

September 20, 2005

MEMORANDUM TO: Charles L. Miller, Director  
Division of Industrial and  
Medical Nuclear Safety, NMSS

FROM: Paul F. Goldberg, Project Manager */RA/*  
IMNS/NMSS

Joel Bristor, Senior Systems Analyst */RA/*  
PMDA/NMSS

SUBJECT: EVALUATION OF SANDIA RADIOLOGICAL SOURCE REGISTRY  
AND TRACKING SYSTEM (RSRT)

We are forwarding the report of the evaluation of the RSRT. With the approval of the Commission, the staff directed an independent contractor, Aegis.net, to conduct an evaluation of the RSRT to determine its ability to satisfy National Source Tracking System (NSTS) requirements and its value as a starting point for the proposed NSTS. We evaluated this system in an effort to identify a lower cost alternative that would provide the needed source tracking system at an earlier date than the planned NSTS project.

The staff had conducted an earlier review of the RSRT as part of its alternatives analysis and had found that the RSRT had an approximately 30% match with the requirements of the NSTS and that use of the RSRT would be more expensive and prolonged than developing a custom system - the preferred alternative. The present evaluation was a more in-depth examination of the RSRT system's structure and operation than the previous review.

The following aspects of the RSRT were evaluated:

- Functional** – How well does RSRT match the NSTS functional requirements?
- Data Structure** – How well does RSRT match the NSTS data requirements?
- Technical Architecture** – Does RSRT provide a suitable foundation that is readily extensible to address additional NSTS requirements?

The results of the evaluation are as follows:

- Insufficient Functional Requirements Coverage:** Only 7.8% of the NSTS functional requirements are met by RSRT.
- Inadequate Data Model Scope:** The RSRT data model is only about one tenth of what NSTS needs.
- Inadequate technical architecture:** The RSRT technical architecture will not support the more complex and extensive requirements of NSTS. Furthermore, the architecture cannot be re-worked – it would need to be re-written from scratch.

In summary, the evaluation found that the RSRT meets very few of the requirements for the NSTS and its technical architecture does not provide a useful foundation for development of a NSTS. The staff briefed Sandia and DOE/OS on the results of the evaluation on August 18, NMSS on August 23, the DEDO on August 24, and Commission TA's on August 29. They all agreed with the conclusion that we should move forward with an independent solicitation.

cc: J. Holonich, PMDA

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cc: J. Holonich, PMDA

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