

# Clean air on your job is Livonia firm's goal

What do breast implants, allergies, the Vietnam war and the space shuttle all have in common?

Contamination Control Laboratories, a Livonia firm specializing in clean air practices, has consulted with companies involved in the manufacture of products in these industries.

For example, Dow Corning Co. of Midland called in the experts to reduce airborne contaminants (dust is the main offender) in manufacturing facilities where they produce silicone breast implants, artificial finger joints and other body parts.

Frank Austin, vice president of the firm, said "we can help any company that requires a contaminant-free environment. We help them design a cleanroom (sometimes referred to as a white room) facility to their specifications.

"Sometimes," he said, "one speck of dust is critical. This is particularly true of companies manufacturing computer chips for the electronic industry. Thousands of chips are useless when dust settles on them during the production process.

"We can help a company develop a facility that will increase their production. Then we help them train their personnel who work in these rooms."

**THE MANUFACTURING** process of products and specific methods used are usually taken for granted by most consumers. In fact, they usually don't give it a thought. "Consumers don't have any idea how far-reaching clean air requirements have extended," said Austin.

Even the Vietnam war required applying the principles of clean air technology. A company in Chicago, for example, manufactured an instrument called a "night scope," which amplifies an existing light source, allowing a marksman or spotter to "see" at night.

The instrument is extremely delicate. "The manufacturing facility required a dust free, humidity controlled atmosphere. We supplied the expertise

to develop that environment," Austin said.

While a technological application of air flow and filtering principles are a day-to-day happening at the Farmington Road plant, the average consumer has also benefited for their ability to clean up the air.

Millions of people in the United States suffer from allergies. Those most commonly occurring that trigger allergic symptoms are dust, mold and pollen.

**ALLERGISTS INSTRUCT** their patients to "mold-proof and dust proof" their environment. In an effort to aid the allergy sufferer, Austin has marketed a highly improved furnace filter that can be slipped into the furnace, in place of the old fiberglass type.

The filters, marketed under the brand name Austin Allergy Filters, remove dust, mold, and other air-borne contaminants through a specially treated filter media.

"Fiberglass sheds," said Austin, "and can become an additional irritant. Also, the fiberglass strands are not tightly arranged, so it takes a while for the filter to become efficient. With these filters, the process begins as soon as it is installed in the furnace.

"Actually, everyone who wants to breathe cleaner air in their homes can use this product," he said. "We found out how many thousands of people are interested in a good filter when we had a display at the Detroit Builders and Flower show. We knew then we had a good product."

**ANOTHER WAY** in which the consumer will benefit is illustrated by consulting work provided for the Ex-Cello plant in Walled Lake. Ex-Cello, which makes cartons for the dairy industry, is trying to find ways to extend the shelf life of milk.

"To do this," Austin said, "the amount of air entering the facility had to be reduced even further than what today's standards call for. High efficiency air

filters (called HEPA filters) were an absolute necessity."

We make HEPA filters that are 99.99 percent efficient and which will filter contaminants out of the air as small as 0.3 microns. By way of comparison, the smallest bacteria are 0.3 microns, pollen about five. A micron is 1/25,400 of an inch thick. "This gives you some idea as to how small a particle we are dealing with."

Right now the company is involved in NASA's space shuttle program. At the Marshall Space Flight Center in Huntsville, Alabama, Austin is involved in improving equipment used to clean liquid oxygen and fuel lines.

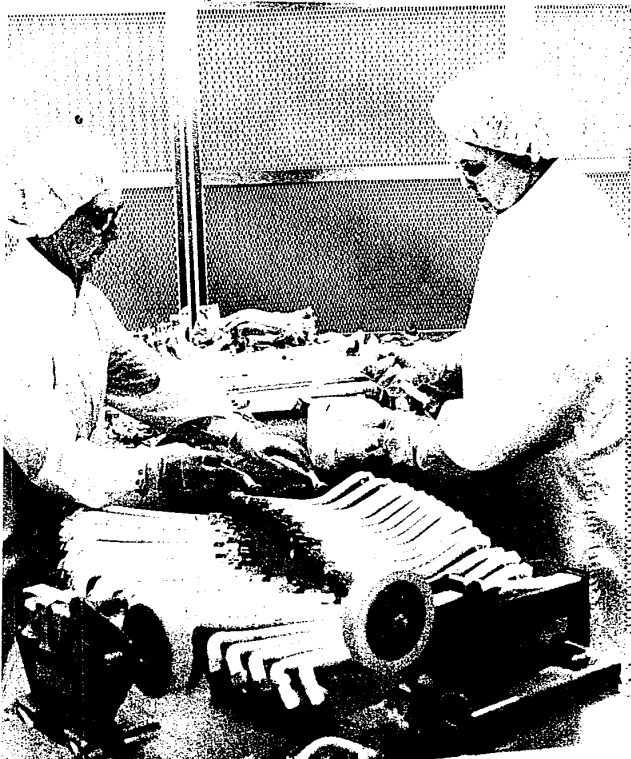
He said that contaminants in these lines could cause malfunctions of the rocket engines or even an explosion. He pointed out that it is vital to the success of the launch to see to it that the lines provide a continuous flow of oxygen and other propellants to the engines.

Precision cleaning of these same types of oxygen, hydraulic and pneumatic lines isn't always done on site. It is accomplished at the company's own clean room facility. To illustrate, Austin pointed out a backlog of parts waiting to be cleaned for the Chrysler Tank plant in Warren.

