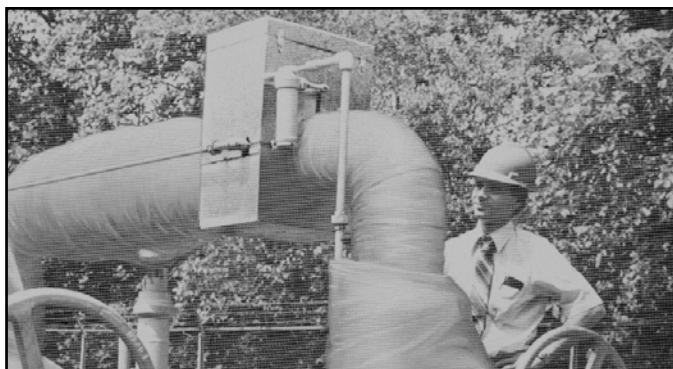


noiseletter

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Problem-solvers in vibration isolation,
noise control and seismic restraint.

High-Pressure Gas Regulators Quietened Through Unique Yet Simple Solution



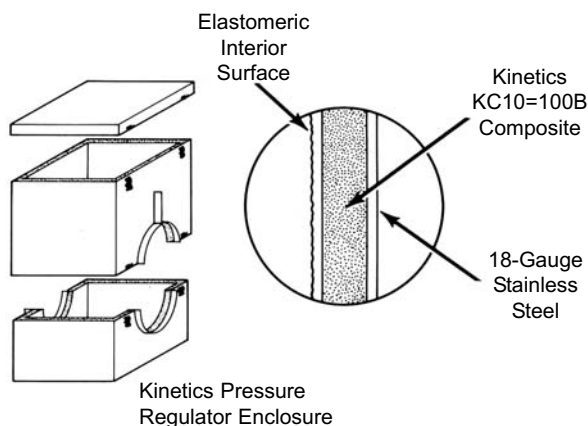
Jim Buonincontri, gas engineer for Orange & Rockland Utilities, inspects one of three newly-installed acoustical enclosures at a pressure reducing station near Pearl River, New York.

Years ago, when gas utilities built pressure-reducing stations — those huge assemblies of pipes and fittings which rise out of the ground in complex patterns — planners were careful to avoid residential and other high-density areas. The stations, where utilities regulate and meter the gas flow from their suppliers before feeding it to customer pipelines, were located in remote areas because the above-ground pipes carry high-pressure gas which sometimes whines with a shrill, high-frequency noise as it is forced through orifices, around curves and pipe bends.

As with many communities, Pearl River, New York, has grown considerably since their pressure reducing station was built, and today's commercial and residential areas have moved much closer to it. A complaint was lodged by a local resident about the annoying, shrill noise. Jim Buonincontri, gas engineer for Orange & Rockland Utilities, Inc., was assigned the task to determine a solution to the problem.

Buonincontri called the Kinetics Noise Control representative in Central Nyack, New York, who helped develop the solution.

A major source of noise from the station was three regulators, each of which are centered in an above-ground inverted "U" section of pipe. Kinetics solution was to construct a unique acoustical enclosure to fit around the pipe, enclosing each regulator and reducing the ambient noise level.



The enclosures were constructed of Kinetics KC10-100B composite foam with an elastomeric interior surface attached to an 18-gauge stainless steel housing. To further reduce the noise from the reducing station, each pipe was wrapped with low-density, fiberglass insulation and covered with limp vinyl material to act as a secondary barrier. The combination of the regulator enclosures and the pipe wrap has reduced the overall noise level by up to 17 dB at the station — a significant improvement over earlier levels.

After completing slight modifications, utility servicemen were able to install the units in minutes. For normal utility maintenance, the top cover of the enclosure can be unlatched and lifted, providing easy access to each regulator valve.

The Kinetics solution was a cost-effective one for Orange & Rockland Utilities, and solved a common, but annoying, community relations problem.

"We talked with a number of other people about the problem, but were given only one other workable alternative—to build a total acoustical enclosure for the above-ground piping," says Buonincontri. "That would have required its own power and lighting, and ventilation systems. And, the total cost would have been close to ten times the cost of the three Kinetics valve enclosures."