

**California Department of Public Health
Environmental Laboratory Accreditation Program
850 Marina Bay Parkway, Building P, 1st Floor
Richmond, CA 94804
(510) 620-3155**

INSTRUCTIONS FOR THE NELAP FIELD OF ACCREDITATION (FOA) FORMS

The FOA forms are in Microsoft Excel format. You will need the software to work with the forms.

The files are in Excel workbooks with multiple worksheets. Each worksheet is for one FOA, and the FOAs in similar fields are combined together in a workbook. The following is the list of workbook files with associated FOAs. To select a worksheet, click the FOA tabs at the bottom left of the workbook.

<u>File Name</u>	<u>FOA</u>	<u>Description</u>
NELAP101_107.xls	N101 N107	microbiology of drinking water microbiology of wastewater
NELAP102_103.xls	N102 N103	inorganic chemistry of drinking water toxic chemical elements of drinking water
NELAP104_105.xls	N104 N105	volatile organic chemistry of drinking water semi-volatile organic chemistry of drinking water
NELAP108_109.xls	N108 N109	inorganic chemistry of wastewater toxic chemical elements of wastewater
NELAP110_111.xls	N110 N111	volatile organic chemistry of wastewater semi-volatile organic chemistry of wastewater
NELAP114_115_120.xls	N114 N115 N120	inorganic chemistry of hazardous waste extraction test of hazardous waste physical properties of hazardous waste
NELAP116_117.xls	N116 N117	volatile organic chemistry of hazardous waste semi-volatile organic chemistry of hazardous waste
NELAP121.xls	N121	bulk asbestos analysis of hazardous waste
NELAP106_112_118.xls	N106 N112 N118	radiochemistry of drinking water radiochemistry of wastewater radiochemistry of hazardous waste
NELAP113_119.xls	N113 N119	whole effluent toxicity of wastewater toxicity bioassay of hazardous waste

Procedures for completing the FOA forms:

1. Select an FOA worksheet, and fill in appropriate columns, following the instructions below.

If the workbook has multiple worksheets and if you are seeking accreditation for the FOAs, make sure you complete all the worksheets you need by clicking the FOA tabs at the bottom.

Do not change the following columns:

Subgroup Code: Subgroup code for ELAP database.

Analyte Code (or Species Code): Analyte number for multi-analyte methods, or species for bioassay.

Method: Refers to the approved analytical test procedure.

Analyte: Refers to the specific analyte or group-of-analytes for each method.

Technology: Refers to the technology key of the subgroup. Please refer to the technology table (Table 1) at the end of this document for the technology description, which is the instrument used to identify qualitatively or quantitatively the analyte or group-of-analytes.

Fill in the following columns:

Enter "Y" for selection: Enter Y for each method/analyte species, or group-of-analytes for which you are seeking accreditation. Please see item 2, "selecting the appropriate FOA for your laboratory," for further information.

Enter "A" for aqueous matrix testing only: Enter A if you are seeking accreditation for aqueous matrix testing only (for Hazardous Waste FOAs only).

If "aqueous matrix testing only" is not selected, then it is assumed that your laboratory is seeking accreditation for all matrices received for hazardous waste testing.

SOP Y/N: Indicate whether an SOP conforming to NELAC standards (Section 5.5.4.1.2 (b)) is available.

IDOC Y/N: Indicate whether an Initial Demonstration of Capability (IDOC) is available. Refer to Quality Systems, Appendix C (for applicable methods only).

Assigned Analyst(s): List the analyst(s) assigned to perform each analyte/method. You may use initials but provide a key for them. Analysts may be grouped by work cells (Section 5.5.2.6 (b)).

Comments: List the sample preparation method(s) used for each method/analyte or method/group-of-analytes requested for accreditation, where applicable.

