



**“ Finding a way to live the simple life today is man’s most complicated task”**

**- Henry A. Courtney**

## **NUT AND BOLT-**

### **HOW WE LOST EACH OTHER**

**We together till we were removed from a reactor by an operator. Both of us were kept on the mezzanine floor when the operator has left to get a gasket. He hit Ms.Bolt while walking and Ms.bolt has dropped on a person walking in the ground floor without helmet. When the chemist was walking on me, he has slipped.**

**When the operator returned back, he could not find us but we saw him day in and day out. Thus, it was several months since I am lying underneath the centrifuge and Ms. Bolt staying in a drain. We prayed the God not to be used in a factory where there is no 5-s.**



## **Some instances that keep us in no action**

- **I do not find .....**
- **Can you tell me the way.....**
- **Where can I place this after using it.....**
- **Is it in working condition.....**
- **What this board indicates.....**
- **Shall I remove the barricade.....**
- **I do not know how to dispose it off.....**



# **ABIOTIC EXPRESSIONS**

**I can't help you- PPE**

**No one can reach me- Fire extinguisher**

**Injury to me- First aid box**

**I don't know who am I- Unlabeled drum**

**I love to drip- Pump gland**

**I lost my head- Drum without lid**

**I am over loaded –Drain with muck**



**“ NO ONE CAN REACH ME ”**



**“ WE WERE NOT NAMED “**



**“ WE LOVE TO DRIP ”**



**“ WE LOST OUR HEADS “**



**“ I DO MY JOURNEY TILL THE END”**



**We strongly believe – “Unity in diversity”**



**No way to reach us**



**We are neither useful nor useless**



**We are nobody's concern as  
we are named as waste**



**Fly to use this place**



**Pit of multiple use, even to fall in**



**We got freedom to walk/ run/ fall**



**We are departed**



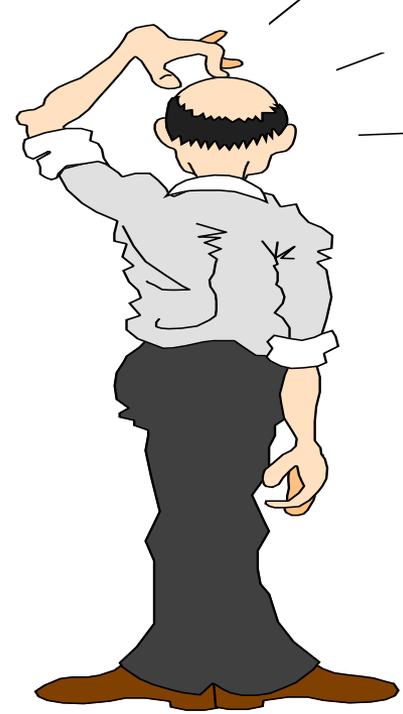
**You are in “Q” to use me**



**We are orphans**



**In a state of confusion or  
depression ?**



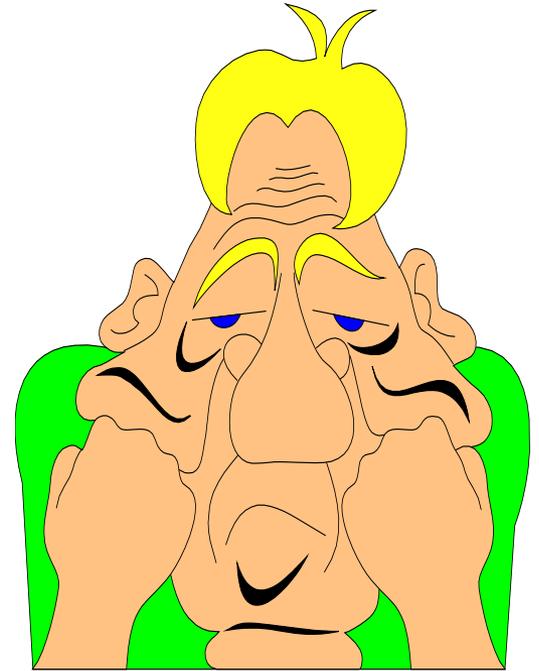
**WASTING TIME TO SEARCH ?**  
**UNHEALTHY WORKING ENVIRONMENT ?**  
**LACK OF SPACE ?**  
**WASTING RESOURCES ?**



