Scientific Journal of Impact Factor (SJIF): 5.71

e-ISSN (O): 2348-4470 p-ISSN (P): 2348-6406

International Journal of Advance Engineering and Research Development

Volume 5, Issue 02, February -2018

Implementation of 3S Of 5S Technique in JDCOEM Workshop Nagpur- A Review

Prof. Ashok Yadav¹, Shubham Shahare², Vivekkumar Tembhurnikar³, Swapnil Bhalerao⁴

¹Assistant Professor, Mechanical Engineering, J D College of Engineering, Nagpur.

²³⁴Students, Mechanical Engineering, J D College of Engineering, Nagpur.

Abstract -Today's industries mostly focus on procedure high feature product with minimum cost to compute the competitive market. Therefore product as fine as examine industries started realization of inclines tools and techniques. Japanese lean tools are incredibly famous and efficient to obtain superior efficiency of process and removal of losses. 5S is basic base of lean manufacturing system. It is tool for clean-up, sorting, organize, and given that the compulsory basis for workspace improvement. This work is proposed to study and implementation of '5S' tool by remove non-value added behavior, wastages and irregularity in workshop at J D Collage of Engineering, Nagpur. It will show important improvement in safety, output, good organization and housekeeping. In this paper implementation of (shine) 3S Seiso.

INTRODUCTION:-

5S is a method originated from Japan and it was primary developed by Hiroyuki Hirano. It comprises five words Seiri, Seiton, Seiso, Seiketsu and Shitsuke, which income Sort, Set in order, Shine, regulate and maintain in that order. The 5S technique is built-in within "Kaizen" which income "changes for the better". It allows the improvement of competence and output. The 5S technique is a prearranged program to methodically attain total group cleanliness, and consistency in the position of job. The advantage of 5S method is development in productivity, quality, health and protection [1, 6, 7, 12]. Term of 5S given as: SEIR(sort): the taking absent of every one not needed, needless, and unconnected materials in the position of work.

The word Seiso income shine. In this onslaught of workplace on daily foundation is done. Cleaning is done in such degree that anyone not memorable to the surroundings must be able to notice any evils within 50 feet in 5 secs. Because of this worsening in machinery. Against, work area turn out to be pleasant and simple to work. The word Seiketsu means standardizes. In this in workplace uphold the entire thing in order and according to its typical, the entire thing in its true place, every course has a normal.

5S METHODOLOGY:-

SEISO:-

In arrange to become conscious valuable everyday jobs, it is essential to build a clean and regular working and alive environment. This is because soil, dirt and waste are the source of disorder, rowdiness, disorganization, faulty invention and work accidents a attack should become a everyday activity. Position of job must be hygienic at usual intervals. To help recognize dust bend factory floors, often tinted in bright colors and improve the light sources inside the plant. implement the 3S law the first footstep of accepting the 3S law is renewal the place of work. It be unspecified that "the primary onslaught" forces the exact examination of usage two of the earlier rules. The usage of the 3S law relies on daily maintenance in flawless simplicity the position of work. It is execute by the worker of the given place of work. To the belief of the place of work in conditions of the 3S law, that is cleaning the position of work.

OBJECTIVE:-

The 3S stresses on hygiene since it ensure a new relaxed and safer place of work, as well as improved visibility, which reduce recovery moment and ensure superior excellence work, manufactured goods or service.

- Cleaning actions
- Preservation schedule

The checklist must serve as chart signboard to make sure that the everyday 3S conditions are approved out customarily as best practice in the work area. Examples of checklists are the method. This activity is carries out to settle on the best work practice and fine ways of ensure that everybody carries out their individual commotion in their workplace.

Potential impact:-

- Better position of job principles.
- Better image Control System.
- Organization of Rules and normal process Procedure (SOP).
- In order distribution on required principles.
- Development in process and work flow.

LITERATURE REVIEW:-

Harsha Lingareddy et al. (2013) talented the learn according to that distorted in the job position of a developed industry by implement 5s technique. This plan helps in minimize the time of developed and also increase the area of work place. The resolution found by 5S come within reach of minimize quite a bunch of kinds of waste in the creation method and which to conclude helps in the advance of the group. An check up procedure has been perform on the basis of 5S check lists and the results analyze to bear out change like increasing competence in creation and quality, improves safety. Hirano (1995) examine the working area to uphold safety of workers, cleanliness in the friendship etc and regulate the working region in arrange to attain the same. It refers near the put into practice of standardize in the working region by rising method in order to uphold the achievement as scheduled above. The workers need to make sure their attempt to

PROBLEM STATEMENT:-

The following troubles occur before achievement of _5S' in the Workshop:

tidy, put in order, clean the job spot and new found discipline are not gradually lost.

