



**“ 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



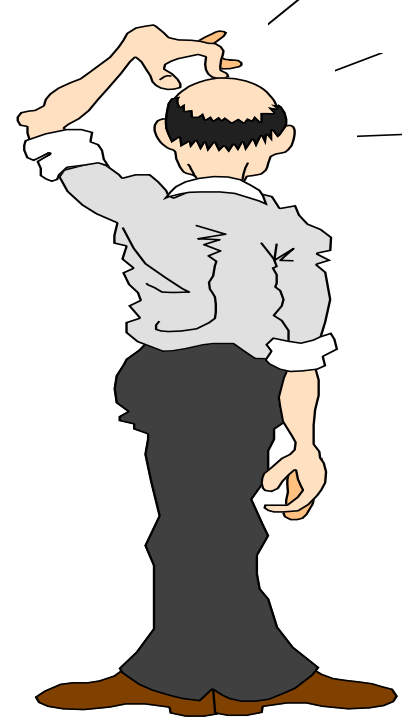
You are in “Q” to use me



We are orphans



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



WASTING TIME TO SEARCH ?

UNHEALTHY WORKING ENVIRONMENT ?

LACK OF SPACE ?

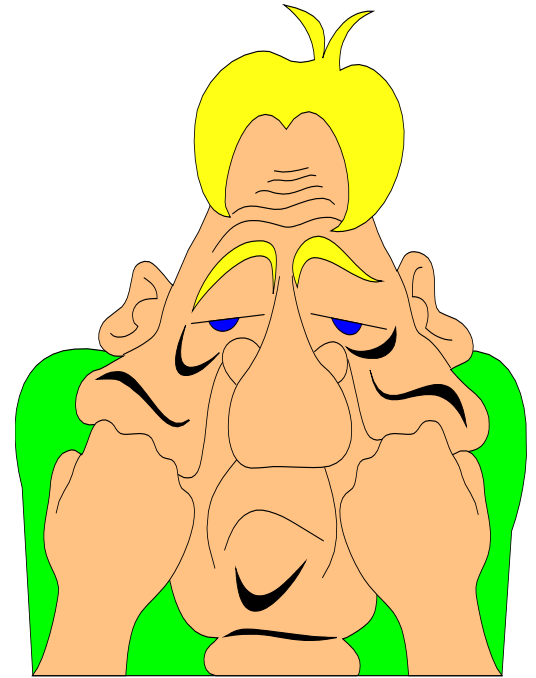
WASTING RESOURCES ?



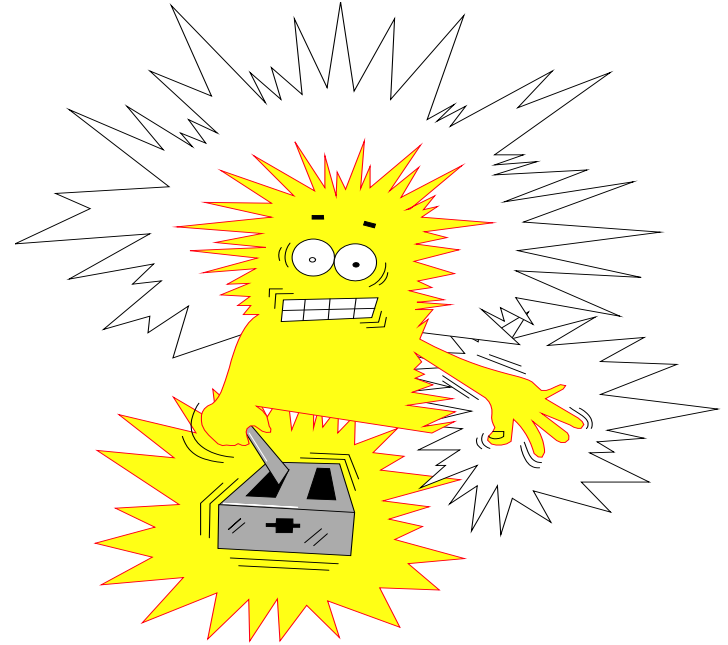
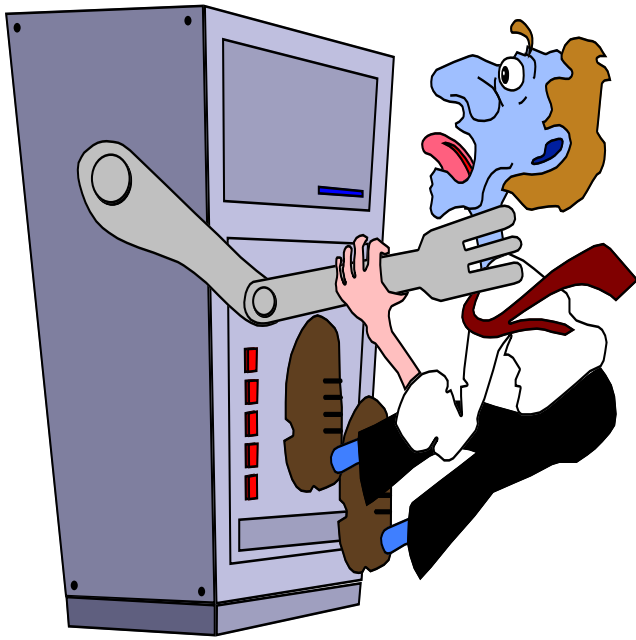
STRESS