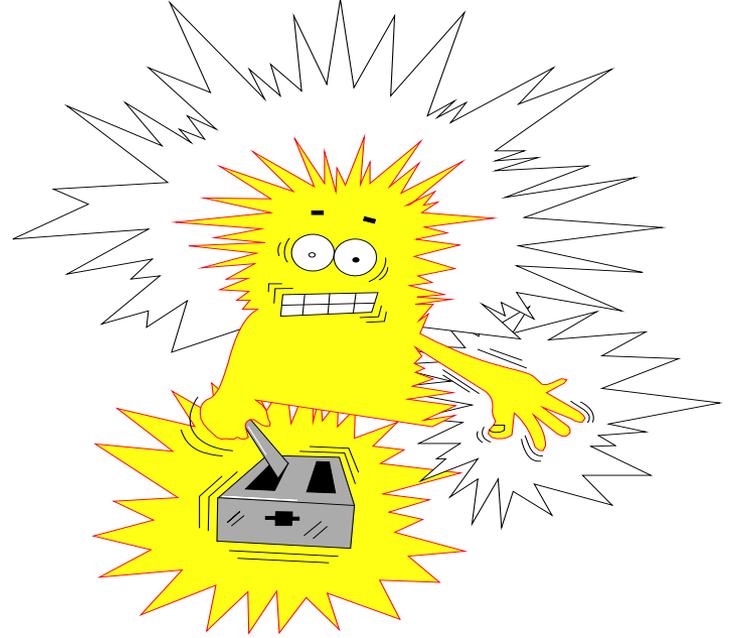
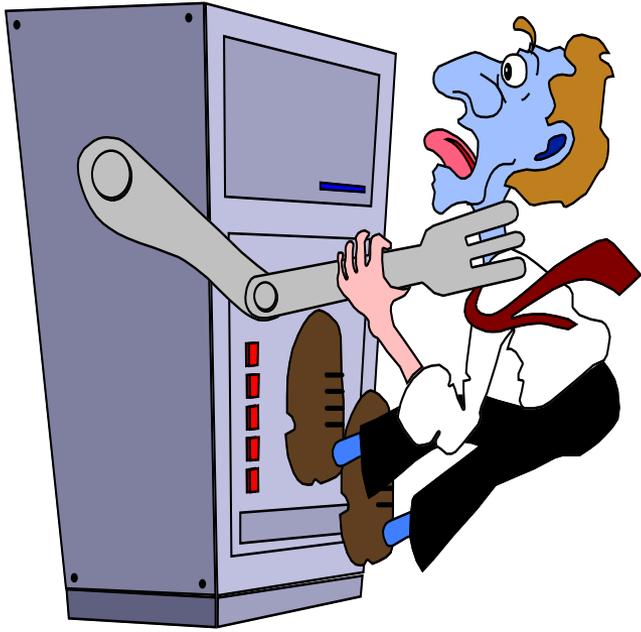
**STRESS**



