



RECORDS 101

Jackson Verley

Division of Water Resource Management/South District
Florida Department of Environmental Protection

Wastewater Operators Workshop | June 26, 2024



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION



Presentation Agenda

- Navigating the Standard Operating Procedures (SOPs).
- The Basics:
 - Universal requirements.
 - Notable excerpts.
- Quality Assurance (QA) Audits:
 - Why and what.
 - DMR part A and B.
 - Calibration verification.
 - Other documents.
- DMR part D.
 - Groundwater sampling log.



NAVIGATING THE SOPs

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP SOPs

Home » Divisions » Division of Environmental Assessment and Restoration » Quality Assurance » DEP SOPs

Quality Assurance Quick Links

- DEP QA Policy
- QA Rule 62-160
- DEP SOPs
- SOP Forms
- QA Resources
- QA for DEP Contracts, Grants and Purchase Orders
- Audit Report List
- The NELAC Institute (TNI)
- Training Resources
- Data Review And Audits
- Analytical Method Source
- List of Labs Certified by DOH
- Quality of Science Newsletter

2017 DEP SOPs (Effective 4/16/2018)

The following are the individual 2017 DEP SOPs. NOTE: These are the official versions cited in the [DEP QA Rule, Chapter 62-160, F.A.C.](#) The revision date (January 2017) appears in the page footer in each SOP. All other versions of the DEP SOPs (those with any other date published in the footer) are not current and should be discarded (or retained in archives if needed for historical reference). *Draft* versions of DEP SOPs, such as those published with markup for public comment during rulemaking, are *not* official documents.

SOP	Description
Field Title Page	Title Page, Field
FA 1000	Administrative
FC 1000	Field Decontamination
FD 1000	Documentation
FM 1000	Field Mobilization
FQ 1000	Quality Control
FS 1000	General Sampling
FS 2000	General Water Sampling

The current iteration of the Florida Department of Environmental Protection’s (DEP) SOPs are the 2017 SOPs, which were adopted April 16, 2018.

- To find the SOPs, go to <https://floridadep.gov/dear/quality-assurance/content/dep-sops>, or search for the SOPs on [Floridadep.gov](https://floridadep.gov).
- Once there, many of the SOP titles are self-explanatory: FT 1100 – Field pH, FS 2400 – Wastewater sampling, FT 2000 – Field Residual Chlorine.
- FD 1000 clarifies many things about general record keeping and documentation
- The SOPs should always be followed unless developed internal SOPs are used in place of the DEP standards.



THE BASICS - UNIVERSAL SAMPLING DOCUMENTATION REQUIREMENTS (1)

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP-SOP-001/01
FD 1000 Documentation Procedures

FD 1000. DOCUMENTATION PROCEDURES

This SOP must be used in conjunction with all other DEP SOPs applicable to the field sampling event, project or program.

1. INTRODUCTION:

1.1. For the creation of clear, accurate and methodical records to document all field activities affecting sample data, implement the following standard operating procedures for sample collection, sample handling and field-testing activities.

2. SCOPE AND APPLICABILITY

2.1. This SOP provides a detailed listing of the information required for documentation of specific sampling and field testing procedures found in the DEP SOPs contained in the collection DEP-SOP-001. See the DEP SOPs in collection DEP-SOP-003/11 for additional documentation requirements.

2.2. Refer to the associated sampling or field testing SOP for any requirements for the chronological or sequential documentation of data.

3. QUALITY ASSURANCE

3.1. Implement review procedures to monitor and verify accurate manual and automated data entry and recordkeeping for all documentation tasks outlined in this SOP.

FD 1100 (under FD1000) is the SOP that directly addresses criteria for **all** documentation provided to DEP.

- Original records are any records produced by the originator or creator of the record.
 - Original copies or identical copies must be provided to the DEP upon request.
 - For all intents and purposes, electronic copies of records are acceptable and are treated equally to original or paper records UNLESS explicitly stated otherwise in a Chapter 62 rule.



THE BASICS - UNIVERSAL SAMPLING DOCUMENTATION REQUIREMENTS (2)

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- 1.4. Electronic records are acceptable as documentation and are considered to be equivalent in status and function to original records, documents or papers, unless otherwise specified in a DEP contract, order, permit or a Chapter 62 rule.
 - **ALL** documentation requirements in the DEP SOPs apply equally to both paper and electronic records.
- There should be enough information in original records that there is no need for reviewers to reach out to the originator of the documentation to better understand the data.
 - “1.5. Record enough information so that clarifications, interpretations, or explanations of the data are not required from the originator of the documentation.” (FD 1100).

