

# THE LDDD REPORT

Memorex Large Disc Drive Division

Volume 1 Issue 4 July 1983

## Facilities Planning

The LDDD Report interviewed Steve Young, Manager of Manufacturing Planning/Support about the role of the Facilities Group and about the changes that are planned for Buildings 10 and 14.

Q: What is your criteria for good facility design?

A: The first criteria is that the design must meet the needs of the intended use of the area at a reasonable cost. Beyond that, flexibility is high on my list because highly specialized designs tend to become obsolete as things change over time. Maintainability, energy efficiency and improving the working environment are also key criteria.



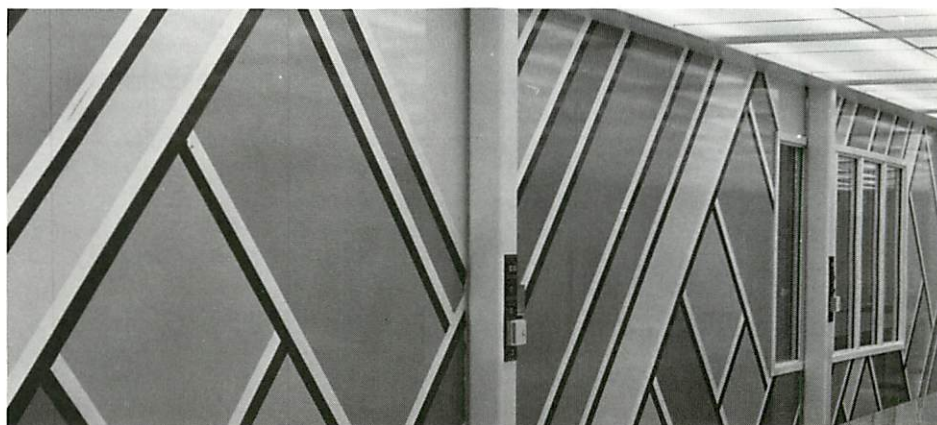
Q: What are your favorite facility projects?

A: The most enjoyable projects are the ones which are completed on time, within budget and which meet the established specifications.

Also, it is a pleasure to work with users who know what they want but are open to new ideas which will meet their needs.

Q: What is the future of Building 10?

A: You'll see more and more clean rooms and raised computer floors. We are gradually evolving toward concentrating on the high technology end of manufacturing, such as Thin Film Head manufacturing and Head Disc Assembly



## Color for HDA Clean Rooms

If you've ever had the experience of gazing around a snow-covered landscape and discovering a splash of color, you can understand the reason for putting some color into the HDA Clean Rooms. Covered from head to

toe with white cover-ups, surrounded by white-garbed fellow workers in a white-walled room the Clean Room workers long for some color to relieve the monotony.

Now the inhabitants of the two HDA Clean Rooms can feast their eyes on the colorful design along one wall. The design, based on the concept of a rainbow, consists of eleven colors, colors which were selected by the Clean Room workers themselves.

Anita Spivack, a private Design Consultant, spent several hours in the HDA Clean Room, talking to the workers and getting a sense of their environment. She wanted to create a design for the Clean Room workers themselves, not for visitors or passers-by. She took into consideration the part of the wall they see from their work stations, their color preferences, the kinds of designs they wanted. Since many people mentioned a blue sky and a rainbow, she used these concepts in developing a design.

A mock-up of the painted wall was shown to the workers for their approval before the task of rendering the design onto the walls was undertaken. Painting a Clean Room is complicated, due to its specialized requirements. Harry Kalargiros of Acropolis Painting, who has done quite a bit of painting for Memorex, was hired for the job.

One look at the colorful walls and one can see that there can be no more complaints about an all-white environment.

and Test. Building 10 will remain the product entry plant for future Memorex/Burroughs Disc Drives and associated controllers.

Q: What about Building 14?

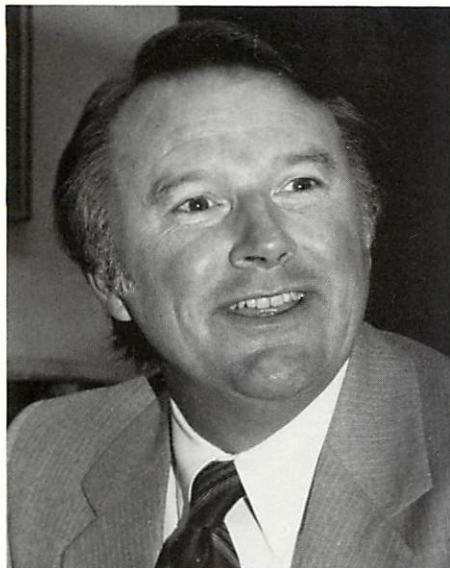
A: It will continue to be the Engineering and Scientific center for Memorex/Burroughs Disc Drives. There'll be a gradual growth of offices and labs for engineers and scientists. We will also continue to machine precision parts for the 3860 and for future products.

