

ZERO DEFECT : AN OVERVIEW

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ABSTRACT

Errors and defects will always occur. People are the human beings and thus, make mistakes or say 'to err is human'. Human errors lead to diminution in quality and mostly occur due to lack of attention rather than lack of knowledge. The introduction of standards will help to reduce errors. ZERO DEFECT is an effective way to reduce human errors and taking the organisation towards the goal of success.

1. INTRODUCTION :-

Zero defect

- a performance standard.
- an error cause removal programme.
- a name given to motivation and improvement programme.
- a challenge to every individual.

Zero defect has set up the challenge before an individual to establish a personal goal of the best performance and to strive consciously for personal excellence in every thing he does. The crux of the challenge is to achieve an exact result by preventing and eliminating defects.

Zero defect programme has deposited much rewards and considerable controversy to the quality control engineering. In zero defect programme the assumption is that most of the quality deficiencies are caused by the operators and the management's goal to achieve high quality standard is not recognised. Zero defect programme has

a top down approach and is put into operations at behest of the management.

2. THEORITICAL BACKGROUND :

Defects and errors, albeit not desirable, will always occur. It should be our job to give more emphasis to minimize this occurrence.

2.1. REASONS FOR CAUSES :

Usually the mistakes are caused by

- (a) lack of knowledge.
- (b) lack of attention.

Knowledge can be measured and shortcomings can be corrected and must be removed by the person himself. He must develop a constant conscious desire to perform the job right the first time. The most significant feature of zero defect is the opportunity it offers to every employee from workshop floor and office upto top management to participate in the programme and to develop self-im-

provement and thereby the company's overall improvement.

2.2 PLANNING FOR ZERO DEFECT

The vital parts of zero defect planning are :

- (a) Explanation of the concept and programme to all the supervising personnel, clearly stating them the aims and objectives.
- (b) Determination and preparation of the requirements.
- (c) Decision regarding the best suitable method and launching the programme.
- (d) Shelling out the functions.
- (e) Examination of industrial recognition policy.
- (f) Determination of type of recognition should be used in commending improved performance.
- (g) Setting up the time schedule.
- (h) Rehearing those who will take part.
- (i) Identification of error and cause programme.
- (j) Plans for execution of error.

2.3 LACK OF COMMUNICATION IS DETRIMENTAL :

In most of the modern organisations / firms the lack of communication between the workers and the managerial personnel has been severe. This leads to the break in harmony and cordial environment in the organisation.

Following things can be executed as a systematic method for resolving such problems and thereby establishing the levels of constant activity.. These

include :

- (a) Daily meeting between the departmental head and his quality representatives for :
 - (i) examination of problem detected
 - (ii) analysis of diminution, if any
 - (iii) determination of method of correcting and preventing its reoccurrence.
- (b) Weekly meeting of departmental heads and administrator for :
 - (i) analysis for diminution, if any.
 - (ii) departmental unresolved problems.
 - (iii) launching new programmes.
- (c) Monthly meeting between administrator and his staff to :
 - (i) review the problems which remained unresolved.
 - (ii) inform aims and objectives of new programme to be launched.
- (d) Task team for long run plan / activity.

2.4 INDIVIDUAL RECOGNISATION :

Among the methods used for sustaining the Zero Defect programme includes slogans, posters, letters, etc. to employees. While all of these possess some beneficial value but they are not themselves sufficient and hence people need to feel personal satisfaction and receive personal recognition for continuous motivation.

Employees putting very special efforts should receive recognition of their efforts in the manner obvious to

their associates and leading to their self-satisfaction. It is important to note here that the recognition should not take the form of financial rewards in terms of prizes and trinkets.

2.5 DOING THE THINGS RIGHT FIRST TIME AND THEN EVERYTIME :

The whole zero defect programme is based on explaining to people that it is not necessary to prove their humanity and just to minimize the errors; rather they can accept these as a challenge calling for constant conscious efforts to do the things right first time and then everytime.

3. POTENTIAL FOR ZERO DEFECT PROGRAMM :

The Zero Defect programme, aiming towards the upgradation of standards, quality in work and thereby uplifting an individual and team performance, can be applied to those areas where the problems are still laying in hanging states. The concept of Z-D-programme would emerge as a prominent tool in bringing home the self-satisfaction to an individual and to bring about the organisational goals in a better way.

3.1 WHERE THE Z-D-PROGRAMME CAN BE IMPLEMENTED :

The Z-D programme can successfully be applied to all the engineering companies, all types of institutes, hospitals, schools, colleges and to many more fields. The universality of this concept can even be applied to one's day-to-day life at home.

3.2 Z-D-P CAN BE IMPLEMENTED IN ENGINEERING INSTITUTES

Every engineering institution has to confront many problems belonging to different varieties. The some of the problems include -

- less results at examinations
- category of students not appearing for examinations
- lack of practical knowledge in students after completion of engineering education
- barrier between the students and the faculties
- lack of co-ordination among the faculties
- frequent break down of laboratory equipments

To all of the above problems the Z-D-P can be run effectively in order to bring the fruitful results.

3.3 ZERO DEFECT MANAGEMENT IN ENGINEERING INSTITUTES :

The Zero defect management include the following in sequence.

TOP MANAGEMENT

1. Management Personnel
2. Head of Institute

Z-D-COUNCIL

1. Head of Institute
2. Departmental Heads

Z-D-TEAMS

1. Departmental Head
2. Professor (one)
3. Reader (one)
4. Lecturer (one)
5. Students (Two)
(Preferably from higher classes)

3.4 HOW Z-D-P IS IMPLEMENTED :

For instance consider the problem :

"POOR RESULTS AT EXAMINATIONS"

The probable causes to this problem are :

1. Students having lack of interest in a particular subject.
2. Inadequate library facilities.
3. Unhealthy atmosphere.
4. Inexperienced staff.
5. Lack of motivation to students.
6. Over work load on staff.
7. Departmental unstability.
8. Absenteeism.
9. Not completing home work.
10. Lack of home preparation.
11. Students not reporting regularly about the difficulties in a particular subject.

At the start of term/semester, the programme for resolution of this problem would be launched in a meeting of Z-D-Council. In Z-D-C meeting itself, probable causes raised up by members of council would be noted. This will, now, be followed a joint meeting of all Z-D-Teams, and certain more causes may also be noted down. After having a detailed error cause list, then to every Z-D-T would be given a task to bring out solutions to the causes.

Every Z-D-T would forward its weekly progress report to its departmental head and in Z-D-C monthly meeting, Z-D-T progress report would be reviewed and further instructions/remarks, if necessary, may be communicated to teams.

However, the Z-D-T would forward their weekly report as given in the

following format.

PROGRESS SHEET	
Z-D-TEAM :.....	WEEK NO :.....
TASKS :	SOLUTIONS/ DESCRIPTIONS
(i) inadequate library facilities.	- number of titles less * to be increased - issue hours less * to be extended * two more persons to be deputed
(ii)	
(iii)	
* indicates solution	Signature Z-D-T-Head

4. CONCLUSION :

The potential of Zero defect programme greatly enhanced where management provides leadership and sets an example of self application. Management can best support the Zero defect programme by indicating a willingness to give zero defect as much consideration as it gives to the problem. It is vital that each member of management understands and agrees with the policy and more important is to implement it in order to make betific environment.

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