

WORKSHOP SESSION SUMMARY
POST-CONFERENCE PROCEEDINGS
2018 National Trainers' Exchange

1. Session Title and Presenter's Contact Information:

Workshop title: #66 Respirator Selection Logic App
Presenter (s) Name: Robert Harrold
Presenter Organization: IUOE National Training Fund
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2. Workshop Summary:

The IUOE National Training Fund developed an online application based on the 2004 NIOSH Respirator Selection Logic document, available in Android, Apple, and web-based formats. This session allows users to download the *app* onto their smart phones and a Peer Trainer will introduce a scenario that allows users to interactively figure out the correct respirator using the app for the task.

While employers are responsible for having a Respiratory Protection Program, fit testing and selecting respirators with the proper cartridges for their employees, this app empowers workers to understand the requirements and regulations when choosing the *right* respiratory protection. Workers can also use it for projects or hobbies they are doing at home.

As many people continue to face cleanup and restoration in Texas, Louisiana, Florida, Puerto Rico, and the Virgin Islands among others from hurricanes, floods and storms, people in these communities (volunteers and workers) can use the Respirator Selection Logic App to learn how to protect themselves from airborne hazards such as mold. In California the airborne hazards from the Wildfires include lead, asbestos, arsenic, antimony, cadmium, copper, and zinc in the ash as well as household chemicals and many unknowns that await the workers, community members and volunteers performing cleanup, restoration and rebuilding of whole towns/cities. This app can help them protect themselves while accomplishing this work.

3. Methods:

A web-based version of the Respirator Selection Logic app was reviewed, going through each expandable section, such as *Getting Started*, *All About Respirators*, and *Respirator Selection Tool*. Attendees downloaded the app through the web-based version at <http://respirators101.iuoe-hazmat.com/app/public/#/home>. Using Apple or Android based phones, all participants were able to easily download the web-based version of the app.

The app gives you a section with basic information on respirators, access to the complete OSHA respirator standard, and a section titled *My Info*. *My Info* gives the user an area where he/she can store, for each job or job task, information on their exposure(s) and respiratory protection used. Several other interesting features include

the *Chemical Lookup Tool* that offers an A to Z list of chemicals with definitions of known chemicals, and *Maximum Use Concentration (MUC)*, *Time-Weighted Average (TWA)*, and *Hazard Ratio (HR) Calculation Tools*. These tools are intended to help the user to conduct several calculations relevant to the respirator selection.

To demonstrate how the app could be used as a training tool, a scenario was given to pick a respirator for the chemical Naphthalene in an airborne concentration of 40 ppm. This demonstrated how the *Hazard Ratio Calculation Tool* built into the app will be able to be used to determine that any respirator with an Assigned Protection Factor (APF) greater than or equal to 4 is required (this section as of the Exchange was still under Construction).

Attendees were given a brief overview of the NTF's other apps, including Mold 101, Permit-Required Confined Space 101, and Excavations 101.

4. Main Points/ Key Points Raised from Participants:

One question raised was, "Why didn't we use OSHA's Assigned Protection Factor?" The OSHA Respiratory Protection Standard 29 CFR 1910.134 is a section of this app; however, NIOSH's recommended APFs are more stringent thereby offering more protection for the user. If the user meets the APF for this app, they will definitely be meeting or exceeding OSHA's required APF.

Attendees were unaware of the apps made available from the NTF and commented that they would be using them and offering them to their workers/students.

5. References:

2004 NIOSH Respirator Selection Document and the NTF Respirator Selection Logic App.

6. Workshop Handouts/ Resources:

PowerPoint.