



SAND2013-7415P

Updates to the FRMAC Laboratory Analysis Manual and Training

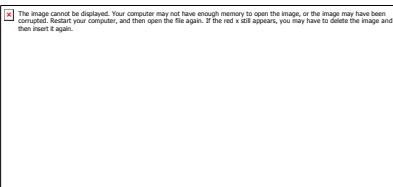
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Laboratory Analysis Working Group

Sandia National Laboratories

SAND-2013-TBD

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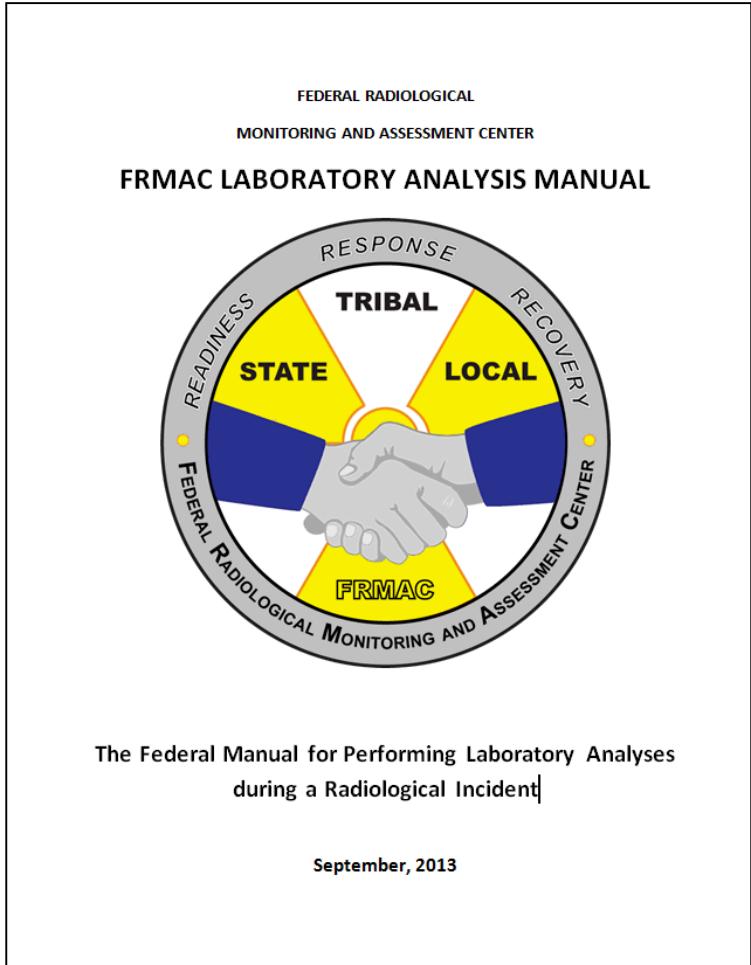


Manual Updates

Sections 1 and 2



- Introduction (1)
- Laboratory Analysis Division and Operations (2)
 - Minor modifications
 - Verbiage changes from Group to Division

