April 15, 2011

Honorable Mayor
Common Council

Dear Honorable Mayor and Common Council:

The Fire Chief is requesting permission to waive formal bidding for the acquisition of chemical monitoring equipment.

The Racine Fire Department, in close cooperation with the City of Milwaukee Fire Department, were successful in securing a 2010 Urban Area Security Initiative grant from the Department of Homeland Security to add additional chemical monitoring equipment to existing chemical monitoring equipment currently in inventory with our HazMat Team. The acceptance of the funding was approved by the Common Council in Resolution 10-2327, on December 21st, 2010, and is for $50,000. (City Grant Control Number 2010-051) This is a no-match grant and there are no levy dollars involved.

The additional chemical monitoring equipment is known as the "PlumeRAE" system and is an add-on to our "AreaRAE" system that was acquired last year. The AreaRAE was also acquired after the council waived formal bidding. The PlumeRAE system will allow us to extend our chemical monitoring abilities and integrate with the existing AreaRAE computerized system. There is only one manufacturer that can provide this equipment that is compatible with our existing system.

Releases of toxic materials always present firefighters and HazMat technicians with an immediate challenge – determining what actions need to be taken to protect our citizens. We must answer a number of questions quickly: Where is the toxic plume headed, and in what concentration? What areas need to be evacuated? Who should shelter in place? What roads should be closed? How do we prioritize actions with limited resources available? PlumeRAE is a unique and complementary solution to our existing AreaRAE, that allows rapid monitoring and assessment of situation involving the release of hazardous substances. PlumeRAE gives our first responders information to make crucial decisions very quickly.

GPS-equipped AreaRAE wireless monitors placed in strategic locations measure the levels of critical toxic chemicals and communicate their measurements to a ProRAE Remote Base Station. ProRAE Remote, running on a standard laptop computer, feeds this information to the Plume Measurement Software that is running on the same PC. Weather data transmitted by a Coastal Environmental Systems WEATHERPAK® completes the information package needed for analysis. The Plume Measurement Software integrates the information and shows our firefighters and HazMat technicians a picture of the toxic plume, the speed at which it is spreading and the concentration of the toxic compound. The information allows us to create the best emergency response strategy designed to minimize the impact on our citizens.

PlumeRAE gives first responders the information they need, along with decision support, so that they can answer critical questions and take immediate, effective action. First responders can: track and validate plume impact, employ intelligent placement tactics for safely locating responders, evaluate the toxicological effect on responders and the community, create emergency response strategy, understand how long the event will persist and save the event for post-event analysis.

We anticipate ordering this equipment as soon as possible in cooperation with Milwaukee Fire Department to get the best deal possible.

Respectfully submitted,
Steve Hansen,
Fire Chief