



ENSURING PRODUCT EXCELLENCE

Bombay Mills' Venture in "Zero Defects" Campaign

"Defects do not just happen, they are caused", is the belief of the men who run the Hindoostan Spinning and Weaving Mills Ltd.

If the cloth does not satisfy the exacting standards of the Quality Control Department, the defect is not just an accident but is due to either ignorance or negligence on the part of the people who produce it, they say.

So when oil stains were noticed in the cloth produced in the Mills, the departmental heads made a thorough investigation and found that there was no mechanical defect and the error could be traced only to the human side.

That led them to the next area: How can this be stopped ?

They had heard about the "ZERO DEFECTS" (ZD for short) concept followed in many U.S. Industries and thought why they should not give it a trial in their mills.

What is "ZERO DEFECTS" ?

The ZD is a practical approach to perfection and stresses prevention rather

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EXCELLENCE

THE ART OF ACHIEVEMENT

You hold in your hand the camel's hair brush of a painter of Life. You stand before the vast white canvas of Time. The paints are your thoughts, emotions and acts.

You select the colors of your thoughts; drab or bright, weak or strong, good or bad.

You select the colors of your emotions; discordant or harmonious, harsh or quiet, weak or strong.

You select the colors of your acts: cold or warm, fearful or daring, small or big.

Through the power of your creative imagination you catch a vision ... you dream a dream.

You visualize yourself as the man you want to be.

You see yourself as a triumphant personality striding toward far horizons of constructive accomplishment.

You see yourself as a master servant of the race, ministering to human needs, radiating happiness.

You see yourself as a builder, making a creative contribution to the evolution of modern civilization.

You strive to make the ideal in your mind become a reality on the canvas of Time.

BRICK BY BRICK

L.I.C. FORGES AHEAD: The Western zone of the Life Insurance Corporation recorded the highest amount of new business (Rs. 18.59 crores) last month, followed by the southern zone with Rs. 16.4 crores and the northern with Rs. 11.01.

* * *

NATIONAL INCOME: National income increased in real terms by 1.1% and 8.9% in 1966-67 and 1967-68 respectively over the preceding years. Mr. P. C. Sethi, Minister in the Ministry of Finance, said the output production suggests that production is picking up and should show an increase of 5% to 6% in 1968-69.

* * *

IOC PROFITS: The Indian Oil Corporation made a profit of Rs. 10.83 crores last year against Rs. 6.26 crores in 1966-67. IOC also increased its dividend by 1% in 1968-69.

* * *

RECORD LOADING: A record quantity of coal 8.714 wagons daily on an average—was loaded by the Railways last month.

* * *

You select and mix the positive colors of heart, mind and spirit into the qualities of effective living: patience, determination, endurance, self-discipline, work, love and faith.

Each moment of your life is a brush stroke in the painting of your growing career.

There are the bold, sweeping strokes of one increasing, dynamic purpose.

WE WELCOME

OUR MEMBERS...

R. D. Dantwala
Kanji Khetshi new bldg.
Mugbhat Street, Room No 7.
Bombay 4

S. S. Mehta
Partner
Paragon Textile Mills
Globe Mill Passage
Bombay 13

S. K. Aggarwal
Hindustan Chains P. Ltd.
GT Road, P. O. Pasaunda
Ghaziabad (U.P.)

S. M. Mehta
Pioneer Equipment Co. P. Ltd.
139 Nagindas Master Road
Bombay 1

M. V. Swaminathan
'Pankaja'
50 Velacheri Road
East Tambaram
Madras 45

A. M. Shah
Flat No. 8/A, "Shalimar
Apartments"
Opp. Parsee Colony, S. V. Road
Andheri West, Bombay 58

K. S. S. Raghavan
Sevak Publications
Krishna Industrial Estate
Dhuruwadi, Bombay 25 DD

There are the lights and shadows that make your life deep and strong.

There are the little touches that add the stamp of character and worth.

The art of achievement is the art of making life—*your life*—a masterpiece.

(Wilferd A. Peterson)

Awards for Excellence

We have some awards for excellence in this country; we can afford to have many more.

Central and State Governments have annual awards, if only in spheres like art, literature and education. Private institutions like Bharatiya Jnanapith have set up awards, again in the sphere of literature. Associations like the Indian Chemical Society have more recently organized awards for the most outstanding contribution to chemical industry.

Compared to other developing countries the awards in India for excellence are few and far between. Not because we pursue excellence less in our country, but because we have not given this thought. We have not adequately conceded the place of encouragement for the *pursuit of excellence*. We have scope to organise national awards for excellence in literally thousand other spheres.