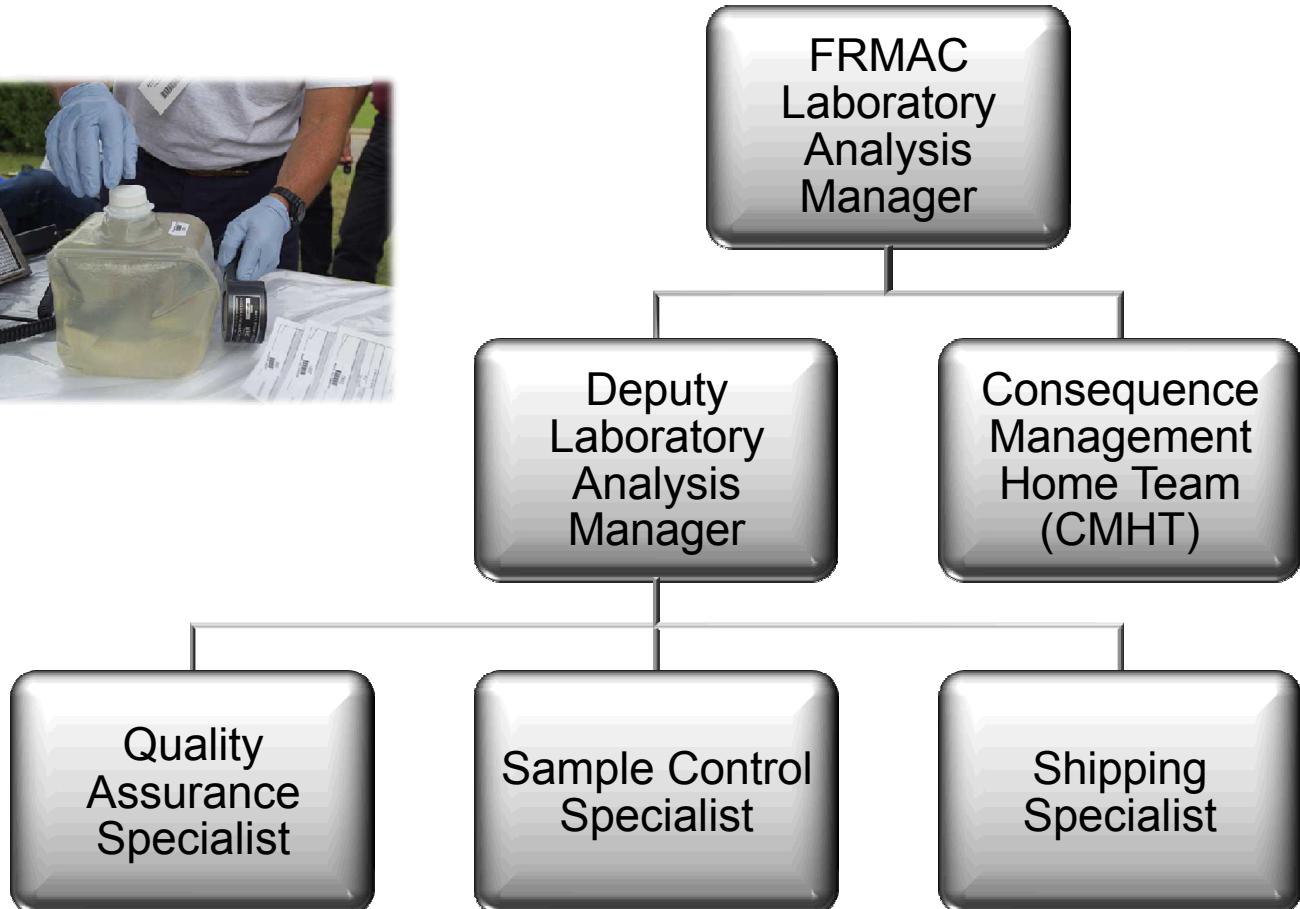




Manual Updates

Section 3:

Responsibilities

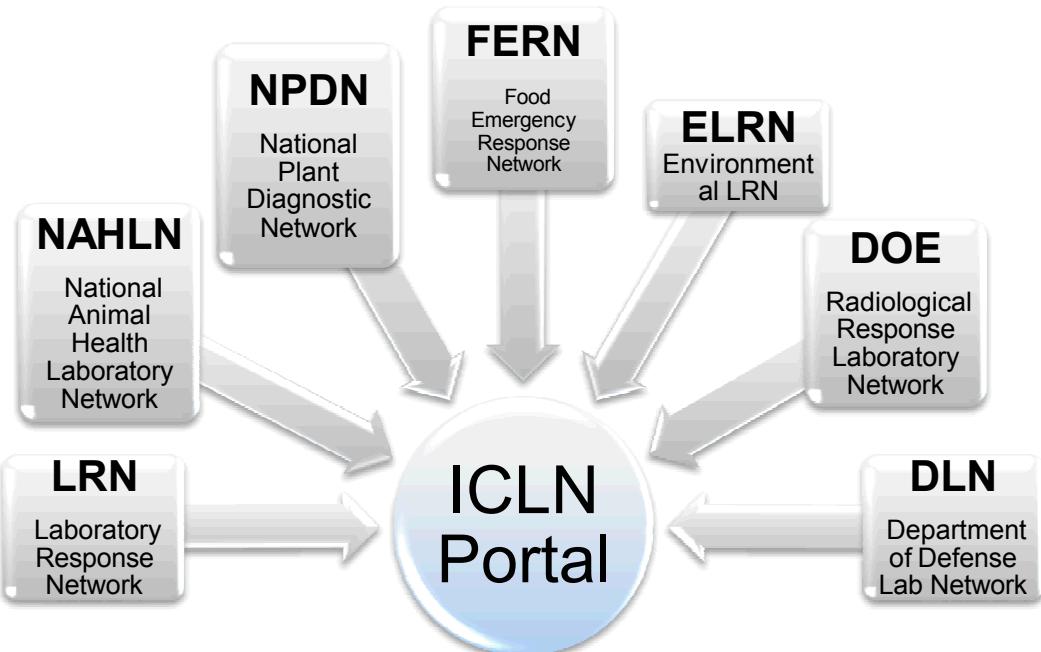


Manual Updates

Section 4



- Laboratory Selection Methods and Procedures (4)
 - Added additional laboratory resources
 - Integrated Consortium of Laboratory Networks (ICLN)
 - Comprised of laboratory networks from all federal





Manual Updates

Section 5

Major Modifications



- Sample Control Process and Procedures (5)
 - Incorporated Electronic Process Developed in the Radiological Assessment and Monitoring System (RAMS)
 - Developed a backup paper process in the event RAMS is unavailable
 - Developed an integrated paper process and electronic process





Manual Updates

Sections 6 & 7



- Laboratory Data Quality Control (6)
- Minor Changes Logistical Requirements (7)
 - Added more detail

Job Aid - Analysis Request Forms (ARFs)

Logging on the RAMS v 3

1. Go to the FRMAC website: <http://frmac.cem.darpa.mil>
2. Select the appropriate Group, and type in your user name and password.
3. Select the [Logon](#) button from the web page.
4. Select the event underneath the FRMAC Logo as shown below.

Adding SCFs to an ARF

5. Under the tab [Sample select - Analysis Request Form...](#).
6. Select [New](#).
7. Assign the ARF an ARF #. The ARF # is obtained from the Hardbound ARF Logbook.
8. Select test laboratory; the (Laboratory POC Information) should auto-populate. (Make changes if necessary)
9. In (Sample Headers/Comments/Additional Information), type any hazards pertaining to the samples as a whole.
10. For (Samples submitted are associated with a signed S.O.W.), if instructed place a checkmark and add any comments below.
11. If instructed, to place a checkmark in the (Analysis entered here agree with the S.O.W.) checkbox.
12. Select [Scan](#) or type, the sample #'s for all the samples that are to be attached to the ARF. Click [when done](#). (NOTE: A warning may appear, if this is not expected contact the deputy lab manager)
13. Alternatively, you may click [Batch](#) checkbox to give a list of all samples for the event ARF and then click [Scan](#).
14. A warning may appear indicating that the sample's dose rate exceeds the maximum dose rate for the laboratory or that the SCF is already attached to another ARF. If this is unexpected, contact the deputy laboratory analysis manager.
15. If any of the buttons are to be used, right click on the button and select [Copy](#) at the top of the screen and then [Paste](#) into the ARF.

NOTE: If any of the buttons are to be used, right click on the button and select [Copy](#) at the top of the screen and then [Paste](#) into the ARF.