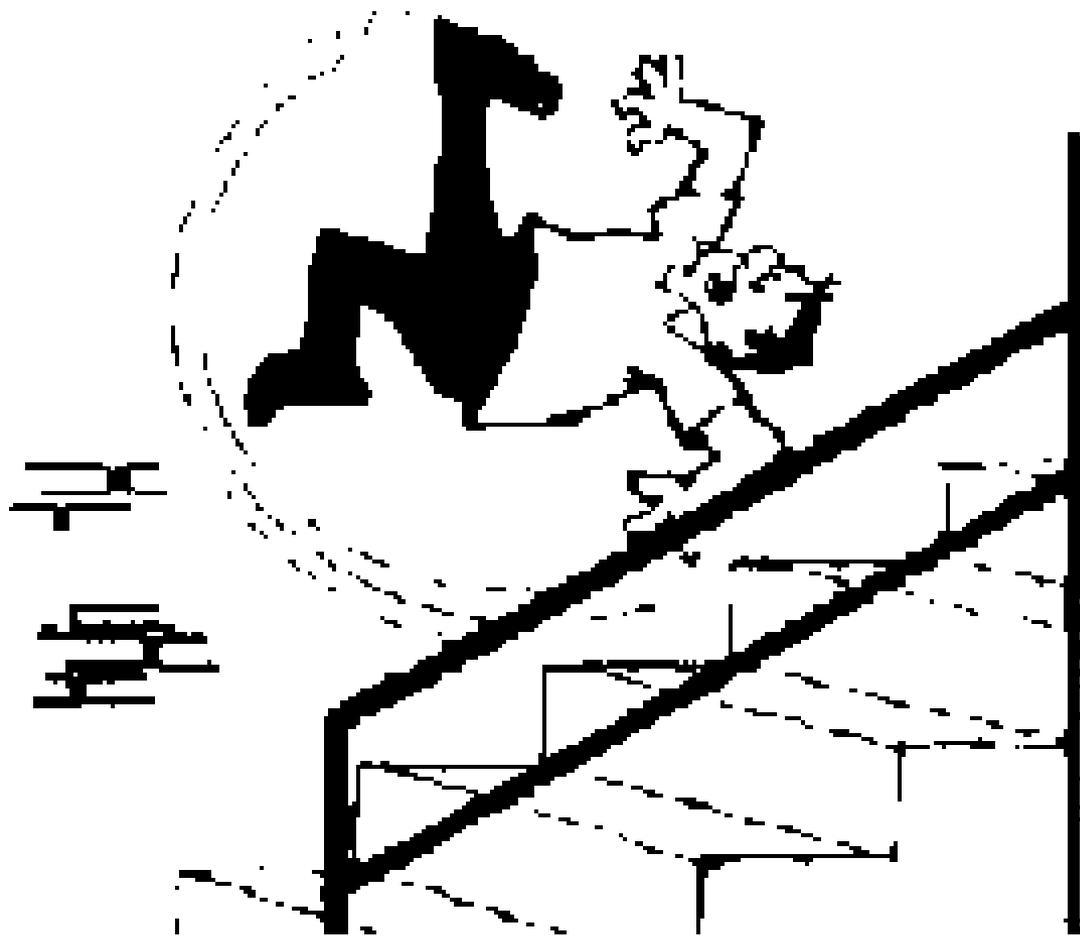
**ANGER**



**HOPELESSNESS**



# ACCIDENTS



Slippppppppppppppp.....



## **Accident reports:**

- **Slipped due to raw material spillage on the floor**
- **Fall from staircase due to material left uncleaned**
- **Tripped while walking through aisle occupied with obstacles**
- **Improper cleaning of reactors, tanks (inside) lead to fatal incidents**
- **Disposal of waste without segregation caused fire accident in waste yards**
- **Deprived quality of product due to bad housekeeping**



# **OBJECTIVE**

**Building a visual workplace that contributes to improvement in**

- **Safety**
- **Quality**
- **Productivity**

# OPPORTUNITY

## 5-S





## **How 5-s differs from housekeeping ?**

- **5-S is systematic approach to address housekeeping**
- **It has wider scope and application**
- **It emphasizes on standard procedures/ rules**
- **Creating self discipline is a prime part**
- **It is a team approach**

