August 21, 2009

Mr. Scott Ward
Senior Vice-President and General Manager
Analytical Bio-Chemistry Laboratories, Inc.
7200 East ABC Lane
Columbia, MO 65202

SUBJECT: NRC SITE VISIT AT ANALYTICAL BIO-CHEMISTRY LABORATORIES INC., COLUMBIA, MO

Dear Mr. Ward:

This refers to the July 20, 2009, U.S. Nuclear Regulatory Commission (NRC) site visit at Analytical Bio-Chemistry Laboratories (ABC) in Columbia, Missouri. The purpose of the visit was to afford NRC management and staff the opportunity to meet with ABC management and staff, and ABC's decommissioning consultant, to ensure close and clear communication regarding ABC's on-going attempts to develop and submit an acceptable decommissioning plan (DP) to the NRC. Specifically, the NRC staff informed ABC management on July 2, 2009, that ABC's April 6, 2009, third DP submission for the remediation and decommissioning of its on-site sanitary lagoon lacked sufficient detail and complete information. Thus, the NRC technical staff could not proceed with the full-technical review and evaluation of your proposed DP.

The April 6 submission was the third DP found unacceptable by the NRC since the NRC issued a Non-Cited Violation on April 19, 2007, regarding ABC's failure to submit a DP within 12 months after ceasing principle activities. Therefore, NRC management decided this meeting was necessary to facilitate dialogue to better understand the difficulties that ABC has encountered in preparing and submitting an acceptable DP. Further, NRC managers desired to understand what steps and actions ABC management planned to take to ensure that the next DP submission would be adequate such that the NRC could proceed with the full technical review. Additionally, NRC Management discussed the requirements pertaining to the submission of decommissioning plans, associated timing requirements, and, in general, the consequences for failing to satisfy these requirements.

In concluding the meeting, the NRC stressed the Agency's desire for the next submission to be complete and technically supportable. To that end, ABC management and staff were encouraged to maintain close communication between ABC's technical staff, their decommissioning contractor, and NRC Region III technical staff as ABC develops its next DP. Additionally, NRC management agreed to enclose with this letter a discussion of the issues identified in ABC's prior decommissioning plan submittals. The attached enclosure is consistent with the NRC staff's presentation, and is provided to ensure that the presentation was understood, and would facilitate the preparation of an acceptable DP.

During the meeting, you indicated plans to submit a new stand alone DP within 90 days from the date of the meeting. We will look forward to receiving the new DP. As indicated above, if you have any questions concerning this letter or the attached information, please do not hesitate to contact me at (630) 829-9834 or Mike McCann of my staff at (630) 829-9856.

Sincerely,

/RA/

Christine Lipa, Chief
Material Controls, ISFSI
and Decommissioning Branch

Docket No.: 030-05154
License No.: 24-13365-01

Enclosure:
NRC July 20, 2009, Management Meeting

cc: Keith Henke, Missouri Department of Health
John Langston, Missouri Department of Health
and Senior Services (MDHSS)
Jonathan Garoutte, MDHSS
Sheila Hecht, ABC Labs, Radiation Safety Officer
Paul Nipper, Bionomics, Quality Assurance
Andy Lombardo, SEC Manager

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Andy Lombardo, SEC Manager

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U.S. Nuclear Regulatory Commission (NRC)
July 20, 2009, Management Meeting with
Analytical Bio-Chemistry Laboratories, Inc.

Meeting Topic: ABC Decommissioning Plan (DP) dated April 6, 2009

Discussion: During a July 20, 2009, NRC management meeting with ABC, issues identified by NRC technical staff during the DP acceptance review of ABC's April 6, 2009, DP submission were discussed. The topics discussed fell into two general areas involving the completeness and authenticity of the DP's descriptions relating to proposed general operational documentation, and to the defensibility and reproducibility of descriptions of technical information regarding radiation surveys, dose modeling, groundwater monitoring and mixed wastes.

DP Operational Documentation Observations:

1. The DP and its associated documents must be reviewed, concurred in and certified by ABC Management. Since the DP is being issued to and incorporated into ABC's license, ABC has the primary responsibility for ensuring compliance with all commitments and statements made in the DP submittal. Further, ABC is responsible for ensuring that the documents are complete and final and have been certified by appropriate parties prior to submission to the NRC.

2. Since the contractor's activities and license are incorporated into ABC's license, ABC's administrative agreement must contain sufficient detail and commitments. The agreement needs to demonstrate that ABC generally understands the contractors' license, safety program and procedures sufficiently so ABC can audit the contractors' work to ensure compliance with ABC's DP. Further, the administrative agreement between ABC and its contractor must be sufficiently detailed that the NRC inspectors can ascertain and verify that ABC and its decommissioning contractor clearly understand the bounds of both licenses during remediation activities, such that both licensees can maintain a regulatory separateness and independence. NRC outlined during the meeting a number of observations regarding audit frequencies, description of what will be audited, how corrective actions will be implemented and resolved, and stop work authority. Finally, the agreement must be signed by both involved licensees, that is ABC and the Agreement State licensee.

