

could screech at rush hour to be heard above the din of horns, but be somewhat subdued for quiet evening streets might be a reasonable compromise.

In an effort to restore quiet neighborhoods in New York suburbs lining the New York Thruway, citizens under the leadership of Mrs. Christine Helwig, chairman of the Thruway Noise Abatement Committee (TNAC) and town councilwoman of Mamaroneck, N.Y., succeeded this year in getting the New York State legislature to set limits for traffic noise and to provide specific, measurable standards for judging violations. TNAC was supported with money, material and personnel by automotive associations in its efforts to establish satisfactory, reasonable criteria for maximum allowable noise.

In a report reprinted in the Congressional Record, May 2, 1966, Stannard M. Potter, president of United Acoustics Consultants, concluded that "while new techniques and standards providing greater discrimination are desirable (efforts should continue along these lines), it is both reasonable and feasible to design legislation aimed at trucks which create noise levels at a 50-foot distance of 87 db or more, as creating unnecessarily loud noise."

As moves are made to quiet traffic, similar efforts are being made by some building contractors.

A New York skyscraper, completed this spring, stands on Broadway as proof that buildings can be constructed quietly and more or less unobtrusively. Neighbors of the 52-story office building reported that power lawn mowers buzzing around their suburban homes were more disturbing than the construction job completed by the Diesel Construction Company, Inc., New York. Blasting was muffled by special steel mesh blankets weighing several tons each. Spread over the blast site by cranes, they absorbed most of the sounds of the explosions, and also kept flying debris safely within a confined area. All the joints in the 14,000 tons of steel in the frame were welded silently to eliminate the hideous, shattering racket of conventional riveting or bolting.

In other construction operations a simple device called a "residential quality silencer," costing no more than \$200, can be attached to air compressor units, Congressman Kupferman has been told. They are not used, apparently, simply because no one has ever demanded an end to unnecessary building noise or pressured construction companies into using silencers as standard equipment.

Congressman Kupferman was accused by at least one newspaper of "finding a new cause to champion." Considering the actual physical damage excessive noise causes to hearing (industry has paid an estimated \$15 million in loss-of-hearing suits just in the last 15 years) and the real psychological strain excessive noise causes nearly everyone, the cause is hardly just a paper tiger.



Velsicol Chemical Corporation

**NIGHT LIGHT**—An airport with a green apron over its runway is a boon to airline maintenance crews who often work after dark. A pale pastel green swath of a paving binder having several times the reflective power of black asphalt increases visibility, especially under aircraft wings. Being tested by National Airlines crewmen at Miami's International Airport, the light apron (foreground) is made with Wyton, a product of Velsicol Chemical Corporation, Washington, D.C.

#### CHEMISTRY

## Plastic Airplanes Possible

A new family of incredibly strong plastics may prove lighter and more lasting than metal plane parts

➤ A SUPERSONIC airliner made out of plastics?

Or one built of titanium metal glued together with the same plastic material?

Such methods of fabricating future aircraft and missiles are within the realm of possibility, according to chemists at the Westinghouse Research Laboratories.

In fact, such structures may prove to be stronger, lighter and more durable than the metal variety.

As a step in this direction, Westinghouse research chemists have developed a new family of strong, high-temperature plastics that retain much of their strength at temperatures up to 650 degrees Fahrenheit—higher than the melting point of lead—even after 1000 hours of continuous exposure in air.

Reinforced with glass cloth and pressed into sheets, or laminates, the plastics at such temperatures are stronger than aircraft aluminum and compare favorably with stainless steel and titanium alloys.

Used as an adhesive under the same conditions of time and temperature, they bond together sheets of titanium

and stainless steel with hot strengths in excess of 1000 pounds per square inch.

In addition—as laminates, films, enamels and coatings—the materials have outstanding electrical insulating properties that are not degraded by this very hot, long-time exposure to air.

In reporting the new family of plastics Dr. W. E. Shoupp, Westinghouse vice president-research said:

"These materials give evidence that organic structural compounds can be designed to survive the environment created by supersonic flight, where the skin temperatures of an aircraft may rise several hundred degrees due to friction with the air.

"They further demonstrate the feasibility of the adhesive bonding of difficult-to-join structural metals for such service temperatures, including those likely to be encountered by the supersonic transport plane.

"Finally, the materials allow us to consider the design and construction of electrical equipment that will take advantage of higher operating temperatures, beyond the limitations now imposed by available organic insulators."