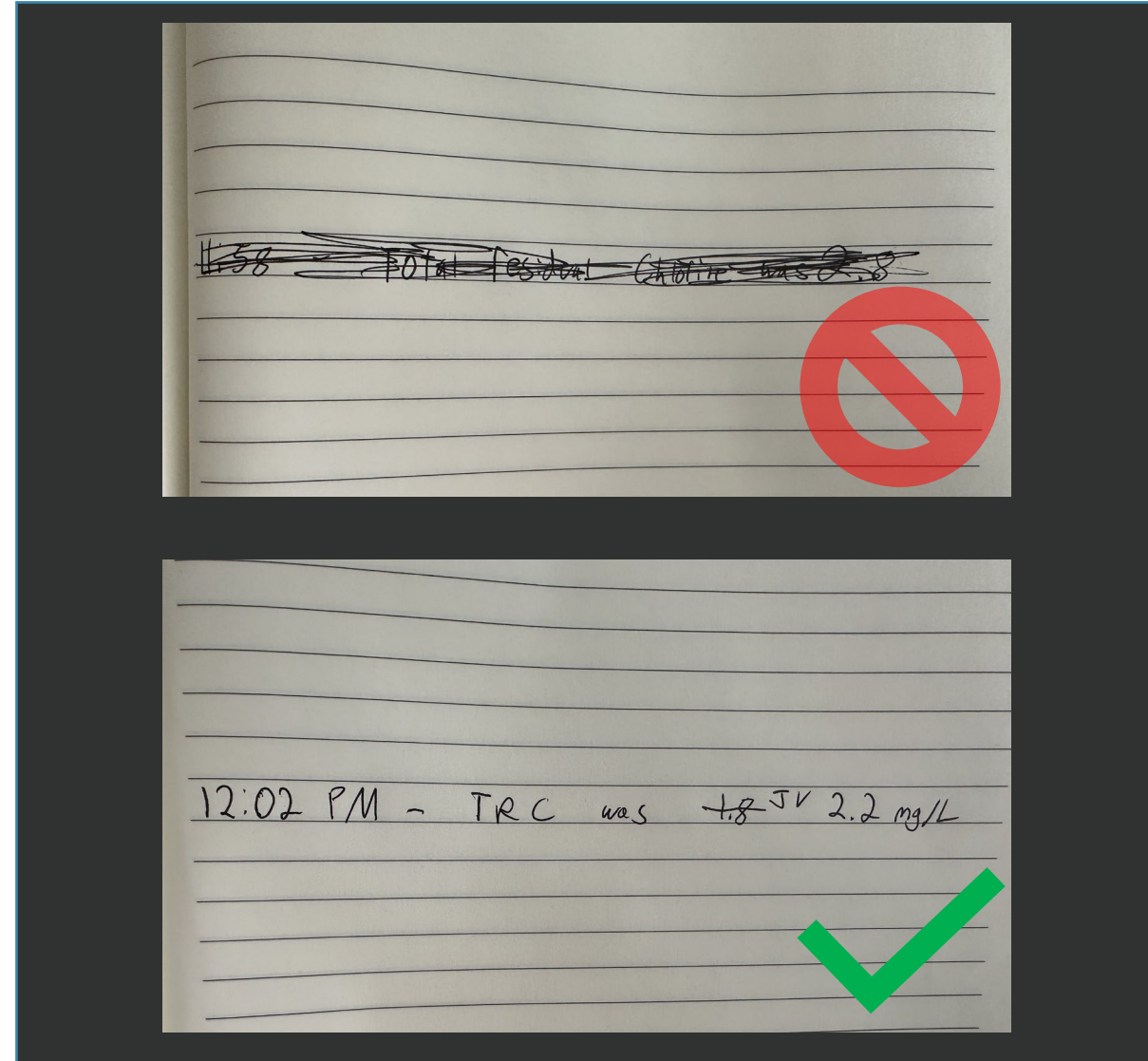


“THE BASICS” – NOTABLE EXCERPTS

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Notable excerpts from FD 1100:

- 2.2.1. – Document the intent to use SOPs other than the DEP SOPs, or to use allowable modifications....
By recording the effective date of use for all such SOPs or modifications.
 - 2.2.2 – Authorize all internal SOPs with the signature of the quality assurance officer(s) and manager(s) responsible for implementation of the SOPs.
- 2.6 – Do not erase or obliterate entry errors on paper records. Make corrections by marking a line through the error so that it is still legible. Initial or sign the marked error and its correction.
- 3.1 – per the DEP Quality Assessment (QA) Rule, 62-160.240 and .340, Florida Administrative Code, keep all documentation archives for a minimum of five years after the date of generation or completion of the records **unless otherwise specified** in a department contract, order, permit or Title 62 rules.