Federal Radiological Monitoring and Assessment Center

Laboratory Analysts Instructions for samples submitted during an emergency response

Hazard Identification and Safety Considerations

The laboratory may receive samples containing known, suspected, or unknown amounts of chemical, radioactive, and/or biological hazardous constituents. The laboratory shall be aware of the potential hazards associated with the handling and analysis of these samples. The laboratory shall have documented health and safety plan which includes procedures consistent with Title 10 Code of Federal Regulations (10 CFR) parts 20 and 20.3, and 20 CFR part 2020.1650. While the FRMAC will provide available training information to the laboratory, it is the laboratory's responsibility to take all necessary precautions to ensure the safety and health of its employees.

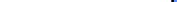
An Analysis Request Form (ARF) has been submitted with a collection of samples to your laboratory. This ARF serves as the official chain of custody and should reflect a continuity of possession for the group of samples. The ARF contains the most current contact information for FRMAC personnel; please use this contact information if you are any questions regarding the submitted samples or the analysis requested. If you are an on-site laboratory your FDC will be the Deputy Laboratory Analysis Manager envelope. The Sample Information section at the top of the form includes a table of information that pertains to the samples as a whole. The ARF contains a table of information that constitutes the analysis request. Should you choose to assign an alternate ID to any samples using an internal identification system there must be a key linking the FRMAC Sample ID to the laboratory ID that is submitted with the results. This documentation shall be included in the electronic and the hardcopy results submission. When applicable, decay corrected results to the Sample Date/Time, Volume(s)/Net weight(s) listed on the ARF for samples [other than air filter or wedge](#) are nominal values and should not be used to present the results. The Contact Date/Time is the result of a preservation method at what was used to preserve the sample. The isotopic ratio on the sample has not been treated in any way. The isotopic ratio is based on gross Bq measurement that is specific to the sample alone. The isotopic ratio to be analyzed for using the ARF represent the analyte(s) of interest that a sample is to be analyzed for using the method listed in the Analysis Method field. The sample must be counted sufficiently so that the measured critical level (measured to) achieves the listed required critical level (Lc), unless otherwise stated in this document. The analytical specific comments field is used for information pertaining to the individual sample/analyte. A result value is expected for each analyte listed on the table. Nuclides that are not included in the table but are detected above the measured critical reporting limit should be reported. Separate instructions will be sent regarding electronic data reporting.

Samples submitted under a single ARF may be grouped in multiple analytical batches; however, a single batch must not contain samples from multiple ARFs. Batches should contain only HPM samples and any Laboratory quality control samples (Laboratory control sample, Method Blank, Matrix Blank, etc.) that are applicable to the sample preparation and analysis method used.

Manual Updates

Appendices



2 Appendices  **8 Appendices**

- Detailed Position Description & Training
- Data Quality Objectives
 - Assessment DRL → AAL → Lc
- Electronic Data Deliverable (EDD)
- RAMS Operations
- Added Forms
 - Data Verification Review Form
 - Analysis Request Form
 - Initial Laboratory Questionnaire
 - Non Conformance Form

