# ISAC South Hot Cell Entry
# Feb. 25/15

## Purpose/Objective:

1. Investigate hot cell window to determine if it is leaking on the cell side.
2. Change hot cell exhaust pre-filter.
3. Lubricate manipulators
4. Collect compressible waste i.e. plastic from spent target procedures, old tank suits and remove 1 bag from hot cell for disposal.
5. Access fields and contamination level. Contamination level to be accessed by swipes before and after slight decontamination.
6. General clean-up and decon.

## Set up:

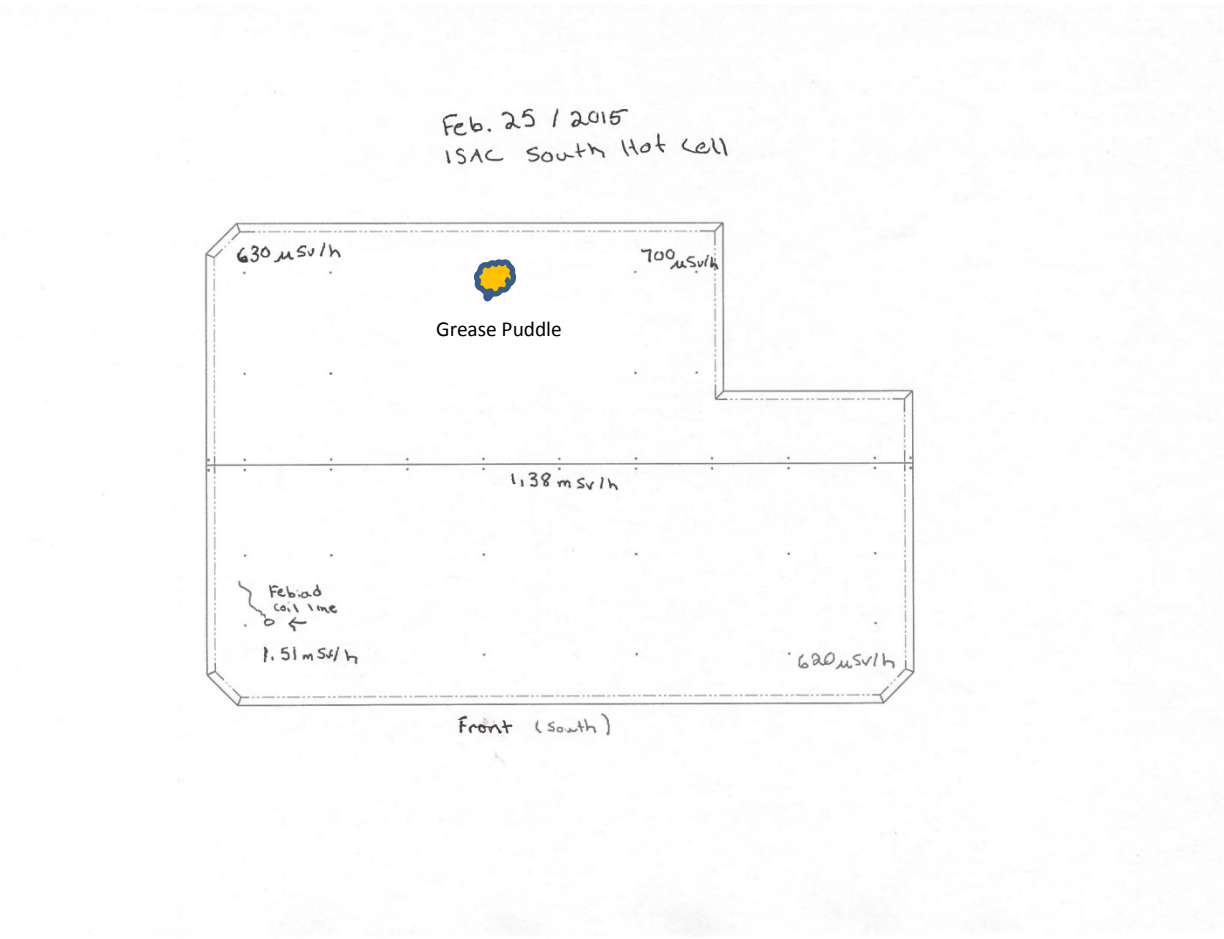
- Plastic laid out in-front of hot cell entry on floors and walls.
- Field measurement taken at aluminum cover of hot cell entry – 250µSv/h on contact.
- Breathable airlines and hoods prepared.
- Radios charged.
- Work permits filled out.
- ISAC ops and main ops notified.
- All safety gear re-stocked i.e. tank suits, gloves etc.

## Operation/Notes:

- Radios tested before suit up.
- Bags and ties for waste removal set out.
- Breathable air system purged.
- Suit up.
- Chad was equipped with a digital, alarming dosimeter set to alarm at 450µSv.

