LA-UR-13-22653

Approved for public release; distribution is unlimited.

Title:	Second Line of Defense Program Secondary Screening Field Data Collection--Talking Points
Author(s):	Byers, Loren W.
Intended for:	Report
Issued:	2013-04-12

Disclaimer:

Los Alamos National Laboratory, an affirmative action/equal opportunity employer, is operated by the Los Alamos National Security, LLC for the National Nuclear Security Administration of the U.S. Department of Energy under contract DE-AC52-06NA25396. By approving this article, the publisher recognizes that the U.S. Government retains nonexclusive, royalty-free license to publish or reproduce the published form of this contribution, or to allow others to do so, for U.S. Government purposes. Los Alamos National Laboratory requests that the publisher identify this article as work performed under the auspices of the U.S. Department of Energy. Los Alamos National Laboratory strongly supports academic freedom and a researcher's right to publish; as an institution, however, the Laboratory does not endorse the viewpoint of a publication or guarantee its technical correctness.

**Second Line of Defense Program
Secondary Screening Field Data Collection—
Talking Points**

For the DOE Second Line of Defense Program

April 12, 2013

**Prepared for the
US Department of Energy**

**Prepared by
Loren W. Byers
Los Alamos National Laboratory**

**Second Line of Defense Program
Secondary Screening Data Collection Talking Points**

Secondary Screening is vital to the Second Line of Defense (SLD) mission:

Primary screening—

- detects the presence of radioactive material and
- alerts operators if a predetermined threshold is exceeded.

However,

- information about radioactive materials, especially about threat materials, is limited.

Secondary screening (ideally)—

- locates and constrains a source
 - to a particular pedestrian,
 - within a vehicle,
 - within a cargo container, and
 - as a distributed or a “point” source;
- identifies radioactive isotope(s) present;
- confirms or calls into question other information or explanations
 - manifest,
 - radiopharmaceuticals,
 - primary equipment performance,
 - environmental influences, and
 - etc.; and
- informs the decision about the presence or absence of a threat and the disposition/response.

“Secondary” does not mean secondary in importance!

The *deterrence* contribution of secondary screenings should not be overlooked.

Acquiring more complete and consistent information is important because:

The data that exist in some central alarm station records and reports are not universal in form or availability and have not been collected, organized, or analyzed in a coherent way.

Using anecdotes, although not without value, is insufficient because

- they may be incomplete, inaccurate, or biased;
- they may change with repetition (think “telephone game”);
- they may not accommodate a loss of corporate knowledge [partner country (PC) or SLD]; and
- they cannot be used to draw reliable valid, general conclusions;

Therefore,

- they are not adequate for informing improvements or reporting.

A coherent understanding of operational successes and failures, based on factual data, is needed to inform

- conduct of operations (best practices and improvements);
- equipment selection and optimization;
- support needs (staffing, reachback, etc.); and
- transition considerations.

The effort to collect data can (re-)focus attention and awareness (PC and SLD) on the key role of secondary screening and may offer learning opportunities (on both sides).

Best practices for collecting data:

Develop and make use of trusted relationships.

Capitalize on multiple natural conversations

- jigsaw-puzzle approach—gather many small details to form a whole picture.

Be sensitive, open, and transparent—assure interlocutors that the information

- will not be attributed,
- is only for SLD's use,
- is not for performance measurements, and
- will contribute to better understanding and improving operations program-wide.

Focus on key points:

- the number of screenings performed per time period,
- the time it takes per screening,
- the instrument(s) used,
- the result(s)
 - may be typical or specific,
 - radioisotopes identified, or
 - disposition, and
- the successes, problems, and concerns.

Evaluate the quality of the data.

Consider the value of recording data after the fact, in private.

SLD Concerns and Approaches to Them

Good communication and more independent pieces of information will help us to understand, evaluate, and address concerns.

Concerns	Approaches
Information provided may be inaccurate, incomplete, or untrue	<ul style="list-style-type: none"> Supporting reasons, observations, etc., should be noted and recorded It is incumbent on the SM and SLD team to evaluate the information for the program Some data are more useful than no data On-site, independent, multiple observations are powerful!
Information may be sensitive or protected for [legitimate] reasons: <ul style="list-style-type: none"> political operational economic professional personal 	<ul style="list-style-type: none"> Be sensitive to and respect boundaries! Understand and note the limits of the data
Motivation for SLD interest may be misunderstood	<ul style="list-style-type: none"> Good preparation Good communication!
Immediate access to the appropriate interlocutor may not be available	<ul style="list-style-type: none"> Patience Learn something from any interaction Know who the right person(s) is(are) and interview him/her (them) when possible
Site operations, physical constraints, etc., make it unique	<ul style="list-style-type: none"> Uniqueness is to be expected Gather information to describe uniqueness
Different conduct of operations and challenges among pedestrian, light conveyances, containers, and mobile applications may exist	<ul style="list-style-type: none"> Observe and note operations for the site visited Information will help improve all modes