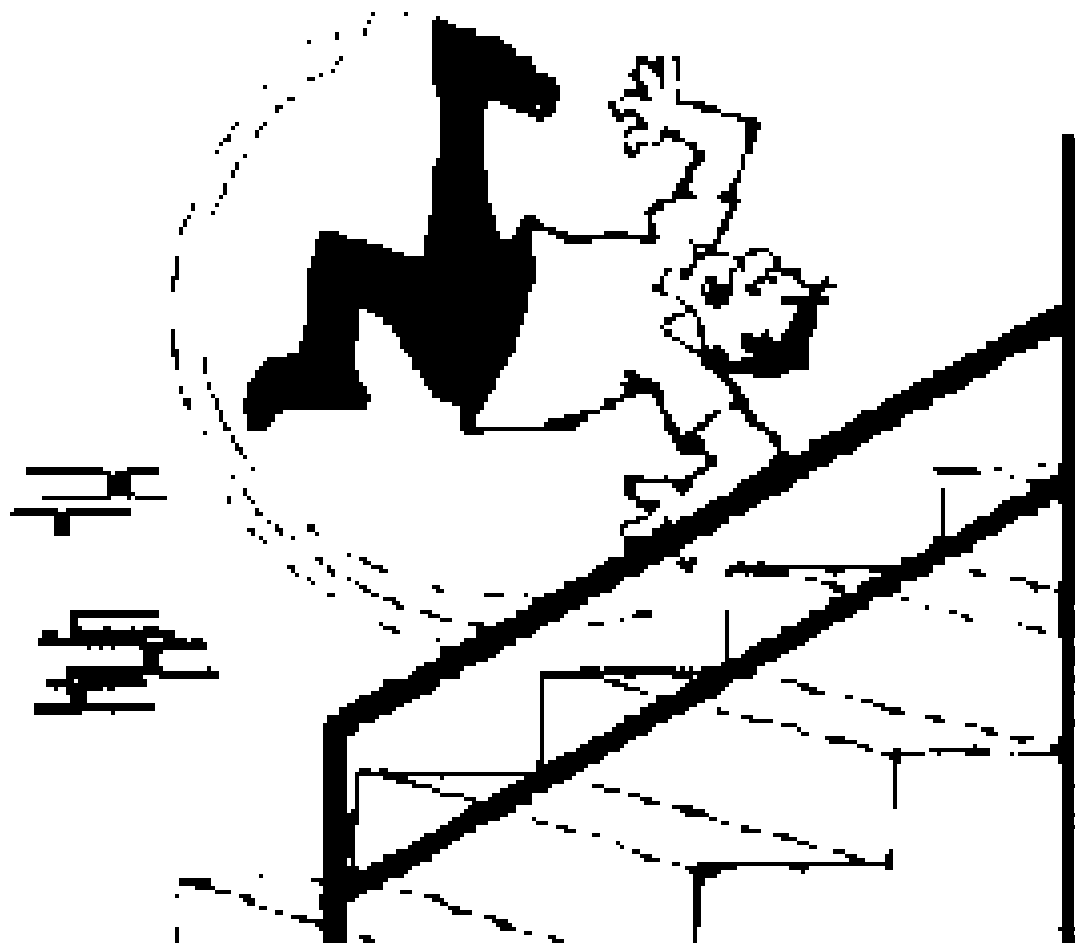
ANGER



HOPELESSNESS



ACCIDENTS



Slipppppppppppppp.....