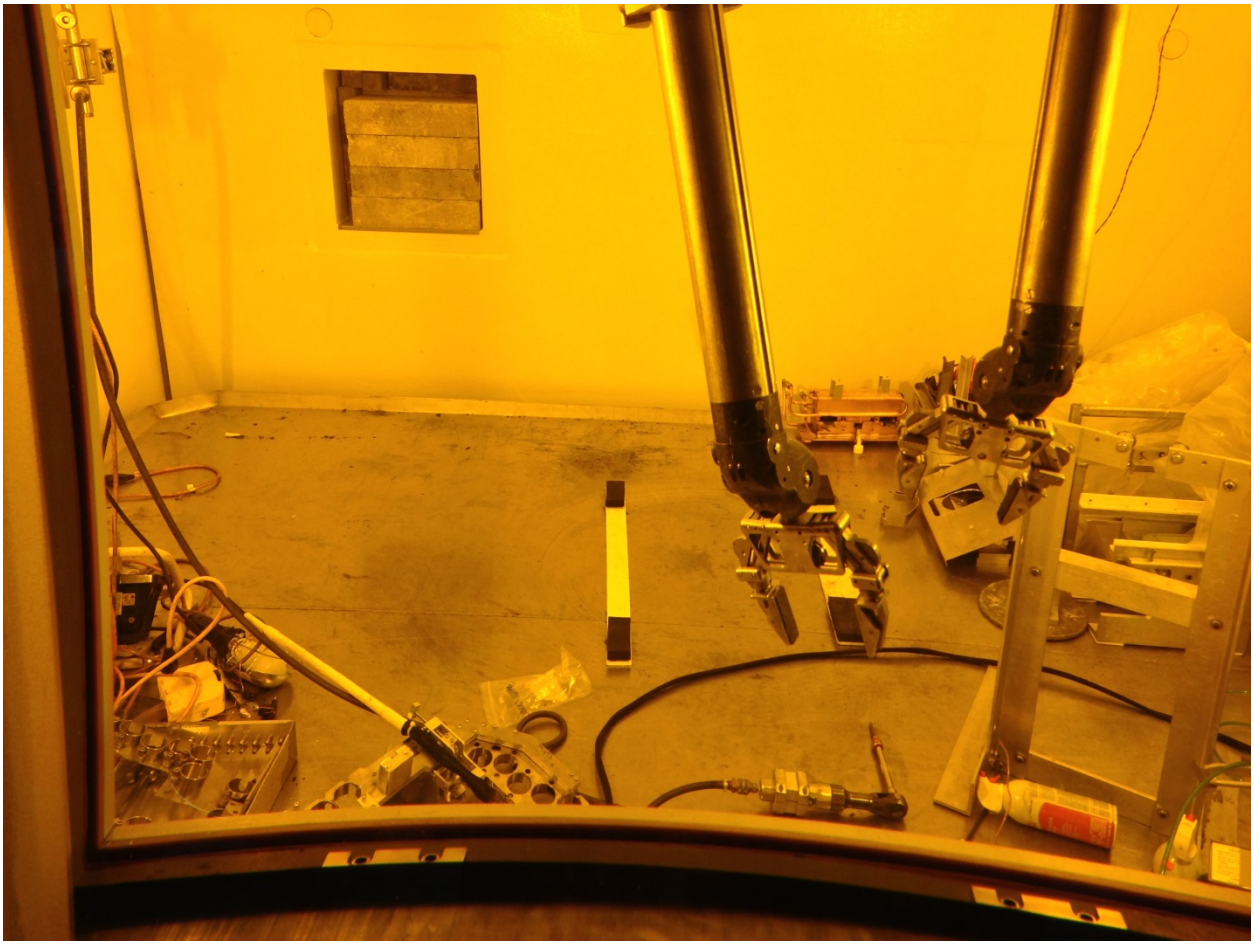
❖ Radios just before entry into the anteroom…something was not working with them.

- Upon entry into the cell it was discovered most of the compressible waste had already been bagged, there being two large bags of compressible waste present at the opening of the cell just inside.
- Clean sheet of plastic was laid on the table to provide an area to situate “clean” bags of waste; that is waste that has been put into clean bags that have been brought into the hot cell for removal of the waste.
- Clean bags and filter were placed on this clean plastic while field measurements were taken.
- Field measurements were taken at 6 places in the cell using a RAM at approximately 1 m up from the table surface. Since radio was not working measurement were written onto cardboard and relayed visually to operator outside cell.

