Is the last (1 yr) records of effluents in wastewater compliant (***) with the standards?		Y
14	Are emissions (1 yr) to air compliant with the standards?		Y
15	Is the last (1 yr) pollution load to water and air per unit compliant with the standards?		-
16	Are air pollution purification technologies used (as regulated in the sector)?		Y
17	Have all the regulations of environmental management been applied (as e.g. EIA)?		Y
18	Has a team of environmental experts being nominated to each section of the enterprise?		Y
19	Is the last (1 yr) key pollution indicators (*) in wastewater < 0.5 times the standard?		N
20	Are the last (1 yr) emissions of key indicators (**) to air < 0.5 times the standard?		N
21	Is the last (1 yr) pollution load to water and air per unit < 0.5 times the standard?		-
22	Are the storage facilities and handling of chemicals organized and controlled?		N
23	Has a special self-monitoring team for pollution control being nominated?		Y
24	Are there waste water circulation, own treatment or other clean effluent systems?		Y
25	Is storage facilities of chemicals secured with leak prevention and paved floors?		N
26	Are there modern combustion modifications and flue gas control technologies in place?		N
27	Is there self-monitoring, environmental register, EMS and ISO 14,000 ser. certification?		N
28	Are Risk, Accident and Life Cycle Assessment / Management, fully applied?		Y

ENVIRONMENTAL RATING REPORT FOR EGYPTIAN ENTERPRISES - THE "PROPER" METHOD FOR AIR AND WATER POLLUTION

BASIC INFORMATION

Enterprise:	Egyptian German Electric System	**Rating Period:**	
	6th of October	**Final Rating:**	Red
	Greater Cairo Region	**Previous Rating:**	Color (#)
		Rating 2 y ago:	Color (#)
		Rating 3 y ago:	Color (#)
Date	**Authors (from RBO and Firm)**	**Position**	
3.11.09	(method testing team)		
Sector	**Main Production**	**Main Environmental Concerns**	
Electric industry	Electric equipment	The company has no air emissions or wastewater.	

RATING LIST

#	Criteria	Description of Situation	y/n/-
1	Are key pollution indicators (*) in wastewater less than 10 times the standard allowed?		-
2	Are the emissions of key indicators (**) to air less than 20 times the standards?		-
3	Are the wastewater and air pollution loads less than 10 times the standards (if regulated)?		-
4	Is the company lead staff taking responsibility for the environmental management?		Y
5	Is concentration of key pollution indicators in wastewater less than 5 times the standard?		-
6	Is all wastewater discharged trough treatment or to the controlled public sewer?		-
7	Do sampling and analyses give a well representative image on water pollutants?		-
8	Are the emissions of key indicators to air less than 10 times the standard?		-
9	Are the wastewater and air pollution loads less than 5 times the standard (if regulated)?		-
10	Are there some technologies used to reduce significant emissions to air?		-
11	Is there a specialized expert responsible for the environmental management?		Y

#	Criteria	Description of Situation	y/n/-
12	Have authorities verified the environmental compliance (no enforcement actions)?		-
13	Is the last (1 yr) records of effluents in wastewater compliant (***) with the standards?		-
14	Are emissions (1 yr) to air compliant with the standards?		-
15	Is the last (1 yr) pollution load to water and air per unit compliant with the standards?		-
16	Are air pollution purification technologies used (as regulated in the sector)?		-
17	Have all the regulations of environmental management been applied (as e.g. EIA)?		N
18	Has a team of environmental experts being nominated to each section of the enterprise?		N
19	Is the last (1 yr) key pollution indicators (*) in wastewater < 0.5 times the standard?		
20	Are the last (1 yr) emissions of key indicators (**) to air < 0.5 times the standard?		
21	Is the last (1 yr) pollution load to water and air per unit < 0.5 times the standard?		
22	Are the storage facilities and handling of chemicals organized and controlled?		
23	Has a special self-monitoring team for pollution control being nominated?		
24	Are there waste water circulation, own treatment or other clean effluent systems?		
25	Is storage facilities of chemicals secured with leak prevention and paved floors?		
26	Are there modern combustion modifications and flue gas control technologies in place?		
27	Is there self-monitoring, environmental register, EMS and ISO 14,000 ser. certification?		
28	Are Risk, Accident and Life Cycle Assessment / Management, fully applied?		

ENVIRONMENTAL RATING REPORT FOR EGYPTIAN ENTERPRISES - THE "PROPER" METHOD FOR AIR AND WATER POLLUTION

BASIC INFORMATION

Enterprise:	El Nasr Company for Coke and Basic Chemicals	**Rating Period:**	2008 (data)
	Tebbin, Helwan Governorate	**Final Rating:**	Black
		Previous Rating:	Color (#)
		Rating 2 y ago:	Color (#)
		Rating 3 y ago:	Color (#)
Date	**Authors (from RBO and Firm)**	**Position**	
3.11.09	(method testing team)		
Sector	**Main Production**	**Main Environmental Concerns**	
Chemical, Metallurgy	Metallurgical coke, ammonium sulphate, nitric acid and pure ammonium nitrate	Ammonia, H2S, aromatics, and tar; CO_2 Dust (TSP, PM_{10}) Wastewater: benzene, BOD, COD, TSS, phenols, poly aromatic hydrocarbons (PAH), ammonia, and cyanides	

RATING LIST

#	Criteria	Description of Situation	y/n/-
1	Are key pollution indicators (*) in wastewater less than 10 times the standard allowed?		Y
2	Are the emissions of key indicators (**) to air less than 20 times the standards?		Y
3	Are the wastewater and air pollution loads less than 10 times the standards (if regulated)?		Y
4	Is the company lead staff taking responsibility for the environmental management?		
5	Is concentration of key pollution indicators in wastewater less than 5 times the standard?		N
6	Is all wastewater discharged trough treatment or to the controlled public sewer?	Own treatment plant for highly toxic wastewater; biological treatment; settling tanks	Y
7	Do sampling and analyses give a well representative image on water pollutants?		Y
8	Are the emissions of key indicators to air less than 10 times the standard?		Y
9	Are the wastewater and air pollution loads less than 5 times the standard (if regulated)?		Y
10	Are there some technologies used to reduce significant emissions to air?	Inadequate technologies	N
11	Is there a specialized expert responsible for the environmental management?		Y

#	Criteria	Description of Situation	y/n/ -
12	Have authorities verified the environmental compliance (no enforcement actions)?	Concentrations of benzene, toluene, TSP, and PM_{10} exceed the Law limits	N
13	Is the last (1 yr) records of effluents in wastewater compliant (***) with the standards?		N
14	Are emissions (1 yr) to air compliant with the standards?		N
15	Is the last (1 yr) pollution load to water and air per unit compliant with the standards?		-
16	Are air pollution purification technologies used (as regulated in the sector)?	Inadequate technologies	Y
17	Have all the regulations of environmental management been applied (as e.g. EIA)?		N
18	Has a team of environmental experts being nominated to each section of the enterprise?		Y
19	Is the last (1 yr) key pollution indicators (*) in wastewater < 0.5 times the standard?		N
20	Are the last (1 yr) emissions of key indicators (**) to air < 0.5 times the standard?		N
21	Is the last (1 yr) pollution load to water and air per unit < 0.5 times the standard?		N
22	Are the storage facilities and handling of chemicals organized and controlled?		?
23	Has a special self-monitoring team for pollution control being nominated?		Y
24	Are there waste water circulation, own treatment or other clean effluent systems?	Inadequate technologies	Y
25	Is storage facilities of chemicals secured with leak prevention and paved floors?		?
26	Are there modern combustion modifications and flue gas control technologies in place?	Inadequate technologies	N
27	Is there self-monitoring, environmental register, EMS and ISO 14,000 ser. certification?		?
28	Are Risk, Accident and Life Cycle Assessment / Management, fully applied?		?