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**

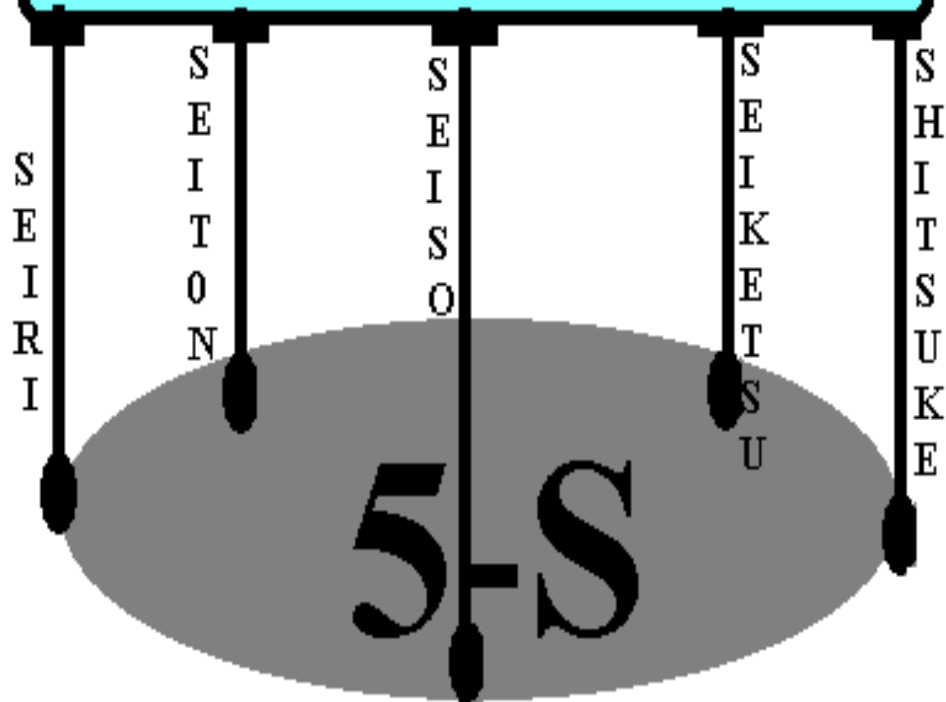


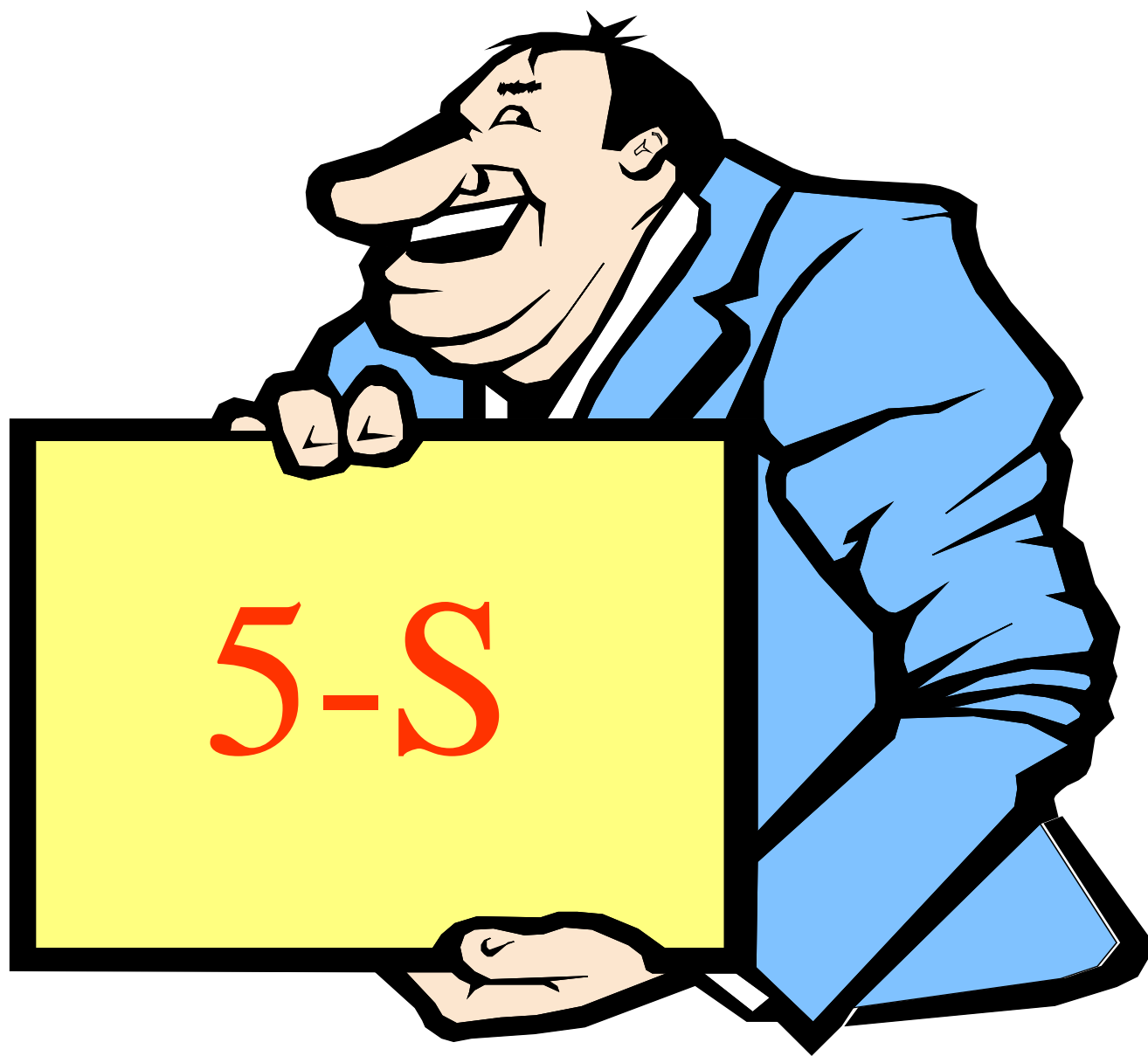
As a tool to make our work place

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