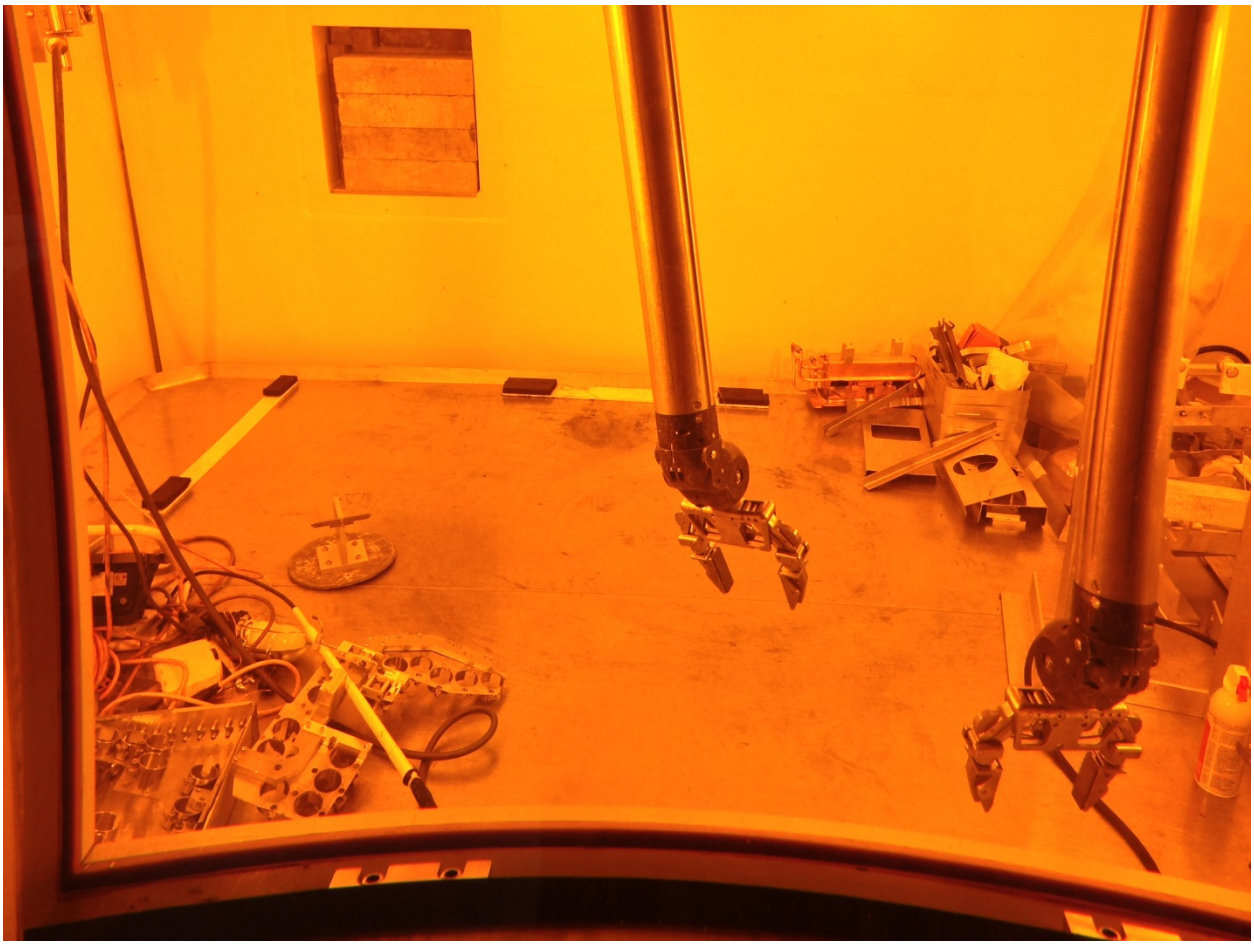



- Filter was changed and dirty filter transferred into a clean bag, zip tied and placed on the clean plastic.
- Window was checked for signs of oil leak. None found.
- Manipulators were lubricated with silicon dry film lubricant.

- It was noted that there appeared to be a grease “puddle/spot” on the table, below the turntable. See above diagram.
- Compressible waste collected, inserted into a clean bag, zip tied and placed on clean plastic.
- Before decon. swipes taken of center of hot cell table and entry area of table. Both alpha swipes and standard swipes used at center area; just standard swipe used at entry area.
- Handle for stick rolls found to be stuck under scissor table. Large paint bush used to collect/sweep up table into the central area were a piece of paper was used to collect the material. The collected particulate was then placed in the metal disposal tray to be disposed of with the spent targets.
- There was a complete target disk on the window sill that was also collected and put with the waste to be disposed of with the spent targets.
- Sticky roll was then used by hand to decon. the table surface.
- After swipes of the center table area were taken; both alpha and standard.



**Before Cleaning**



After Cleaning

- Alarming dosimeter alerted of approaching the set point of 450µv.
- Cell was exited.
- “Clean” bag with dirty filter and one “clean” bag of compressible were removed from the hot cell upon exiting, as well as swipes and RAM.

- Time in the cell was approximately ½ hour.

- Dose recorded on alarming dosimeter which was positioned at approximately collar bone height was 416µSv.

- Dose recorded on pencil dosimeter worn at waste height (1m) was approximately 550µSv.

- Initial swipes of plastic on floor outside of anteroom showed 600 counts of contamination. No alpha found in anteroom. 2000 counts on tacky mat at plastic area. 1000 counts on Chad overshoes removed at plastic area.