- 1. Unacceptable utilization of storage space for unprocessed material, bins and complete products.
- 2. Consumption of time in penetrating the unprocessed material due to non-permanent position for storage of unprocessed material.
- 3. Low efficiency owed to the time expenditure in thorough for tools, resources due to unacceptable position of job management.
- 4. Existence of unnecessary equipment at the position of job which affect the ethical of the employee while operational.
- 5. Helpful cargo space room space organism obtain by the not want materials.
- 6. More time and price necessary for the account process of unnecessary stored resources in unprocessed material stores.
- 7. No well definite space for storing the unnecessary or unwanted material.
- 8. Unequal contribution of officer and workers in position of job organization due to non-standardization.

CONCLUSION:-

This work show, by use of easy Japanese Lean tool measurable improvements at shop floor. This work is done at JDCOEM, Nagpur college workshop to find improved working homogeny, by eliminate non-value additional activities, wastages, etc. First S' i.e. Seiso is productively implement in college workshop and consequence shows preserve the work space for the by now sort and set in order substance by onslaught the workstation. Shine is the onslaught section of the checklist. All the effective areas are cleaned and which improve working homogeny. After doing well accomplishment of 5s in shop floor there will be significantly changes in operational environment, resource utilization than previous. In next paper, remaining 4s execution, development and contrast study of before state & after state of workshop will be done.

ACKNOWLEDGEMENTS:-

By means of bottomless intelligence of thanks we would like to gratitude to all the people who have lit our pathway with their kind leadership. We are very appreciative to these intellectual who did their best to help out all through the container study. It is our arrogant freedom to state deep wisdom of thanks to Mr. Ashok Yadav, Assistant professor and _5S'project guide as well as workshop manager of workshop, JDCEMO, Nagpur.for his valuable supervision and kind consent for the conclusion of the case study. We are also thankful to the whole club. And lastly we thanks to our H.O.D and staff of Mechanical Department for their judicious id

REFERENCES:-

- [1] M. T. Telsang, —Production Management S. Chand, India (2012)
- [2]. Richard Muther, Maynard's Industrial Engineering Handbook, fourth edition, McGraw- 3. Hill, 1992
- [3] Rajesh Kumar Mehta, Dhermendra Mehta and Naveen K. Mehta, —An Exploratory Study on Implementation of Lean Manufacturing Practices (With Special Reference to Automobile Sector Industry), 2012.
- [4]. Iviza Veža, Nikola Gjeldum and Luka Celent, —Lean Manufacturing Implementation Problems in Beverage Production Systems International Journal of Industrial Engineering and Management (IJIEM), Vol. 2 No 1, 2011, pp. 21-26
- [5] Delia Manea, —Lean Production Concept and Benefitsl, Review of General Management, Volume 17, Issue 1, Year 2013.
- [6]. Lucas Simmons, Robbie Holt, Glenn Dennis and Clay Walden, —Lean Implementation in a Low Volume Manufacturing Environment: A Case Study, Proceedings of the 2010 Industrial Engineering Research Conference A. Johnson and J. Miller, Eds.

International Journal of Advance Engineering and Research Development (IJAERD) Volume 5, Issue 02, February-2018, e-ISSN: 2348 - 4470, print-ISSN: 2348-6406

- [7] Nor Azian Abdul Rahmana, Sariwati Mohd Sharifb and Mashitah Mohamed Esac, —Lean Manufacturing Case Study with Kanban System Implementation International Conference on Economics and Business Research 2013 (ICEBR 2013).
- [8]. Raid A. Al-Aomar, —Applying 5S Lean Technology: An Infrastructure for Continuous Process Improvement World Academy of Science, Engineering and Technology 59 2011.per
- [9]. R. A. Pasale and J. S. Bagi, —5S Strategy for Productivity Improvement: A Case Study Paripex Indian Journal of Research, Volume: 2, Issue: 3, March 2013 ISSN 2250-1991.