



*Florida Department of  
Environmental Protection*

# ***Approved Analytical Methods***



## ***For DEP Rules:***

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### **Data submitted for regulatory use requires analytical methods approved by DEP**

- Methods or method lists (sources) specified in rules
  - Includes methods cited in any order or permit, if applicable
- Methods “recognized” by DEP but not cited in rules
  - As described in the QA Rule
- Alternative, new or modified methods must be approved by DEP, if applicable per QA Rule





# *Methods Promulgated by Rule (F.A.C)*

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## EXAMPLES

### Drinking Water

- Includes citations to federal rules at 40 CFR Parts 141 & 143 (see 62-550)

### Wastewater

- Includes citations to federal rules at 40 CFR Part 136 (see 62-620)

### Waste

- References and tables in waste management rules (see 62-780)

### Bioassessment

- QA Rule citations for DEP SOP bioassessment laboratory procedures (see 62-160)





## *Methods Specified or Recognized by DEP*

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- *Remember:* A method for the analyte and matrix already specified in a rule, permit, order or contract must be used
  - A DEP program may have the discretion to allow methods other than those specified as above:
    - To accommodate obsolete rule listings
    - To achieve DQOs with technology or method improvements
    - To apply more stringent requirements
    - NOTE: Alternative or new method approval may be required if methods specified in rules will not be used
- The method must be published and intended for the **analyte** and **matrix** to be analyzed





## ***Methods Specified or Recognized by DEP (con't)***

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### EXAMPLE SOURCES

- ***Method lists at 40 CFR Parts 136, 141, 143***
- ***Methods associated with the DEP SOPs:***
  1. Table FS 1000-5 (Specific methods not listed at 40 CFR Part 136)
  2. DEP SOPs BRN 1000, LQ 1000, LT 7000, LVI 1000 & SCI 1000 (Bioassessment lab procedures)
- ***Method lists associated with DEP Rules***
  - 62-4.246(4) Target MDL & PQL list
    - [http://www.dep.state.fl.us/labs/docs/final\\_mdl.xls](http://www.dep.state.fl.us/labs/docs/final_mdl.xls)
  - Waste Management rules target PQL list
    - <http://www.dep.state.fl.us/labs/pqllables.htm>
- ***QA Officer Resources Webpage methods link:***
  - <http://www.dep.state.fl.us/water/sas/qa/am-sources.htm>





## *Choosing Appropriate Methods for Use*

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- Rule or other specifications take precedence
- Matrix & analyte must be specific to method
- Sensitivity – MDL & PQL
  - See 62-4.246(4) and Waste Management targets
  - Methods may also suggest expected sensitivities
- Potential analytical interferences
  - Described in published methods





# *Choosing Appropriate Methods*

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- Equivalent methods & technology
  - See MDL & PQL target lists (DEP)
  - See 40 CFR Parts 136, 141, 143 lists
  - See DOH lab certification application list
    - <http://www.dep.state.fl.us/labs/dohforms.htm>





# Choosing Appropriate Methods

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- Lab must be certified for method (62-160 FAC)
  - Non-potable water equivalency provision
    - Certification only required for one analyte-analytical technology combination
    - Lab may report any method for equivalent combination
    - Lab must meet requirements in reported method
  - Specific QA rule exceptions are described:
    - DEP program may waive certification
    - Certain tests and applications are exempted







# *Choosing Appropriate Methods*

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For help with method choices and questions

- DEP Aquatic Ecology & QA Section
- DEP Chemistry Lab
- DEP Biology Lab





## *Modified, New & Alternative Methods*

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- New methods –
  - No DEP-approved method is specified, approved or recognized for the analyte & matrix
- Alternative methods-
  - DEP specifies, approves or recognizes a method for the analyte & matrix which is different than the proposed alternative method
- Modified Methods-
  - Details in a published method have been modified by the lab
  - **No pre-approval by DEP required if** any of these options are applicable:
    - Method language specifically allows modification
    - 40 CFR Part 136.6 modification allowances apply
    - The method is an SW-846 method and is modified per QA rule provisions
  - **Lab documentation of performance using the modified method is required in all cases**





## ***Modified, New & Alternative Methods (con't)***

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- **If validation information must be submitted per QA Rule requirements-**
  - Method validation per DEP-QA-001/01
  - For NPDES – application per 40 CFR 136.4 & .5
    - DEP will determine if allowed modifications without pre-approval per 40 CFR Part 136.6 apply
    - DEP will forward submittal to EPA Region IV
- **Approval-**
  - DEP will issue order to approve or deny
    - *Site-specific or limited use* – notice in Quality of Science e-newsletter
    - *Statewide use* – notice in Florida Administrative Register
  - NPDES – EPA Region IV will approve or deny





## *Publications & Sources*

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- See QA Officers' Resources page for web links
- **Typical lab method sources specified, approved or recognized by DEP:**
  - EPA
    - Methods primarily for drinking water & wastewater, including non-potable water
    - SW-846 collection of methods for aqueous & non-aqueous samples, including soils and wastes
  - APHA ("Standard Methods") – water analyses
  - USGS – water and sediment analyses
  - ASTM – water and other media