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**

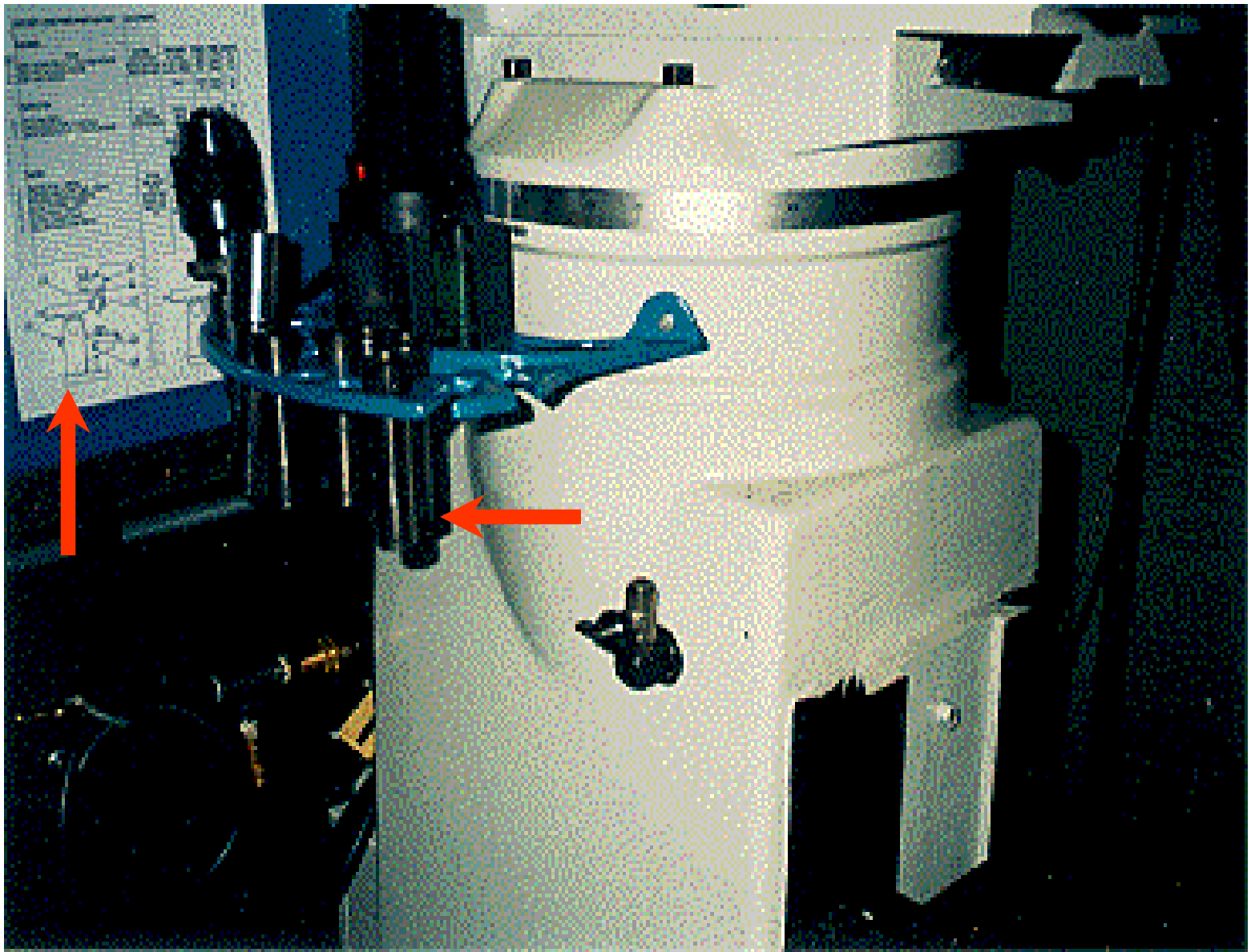


SEITON

- 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



“SEITON” IN STORES AREA



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.