If you are currently certified by another State Accrediting Authority and are seeking accreditation from California as primary AA for specific analytes or methods, please indicate so on the comment section as **"CA as primary AA."**

2. Selecting the Appropriate FOA for your Laboratory.

- a) If your laboratory is only interested in testing for one or a few of the organic compounds listed in that method of analysis, then select the FOA that has the individual analyte by a particular method.
- b) If your laboratory is interested in testing for a group-of-analytes by class or type of compounds or for a group-of-analytes segregated by regulation, then select the desired FOA that has the desired group-of-analytes by a particular method. By selecting such a group-of-analytes, the laboratory would be responsible for that particular group-of-analytes listed in the method. (A group-of-analytes segregated by regulation would be, for example, federal regulated VOCs would be the 20 organic compounds, listed in 40 CFR 141.61(a), excluding vinyl chloride. The federal unregulated VOCs would be the VOCs listed in the method of analysis, excluding those listed in 40 CFR 141.61(a).) The group-of-analytes designated "volatile organic compounds" by 502.2, for example, would include all VOCs in method 502.2.
- c) If your laboratory is interested in testing for all semi-volatile organic compounds by method 525.2, for example, then select all of the FOAs by group-of-analytes associated with 525.2.
- d) Note:

The proficiency testing (PT) of a laboratory requesting for accreditation in an FOA that involves groups-of-analytes is based on the July 2003 NELAC Standards, Chapter 2, Appendix C, Section 5.0

Since the availability of PT samples containing all analytes within a specified method is not practical, reasonable, or realistic, the laboratories would be required to test for the available analytes that could be present in PT samples. Such analytes are termed representative analytes of the method used with the PT sample.

3. Fill out the laboratory name and the name of the lab director or representative at the footer of the form. Choose the View from the menu, select Header and Footer, and click the Custom Footer command button. Enter the names at the left section and click OK to close the dialog box.
4. Save the files, keeping the original workbook structure intact. Do not combine the worksheets from different files.
5. Print each FOA worksheet. You may use different scaling for better fit. The page break may change based on your printer. Use the page break preview to adjust the page breaks.
6. Sign and date at the bottom of each page.

7. Send the signed hard copy of the FOA worksheets to your respective ELAP area office.

a. Northern California Labs & Labs located outside California:

Aida S. Dente
ELAP Headquarters
Department of Public Health
850 Marina Bay Parkway, Building P, 1st Floor
Richmond, CA 94804

b. Southern California Labs:

Richard Spinner
ELAP Los Angeles Field Office
Department of Health Services
1449 W. Temple St., Room # 231
Los Angeles, CA 90026-5698

8. In addition, return the FOA files (**in Excel or Zip file format**) electronically via e-mail, or by mail (CD, DVD, or diskette).

a. E-mail the attached FOA files to elapca@cdph.ca.gov. Please indicate "NELAP FOAs from (your laboratory name)" on the subject line.

-OR-

b. Label the electronic media with "NELAP FOAs from (your laboratory name)" and send to:

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Table 1: Technology Description

Technology	Description
AAS	Atomic Absorption Spectrometry
AES	Atomic Emission Spectrometry
AMP	Amperometric Titration
AMPHIA	Amphipod (A. abdita)
AMPHIE	Amphipod (E. estuarius)
AMPHIH	Amphipod (H. azteca)
AMPHIL	Amphipod (L. plumulosus)
AMPHIR	Amphipod (R. abronius)
AS	Alpha Spectrometry
ASC	Alpha Scintillation Counter
ASV	Anodic Stripping Voltammetry
BANNER	Bannerfish shiner (C. leedsii)
BLUEM	Blue mussel (Mytilus spp.)
BROOKT	Brook trout (S. fontinalis)
CF	Chromogenic/Fluorogenic
CF-MUG	Chromogenic/Fluorogenic and 4-methylumbelliferyl-B-D-glucuronide substrate
COLOR	Colorimetric Titration
COLOR/VIS	Colorimetric Titration or Visible Molecular Absorption Spectrometry
COND	Conductance
COUL	Coulometric Titration
CV	Cold Vapor Spectrometry
CV-AAS	Cold Vapor Atomic Absorption Spectrometry
CV-AFS	Cold Vapor Atomic Fluorescence Spectrometry
DAPHNIA	Daphnia spp.
DAPHNID	Daphnid (C. dubia)
DCP	Direct Current Plasma Spectrometry
DIATOM	Diatom (T. pseudonana)
DPD/FE	Ferrous Titration
DPP	Differential Pulse Polarography
EC	Electrochemical
ECD	Electron Capture Detection
ELCD	Electrolytic Conductivity Detection
FATHEAD	Fathead Minnow (P. promelas)
FID	Flame Ionization Detection
FL	Flame Spectrometry
FL-AAS	Flame Atomic Absorption Spectrometry
FL-AAS/GF-AAS	Flame Atomic Absorption Spectrometry or Graphite Furnace Atomic Absorption Spectrometry
FLUO	Fluorometer
FLUOR	Ultraviolet or Visible Molecular Fluorescence
FPD	Flame Emission Photometric Detection
FTIR	Fourier Transform Infrared Spectrometry
GALV	Galvanic Probe
GC	Gas Chromatography

