



## Environmental Audit of Kokuyo Camlin Ltd, MIDC Boisar, Maharashtra

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### Abstract:

*Environmental audit is an conservational method, which helps us to study the effects of industrial activities on the surrounding biodiversity and benefits mankind by establishing effective management system. Kokuyo Camlin is been registered in 1974 , and had successfully made its name for itself in the list of top suppliers for stationary in India stationary market. Thus, conducting Environmental Audit has been an essential part to study wastewater management and focus on it's impact on the surrounding including the study of ETP. A thorough and vigilant audit can lead to improvements, perfection, and goal attainment. This paper examines a KOKUYO CAMLIN limited, MIDC Boisar, Maharashtra, Environmental Audit programme (India).*

**Keywords :** Environmental Audit, ETP ,wastewater management, KOKUYO Camlin, Stationary factory

### 1. Introduction :

Environmental auditing is a type of environmental management tool that assesses the environmental impact of various operations against predetermined criteria or standards. Environmental auditing is a method of gathering data on a company's environmental performance in order to incorporate environmental concerns into decision-making.

According to GOST (National State Standard -NSS) R ISO (Environmental management. Terminology) 14050-99, environmental audit is a broad term that refers to a variety of evaluations aimed at identifying gaps in environmental compliance and management system implementation, as well as corrective actions.

In current situation, because of the industries and manufacturers, pollution is currently increasing at an alarming rate. It is generating major human health problems as well as contaminating the environment. Environmental audit is a management tool that consists of a comprehensive, registered, annual and unbiased review of how companies, staff and facilities function successfully to preserve the environment by promoting the implementation of environmental principles and the examination of organizational policy and other relevant regulatory guidance and standards. Environmental Audit is a process by which an organization may determine the environmental effects of its activities.

Environmental audit involves evaluating certain facts of an enterprise's impact on the environment and its environmental practices, such as examination of all operating processes, goods used, transportation problems, waste / product disposal and recycling problems. The International Chamber of Commerce (ICC) describes environmental audit as a systematic review of the relations that occur between any business operation and its setting. That covers both pollution, land and water pollutants, legal constraints, impacts on the surrounding population, environment and ecosystem and the view of the local operating company by the public. Environmental auditing is more than just complying with the law; it's also more than a public relations exercise of "green washing." It's a systematic response to the company's operations.

An environmental auditor can assess the actions of enterprises and businesses and inform them about new cleaning techniques.

To create an analysis on pollution generated, a good environmental auditing system requires a constant effort to monitor and analyses the industrial working system. Controlling pollution is the primary goal of conducting environmental audits. It also aids in improving manufacturing safety and ensuring chemical waste prevention and reduction. It also assesses the efficiency of industrial facilities and their potential environmental impact.

### 1.1 Kokuyo Camlin

Kokuyo Camlin Limited was founded in 1974 and has quickly established itself as one of India's leading suppliers. The provider is based in Boisar, Maharashtra, and is one of the top sellers of the products on the list.

Kokuyo Camlin Limited is on Trade India's list of certified vendors who sell high-quality stationery.



### 2. Study Area

The study area of Kokuyo Camlin limited at MIDC Boisar is located at 14.2 km distance from Palghar .It is in industrial area of Boisar . A total of 1.4 acres of land area is owned by the company.

### 3. Audit Approach

The procedure of Audit consist of three modes Pre-audit, On-site audit, Post audit.

#### 3.1 Pre- audit :

- Develop an audit plan for on-site activities.
- Make necessary preparations & arrangements for on-site activities.

#### 3.2 -site Audit :

- opening meeting
- Document review
- Detailed site infections
- Staff interview
- Examinethe result of audit evidence

#### 3.3 Post-audit :

- Gather information and follow up on unresolved concerns.



- Write a report on the audit.
- Distribute a draught audit report for feedback.

### Result and discussion :

Results are beneath the limits of Maharashtra Pollution Control Board (MPCB). Proper Safety management are practiced according to safety guidelines . There are first-aid committee, fire committee and emergency committee for the safety of workers and staff.

