Assessment Date: May 11, 2011

DOH Laboratory #: E83018

Laboratory Name: Flowers Chemical Laboratories
P.O. Box 150597
481 Newburyport Avenue
Altamonte Springs, FL 32715

I. Introduction

An onsite evaluation of the laboratory was conducted to verify compliance with the contract requirements of DEP Contract No. LAB040, which incorporates adherence to the quality control requirements in Chapter 5 of the NELAC Standards, Standard Methods 20th edition, section 9020 (SM9020), Chapter 62-160, Florida Administrative Code (F.A.C) and continued accreditation with Florida Department of Health under the National Environmental Laboratory Accreditation Program (NELAP) for the methodologies listed under the contract.

II. Personnel

The following personnel participated in the laboratory audit:

FDEP Auditor	Title	Contact Information
Daisys Tamayo	Environmental Supervisor II	850-245-8162
Michele Reliford	Environmental Specialist II	850-245-8066
Jenny Farrell	Environmental Specialist II	407-893-3313

Flowers Laboratories

Flowers Laboratories	Title	Contact Information
Jeff Flowers	President/Technical Director	407-339-5984 x219
June Flowers	Quality Systems Director	407-339-5984 x212
Cyndi LaRosa	Quality Assurance Officer	407-339-5984 x221
Phil Loucks	Project Manager	407-339-5984 x210
Tonjai Belcher	Analyst	407-339-5984

III. Methods

The facility, documentation, and procedures were inspected for the following methods:

Analysis: Fecal Coliforms Method: SM9222D
Analysis: Enterococci Method: EPA 1600

IV. Comments

Documentation for the following data performed under contract was reviewed for completeness:

Job ID	Laboratory Report ID	Date Sampled	Date Analyzed	# of samples	Analysis
TLH-2011-04-13-17	147646	4/12/11	4/12/11	4	Fecal Coliforms
TLH-2011-04-14-25	147780	4/13/11	4/13/11	4	Fecal Coliforms

Enterococci analysis has currently not been performed under the contract. Therefore specific data could not be reviewed. However, general procedures, equipment, and logbooks were assessed.

V. Deficiencies

Deficiencies are listed in the Statement of Deficiencies and Corrective Action form provided below. The laboratory should provide proposed corrective action plans and completion dates on the form and return to DEP within 30 days of receipt.

Deficiency #	Statement of Deficiency	Proposed Corrective Action	Completion Date
1	The laboratory does not perform duplicate analyses at a frequency of 10% of samples and on at least one sample per test run. {20th ed. SM9020 B.8.a.4); DEP Contract No. LAB040, Attachment A Section IV.C. 1}		
2	Evaluation of duplicate analyses not based on precision criteria that is based on the range of log transformed duplicates. {20th ed SM9020 B.8.b.; DEP Contract No. LAB040, Attachment A Section IV.C.2.}		
	Monthly comparison of plates counts not performed on the same sample plate. {20th ed. SM9020 B.8.a.2); NELAC Appendix D.3.2}		
4	Monthly verification not performed on fecal coliform colonies. (20th ed. SM9222D.2.f.; DEP Contract No. LAB040, Attachment A Section III.B.3.}		