

PRESENTER

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KCC DANDORA



NEW KCC DANDORA RECP AND IS DEVELOPED CASE

Main Function : Dairy processing factory

Before RECP and IS program

On water and waste water management;

- ❖ Notable water leakages
- ❖ No sub metering of the main water usage points.
- ❖ cleaning with pipes that have no water guns.
- ❖ water from the borehole not metered and general waste water management challenges



Photo showing water wastage during cleaning of the production floor

ON ENERGY;



- ❖ There was no individual metering of energy usage in the factory
- ❖ High energy consumption light fittings i.e T12 tubes and incandescent light bulbs.
- ❖ High load motors used.
- ❖ Poor lagging and steam leakages, smoke causing pollution



Photo showing and old smoking burner



On raw material and solid waste management

- ❖ The main solid wastes produced were broken milk crates.
- ❖ Wood waste
- ❖ Plastic waste
- ❖ Scrap metal
- ❖ Cartons and electrical waste from electrical machines.
- ❖ No designated solid waste disposal/holding site.
- ❖ Heavy furnace oil (HFO) leakages



Photo showing some of the waste generated at the New KCC



Approach Taken

1. Top management commitment
2. Two of the staff members trained on RECP and IS
3. Assessment on RECP and IS potentials done and the findings was presented to the management
4. Implementation plan developed and implemented
5. Set aside a budget for RECP and IS interventions
6. Started the implementation with the low hanging fruits
7. Discussed about RECP and IS progress in the weekly management meetings
8. Continuous Staff awareness through posters, meetings and one on one talks for culture transformation
9. Enhanced data collection and monitoring for all utilities



After RECP and IS program

On water and waste water management;

- ❖ Installed a new CIP system installed which saves up to 30% of recovered water,
- ❖ water audit done,
- ❖ awareness creation,
- ❖ purchase of valves,
- ❖ water hoses and fitting
- ❖ installed road tanker re-use pump and water tank , the water is now used to wash crates

On energy management;

- ❖ Serviced ammonia compressor and evaporative condenser
- ❖ serviced ammonia system replaced valves
- ❖ serviced boiler and installed new burner,
- ❖ steam fittings and valves and make up pumps,
- ❖ installed LED lights , PF c/banks, VSDs,



Photo showing the newly installed burner with no smoke Photo showing LED light installed at the factory

On raw material and solid waste management;

New mala pump installed to reduce product leaks and milk returns sold as piggery to farmers

Investments:

The factory invested more than KES 14,000,000 in implementing the given RECP and IS intervention measures



Benefits:

1. Good co-existence between the company and the community
2. 30% savings on recovered water
3. Environmental pollution reduction through installation of a new burner
4. With a saving of 160 litres of HFO per day, Ksh 11,520 per day or 4.1 M per year
5. Energy savings of KES 1.2m per month about Ksh14.4M per year
6. Water savings from 700 m³ to 590 m³ per day about ksh 17,380 per day or Ksh 6.3M per year

Challenges:

Financial; technological and regulatory



Thank you