

General Audit Inspection / Observation Report

A site inspection was conducted to cover the mechanical and operational components of the plant. Observations, actions taken, and recommendations have been listed below for the following equipment:

1. Dust Collector

- Filters were cleaned.
- Safety valve was made operational after rectification.
- Diaphragm of Rotex valve was inspected and found OK.
- Pressure flow regulator was calibrated up to 4 bar.
- Solenoid coil was cross-checked and found OK.
- Sequential timer was re-calibrated.

2. Intake Chain Conveyor

- Chain was tightened and aligned.
- No abnormal sounds during operation.
- Chain guard is to be installed and has been communicated to the client.

3. Jute Remover

- Inspection revealed jute waste trapped around the jute rotor.
- Cleaning was performed.
- Re-fitment completed.

4. Pre-Weighing

- Load cell cleaning is recommended.
- Obstruction was found between the pneumatic cylinder and discharge flap shaft hub.
- Grinding was done to remove the obstruction for smooth operation.

5. Intake Vertical Bucket Elevator

- Belt alignment was found satisfactory.
- Top-up of geared motor oil level has been recommended to the client.
- No abnormal sounds observed.
- No grit was found in the chain sprocket.
- Chain slackness was checked and found OK.

6. Z Magnet

- Magnet tray cleaned.

7. Intermediate Bin

- Material flow is consistent.

8. Hammer Mill RVF

- RVF flap functioning properly.

9. Hammer Mill RVF Geared Motor

- Top-up of geared motor oil level has been recommended to the client.
- No abnormal sounds observed.
- No grit was found in the chain sprocket.
- Chain slackness was checked and found OK.

10. Hammer Mill

- Motor vibration is within normal limits.
- Bearing temperatures:
 - DE: 55°C
 - NDE: 65°C
- Grinding duration: 240 seconds (4 minutes).
- Motor amperage: 150 A
- Hammer is worn out and requires replacement.
- Hammer mill screen sizes:
 - One side: 3 mm
 - Other side: 4 mm

11. Silo 1–8

- **Silo 1–2 (Gravity Feeder):**
 - Functioning properly.
- **Silo 6–8 (Screw Feeder):**
 - Chain condition: OK
 - Sprockets: OK
 - Greasing: Completed and satisfactory
 - Chain guard: Intact and secure
 - Gearbox: Operating normally

12. Weigh Hopper

- Load cell cleaning is recommended.
- Calibration was found OK.

13. Dump Hopper Chain Conveyor

- Chain was tightened and aligned.
- No abnormal sounds during operation.
- Chain guard is to be installed and has been communicated to the client.

14. SS Screw Feeder

- Functioning properly.
- Sprockets found OK.
- Drive and driven sprockets are aligned.

15. Conditioners

- Temperature meter malfunctioning.
- Sprockets found OK.
- Chain guard is to be installed and has been communicated to the client.
- Smooth operation observed.
- Greasing schedule has been provided to the client.

16. Hygienizer

- Chain slackness was observed.
- Chain guard is to be installed and has been communicated to the client.
- Greasing schedule has been provided to the client.
- Sprockets in good condition.

17. Pellet Mill

- Feeder RPM: 1128 to 1400
- Amperage: 207 A to 220 A
- Pellet die changed (3 mm)
- Mill running smoothly with no vibrations.
- Noise levels within acceptable limits.
- Flywheel cover was producing noise; it was removed. Client was advised to reinstall it.

18. Counter Flow Cooler

- Material is being spread uniformly.
- Cooling efficiency of the counter-flow cooler was found satisfactory.
- Operation of the blower fan is smooth.
- No abnormal noise observed.
- Timely cleaning of impeller was instructed to the client.
- Tyre coupling condition found OK.
- Material temperature after cooling: 37°C to 38°C (Ambient temperature: 35°C)

19. Crumbler

- Feeder operating properly.
- Belts in good condition.
- Crumbler rolls in good condition.

20. Chain Conveyor (Below Crumbler)

- Chain was tightened and aligned.
- No abnormal sounds during operation.
- Chain guard is to be installed and has been communicated to the client.

21. Bagging VBE

- Belt alignment completed.
- Flat belt quality appears poor; sample has been provided to the Purchase Department.

Summary of Key Action Items:

- Hammer in hammer mill needs replacement.
- **Silo No. 5:** Material jamming issue in case of RGM — further investigation required.
- Solution needed for frequent jamming of poultry meal at intake elevator.
- Chain covers missing or not fixed at multiple locations:
 - Dump hopper
 - Conditioner
 - Hygienizer
- Temperature meter on conditioner malfunctioning.
- **Pellet Bin:** Needs maintenance platform (existing space is 360 mm, which is not appropriate).
- As per client requirement, a toggle clamp system is preferred instead of the current bolting system for inspection windows on silos and bins.
- **Rotary Distributor:**
 - Spillage observed inside the distributor.
 - Leakage noted in supply pipes of the rotary distributor.