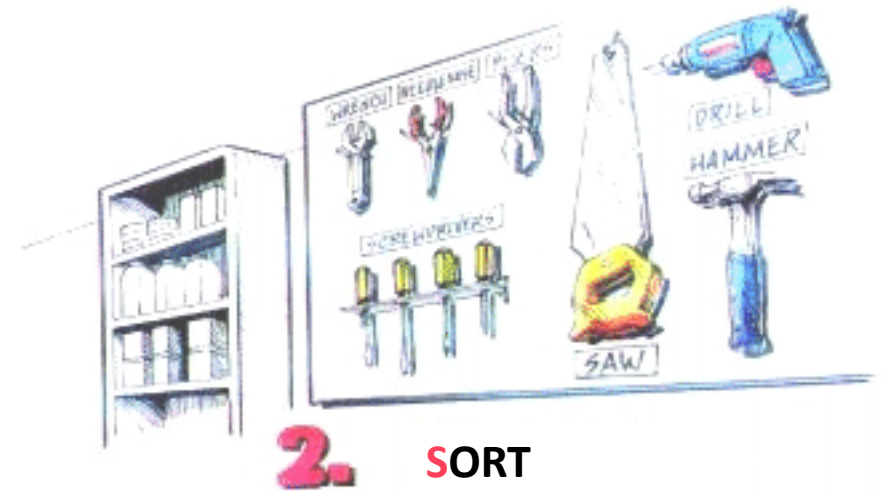


PHARMACEUTICAL  
CONSULTANCY  
SERVICES

# TOOLBOX

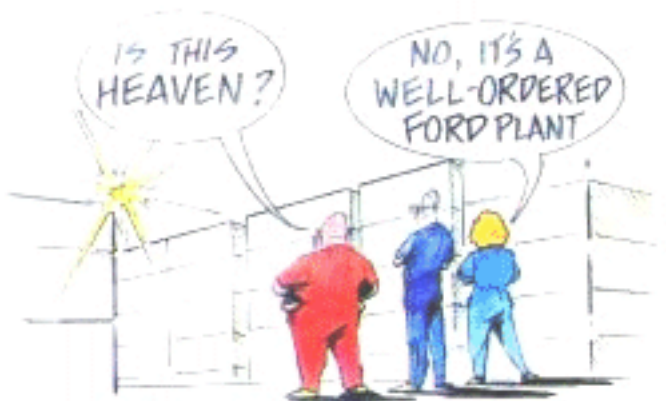


**1. SEPARATE**

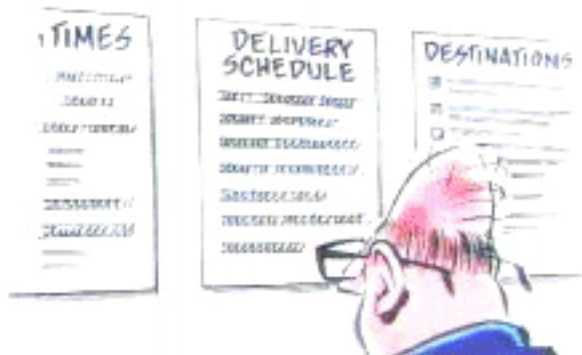


**2. SORT**

# 5S



**5. STIMULATE  
AND  
MAINTAIN**



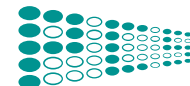
**4. STANDARDIZE**



**3. SANITATE  
(CLEAN)**

## 5 S SUPPORTS...

- Limiting distractions caused by “clutter”
- Increasing routine by introducing exact locations for materials/tools etc.
- Preventing mistakes
- Ease workplace-sharing





