DWOI Grant Trip Report on Tanzania Stone Crushers Project:

Project Trip to Dar es Salaam, Tanzania, June 16-23, 2018

Reason for Trip: (no DWOI funds were used for international travel)
- Assist with Air Monitoring at selected sites
- Meet with OSHA
- Meet with Muhimbili University
- Collect video footage for Documentary

OUTCOMES:

**Stone Crusher Project**
1 - Air Sampling postponed until August due to late arrival of equipment and delayed issuance of medical research permit.
2 – We visited one of the sites selected for the stone crushers project, Bunju Worksite, Kinondomi District. 6 tasks were identified (see below). Non-work site exposures (sieving dust drift) and background sampling were identified.

**Muhimbili University Visit:** Met with Dr. Simon Mamuya, Head of the Dept. of Environmental and Occupational Health
Day 1: A presentation to students and staff was given by J. Galvin on careers/general information on Toxicology and Industrial Hygiene. In addition to the presentation, students were given free membership to the Society of Toxicology, ink pens and T-shirts given to two of the Stone Crusher student assistants. Students and staff numbered about 30-33 on both days.

Day 2: We met the acting Dean of the School of Public Health, who said the university wants to be involved with organizations, such as ours that focus on disease prevention. Steven Verpaele gave a presentation on IH Monitoring and Measurements to students and staff. A total of SIX Muhimbili University students were selected, at their insistence, to help with air sampling. Two students requested to be mentored.

**OSHA VISIT:** Met with Joshua Matiko, Director of Training and Research
1 - Wrote collaborative Agreement at OSHA’s request for help with Sustainable OH Program (not presented to or approved by WHWB to date)
2 - OSHA requested help getting OSHA inspectors certified (IOHA) via OHTA training
3 - Budget drafted for WHWB OHTA Training requested for two courses, two weeks in a row.
4 - Budget has been provided, awaiting approval from OSHA.

**OSHA & Muhimbili:**
Discussions with both institutions indicated a laboratory to analyze IH samples was needed in Tanzania. Steven Verpaele, BeCOH, via his affiliations with the University of Ghent agreed to assist in setting up a laboratory to analyze silica. We are hoping
to get OSHA, who stated they have funds, to work with Muhimbili University to help train their students in IH air sampling techniques and laboratory analysis. This is BeCOH’s responsibility, not DWOI or WHWB.

**Documentary:**
OSHA requested a video to document this project. OSHA stated no permit was required for Tanzanian government work. We were unable to effectively video the work/worksite due to only a walk through/short time at the worksite. A draft video explaining the project has been prepared. Reviews by Team members are pending. It will be sent to DWOI, WHWB, OSHA Tanzania, and Muhimbili University for their comments and approval after team reviews.

**Appendix 1**
**Tasks Identified at Site:**

<table>
<thead>
<tr>
<th>TASKS</th>
<th>TOOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Big Digger Machine – not running at time of visit</td>
<td></td>
</tr>
<tr>
<td>2 - Big Rock (&gt;5 cm) to Medium Rock</td>
<td>Sledgehammer</td>
</tr>
<tr>
<td>3 - Medium Rock (2-5cm) to Small Rock</td>
<td>Small, short handled hammer</td>
</tr>
<tr>
<td>4 - Small Rock</td>
<td>Bagging, weight about 25-30 lbs.</td>
</tr>
<tr>
<td>5 - Small Rock Waste sieving</td>
<td>Sieve, 1 cm square</td>
</tr>
<tr>
<td>6 - Powder Screen, Stationary</td>
<td>Sieve, 1-2 mm</td>
</tr>
</tbody>
</table>

These are not tasks, but additional sampling for consideration:

- Downwind exposure from sieving
- Downwind Background