



**TESTIMONY OF DWAYNE FUHLHAGE, CHMM
ON BEHALF OF PROSOCO, INC.
TO THE NORTHEAST OZONE TRANSPORT COMMISSION
ON CONSIDERATION OF SUGGESTED CONTROL MEASURES
INCORPORATING SCAQMD RULE 1113
NOVEMBER 3, 2005**

Good afternoon. Thank you for the opportunity to speak today. My name is Dwayne Fuhlhage. I am the Regulatory Affairs Director for PROSOCO, Incorporated.

By way of introduction, PROSOCO is a leading manufacturer of products for cleaning, restoring and maintaining concrete and masonry substrates. For over fifty years, our products have preserved and enhanced the appearance and architectural integrity of prominent and landmark structures throughout the OTC states. Our experience encompasses the breadth of the eighty distinct substrates within the concrete and masonry category. As a small company, we are proud to be contributing members of the restoration, conservation and preservation community.

The OTC is currently looking at SCAQMD Rule 1113 standards as a suggested control measure. We are concerned that the standards are not technically feasible for certain niche applications and that impaired performance will limit the ability of government and the private sector to maintain infrastructure and preserve our nations' historic fabric. Coating technologies that were applied successfully and weathered 40 and 50 years would be eliminated under Rule 1113 standards; some would be replaced by unproven materials while others have no known substitutes.

Our built environment is constantly under attack by the elements. Well constructed masonry can last millennia with proper maintenance, but acid rain, water and biological growth destroy masonry at an alarming rate. Water repellents and consolidation treatments are crucial tools in the conservator's arsenal. This is especially important in the Northeast where acid rain sensitive historic structures are concentrated.

The thirteen states that comprise the OTC experience acid-rain degradation, chloride exposure, and freeze/thaw cycles not experienced in the Mediterranean climate of southern California. The Northeast climate is much different, and OTC must account for these differences.

Climate differences between South Coast and the average Northeastern city are real and dramatic. The climate graphs included in your handouts show the marked difference in precipitation, acid rain deposition, mean temperature, number of dry days and number of sub-freezing days.

In a given year:

- Los Angeles will experience 330 precipitation free days in which exterior coatings may be applied. The temperature will always be ideal on those days. In contrast, Washington, D.C. will have around 140 days with temperatures and atmospheric conditions appropriate for exterior application of water-carried coatings to porous masonry substrates.
- Los Angeles will never use deicing compounds on its streets, sidewalks and bridges. In the Northeast, snow and ice are a fact of life as are salts that damage and destroy concrete and masonry infrastructure and private assets.
- The rain falling on Los Angeles has a near neutral pH. Referring to your handouts, the rain falling on the Northeast is acidic and is causing accelerated weathering by eroding the surface, grain and cement of limestone and marble. Our cultural heritage is concentrated in the very same areas where acid rain is prominent with some 50,000 buildings, 10,000 monuments, and tens of millions of gravemarkers affected in OTC states.

How will these be maintained without protective treatments? How will they be repaired without consolidation treatments? Should these cultural resources be left to the forces of entropy? At what point do we look at a statue with an unrecognizable face or a monument with unreadable epitaphs and realize that it has been lost forever?

Rule 1113 standards effectively eliminate proven chemistries used in water repellents for natural, calcareous stone and consolidation treatments for damaged, disintegrating concrete and stone. Reformulation is not a matter of money; the resin systems are incompatible with water. These products will simply disappear from the OTC market.

While water-carried water repellents for concrete and concrete brick and block are available and functional, they are not universal. They fail when applied to admixture modified concrete and on previously coated surfaces. Effective, limited use solvent-borne materials which can address these shortcomings would essentially be eliminated by adopting Rule 1113.

In addition, graffiti is a pervasive problem in American cities. Graffiti conveys an image of urban decay and despair. The magnitude of the problem is daunting. Using New York City as an example, the City Department of Transportation removes over 4.5 million square feet of graffiti from bridges, annually. This is in addition to the 8 million square feet per year removed by the Anti-Graffiti Task Force and does not count efforts by the transit system, other government entities or individual property owners.

Sacrificial and non-sacrificial barrier coatings reduce or eliminate the penetration and adhesion of common graffiti materials; especially on porous substrates. Clear anti-graffiti products for concrete and masonry have unique properties and performance characteristics that set them apart from the rest of the Industrial Maintenance category. Adopting Rule 1113 would eliminate the most effective technologies giving property owners no option but to utilize high-power chemical strippers or potentially harmful

abrasive blasting. There is no such thing as a free lunch; the single application of a high-performance, non-sacrificial treatment could be replaced by multiple uses of VOC emitting graffiti strippers along with their associated water-quality issues.

The technology gap does not end there. Dense substrates such as tile and marble require special chemistries that would be eliminated by Rule 1113 standards. Effective, long-lasting oil repellents for horizontal concrete, pavers and masonry will disappear.

Yes, technology forcing standards can prompt manufacturers to supply market niches with new technologies. However, history is replete with examples of new coatings systems causing unintended consequences. Unfortunately, historic structures are sometimes utilized as test beds and irreparably damaged in the process. Often, damage does not appear for years and is caused by mechanisms impossible to simulate in a laboratory. Our monuments and heritage buildings should not be used as a laboratory for new, leading-edge technologies.

As a small manufacturer, I must also point out our concern on the potential burdens imposed by surveys conducted on a state-by-state basis. As a Jack-of-all-trades, I oversee health, safety, transportation, environmental programs, and a variety of plant engineering functions, along with authoring Material Safety Data Sheets and precautionary labeling for our products. Many small formulators do not have a dedicated EHS staffer; instead their chemists pull double duty. You need information and we need to give it to you; we request that you consider consolidated, central reporting to the OTC and simplified reporting mechanisms so that small company resources can be concentrated on reformulation tasks.

In closing, we recognize that the OTC states have distinct air quality issues that must be addressed. However, infrastructure is expensive to repair and historic structures are irreplaceable. We encourage OTC members to take a measured approach and consider the long-term implications of drastically restricting architectural coating technologies. For the protection of concrete and masonry, regulatory flexibility could be introduced by creating sub-categories for high-performance concrete and masonry products and a subcategory of Industrial Maintenance coatings for durable anti-graffiti products for concrete and masonry. We stand ready to provide technical guidance and resources and support NPCA's efforts in working with the OTC membership as rulemaking activities progress.

Thanks for your time and attention.