Awards can be established for excellent performance not merely on a national basis, but also on a single organisational basis. Elsewhere in this number we are giving a few news items to give an idea of the many areas in which the awards can be established in *individual* organisations.

Such awards do not materially affect those who are keenly pursuing excellence in their vocation. People who pursue excellence in their vocation do so because in itself it is a satisfaction for them. In other words they are not working for awards; awards if at all, are by-products to them.

Such awards, however, *do affect* those who are neutral to the pursuit of excellence. This neutral group is the *large* group. They are wondering whether it pays to pursue excellence. The awards point out, if only in a symbolic way, that pursuit of excellence pays—even in our country.

Associations and charitable trusts can institute awards for excellence in one or more spheres on a national basis. What is more feasible, however, is that those of us who have got a say in the running of any organisation can institute awards for excellence in practically every function that is discharged to make the organisation 'tick'.

AWARDS FOR OUTSTA

**McDonnell Douglas
Aeronautics Company,
Western Division, USA,
have a system of giving
awards for outstanding
performance of their em-
ployees. These are some
of the awards :**

Quick Learner : Wayne Willis was hired during the summer fellowship program to update and modernize the 400-page engineering procedures and check branch internal operating manual. Considerable familiarization was required before embarking on the assignment. However, Willis displayed such adeptness he completed the difficult task in a fraction of the allotted time.

\$500 Suggestion : Peter Shomber is a stout champion of conservation. Fiberglass insulation that one department discarded as waste Shomber reasoned could adequately replace requirements of the propulsion lab. Application of his submitted suggestion eliminated annual new stock purchases in excess of 62,000 square feet. He won a cheque for \$ 500, accompanied with a salute from management for his alterness.

Mission accomplished : A VIP commendation went to design engineer T.E. Bennetts for his recent solution to a difficult problem. Because of late delivery of a mission simulator computer, normal internal handling of the installation and checkout would not have permitted the scheduled program milestone date for computer acceptance to be met. Acting as coordinator, Ted completed all necessary tasks and paperwork in advance, including a demonstration acceptance plan. The computer was installed and all acceptance testing completed on schedule.

WELL - EARNED : VIP congratulations went to W.D. Smith; C. R. Wheat, assistant supervisor; R. L. Foss, inspection; D. L. Voorhees; and J. E. Hull, leadman, manufacturing. This team is responsible for an outstanding job accomplishment in the A.P.S. checkout laboratory. Two units were final-checked and sold with minimum critical review. In addition, approximately 80 hours were cut from the time normally allotted for the job, and two days were gained in the schedule.

TOP TRAINER : C. E. Bowen, quality engineering, warranted VIP recognition for

his outstanding ability to train personnel as part of his contribution to the efficiency of reliability assurance. His leadership and instruction enabled reliability to meet due dates for modification and validation evaluation of vehicles.

RESPONSIBLE : VIP honors went to K. C. Dixon, lithographic services leadman, for his willingness to shoulder responsibility far beyond his normal job assignments. He has been instrumental in a progressive VIP program for all of lithographic services, as its coordinator.

JOB KNOWLEDGE : Len Harrison, inspector, demonstrated versatility and thorough job knowledge on many occasions. Recently, when an inspector was temporarily assigned to a field station, Harrison assumed his duties and helped achieve all scheduled inspections without delay.

SUGGESTION AWARD : E. R. Jones accepted an award for his suggestion that schematics be prepared through use of the computerized photo type setting machine. Jones researched and made presentations on use of this technique. It was adopted by two Santa

ENDING PERFORMANCE

Monica development engineering programs and resulted in very significant savings.

AID YOUTH : MDAC-WD commended the VIPs, who rose to the challenge of counselling and training youths in a 10-week "Earn and learn" program,

FAST THINKING : Quick reaction and knowledge of first aid by Robert Jackson, inspector, prevented possible eye injury to Ben Montoya. When Bob witnessed an accident which resulted in Ben's eyes being splashed with methylene chloride, Jackson immediately assisted Ben to the washroom and flushed his eyes with water. He further assisted Ben to the dispensary for medical treatment.

PROBLEM SOLVERS : R. C. Moore and Ray Fox were saluted by A. H. Kinzer, deputy superintendent, and E. I. Lancaster, supervisor, facilities. Their ability to solve complex problems was demonstrated recently when they eliminated hydraulic seal and functional stoppages in Chem-mill equipment located in areas No. 1 and No. 2. In the best VIP tradition, they have materially advanced facilities' objectives of efficiency and economy.

