

Best Practices for Fire Fighting

We visited a local fire station with the kids. On the floor outside of each of the doors of the fire trucks were a set of boots and a pair of fire fighter's overalls set-up so that you could step into the boots and pull up the overalls. The jackets, helmets, air packs, and entry tools were on hooks in the truck. Could you imagine the cost in lives and property damage if each fire fighter had to stand in line at the parts window for his/her helmet or air pack?

Ever been to the emergency room in a hospital? When someone comes in with a broken leg they roll over the orthopedic cart with all the tools and materials for broken bones. They cannot fix everything with what is on the cart but they can stabilize almost everything and fix upwards of 90% of the emergencies.

Every area of our lives where quick response is essential follows some basic best practices:

1. Have the tools needed for 90-95% of the possible incidents in a cart, truck, box, or other segregated area. The tool box should be mobile and easy to get to the breakdown. In a building a cart is okay but in a large industrial site consider footlockers, tool boxes that can be thrown onto the back of a truck or a complete truck is more desirable. I.e.
2. The tools are put away into the same places, pockets, drawers, cabinets each time. In a breakdown it is essential that everyone knows where everything is. That is why the drawer of a all of a hospital's code carts (used when someone stops breathing or their heart stops) always has the same tools or drugs. This is so important in a hospital that there are periodic task forces that review and redesign the standard layouts as better technologies and tools become more commonplace.
3. Care is taken to clean, lubricate, charge batteries, and generally care for the tools after the crisis is over. There is nothing more frustrating than being in the middle of a repair and having a dead battery on a needed screw gun, meter, etc.
4. Predict the types of parts and materials needed and build-up a cart, box, vehicle with the materials needed for 90-95% of the quick repairs. Alternatively consider locked cabinets in each area with critical spares. The parts and materials issue in a typical maintenance setting is far more bulky and complex than in a hospital (humans come in many styles but only two models unlike machines!).
5. Replenish the parts used after the crisis is over. In a hospital a nurse is assigned to inventory and replenish the cart after it is used. Who is explicitly assigned in your facility?
6. Create a work order of what was done, what was used, for the records. Part of the job is to clean and put away the tools, replenish the parts and fill out the paperwork. Consider having a meeting a day or two later to discuss what happened, what went well and what needs work for next time. This is not to point fingers but rather to identify what worked and what didn't. In a hospital there is a committee called the M&M committee (Mortality and Morbidity) that reviews every death and sickness (that started once in the hospital) for what can be learned and if any procedures need to be changed (or reinforced).

7. Spend time training people in response to breakdowns. Let the people that are great at firefighting teach what they do, and how they approach these type repairs. Use the work orders from the last crisis to jog people's memory.

Cart design:

The fire fighter's cart should be intensively studied by both the maintenance personnel and management. Consider the Phone Company or Gas Company. Tremendous thought goes into how to outfit a service person's truck. Next time you have an opportunity, ask the telephone installer or gas repair person how their truck is set-up and why. Apply the lessons to the fire fighting cart, van, (or even 5 gallon bucket!!).

The more often you have the needed part in the cart the more downtime you avoid and money you save.

Organizations that are serious about quick response to breakdown do the following:

1. Have meetings on this topic and discuss what happened in the past with their old timers
2. Include the maintenance customer in these meetings
3. Decide who will do what when an asset breaks down
4. Decide where you will keep the cart and spares

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