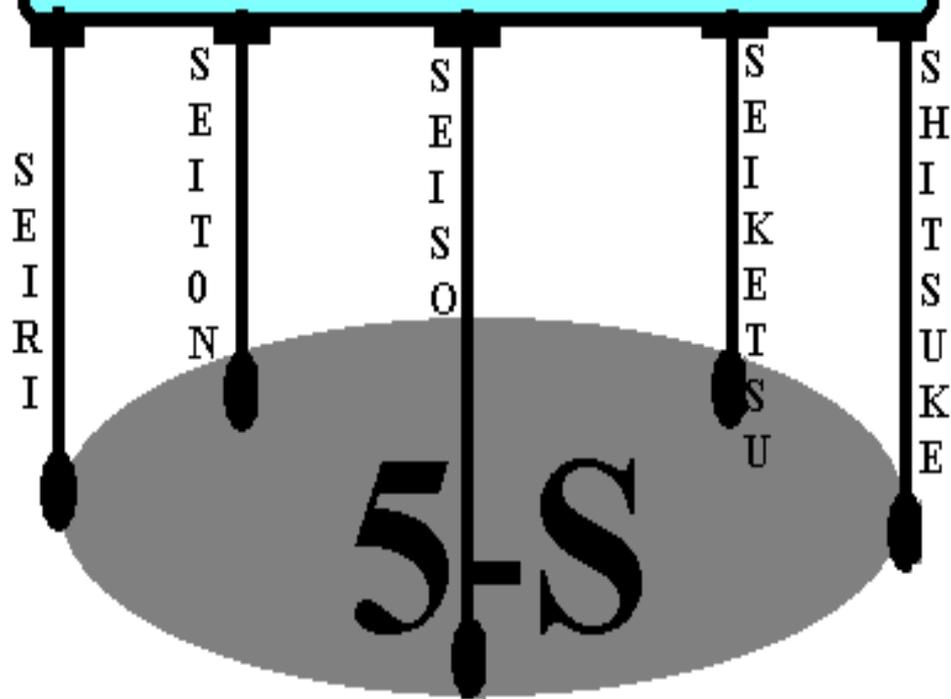


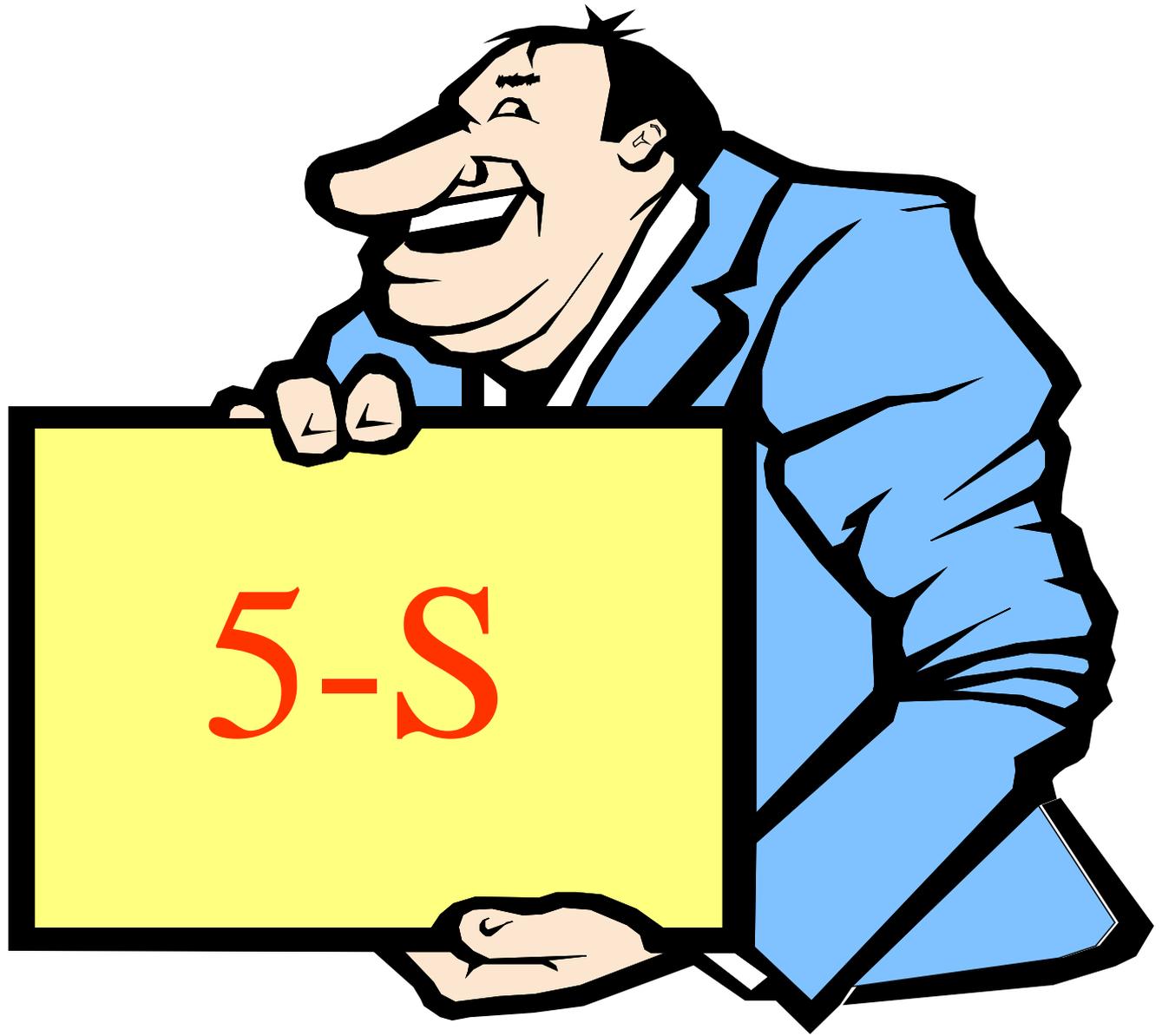
**As a tool to make our work place**

**A visual work place**

- **That speaks on its own**
- **About which a stranger can easily understand**
- **That has defined its objectives**
- **That has 5 pillars which must work in conjunction with each other and to help other systems as a foundation**

# ISO-9001/14001





5-S



# What is 5-S ?

**Japanese practice of work place improvement**

**5-S stands for five Japanese words -**

**Seiri , Seiton , Seiso ,  
Seiketsu & Shitsuke**



**5-S is such a system which scopes**

**A document**

**A tool**

**An equipment**

**A chemical**

**Whether it is useful or even waste**

**Whether it is factory or office or home**

**Whether it is personal hygiene or working environment**



## **SEIRI (Organization )**

**Keep what you require and  
discard unnecessary items**

**Eg. Throw away rubbish**



## SEIRI

- **If an item is absolutely unnecessary - dispose**
- **If an item is unnecessary for time being but it may be required in future - store it in a proper place under periodical supervision / maintenance**
- **Inform to others about unused item – Maintain disposal notice**