VALUABLE ASSET : Dolores G. Soto, stenographer, provided speedy and accurate typing service to branch procedure specialists and two section chiefs. Her diligence and sustained efforts eased typing backlogs and reduced turnaround time.

ZERO DEFECTS : Personnel of the Air Force pricing branch received Zero Defects pins from Colonel A. B. Chealander, Air Force plant representative, MDAC-WD, during award ceremonies at Santa Monica.

ALERT TECHNICIAN : Glen Rush, displayed an alertness that possibly avoided an estimated \$150,000 rework job. While pressurizing both the oxidizer and fuel tank of a Delta second stage propulsion section, he noticed that air was flowing from the wrong port, during the capping of the purge line, which had mistakenly been connected to the vent port instead of the purge port. The section might have collapsed if shifted to the check-out dolly in this condition.

SIMPLIFIES BILLING : Ava McBee was lauded for her outstanding accomplishment in reorganizing and simplifying the communications billing

system. Her revisions, resulting in a savings in man hours, were completed without interrupting the processing of approximately 300 bills per month.

NEW RECORD : VIP honors went to Paul Christensen, for establishing a new production record in A3 Lithographic services. The new record stands for one-man production on the small presses. During an eight-hour period, Paul raised production to a figure 30 per cent greater than the highest previously established.

WHEN RETIREMENT APPROACHES: The Dutch don't like to take chances. Thus, to disseminate advance knowledge on what is in store for a person due to retire an informative booklet has been published in the Netherlands by the Family Budget Institute.

It is packed with advice on all changes to be anticipated, and enumerates a number of practical points to consider on financial matters and special insurances. Its meaning may also be seen in terms of the sense of security, it imparts to its readers who, after an active life, face a jobless future. In Holland, the age of retirement is 65.

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than detection of defects. Its key objectives are:

1. To motivate every person to do his or her job right the *first time*.
2. To create a pride of performance and
3. To stimulate each person to strive to prevent errors before they occur.

ZD demands a thorough change in the attitude of everybody towards his professional job. Just as people ask for perfection in anything of *personal* interest and will not compromise with errors they should be motivated to strive for perfection in their *professional* jobs as well.

Will anybody accept a lower salary because the person who made the calculations, had erred or shortweight in the provisions purchased because the counter attendant was careless? So also every person should not rest until he is able to produce the best and *only the best*.

START WITH A BANG

The ZD campaign should start with a flourish so that all the members of the organization feel the impact. The top management should be the principal votaries of the ZD and only this will create confidence in the lower levels about the effectiveness of this scheme.

The spade work should consist of large-scale propaganda through audio-visual aids, group discussions at all levels

etc. The actual kick-off should be a spectacular one attended by the top management.

The success of the campaign is in direct proportion to the voluntary support the workers give. There should not be any compulsion or coercion. The workers should feel free to bring their difficulties to the notice of the top management. Quite often mistakes and errors occur because of situational problems. Only the workers are able to bring it to the notice of the management. They should be encouraged to come out with their suggestions for presenting errors. The success of the ZD is commensurate with the number of suggestions received from the workers and accepted by the management.

Well defined goals for each section or department should be set up and a line of action is also to be indicated. Periodical evaluation of the achievements is also necessary.

ORGANIZATIONAL SET - UP

A central committee with a secretary is set up which will finalise the various projects, the goals, line of action and norms to assess the results from time to time.

In each section a sub-committee will function with a six-point schedule.

1. To bring about methods improvement and work simplification.

2. To identify causes of defects and suggest remedial measures.
3. To sustain the movement to achieve defect-free production.
4. To promptly report the defects, if any, to higher authorities.
5. To inculcate in the workers the pride of performance.
6. To give wide publicity to the achievements of ZD of any worker or a group of workers.

In a successful ZD campaign the worker will have a sense of achievement and job satisfaction. The satisfaction on the job will also be felt in his personal life. The ZD campaign motivates the feeling of importance and responsibility at all levels.

HINDOOSTAN EXAMPLE

The Hindoostan Spinning and Weaving Mills Ltd., having studied all the aspects of the ZD campaign decided to launch it in their mills too as an integral part of their Quality Control Programme. Of the total 3,000 workers about 200 to 300 possessed a better and higher skill that would contribute to perfection. They decided to use these workers as the morale boosters to get ZD idea sold to the entire workers force and motivate them towards higher perfection.

The Hindoostan Mills authorities were emboldened to take the ZD campaign on hand because of the extremely cor-

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dial relationship prevailing between the workers and the management.