"We clean hydraulic lines, pneumatic lines and other components for the M-60 tanks. By having clean lines, we help prevent possible malfunctions of the weapons control system," he said.

A particularly interesting cleaning specification we were asked to do was for the Enrico Fermi nuclear power plant in Monroe. They had some chemical drainage lines that had to be contaminant free.

The application of cleaning principles, both airborne contamination and liquid contamination is so wide-spread that we never know if we will be called on to consult for a pharmaceutical company, or companies manufacturing computer components. We are diversified to be able to handle any kind of a situation."



Helen Schiller (left) and Barbara Rousch of Contamination Control Laboratories cap hydraulic tubes for use in army tanks before they are shipped to the Chrysler Tank plant in Warren. Minute particles could cause weapon control problems. (Staff photo by Art Emanuel)

## South Redford is state accreditation champion

U.S. Grade A, No. 1. That's what it says on the sack.

Shoppers at Eastern Market can know from the label that they are buying a bag of federally certified Michigan spuds. Can these produce buyers check as easily that their kids are going to a top-notch school by looking for the business world's index of quality-reliable brand representation?

Granting that any appraisal of the process of human learning and development is infinitely more complex than judging produce, the answer is still yes. The certification is official and is called accreditation in the business of public education.

The accreditation status for schools is administered on a regional basis and Michigan is included with 19 mid-section states. Few school systems in the country have their regional rating for all of their schools, K-12.

The first school district in the state with multiple buildings to win all-grades recognition from the North Central Association of Schools and Colleges is in Wayne County. South Redford, comprising the southern half of Redford Township, attained the distinctive honor in the spring of 1977.

**SOUTH REDFORD** is still the only Detroit metropolitan area school dis-

trict to have won the educational world's "mark of excellence" for all of its buildings. As a Class A school district, it remains the only one in the state with this coveted status.

Three small out-state districts have earned full K-12 accreditation: Class (B)-Fruitport; Class (C)-Stanton and Dundee.

What is behind the educational brand name of accreditation?

The formula for success sounds very familiar. It would appear the rules are much the same for the entrepreneur whether the business be education with a capability of turning out graduates who can measure up in today's world, or a productive facility that can continue to compete in a tough market with a successful product.

As Supt. Jan Jacobs of South Redford summarizes the accreditation process, the school must show capacity to meet high standards that apply to the total operation. There must be continuing evaluation to ensure quality control and constant striving to improve at all levels.

School business and other businesses utilize similar phraseology in the assessing approach, but each undertaking varies in applying the generalizations. When North Central comes in, what takes place for schools?

**FIRST, THE** measuring rod. Over many decades, professional educators of great renown in the nation have worked with schools to establish criteria for "good education" that could be administered in an organized fashion through the regional associations — a total of five for the 50 states.

Next, the process. Step One — Schools that think they are meeting the standards apply for accreditation status after a visit from a North Central executive.

Step Two — Review by the accrediting agency headquarters with granting of provisional accreditation if bid is successful.

Step Three — Self-evaluation by the school staff in which the school examines itself in terms of its own individuality as a learning institution while looking in the mirror of North Central Association requirements.

Step Four — Visitation by a team of North Central appointed experts to judge the school in session and review the self-evaluation report.

Step Five — Study by the staff of the visiting experts' appraisal and a report to the superintendent and the Board of Education.

Step Six — Follow-up reports to the North Central Association which ensure the accreditation for a seven year

period from the initial granting of the status if all is well.

**SOUTH REDFORD** is now at the final stage with its elementary schools where follow-up reports are in order following staff study in each building of the visiting experts' inspection reports.

In 1983, the seven-year cycle begins anew. The same process holds for the secondary level, where accreditation has been previously determined. Senior highs in southeastern Michigan are customarily accredited to ease graduates' admittance to college, explained Principal Henry McCurry, a long-time administrative supporter for elementary accreditation.

"Presently, it is uncommon for junior high or elementary schools to have this status," he added.

"Accreditation provides a proven discipline for schools to work up to standards and to keep trying to improve," Supt. Jacobs said.

New programs that emphasize educational services to the entire community earn special attention from North Central which has developed guidelines around the American concept of the school as part of the community, serving the community under democratic principles, the superintendent added.

South Redford's "learning-through-a-

lifetime" approach to responsibility for the local school is an illustration of the scope of North Central awareness. The district's programs for senior citizens and its planned, early childhood (pre-school) curriculum won special commendation from the official visitors.

**THE NORTH CENTRAL** manual on policies and standards contains 50 pages of succinctly stated requirements that are both penetrating and broad in scope in their outline of educational merit.

Two examples under the heading of Institutional Evaluation: (1) "Participation: Students patrons (meaning any citizen, especially parents) and professional staff members shall participate in appropriate phases of the self-study; (2) The school shall carry out a system-

atic evaluation of the major aspects of its program on an ongoing basis."

Borrowing from the business world market research approach, the agency poses a progress criterion which must be satisfied. "The school makes appropriate use of follow-up information, concerning its former pupils, to assist in the assessment and improvement of its program."

In the seven-year cycle, certainly the first two years are the hardest on the staff with many hours of meeting and discussions and study needed to comply with the schedule. That period is now ending at South Redford for elementary teachers and administrators and parents active in school life.

Their comments reflect satisfaction: "It was tough, but it is worth it."

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