**Seiri - More space in less space**



**No " Seiri " - Everything at one place**



**No " Seiri "- waste along with useful items**



**NO SEIRI IN ENGINEERING YARD**



# **SEITON ( Orderliness )**

**Arrange necessary items in a proper order**

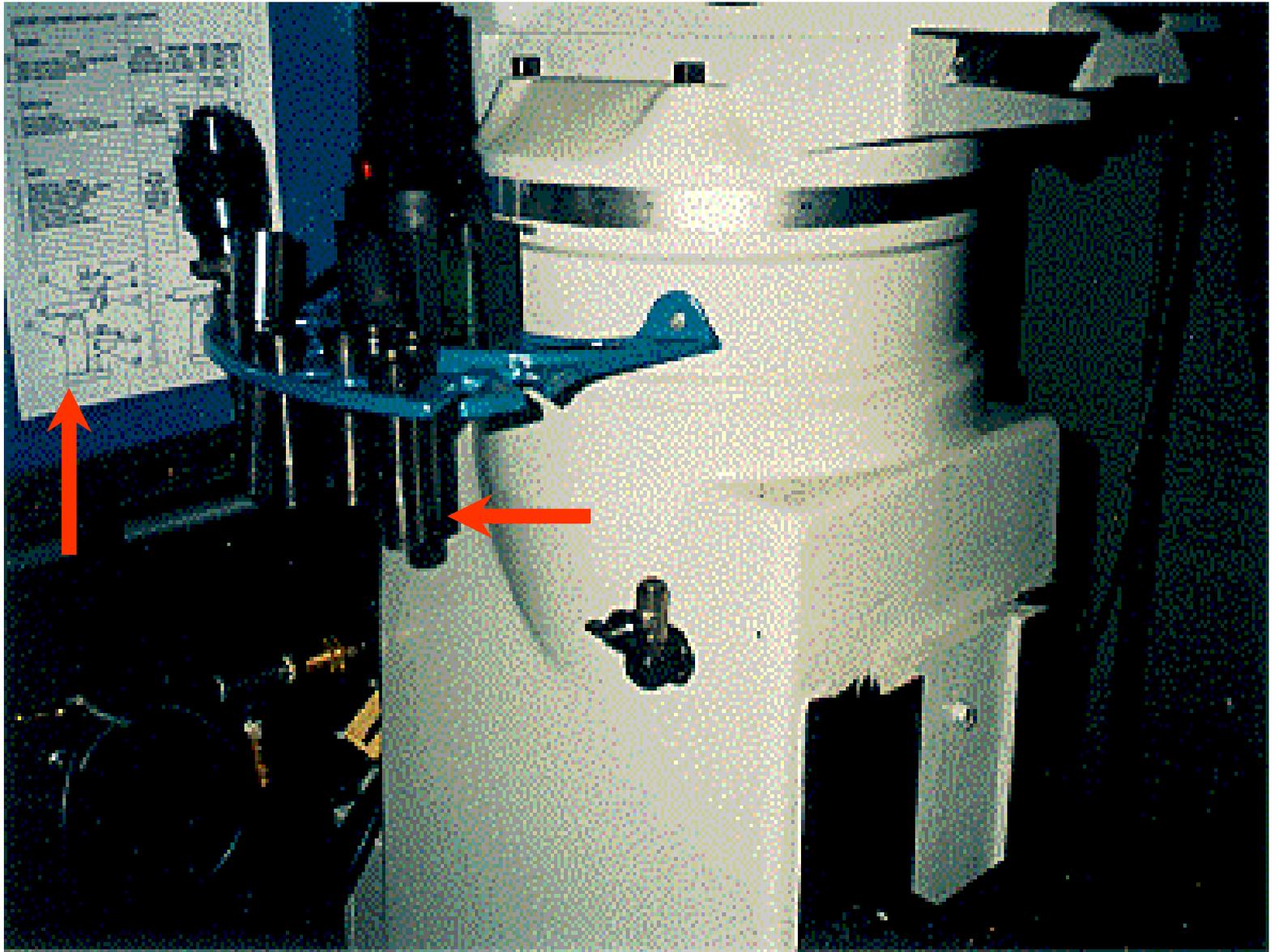
**Eg. Easy retrieval of a document/  
tool**

# SEITON

- While arranging necessary items, place them depending on frequency of use
- They should be easily accessible
- Mark the area with proper labeling about its contents
- Permanency of labeling
- Prepare an index card for quick reference
- Return back the item to its place after usage



**NO “SEITON” IN A LABORATORY**



**Seiton - Each thing has its own place**



**Seiton - Orderly arrangement**



**Seiton - Easy retrieval**



**Seiton - Sort out & labeling**





# **MADE FOR EACH OTHER**

**TOOL - TOOL BOARD**

**PPE - PPE BOX**

**DRUM - LID**

**HOSE PIPE - HOSE PIPE STAND**

**HELMET - HELMET STAND**

**BOLT & NUT- BUCKET**

**CYLINDER- CAP**



## **SEISO (Cleanliness )**

**Keeping work place always  
free of dust and dirt**

**Eg. Immediate attention to  
clean the work place**



**Seiso - Safer & healthier work place**



# **SEIKETSU ( Standardization )**

**Maintain housekeeping and work place organization at all times with the help of standardized rules.**

**Eg. Cleaning schedules and procedures**



## **Some of the standards are:**

- **Waste disposal procedure**
- **Red tag system**
- **Disposal notice**
- **Labeling with index**
- **Cleaning schedules and procedures**
- **Clean up day**

**contd...**

- 
- **Standardization of labor requirement**
  - **Housekeeping activities schedule**
  - **Daily/Weekly reports - housekeeping**
  - **Preventive maintenance**
  - **Colour coding for drums / cylinders / pipe lines/tanks**
  - **Mark the areas for a defined purpose**
  - **5-s cleaning kit**
  - **Yearly 5-s plan**