GC-ECD	Gas Chromatography Electron Capture Detection
GC-ECD/ELCD	Gas Chromatography Electron Capture Detection or Electrolytic Conductivity Detection
GC-ECD/PID	Gas Chromatography Electron Capture Detection and/or Photoionization Detection
GC-ELCD	Gas Chromatography Electrolytic Conductivity Detection
GC-ELCD/PID	Gas Chromatography Electrolytic Conductivity Detection and/or Photoionization Detection
GC-FID	Gas Chromatography Flame Ionization Detection
GC-FID/ECD	Gas Chromatography Flame Ionization Detection or Electron Capture Detection
GC-FPD	Gas Chromatography Flame Photometric Detection
GC-FTIR	Gas Chromatography Fourier Transform Infrared Spectrometry
GC-HR-MS	Gas Chromatography High Resolution Mass Spectrometry
GC-MS	Gas Chromatography Mass Spectrometry
GC-NPD	Gas Chromatography Nitrogen Phosphorus Detection
GC-NPD/ECD	Gas Chromatography Nitrogen Phosphorus Detection or Electron Capture Detection
GC-NPD/FPD	Gas Chromatography Nitrogen Phosphorus Detection or Flame Photometric Detection
GC-PID	Gas Chromatography Photoionization Detection
GF	Graphite Furnace Spectrometry
GF-AAS	Graphite Furnace Atomic Absorption Spectrometry
GFP	Graphite Furnace Spectrometry-Platform Atomization
GFP-AAS	Graphite Furnace-Platform Atomization Atomic Absorption Spectrometry
GFW	Graphite Furnace Spectrometry-Wall Atomization
GOLDEN	Golden Shiner (<i>N. chrysoleucas</i>)
GPC	Alpha/Beta Gasflow Internal Proportional Counter
GRALGCA	Green algae (<i>S. capricornutum</i>)
GRALGCO	Green algae (<i>S. costatum</i>)
GRAV	Gravimetry
GS	Gamma Spectrometry
GS/GPC	Gamma Spectrometry and Alpha/Beta Gasflow Internal Proportional Counter
GTKELP	Giant kelp (<i>M. pyrifera</i>)
HG	Hydride Generation Spectrometry
HG-AAS	Hydride Generation Atomic Absorption Spectrometry
HPC	Heterotrophic Plate Count
HPC-CF	Heterotrophic Plate Count and Chromogenic/Fluorogenic
HPLC	High Performance Liquid Chromatography
HPLC-EC	High Performance Liquid Chromatography Electrochemical
HPLC-FLUOR	High Performance Liquid Chromatography Ultraviolet or Visible Molecular Fluorescence
HPLC-PDAD	High Performance Liquid Chromatography Photodiode Array Detector
HPLC-UV	High Performance Liquid Chromatography Ultraviolet Molecular Absorption
HPLC-UV/FLUOR	High Performance Liquid Chromatography Ultraviolet Molecular Absorption or Ultraviolet Molecular Fluorescence
HPLC-UV/MS	High Performance Liquid Chromatography Ultraviolet Molecular Absorption or Mass Spectrometry
HPLC-UV/VIS	High Performance Liquid Chromatography Ultraviolet or Visible Molecular Absorption