ENVIRONMENTAL RATING REPORT FOR EGYPTIAN ENTERPRISES - THE "PROPER" METHOD FOR AIR AND WATER POLLUTION

BASIC INFORMATION

Enterprise:	Helwan Cement Company	**Rating Period:**	2008 (data)
	(Suez Cement Company)	**Final Rating:**	Red
	Helwan and El Minya	**Previous Rating:**	Color (#)
		Rating 2 y ago:	Color (#)
		Rating 3 y ago:	Color (#)
Date	**Authors (from RBO and Firm)**	**Position**	
3.11.09	(method testing team)		
Sector	**Main Production**	**Main Environmental Concerns**	
Building materials; Cement	Gray and white cement, sacks for packing cement, building materials, and quarry extracts	CO_2, So_2, CO, NOx, dust, soot (CO peaks regular) Wastewater not discharged	

RATING LIST

#	Criteria	Description of Situation	y/n/-
1	Are key pollution indicators (*) in wastewater less than 10 times the standard allowed?		Y
2	Are the emissions of key indicators (**) to air less than 20 times the standards?	Mazout is used (some natural gas)	Y
3	Are the wastewater and air pollution loads less than 10 times the standards (if regulated)?		-
4	Is the company lead staff taking responsibility for the environmental management?		Y
5	Is concentration of key pollution indicators in wastewater less than 5 times the standard?		Y
6	Is all wastewater discharged trough treatment or to the controlled public sewer?	Situation in quarry should be checked	Y
7	Do sampling and analyses give a well representative image on water pollutants?	Continuous monitoring; gas and dust by Tibbin Institute	Y
8	Are the emissions of key indicators to air less than 10 times the standard?		Y
9	Are the wastewater and air pollution loads less than 5 times the standard (if regulated)?		-
10	Are there some technologies used to reduce significant emissions to air?	Inadequate technologies	Y/N
11	Is there a specialized expert responsible for the environmental management?		Y

#	Criteria	Description of Situation	y/n/-
12	Have authorities verified the environmental compliance (no enforcement actions)?		N
13	Is the last (1 yr) records of effluents in wastewater compliant (***) with the standards?	Situation in quarry should be checked	?
14	Are emissions (1 yr) to air compliant with the standards?	CO pulses the main problem in certain part of the processes	N
15	Is the last (1 yr) pollution load to water and air per unit compliant with the standards?		-
16	Are air pollution purification technologies used (as regulated in the sector)?	Some but inadequate technologies	N
17	Have all the regulations of environmental management been applied (as e.g. EIA)?		N
18	Has a team of environmental experts being nominated to each section of the enterprise?		Y
19	Is the last (1 yr) key pollution indicators (*) in wastewater < 0.5 times the standard?	Situation in quarry should be checked	
20	Are the last (1 yr) emissions of key indicators (**) to air < 0.5 times the standard?		N
21	Is the last (1 yr) pollution load to water and air per unit < 0.5 times the standard?		-
22	Are the storage facilities and handling of chemicals organized and controlled?		?
23	Has a special self-monitoring team for pollution control being nominated?		Y
24	Are there waste water circulation, own treatment or other clean effluent systems?		N
25	Is storage facilities of chemicals secured with leak prevention and paved floors?		N
26	Are there modern combustion modifications and flue gas control technologies in place?		N
27	Is there self-monitoring, environmental register, EMS and ISO 14,000 ser. certification?		?
28	Are Risk, Accident and Life Cycle Assessment / Management, fully applied?		?

ENVIRONMENTAL RATING REPORT FOR EGYPTIAN ENTERPRISES - THE "PROPER" METHOD FOR AIR AND WATER POLLUTION

BASIC INFORMATION

Enterprise:	Egyptian Iron and Steel Company, EISCO	**Rating Period:**	2008 (data)
	Tebbin, Helwan Governorate	**Final Rating:**	Black
		Previous Rating:	Color (#)
		Rating 2 y ago:	Color (#)
		Rating 3 y ago:	Color (#)
Date	**Authors (from RBO and Firm)**	**Position**	
3.11.09	(method testing team)		
Sector	**Main Production**	**Main Environmental Concerns**	
Metallurgy	Steel, iron	Acid recovery - overloading of wastewater neutralization plant. Wastewater pond.	

RATING LIST

#	Criteria	Description of Situation	y/n/-
1	Are key pollution indicators (*) in wastewater less than 10 times the standard allowed?		Y
2	Are the emissions of key indicators (**) to air less than 20 times the standards?		Y
3	Are the wastewater and air pollution loads less than 10 times the standards (if regulated)?		-
4	Is the company lead staff taking responsibility for the environmental management?		Y
5	Is concentration of key pollution indicators in wastewater less than 5 times the standard?		Y
6	Is all wastewater discharged trough treatment or to the controlled public sewer?	Wastewater treatment plant (inadequate)	N
7	Do sampling and analyses give a well representative image on water pollutants?		Y
8	Are the emissions of key indicators to air less than 10 times the standard?	In-house PM_{10} up to 20 (Law 3)	Y
9	Are the wastewater and air pollution loads less than 5 times the standard (if regulated)?		Y
10	Are there some technologies used to reduce significant emissions to air?		?
11	Is there a specialized expert responsible for the environmental management?		Y

#	Criteria	Description of Situation	y/n/-
12	Have authorities verified the environmental compliance (no enforcement actions)?		N
13	Is the last (1 yr) records of effluents in wastewater compliant (***) with the standards?	TDS	N
14	Are emissions (1 yr) to air compliant with the standards?	Dust 351 (Law 200), CO 420 (Law 500); TSP, PM_{10} and some metals high	N
15	Is the last (1 yr) pollution load to water and air per unit compliant with the standards?		-
16	Are air pollution purification technologies used (as regulated in the sector)?		N
17	Have all the regulations of environmental management been applied (as e.g. EIA)?		?
18	Has a team of environmental experts being nominated to each section of the enterprise?		Y
19	Is the last (1 yr) key pollution indicators (*) in wastewater < 0.5 times the standard?		N
20	Are the last (1 yr) emissions of key indicators (**) to air < 0.5 times the standard?		N
21	Is the last (1 yr) pollution load to water and air per unit < 0.5 times the standard?		-
22	Are the storage facilities and handling of chemicals organized and controlled?		?
23	Has a special self-monitoring team for pollution control being nominated?		Y
24	Are there waste water circulation, own treatment or other clean effluent systems?	Wastewater treatment plant (inadequate)	N
25	Is storage facilities of chemicals secured with leak prevention and paved floors?		?
26	Are there modern combustion modifications and flue gas control technologies in place?		N
27	Is there self-monitoring, environmental register, EMS and ISO 14,000 ser. certification?		?
28	Are Risk, Accident and Life Cycle Assessment / Management, fully applied?		?

ENVIRONMENTAL RATING REPORT FOR EGYPTIAN ENTERPRISES - THE "PROPER" METHOD FOR AIR AND WATER POLLUTION

BASIC INFORMATION

Enterprise:	National Cement Company	**Rating Period:**	2008 (data)
	Tabbin, Helwan	**Final Rating:**	Red
		Previous Rating:	Color (#)
		Rating 2 y ago:	Color (#)
		Rating 3 y ago:	Color (#)
Date	**Authors (from RBO and Firm)**	**Position**	
3.11.09	(method testing team)		
Sector	**Main Production**	**Main Environmental Concerns**	
Building materials	Clinker, cement	TSP, NOx, SOx, CO_2, CO, waste oil No wastewater (domestic net used)	

RATING LIST

#	Criteria	Description of Situation	y/n/-
1	Are key pollution indicators (*) in wastewater less than 10 times the standard allowed?		Y
2	Are the emissions of key indicators (**) to air less than 20 times the standards?	Natural gas and mazot used	Y
3	Are the wastewater and air pollution loads less than 10 times the standards (if regulated)?		-
4	Is the company lead staff taking responsibility for the environmental management?		Y
5	Is concentration of key pollution indicators in wastewater less than 5 times the standard?		Y
6	Is all wastewater discharged trough treatment or to the controlled public sewer?		Y
7	Do sampling and analyses give a well representative image on water pollutants?	Tabbin Institute monitors	Y
8	Are the emissions of key indicators to air less than 10 times the standard?		Y
9	Are the wastewater and air pollution loads less than 5 times the standard (if regulated)?		-
10	Are there some technologies used to reduce significant emissions to air?		Y
11	Is there a specialized expert responsible for the environmental management?		Y

#	Criteria	Description of Situation	y/n/-
12	Have authorities verified the environmental compliance (no enforcement actions)?		N
13	Is the last (1 yr) records of effluents in wastewater compliant (***) with the standards?	Discharges from quarry not known	Y
14	Are emissions (1 yr) to air compliant with the standards?	Boilers - CO: c 300 (Law 500); NOx exceeding law. Frequent but occasional breaches of law limits. In-house PM_{10} 2-9 (Law 3)	N
15	Is the last (1 yr) pollution load to water and air per unit compliant with the standards?		-
16	Are air pollution purification technologies used (as regulated in the sector)?	Inadequate	N
17	Have all the regulations of environmental management been applied (as e.g. EIA)?	Emission limits violated	N
18	Has a team of environmental experts being nominated to each section of the enterprise?		Y
19	Is the last (1 yr) key pollution indicators (*) in wastewater < 0.5 times the standard?		-
20	Are the last (1 yr) emissions of key indicators (**) to air < 0.5 times the standard?		N
21	Is the last (1 yr) pollution load to water and air per unit < 0.5 times the standard?		-
22	Are the storage facilities and handling of chemicals organized and controlled?		?
23	Has a special self-monitoring team for pollution control being nominated?		Y
24	Are there waste water circulation, own treatment or other clean effluent systems?		?
25	Is storage facilities of chemicals secured with leak prevention and paved floors?		?
26	Are there modern combustion modifications and flue gas control technologies in place?		N
27	Is there self-monitoring, environmental register, EMS and ISO 14,000 ser. certification?	ISO 9000 in 2001, ISO 1401 in 2004, OHSAS 18000	Y
28	Are Risk, Accident and Life Cycle Assessment / Management, fully applied?		Y?

