

# **WELCOME TO THE LECTURE ON HOUSEKEEPING MATERIAL CONDITION AND INDUSTRIAL SAFETY**

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**OSART EXPECTATIONS AND RESULTS IN HOUSEKEEPING,  
MATERIAL CONDITION AND INDUSTRIAL SAFETY**

**OBJECTIVES OF PRESENTATION**

- SIGNIFICANCE OF THESE AREAS
- STANDARDS FOR HOUSEKEEPING AND CLEANLINESS
- MAINTAINING GOOD MATERIAL CONDITION
- STANDARDS FOR MATERIAL CONDITION
- INDUSTRIAL SAFETY
- OSART EXPERIENCE

## **DEFINITION**

**HOUSEKEEPING, CLEANLINESS & MATERIAL  
CONDITION PROGRAMMES REFER TO THE  
PROCESSES WHICH ENSURE THAT  
FACILITIES EQUIPMENT, WORK AREAS AND  
ACCESS ROUTES ARE KEPT IN GOOD  
CONDITION.**

## **DEFINITION**

### **MATERIAL CONDITION**

THIS REFERS TO THE DEGREE TO WHICH  
SYSTEMS AND EQUIPMENT ARE KEPT IN A  
WELL MAINTAINED STATE

### **HOUSEKEEPING**

THIS REFERS TO THE DEGREE TO WHICH THE  
PLANT IS SAFELY ACCESSIBLE AND  
OPERABLE

### **CLEANLINESS**

THIS REFERS TO THE PREVENTION OF THE  
ACCUMULATION OF DUST AND DEBRIS

## **WHY DOES IT MATTER?**

- CREATES A VERY VISIBLE INDICATION OF THE STANDARDS ACCEPTED BY THE PLANT
- CREATES A SAFE WORKING ENVIRONMENT
- CREATES AN EFFICIENT WORKING ENVIRONMENT
- ENSURES THAT THE PLANT IS IN A GOOD STATE OF REPAIR AND THEREFORE LESS LIKELY TO SUFFER FROM UNPLANNED OUTAGES
- IT'S EITHER GETTING BETTER OR WORSE. IF THERE IS NOT A PROGRAMME TO IMPROVE THESE CONDITIONS, THEN THEY ARE DETERIORATING

## **STANDARDS**

- WILL VARY DEPENDENT UPON CULTURE
- SHOULD BE CLEARLY UNDERSTOOD
- MUST BE VISIBLY REINFORCED BY PLANT MANAGEMENT
- SETTING UP AN AREA WHICH DEMONSTRATES THE STANDARD MAY BE HELPFUL
- SUFFICIENT EQUIPMENT AND MATERIALS MUST BE PROVIDED TO ENABLE THE STANDARD TO BE ACHIEVED
- IT IS EASIER TO KEEP A PLANT CLEAN & TIDY, THAN DIRTY & UNTIDY

# REQUIREMENTS

- CLEAR INDICATION OF STANDARDS
- THOUGHTFUL TRAINING PROGRAMME
- SENSE OF COMPETITION
- PROVISION OF RESOURCES
- MONITORING OF STATUS
- REWARDING SUCCESS

## **EXAMPLES OF GOOD STANDARDS**

- **CLEANLINESS AND ORDER EVIDENT THROUGHOUT THE PLANT**
- **PORTABLE EQUIPMENT SUCH AS LADDERS, SCAFFOLDING, HEAVY MAINTENANCE EQUIPMENT & FIRE EXTINGUISHERS PROPERLY STORED**
- **WORK AREAS TIDY**
- **EQUIPMENT FREE FROM ACCUMULATIONS OF DUST AND DEBRIS**
- **ACCESS TO EQUIPMENT NOT IMPEDED BY SCAFFOLD OR EQUIPMENT LAYDOWN AREAS**



## **EXAMPLES OF GOOD STANDARDS (cont)**

- TRASH CONTAINERS AVAILABLE AND NOT OVERFLOWING
- PARTS AND MATERIAL NOT LAYING ABOUT IN INACTIVE WORK AREAS
- RADIOACTIVE STORAGE AREAS NOT CLUTTERED
- POOLS OF WATER OR OIL ARE NOT EVIDENT ON THE FLOOR
- MANY OTHERS

## **GOOD MATERIAL CONDITION**

### **REQUIREMENTS**

- THE DESIGN ORGANIZATION GIVES MAINTAINABILITY THE APPROPRIATE PRIORITY
- A VIGILANT OPERATING STAFF THAT IDENTIFIES SMALL MAINTENANCE PROBLEMS BEFORE THEY BECOME LARGE
- A DEFECT REPORTING SYSTEM WHICH IS SIMPLE TO USE
- RESPONSIVE WORK PLANNING GROUP
- AN EFFICIENT PROCESS TO ISOLATE PLANT FOR MAINTENANCE

## **GOOD MATERIAL CONDITION (cont)**

### **REQUIREMENTS**

- AN APPROPRIATE STOCK OF SPARE PARTS
- GOOD MAINTENANCE PROCEDURES
- RESPONSIVE MAINTENANCE ENGINEERING
- A BALANCED PREVENTIVE MAINTENANCE & BREAKDOWN MAINTENANCE PROCESS
- AN EFFECTIVE TRACKING PROCESS