Q: What is the toughest part of your job?

A: It is frustrating to me when we aren't able to provide the level of service we would like to in the areas of facility maintenance and facility construction. There are two major factors which affect the overall level of service we provide. First, the *number* of different projects which need attention has increased significantly over the past couple of years. Second, the *complexity* of the projects has also increased, due to the trend in our business toward higher technology.

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## Message From Jeff Bryant

We have a number of facility arrangement projects underway in our plant to prepare us for the 3680 build up. As a result of these changes, disruptions will occur despite our best intentions. We must not let rearrangement of facilities be an excuse for poor housekeeping.

Poor housekeeping can lead to unsafe working conditions and is reflective of poor work habits. Keeping ourselves safe is of paramount importance and good housekeeping goes hand-in-hand with a good safety record.

As customer interest in our new product line builds, we can expect an increasing number of customer tours through our plant. We want to be sure that our customers are not exposed to any hazards, such as cluttered aisles, etc., and that when viewing our operations they get a clear message that this is a plant that makes quality products.

Let's all give a seal of approval to good housekeeping.

## Basic Assembly Skills Training Begins

The LDDD has started its own Basic Assembly Skills "College". Nine assembly skill courses will be given to LDDD employees as part of a certification program, an idea conceived by the Manufacturing Management staff.

The skills courses, given by division employees (in some cases, supervisors or leads) expert in the subject, are:

- Clean Room Procedures
- ESD (Electrostatic Discharge) Protective Handling and Working Procedures
- Component Identification
- Low Power Stereo Microscope Use
- Safety: Chemical Handling, Lifting
- Mechanical Assembly (including Measurement Tools use)
- Wiring
- Blueprints and Schematics

Upon successful completion of a course, which may vary in length from 1 1/2 hours to 3 days, the employee receives a certificate. In addition, a record is maintained in the employee's file and in the Division Training office.

The goal of the Basic Assembly Skills Certification Program is not only to ensure a standardization of skill levels among employees but also to broaden the skill base of all employees. As a person earns Certification in the various skills, he/she becomes a more versatile and therefore more valuable employee to the division.

The packaged courses, complete with audio-visual materials, tests, and lesson plans, are given inter-departmentally on an as-needed basis. It is up to the instructors to schedule classes in accordance with the needs and production schedule of the manufacturing units.

Instruction will take place in the Training Center planned for Building

10. Plans call for a large conference room capable of holding up to fifty people, which can be divided into two smaller training or meeting rooms. In addition, there will be a separate training room with the facilities for manufacturing skills training. The Training Center should be completed sometime before the fourth quarter.

## Facilities Planning

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Q: What are the immediate plans for Building 10? We notice a lot of changes happening.

A: There will be a number of significant changes in the manufacturing areas in Building 10 over the next 12 months. We are currently in the process of moving into the portion of the HDA cleanroom which was fit-up for 3680 HDA assembly. We recently began construction on the Product Measurement Lab (PML) which is located adjacent to the aisle leading from the manufacturing area to the cafeteria. Within the next month, we will begin construction on the 3680 Final Test area which will be across the aisle from the PML.

There are three more major projects which we will begin construction on in the next few months: an expansion and enhancement of the HDA test area, plus two cleanrooms for thin film heads. One of these cleanrooms will be used for wafer fabrication; the other will be used for head arm and flex assembly.



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## Training On New "Tan Sheet—Planning Report Requirements

Chuch Wagner, Senior Systems and Procedures Analyst, has just completed a series of sessions with the Materials group on the new Requirement Planning Report. This new format, which replaces the former "Blue Sheet," is used by the Purchasing Buyer/Analyst for procurement of production material. It consolidates the former "Blue Sheet" and the Purchase Requisition into one functional document, representing a reduction in the amount of time, effort, and paperwork required

in the material procurement cycle.

Purchasing Buyer Analysts, Production Control Analysts and Dispatchers received six hours of training in the interpretation and use of the new form.

"As other systems are developed, training sessions will be given to the appropriated people in the Material group to ensure the ease of implementation of the new system," explains Judy Dolkas, Manager of Data Management Services.