ENVIRONMENTAL RATING REPORT FOR EGYPTIAN ENTERPRISES - THE "PROPER" METHOD FOR AIR AND WATER POLLUTION

BASIC INFORMATION

Enterprise:	Starch and Glucose Manufacturing Company	**Rating Period:**	2008 (data)
	Cornish El-Nile, Tourah,	**Final Rating:**	Black
	Helwan Governorate	**Previous Rating:**	Color (#)
		Rating 2 y ago:	Color (#)
		Rating 3 y ago:	Color (#)
Date	**Authors (from RBO and Firm)**	**Position**	
3.11.09	(method testing team)		
Sector	**Main Production**	**Main Environmental Concerns**	
Food	Starch, Glucose, Modified Starch, Animal Feed, Corn Oil	PM, VOC, P, CO_2, CO, SOx, dust	

RATING LIST

#	Criteria	Description of Situation	y/n/-
1	Are key pollution indicators (*) in wastewater less than 10 times the standard allowed?		Y
2	Are the emissions of key indicators (**) to air less than 20 times the standards?	Mazot used	Y
3	Are the wastewater and air pollution loads less than 10 times the standards (if regulated)?		Y
4	Is the company lead staff taking responsibility for the environmental management?		Y
5	Is concentration of key pollution indicators in wastewater less than 5 times the standard?		Y
6	Is all wastewater discharged trough treatment or to the controlled public sewer?	Own wastewater treatment unit for up to 170 m3/hr; P a major problem	N
7	Do sampling and analyses give a well representative image on water pollutants?		Y
8	Are the emissions of key indicators to air less than 10 times the standard?	CO up to 10.5 x;	N
9	Are the wastewater and air pollution loads less than 5 times the standard (if regulated)?		-
10	Are there some technologies used to reduce significant emissions to air?		N
11	Is there a specialized expert responsible for the environmental management?		Y

#	Criteria	Description of Situation	y/n/-
12	Have authorities verified the environmental compliance (no enforcement actions)?		N
13	Is the last (1 yr) records of effluents in wastewater compliant (***) with the standards?	Own treatment plant; high P values (additional nitrate a problem)	N
14	Are emissions (1 yr) to air compliant with the standards?		N
15	Is the last (1 yr) pollution load to water and air per unit compliant with the standards?		-
16	Are air pollution purification technologies used (as regulated in the sector)?		N
17	Have all the regulations of environmental management been applied (as e.g. EIA)?		N
18	Has a team of environmental experts being nominated to each section of the enterprise?		Y
19	Is the last (1 yr) key pollution indicators (*) in wastewater < 0.5 times the standard?		N
20	Are the last (1 yr) emissions of key indicators (**) to air < 0.5 times the standard?		N
21	Is the last (1 yr) pollution load to water and air per unit < 0.5 times the standard?		-
22	Are the storage facilities and handling of chemicals organized and controlled?		?
23	Has a special self-monitoring team for pollution control being nominated?		?
24	Are there waste water circulation, own treatment or other clean effluent systems?		Y
25	Is storage facilities of chemicals secured with leak prevention and paved floors?		?
26	Are there modern combustion modifications and flue gas control technologies in place?		N
27	Is there self-monitoring, environmental register, EMS and ISO 14,000 ser. certification?		?
28	Are Risk, Accident and Life Cycle Assessment / Management, fully applied?		?

APPENDIX 3 – PROPER FORMATS FROM PILOT STUDIES

ENVIRONMENTAL RATING REPORT FOR EGYPTIAN ENTERPRISES - THE 'PROPER' METHOD FOR AIR AND WATER POLLUTION

BASIC INFORMATION

Enterprise:	TERACO Egypt for Chemicals Industry	**Rating Period:**	25/03/2010
		Final Rating:	Black
		Previous Rating:	Color (#)
		Rating 2 y ago:	Color (#)
		Rating 3 y ago:	Color (#)
Date	**Authors (from RBO and Firm)**	**Position**	
	Testing Team		
Sector	**Main Products**	**Main Environmental Concerns**	
Chemical	Chemicals	Phenols	

RATING LIST

#	Criteria	Description of Situation	y/n/-
1	Are key pollution indicators (*) in wastewater less than 10 times the standard allowed?	Phenol = 0.643 mg/liter; According to law, it should be 0.05 mg/liter	No
2	Are the emissions of key indicators (**) to air less than 20 times the standards?		Yes
3	Is concentration of key pollution indicators in wastewater less than 5 times the standard?	Phenol; Sulfides = 80 mg/liter, according to law, it should be 10 mg/liter	No
4	Are the emissions of key indicators to air (stacks and work environment) in addition to noise pollution less than 10 times the standard?		Yes
5	Are there any technologies used to reduce significant emissions to air?		-
6	Is there a specialized expert responsible for the environmental management?		Yes

#	Criteria	Description of Situation	y/n/-
7	Have authorities verified the environmental compliance recently (with no enforcement actions)?		Yes
8	Are the records of effluents in wastewater compliant with the standards?		No
9	Are emissions to air and noise pollution compliant with the standards?		Yes
10	Have all the regulations of environmental management been applied (as e.g. EIA)?	The environmental record is incomplete	Yes
11	Has industrial wastewater been treated before discharged to the main wastewater network?	Septic tanks are present	Yes
12	Are the key pollution indicators in wastewater < 0.5 times the standard?		?
13	Are the air emissions of key indicators (stacks and work environment) to air < 0.5 times the standard?		Yes
14	Is storage facilities of chemicals and fuel secured with leak prevention and paved floors?		Yes
15	Is there periodical self-monitoring for pollution control?	Once/year.	Yes
16	Has a team of environmental experts being nominated to apply the EMS?	The empty liquid chemicals barrels are being gotten rid of by an uncertified developer; There is no record for the wastes nor the hazardous wastes; No plans for getting rid of the hazardous wastes safely.	No
17	Are there wastewater circulation, own treatment, reuse or other clean effluent systems?		-
18	Are there modern combustion modifications and flue gas control technologies in place?		-
19	Is there an ISO 14,000 ser. certification?		No
20	Is there an application of an accidents and fire system plan?		No

ENVIRONMENTAL RATING REPORT FOR EGYPTIAN ENTERPRISES - THE 'PROPER' METHOD FOR AIR AND WATER POLLUTION

BASIC INFORMATION

Enterprise:	Unilever East for Personal Care	**Rating Period:**	07/04/2010
	4th Industrial Zone, 6th of October City	**Final Rating:**	Black
		Previous Rating:	Color (#)
		Rating 2 y ago:	Color (#)
		Rating 3 y ago:	Color (#)
Date	**Authors (from RBO and Firm)**	**Position**	
	Testing Team		
Sector	**Main Products**	**Main Environmental Concerns**	
Chemical	Chemicals	Phenols	

RATING LIST

#	Criteria	Description of Situation	y/n/-
1	Are key pollution indicators (*) in wastewater less than 10 times the standard allowed?		Yes
2	Are the emissions of key indicators (**) to air less than 20 times the standards?		Yes
3	Is concentration of key pollution indicators in wastewater less than 5 times the standard?	Phenol = 0.28 mg/liter According to law, it should be 0.05 mg/liter	No
4	Are the emissions of key indicators to air (stacks and work environment) in addition to noise pollution less than 10 times the standard?		Yes
5	Are there any technologies used to reduce significant emissions to air?		Yes
6	Is there a specialized expert responsible for the environmental management?	The responsible for the occupational health and safety	Yes

#	Criteria	Description of Situation	y/n/-
7	Have authorities verified the environmental compliance recently (with no enforcement actions)?	No penalties	Yes
8	Are the records of effluents in wastewater compliant with the standards?	Details are included in the inspection reports	No
9	Are emissions to air and noise pollution compliant with the standards?		Yes
10	Have all the regulations of environmental management been applied (as e.g. EIA)?	There is an environmental approval; There is a license; There is a process description	Yes
11	Has industrial wastewater been treated before discharged to the main wastewater network?	There is a water treatment unit under METETO's supervision.	Yes
12	Are the key pollution indicators in wastewater < 0.5 times the standard?		No
13	Are the air emissions of key indicators (stacks and work environment) to air < 0.5 times the standard?	Heat stress	No
14	Is storage facilities of chemicals and fuel secured with leak prevention and paved floors?	Asphalt and pads	Yes
15	Is there periodical self-monitoring for pollution control?	Monthly at Cairo University.	Yes
16	Has a team of environmental experts being nominated to apply the EMS?	The medical wastes are incinerated at the 6th of October incinerator. The hazardous wastes are not currently discharged at the Nasereya landfill; There are five responsible environmental people in the team; The hazardous waste is gotten rid of by el-Pharoneya	Yes
17	Are there wastewater circulation, own treatment, reuse or other clean effluent systems?		Yes

