Lessons Learned & Success Stories – June to August 2015 Report

The NBACC Lessons Learned and Success Stories Summary serves to reinforce a strong culture of safety and accountability by promoting consistent reporting of mishaps, establishing strong lines of communication with the safety department, supporting a learning environment by allowing others to learn from reported events, and tangibly demonstrating NBACC Leadership's commitment to safety, accident prevention, and continuous improvement.

SUCCESS STORIES:

1. Recently a staff member noticed a stack of boxes on a dolly had started to lean forward due to the weight of the contents. Instead of taking a "not my responsibility" approach, they took the time to find the responsible individual and communicate the unsafe condition.
2. While attending a scientific symposium, a staff member observed a new tool for safety opening glass ampoules. They brought the information back to other staff and now the tool is on order for trial use at NBACC.
3. A staff member's daughter had a recital in which her father was attending and after which was going to take the children home with him for the weekend. He stated that he was exhausted because he was awake all night and they collectively decided it would be better for the kids to come home with the staff member, who was well-rested, and that he would pick them up in the morning after he got some rest.
4. While a LSM was explaining emergency exit procedures during a suite orientation to a new staff member with a vaccine waiver (i.e. the visitor was using a PAPR), a question came up regarding where the PAPR should be doffed in an emergency (i.e. the hot side or the cold side of the airlock). The LSM worked with the Safety Department to determine that PAPR's should be doffed on the hot side of the airlock. The LSM then followed up with the staff member with the information.
5. Recently, a staff member and their son decided to have a backyard camp-out so they popped a tent in an open space in the backyard. In the middle of the night, while sleeping in the tent, the staff member woke up to a thunderstorm rolling in. Having just read an article on lightning safety the week before and knowing that they were a prime target for a lightning strike, the staff member decided it was in their best interest to cut the camp-out short and head inside the house for the rest of the night.
6. Recently a staff member accompanied her parent, who lives with the family, to the family doctor. During the visit the doctor asked the family to reassess their home for any potential trip hazards. The family walked around the home and discovered several small area rugs in the main walking area that were either removed or resituated. The family also replaced two lightweight mats located in front of the kitchen sink and stove with heavier chef mats that would stay in place.

LESSONS LEARNED:

1. Effective communication is a key component of every safe working environment. It becomes increasing important when a task involves the hand-off of an activity between staff members or when signs/labels

are needed to convey the information. In multiple situations this month a hazardous condition could have been avoided with improved communication through labeling (i.e. autoclave bag not labeled as containing a computer, a bucket not labeled as to the contents). Always remember that the next staff member entering an area is relying on you to effectively communicate information related to work place hazards.

2. Attention to detail can mean different things to different people but most people can agree that the higher the level of attention to detail, the better and safer the work product. This month, multiple near misses serve as a reminder of the importance of attention to detail (e.g. wearing jewelry into containment, wearing the proper PPE, hitting the wrong control button on a BSC, a refrigerator door not closed properly). While these could be considered "no harm, no foul" type events, they should be used highlight the need for awareness in all areas of NBACC operations.
3. Each of the near misses this month demonstrate NBACC's continuing commitment to track safety related information at a very low level. The flow of information (i.e. reporting) at this level allows for continued evaluation of processes and procedures to help ensure that we are operating at the safest level possible. Keep up the good work!
4. Knowing what to do in case of an emergency, BEFORE an emergency happens is important in order to keep yourself and your co-workers safe in the event that something unexpected does happen. With the recently completed office moves, now would be a great time for everyone to re-acquaint themselves with emergency operations procedures located in Reliance. Emergency contact numbers, exit routes, and fire alarm pull stations are all easier to locate before they are actually needed.

EVENT SUMMARIES:

1. **FIRST AID SUMMARY:** 06/05/2015; A BNBI employee's waterproof Band-Aid® came off while they were putting on their shoes in the BSL-3 containment side change room. The CMA determined that this was not a potential exposure.

2. **FIRST AID SUMMARY:** 06/09/2015; A BNBI employee cut their knuckle on a three-hole punch. The CMA examined the employee who was not restricted from work as result of the injury.

3. **FIRST AID SUMMARY:** 06/15/2015; A BNBI employee cut their knuckle on a door frame while they were removing their shoe covers. The CMA examined the employee who was not restricted from work as result of the injury.

4. **FIRST AID SUMMARY:** 06/30/2015; A BNBI employee hit their head on a wall-mounted shoe cover case. The employee did not seek medical attention and used first aid only.

5. **FIRST AID SUMMARY:** 07/1/2015; A BNBI employee cut their elbow on a door handle while moving a copy machine out of an office area. The CMA examined the employee and they were not restricted from work as result of the injury.

6. **FIRST AID SUMMARY:** 07/21/2015; A BNBI employee cut their hand on a shoe box cover while moving laundry. The CMA examined the employee and they were not restricted from work as result of the injury.