### KOKUYO CAMLIN company effluent treatment :

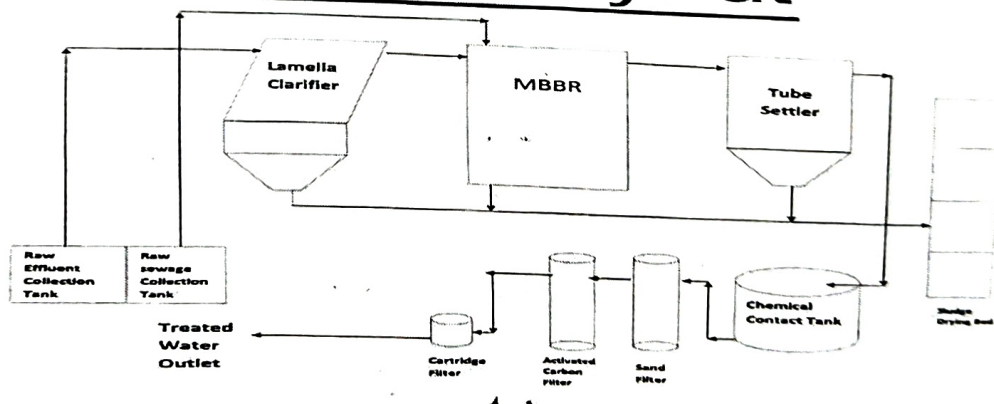
The company is managing well equipped effluent treatment plant which handles 35 Cu.Mtr/day. The treated water is further utilised for sanitation and gardening purpose . The waste water is generated in KOKUYO CAMLIN company from manufacturing processing and sewage waste. Which is than treated with ETP in order to achieve reduction in BOD. Industrial and sewage effluent is collected in two different tanks. These wastewater is treated in lamella clarifier. It initiates the process by separating solid particulates. Later, the particulates gets collected in sludge bed while the water is than moved to MBBR (Moving Bed Biofilm Reactor). The turbidity of water is than reduced by alum in tube settler and treated water is again filtered in sand and carbon filter . Than the treated clear water gets stored in 1000 litre treated water tank.

All floatable debris is removed using an oil and grease trap in a tank. The flow sheet is made up of the following units in order to meet the standard set forth in the Maharashtra Pollution Control Board approval letter.

1. Lamella clarifier.
2. MBBR.
3. Tube settler.
4. Sand filter.
5. Carbon filter.
6. Cartage test.
7. Sludge bed.



## Kokuyo Camlin Limited · Camlin & KOKUYO ETP Layout

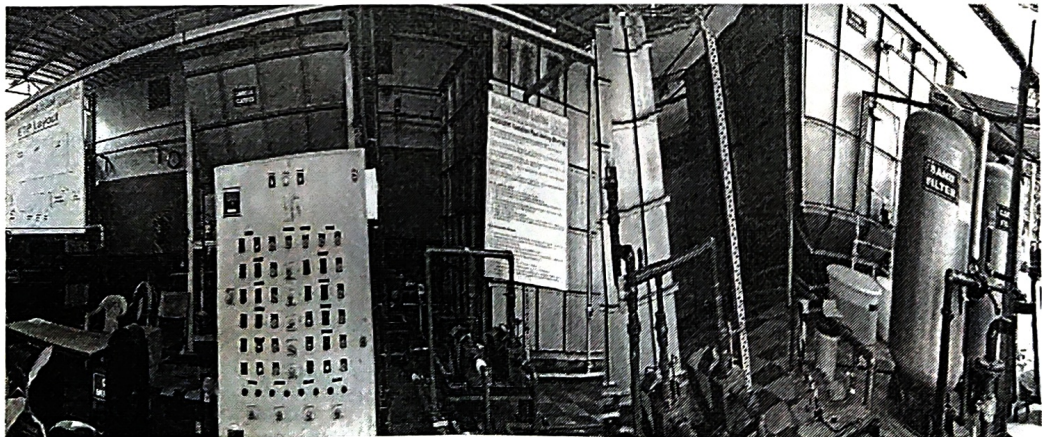


	Notes	Notes	Notes	Notes	Notes
1	Sr.No.	Parameters	Unit	Limit	Result
2	1	pH	--	5.5 to 9.0	7.12
3	2	Suspended solids	mg/L	<100	22
4	3	Total dissolved solids	mg/L	<2100	810
5	4	C.O.D.	mg/L	<250	107
6	5	B.O.D. (3day)	mg/L	<100	18
7	6	Oil & Grease	mg/L	<10	BDL (MDL<0.1)

## April results

	Notes	Notes	Notes	Notes	Notes
1	Sr.No.	Parameters	Unit	Limit	Result
2	1	pH	--	5.5 to 9.0	7.50
3	2	Suspended solids	mg/L	<100	12
4	3	Total dissolved solids	mg/L	<2100	740
5	4	C.O.D.	mg/L	<250	91
6	5	B.O.D. (3day)	mg/L	<100	15
7	6	Oil & Grease	mg/L	<10	BDL(MDL<0.1)

## May results





#### 5. Conclusion :

The KOKUYO CAMLIN company is one of the good factories in Boisar M.I.D.C . Additional measures for environmental protection initiated by the KOKUYO CAMLIN company with some modifications in effluent treatment plant (ETP) are good indicators of environmental management. As a result, environmental audits are critical in maintaining pollution management. In order to analyse diverse processes, activities, and their positive and negative impact on the environment, more environmental audit studies with reference to various types of industries are needed.

#### 6. Acknowledgement :

I am thankful to Mr. Ajit Rane, Manager of KOKUYO CAMLIN M.I.D.C Boisar, Palghar for allowing me to conduct Environmental Audit in KOKUYO CAMLIN company. I also convey my sincere thanks to my guide Rudrakshi Bhalchandra Raut , Assistant professor, Department of Botany , Principal and management of the S.D Arts, V.S Apte Commerce and M.H Mehta Science College Palghar for their guidance and encouragement.

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