Making Unsafe Wired Glass Installations Safe

By Kate Steel, Steel Consulting Services

Traditional wired glass installed in school doors and other hazardous locations poses serious risk of injury to students. Since 2003, the International Building Code has prohibited use of wired glass in dangerous locations. But, what can and should be done about the ubiquitous wired glass in existing school facilities? I believe it is important to replace or upgrade the traditional wired glass. Fortunately, there are many affordable, attractive options to make your schools safer.

The Risks of Leaving Unsafe Wired Glass in Place

In 2006, one student died and another was seriously injured at the University of North Carolina after going through a wired-glass window in a dormitory.

The Ontario School Boards Insurance Exchange tracks claims from injuries caused by unsafe wired-glass installations. The exchange reports that from 1987 to 2000, there were 107 claims against Ontario schools for glass injuries with costs amounting to $3,154,202. More important than the dollars is the pain and suffering, permanent reduced mobility and scarring caused by these impacts with glass, says the OSBIE website "Because of the hazards of wired glass in schools, I urge school districts to begin a risk assessment of the hazards of exiting installations, and start formulating a replacement program." The New York State Education Department agrees.

An Advisory Issued by the New York State Education Department
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It has come to our attention that the 2003 International Building Code, which will eventually be adopted by New York State as the 2006 Building Code of NY State, requires that all glazing in impact areas in educational occupancies be impact resistant. This prompted us to research the issue and the results were quite startling.

It appears that there is a common misconception that wire glass is impact resistant. This is not true, and in fact wire glass is only half as strong as regular plate glass. In 1977 The Consumer Product Safety Commission established standards for impact resistant glass. Because, at that time, wire glass was the only product that could meet the fire resistance requirements for vision panels, it was granted an exemption from the impact requirements. And apparently, since the perception was that wire glass was also impact resistant, there was very little opposition to the exemption

New York State will soon adopt this provision and new installations of glazing in hazardous locations in schools will be required to be impact resistant. There are several fire-rated and impact resistant glazing options available today and school districts and architects should research the advantages and disadvantages of all options

Now for the difficult part, what do we do with existing wire glass installations? We strongly recommend that all existing wire glass locations be evaluated for potential impact and injury. There are several alternatives available to remedy locations determined to be at risk, such as replacement with impact and fire resistant materials, coating the glass with specialty films and installing protective bars or railings. Source

Affordable, Attractive Ways to Eliminate Unsafe Wired Glass

There is a range of glazing products that can be used to replace or upgrade traditional wired glass in hazardous locations. Thanks to recent advances in glazing technology, many alternatives on the market meet both fire-rated standards and the CPSC impact safety requirements of 16 CFR 1201. You can replace the unsafe wired-glass installations with clear or safe wired glass alternatives. If you want to act now, but your budget is limited, there is also a certified field filming program which allows you to upgrade existing wired glass into a safety glass.

A Case Study San Francisco International School

Knowing the dangers of wired glass led me to work with schools in implementing replacement programs. I started with my sons school in San Francisco several years ago. At the National Center for

International Schools in San Francisco, the school was faced with the challenge of replacing over 140 wired glass vision panels in classroom corridor doors and sidelights that posed a daily danger to students.

The school opted to replace the vision panels with clear fire and impact safety rated glazing that meets both the fire code requirements and carries the highest CPSC Category II impact safety rating. View a Video that shows how NCIS School replaced all of its traditional wired glass with fire and impact safe glass.

Taking Your First Steps towards Removing Unsafe Wired Glass

The first step is to survey and assess the extent of the risks of unsafe wired glass on your campus. You can learn from others, like San Francisco NCIS or Middlebury College, which has surveyed the problem and initiated replacement programs for unsafe wired glass installations. Steel Consulting Services has been working to improve school safety with fire-rated and impact-safe glazing for over 15 years. We are ready to help you in identifying your problem areas and finding affordable solutions.