



**Minutes of  
May 13, 2009 Meeting  
at L/E WWTP, Littleton, CO**

In Attendance:

Paul Grundemann	CWSD
Bob Anastov	City of Aurora
Ginny Johnson	Colorado Springs Utilities
Andrew Neuhart	WQCD
Brian Donahue	City of Westminster
Bret Linenfelser	Boulder
Jim Kendrick	Monument Sanitation
Colleen Young	Greeley Water & Sewer
Tad Foster	Law Office of Tad Foster
Martha Hahn	PCWA
Nancy Keller	Pueblo
Michelle Ryerson	Metro Wastewater
Tim Woodard	Westminster
Blair Corning	SACWSD
Dennis Stowe	L/E WWTP
Mary Gardner	L/E WWTP
Jill Piatt Kemper	Aurora
Dennis Schump	Greeley Water & Sewer
Sarah Reeves	Brown and Caldwell
Mike Bittner	Silverthorne/Dillon
Martha Rudolph	CDPHE
Tim Grotheer	Carollo Engineering
Paul Ferraro	CWWUC

**I. Colorado Environmental Program & Environmental Legislation Update,  
Martha Rudolph (CDPHE)**

Martha's Highlights:

1. Glad to be here again to meet with the Council.
2. Legislative Session - a difficult one due to budget shortfall.
  - The proposed fee bill was not introduced. There was not enough upfront effort nor support.
  - Fee bill for Ag was successful. The Ag community was supportive.

3. Budget - fared better than other divisions. The Water Division is about the same as last year. They are no longer contracting for services, but doing the work inside - adding to the workload within the Division.
  - Personnel issues - lost a number of experienced people. Difficult to fill, good staff, workload is high. Concerns - no salary increases; four furlough days per year.
  - Permit Program - 23 FTEs Clean Water; 2 FTEs to Drinking Water; 5 FTE vacancies. Hard to fill due to the hiring freeze. Seeking a waiver from the Governor's office; usually a 2 month delay.
  - Workload - a busy year driven by the unplanned Alamosa problem - a big issue last year. Personnel are still busy helping them. Acute problems during the summer.
  - Stimulus Package is keeping staff busy. \$60 million for Water and Clean Water. \$62 million stimulus dollars. 141 projects; 90 applications. \$323 million total projects. A sixth category - not a priority within each category. WQCC hearing will establish the list.
4. Priorities:
  - a. Cut back on meetings related to Permit.
  - b. Nutrients - have worked on nutrients for years. EPA is pushing nutrients. Bear Creek Lake - EPA required a Standard 1/2 of the existing. Cherry Creek - getting ahead of the problem. Not sure how far and big. Not going to drop.
  - c. Antidegradation - Any benefits? Probably not. Will take a lot of work to change the guidance. Will discuss Divisions proposed guidance changes a May 19 Basic Standards Work Group meeting. Changes focus on how to make it simpler, yet still meaningful.
  - d. Permits - Backlog- staff vacancies (5 FTEs). Administrative extensions no more than 2 years. More difficult permits. Driven group which works long hours.

Martha's Concern - compliance issues. People may take shortcuts with environmental permit requirements due to the economy.

Comments from Council members:

- Paul G. - more emphasis on Standards. The Standards Section is driving the Division. Suspend Antidegradation until it is fixed. The Division is working on changes to the antidegradation guidance.
- Mary - Pull our resources together. Regulation 38 - POTWs have spent a lot of money. \$100,000 spent on temperature. When are the number of standards enough? Cost of more stringent standards vs. the benefits.
- Divisions current Water Program is a good one, but needs some changes.

Call Martha Rudolph at 303.692.3397 or email her at Martha.Rudolph@state.co.us with concerns or questions.

## **II. Updates**

- Water Utility Council - Reg. 38 Letter, no other issues.
- Stormwater Council - No issues.
- WEF Biosolids - No report.
- Antidegradation - Meeting at Metro on May 19th. Baseline water quality based on September 2000 date. Council has recommended to establish database for water quality. Alternative analysis - what should it look like? What parameters? Read the documents and be prepared to discuss.
- Stimulus Package - Martha discussed it. See her presentation.
- Regulation 38 - Temperature is a big issue. Copper is a concern. Site specific standards. Andrew Neuhart (Division) distributed a CWQCD Sheet - "How to Implement Temperature in Permits." See attached document. (Most of the Permits fall in category 3 - Pollutant of Concern). He also distributed a document, "Fact Sheet for Statewide Amendment Regarding DMR Reporting and Practical Quantitation Limits." See attached document.

