UNH Cleaner Sustainable Industry Internship

Waste Reduction

- Evaporator
  - Uses heating coils
  - Attached to condenser
  - Condensate treated
  - Cycle alterations
    - Cool before clean
    - Condenser continuous
  - Evaporator cleaning water
  - Eliminate floor water
  - Increase cycle time

- Floor Water Filtration System
  - Processes floor water
  - Uses filtration module
  - Soapy reusable filtrate
  - Reduce evaporator load
  - Overflow to evaporator
  - Meets water capacity
    - 100-150 gallon average
    - 300 maximum

Results

- Savings/reduction: 90% waste reduction
- 90% savings in labor
- 90% electrical savings
- 12 month payback

P2 = $Savings

Pollution Prevention Hierarchy

- Avoid
- Reduce
- Reuse
- Recycle
- Dispose

Zero Waste

The UNH/DES Internship Program has had great success for over 20 years placing students in different types of manufacturing facilities. The examples on this poster illustrate some of the projects they took on as interns. From very simple waste reduction to more involved energy efficiency projects, they used pollution prevention strategies to reduce waste and save money.

Please consider participating in this program to see what a pollution prevention intern can do for your company!

Energy Efficiency

- Lighting Costs

  - 20% of energy costs

  - Compressed Air - Leaks

    - Estimated Savings: GTOB - 150% of leaks repaired
      - Savings: $15,000
    - ACP - 100% of leaks repaired
      - Savings: $7,500
    - Purchased an Ultrasonic Leak detector in order to implement a semi-annual inspection to help maintain a proper working system

Water Reductions

- HVAC- ACF
  - Heat recovery duct work already installed (from compressor room) not being used
  - Should be repaired and used in the winter to supplement heating system and to prevent heat from escaping into the plant in the summer months (results in additional cooling)
  - Savings: $10,450/heating season

- Project Benefits & Savings
  - Estimated water savings: 25,000 gallons of operation
  - Estimated labor savings: with respect to 25,000 gallon
    - Approximately 30% labor savings
  - Estimated yearly savings: $12,720

Environmental Services