18	Are there modern combustion modifications and flue gas control technologies in place?	Natural gas boiler, the fork lift uses diesel; A new ventilation system will be built in 2011	Yes
19	Is there an ISO 14,000 ser. certification?		Yes
20	Is there an application of an accidents and fire system plan?		Yes

ENVIRONMENTAL RATING REPORT FOR EGYPTIAN ENTERPRISES - THE 'PROPER' METHOD FOR AIR AND WATER POLLUTION

BASIC INFORMATION

Enterprise:	Alfa Group for Ceramics Manufacturing	**Rating Period:**	25/03/2010
	Two plants, Alfa 1 and Alfa 2 in addition to an Interior Design plant.	**Final Rating:**	Blue
		Previous Rating:	Color (#)
		Rating 2 y ago:	Color (#)
		Rating 3 y ago:	Color (#)
Date	**Authors (from RBO and Firm)**	**Position**	
	Testing Team		
Sector	**Main Products**	**Main Environmental Concerns**	
Ceramic	Ceramics	Housekeeping	

RATING LIST

#	Criteria	Description of Situation	y/n/-
1	Are key pollution indicators (*) in wastewater less than 10 times the standard allowed?	Water is being treated then the treated water can be reused in the process.	-
2	Are the emissions of key indicators (**) to air less than 20 times the standards?		Yes
3	Is concentration of key pollution indicators in wastewater less than 5 times the standard?		-
4	Are the emissions of key indicators to air (stacks and work environment) in addition to noise pollution less than 10 times the standard?		Yes
5	Are there any technologies used to reduce significant emissions to air?		Yes
6	Is there a specialized expert responsible for the environmental management?	The administrative manager of the plant is responsible for environmental care.	Yes

#	Criteria	Description of Situation	y/n/-
7	Have authorities verified the environmental compliance recently (with no enforcement actions)?		Yes
8	Are the records of effluents in wastewater compliant with the standards?		-
9	Are emissions to air and noise pollution compliant with the standards?		Yes
10	Have all the regulations of environmental management been applied (as e.g. EIA)?		Yes
11	Has industrial wastewater been treated before discharged to the main wastewater network?		-
12	Are the key pollution indicators in wastewater < 0.5 times the standard?		-
13	Are the air emissions of key indicators (stacks and work environment) to air < 0.5 times the standard?		Yes
14	Is storage facilities of chemicals and fuel secured with leak prevention and paved floors?	The products are all over the place; The soda is left on the ground beside the unit	
15	Is there periodical self-monitoring for pollution control?	Measurements are done in the Central Lab and El-Tebeen Institute once per year.	Yes
16	Has a team of environmental experts being nominated to apply the EMS?	Employees do not wear safety equipment; Open storage of chemicals; All belts as well as the motors room are open	No
17	Are there wastewater circulation, own treatment, reuse or other clean effluent systems?		Yes
18	Are there modern combustion modifications and flue gas control technologies in place?		-
19	Is there an ISO 14,000 ser. certification?		No
20	Is there an application of an accidents and fire system plan?	The number of fire extinguishers is not enough; not present everywhere and is not being calibrated.	No

ENVIRONMENTAL RATING REPORT FOR EGYPTIAN ENTERPRISES - THE 'PROPER' METHOD FOR AIR AND WATER POLLUTION

BASIC INFORMATION

Enterprise:	Al-Lo'lo'a for Glass	**Rating Period:**	07/04/2010
	3rd Industrial Zone, Land 1/a	**Final Rating:**	Blue
		Previous Rating:	Color (#)
		Rating 2 y ago:	Color (#)
		Rating 3 y ago:	Color (#)
Date	**Authors (from RBO and Firm)**	**Position**	
	Testing Team		
Sector	**Main Products**	**Main Environmental Concerns**	
Manufacturing	Colored Glass	Waste management	

RATING LIST

#	Criteria	Description of Situation	y/n/-
1	Are key pollution indicators (*) in wastewater less than 10 times the standard allowed?		-
2	Are the emissions of key indicators (**) to air less than 20 times the standards?		Yes
3	Is concentration of key pollution indicators in wastewater less than 5 times the standard?		-
4	Are the emissions of key indicators to air (stacks and work environment) in addition to noise pollution less than 10 times the standard?		Yes
5	Are there any technologies used to reduce significant emissions to air?		-
6	Is there a specialized expert responsible for the environmental management?	Human Recourses manager	Yes

#	Criteria	Description of Situation	y/n/-
7	Have authorities verified the environmental compliance recently (with no enforcement actions)?	No penalties	Yes
8	Are the records of effluents in wastewater compliant with the standards?		-
9	Are emissions to air and noise pollution compliant with the standards?		Yes
10	Have all the regulations of environmental management been applied (as e.g. EIA)?	A plant layout; A temporary license; Process description	Yes
11	Has industrial wastewater been treated before discharged to the main wastewater network?		-
12	Are the key pollution indicators in wastewater < 0.5 times the standard?		-
13	Are the air emissions of key indicators (stacks and work environment) to air < 0.5 times the standard?		Yes
14	Is storage facilities of chemicals and fuel secured with leak prevention and paved floors?	Ventilation is at place; There is a fire control system; Pads	Yes
15	Is there periodical self-monitoring for pollution control?		No
16	Has a team of environmental experts being nominated to apply the EMS?	The hazardous wastes of dyes are not discharged to the Nasereya landfill (5 ton of dye/year as waste); There is no contract between the plant and neither El-Feronya nor 6th October	No
17	Are there wastewater circulation, own treatment, reuse or other clean effluent systems?		-
18	Are there modern combustion modifications and flue gas control technologies in place?		-
19	Is there an ISO 14,000 ser. certification?	ISO 14000 valid from 2004 until 2010	Yes
20	Is there an application of an accident and fire system plan?	There is a fire system plan but it's not applied.	No

ENVIRONMENTAL RATING REPORT FOR EGYPTIAN ENTERPRISES - THE 'PROPER' METHOD FOR AIR AND WATER POLLUTION

BASIC INFORMATION

Enterprise:	The National Company for Meat Manufacturing (Beefi)	**Rating Period:**	25/03/2010
		Final Rating:	Blue
		Previous Rating:	Color (#)
		Rating 2 y ago:	Color (#)
		Rating 3 y ago:	Color (#)
Date	**Authors (from RBO and Firm)**	**Position**	
	Testing Team		
Sector	**Main Products**	**Main Environmental Concerns**	
Food	Canned Beef (solid) and Frankfurter (semi-solid)	Pre-treatment of wastewater missing	

RATING LIST

#	Criteria	Description of Situation	y/n/-
1	Are key pollution indicators (*) in wastewater less than 10 times the standard allowed?		Yes
2	Are the emissions of key indicators (**) to air less than 20 times the standards?		Yes
3	Is concentration of key pollution indicators in wastewater less than 5 times the standard?		Yes
4	Are the emissions of key indicators to air (stacks and work environment) in addition to noise pollution less than 10 times the standard?		Yes
5	Are there any technologies used to reduce significant emissions to air?		-
6	Is there a specialized expert responsible for the environmental management?		Yes

#	Criteria	Description of Situation	y/n/-
7	Have authorities verified the environmental compliance recently (with no enforcement actions)?		Yes
8	Are the records of effluents in wastewater compliant with the standards?		Yes
9	Are emissions to air and noise pollution compliant with the standards?		Yes
10	Have all the regulations of environmental management been applied (as e.g. EIA)?		Yes
11	Has industrial wastewater been treated before discharged to the main wastewater network?		No
12	Are the key pollution indicators in wastewater < 0.5 times the standard?	Oil and Grease = 60 mg/liter According to law, it could be 100 mg/liter	No
13	Are the air emissions of key indicators (stacks and work environment) to air < 0.5 times the standard?		Yes
14	Is storage facilities of chemicals and fuel secured with leak prevention and paved floors?		-
15	Is there periodical self-monitoring for pollution control?		Yes
16	Has a team of environmental experts being nominated to apply the EMS?	Employees do not wear gloves; The floor is watered; Expired products are being burned in the incinerator of the Pharaneya Company	No
17	Are there wastewater circulation, own treatment, reuse or other clean effluent systems?		No
18	Are there modern combustion modifications and flue gas control technologies in place?		-
19	Is there an ISO 14,000 ser. certification?		No
20	Is there an application of an accidents and fire system plan?	The number of fire extinguishers is insufficient	No

ENVIRONMENTAL RATING REPORT FOR EGYPTIAN ENTERPRISES - THE 'PROPER' METHOD FOR AIR AND WATER POLLUTION

BASIC INFORMATION

Enterprise:	Ceramics Technology and Essentials	**Rating Period:**	18/03/2010
		Final Rating:	Red
		Previous Rating:	Color (#)
		Rating 2 y ago:	Color (#)
		Rating 3 y ago:	Color (#)
Date	**Authors (from RBO and Firm)**	**Position**	
	Testing Team		
Sector	**Main Products**	**Main Environmental Concerns**	
Ceramic	Ceramics	Dust	