SAMPLE CONTROL FORM & CHAIN OF CUSTODY		SCF -
<input type="checkbox"/> TABLET - Sample information entered on Tablet		
Sampling Information (to be filled out by the Field Team)		
Field Team: ALPHA Collector's Name: E. Fermi Home Org: DOE Longitude: -106.620071 Location Description: Popejoy Hall Latitude: 35.082268		
Collection Date: 8/11/04 Collection Time (24hr): 0900 Area Exposure Rate: 20 uR/h Collection Comments: Soil in standard geometry Contact Dose Rate: 25 uR/h		
Sample Type (use only once)		
Air: Sample ID # 1 Type Filter Filter size & Type 10cm Paper <input type="checkbox"/> Cartridge <input type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> other Date/Time ON Date/Time OFF: OR Total Volume: 0 ml Flow Rate & units: Stop Flow Rate & units: 0 ml Additional Air Filter Media: None Sample Surface Area: 200 cm² Sample Sample # 1		
Soil: Milk <input type="checkbox"/> Fixed Feed <input type="checkbox"/> Feature <input type="checkbox"/> Other 2 cm Vegetation collected with soil sample? <input type="checkbox"/> If "YES" check box # 40 No vegetation Milk Date: 8/11/04 Milk Time: 0900 Number of Animals: 0 Depth of soil sample: 2 cm		
Water: Sample surface area: 200 cm² Water: Surface <input type="checkbox"/> Ground / Wet <input type="checkbox"/> Portable / Tap <input type="checkbox"/> Other: Other: <input type="checkbox"/> Vegetation <input type="checkbox"/> Food <input type="checkbox"/> Instrument Description: Other: <input type="checkbox"/> Swipe <input type="checkbox"/> Other <input type="checkbox"/> Other Sample Area (cm ²): L W H		
Sample Receiving (to be filled out by sample control & hotline technician) Processing Priority: <input type="checkbox"/> Urgent <input type="checkbox"/> Duplicate <input type="checkbox"/> Split <input type="checkbox"/> Composite <input type="checkbox"/> Blank Previous Contact Date: 8/11/04 Contamination Check: Forms end <input type="checkbox"/> Sample bag surveyed <input type="checkbox"/> Weight of Sample: 0 gram Analysis requested: None		
Job Ad - Analysis Request Forms (ARFs)		
Logging on the RAMS v 3 1. go to the FRMAC website: http://frmac.ornl.gov 2. Select the appropriate Group, and type in your user name and password 3. Select Forgot User Name and type in the user name you chose 4. Select the user environment the FRMAC logo as shown below: 		
Adding SCFs to an ARF 5. Under the tab Samples select Analysis Requests/Comments 6. Select Sample 1 Alpha 7. Assign the ARF # ARF# The ARF # is obtained from the Header and ARF Logbook 8. Enter your laboratory, the (Laboratory POC Information) should auto-populate. Make changes if necessary. 9. In Sample Hazards Comments/Additional Information , type in any hazards pertaining to the sample. 10. For (Samples and comments are associated with a signed S.O.W.) , if instructed place a checkmark and add any comments below. 11. If instructed to place a checkmark in the (Analysis entered here agree with the S.O.W.) 12. Select Sample 1 Alpha to place a checkmark in the (Analysis entered here agree with the S.O.W.) 13. Select or type the sample #'s for all the samples that we be attached to the ARF. Click Next when done. A warning may appear, if this is not expected contact the de-veyor manager. 14. Alternatively, you may click Print & Checkmark to give a list of all samples for the event with a sample type filter Print & Checkmark in for the samples you wish to attach to the ARF and Print & Checkmark in for the samples you wish to attach to the ARF. 15. A warning may appear indicating that the sample's dose rate exceeds the maximum dose rate for the laboratory or that the SCF is already attached to another ARF. If this is the case, contact the de-veyor laboratory analysis manager. If this is not expected, contact the de-veyor laboratory analysis manager.		
<small>NOTE: By clicking the "Print & Checkmark" button, you are agreeing to the following statement: "I, the user of this system, certify that the information contained in this document is true and accurate to the best of my knowledge and belief. I further certify that I have read and understood the Sample Control Form and Chain of Custody System User Agreement and that I am in full compliance with its terms and conditions."</small>		