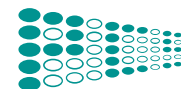
## 5 S EXAMPLE



# 5S EXAMPLE

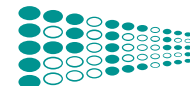


# CONTROL CHARTS “6S”

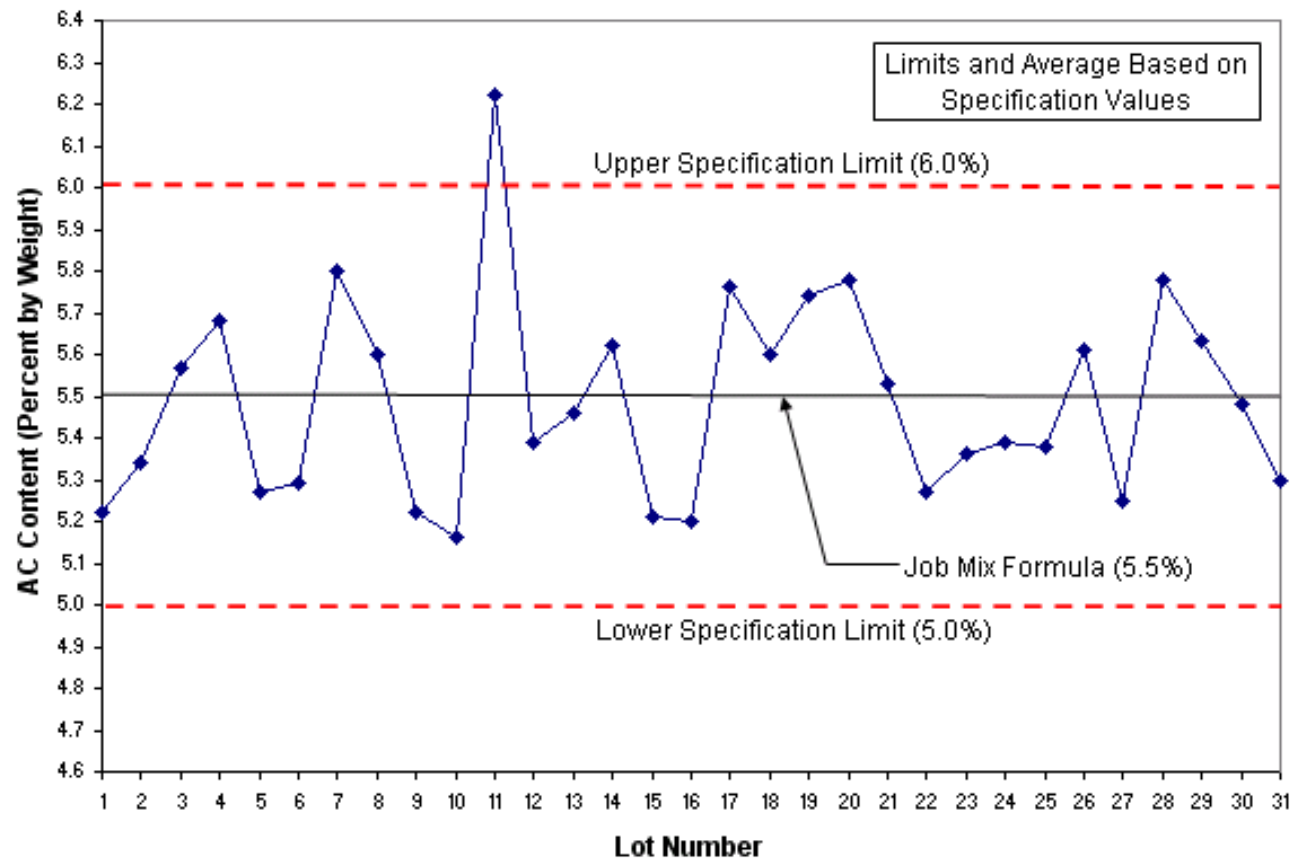


# VISUAL MANAGEMENT

- Clarify / transfer information through visual “cues” to clarify certain steps in a process
- Control Charts are a form of visual management as well



# EXAMPLE OF A CONTROL CHART



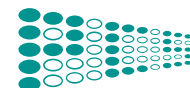


# POKA YOKE

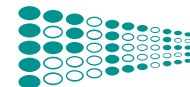


# POKA YOKE

- Poka Yoke is a Japanese term, originating from lean manufacturing=fool proof (poka: unintended error, yoke: prevent)
- It's a method to form a production process in such a way that it is impossible for an error to occur. An operation is executed in a way that **forces** the correct procedure to be followed.
- The concept was launched by Shigeo Shingo as a part of the Toyota Production System.