RATING LIST

#	Criteria	Description of Situation	y/n/-
1	Are key pollution indicators (*) in wastewater less than 10 times the standard allowed?	Closed circuit water	-
2	Are the emissions of key indicators (**) to air less than 20 times the standards?		Yes
3	Is concentration of key pollution indicators in wastewater less than 5 times the standard?		-
4	Are the emissions of key indicators to air (stacks and work environment) in addition to noise pollution less than 10 times the standard?		Yes
5	Are there any technologies used to reduce significant emissions to air?		-
6	Is there a specialized expert responsible for the environmental management?	The financial manager	Yes

#	Criteria	Description of Situation	y/n/-
7	Have authorities verified the environmental compliance recently (with no enforcement actions)?		-
8	Are the records of effluents in wastewater compliant with the standards?		Yes
9	Are emissions to air and noise pollution compliant with the standards?		-
10	Have all the regulations of environmental management been applied (as e.g. EIA)?	Incomplete (Process Description and plant layout are not present)	No
11	Has industrial wastewater been treated before discharged to the main wastewater network?	There is a septic tank where the sludge is being separated and sent to landfill, and water is being reused in a closed circuit.	-
12	Are the key pollution indicators in wastewater < 0.5 times the standard?		-
13	Are the air emissions of key indicators (stacks and work environment) to air < 0.5 times the standard?	Inhalant dusts	No
14	Is storage facilities of chemicals and fuel secured with leak prevention and paved floors?		-
15	Is there periodical self-monitoring for pollution control?		No
16	Has a team of environmental experts being nominated to apply the EMS?		No
17	Are there wastewater circulation, own treatment, reuse or other clean effluent systems?		Yes
18	Are there modern combustion modifications and flue gas control technologies in place?		-
19	Is there an ISO 14,000 ser. certification?		No
20	Is there an application of an accidents and fire system plan?		No

ENVIRONMENTAL RATING REPORT FOR EGYPTIAN ENTERPRISES - THE 'PROPER' METHOD FOR AIR AND WATER POLLUTION

BASIC INFORMATION

Enterprise:	Cazareen for Garments	**Rating Period:**	24/03/2010
	4th Industrial Zone, Land # 23	**Final Rating:**	Red
		Previous Rating:	Color (#)
		Rating 2 y ago:	Color (#)
		Rating 3 y ago:	Color (#)
Date	**Authors (from RBO and Firm)**	**Position**	
	Testing Team		
Sector	**Main Products**	**Main Environmental Concerns**	
Textile	Textiles	Housekeeping	

RATING LIST

#	Criteria	Description of Situation	y/n/-
1	Are key pollution indicators (*) in wastewater less than 10 times the standard allowed?		Yes
2	Are the emissions of key indicators (**) to air less than 20 times the standards?		Yes
3	Is concentration of key pollution indicators in wastewater less than 5 times the standard?	Details are held in the inspection reports	Yes
4	Are the emissions of key indicators to air (stacks and work environment) in addition to noise pollution less than 10 times the standard?		Yes
5	Are there any technologies used to reduce significant emissions to air?		-
6	Is there a specialized expert responsible for the environmental management?	Systems manager	Yes

#	Criteria	Description of Situation	y/n/-
7	Have authorities verified the environmental compliance recently (with no enforcement actions)?		Yes
8	Are the records of effluents in wastewater compliant with the standards?	Details are held in the inspection reports	No
9	Are emissions to air and noise pollution compliant with the standards?		Yes
10	Have all the regulations of environmental management been applied (as e.g. EIA)?	Incomplete record	Yes
11	Has industrial wastewater been treated before discharged to the main wastewater network?		Yes
12	Are the key pollution indicators in wastewater < 0.5 times the standard?		No
13	Are the air emissions of key indicators (stacks and work environment) to air < 0.5 times the standard?		Yes
14	Is storage facilities of chemicals and fuel secured with leak prevention and paved floors?		Yes
15	Is there periodical self-monitoring for pollution control?	For water, three times a year	Yes
16	Has a team of environmental experts being nominated to apply the EMS?	There is no record either for the hazardous materials or the hazardous wastes	No
17	Are there wastewater circulation, own treatment, reuse or other clean effluent systems?		Yes
18	Are there modern combustion modifications and flue gas control technologies in place?	Natural gas boilers	Yes
19	Is there an ISO 14,000 ser. certification?		No
20	Is there an application of an accidents and fire system plan?		No

ENVIRONMENTAL RATING REPORT FOR EGYPTIAN ENTERPRISES - THE 'PROPER' METHOD FOR AIR AND WATER POLLUTION

BASIC INFORMATION

Enterprise:	El-Ahram for Paper Industry (Flora)	**Rating Period:**	18/03/2010
		Final Rating:	Red
		Previous Rating:	Color (#)
		Rating 2 y ago:	Color (#)
		Rating 3 y ago:	Color (#)
Date	**Authors (from RBO and Firm)**	**Position**	
	Testing Team		
Sector	**Main Products**	**Main Environmental Concerns**	
Paper	Paper		

RATING LIST

#	Criteria	Description of Situation	y/n/-
1	Are key pollution indicators (*) in wastewater less than 10 times the standard allowed?		Yes
2	Are the emissions of key indicators (**) to air less than 20 times the standards?		Yes
3	Is concentration of key pollution indicators in wastewater less than 5 times the standard?		Yes
4	Are the emissions of key indicators to air (stacks and work environment) in addition to noise pollution less than 10 times the standard?		Yes
5	Are there any technologies used to reduce significant emissions to air?		Yes
6	Is there a specialized expert responsible for the environmental management?	Quality department manager, who was previously called Environmental department manager.	Yes

#	Criteria	Description of Situation	y/n/-
7	Have authorities verified the environmental compliance recently (with no enforcement actions)?		No
8	Are the records of effluents in wastewater compliant with the standards?		Yes
9	Are emissions to air and noise pollution compliant with the standards?	Noise	No
10	Have all the regulations of environmental management been applied (as e.g. EIA)?	Incomplete, there is no record for the hazardous wastes.	Yes
11	Has industrial wastewater been treated before discharged to the main wastewater network?		Yes
12	Are the key pollution indicators in wastewater < 0.5 times the standard?		Yes
13	Are the air emissions of key indicators (stacks and work environment) to air < 0.5 times the standard?		Yes
14	Is storage facilities of chemicals and fuel secured with leak prevention and paved floors?		Yes
15	Is there periodical self-monitoring for pollution control?		Yes
16	Has a team of environmental experts being nominated to apply the EMS?	Workers do not use ear plugs or gags where needed; Hazardous waste management is done through an uncertified developer	No
17	Are there wastewater circulation, own treatment, reuse or other clean effluent systems?		No
18	Are there modern combustion modifications and flue gas control technologies in place?		Yes
19	Is there an ISO 14,000 ser. certification?		Yes
20	Is there an application of an accidents and fire system plan?		No

ENVIRONMENTAL RATING REPORT FOR EGYPTIAN ENTERPRISES - THE 'PROPER' METHOD FOR AIR AND WATER POLLUTION

BASIC INFORMATION

Enterprise:	Black Forest (El-Bohsoly) for Dessert Manufacturing	**Rating Period:**	21/03/2010
		Final Rating:	Red
		Previous Rating:	Color (#)
		Rating 2 y ago:	Color (#)
		Rating 3 y ago:	Color (#)
Date	**Authors (from RBO and Firm)**	**Position**	
	Testing Team		
Sector	**Main Products**	**Main Environmental Concerns**	
Food industry	Sweets	Water pollution	

RATING LIST

#	Criteria	Description of Situation	y/n/-
1	Are key pollution indicators (*) in wastewater less than 10 times the standard allowed?		Yes
2	Are the emissions of key indicators (**) to air less than 20 times the standards?	Natural gas boiler	Yes
3	Is concentration of key pollution indicators in wastewater less than 5 times the standard?		Yes
4	Are the emissions of key indicators to air (stacks and work environment) in addition to noise pollution less than 10 times the standard?		Yes
5	Are there any technologies used to reduce significant emissions to air?		-
6	Is there a specialized expert responsible for the environmental management?		Yes

