

Free health tests being given through April 16

Free health tests will be provided March 30 through April 16 through Project Health-o-rama, which is now in its second year.

Last year, 15,000 people took advantage of the testing, which is sponsored by Channel 7, Blue Cross-Blue Shield of Michigan and the United Health Organization. Of those tested, 3,000 were found to have one or more abnormalities.

Participants will receive free health tests with follow-up. Basic tests at each site will include height, weight, health history, anemia, blood pressure and vision. Optional blood tests will be provided for a \$7 fee. These chemistries test for cholesterol, diabetes, liver disease and gout. Such blood tests usually cost \$50-\$80.

In addition, many sites will also offer pap tests and tests for hearing, glaucoma, oral cancer, sickle cell, colitis and rectal cancer. All of these tests offer a health care savings of up to \$150 per person.

The goal of the project is twofold," explains William F. Harsen, executive vice president of the United Health Organization and one of the directors.

For more information, call 965-6900, from 9 a.m. to 5 p.m. March 30 to April 15. Tests will be given:

- March 30 - 10 a.m. to 6 p.m. Oakland Community College - Southfield Campus, 2322 Rutland, Southfield.
- March 30 - April 1 - 11 a.m. to 7 p.m. Oakland Mall, 412 W. 14 Mile, Troy.
- April 7-8 - 1-7 p.m. April 7, and 10 a.m. to 4 p.m. April 8. Southfield Civic Center, 26800 Evergreen, Southfield.
- April 7-11 - 9 a.m. to 9 p.m. April 7-10, and 9 a.m. to 8 p.m. April 11. Pontiac Mall, 315 N. Telegraph, Pontiac.
- April 11 - 9 a.m. to 5 p.m. Providence Hospital, 16001 W. Nine Mile, Southfield.
- April 16 - 1-7 p.m. Oxford Health Care Center, 385 N. Lapeer Road, Oxford.



Nancy Kourtjian

Solid waste: Should it be 'preprocessed'?

Third in a series.

Oakland County's Act 641 soon must decide whether solid waste should be "preprocessed" before incineration.

Trash either could be burned "as is," with no pretreatment or handling. Or it could be sorted to remove bulky items, then shredded before it enters the \$150 million garbage disposal plant proposed in the 20-year master plan.

Why does it matter how the garbage is burned? The practicality of preprocessing depends in great part on the type of firing system that is selected. And if paper and other materials are not sorted, they are not likely to be recycled.

What does the master plan suggest? IN THE WIXOM and Rochester areas, small two-chamber modular combustion units (MCUs) are expected to recover steam from 600 tons of trash collected daily.

Large items cannot be processed. Loader operators must separate large items from the mass of waste tipped onto the floor by collection trucks. Further sorting would be a natural part of the routine at these outlying MCU stations.

BUT MORE than half of the county investment (about \$8 million) will create a large energy recovery boiler plant in the County Service Center. It could handle 1,600 tons of refuse daily.

Engineering consultants Camp, Dresser and McKee (CDM) recommended three possible refuse-to-energy systems for the plant:

- Mass burning of raw refuse; no prior processing.

- Semi-suspension burning; refuse reduced in size and metal-free.
- Full-suspension burning; refuse double shredded, air-classified into "fluff" or "dust" to be used for fuel.

Waterwall boilers (waterwall refers to the pipes on the chamber wall which make steam when heated) are used in large incinerators, and can be designed for either of the three methods. CDM's data base reports describes how each works.

IN MASS burning, a thick bed of refuse is moved by a stoker and fed air from below. The rates of burning, stoking, air flow and steam production are regulated by combustion controls.

The waste is burned "as is" except for items too large to enter the unit. Stokers and residue remo-

vers must be durable enough to handle occasional engine blocks or oil drums that slip by undetected.

More than 100 mass burning plants produce steam and/or electricity worldwide, including municipal operations in Chicago, Montreal and Nashville.

SEMI AND full-suspension systems reduce waste by shredding, then burn the particles while they are airborne.

Semi-suspension requires "fuel" to be a minimum of three inches. But in full suspension, paper and plastic must be only 1 1/4 inches and heavier items, such as wood and leather, even smaller. Therefore, double shredding and air classification must be used.

The full-suspension method burns everything aloft, but semi-suspension allows larger pieces to fall to a stoker and burn more slowly. The direct product of the shredding and separating is RDF, refuse derived fuel. This is used by utilities to supplement fossil fuel.

There are semi-suspension boiler installations in Akron, Ohio; Niagara Falls, N.Y.; and Hamilton, Ontario. The last plant has been in operation for many years. The only municipal full-suspension boiler has operated in Kodak Park in Rochester, N.Y., since 1973.

American companies developed pyrolysis techniques and suspension/shredding systems to improve the incineration methods used long ago in Europe. Engineers have also investigated pulp and paper mill technology, where wood waste is used to generate steam and electricity, and applied it to semi-suspension systems for solid waste management.

The report listed four advantages of suspension over mass-burning systems:

- More energy efficient: less air is used; 10 percent more steam is created; and less air pollution from flue gas.

- More responsive to change; lighter particles respond quicker to changes in steam requirements.

- Steadier, smaller, more homogenous fuel particles give more consistent heat value despite moisture variation.

- Smaller units; 35 percent cheaper to build; easier to maintain with no complex stokers, less outages occur.

CDM then compared the alternative systems with regard to economics, efficiency, risk, reliability and compatibility with resource recovery. They concluded that explosions make shredding too

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— Dr. Eugene Glysson, civil engineering professor

risky; full suspension is uneconomical; semi-suspension has possibilities; modular units are "acceptable"; and mass burning gets top billing. Recovery of only ferrous metals was recommended.

BUT ADVICE from the experts seems contradictory, or at best, confusing.

For example, preprocessing was called an "undesirable" expense. All the negative aspects of mass-fired boilers were said to be counteracted by the need for preparation in the suspension systems.

Yet the firm then states that if all preprocessing costs were supported by sale or recycled goods, a suspension system would be the best choice on a cost basis.

Much of the explosion problem has been eliminated, according to Dr. Eugene Glysson, professor of civil engineering at the University of Michigan. Glysson said that improved shredders now tear open bags of waste with "claws" rather than beat them in hammermills.

He also pointed out that though suspension systems have better heat recovery, mass burning is simple and reliable.

ASKED ABOUT curbside separation, Glysson was doubtful. He commented: "It took 50 years to teach people wasteful habits. It may take another 50 to change their attitudes back to conservation."

Glysson had an innovative suggestion for on-site separation of recyclables — use neglected human resources. Unemployed workers or welfare recipients could sort salable materials at county facilities. Concerning mechanical separation, he said, "There's no substitute for the human mechanism for taking things apart."

The writer is a member of the Act 641 Committee studying the proposal countwide solid waste plan.

The views are her own.

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