FRMAC Laboratory Analysis Training

Former Training

- Sample Control Training
- Sample Control Training - Advanced

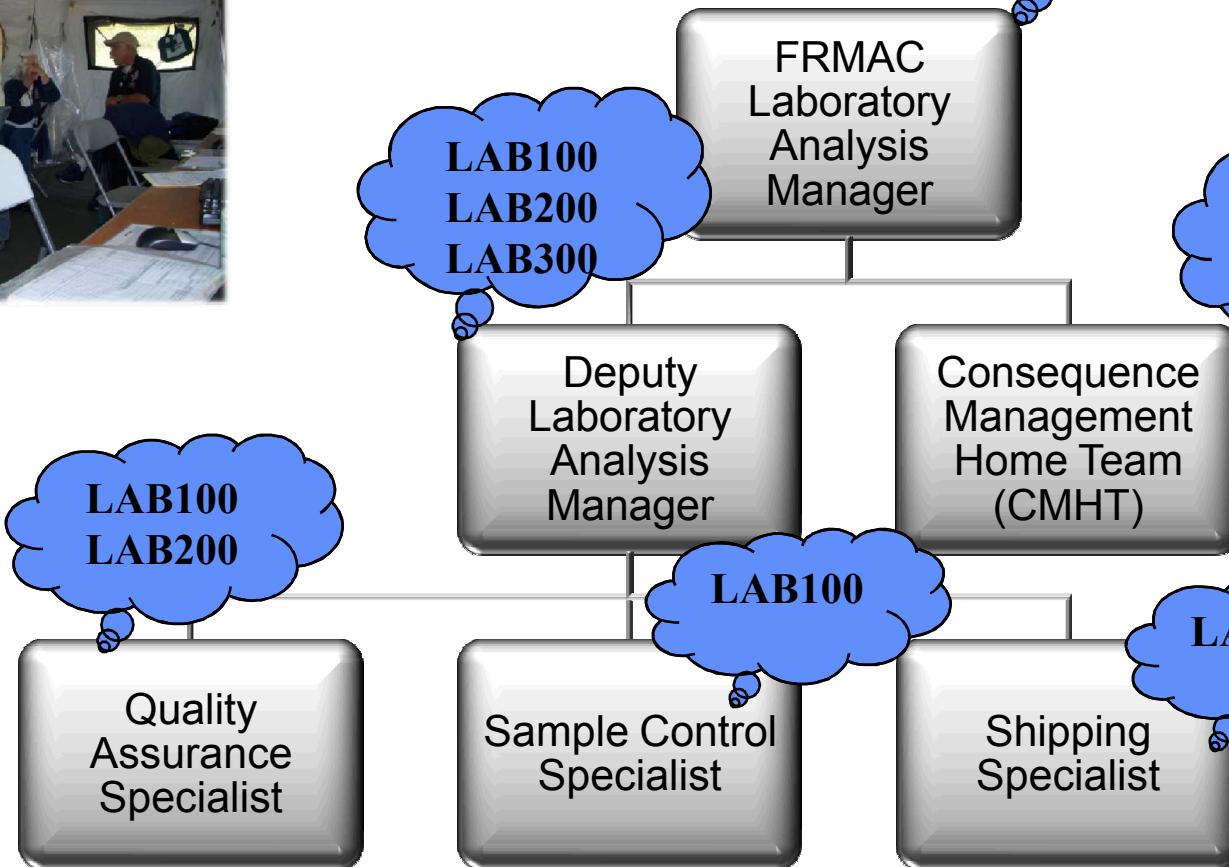
Current Training

- **LAB100** – Laboratory Sample Control Training
- **LAB200** – Laboratory Operations Training
- **LAB300** – Laboratory Manager Training

Training is now more job function/task focused to compliment position descriptions



Training





Current Status of the Manual and Training Modules

- FRMAC Laboratory Analysis Manual is awaiting concurrence from the LAWG
 - After concurrence the manual will be ready for signatures
- Training modules are being updated to reflect:
 - RAMS V4.1 features due for release in September 2013
 - Will be provided at next FRMAC Capstone scheduled for March 2013

<http://www.nv.doe.gov/nationalsecurity/homelandsecurity/frmac>



The End - Questions?



FRMAC Analytical Request Form	
Analysis Request # <u>AFW-200200001</u>	
Report A. Demographic Information	
Send Report To: Sean P. Fourier	
Phone: 305-848-8736	
Fax:	
Email: tdh@flmrc.state.fl.us	
Termination Date: 1/1/2003	
Termination Date:	
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The laboratory may receive samples containing known, suspected, or unknown amounts of chemical, radioactive, and/or biological hazardous constituents. The laboratory shall be aware of the potential hazards associated with the handling and analysis of these samples. The laboratory shall have a documented health and safety plan which includes procedures consistent with Title 10, Code of Federal Regulations part 20, 20 CFR part 200.105, and 22 CFR part 210.105. While the FFRAC will provide guidance to the laboratory, the laboratory is responsible for the safety and health of its employees and the collection of samples to be analyzed.