QA AUDITS

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Wastewater QA Checklist

Facility ID	██████████	Facility Name	██
Inspection Type	INSP. TYPE – NON-NPDES – DW - CEI	Inspector Name	Verley, J.
Date of Completion	██████████	Total Time Spent on QA	3.25 hours

Checklist	Timeframe Reviewed	Monitoring Group	Checklist Completed	QA Auditor	Time Taken (Hour)	Comments
DMR Part A	November 2023	FROM DMR (R-001)	Yes	J. Verley	0.50 hour	Deficiencies found
DMR Part B	November 2023	FROM DMR (R-001)	Yes	J. Verley	0.25 hour	NA
Calibration Verification	January 2023	NA	Yes	J. Verley	0.75 hour	Deficiencies found
Field Sheet & COC	October 2023	FROM DMR A (R-001)	Yes	J. Verley	1.25 hour	Deficiencies found
Lab Report	October 2023	FROM DMR A (R-001)	Yes	J. Verley	0.50 hour	NA
Groundwater						
DMR Part D	N/A	N/A	Yes	J. Verley	NA	NA
Calibration Verification	N/A	N/A	Yes	J. Verley	NA	NA
Field Sheet & COC	N/A	N/A	Yes	J. Verley	NA	NA
Lab Report	N/A	N/A	Yes	J. Verley	NA	NA



QA AUDITS – WHY AND WHAT

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
CARBONACEOUS BIOLOGICAL OXYGEN DEMAND					SM5210		Analyst: [REDACTED] Labcode: [REDACTED]
Carbonaceous BOD-5	519	2	2		mg/L	1	[REDACTED]
TOTAL SUSPENDED SOLIDS					SM2540		Analyst: [REDACTED] Labcode: [REDACTED]
Residue, Suspended Solids	116	1.0	1.0		mg/L	1	[REDACTED]
Lab ID:	[REDACTED]	Collection Date:		[REDACTED]			
Client Sample ID:	EFF	Matrix:		WASTE WATER			
Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
NITROGEN, NITRATE + NITRITE					EPA 353.2		Analyst: [REDACTED] Labcode: [REDACTED]
Nitrogen, Nitrate	0.59	0.01	0.04		mg/L	1	[REDACTED]
NITROGEN, NITRITE					SM4500NO2-B		Analyst: [REDACTED] Labcode: [REDACTED]
Nitrogen, Nitrite	ND	0.0100	0.0400	U	mg/L	1	02/22/2024 11:16
CARBONACEOUS BIOLOGICAL OXYGEN DEMAND					SM5210		Analyst: [REDACTED] Labcode: [REDACTED]
Carbonaceous BOD-5	3	2	2		mg/L	1	[REDACTED]

- A QA Audit is an in-depth analysis of documentation on part of the department. It serves as way for the DEP to double-check its work products.
- All inspections follow similar procedures for the inspection of documents, the only difference in a QA is that it gets written down.
- A QA will look at the following documents:
 - A random DMR part A.
 - A random DMR part B.
 - Calibration verification sheets.
 - Field Sheets and chain of custody forms.
 - **MOST** labs provide a chain of custody form that includes all the information necessary for field sheets.
 - Full Laboratory Reports.
 - *DMR Part D.
 - *Groundwater calibration and verification.
 - *Groundwater field sheet and chain of custody.
 - *Full groundwater laboratory report.