#	Criteria	Description of Situation	y/n/-
7	Have authorities verified the environmental compliance recently (with no enforcement actions)?		Yes
8	Is the records of effluents in wastewater compliant with the standards?		Yes
9	Are emissions to air and noise pollution compliant with the standards?		Yes
10	Have all the regulations of environmental management been applied (as e.g. EIA)?	Incomplete	No
11	Has industrial wastewater been treated before discharged to the main wastewater network?	COD = 1037 mg/liter According to law, it could be 1100 mg/liter	No
12	Are the key pollution indicators in wastewater < 0.5 times the standard?	The emissions beside the pasting machine = 2.3 mg/liter According to law, it could be 3 mg/liter	No
13	Are the air emissions of key indicators (stacks and work environment) to air < 0.5 times the standard?		No
14	Is storage facilities of chemicals and fuel secured with leak prevention and paved floors?		-
15	Is there periodical self-monitoring for pollution control?		No
16	Has a team of environmental experts being nominated to apply the EMS?	Employees do not wear safety gloves; No general cleanliness; Waste accumulation and some types of waste is not being sold	No
17	Are there wastewater circulation, own treatment, reuse or other clean effluent systems?		-
18	Are there modern combustion modifications and flue gas control technologies in place?		-
19	Is there an ISO 14,000 ser. certification?		No
20	Is there an application of an accidents and fire system plan?		No

ENVIRONMENTAL RATING REPORT FOR EGYPTIAN ENTERPRISES - THE 'PROPER' METHOD FOR AIR AND WATER POLLUTION

BASIC INFORMATION

Enterprise:	El-Marwa for Food Industry	**Rating Period:**	21/03/2010
		Final Rating:	Black
		Previous Rating:	Color (#)
		Rating 2 y ago:	Color (#)
		Rating 3 y ago:	Color (#)
Date	**Authors (from RBO and Firm)**	**Position**	
	Testing Team		
Sector	**Main Products**	**Main Environmental Concerns**	
Food	Juice concentrates		

RATING LIST

#	Criteria	Description of Situation	y/n/-
1	Are key pollution indicators (*) in wastewater less than 10 times the standard allowed?		Yes
2	Are the emissions of key indicators (**) to air less than 20 times the standards?	Natural gas boiler	-
3	Is concentration of key pollution indicators in wastewater less than 5 times the standard?	Phenol = 0.26 mg/liter, By law it should be 0.05mg/liter	No
4	Are the emissions of key indicators to air (stacks and work environment) in addition to noise pollution less than 10 times the standard?		-
5	Are there any technologies used to reduce significant emissions to air?		-
6	Is there a specialized expert responsible for the environmental management?		Yes

#	Criteria	Description of Situation	y/n/-
7	Have authorities verified the environmental compliance recently (with no enforcement actions)?		Yes
8	Are the records of effluents in wastewater compliant with the standards?	Details are enclosed in the inspection report	No
9	Are emissions to air and noise pollution compliant with the standards?		-
10	Have all the regulations of environmental management been applied (as e.g. EIA)?		Yes
11	Has industrial wastewater been treated before discharged to the main wastewater network?		Yes
12	Are the key pollution indicators in wastewater < 0.5 times the standard?		No
13	Are the air emissions of key indicators (stacks and work environment) to air < 0.5 times the standard?		-
14	Is storage facilities of chemicals and fuel secured with leak prevention and paved floors?		Yes
15	Is there periodical self-monitoring for pollution control?		Yes
16	Has a team of environmental experts being nominated to apply the EMS?		Yes
17	Are there wastewater circulation, own treatment, reuse or other clean effluent systems?		Yes
18	Are there modern combustion modifications and flue gas control technologies in place?		-
19	Is there an ISO 14,000 ser. certification?		No
20	Is there an application of an accidents and fire system plan?		No

ENVIRONMENTAL RATING REPORT FOR EGYPTIAN ENTERPRISES - THE 'PROPER' METHOD FOR AIR AND WATER POLLUTION

BASIC INFORMATION

Enterprise:	El-Masreya for Plastics	**Rating Period:**	22/03/2010
	One of Bahgat's Group companies	**Final Rating:**	Gold
		Previous Rating:	Color (#)
		Rating 2 y ago:	Color (#)
		Rating 3 y ago:	Color (#)
Date	**Authors (from RBO and Firm)**	**Position**	
	Testing Team		
Sector	**Main Products**	**Main Environmental Concerns**	
Chemical	Plastic Products	Environment well managed	

RATING LIST

#	Criteria	Description of Situation	y/n/-
1	Are key pollution indicators (*) in wastewater less than 10 times the standard allowed?	A closed circuit for cooling some machines.	-
2	Are the emissions of key indicators (**) to air less than 20 times the standards?		Yes
3	Is concentration of key pollution indicators in wastewater less than 5 times the standard?		-
4	Are the emissions of key indicators to air (stacks and work environment) in addition to noise pollution less than 10 times the standard?		Yes
5	Are there any technologies used to reduce significant emissions to air?		-
6	Is there a specialized expert responsible for the environmental management?		Yes

#	Criteria	Description of Situation	y/n/-
7	Have authorities verified the environmental compliance recently (with no enforcement actions)?		Yes
8	Are the records of effluents in wastewater compliant with the standards?		-
9	Are emissions to air and noise pollution compliant with the standards?		Yes
10	Have all the regulations of environmental management been applied (as e.g. EIA)?		Yes
11	Has industrial wastewater been treated before discharged to the main wastewater network?		-
12	Are the key pollution indicators in wastewater < 0.5 times the standard?		-
13	Are the air emissions of key indicators (stacks and work environment) to air < 0.5 times the standard?		Yes
14	Is storage facilities of chemicals and fuel secured with leak prevention and paved floors?		-
15	Is there periodical self-monitoring for pollution control?		Yes
16	Has a team of environmental experts being nominated to apply the EMS?		Yes
17	Are there wastewater circulation, own treatment, reuse or other clean effluent systems?		Yes
18	Are there modern combustion modifications and flue gas control technologies in place?		-
19	Is there an ISO 14,000 ser. certification?		Yes
20	Is there an application of an accidents and fire system plan?		Yes

ENVIRONMENTAL RATING REPORT FOR EGYPTIAN ENTERPRISES - THE 'PROPER' METHOD FOR AIR AND WATER POLLUTION

BASIC INFORMATION

Enterprise:	Global Napi G.N.P	**Rating Period:**	22/03/2010
		Final Rating:	Black
		Previous Rating:	Color (#)
		Rating 2 y ago:	Color (#)
		Rating 3 y ago:	Color (#)
Date	**Authors (from RBO and Firm)**	**Position**	
	Testing Team		
Sector	**Main Products**	**Main Environmental Concerns**	
Chemical	Pharmaceuticals	Phenol	

RATING LIST

#	Criteria	Description of Situation	y/n/-
1	Are key pollution indicators (*) in wastewater less than 10 times the standard allowed?	Phenol = 0.625 mg/liter According to law, it should be 0.05 mg/liter.	No
2	Are the emissions of key indicators (**) to air less than 20 times the standards?		-
3	Is concentration of key pollution indicators in wastewater less than 5 times the standard?		No
4	Are the emissions of key indicators to air (stacks and work environment) in addition to noise pollution less than 10 times the standard?		-
5	Are there any technologies used to reduce significant emissions to air?		-
6	Is there a specialized expert responsible for the environmental management?	The ISO responsible person in addition to the members of the engineering department.	Yes

#	Criteria	Description of Situation	y/n/-
7	Have authorities verified the environmental compliance recently (with no enforcement actions)?		Yes
8	Are the records of effluents in wastewater compliant with the standards?		No
9	Are emissions to air and noise pollution compliant with the standards?		-
10	Have all the regulations of environmental management been applied (as e.g. EIA)?	Not integrated	Yes
11	Has industrial wastewater been treated before discharged to the main wastewater network?		No
12	Are the key pollution indicators in wastewater < 0.5 times the standard?		No
13	Are the air emissions of key indicators (stacks and work environment) to air < 0.5 times the standard?		-
14	Is storage facilities of chemicals and fuel secured with leak prevention and paved floors?		Yes
15	Is there periodical self-monitoring for pollution control?	Once per 6 months.	Yes
16	Has a team of environmental experts being nominated to apply the EMS?	The hazardous wastes are burned in the furnaces of the Egyptian Cement company while the kinds of waste that are not applicable to that are being burned in certified furnaces.	Yes
17	Are there wastewater circulation, own treatment, reuse or other clean effluent systems?		-
18	Are there modern combustion modifications and flue gas control technologies in place?		-
19	Is there an ISO 14,000 ser. certification?		Yes
20	Is there an application of an accidents and fire system plan?		Yes

ENVIRONMENTAL RATING REPORT FOR EGYPTIAN ENTERPRISES - THE 'PROPER' METHOD FOR AIR AND WATER POLLUTION

BASIC INFORMATION

Enterprise:	Helw El-Sham for Powder Manufacturing	**Rating Period:**	07/04/2010
	1st Industrial Zone, 6th of October City	**Final Rating:**	Black
		Previous Rating:	Color (#)
		Rating 2 y ago:	Color (#)
		Rating 3 y ago:	Color (#)
Date	**Authors (from RBO and Firm)**	**Position**	
	Testing Team		
Sector	**Main Products**	**Main Environmental Concerns**	
Food	Powder		

