



KGiSL Institute of Technology

(Approved by AICTE, New Delhi; Affiliated to Anna University, Chennai)

Recognized by UGC, Accredited by NBA (IT)

365, KGiSL Campus, Thudiyalur Road, Saravanampatti, Coimbatore – 641035.



CASE STUDY

PAPERBOARDS & SPECIALITY PAPERS DIVISION

STUDENT NAME : PRAKASH R

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**SUBJECT CODE /NAME: GE3451 / ENVIRONMENTAL SCIENCES AND
SUSTAINABILITY**

DATE OF SUBMISSION :



PAPERBOARDS & SPECIALITY PAPERS DIVISION

Objective:

To evaluate the level of compliance with social standards regarding Occupational Health & Safety within a paperboards manufacturing industry.

Observation:

Plant Infrastructure:

Spanning 424 acres with a production capacity of 120,000 TPA and employing 320 workers, the plant operates on a significant scale.

Zero Waste Production:

The company achieved zero waste production by manufacturing paperboards from recycled papers, demonstrating a commitment to environmental sustainability.

Energy Independence:

Utilizing a 3MG solar plant and a 110KV subplant, the company generates its own energy to power machinery, promoting energy independence and reducing environmental impact.

Water Resource Management:

Utilizing water from rivers and contributing to dam and reservoir construction, the company actively manages water resources for sustainable use.

Workplace Organization:

The workplace was divided into specific divisions, each with assigned owners, enhancing organization and accountability.

Machinery Maintenance and Efficiency:

Machinery were well-maintained, clean, and operated efficiently, contributing to a safe and productive work environment.



Employee Well-being Programs:

Employees received training for mental well-being, including yoga sessions, reflecting the company's commitment to holistic employee health. Additionally, a dedicated head for the dining hall ensured the importance of food provision, highlighting the company's focus on nourishing its workforce and fostering a positive workplace culture.

Employee Transportation and Safety Measures:

Transportation for staff included a well-equipped first-class bus with safety measures, first aid kit, and emergency contact details, ensuring the safety and well-being of employees during transit.

Internship Programs:

The company offers diverse internship programs, providing opportunities for skill development and career advancement, contributing to community development and talent acquisition.

Corporate Environmental, Health & Safety Policy:

The company's policy emphasizes compliance with international standards, setting ambitious targets for safety, occupational health, and environmental protection, and promoting personal responsibility among employees.

Community Engagement:

The company supported neighbouring villages through job creation, infrastructure development, and water resource management, demonstrating corporate social responsibility.

Hospitality and Culture:

The company's hospitality was noted as exceptional, reflecting a positive organizational culture.

Visitor Safety Procedures:

Visitors underwent safety orientation through a video presentation and were provided with safety gear before entering the plant, ensuring their safety and compliance with regulations.



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ITC & Environment

Environment is an integral part of ITC's **Triple Bottom Line** approach where we focus on Economic, Environmental and Social development of our stakeholders in all our business. Some highlights on ITC and Environment:-

- ❖ A **carbon positive** company for last 16 consecutive years
- ❖ A **water positive** company for 19 years in row
- ❖ **Solid Waste recycling positive** for last 14 years
- ❖ **Soil & Moisture conservation** of about 2,47,000 acres
- ❖ Renewable sources of energy helps meeting **41% of our energy demands**
- ❖ Over **3,94,678 acres** of land greened under ITCs Social & Farm Forestry Program
- ❖ Well Being out of Waste- CSR initiative to propagate waste management & source segregation

Accolades

Environment

- ❖ Greenco Platinum award from CII -2015 & 2018
- ❖ TNPCB Green Award 1st Prize – 2014 & 2015
- ❖ BSC Globe of Honor Award -2011
- ❖ Excellent Award for Water Management in Year 2007,2008,2009,2011,2012,2017
- ❖ Excellent award for Energy Management in Year 2010,2014,2015,2016,2017, 2018, 2019 , 2020, 2021
- ❖ National Energy conservation Award - 2010