7. **FIRST AID SUMMARY:** 07/22/2015; A BNBI employee cut their finger on the outside edge of a BSC while working in BSL-3. The CMA ruled that this was not a potential exposure and the employee was given first aid.

8. **FIRST AID SUMMARY:** 07/28/2015; A BNBI employee reported that they experienced a spider bite at the Annex location. The employee contacted the CMA by phone and applied first aid. The building manager was also notified of the pest issue.

NEAR MISS SUMMARIES:

1. **EQUIPMENT FAILURE SUMMARY:** 05/05/2015; A security guard noticed a burning smell coming from an IT server room. The smell was traced to an overheating server battery. The battery was removed from service and placed on the loading dock to cool. An "extent of condition" investigation is being conducted on the entire system of back up batteries.
2. **LAB PROCESS FAILURE SUMMARY:** 05/07/2015; A BNBI subcontractor entered several BSL-2 laboratories without proper authorization in order to install new card readers at the threshold to the labs. Work was stopped until the proper authorization was obtained.
3. **PPE FAILURE SUMMARY:** 05/07/2015; A BNBI employee reported a BSL-4 suit breach at the shoulder seam (Sperian #92). The CMA determined that it was not a potential exposure, and the suit was repaired and put back into service.
4. **LAB PROCESS FAILURE SUMMARY:** 05/12/2015; A BNBI employee forgot to remove their watch prior to entering BSL-3 containment. The watch was surface decontaminated and removed from the suite.
5. **PPE FAILURE SUMMARY:** 05/13/2015; A BNBI employee reported a BSL-4 suit breach (Sperian #92) at the shoulder seam. The CMA determined that it was not a potential exposure, and the suit was repaired and put back into service.
6. **LAB PROCESS FAILURE:** 05/14/2015; A BNBI employee found an unlabeled chemical in the bottom of a covered five gallon bucket. The chemical was identified as a potentially hazardous item and it was placed into the chemical fume hood. It will be removed from the lab as waste in the future. The chemical is a two part disinfectant currently under study at NBACC. The material will henceforth be correctly labeled and it will continue to be placed in secondary containment.
7. **LAB PROCESS FAILURE:** 05/14/2015; A BNBI laptop computer (hard drive and batteries removed) was mistakenly disposed of after it was autoclaved out of the containment suite. The manager created a corrective action to better outline the process for removing computers from laboratories to prevent reoccurrence.
8. **PPE FAILURE SUMMARY:** 05/18/2015; A BNBI employee reported an outer glove tear (nitrile) while working with a RG3 agent. The incident was reported and CMA determined that it was not a potential exposure.
9. **PPE FAILURE SUMMARY:** 5/27/2015; A BNBI employee reported an outer glove tear (Blue nitrile) while they were in the BSL-4 shower. The incident was reported and the CMA determined that it was not a potential exposure.
10. **LAB PROCESS FAILURE SUMMARY:** 05/28/2015; A BNBI employee reported that they forgot to don gloves before they put a stack of new, unused plates into a BSC that had been previously decontaminated. The employee was retrained on PPE procedures.
11. **LAB PROCESS FAILURE SUMMARY:** 5/29/2015; A BNBI employee reported that they dropped a box of unused micropipette tips on the floor after they had just removed them from the BSC. The outside of the tip box had been surface disinfected but not the inside. All personnel were in RPE during the mishap. A third employee opened the door to the room after the box was dropped but was immediately told to leave and never entered the room. The CMA determined that it was not a potential exposure.
12. **EQUIPMENT FAILURE SUMMARY:** 05/29/2015; A Class III glovebox experienced a temporary decrease in negative pressure and went into alarm when a plastic bag was sucked up into the exhaust vent. There was no direct work at the time of the incident and no loss of negative pressure to the glovebox.

