

**DENR Administrative Order  
No. 98 - 51  
June 29, 1998**

**SUBJECT : Adoption of the Industrial  
ECOWATCH System and Providing  
for Implementing Guidelines  
Thereof.**

**WHEREAS**, Section 16 Article II of the 1987 Constitution upholds the right of the Filipino people to a balanced and healthful ecology in accord with the rhythm and harmony of nature;

**WHEREAS**, Section 7, Article III of the same Constitution guarantees the right of the Filipino people to information on matters of public concern;

**WHEREAS**, Executive Order No. 192, mandates the Department of Environment and Natural Resources (DENR) to protect and promote the right of the people to a wholesome environment, through pertinent laws, rules and regulations, and through the dissemination of information;

**WHEREAS**, Presidential Decree No. 1586 mandates the DENR to undertake periodic compliance monitoring inspection of these establishments falling within the environmental impact statement system to guarantee that these establishments meet the terms and conditions of their environmental compliance certificate (ECC);

**WHEREAS**, the Department has adopted a policy of augmenting environmental laws, rules and regulations, including the compliance monitoring system, with non-traditional approaches, in order to expand and strengthen industrial compliance to environmental laws, rules and regulations;

**WHEREAS**, the Department has commissioned the development of an information and public disclosure-based system that would inform the public of the status of environmental compliance and responsiveness of industrial and commercial firms, called the Industrial ECOWATCH, and initially piloted in the DENR National Capital Region and the Laguna Lake Development Authority (LLDA) jurisdiction area.

**WHEREAS**, the Department has piloted this system, called Industrial ECOWATCH, in the DENR National Capital Region, resulting in a significant increase in the level of compliance of industrial and commercial establishments that were identified for this pilot;

**NOW, THEREFORE**, for and in consideration of the above premises and consistent with the provisions of Presidential Decree Nos. 984 and 1586, the Department adopts the Industrial ECOWATCH, as follows

**Section 1. STATEMENT OF POLICY.** The Industrial ECOWATCH is hereby adopted by the DENR as part of the compliance monitoring system of the Department. The Industrial ECOWATCH is being adopted in order to promote industrial compliance to environmental laws, rules and regulations through public pressure; encourage pollution reduction beyond compliance through public recognition and praise; create incentives for polluters to develop internal environmental management systems; and, develop foundations for international environmental standards such as the ISO 14000 series.

**Sec. 2 DEFINITION OF TERMS**

1. Biochemical Oxygen Demand (BOD) - A measure of the approximate quantity of dissolved oxygen that will be required by bacteria to stabilize organic matter in wastewater or surface water. It is a semi-quantitative measure of the wastewater organics that

are oxidizable by bacteria. It is also a standard test in assessing wastewater strength. (As defined under Department Administrative Order (DAO) NO. 35, Series of 1990)

2. Cease-and-Desist Order (CDO) - A decision handed down by the Pollution Adjudication Board (PAB), the DENR Regional Executive Director (RED), or the Laguna Lake Development Authority (LLDA), directing the discontinuance of the emission or discharge which constitutes an immediate threat to life, public health, safety or welfare, or to plant or animal life, or exceeds the allowable DENR standard, or the temporary suspension or cessation of operations of the establishment or firm generating such pollutants.
3. Chemical Oxygen Demand (COD) - A measure of the approximate quantity of dissolved oxygen equivalent of the organic matter content of a sample that is susceptible to oxidation by a strong chemical oxidant. For samples from a specific source, COD can be related empirically to BOD, organic carbon, or organic matter.
4. Clean technology - Technology designed from inception to minimize waste, prevent pollution, and reduce demand for natural resource and energy inputs.
5. Color-coding - System of designating particular colors to particular levels of environmental management characteristics exhibited by an ECOWATCH ratee;
6. Compliance monitoring - System of regularly monitoring industrial and commercial firms for compliance with applicable environmental standards, rules and regulations, as stipulated by a firm's Environmental Compliance Certificate (ECC), and/or as provided under PD No. 984, the National Pollution Control Decree of 1976.
7. Industrial ECOWATCH - Information-based system of assessing the environmental responsiveness of an industrial firm, with color-codes for varying levels of assessment, from gold (denoting excellence), all the way to black (very bad performance)

