

Report of Travel to North Carolina State University, Department of Nuclear Engineering

Traveler: Jonathan Haire

Date: September 16, 2004

Graduate Seminar Title: "Research Opportunities with Uranium"

American Nuclear Society Student Chapter: "An Overview of ORNL"

Summary of Visit:

I began interviewing students at 10:00 AM in 30 minute intervals and this continued throughout the day until my seminar at 4:00 PM, except for lunch. There is one "superstar" that I recommend that ORNL employee. He is Brain Lee Bures and will complete his PhD in December 2004. His Phd thesis is related to national security: "Rapid Mortality of Pest Arthropods by Direct Exposure to Dielectric Barrier Discharge". The thesis describes a way of sterilizing containers that may contain insect ,virus, etc.

I recommend that we also consider hiring PhD student, Jason Haverkamp. But, he already has a verbal job offer from a firm in California. His research concerns the deposition of carbon films. He and I discussed long-lived nuclear batteries for monitoring spent nuclear fuel storage and disposition casks, and, the semiconductive properties of uranium dioxide. He would do well at ORNL.

I interviewed two unusual undergraduate students. They are looking for summer internship. Shuang Du is an American citizen but born on mainland China. He arrived in the US when five years old. He speaks and writes Mandarin Chinese fluently. Likewise, Andy Li is from Hong Kong and is bilingual in Cantonese Chinese and English. Because of this and their normal excellent technical skills, the National Security Directorate may be interested in them.

A number of undergraduate students will apply for summer internship during the summer of 2005. I gave them a web site and described the application procedure. I will try to place Paul Swaney (my student from this past summer) and Brandom Clark myself.

I spent about 30 minutes talking with Prof. Paul Turinsky, head of the Department of Nuclear Engineering (NE). The Department has turned-around from a low of five to seven years ago. NCSU NE has decided to limit enrollment to 120 undergraduates and 50 graduate students.

I had lunch with Ms. Lisa Marshall, the student recruiter for NCSU NE. I had several discussion with Prof. K.L. Murty, a nuclear materials specialist.

I have resumes from all student interviewed and will give them to Sandy Tull for distribution.