

## Most problems are easy to solve! However...

**'We cannot solve our problems with the same level of thinking that created them' Albert Einstein**

### The challenge

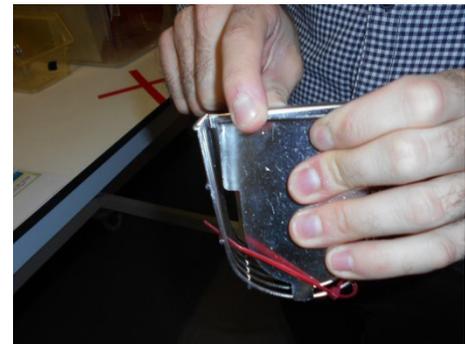
Many times during the rodent cage change process, animal technicians were stopping mid-process to report faulting caging and then waiting for replacement parts to be delivered. Our support team were frustrated by the unplanned interruptions to their work, having to deliver replacement equipment to our animal rooms. These interruptions to our daily work were costing us time and slowing down the flow of value to our customers.

### The current state

Dirty cages were removed from our rodent areas and taken to a central cage wash. Our support group dismantle, clean and rebuild cages ready for re-use. Despite including cage and equipment checks in training, verification of competencies and written procedures, defective equipment was not always identified. This meant that damaged caging and ancillary equipment was making its way all the way through the cleaning process and being returned as suitable for use to our animal rooms.

### Zero defects

Our goal was to realize a process that results in ZERO pieces of faulty equipment making it through our cleaning cycle. This would stop many of the interruptions to our daily work in the rodent rooms and support group. We needed to challenge the current procedure to see if we could find a way to stop defective equipment making it through the cleaning cycle.



### Visible process

We used process mapping to understand the current state and make process visible to everyone. A team of subject matter experts from the cage wash area were brought together to brainstorm all the possible ways that a faulty piece of equipment could go unnoticed. Step-by-step the process was reviewed and the list of potential failure modes was taken forward to generate solutions. Our cage wash operators found that by applying light hand pressure to the equipment you could see where the welding was damaged, so one of the major changes identified was to include a physical inspection as well as a visual one.

## Visual controls

The team decided that updating standard operating procedures and retraining operators in the new process would not be enough to guarantee a robust and sustainable change. Visual Displays and Controls were developed and installed at set points along the process, to ensure the new standards were very obvious and easy to remember. The inventory required to perform the new tasks was organized to be close to hand, making it easy to perform the new tasks. The combination of this visual and organized workplace really made a difference.

## 300 cage lids

In the first two months following implementation of the new process, over 300 cage lids and other pieces of faulty equipment were identified and taken out of circulation. Previously, many of these pieces would have gone through the cage wash area undetected and returned to the animal areas. The extra time required to resolve these 300 defects further downstream has now been eliminated and our technicians can spend more time caring for our animals and adding value for our customers. In addition, the chance of an incident due to faulty caging has been dramatically reduced, improving our quality.

## Communication and training

To embed this new process, a training area was set up with written instructions and physical examples, with the emphasis being on how important it is to take the time to physically check the cages as well as visually. Additional controls were put in place to ensure our maintenance team were able to provide support for the volume of repairs required; this additional cost was small in comparison to the time gained by removing the defective items.



## Employee involvement

The support staff were consulted throughout the transformation and are pleased to have contributed to the solutions and controls. They can see the important role they play in improving the welfare of the animals and delivering the best quality and service for our customers.

We walk past the training display several times a day - it acts as a reminder

It is already in our training but this has really bought it home to us, we are pleased to improve the welfare of the animals

Calls to replace pieces of faulty equipment in the animal rooms have reduced

Even staff who have been here for ages have embraced the changes to the process - they can see how it prevents injury and maintains our study integrity

It is surprising that when you take time to inspect the equipment physically as well as visually how you find faults you wouldn't have done before