## **GOOD MATERIAL CONDITION**

### **MEASURES**

- A LOW, STABLE BACKLOG OF MAINTENANCE DEFECTS
- A HIGH PERCENTAGE OF PLANT DEFECTS ARE CAPTURED BY THE DEFECT REPORTING SYSTEM
- VERY LITTLE EVIDENCE OF STEAM, WATER, OR OIL LEAKS
- VERY FEW ANNUNCIATORS OUT OF SERVICE IN THE CONTROL ROOM

## **EQUIPMENT CONDITION**

### **EXAMPLE ITEMS TO LOOK AT:**

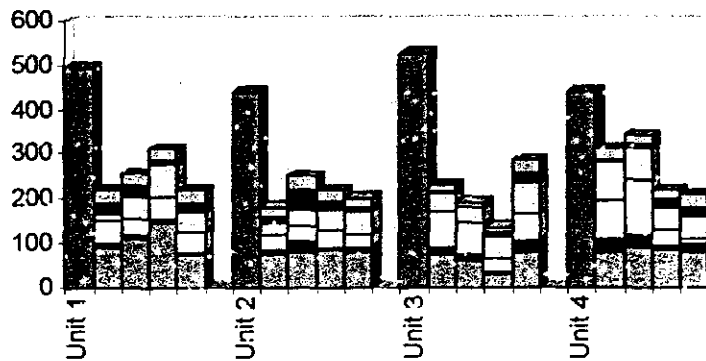
- **CLEANLINESS**
  - **EQUIPMENT**
  - **SURROUNDINGS**
- **LUBRICATION**
- **VIBRATION**
- **TEMPERATURE**
- **LEAKS**
- **PROTECTION FROM ENVIRONMENT**
- **SEALS AND RUBBER PARTS**
- **CONDITION OF ELECTRICAL CONTACTS**

## **EQUIPMENT CONDITION (cont)**

### **EXAMPLE ITEMS TO LOOK AT:**

- NUTS TIGHTENED
- EROSION AND CORROSION
- USE OF CONSUMABLE ITEMS
- OBSERVED ABNORMAL CONDITION OR OPERATION
- NON-DESTRUCTIVE EXAMINATION

## Pickering Pride Program Units 1-4



☐ Trash/Debris 
 ☐ Prot Equip 
 ☐ W/kg Equip 
 ☐ Unstored Matl 
 ☐ Leaks/Spills 
 ☐ Matl Cond 
 ☐ Jul-89

Quarterly Trend-starting 3rd 90

# INDUSTRIAL SAFETY PROGRAMME

- POLICY
- PROGRAMME
- EVALUATION
- WORKER PARTICIPATION



## **HOUSEKEEPING & MATERIAL CONDITION**

- **UPDATED PRIDE RESULTS**
- **ESTABLISHED PAINTING CREW AND WORK STARTED:**
  - **IX CLEANUP**
  - **UNIT ID #'S**
  - **OVERHEAD DOORS**
- **REINFORCED CREW SPECIFIC UNIT RESPONSIBILITY:**
  - **ASSESSED MAGNITUDE OF PROBLEM**
  - **START CLEANING EQUIPMENT**
  - **EQUIPMENT LABELLING**
  - **FIELD ASSISTS**

## **HOUSEKEEPING & MATERIAL CONDITION**

MAJOR INCREASE IN DRUMS, SO WILL INCREASE  
IXCU EFFORT

- APPROVAL RECEIVED FOR WASTE STORAGE  
PRELIMINARY ENGINEERING
- AIFB CORRIDOR WASTE OIL PROCESSING  
COMPLETE, APPROVAL RECEIVED TO SHIP
- CLEANUP AND PAINTING EFFORT TO WTP
- MAJOR EFFORT TO CLEAN RB'S ON UNIT 5 AND 2  
DURING OUTAGES
- IMPLEMENTING LEAK MONITORING BOOKS ON  
EACH UNIT

# **HOUSEKEEPING & MATERIAL CONDITION**

## **EXCELLENT HOUSEKEEPING & MATERIAL CONDITIONS**

### **RESULTS**

- AN IMPROVED WORKING ENVIRONMENT THAT IS RECOGNIZED BY EVERYONE

### **MAJOR THRUSTS**

- SET STANDARDS FOR MATERIAL CONDITION AND HOUSEKEEPING
- DEVELOP AND IMPLEMENT RESTORATION PROGRAMME BASED ON BACKLOG AND STANDARD
- COMMUNICATE EXPECTATIONS TO ALL STAFF
- INCREASED SUPERVISORY ATTENTION E.G. PRIDE

# **HOUSEKEEPING & MATERIAL CONDITION**

## **EXCELLENT HOUSEKEEPING & MATERIAL CONDITIONS**

### **MEASURES OF SUCCESS**

- LICENSE RENEWAL
- NUMBER OF LEAKS, DRIPS PUDDLES
- PEER-MINI REVIEW RESULTS
- NUMBER OF ACCIDENTS ATTRIBUTABLE TO  
HOUSEKEEPING/MATERIAL CONDITION
- BACKLOG STATISTICS
- ACHIEVEMENT OF STANDARD IS A MEASURE