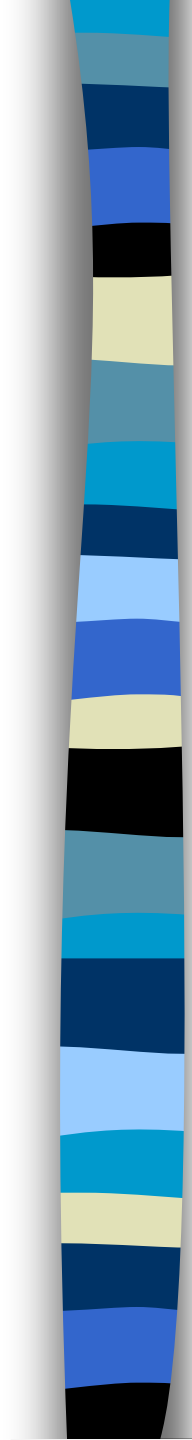
Eg. Cleaning schedules and procedures



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

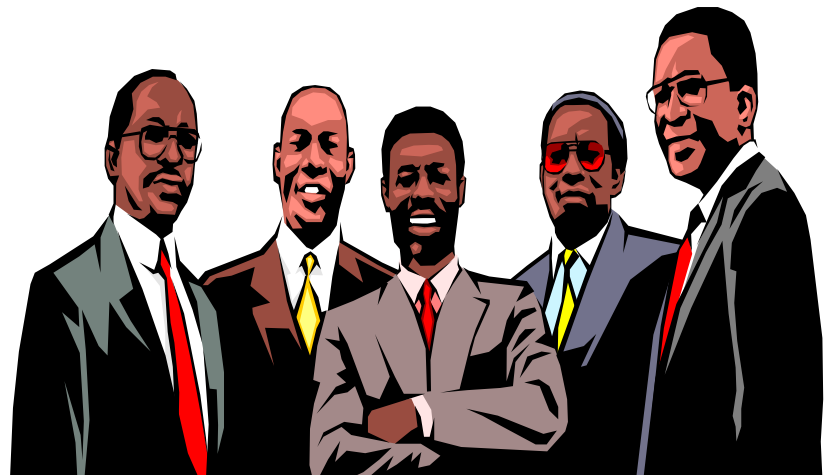
How 5-s can ensure safety?

- 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

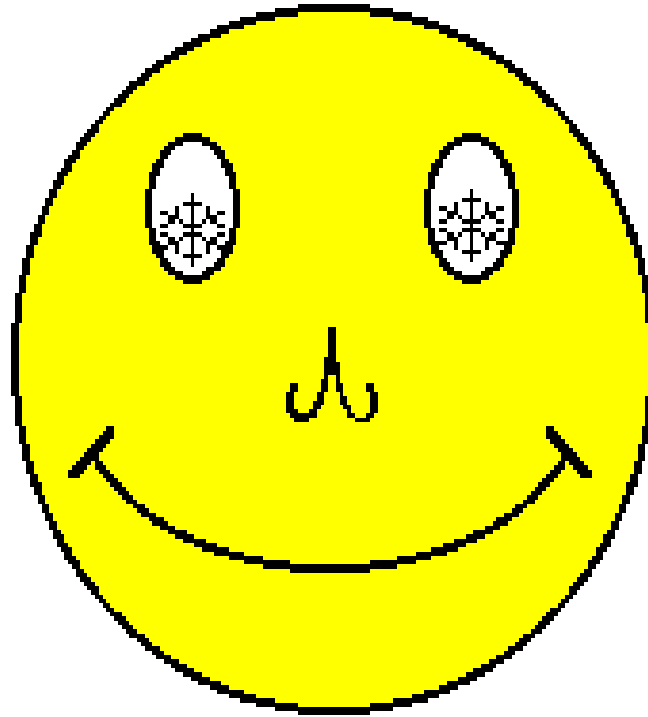
INTEREST

INNOVATION

INVOLVEMENT

INDIVIDUAL RESPONSIBILITY

5th **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