RATING LIST

#	Criteria	Description of Situation	y/n/-
1	Are key pollution indicators (*) in wastewater less than 10 times the standard allowed?	Phenol	No
2	Are the emissions of key indicators (**) to air less than 20 times the standards?		Yes
3	Is concentration of key pollution indicators in wastewater less than 5 times the standard?	Phenol and COD	No
4	Are the emissions of key indicators to air (stacks and work environment) in addition to noise pollution less than 10 times the standard?		Yes
5	Are there any technologies used to reduce significant emissions to air?		-
6	Is there a specialized expert responsible for the environmental management?	Safety and Environment Ossama Eid (not a chemist)	Yes

#	Criteria	Description of Situation	y/n/-
7	Have authorities verified the environmental compliance recently (with no enforcement actions)?	There was one a couple of months ago due to the contamination of the industrial waste with domestic waste; High BOD and COD values	No
8	Are the records of effluents in wastewater compliant with the standards?		No
9	Are emissions to air and noise pollution compliant with the standards?		Yes
10	Have all the regulations of environmental management been applied (as e.g. EIA)?	No process description for the plant; Currently developing the environmental record	No
11	Has industrial wastewater been treated before discharged to the main wastewater network?	Septic tanks for industrial waste are present.	Yes
12	Are the key pollution indicators in wastewater < 0.5 times the standard?		No
13	Are the air emissions of key indicators (stacks and work environment) to air < 0.5 times the standard?	Heat Stress; Inhalant dusts.	No
14	Is storage facilities of chemicals and fuel secured with leak prevention and paved floors?		Yes
15	Is there periodical self-monitoring for pollution control?	Monitoring by Cairo University and EEAA	Yes
16	Has a team of environmental experts being nominated to apply the EMS?	Wastes go to El-Foroneya, there is a contract but there was no recent receipt for that; No ventilation; There is a specialist but not within a team	No
17	Are there wastewater circulation, own treatment, reuse or other clean effluent systems?	The nature of the water doesn't support the water reuse	-
18	Are there modern combustion modifications and flue gas control technologies in place?		No
19	Is there an ISO 14,000 ser. certification?		No
20	Is there an application of an accidents and fire system plan?	Although they have OHSA certificate, yet the fire fighting system seems to be poor and in some areas not available at all; There is a fire system plan	No

ENVIRONMENTAL RATING REPORT FOR EGYPTIAN ENTERPRISES - THE 'PROPER' METHOD FOR AIR AND WATER POLLUTION

BASIC INFORMATION

Enterprise:	Khodair Pack	**Rating Period:**	07/04/2010
	2nd Industrial Zone	**Final Rating:**	Red
		Previous Rating:	Color (#)
		Rating 2 y ago:	Color (#)
		Rating 3 y ago:	Color (#)
Date	**Authors (from RBO and Firm)**	**Position**	
	Testing Team		
Sector	**Main Products**	**Main Environmental Concerns**	
Paper	Colored paper		

RATING LIST

#	Criteria	Description of Situation	y/n/-
1	Are key pollution indicators (*) in wastewater less than 10 times the standard allowed?		-
2	Are the emissions of key indicators (**) to air less than 20 times the standards?		Yes
3	Is concentration of key pollution indicators in wastewater less than 5 times the standard?		-
4	Are the emissions of key indicators to air (stacks and work environment) in addition to noise pollution less than 10 times the standard?		Yes
5	Are there any technologies used to reduce significant emissions to air?		-
6	Is there a specialized expert responsible for the environmental management?		No

#	Criteria	Description of Situation	y/n/-
7	Have authorities verified the environmental compliance recently (with no enforcement actions)?	No environmental inspection has taken place	?
8	Are the records of effluents in wastewater compliant with the standards?		-
9	Are emissions to air and noise pollution compliant with the standards?		Yes
10	Have all the regulations of environmental management been applied (as e.g. EIA)?	There is a license; No environmental record; No layout; No process description; No environmental acceptance	No
11	Has industrial wastewater been treated before discharged to the main wastewater network?	No industrial discharge.	-
12	Are the key pollution indicators in wastewater < 0.5 times the standard?		-
13	Are the air emissions of key indicators (stacks and work environment) to air < 0.5 times the standard?		Yes
14	Is storage facilities of chemicals and fuel secured with leak prevention and paved floors?	Storing of chemicals on pads on concrete ground; Storage of wastes is unsafe; Cartoon wastes can catch fire easily	No
15	Is there periodical self-monitoring for pollution control?		No
16	Has a team of environmental experts being nominated to apply the EMS?	No fire system in some storage areas; There's only one fire fighter in the manufacturing area that dates to 2004; Currently, pigments, silicates, hazardous colored wastes are all thrown to trash. They don't deal with the Nasereya landfill	No
17	Are there wastewater circulation, own treatment, reuse or other clean effluent systems?		No
18	Are there modern combustion modifications and flue gas control technologies in place?		?
19	Is there an ISO 14,000 ser. certification?		No
20	Is there an application of an accidents and fire system plan?	No fire system	No

ENVIRONMENTAL RATING REPORT FOR EGYPTIAN ENTERPRISES - THE 'PROPER' METHOD FOR AIR AND WATER POLLUTION

BASIC INFORMATION

Enterprise:	Servier Masr for Manufacturing	**Rating Period:**	06/04/2010
		Final Rating:	Blue
		Previous Rating:	Color (#)
		Rating 2 y ago:	Color (#)
		Rating 3 y ago:	Color (#)
Date	**Authors (from RBO and Firm)**	**Position**	
	Testing Team		
Sector	**Main Products**	**Main Environmental Concerns**	
Medicine	Pharmaceuticals		

RATING LIST

#	Criteria	Description of Situation	y/n/-
1	Are key pollution indicators (*) in wastewater less than 10 times the standard allowed?		Yes
2	Are the emissions of key indicators (**) to air less than 20 times the standards?		-
3	Is concentration of key pollution indicators in wastewater less than 5 times the standard?		Yes
4	Are the emissions of key indicators to air (stacks and work environment) in addition to noise pollution less than 10 times the standard?		-
5	Are there any technologies used to reduce significant emissions to air?	Lepa filters (99.9%) Air conditioning	Yes
6	Is there a specialized expert responsible for the environmental management?	There is a specialist for environmental affairs	Yes

#	Criteria	Description of Situation	y/n/-
7	Have authorities verified the environmental compliance recently (with no enforcement actions)?	No penalties	Yes
8	Are the records of effluents in wastewater compliant with the standards?		Yes
9	Are emissions to air and noise pollution compliant with the standards?		-
10	Have all the regulations of environmental management been applied (as e.g. EIA)?	There is a plant layout There is one environmental record for both sites There is a license There is a process description No environmental acceptance for site 2.	Yes
11	Has industrial wastewater been treated before discharged to the main wastewater network?	Sedimentation tank, Purification Unit, No treatment	Yes
12	Are the key pollution indicators in wastewater < 0.5 times the standard?	Phenol = 0.038 mg/liter According to law, it could be 0.05 mg/liter.	No
13	Are the air emissions of key indicators (stacks and work environment) to air < 0.5 times the standard?		-
14	Is storage facilities of chemicals and fuel secured with leak prevention and paved floors?		Yes
15	Is there periodical self-monitoring for pollution control?	Annually by SETEC which is not certified	Yes
16	Has a team of environmental experts being nominated to apply the EMS?	Incineration takes place at 6th October University's incinerator	Yes
17	Are there wastewater circulation, own treatment, reuse or other clean effluent systems?	Not applicable due to the industry's nature.	-
18	Are there modern combustion modifications and flue gas control technologies in place?	Solar boiler	No
19	Is there an ISO 14,000 ser. certification?	The pharmaceutical requirements are higher than those of the ISO	No
20	Is there an application of an accidents and fire system plan?		Yes

ENVIRONMENTAL RATING REPORT FOR EGYPTIAN ENTERPRISES - THE 'PROPER' METHOD FOR AIR AND WATER POLLUTION

BASIC INFORMATION

Enterprise:	SEDECO	**Rating Period:**	24/03/2010
		Final Rating:	Red
		Previous Rating:	Color (#)
		Rating 2 y ago:	Color (#)
		Rating 3 y ago:	Color (#)
Date	**Authors (from RBO and Firm)**	**Position**	
	Testing Team		
Sector	**Main Products**	**Main Environmental Concerns**	
Chemical	Pharmaceuticals	Phenol	

RATING LIST

#	Criteria	Description of Situation	y/n/-
1	Are key pollution indicators (*) in wastewater less than 10 times the standard allowed?		Yes
2	Are the emissions of key indicators (**) to air less than 20 times the standards?		Yes
3	Is concentration of key pollution indicators in wastewater less than 5 times the standard?		Yes
4	Are the emissions of key indicators to air (stacks and work environment) in addition to noise pollution less than 10 times the standard?	There is a solar boiler	Yes
5	Are there any technologies used to reduce significant emissions to air?		Yes
6	Is there a specialized expert responsible for the environmental management?		Yes