## EXAMPLE: SIM CARD



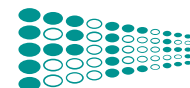
# POKA YOKE

- warning poka-yoke: creates a warning when an error occurs (alert)
- control poka-yoke: ensures the mistake is prevented (prevent)



# POKA-YOKE

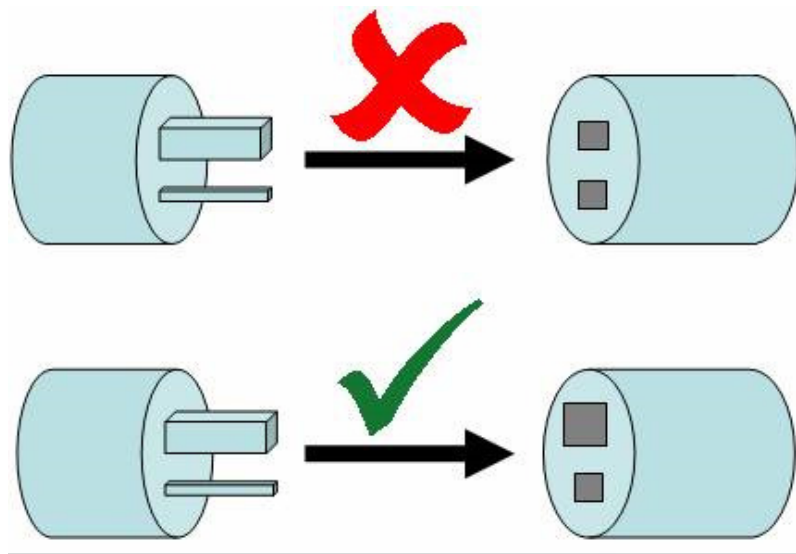
- 3 Types of Poka-Yoke ensure detection and prevention of mistakes:
  - Contact-Method: defects are identified by testing on product forms, size, color or other physical characteristics
  - Fixed-Value-Method: alerts when a certain (amount of) movement(s) is not completed/executed
  - Logic-Order-Method: Determines whether or not the procedural steps have been followed





## EXAMPLE CONTACT POKA YOKE

- The physical design is such that the mistake can not be made: wrong design = no “fit”.



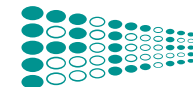
## EXAMPLE FIXED-VALUE POKE YOKE

- A tray with 43 spaces for 43 bottles: all holes filled = tray complete
- A wrench that leaves a drop of yellow paint on every tightened bolt: all bolts yellow=all bolts securely fastened.



## EXAMPLE LOGIC-ORDER POKA YOKE

- Preparing the different parts in a certain, fixed order: wrong order=surplus parts
- Numbering certain parts in the order of assembly: wrong order=wrong consequent numbering



# QUALITY REPORTS (MQR'S)



# MONTHLY QUALITY REPORT (MQR)

## March/April 2014

### Executive Summary

- The Manufacturing facility upgrade is in the final stages of completion:
  - Working on batch record and SOP revisions.
  - All deviations are closed out with CAPAs.
  - Overhaul of Quality Systems:
    - Raw Materials Program will be rolled out in 3 weeks
    - Documentation program has begun to be implemented
    - Training Program is being implemented .....
  - ..... project Management on hold due to NNN. New management will take over.
  - Writing/Revising SOPs to prepare for JJJ.
- The report is being issued for both March and April since facility has been busy with NNN.