3. The information describing the authority and bounds of the Agreement State licensee needs to be supplemented. The NRC staff cannot ascertain the scope and bounds, of the Agreement State's authorization to perform decommissioning activities without the applications, and letters tied down in the Agreement State licensee's license. The NRC staff advised the consultant, that these documents can be provided as information relative to NRC inspection, and that the documents won't be incorporated into ABC's license. However, the NRC must make a determination that the scope and limitations of the Agreement State license are such that NRC decommissioning requirements pertaining to environmental assessment and impacts, and public notification and involvement are satisfied.

4. Similarly, as discussed in item 3, the NRC staff must review the decommissioning contractor's operational procedures to ensure that they are sufficient to satisfy Part 20, and other safety areas discussed in NUREG-1757. Also, administrative change

processes involving procedure and or field changes need to be discussed, and confirm that the NRC will be notified of these modifications concurrent with their approval. The NRC staff discussed that these documents can be provided as information relative to NRC inspection, and that the documents won't be incorporated into ABC's license. However, the NRC must make a determination that the scope and detail of the procedures are such that NRC staff can make a determination that the procedures ensure that the decommissioning activities can be safely performed.

5. The NRC requested the licensee to provide a discussion on how the ALARA DCGL value will be addressed and controlled during actual remediation activities. Specifically, more information is needed for the NRC to ascertain how decisions regarding release of areas with levels greater than the proposed ALARA value will be made, documented, and release basis justified. Additionally, it was not clear when the ALARA DCGL value will be used; whether it will be used during all phases or during remediation or final status survey.

6. The NRC requested the licensee to provide an updated schedule that describes the various phases of decommissioning. This schedule should discuss in general the sequence of each decommissioning phase, and provide an estimate of the approximate time required for each phase.

7. During the meeting, the NRC requested that the licensee revisit the financial documents provided to the NRC to date. The NRC staff noted what they believed to be a funding and work description difference between the contractors' work estimate and the Decommissioning Funding Plan submitted by ABC. It appears that the revised funding plan has the same dollar amount for the whole site as the DP has for the lagoon partial site release.

8. During the meeting the NRC staff discussed the licensee's submission of information regarding the sampling and potential impacts relating to chemicals discharged to the sanitary lagoon and leach field. The NRC staff provided contact information for the Missouri Department of Natural Resources, Hazardous Waste Enforcement Unit, and suggested that ABC contact the State during the revision of the DP. It may expedite the approval if ABC can coordinate and obtain a clearance from the State regarding any potential impacts and submit this as part of the revised DP.

DP Technical Information Justification Observations

9. The DP must include a final and complete final status survey design, with commitments of how the survey will be conducted. The design should include:

    a. A technically defensible mechanism for location of potential hot spots since scans can not be utilized,

    b. Strong confirming statements in the DP. The use of should and may, rather than shall or will may lead to misunderstandings during inspection.

    c. Defined survey units with square footage and a map or complete description to recreate the locations. Additionally, provide investigation levels for each survey class.

    d. A description of how the standard deviation will be calculated and assumptions and equations that will be used to find the sample size for each survey unit. A

e. description of how the decision to modify the design will be made during and after remediation and how this will be documented.

10. The NRC requested the licensee to clarify the DP summary of all potentially impacted areas located in the partial site release. For example, a description is needed on whether the lysometer area and historical lagoons are located in the proposed area for partial site release. NRC discussed the need to address the requirement of 10 CFR Part 30.36 for these areas, even if they aren't to be part of the partial site release request.

11. The licensee should provide a detailed step-by-step remediation plan design. Details in this plan should include, but are not limited to:

    a. Step-by-step method for contaminated soil removal, from removal from the ground to being removed offsite. This plan should include how the spread of contamination will be limited and how waste will be sampled prior to disposal.

    b. Methods for disposing of lagoon water should be documented. If current approved methods will be used, document these methods.

    c. Sampling method that will be used to characterize soils during the remediation of subsurface and surface soils. Discuss the limit or process that will be used to determine when remediation will be stopped and how this limit will be documented. Justify how this method will demonstrate that only the top surface soil is affected and justify the parameters used in the dose modeling.

    d. Information that supports the use of non default input parameters. Referencing an industry approved document or presenting a source's authoritativeness is generally an acceptable means of defending technical statements.

12. Groundwater hydrology statements need to be technically defensible with reference to information sources. The NRC staff provided ABC with hydrological State contact information. The NRC requested the licensee to provide additional information regarding the following:

    a. The April 6, 2009 DP submission notes that a groundwater monitoring well will be used to monitor groundwater movement in the leach field. Without well technical information, such as well depth, well construction, and information regarding to depth to aquifers, water flow direction, etc., it is not clear what is the well's value.

    b. Soil characterization data needs to accompany a justification of how the results adequately describe the condition at the site. Provide a description of the leach field lay out and depth of piping in relation to soil sample locations and results correlated to a map overlay with clear sample location descriptions.

    c. Provide references for the C-14 distribution coefficient in contaminated, unsaturated, and saturated zones. Additionally, provide a short justification for the soil type that is used for this parameter.

d. Provide the reference and authoritativeness of the source for unsaturated zone thickness value.

e. Provide a justification that the contaminated zone and the average contaminated zone thickness are adequate. Refer to the remediation plan if necessary.