## **SHITSUKE (Discipline)**

**Make a habit of maintaining established procedures continuously through personal interest, involvement and individual responsibility**

**Eg. Do 5-S daily**

# ADVANTAGES OF 5-S

## Employee's vision:

- Evacuation of waste
- Easier localization of objects & time saving
- Organized and clean Work places
- Safe work place and less chance of accidents
- More discipline

**Contd..**



## **Company's vision:**

- **Better place to work**
- **Reduction in costs**
- **Efficient use of time**
- **Good use of equipment&material**
- **Increase in productivity&quality**



## Other benefits:

Become system oriented

Improved confidence in systems

Influence on personal traits- openness, self confidence

Ownership for each of the areas inculcate a sense of responsibility

A shift in culture- workers tend to involve more

Clean working environment keeps us in good mood

# How 5-s can ensure safety?

- **No slips, trips and falls**
- **Well maintained waste yards-segregation and labeling**
- **No barriers to fire extinguishers, exits and walk ways-In emergency, easy to catch**
- **Storage of chemicals as per compatibility**
- **Periodical removal of waste**
- **Immediate retrieval of items (fire extinguishers, PPE, emergency phone numbers)**

# ACTION PLAN

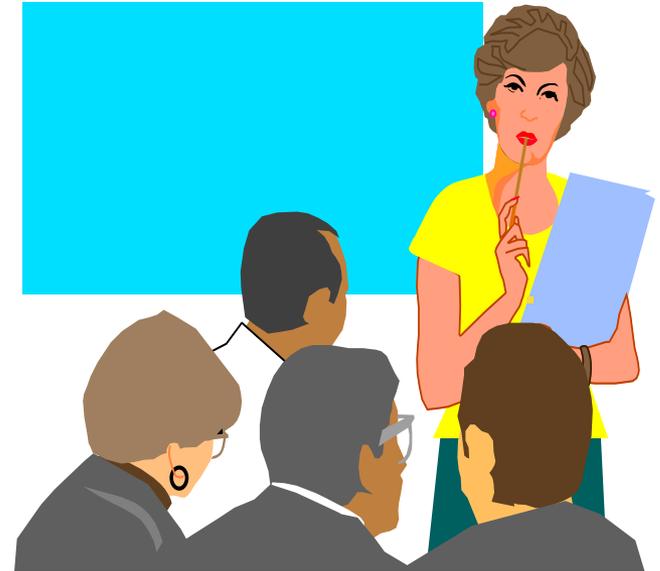
**First step: Form a 5-s team with representatives from all blocks**

- Appoint a 5-s coordinator
- Train the 5-s team



## **Second step: Conducting a review in the Plant to assess the present status**

- Questionnaire
- From worker level



# **Third step: Analyze the information obtained through review- prepare action plan**

Think of

- Required resources
- Alternatives



## **Fourth step: Designing and conducting awareness program**

- Shop floor exercises
- Photographs
- Illustrations



## **Fifth step: Implementation of 5-S by employees.**

- As a routine activity
- Define ownership for all areas
- Select a 5-S leader for each block
- Maintain a record to assess the improvement



# Sixth step: Evaluation on a continuous basis



Inspections



5-S contest



5-S day



## **Responsibilities of 5-s coordinator:**

- To organize inspections, 5-s day celebrations**
- To maintain 5-s corner and 5-s newsletter**
- To review the action plans periodically**
- To identify the areas of consistently bad housekeeping and coordinate accordingly**
- To conduct 5-s review meetings periodically**
- To help 5-s team in resource allocation from plant management**
- To conduct refresher training programs and visits to other plants**
- To generate statistics- savings, accident control etc.**



