

# Electric car battery improved

Detroit Edison has reduced the failure rate of batteries used in its electric car fleet by 73 percent in the first 18 months of the company's electric-car demonstration program, the utility said.

Electric cars with lead-acid battery systems can have significantly increased battery reliability by following a strict battery-monitoring program, according to John Olsen, senior engineer at Detroit Edison. Olsen discussed the success of the company's monitoring program at the SAE Conference held this week in Detroit.

"In the first set of battery packs used in Edison's fleet of 24 electric cars, about 75 percent of the individual batteries failed after the cars had been driven 5,000 miles," said Olsen. "In comparison, the second group of battery packs used in Edison's electric cars had less than 20 percent failure rate at 5,000 miles."

According to Olsen, the reduction is primarily due to conducting bi-monthly battery-capacity tests as part of a routine preventative maintenance program. The test is conducted to discover weak batteries, which reduce range, and to accumulate life-cycle data on each battery pack (18 six-

volt lead-acid batteries per pack). In addition, testing procedures were established for the cars to reduce potential damage to the batteries in the initial driving period.

"This means that electric-car dependability can be increased substantially and therefore bring the electric car closer to the automobile buying public," said Olsen.

"The data collected by Detroit Edison is the first available data of its kind on batteries in fleet use outside of a laboratory," Olsen said. "And Detroit Edison is the only U.S. Department of Energy site operator to show how improved reliability in electric-car lead-acid battery packs can be achieved by regularly conducting battery capacity tests."

"Detroit Edison is compiling information on battery reliability not only as it relates to miles driven, but also as it relates to kilowatt-hours consumed, trip length and water consumed (by the batteries)," Olsen added.

"Findings from these analyses will help determine what factors affect the dependability and reliability of batteries in the electric passenger car."

Edison has been col-

lecting information from its fleet of 24 electric cars since the beginning of its demonstration program in June, 1981. Eighteen of the company's 24 electric cars are driven by employees and their families to show

how electric cars can easily fill a family's transportation needs as a second family car. To date, employee drivers and their families have driven 175,000 miles, consuming an average of 0.78 ki-

lowatt-hours per mile. This is equivalent to a fuel cost of approximately 6 cents per mile. The company's fleet has saved more than 5,800 gallons of gasoline, 400 quarts of motor oil and 47 gallons of antifreeze.

## Discount program offered senior citizens

Oakland County's Senior Discount Program is seeking locations for camera sites to photograph seniors for identification cards.

The cards enable senior citizens of Oakland County to take advantage of discounts offered by local merchants from 4 to 50 percent.

Discounts are offered on a variety of items including automobile parts, rust-proofing, hair care, prescription drugs and eyeglasses.

A directory of participating merchants is now available for sale at the

camera locations and senior centers. It can also be ordered by mail by sending a check for \$1.20 to OLHS, 196 Oakland Ave., Pontiac 48058.

To participate, persons must be 60 years of age or older and live in Oakland County.

McDonnell Towers will be a camera location from 10 a.m. to noon and 1-3 p.m. Tuesday, Nov. 24. It is at 24400 Civic Center in Southfield. For further information, call 558-5171.

## Summer speech clinic at Annapolis Hospital

For children with speech and language problems, a summer vacation can mean an interruption in their speech treatment.

Annapolis Hospital in Wayne will provide an annual summer speech clinic to help children improve and maintain the progress they have made during the school year.

This year's eight-week clinic will be June 20-Aug. 12.

The program is open to preschool and school-age children. Sessions will be held at the hospital two to three times a week, depending upon the individual child's needs.

Referrals may be made by school speech pathologists, physicians and parents by calling 722-4400, extension 346 or 373, by June 1.

After a child is referred to the program, an evaluation questionnaire will be given to the child's school therapist. Based on the questionnaire, an assessment of the child's needs will be done and treatment scheduled. There is a reduced fee involved.

due to one payment at the start of treatment.

"THE POINT of the summer speech clinic is that children benefit from consistent treatment," Dr. Betty Jones, speech and language supervisor at Annapolis, said.

"When schools break for summer, many children must interrupt their treatment. That gap sometimes makes it difficult for a child to maintain the progress achieved during the school year."

"During previous clinics, we've treated children for stuttering, misarticulation, voice and language problems. These problems respond to treatment, but it requires intensive work from both the child and the therapist."

The clinic utilizes staff speech pathologists at Annapolis who provide intensive individual or small group treatment. Upon the parent's request, a report on the child's progress can be sent to the school speech pathologist.

## Child abuse workshop set

People who work with children can investigate the problem of child abuse, and public and private services offered to these children, in the workshop, "The Impact of the Present Recession on Child Abuse," during May at Madonna College.

Students can receive college credit or continuing education units. The classes will meet May 13-14, 20-21 and 27-28.

Faculty member Mary Newman will teach the course, focusing on how stress caused by unemployment frequently leads to family-unit breakdown. For information, call Newman at 591-5160. To register, call the continuing education office, 591-5049.

Madonna College is at I-96 and Levan Road in Livonia.

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