8. ISO 14000 - International Standards Organization accreditation series to assure total environmental quality management by industrial firms.
9. Presidential Decree (PD) No. 984 - National Pollution Control Decree of 1976
10. Presidential Decree (PD) No. 1586 - the decree Establishing an Environmental Impact Statement System, Including Other Environmental Management-Related Measures and for Other Purposes (1978)
11. Pollution prevention - Evaluation of industrial processes and inputs that would reduce, if not eliminate pollution from such processes and inputs.
12. Republic Act (RA) No. 6969 - Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990
13. Resource conservation - Optimized use of natural resources in industrial processes
14. Self-Monitoring Reports (SMRs) - Reports required by the DENR/LLDA on the critical pollution parameters which the firm is being evaluated for. These are prepared by the firm's Pollution Control Officer and are required to be submitted on a quarterly basis, in accordance with DAO No. 26, series of 1992.
1. Toxic and Hazardous Waste (THW) - Substances which are defined under DAO 29, series of 1990, the implementing rules and regulations for Republic Act 6969.
16. Waste minimization - Reduction of wastage of raw materials as well as energy and natural resource inputs that would otherwise add to the waste stream of an industrial process.

**Sec. 3 SCOPE.** The Industrial ECOWATCH shall be nationwide in scope and shall measure management response of industries to the requirements of environmental laws, rules and regulations. ECOWATCH shall evaluate environmental responsiveness of firms for both wastewater effluent and air emissions.

**Sec. 4. RATING CRITERIA AND EQUIVALENT COLOR CODES.** In addition to the regular compliance monitoring procedures and activities, rating criteria based on color-codes shall be used in aid of the public disclosure process, as follows:

**4.1 BLACK** - A firm shall be rated Black (Very Bad) if at least one of these conditions is present:

4.1.1 The firm discharges beyond standard and has no wastewater treatment system and/or applicable air emissions control/abatement system;

4.1.2 The firm discharges toxic and hazardous wastes to the environment beyond the allowable limits set under DAO No. 14 series of 1993 and DAO Nos. 34 and 35, series of 1990;

4.1.3 The firm is under a Cease and Desist Order issued by the DENR RED, the PAB, or the LLDA for violating provisions of PD 984;

4.1.4 There is willful manipulation by the firm of effluent discharge or air emissions, including the conduct of illegal activities such as dilution of discharge, installation and use of by-pass, or direct discharge of untreated air emissions and/or wastewater;

4.1.5 There is verified obstruction of inspection activities of duly certified/assigned personnel of the DENR/LLDA;

4.1.6 There is a legitimate and verified public complaint of pollution against the firm and no effort had been taken or exerted to address this complaint within the rating period

**4.2 RED** - A firm shall be rated RED (Bad) if the firm has violated applicable wastewater effluent/air emissions standards even with efforts to reduce such discharges/emissions through the installation of fully operational WTP/emissions control or abatement equipment.

4.3 **BLUE** - A firm shall be rated BLUE (Good) if all of these conditions are present:

4.3.1 The firm's effluents/emissions are consistently within applicable standards within the rating period of one (1) year;

4.3.2 The firm is in full compliance of all other DENR regulatory requirements under PD 984, PD 1586, RA 6969, and DAO 26 series of 1992, which require the submission of self monitoring reports (otherwise known as pollution control officer or PCO reports) from pollution control officers; and,

4.3.3 Its wastewater treatment/air emissions control or abatement equipment are all well-maintained.

4.4 **GREEN** - A firm shall be rated GREEN (very good performance) if all these conditions are present:

4.4.1 The firm must meet all the requirements for BLUE;

4.4.2 The firm must have BOD and COD, and particulate concentration in all samples lower than the standards by 20 per cent;

4.4.3 The firm has well-functioning monitoring equipment such as pH meter, flowmeter, smokemeter, etc.;

4.4.4 The firm has clean-technology, waste minimization and pollution prevention and/or resource conservation programs in place; and,

4.4.5 The firm has discharge points accessible to inspection.

4.5 **GOLD** - A firm shall be rated GOD (excellent performance) if it is GREEN for the third consecutive rating period.