**5-S is possible when**

**It is part of our job**

**5-S is more of**

**Attitude than Resources**



**It requires: 5- I' s**

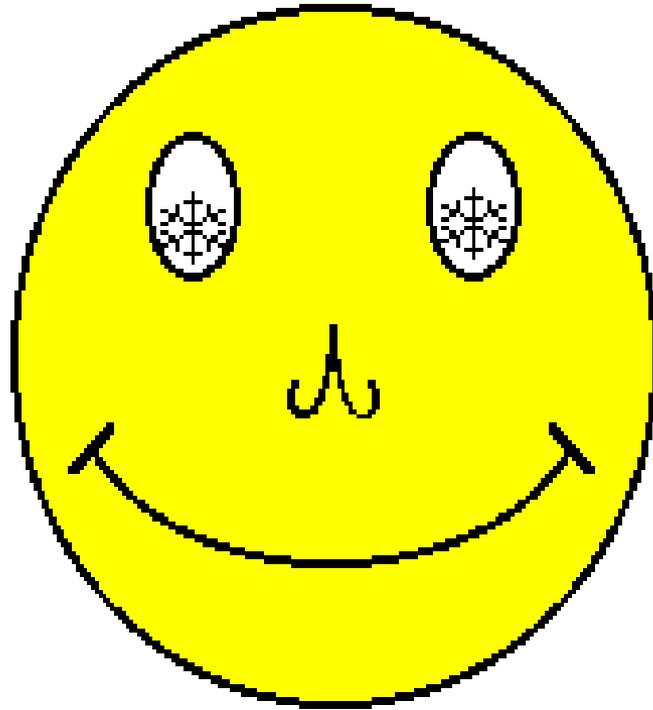
**I**NTEREST

**I**NNOVATION

**I**NVOLVEMENT

**I**NDIVIDUAL RESPONSIBILITY

5<sup>th</sup> **I** ???



***IT IS OUR EYES THAT MAKES THE  
JUDGEMENT OF A WORK PLACE***

***THE WAY WE LOOK AT IT IS MORE  
IMPORTANT***



With the implementation of 5-s, the change is

Visible

Immediate

Phenomenal

Self motivated

Safety ensured

Quality oriented

Productivity targeted



# **Success rate depends on**

- 1. Receptivity of the shop floor people**
- 2. Involvement of key personnel**
- 3. Allotment of resources**
- 4. Defined ownership for all the areas and responsibility**
- 5. Seriousness about inspections**
- 6. Support of service departments like maintenance and SHE**
- 7. Reinforcement of success**



**You will be more appreciated if  
You carry away this message to  
Your work place and home too**



**Matching:**

**Seiri- Organisation ( )**

**A. Do 5-s daily**

**Seiton – Orderliness ( )**

**B. Keep workplace clean**

**Seiso- Cleanliness ( )**

**C. Place useful items  
in dedicated place**

**Seiketsu – Standardization ( )**

**D. Cleaning schedules**

**Shitsuke – Discipline ( )**

**E. Remove the waste**



**Fill in the blanks using jumbled words in brackets:**

- 1. Place all necessary items in a dedicated place depending on \_\_\_\_\_(eqnfycreu) of use**
- 2. Shitsuke tells that work place management is everybody's \_\_\_\_\_ (ybrsenpoiitsl)**
- 3. 5-s belongs to \_\_\_\_\_(paajn) (name of the country)**
- 4. If 5-s is practiced in work place, we can save \_\_\_\_\_(mite)**
- 5. While disposing waste \_\_\_\_\_( ggstereea) and dispose**



## True or false:

- 1. 5-s cannot be applied to computers**
- 2. Keeping necessary items of future use in a store room is a good practice**
- 3. To practice 5-s, it requires lot of time**
- 4. 5-s can be applied in factory only**
- 5. 5-S can improve safety and quality**



**Give some standards/rules that can be developed in the below areas (choose from below list):**

**1. Production block-**

**2. Warehouse-**

**3. Waste yard-**

**4. Document cup board-**

**5. Equipment-**

**6. Water cooler-**

**7. Laboratory-**

**Orderly storage as per compatibility , Colour coding , Segregation of waste, Index for labels, Preventive maintenance, To display next day of cleaning, cleaning procedure for glassware**



**Information on 5-s is available in**

**Safety data base – 5-s section- as**

- **Concepts**
- **Unit wise information**



Thank you !

Corporate SHE