

ENS Tara Sloan
JRCOSTEP Summer 2016
East Central University
Phoenix Area Office
Phoenix, Arizona



Hello, my name is Tara Sloan! I am originally from Fort Worth, Texas. I am a senior at East Central University in Ada, Oklahoma, where I will graduate this December with a Bachelor's in Environmental Health Science. This summer I was fortunate to serve as an intern with the Indian Health Service, Phoenix Area Office, which is approximately 1,054 miles from my hometown.

As a part of the Division of Environmental Health Service's Institutional Environmental Health (IEH) Program at Phoenix Area, I had the privilege of being immersed in many diverse projects during my summer tour. Phoenix Area IHS provides health care and community health services to approximately 140,000 American Indians/Alaska Natives in Arizona, Nevada, and Utah. The IEH Program provides accreditation, industrial hygiene and emergency management support to 26 healthcare facilities. IEH also assists the community environmental health program with the inspection of complex community institutions such as industrial plants, schools with shops, correctional facilities and dialysis centers. I worked closely beside my preceptor CAPT Dave Cramer, who gave me a great introduction to the IEH Program through multiple visits to complex facilities. Over the summer I participated in NFPA Life Safety Code surveys, OSHA surveys, food service inspections, swimming pool inspections, ventilation surveys, OSHA training and vector disease surveillance. I also managed the calibration of the programs IH equipment.

One of my main projects assigned to me this summer was the *Safety Officer Resource Guide*. The guide's purpose is to serve as a go-to resource for safety personnel at healthcare facilities and EH Officers in the field. The guide includes common OSHA regulations, Joint Commission Environment of Care standards, NFPA references, and the Facility Guidelines Institute ventilation guidelines. I was responsible for identifying any additional applicable references and formalizing and distributing the guide. I am proud to have worked on this document as it provides safety personnel with a very useful and efficient quick reference.

In June I assisted in conducting an OSHA survey of a carbon regeneration facility. The facility regenerates carbon used in filtration systems (i.e. waste water treatment and air emissions control). Spent carbon filter media is transported to the facility by truck where the carbon contaminants are characterized by laboratory analysis. One of the key findings we discovered while conducting the inspection was that one of their outdoor eye wash stations water temperature measured at approximately 120°F. This was due to the plumbing being exposed to sunlight and ambient temperatures



exceeding 100°F. Water exceeding 100°F can not only damage the cornea, it can enhance the chemical reaction as opposed flushing it out of the eyes. It was recommended that the facility plumb tepid water to the eyewash station.



Another task I assisted with this summer was helping CAPT Cramer train a hospital maintenance mechanic on the ventilation survey process. The training included how to properly use the equipment needed to check air flow, conduct surveys on the hospital isolation rooms, as well as how to calculate Air Changes per Hour (ACH). The equipment we used were the Balometer (measures air flow), VelociCalc (measures air flow in places that are difficult to reach), and smoke tubes (verifies pressure relationships between isolation rooms and corridors). Being able to determine pressure relationships and ACH is crucial to patient and staff safety. For example, airborne isolation rooms must have a negative pressure to ensure that whatever airborne contaminant is in that room is not being spread to the rest of the hospital. By the end of the day, the maintenance mechanic demonstrated a high degree of competence with these tasks.

Another great experience I had this summer was performing West Nile virus surveillance on the Hopi Reservation. We placed mosquito traps throughout the reservation at dusk, which is the optimal time for mosquito activity. Once the mosquitos fly into the trap, the fan prevents them from escaping, and they are collected the next morning for analysis.



I am especially thankful for this assignment which gave me an exceptional opportunity to experience the various Native American cultures and customs. I couldn't have asked for a more unique, humbling, educational, and fulfilling internship than what I was provided this summer. I have never felt more prepared for my career in environmental health than I do now after completing this internship. I strongly encourage anyone who has an interest and a passion for environmental health to apply for the JRCOSTEP. It's a once in a life time experience that I promise you will be talking about for the rest of your life. I cannot put into words how thankful I am to have had this experience, and I can honestly say that this was hands down the best summer of my life!