## New CAD Station For I.E.

by Rick Upton

Most commercial airline jets require several thousand shims when they are built. (A shim is a narrow piece of metal used by builders to compensate for slight inconsistencies in fit and finish.) The new Boeing 767 requires no shims. That is because it was totally designed and drafted using CAD (computer-aided design), which has the capability of producing extremely precise engineering drawings.

A CAD station began operating in November of last year in the LDDD Industrial Engineering department. The station is one of four stations operating from the CAD system located in Building 14. This station is used by the Industrial and Packaging Engineering departments to design and generate plant layouts and packaging drawings.

One Industrial and one Packaging Engineer received extensive instruction in computer-aided design by attending classes in Los Angeles and Boston. This intensive training allowed them to realize CAD's potential in mechanical design. Until now, Memorex's use of CAD was in electrical design for PCB's and electronic design of IC's. Since the installation of Industrial Engineering's own work station with two trained engineers, CAD has been able to provide greater accuracy of layouts, and drawings a common parts file of drawing con-

structions, better alternative evaluation, a consistent drawing format, and greater productivity.

Other CAD features are bill of material storage, parts properties storage, interference checks on part insertions, and computational assistance. CAD also features computer-assisted process planning. Using existing parts drawings, parts properties, tool designs and fixtures, CAD can create ready-to-use text and pictorial process plans and operation procedures for use by shop-floor personnel.

Presently, two department employees have completed and two are taking a self-paced training program, on the IE station, with more department personnel to follow. Three external department employees are also in training.

The CAD station's significance to Memorex is its increased utilization of the Building 14 CAD system. By adding a second software language to the system, the first implementation of mechanical design capability at Memorex was realized.

CAD is part of the future of office automation. It eliminates drawing, requires less office space, better utilizes an engineer's time, speeds engineering response time, keeps manpower low, and increases design capability.

## Gallery of Stars July

**Jeanette Conerly**  
**Artwork Certification**  
**(12 years)**

"Jeanette is totally committed to the meaning of quality and has always been a dedicated employee to Memorex for the twelve years she has worked here."

**Linda March**  
**Secretary,**  
**New Product Introduction/**  
**material (1 ½ years)**

Linda consistently demonstrates the level of carrying, commitment, accountability, quality and excellence that we expect each of our award recipients to have."

**Michael Yam**  
**Industrial Engineer**  
**(2 Years)**

"He works well with all levels within this organization and his attitude clearly is that of one who is trying to *help get the job done.*"

**Freeman Wayne Gentry Sr.**  
**Product Test Technician**  
**(6 years)**

"Wayne has consistently displayed superior talent, determination, performance and attitude to the performance of his job."

**Jesse Rivera**  
**PCB (Preform/**  
**Pre-Assembly) Assembler**  
**(5 ½ years)**

"Jesse's excellent job knowledge and skills combined with his motivation and dedication to excellence..."

## Management Training in the LDDD

by Jeff Paris

72 is the magic number for '83! 72 hours of management training will be required of all management and supervisory personnel in the Large Disc Drive Division for 1983.

Courses either completed or under way include Performance Planning and Evaluation, Labor Relations, Managing the Multi-Cultural Workforce, and Managing at LDDD. Two more courses will begin in September: Effective Decision Making and Basic Management Skills.

Information about these programs will come down from staff level management to the various organizations. In addition, the LDDD Training Reference Guide, containing information about all available programs, is scheduled for publication soon.

## Calendar of Events

August 3, 1983 "Managing at L3D"  
8:00-12:00 p.m. make-up class  
Building W

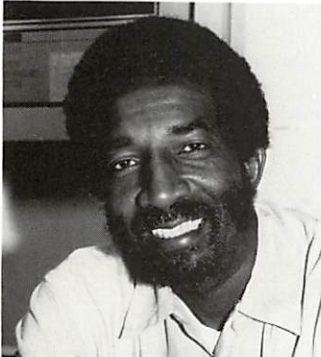
Week of Quarterly Employees  
August 22nd Meeting



## Roving Reporter

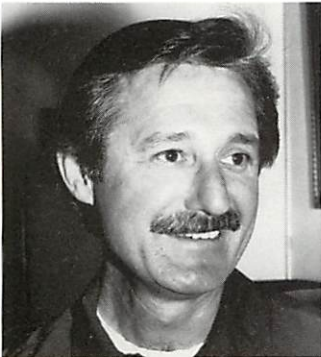
The LDDD Roving Reporter asked three of the Division's Facilities people the question:

**"What's an example of an outrageous request that you've had as a Facilities service person?"**



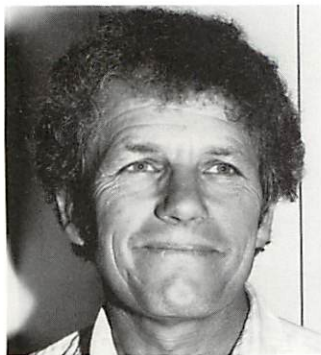
**Al Chuks, Senior Electrician:"**

The people who expect me to work over the week-end to get what they want done are the most outrageous to me."



