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## REVIEW OF THE FINAL STATUS RADIATION SURVEY OF THE ENVIRONMENTAL MEASUREMENTS LABORATORY

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**Client:**

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### Introduction

I have reviewed the Final Status Radiation Survey Report prepared by Cabrera Services in December, 2008 for the 5th floor of the EML facility at 201 Varick St. in New York City. The report also included surveys performed in the basement and on the 1st floor as well as remedial activities in the basement.

The specific document reviewed is:

- “Final Status Survey Report - 5th Floor - Environmental Measurements Laboratory - US Department of Homeland Security, New York, NY” JMC Project 2006-001, December 2008, approximately 400 pages. The appendices in this document also included the Final Status Survey Plan and the Site Health and Safety Plan.

My review was limited to the measurement data, its presentation in the report, and compliance with published guidelines. I could not review and assess whether the conduct of the on-site measurements was actually performed in accordance with the documents as I have not been on-site during the actual work.

### Background

The 5th floor and basement areas at EML had been used for the conduct of environmental, health and safety research which utilized small amounts of radioactive materials. The objective of the Cabrera final status survey was to determine if residual radioactivity levels were less than the

safety guidelines set forth by regulatory agencies for use of the area by the general public (i.e., non-radiation controlled workers).

Previously, on May 8, 2008, I reviewed a Cabrera memorandum presenting interim survey results from the 5th floor of the building. My only recommendation at that time was that Room 555A, a large storage room that had not been surveyed, be addressed in the final report as to the reason it was not surveyed.

The present final status survey (FSS) report by Cabrera documents all of the associated measurement results as well as descriptions of remediation performed during the project.

## Results

The findings of my review of the FSS report follow:

- The Cabrera survey was conducted using the appropriate alpha, beta and gamma radiation detection instrumentation. The Quality assurance protocols and results were satisfactory.
- The appropriate guideline limits (DCGL's) were used.
- The survey was conducted in accordance with MARSSIM (Multi-Agency Radiological Site Survey and Investigation Manual) including number of measurement points, scan coverage, and background assessment. The investigators decision to use paired sample/background measurement points was appropriate.
- The results of the measurements show that after remediation, all of the areas surveyed had levels of radioactivity well within guideline limits.

As in my review of the Cabrera memorandum of 3/13/08, I see that the radiological status of the store room, Room 555-A, still has not been addressed. Section 3.1 of the FSS report indicates that "... it was determined that all areas of the 5th Floor utilized by EML should be classified as impacted." However, it appears that Room 555-A was not surveyed nor was it mentioned as being non-impacted or not used by EML. It is clearly in the EML half of the 5th floor.

## Recommendations

The report should clarify the status of Room 555-A.

A minor point: As the title page indicates that this is a "FINAL" report, Cabrera should remove "DRAFT" from the header of the main body pages.

If there are any questions, please contact the undersigned.



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President