	This month	Last month
Deviation	0	0
OOS	0	0
Change Control	5	9
CAPA	1	1

### Legend

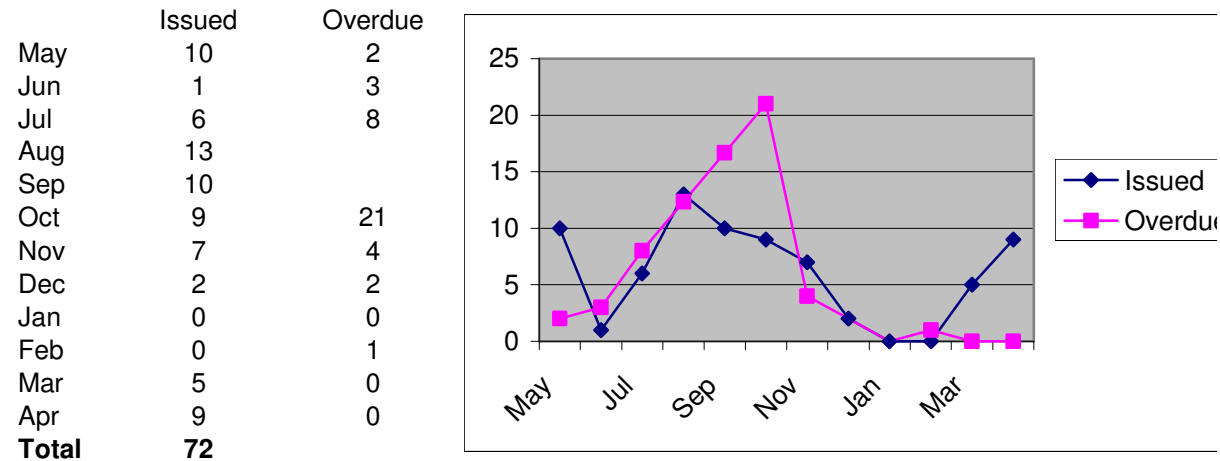
<3 green	acceptable
3 - 5 yellow	between
> 5 red	not-acceptable



# 1. DEVIATIONS

## Commentary (details are in the attachments)

- NCMR is no longer active and will no longer be reported. One is currently open and will be closed as soon as it is returned to the QA office.
- A total of 3 CAPAs associated with 2013 deviations are open, but are pending the activation of SOPs. The expected activation date is first week of May 2014.



Overdue	Class	Dec	Jan	Feb	Mar	Apr
< 1 month	A	0	0	0	0	0
1-3 months	B	2	0	1	0	0
3-6 months	C	0	0	0	0	0
6-12 months	D	0	0	0	0	0
> 12 months	E	0	0	0	0	0
<b>TOTAL</b>						
<b>OVERDUE</b>		<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>

## 8. PEST CONTROL

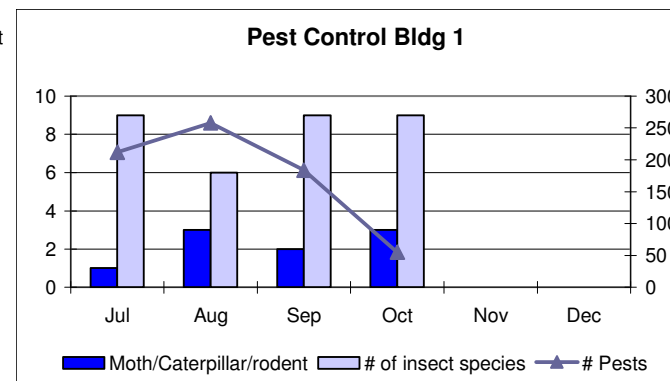
### Commentary

- No data was obtained for the month of April to date.
- See trending graphs below. Building 1 represents data from 2013 and Building 3 represents data from the years 2013 and 2014.
- There is currently no 2014 data due to the Manufacturing upgrade.
- Pest control layout needs to be revised to reflect facility upgrade (part of XXX).
- There are more traps for building 1 as opposed to building 3 due to higher monitoring requirements for building 1 for the GMP facility.

