



Contribution ID: 47

Type: **Oral**

Galaxy Serpent: A Web-Based Table-Top Exercise for National Nuclear Forensics Libraries

Tuesday, 8 July 2014 14:40 (20 minutes)

Galaxy Serpent is a first-of-a-kind, virtual, web-based international table-top exercise, where teams of scientists from various countries 1) used provided public domain spent fuel compositions to formulate their own national nuclear forensics library (NNFL), and 2) determined if hypothetically seized spent nuclear fuel is or is not consistent with their national nuclear forensics library. This table-top exercise is conducted under the auspices of the Nuclear Forensics International Technical Working Group (ITWG) and involved approximately 24 teams of scientists. Galaxy Serpent aimed to promote “best practices” through providing a vehicle for participants to gather key technical expertise to create a NNFL using guidelines in IAEA documents and to illustrate the potential probative benefits offered by creating such a library. During the play of Galaxy Serpent, many teams quickly saw the need to involve other areas of expertise such as nuclear reactor engineers and fuel experts. The involvement of such additional experts helps to mature the expertise of the nuclear forensics international community. Teams also noted that different technical approaches yielded similar analytical conclusions. In addition, some of Galaxy Serpent teams have used this table-top exercise experience to inform their efforts at home to develop their own NNFLs.

Primary authors: Dr WONG, F. (US Department of Homeland Security); Dr BORGARDT, J. (Juniata College, USA)

Presenter: Dr BORGARDT, J. (Juniata College, USA)

Session Classification: Technical Session 2F