Safety

- British Safety Council's 5 Star Rating in Year 2007– 2011
- International Safety Award from BSC 2011
- NSC –TN Award of Honor -2014
- "Good" grade - ITC Corporate EHS audit
- Shrestha Suraksha Puraskar – Award for Safety from NSC

Other Systems

- ❖ ISO 9001:2015 Certified
- ❖ ISO 14001:2015 Certified
- ❖ ISO 45001: 2018 Certified
- ❖ Zero effluent discharge
- ❖ Zero solid waste disposal

Geo tagged photo with captions



Kendalyur R.F., Tamil Nadu, India

ITC Road, Kendalyur R.F., Tamil Nadu 641113, India

Lat 11.246697°

Long 76.872031°

30/03/24 12:27 PM GMT +05:30

Google



Production process:

1. Raw Material Preparation:

The production process begins with the preparation of raw materials, primarily recycled paper pulp or wood pulp. The pulp is sourced from suppliers or generated internally through recycling programs.

2. Pulping:

The raw material is pulped using mechanical or chemical methods to break down the fibres and create a pulp slurry. Mechanical pulping involves grinding or refining the pulp mechanically, while chemical pulping involves treating the pulp with chemicals to remove lignin and other impurities.

3. Paperboard Formation:

The pulp slurry is then fed into a paperboard machine, also known as a paper machine or board machine. The machine consists of several sections, including a forming section, press section, and drying section.

In the forming section, the pulp slurry is deposited onto a moving wire mesh or fabric, where water is drained away, and the fibres begin to bond together to form a wet sheet of paperboard.

The wet sheet passes through the press section, where excess water is removed by pressing the sheet between rollers or felts, compacting the fibres and increasing the paperboard's density.

Finally, the paperboard travels through the drying section, where it is heated to remove remaining moisture, resulting in a dry and sturdy paperboard sheet.

4. Surface Treatment and Coating:

After drying, the paperboard may undergo surface treatment or coating processes to enhance its properties. This may include applying coatings such as clay or polymer coatings to improve smoothness, printability, and water resistance.



5. Cutting and Finishing:

Once the paperboard sheet is fully dried and coated, it is cut into smaller sheets or rolls according to customer specifications. The cut paperboard sheets may undergo additional finishing processes such as trimming, embossing, or laminating before being packaged and shipped to customers.

6. Quality Control:

Throughout the production process, rigorous quality control measures are implemented to ensure that the paperboard meets industry standards and customer requirements. This may involve monitoring parameters such as thickness, strength, smoothness, and appearance.

7. Waste Management:

Waste generated during the production process, such as trimmings and offcuts, is collected and recycled whenever possible to minimize environmental impact and maximize resource efficiency.

Encouraging approaches:

Investment in Employee Welfare Programs:

The company prioritizes employee welfare with health and wellness workshops, training sessions, and recreational activities aimed at enhancing well-being.

Fair Compensation and Benefits:

Laborers receive competitive salaries, comprehensive healthcare coverage, retirement plans, and performance-based incentives, ensuring financial security and recognizing dedication.

Safety and Health Measures:

Rigorous safety protocols, including provision of safety equipment and regular training, maintain a safe working environment, prioritizing employee well-being.

Recognition and Appreciation:



Regular recognition ceremonies, performance bonuses, and appreciation programs acknowledge employees' efforts, boosting morale and motivation.

Dedicated Workforce:

Employees exhibit dedication and ownership in their roles, contributing to a cohesive and motivated workforce, enhancing overall productivity and efficiency.

Deficiency Observed:

1. Customer Satisfaction Measures: Establish mechanisms for gathering feedback from customers, analyzing their satisfaction levels, and implementing strategies to exceed expectations and foster long-term loyalty.
2. Limited Diversity and Inclusion: Lack of diversity and inclusion initiatives may result in a homogeneous workforce, limiting perspectives, creativity, and innovation within the company.
3. Employee Engagement Surveys: Conduct regular employee engagement surveys to gather feedback, assess employee satisfaction levels, and identify areas for improvement in organizational culture, communication, and leadership, fostering a more engaged and motivated workforce.

ITC PSPD : UNIT KOVAI

Thekkampatti village, Mettupalayam Taluk, Coimbatore, Tamil Nadu, India.