#	Criteria	Description of Situation	y/n/-
7	Have authorities verified the environmental compliance recently (with no enforcement actions)?		Yes
8	Are the records of effluents in wastewater compliant with the standards?	Phenol = 0.314 mg/liter According to law, is should be 0.05 mg/liter.	No
9	Are emissions to air and noise pollution compliant with the standards?		Yes
10	Have all the regulations of environmental management been applied (as e.g. EIA)?		Yes
11	Has industrial wastewater been treated before discharged to the main wastewater network?		No
12	Are the key pollution indicators in wastewater < 0.5 times the standard?		No
13	Are the air emissions of key indicators (stacks and work environment) to air < 0.5 times the standard?		Yes
14	Is storage facilities of chemicals and fuel secured with leak prevention and paved floors?		Yes
15	Is there periodical self-monitoring for pollution control?	By the center for development and technological planning, Cairo University twice per year.	Yes
16	Has a team of environmental experts being nominated to apply the EMS?	Getting rid of hazardous wastes as follows: Oils: Petrotrade Plastics: El-Nassereya Expired solids wastes and cleansers: El-Masreya for Cement	Yes
17	Are there wastewater circulation, own treatment, reuse or other clean effluent systems?		?
18	Are there modern combustion modifications and flue gas control technologies in place?		?
19	Is there an ISO 14,000 ser. certification?		Yes
20	Is there an application of an accidents and fire system plan?		Yes

ENVIRONMENTAL RATING REPORT FOR EGYPTIAN ENTERPRISES - THE 'PROPER' METHOD FOR AIR AND WATER POLLUTION

BASIC INFORMATION

Enterprise:	TechnoSteel	**Rating Period:**	22/03/2010
		Final Rating:	Black
		Previous Rating:	Color (#)
		Rating 2 y ago:	Color (#)
		Rating 3 y ago:	Color (#)
Date	**Authors (from RBO and Firm)**	**Position**	
	Testing Team		
Sector	**Main Products**	**Main Environmental Concerns**	
Manufacturing	Plastic Products	Housekeeping	

RATING LIST

#	Criteria	Description of Situation	y/n/-
1	Are key pollution indicators (*) in wastewater less than 10 times the standard allowed?		-
2	Are the emissions of key indicators (**) to air less than 20 times the standards?		Yes
3	Is concentration of key pollution indicators in wastewater less than 5 times the standard?		-
4	Are the emissions of key indicators to air (stacks and work environment) in addition to noise pollution less than 10 times the standard?		Yes
5	Are there any technologies used to reduce significant emissions to air?		-
6	Is there a specialized expert responsible for the environmental management?		No

#	Criteria	Description of Situation	y/n/-
7	Have authorities verified the environmental compliance recently (with no enforcement actions)?		Yes
8	Are the records of effluents in wastewater compliant with the standards?		-
9	Are emissions to air and noise pollution compliant with the standards?		Yes
10	Have all the regulations of environmental management been applied (as e.g. EIA)?	No environmental record	No
11	Has industrial wastewater been treated before discharged to the main wastewater network?		-
12	Are the key pollution indicators in wastewater < 0.5 times the standard?		-
13	Are the air emissions of key indicators (stacks and work environment) to air < 0.5 times the standard?		Yes
14	Is storage facilities of chemicals and fuel secured with leak prevention and paved floors?	Oils barrels are kept behind the wall of the production workshop	No
15	Is there periodical self-monitoring for pollution control?	The EMS is not applied including the occupational health and safety	No
16	Has a team of environmental experts being nominated to apply the EMS?		No
17	Are there wastewater circulation, own treatment, reuse or other clean effluent systems?		-
18	Are there modern combustion modifications and flue gas control technologies in place?		-
19	Is there an ISO 14,000 ser. certification?		No
20	Is there an application of accidents and fire system plan?		No

APPENDIX 4 – THE LEGAL OPINION

The Legal Opinion on Publishing the Results of the Environmental Classification of Enterprises with the PROPER System

Introduction:
The Egyptian Environmental Affairs Agency (EEAA) was established pursuant to Article (4) of Law No. 4 of 1994 and its amendment, Law No. (9) of 2009 for the protection and the development of the environment. Article (5) of the law amended the functions of the EEAA, authorizing it to implement certain pilot projects. It also authorizes the EEAA, in order to achieve its objectives, to a) determine the criteria and conditions that owners of projects and enterprises must observe before construction and during operation; b) conduct follow-up field visits to implement the criteria and conditions that agencies and establishments are committed to implementing; c) conduct the procedures prescribed by law against those who violate such criteria and conditions; and d) determine the rates, percentages and loads of pollutants and ensure that they are adhered to.

The Law further binds the EEAA to prepare periodical reports on the key indicators of environmental status to be published on a periodic basis, and to propose economic mechanisms to promote various activities to prevent pollution. In addition, the Law binds the EEAA to carry out pilot projects in order to conserve natural resources and protect the environment from pollution.

Article (17) of the Law stipulates that the EEAA shall, in collaboration with the Ministry of Finance, establish a system of incentives that the EEAA and the competent administrative departments can present to other agencies, establishments, individuals and the like that are undertaking activities or projects for the protection of the environment.

In light of the above;
We believe that what the Egyptian Environmental Affairs Agency has done in cooperation with the World Bank in terms of classifying the pollution resulting from industrial enterprises for the purpose of promoting environmental compliance and rewarding the establishments whose environmental performance exceeds normal standards, is considered a pilot project aiming to protect the environment from pollution. Thus, the PROPER system is considered to be a step towards applying an evaluation and classification system for pollution resulting from industrial enterprises, to all establishments operating in the Republic.

By publishing the results of the evaluation, the project introduces incentives for environmentally compliant projects, such as an increase in demand for their products and an increase in the value of their shares that may help them realize an economic return. Furthermore, the publishing of evaluation results encourages banks and financial institutions to provide environmentally compliant projects with all credit and cash facilities. On the other hand, the publication of these results puts pressure on and

provides motivation for the enterprises that were evaluated as being environmentally noncompliant. This pressure may push these enterprises to adjust their status and to move forward towards compliance with environmental standards and requirements in order to avoid what will follow publication in terms of lowered demand for their products, and their being exposed to legal proceedings for legal violations revealed by the evaluation. These enterprises will be subject to penalties and financial compensations for the damages they have caused to the environment.

The evaluation is based on the information provided by the projects included in the questionnaire form to be answered by the representative of the company, and on the data that the representative provides. This provision of information entails the approval of and consent of these establishments to the disclosure of their results by the evaluation, and to whatever follows from the publishing of these results. Such prior consent nullifies the right of these enterprises, which are environmentally noncompliant, to refuse the publication of their environmental classification, as long as the PROPER system requires the publication of the evaluation results from the participating enterprises.

Thus, the PROPER system aims to achieve environmental compliance for industrial enterprises. In the case that the publication of the evaluation results of environmentally noncompliant enterprises results in the enterprise taking the initiative to rectify their status, then it is the right to this enterprise to request the publication of this change in status. This is an important incentive that the Egyptian Environmental Affairs Agency must provide to these enterprises in order to achieve what it is that this project is aiming for, which is the achievement of the environmental compliance of these enterprises. Furthermore, refusal by the EEAA to make such a publication will constitute an unjustifiable arbitrary action that may expose it to being held accountable for the damages that these companies incur due to the failure to publish their adjusted status and their environmental compliance.

It is obvious that publication on the Environmental Affairs Agency's website is legally permissible under the conditions included in the evaluation system. However, publication through other media is subject to the approval of the enterprises participating in the program.

In addition to the above, publication on the EEAA's website would provide national information, which the EEAA is entitled to publish pursuant to Article (5) of the Law, pertinent to the status of the environment and any changes that take place to the status of the environment for citizens. Such publication further enables citizens and foundations concerned with the protection of the environment to perform their national duty to protect the environment pursuant to Article (59) of the Constitution, and enables them to practice their rights conferred by Article 103 of Law No. 4 of 1994 that is amended by Law No. 9 of 2009 and its executive regulations. It is their right to report any violation of the provisions of the law, and to refer to the competent administrative and judicial bodies for the purpose of enforcing the provisions of the environmental law and its executive regulations.

In order for;

the Environmental Affairs Agency to be able to extend the application of this system to industrial enterprises on the national level in the future, it may, subject to the provisions of Article (17) and (18) of Law No. 4 of 1994, amended by Law No. 9 of 2009, design an environmental evaluation system for these enterprises. This system will be introduced within the system of incentives provided by the EEAA to entities, enterprises and individuals, and will aim to achieve environmental compliance for these enterprises and compliance with the legal measures provided for in the articles referenced. Only at this point will the EEAA have implemented the system completely as per the provisions of the Law.