HPLC-UV/VIS/FLUOR	High Performance Liquid Chromatography Ultraviolet or Visible Molecular Absorption or Ultraviolet or Visible Molecular Fluorescence
HPLC-UV/VIS/FLUOR/PDAD	High Performance Liquid Chromatography Ultraviolet or Visible Molecular Absorption or Ultraviolet or Visible Molecular Fluorescence or Photodiode Array Detector
HR	High Resolution
IC	Ion Chromatography
ICP	Inductively Coupled Plasma
ICP-AES	Inductively Coupled Plasma Atomic Emission Spectrometry
ICP-MS	Inductively Coupled Plasma Mass Spectrometry
IR	Infrared Spectrometry
IR/COUL	Infrared Spectrometry or Coulometric Titration
IR/FID	Infrared Spectrometry or Flame Ionization Detection
ISE	Ion Selective Electrode
LP	Laser Phosphorimetry
LSC	Liquid Scintillation Counter
MF	Membrane Filtration
MF-CF	Membrane Filtration and Chromogenic/Fluorogenic
MF-MUG	Membrane Filtration and 4-methylumbelliferyl-B-D-glucuronide substrate
MIDGE	Midge (<i>C. tentans</i>)
MS	Mass Spectrometry
MTF	Multiple Tube Fermentation
MTF-MUG	Multiple Tube Fermentation and 4-methylumbelliferyl-B-D-glucuronide substrate
MUG	4-methylumbelliferyl-B-D-glucuronide substrate
MUSS	Mussels (<i>Mytilus</i> spp.)
MYSID	Mysid (<i>M. bahia</i>)
NPD	Nitrogen Phosphorus Detection
OLIGO	Oligochaete (<i>L. variegatus</i>)
ONPG	Colilert
PA	Clarks
PA-CF	Clarks and Chromogenic/Fluorogenic
PA-MUG	Clarks and 4-methylumbelliferyl-B-D-glucuronide substrate
PB	Particle Beam
PC	Plate Count (<i>Fecal streptococcus</i>)
PDAD	Photodiode Array Detector
PENSKY	Pensky-Martin
PID	Photoionization Detection
PLM	Polarized Light Microscopy
PMYSID	Pacific mysid (<i>H. costata</i>)
POL	Polarographic Probe
POT	Potentiometry
POT-ISE	Potentiometry and Ion Selective Electrode
POYST	Pacific oyster (<i>C. gigas</i>)
PURPLE	Purple sea urchin (<i>S. purpuratus</i>)
RAINBOW	Rainbow trout (<i>O. mykiss</i>)
REDABA	Red abalone (<i>H. rufescens</i>)
SANDDAB	Sanddab (<i>C. sitigmaeus</i>)
SANDDOL	Sand dollar (<i>D. excentricus</i>)

SCEM	Electron Microscopy - Scanning
SEAURC	Sea Urchin (<i>A. punctulata</i>)
SETA	Seta Flash
SHEEPSH	Sheepshead minnow (<i>C. variegatus</i>)
SILVERS	Silverside (<i>Menidia</i> spp.)
TEM	Electron Microscopy - Transmission
THREESP	Threespine stickleback (<i>G. aculeatus</i>)
TITR	Titration Manual
TITR/AMP	Titration Manual or Amperometric Titration
TITR/COLOR	Titration Manual or Colorimetric Titration
TITR/COLOR/POT	Titration Manual or Colorimetric Titration or Potentiometry
TITR/VIS	Titration Manual or Visible Molecular Absorption Spectrometry
TOPSM	Topsmelt (<i>A. affinis</i>)
TS	Thermospray
TURB	Nephelometer
UV	Ultraviolet Molecular Absorption
UV/VIS	Ultraviolet or Visible Molecular Absorption
VIS	Visible Molecular Absorption Spectrometry
XRF	X-Ray Fluorescence Spectrometry
XRT	X-Ray Transmission Spectrometry