#### 4.6 *Interim ratings*

4.6.1 A firm shall be placed UNDER ASSESSMENT if at least one of these conditions is present:

- 4.6.1.1 Not enough reliable data is available to complete a firm's evaluation;
- 4.6.1.2 The improvement of the firm's existing wastewater treatment/air emissions control/ abatement equipment is in process;
- 4.6.1.3 The inspection of DENR's/LLDA's teams shows compliance but self-monitoring reports show violation; and,
- 4.6.1.4 The firm is in compliance for at least one year but is not in full compliance with other regulatory requirements or does not have a well-maintained wastewater treatment or air emissions control/ abatement equipment.
- 4.6.1.5 A firm cannot be UNDER ASSESSMENT for two consecutive rating periods.

4.7 The process diagram of the aforementioned criteria is attached as Annex A.

**Sec. 5 DATA EVALUATION.** Inputs for evaluation shall be based on the following data about ratee firms:

5.1 Computerized data entry and rating system developed for the Industrial ECOWATCH shall be used. The system is an application of Microsoft Access 97 or higher versions. System requirements for Access 7.0 users include Intel Pentium 200 MHz with MMX Processor (or equivalent Cyrix or AMD processor) or higher, at least 2.5 Gigabyte Hard Disk, and a Super VGA (SVGA) color monitor. Operating system should be at least Windows 95. Additionally, a color scanner should be available in order to scan and input photos of wastewater treatment/air pollution abatement equipment, and a color ink jet printer to print out such files for documentation purposes.

The Office of the Undersecretary for Field Operations shall ensure the availability of at least one (1) computer and necessary peripherals that will meet these minimum specifications per Regional Office. Such computer shall be dedicated to the running of the Industrial ECOWATCH system.

A Manual of electronic data entry, editing and analysis, and report generation developed for the Industrial ECOWATCH and attached as Annex B shall be used.

5.2 Primary data inputs will come from a combination of compliance monitoring inspections/samplings and from SMRs. Analysis of such data will be based on a group of samples within the rating period rather than just one sampling result;

5.3 Data on the history of firms compliance shall also be used to establish a profile of the firms compliance, leading to the upgrading of a firms rating, or its decline in rating;

5.4 Pictures of the wastewater treatment plant/air emissions control or abatement equipment shall be taken and included as part of the data analysis in order to correlate the state of maintenance of the equipment with the claimed pollution reductions, and;

5.5 Tests for accuracy shall be conducted based on a correlation of the treatment process vis-a-vis the firms production process characteristics.

**Sec. 6 DATA ENTRY.** A Manual for electronic data entry, data editing, data analysis and report generation developed for the Industrial ECOWATCH and attached as Annex B shall be used.

The Manual includes a section on the technical information on the Industrial ECOWATCH computer system, the rating



criteria, the rating process, and the various computer data fields generated by the ECOWATCH computer system. These data fields include data analysis, data editing, report generation, and other data entry components.

***Sec. 7*      **INSTITUTIONAL ARRANGEMENTS FOR THE IMPLEMENTATION OF THE INDUSTRIAL ECOWATCH IN DENR'S REGIONAL OFFICES.****

7.1 An ECOWATCH Project Office shall be set up within the Office of the Undersecretary for Field Operations under the direct supervision of the Undersecretary, with a coordinator assigned to provide support on a regular basis.

Additionally, this Project Office would be provided technical support by the Environmental Management Bureau (EMB), which would extend assistance for coordination and progress monitoring on a periodic basis.

The implementation of Industrial ECOWATCH shall be under the day-to-day supervision of the Regional Technical Director (RTD) for Environmental Management and Protected Areas Service (EMPAS) of the DENR Regional Office and shall be carried out by the staff of the EMPAS Environmental Quality Division (EQD).

7.2 The integration of ECOWATCH with the Department's compliance monitoring system shall be reported to the DENR Secretary once every 2 months, to the Undersecretary for Field Operations once a month, and a mid-year review jointly with the Regional Offices.

***Sec. 8*      **DISCLOSURE.**** The results of the rating will be discussed with the firms concerned within the rating period, but at least two weeks prior to the actual public disclosure to allow the ratee firms sufficient opportunity to validate DENRs findings.

Disclosure will be once a year, with disclosure for GOLD, GREEN, and BLUE firms undertaken at least two (2) weeks ahead of the disclosure for the RED and BLACK firms.

**Sec. 9 EFFECTIVITY.** This Administrative Order shall take effect fifteen (15) days after publication in two (2) newspapers of general circulation.

**APPROVED:**

**(Sgd.) VICTOR O. RAMOS**  
Secretary

Published at:

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