*If applicable



QA AUDIT DOCUMENTATION – DMR A AND B

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Code	DAILY RESULTS-PART B									
	BOD, Carbonaceous 5 day, 2DC mg/L	Chlorine, Total Residual (For Disinfection) mg/L	Coliform, Total (as N) Fecal #/100mL	Nitrogen, Nitrate, mg/L	Solids, Total mg/L	pH	Flow MGD	BOD, Carbonaceous, 5 day, 2DC mg/L	Solids, Total mg/L	
Mon. Site	EFA-1	EFA-1	EFA-1	EFA-1	EFA-1	EFA-1	FLW-1	INF-1	INF-1	
1	-	2.20	-	-	-	7.40	0.003	-	-	
2	-	-	-	-	-	-	0.025	-	-	
3	-	2.20	-	-	-	7.40	0.025	-	-	
4	-	-	-	-	-	-	0.023	-	-	
5	-	-	-	-	-	-	0.023	-	-	
6	-	2.20	-	-	-	7.36	0.023	-	-	
7	-	-	-	-	-	-	0.025	-	-	
8	-	2.20	-	-	-	7.40	0.025	-	-	
9	-	-	-	-	-	-	0.023	-	-	
10	-	-	-	-	-	-	0.023	-	-	
11	-	2.20	-	-	-	7.30	0.023	-	-	
12	-	-	-	-	-	-	0.025	-	-	
13	-	2.20	-	-	-	7.00	0.025	-	-	
14	-	-	-	-	-	-	0.024	-	-	
15	-	-	-	-	-	-	0.024	-	-	
16	-	2.20	-	-	-	7.00	0.024	-	-	
17	-	-	-	-	-	-	0.024	-	-	
18	-	2.20	-	-	-	7.00	0.024	-	-	
19	-	-	-	-	-	-	0.024	-	-	
20	-	-	-	-	-	-	0.024	-	-	
21	-	2.20	-	-	-	7.20	0.024	-	-	
22	-	-	-	-	-	-	0.028	-	-	
23	-	2.20	-	-	-	7.20	0.028	-	-	
24	7.0	-	<2.00	0.14	2.20	-	0.024	259.00	200.00	
25	-	2.20	-	-	-	7.20	0.024	-	-	
26	-	-	-	-	-	-	0.024	-	-	
27	-	2.20	-	-	-	7.20	0.024	-	-	
28	-	-	-	-	-	-	0.024	-	-	
29	-	2.20	-	-	-	7.30	0.024	-	-	
30	-	-	-	-	-	-	0.024	-	-	
31	-	2.20	-	-	-	7.20	0.024	-	-	
Total	7.0	30.80	<2.00	0.14	2.20	101.26	0.134	259.00	200.00	
	7.0	2.20	<2.00	0.14	2.20	7.21	0.024	259.00	200.00	

- Ensure all info matches between A and B.
- Calculation errors – double check your formulas in excel or on paper if something feels off.
- Report on the most recent template (if there is an issue with EzDMR, please let us know).
- Report <MDL on both A and B:
 - If your Lab tells you a sample is below detection, report it as “<MDL” or the provided approximation.
- Plant staffing should be fully recorded on the bottom of part B.
- Ensure proper use of codes:
 - NODI, MNR, etc. – If MNR is used, write a note explaining why in part A.



QA AUDIT DOCUMENTATION – CALIBRATION VERIFICATION

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Colorimeter Secondary Verification Log for HANNA DR188 Unit 5 (Serial #22119D001120)

Continuing Calibration Verification					
Unit Number	2" Gel Standard Information	Standard Value	DR188 Reading	Allowable Range	Result Summary
5	Lot: A2060 Exp. Jan - 25	0.00		Zero	Pass / Fail
		0.17		+0.09 (0.08 - 0.26 mg/L)	Pass / Fail
		0.95		+0.16 (0.75 - 0.95 mg/L)	Pass / Fail
		1.48		+0.14 (1.34 - 1.62 mg/L)	Pass / Fail

- Ensure there is listed acceptance criteria:
 - Standard acceptance criteria outlined in SOP.
- Clearly mark indication of pass/fail.
- Quantitative bracketing your calibration.
- Chronological bracket verification.
- Record a unique identifier for each instrument.
- List the last maintenance/cleaning of instrument
 - Certain probes are cost-prohibitive to conduct maintenance on and are alright to use until failure.
- Provide initial of who last calibrated meter.



QA AUDIT DOCUMENTATION – OTHER DOCUMENTS

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For a full list of what is expected to be included in any variety of report, please either refer to the SOPs or contact your county's Wastewater Inspector for additional assistance.

Field Sheets and Chain of Custody:

- Separate Field Sheet (if info not on chain of custody).
- List Facility ID, Permit ID and/or Identification.
- Sample kit ID listed.
- Preservative(s) lot and expiration.
- Listed container types.

Full Laboratory Reports:

- Name/location of overflow test lab.
- Full description/explanation of any test failures.
- Inclusion of **LABORATORY** opinion or interpretation when appropriate.
- Explanations for when quality system requirements are not met.

Miscellaneous/General:

- Penmanship (legibility).
- Traceability.
 - Everything in logbook?
- Clarity of information.
- Deviation from SOPs/O&M.
- Improper electronic record keeping.



CLOSING REMARKS AND QUESTIONS

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION





HOW WE CAN ASSIST

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

How Can Dep Help You?

Compliance assistance: The department helps residents and businesses comply with environmental regulations through site visits and technical support. DEP's six regulatory district offices review permit applications, inspect permitted facilities, respond to reports of environmental damage, and conduct compliance assistance and enforcement.

Education and information: Sign up for a variety of digital newsletters, updates and announcements about the department's programs, activities and events.

Recognizing environmental stewardship: DEP encourages sound environmental practices through its sustainable initiative programs, including Clean Marinas, Green Lodging and Recycling Recognition.

FloridaDEP.gov
850-245-2118



THANK YOU

Jackson Verley

Division of Water Resource Management
South District

Florida Department of Environmental Protection

Contact Information:

239-334-5668

Jackson.Verley@FloridaDEP.Gov

