

New OSHA Releases—Check it Out!

OSHA recently released new materials on worker health and safety.* Notably, they published a new *Small Entity Compliance Guide for the Respiratory Protection Standard* (SECG). This comprehensive guide supplements the overarching *Respiratory Protection Standard* (29 CFR 1910.134) and aims to help small businesses (such as conservation laboratories) comply with the current standard by providing helpful checklists and illustrative diagrams. A sample respirator program, located in Attachment 4 of the guide, is especially valuable for administrators who are responsible for implementing a written respiratory plan in their workplace.

Other new and revised publications include *Workers' Rights*, which defines the legal rights that workers are entitled to; *Employer Rights and Responsibilities*, which describes what can happen after an OSHA inspection of a workplace; and Laboratory Safety Fact Sheets. Laboratory Safety Fact Sheets that may be of particular interest to museums, graduate schools, and small businesses can be found at www.osha.gov/pls/publications/publication and include the following (table 1):

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*OSHA Trade News Release, Office of Communications, “OSHA Publishes New and Revised Materials on Worker Safety and Health,” www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=NEWS_RELEASES&p_id=20868 (accessed January 24, 2012)

Table 1.

OSHA Laboratory Safety Fact Sheets & Quick Facts

Topic	Title	Publication
Laboratory Safety	Chemical Fume Hoods Quick Facts	(OSHA 3407–2011)
Laboratory Safety	Chemical Hygiene Plan (CHP) Fact Sheet	(OSHA FS-3461–2011)
Laboratory Safety	Labeling and Transfer of Chemicals Quick Facts	(OSHA 3410–2011)
Laboratory Safety	Latex Allergy Quick Facts	(OSHA 3411–2011)
Laboratory Safety	OSHA Laboratory Standard Fact Sheet	(OSHA FS-3464–2011)

Fit Testing

Are you chemically deteriorating? Wear your medically-approved fit-tested respirator. Sign up to be re-fit tested at the 2012 AIC annual meeting in Albuquerque.

—A reminder from the AIC H & S Committee

New Materials & Research

The Chemistry in Art Community of Scholars and a New Venue for Collaboration

Chemistry and Materials Research Initiative

The National Science Foundation (NSF) has recently engaged in a three-year initiative to fund collaborative three-year proposals in chemistry and materials science among researchers in U.S. museums and academic institutions that aim to address challenges in the field of science of cultural heritage through the formation of new collaborations among faculty, museum staff, undergraduate and graduate students, and postdoctoral research associates. This new grant program, *Chemistry and Materials Research in Cultural Heritage Science (CHS)* is a direct result of the 2009 NSF and Andrew W. Mellon Foundation workshop. The resultant report explored scientific questions relating to cultural heritage materials and research priorities, examined possible new research initiatives, and encouraged collaborations between scientists and their peers in related cultural heritage fields.

This new initiative and the interest that has developed among conservation researchers, chemists, and materials scientists comes at the end of a 20-plus year groundswell of innovative practice that integrates chemistry and art in college classrooms, research labs, and faculty professional development activities. The confluence of NSF-sponsored events and programs has led to a new mindset and critical mass of players that can make a substantial impact on education and research in the fields of cultural heritage materials, materials science, and science education.

History

In the late 1970s to early 1980s, there was little crossover between chemistry professors in academia and the world of conservation. However, in April of 1980, *The Journal of Chemical Education (JChemEd)* brought the combination of chemistry and art to a wider audience of educators when it published a special section on “Chemistry in Art” in its Secondary School Chemistry section. A year later, “The Chemistry of Art—A Sequel” appeared. Covering topics from the chemistry and physics of colors and colorants to the chemistry of ceramics, textiles, and metals used in art objects, these articles were also published by the *JChemEd* as individual monographs. Simultaneously, a handful of college chemistry professors around the country began offering chemistry and art courses for non-science majors, and they began to publish books that were targeted to a broader audience beyond the conservation community.

By the mid 1990s, several short courses and workshops in chemistry and art were funded through a grant from the NSF. These intensive programs were designed for college faculty to learn how to integrate the teaching of chemistry and art in college curricula. By the end of the grant project in 2000, a small network of approximately 75 educators interested in integrating art and science topics into their teaching and curricula had developed, and one-third of workshop participants were engaged in designing and teaching courses for non-science majors at the college level (college chemistry, engineering, or materials science), or for high school chemistry and physics students.