Surface Water Treatment Plant Requirements for Monthly Reporting and Public Notification

Prepared by the
Water Supply Division
Texas Commission on Environmental Quality

RG-211
Revised June 2022
www.tceq.texas.gov/goto/rg211

Contents

Abbreviations v
Overview 1
Rules Associated with this Guidance 1
Additional Reporting Requirements 2
TCEQ Contact Information 2
TCEQ Publications 2
We and You in This Guidance 2
1. Introduction 3
1.1 Reporting Forms 3
1.2 Organization of this Guidance 4
1.3 Electronic Form Features 4
1.4 Reports and Records 9
1.5 Monitoring and Analysis 10
2. Customizing an SWMOR Workbook 11
2.1 Opening Screen Security Warning 11
2.2 System Information Dialog Box 12
2.3 Plant Parameters Dialog Box 13
2.4 Disinfection Process Parameters Dialog Box 15
2.5 Alternative Technologies and LT2 ESWTR Dialog Box 18
2.6 Entering Your Plant Information (P.2) 19
2.7 Saving your Customized Workbook 20
3. Entering Data in a Customized SWMOR Workbook 21
3.1 Creating a Monthly Workbook File 21
3.2 Turbidity and Disinfectant Residual Performance Data (P.2) 23
3.3 IFE Turbidity Performance Data (P.3) 30
3.4 Disinfection Process Performance Data (P.4 & 5) 40
3.5 TOC Data (P.6, 7, 8, and SUVA) 46
3.6 Imported Data 61
4. Compiling Summary Data 62
4.1 Treatment Plant Performance 62
4.2 Distribution System 67
4.3 Additional Reports and Worksheets 70

4.4 Statistical Analysis of Turbidity Data 71
4.5 Statistical Analysis of pH Data CALC 72
4.6 Summary Page Addendum (Violations and Public Notices) 72
4.7 Printing, Signing, and Submitting your MOR 75
5. Additional Guidance for Plants with Alternative Treatment Technologies 76
5.1 Customizing Your Workbook 76
5.2 Entering Data in Customized SWMOR for Plants with Alternative Treatment 93
5.3 Compiling Summary Data 94
5.4 Membrane Worksheets (PBT, QBT, and MBT) 94
5.5 Crypto CT Worksheet 107
5.6 UV Sensor Data Worksheet 109
5.7 UV ISA Worksheet 113
5.8 UV CDA Worksheet 117
5.9 UVT Analyzer Worksheet 124
5.10 Prefilters Worksheet 125
5.11 Bag, Cartridge Worksheet 136
5.12 Enhanced IFE Worksheet 142
5.13 2nd Stage Filters Worksheet 144
6. Additional Guidance for 2-Filter Plants 147
6.1 Entering Data in Customized SWMOR for 2-Filter Plants 147
6.2 Compiling Summary Data 153
6.3 Printing, Signing, and Submitting Your MOR 153
7. Filter Profile Studies and FPRs 154
7.1 General Information 154
7.2 Obvious Reasons (P.1) 155
7.3 Narrative Description of the Filter Profile (P.2) 158
7.4 Printing, Signing, and Submitting the FPR 160
8. Filter Assessments and FARs 161
8.1 General Information 161
8.2 Design Specifications and Operating Procedures (P.1) 162
8.3 Current, Media Surface, and Backwash Conditions (P.2) 177
8.4 Filter Probe, Filter Excavation, Additional Studies, and Conclusions (P.3) 187
8.5 Filter Schematic (P.4) 195
8.6 Narrative Description of Filter Profile (P.5) 195

8.7 Corrective Action Plan (Optional) (P.6) 195
8.8 Printing, Signing, and Submitting the FAR 195
9. CPE Requests and mCPEs 197
9.1 General Information 197
9.2 Plant Information 197
9.3 Events that Prompted the CPE Request 198
9.4 Public Water System Preferences 198
9.5 Printing, Signing, and Submitting the CPE Request 200
10. Printing, Signing, and Submitting Your MOR 201
10.1 Printing the Report 201
10.2 Signing the Report 201
10.3 Submitting your Report 201
11. Public Notification 203
11.1 Violation Types 203
11.2 Notifying TCEQ 206
11.3 Notifying Customers 211
Glossary 215
Appendix A: Example CT Study Approval Letter 227
Appendix B: Example SOP 236
Conducting a Routine Filter Inspection 236
Appendix C: Example FPR 246
Appendix D: Example FAR 249
Appendix E: Example CPE Request 255
Appendix F: Violation Report Form 256
Appendix G: Equipment Calibration 257
SWTP Calibration Requirements and Procedures 257
Appendix H: Membrane Filters – How to Report $P_{initial}$ DIT Pressure Data 262
DIT Data - PBT 262
DIT Data - QBT 262