Pest Control Building 1

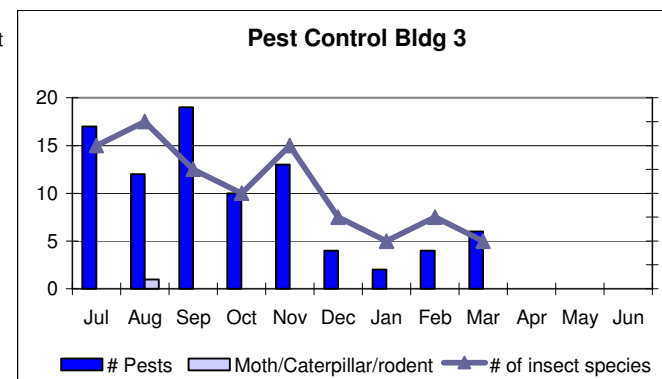
	# Pests	Moth/Caterpil lar/rodent	# of insect species
Jul	212	1	9
Aug	258	3	6
Sep	184	2	9
Oct	55	3	9
Nov			
Dec			

Total      **709**              **9**              **33**



Pest Control Building 3

	# Pests	Moth/Caterpil lar/rodent	# of insect species
Jul	17	0	6
Aug	12	1	7
Sep	19	0	5
Oct	10	0	4
Nov	13	0	6
Dec	4	0	3
Jan	2	0	2
Feb	4	0	3
Mar	6	0	2
Apr			
May			
Jun			
Total	<b>87</b>	<b>1</b>	<b>38</b>



## 10. WATER MONITORING

### Commentary

- Water monitoring has taken place, but no new data has been reviewed by QA to date.

## 11. VALIDATION

### Commentary

- VMP's are either done or in final stages of review for the major validation studies (cleaning, computers, QC).
- A list with open Validation Protocols can be found in the attachment
- XXX will deal with Equipment validation/revalidation status.
- Shipping validation: VMP is drafted, however is not part of NNN. Priority lowered.
- A consultant has been hired to work on the retrospective IQ/OQ for the Manufacturing equipment and the organization of the files in the data room to prepare for the JJJ.
- CLV = Done
- AMV = Done
- CSV = Being sent around for signatures.
- Process Validation Report has been completed.
- Shipping Validation = 2<sup>nd</sup> rough draft being worked on

## 12. CALIBRATION

### Commentary

- A Managerial SOP is in place.
- Individual SOPs (e.g. how to calibrate a pressure gauge) should be drafted or approved in ca is out-sourced.
- The calibration documents will be filed in the data room.
- Part of XXX

### **Executive Summary**

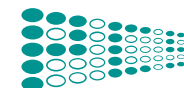
- The Manufacturing facility upgrade is in the final stages of completion:
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  - All deviations are closed out with CAPAs.
  - Overhaul of Quality Systems:
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    - Documentation program has begun to be implemented
    - Training Program is being implemented .....
  - ..... project Management on hold due to NNN. New management will take over.
  - Writing/Revising SOPs to prepare for JJJ.
    - The report is being issued for both March and April since facility has been busy with NNN.