13. **FACILITY PROCESS FAILURE SUMMARY:** 05/29/2015; Several BSL-3 toilets overflowed onto the floor caused by a significant increase in back pressure from the Effluent Decontamination System (EDS). The EDS was being actively manipulated at the time of the incident. Future pressure testing on the system will occur after hours.
14. **PPE FAILURE SUMMARY:** 06/03/2015; A BNBI employee reported a BSL-4 suit breach at the crotch seam (Sperian #112). The CMA determined that it was not a potential exposure, and the suit was repaired and put back into service.
15. **LAB PROCESS FAILURE SUMMARY:** 06/03/2015; A BNBI employee reported a spill of approximately 200ul of a RG2 agent onto the working surface of an operating Class II BSC. The spill was cleaned up and the area surface disinfected.
16. **LAB PROCESS FAILURE SUMMARY:** 06/05/2015; Two BNBI employees reported that they did not don respiratory protection (PAPR) prior to commencing an aerosolization event in a Class III BSC. Use of PAPR's was required as an added layer of safety for the activity. The CMA determined that there was no potential exposure.
17. **FACILITY PROCESS FAILURE SUMMARY:** 06/08/2015; A BNBI employee reported that water had overflowed from a toilet in BSL-3 onto the bathroom floor. This incident was caused by a release of pressure from the EDS system. FMO is actively performing an engineering assessment of this EDS issue and has a plan in place for resolution.
18. **LAB PROCESS FAILURE SUMMARY:** 06/11/2015; A BNBI employee reported that they had mistakenly turned off a Class II BSC for about 4 seconds after they were finished cleaning up for the day. The employee meant to turn off the light and instead hit the blower button. All infectious material had been put away and the BSC had been running for about 15 minutes prior to the event. The CMA determined that there was no potential exposure.
19. **PPE FAILURE SUMMARY:** 06/12/2015; An BNBI employee reported two small holes in an outer glove tear (nitrile) of an anaerobic chamber while working with a RG2 agent. The inner glove also had a small hole in it although it was in a different area of the hand. The CMA determined that it was not a potential exposure.
20. **LAB PROCESS FAILURE SUMMARY:** 06/12/2015; A BNBI employee reported a spill of material coming from a deli refrigerator. The spill was found to be condensate water from the fridge resulting from the door being left slightly ajar.
21. **LAB PROCESS FAILURE SUMMARY:** 06/15/2015; A BNBI employee (escort) reported that a visitor mistakenly wore a ring into a BSL-3 laboratory. The ring was surface decontaminated and removed from the suite.
22. **LAB PROCESS FAILURE SUMMARY:** 06/16/2015; A BNBI employee reported that they found a tear in the outer bag of a contaminated, double bagged instrument that was inside of a decontaminated Class III BSC in BSL-3. The inner bag was not torn. Another bag was placed over all of the materials.
23. **PPE FAILURE SUMMARY:** 06/17/2015; A BNBI employee reported an outer glove tear while exiting from the BSL-4. The inner glove was intact. The CMA determined that there was no potential exposure.
24. **FACILITY PROCESS FAILURE SUMMARY:** 06/19/2015; A DHS security guard informed FMO about a leak of uncontaminated water in an interstitial space. The leak was caused by the failure of a piping union for a reheat coil.
25. **PPE FAILURE SUMMARY:** 06/23/2015; A BNBI employee reported a BSL-4 suit breach at the crotch seam (Sperian #115). The CMA determined that it was not a potential exposure, and the suit was repaired and put back into service.

26. **PPE FAILURE SUMMARY:** 06/25/2015; A BNBI employee reported a BSL-4 suit breach at the headpiece (Sperian #92). The CMA determined that it was not a potential exposure, and the suit was repaired and put back into service.
27. **PPE FAILURE SUMMARY:** 06/30/2015; A BNBI employee reported a BSL-4 suit breach at the crotch seam (Sperian #145). The CMA determined that it was not a potential exposure, and the suit was repaired and put back into service.
28. **LAB PROCESS FAILURE SUMMARY:** 07/07/2015; A BNBI employee reported that they forgot to don a waterproof bandage prior to entering BSL-4 laboratory. The employee immediately showered out of the suite and got a bandage. The CMA determined that it was not a potential exposure.
29. **PPE FAILURE SUMMARY:** 07/10/2015; A BNBI employee reported that they tore their outer glove (nitrile) while working with infectious material (possibly on the edge of a cryovial). The inner glove was intact. The CMA determined that it was not a potential exposure.
30. **EQUIPMENT FAILURE SUMMARY:** 07/13/2015; A BNBI employee reported that they found a tear in a gas permeable plastic bag that contained nine contaminated plates. The employee immediately placed the bag into a BSC. The CMA ruled that there was no potential exposure.
31. **LAB PROCESS FAILURE SUMMARY:** 07/21/2015; A BNBI employee reported that they found a paper towel with blood on it in the men's bathroom. The source of the blood was not discovered. The paper towel was discarded and the area disinfected.
32. **PPE FAILURE SUMMARY:** 07/27/2015; A BNBI employee reported a BSL-4 suit pinhole breach in the leg (Sperian #104). The CMA determined that it was not a potential exposure, and the suit was repaired and put back into service.
33. **FACILITY PROCESS FAILURE:** 07/28/2015; A BNBI employee reported that a toilet voided its contents onto the floor of a BSL-3 bathroom. Facilities Management is monitoring the issue.
34. **PPE FAILURE SUMMARY:** 07/29/2015; A BNBI employee reported a BSL-4 suit pinhole breach in the leg (Sperian #145). The CMA determined that it was not a potential exposure, and the suit was retired.
35. **FACILITY PROCESS FAILURE:** 07/29/2015; A BNBI employee reported that a toilet voided its contents onto the floor of a BSL-3 bathroom. Facilities Management is monitoring the issue.