**Marv St. Clair, HVAC Senior Technician:**

The most difficult requests to satisfy are those for temperature control. Two people work in the same room—one's too cold and one's too warm—one wants the heat turned up and one wants it turned down. How can I satisfy those requests?"



**Ralph DeLange, Contract Administrator:"** I frequently get FCR's (Facilities Change Requests) for projects with due dates in the past. I want it done tomorrow is bad enough, but "last week" is impossible!"

## LDDD Embarks on Energy Conservation Program

by Rick Upton

As outlined in the most recent on-the-lot meeting, an Energy Conservation Program has been established for LDDD. Its goal is to reduce energy consumption 15% during the rest of 1983 and throughout 1984. The program is part of a Burroughs world-wide effort to reduce energy consumption.

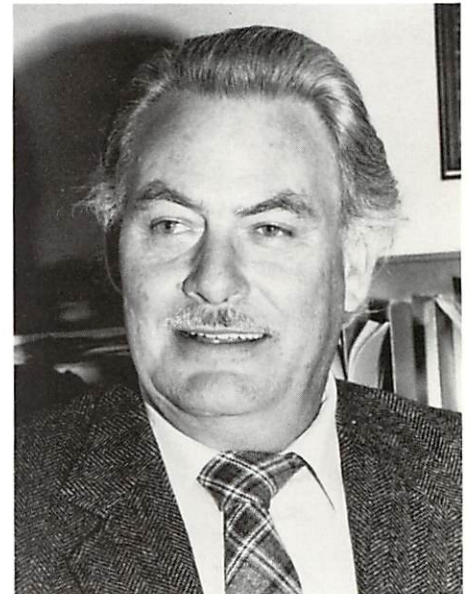
Heading the LDDD program is Ryan Curtis, Manager of Facility Maintenance. Curtis tells the LDDD Report there are five areas for energy conservation: water, lighting, heating-ventilation-air conditioning, temperature control and power. Some of his action plans are to lower water thermostat settings, to install water heater insulation blankets, to raise the water fountain temperatures to 55°F, and to replace office, manufacturing and parking lot lighting with more energy-efficient lamps.

Corporate lighting standards will be implemented to ensure proper office and manufacturing lighting; lighting fixtures will be reduced to two lamps when practical; and the janitorial staff will be turning lights off whenever and wherever possible. Night audits are now being conducted.

Curtis views heating-ventilation-air conditioning (HVAC) as having the greatest potential for conservation. His group has already reviewed and implemented intermittent rather than continuous on-cycles, controlled by a Honeywell Energy Management System. This Honeywell computer also has the potential to control lighting, temperature and power. The group is also working to increase the efficiency, to repair duct work and to perform more preventive maintenance on all HVAC equipment.

Temperature control is a very impor-

tant factor in energy conservation because of its effect on employees. Plans are to heat areas no higher than 69°F and to cool no lower than 78°F for general office areas. In processing and special production areas such as labs, cleanrooms and computer rooms, temperatures will be regulated to meet the requirements of the processes. Finally, studies are being performed to distribute power more effectively and efficiently. Curtis encourages everyone to suggest methods for energy conservation, by either informal suggestions to him or another Facilities person or through the Employee Suggestion Program.



The goal of the Energy Conservation Program is to put an effective program in place before the utility rates increase. Reduced energy cost means reduced operating expenses, which will result in improved profits for the business.

## ASK HR

by Patrice Fiedelman

**Before I go on vacation this summer, how do I request a vacation advance to receive my check before I leave?**

Obtain a request form from your supervisor and complete it. This form, along with approval signatures and completed timecards, must be received by Payroll at least *TEN* working days before the start of your vacation.

**Does it have to be ten days before my vacation?**

Yes. Payroll needs the time to submit information to the bank and prepare the special check. Exceptions to this time frame are very rarely, if at all, approved.

**When will I receive my vacation advance?**

You will receive the advance the day before your vacation begins.