	This month	Last month
Deviation	0	0
OOS	0	0
Change Control	5	9
CAPA	1	1

#### Legend

<3 green	acceptable
3 - 5 yellow	between
> 5 red	not-acceptable





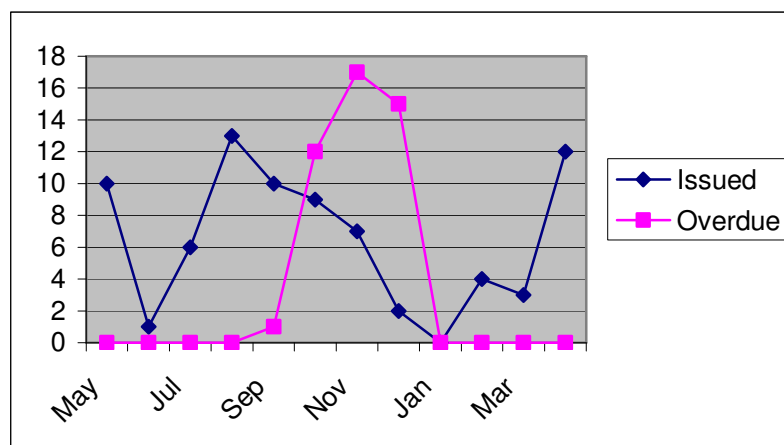
**Commentary** (details are in the attachments)

*Information: CAPA = Corrective Actions Preventative Actions*

- A deviation can be closed once a CAPA has been opened.
- If a department cannot meet the CAPA target implementation date, please contact QA via email as to why an extension is necessary, and QA will assign an extended target implementation date.
- QA will be tracking how many times a CAPA target implementation date has been extended. QA will not issue extended target implementation dates multiple times.
- A mega CAPA has been issued (08-001) to cover the multiple CAPAs assigned in 2013 with regards to the Harvest and cell viability issues issued to J. Koster.

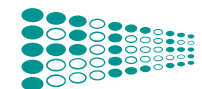


	Issued	Overdue
May	10	0
Jun	1	0
Jul	6	0
Aug	13	0
Sep	10	1
Oct	9	12
Nov	7	17
Dec	2	15
Jan	0	0
Feb	4	0
Mar	3	0
Apr	12	0
<b>Total</b>	<b>77</b>	





Overdue	Class	Dec	Jan	Feb	Mar	Apr
< 1 month	A	4	0	4	0	0
1-3 months	B	9	0	0	0	0
3-6 months	C	2	0	0	0	0
6-12 months	D	0	0	0	0	0
> 12 months	E	0	0	0	0	0
<b>TOTAL OVERDUE</b>		<b>15</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>

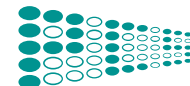


# LEAN MANAGEMENT



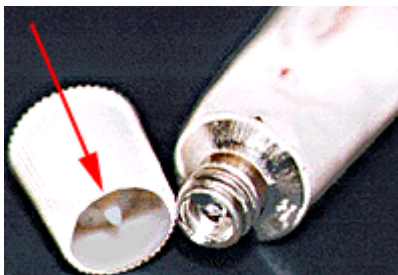
# LEAN MANAGEMENT

- Remove all un-needed activities
  - *elimination of waste ("Muda")*
- *making obvious what adds value by reducing everything else.*
- Use of flow-charts to make visible how work is flowing

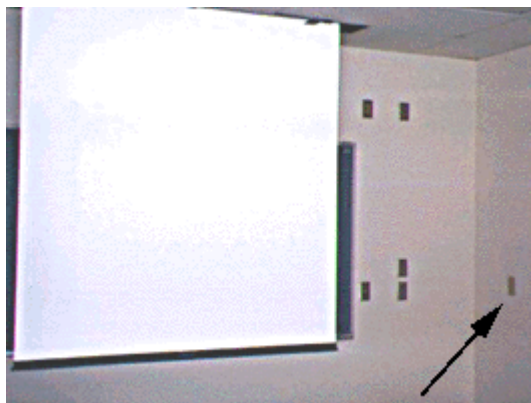




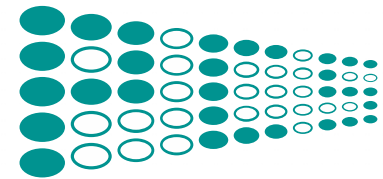
# EXAMPLES MISTAKEPROOFING.COM



Waterproof



**THANK YOU FOR  
YOUR ATTENTION**



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