

Website link

<https://publichealth.arizona.edu/academics/masters/mph/eoh>

Section 2 - Summary of 2015-16 Progress Report – High Impact Story

There is one standout story for the 2015-16 training year. As a part of a one-time offering, in a course titled “Field Studies in Industrial Hygiene”, the students spent the semester conducting a comprehensive Industrial Hygiene evaluation of a small local foundry. The evaluation, which was done both as a field experience for the students and as a Public Service for the foundry and the community, began with a meeting with the foundry’s vice president, followed by a walkthrough to familiarize the students with the foundry and its operation. This was followed by a series of trips to the foundry during which anywhere from two to ten students conducted various forms of Industrial Hygiene measurements of foundry exposures. The measured exposures included:

- Noise (both noise mapping and dosimetry in a number of foundry work areas and on a number of classes of workers),

- Various size fractions of ambient airborne dust using both direct reading and two sampling approaches (again in a variety of locations and jobs),

- Ambient and job task created metal fume exposures (lead, zinc and copper) on the pouring line,

- Ambient and job task created metal dust exposure from finishing operations (same metals),

- Silica exposure at a number of the molder workstations,

- Heat stress along the pouring line and at a number of other locations, and

- An ergonomic assessment of the molder’s job (including borrowing tamping (ramming) tools from a manufacturer back east to determine their effect on dust exposure during the ramming or tamping of the sand into the molds.

The students then put together a report for the foundry’s management. The report included both their samplings results, interpretation of the results and their implications for worker health effects, and preparing a set of recommendations for reducing/controlling exposures.

The student team finished up the semester by spending two hours presenting the findings and recommendations to the foundry’s management. It should also be noted that the student and faculty time for the project was uncompensated.

The Program has continued its OSH research work with both the local firefighting services and the southwestern US mining communities.