Because of the human approach taken by the management in solving the day-to-day problems, the authorities were convinced that any preventable error whether human or mechanical that occurred from time to time could only be due to ignorance than wilful negligence. The workers, as a band, have always been well disposed of towards the management.

The kick off date for the ZD campaign was fixed on 26-1-68, last year's REPUBLIC DAY, before the actual launching of the campaign.

But the period of preparation preceded it. For one year intensive education on ZD through effective propaganda was undertaken which reached down to the lowest levels. Simultaneously each department supervisor was entrusted with the task of

- (a) compiling a list of errors that are occurring and are likely to occur.
- (b) Suggestions as to how such defects can be prevented or rectified.

Each section organized an exhibition showing in detail the various defects that have been spotted in the textiles. The workers were taken around and these were explained in detail. They were encouraged to ask questions and have their doubts cleared.

Since the production process is a continuous one workers were also apprised of the defects in the preceding and

succeeding stages of production in their respective departments. That way every worker was taught where to look for the defect even as the work came to him. Over a period the entire group of workers came to have an overall idea of the likely defects in the various departments.

All the varieties were standardized and the quality control people applied these exacting standards to the fabrics that were produced.

The actual ZD programme was launched on 26-1-1968.

TELLING EXAMPLE

The workers and the supervisory staff now wear a badge with a pledge signed by them: "I do my best to achieve excellence".

This emblem seems to have established a moral binding as may be illustrated from the following instance.

A worker sensing defect in the process had stopped the loom on which he was working. To run the loom further would mean perpetuating the defect which he had spotted, he was convinced. At that time a supervisor came to him and asked him to run the loom. The worker was faced with a dilemma—wearing the badge of ZD and run the loom would be against his conscience but not to listen to the supervisor would be insubordination. The clever worker decided to obey the supervisor and start the loom—but before doing that he carefully removed his ZD badge! The supervisor was touched by the worker's adherence to the ZD pledge!

Now, the performance of individuals and groups are evaluated at intervals and a consolidated quarterly assessment is made known to the workers and the staff.

SUSTAINING EFFORTS

The enthusiasm thus generated is sustained by

- (1) Management discussions every month on the basis of day to day assessment.
- (2) Jobbers meeting department-wise every month.
- (3) Name of individuals or groups who performed well are exhibited on the departmental Bulletin Boards.
- (4) Picking out the best skilled people and through them developing the skill in others.
- (5) Creating a healthy competitive spirit by instituting awards for outstanding performance by individuals or groups.

The mills have registered phenomenal progress in eliminating defects after the introduction of the "Zero Defects" programme.

Today only a lucrative export market can save our country from financial crisis. To have an export market our products must compete in quality as well with the products of other countries—established giants in their respective lines. "Zero Defects" is one way by which we can raise the quality standards of our products.

Hindoostan Spinning and Weaving Mills Ltd., have shown the way!

aims and objects of the Centre

- (1) To stimulate amongst all sections of the public thought and effort for the promotion and development of the excellence movement in the country.
- (2) To establish a network of contacts both at home and abroad to strengthen this movement.
- (3) To publish a journal that would serve as an organ of the Centre, communicate its ideas and ideals and keep the public informed of the achievements, possibilities and trends in this direction.
- (4) To bring out original writings, reprints, translations of relevant publications in India and elsewhere that would help raise standards of achievement in different walks of life.
- (5) To compile and maintain lists of individuals and institutions that have consistently maintained high standards and to extend such support as is possible.
- (6) To establish and maintain a library of visual aids, books, periodicals and papers on this subject for the benefit of the members.
- (7) To set up institutions like schools, colleges, studios, galleries, libraries etc. for training in excellence as a concept and activity.
- (8) To institute and establish fellowships, scholarships, grants, rewards and prizes to encourage the excellence movement in all its facets.
- (9) To set up a laboratory which will objectively and systematically examine the products and services given to the public and loan them excellence seals for specific periods.
- (10) To found, establish, create and maintain endowments and/or grants for the purposes aforesaid.
- (11) To undertake all such activities as may promote the excellence movement in the country.

MEMBERSHIPS

The Centre is being registered as a trust with the following memberships

Corporate Members	: Rs. 100/-
Associate Members (Students) }	: Rs. 10/-
Donor Members	: Rs. 1,000/- and above.
Ordinary Members	: Rs. 19/- (plus Rs. 5 entrance fee).

The membership includes subscription to the monthly Journal EXCELLENCE (Annual Subscription) separately for the Journal: In India Rs. 15. Abroad \$4 (by air mail).