## **III. Open Discussion**

- Andrew Neuhart stated that the Permits Section is being reorganized. Nancy asked about nitrates and Andrew indicated there will be no change.

The meeting adjourned at 3:20 PM.

Next Meeting: June 10, 2009 at 1 PM at L/E WWTP

# HOW TO IMPLEMENT TEMPERATURE IN PERMITS

Temperature limitations in permits will be based on the following criteria:

Category	Facility Types	Permit Limitations
Not a Pollutant of Concern (small universe)	Industrial General permits such as: CDW, Hydrostatic, Subterranean, TWDS, Outdoor Washing  These are generally short term discharges, where the industrial process does not add heat, where temperature should not be a problem	No reporting or limitations required. Not a POC in WQA.
Is a Pollutant of Concern, but the dilution ratio exempts the discharger from further limitations.	Industrial Facility where the dilution ratio (7E3:design flow) is 0:1 or >40:1. Domestic Facility where the dilution ratio is 0:1 or >10:1. Or the facility (Domestic or Industrial) is discharging naturally occurring heated water that was normally getting into the stream anyway (i.e. natural hot springs)	No reporting or limitations required. Eliminated as a POC in WQA.
Is a Pollutant of Concern, or there is Unknown Potential, typically no RP finding because of lack of data (large universe)	All domestic facilities, Industrial Facilities not covered above or below, unless there is data available to determine RP.	Report only conditions for the entire permit term. During the next renewal, collected data will be used to determine RP, and assimilative capacity evaluations in the WQA (if instream data is also provided).
Qualitative RP or assumed potential (small universe)	Mainly Industrial Facilities such as Power Plants, or the Non-Contact Cooling Water General - where cooling tower blowdown is a component of the discharge.  This may include other facilities where temperature is known to be a POC due to the discharge type or treatment process, such as facilities that previously had a temp limit	Temperature limits generally effective within 3 years of the effective date of the permit (see compliance schedule example below)

**Unknown Potential** – These facilities will receive **REPORT ONLY** limitations during this permit cycle. A compliance schedule may be necessary for the facility to put the proper continuous temperature monitoring equipment in place. An example compliance schedule is as follows:

- a. **Installation of Temperature Monitoring Equipment** - The following compliance schedule is included to give the facility time to install temperature monitoring equipment for the effluent.

Code	Event	Description	Due Date
04301	Install Temperature Meters	The permittee is to submit a document certifying that continuous temperature and flow monitoring equipment has been installed and is operational.	6 months

The limitation table will look like this

Temp Daily Max °C Beginning 6 months			Report	Continuous	Recorder
Temperature, MWAT °C Beginning 6 months		Report		Continuous	Recorder

Dates should be updated based on the effective date of the permit

Assumed Potential – These facilities will receive limitations during this permit cycle. Typically, a compliance schedule will be included to install the temperature monitoring equipment and 2 years of sampling to determine if the limitations can be met. Note that the limitations should come into effect 6 months after the second year of data collection is complete, in case the facility cannot immediately comply with the limit and will need time to either develop treatment or some other alternative approach. An example compliance schedule is as follows:

- a. Installation of Temperature Monitoring Equipment and Data Collection- The following compliance schedule is included to give the facility time to install temperature monitoring equipment for the effluent.

Code	Event	Description	Due Date
04301	Install Temperature Meters	The permittee is to submit a document certifying that continuous temperature and flow monitoring equipment has been installed and is operational.	6 months
05506	Sampling and Analysis	The permittee is to submit the data collected including summary statistics of the MWAT and the Daily Max.	1 year 6 months
00308	Perform Compliance Performance Evaluation	The permittee is to submit the data collected as well as a summary of whether the limitation can be met.	2 year 6 months

The limitation table should look like this

Temp Daily Max °C Beginning 6 months Beginning 3 years *			Report ## *	Continuous	Recorder
Temperature, MWAT °C Beginning 6 months Beginning 3 years		Report ##		Continuous	Recorder

Dates should be updated based on the effective date of the permit

\* This line will be included only if your basin has daily max values.

## - the actual value will be substituted here

Note that if a facility previously had a temperature limit (old standard), the limitation table would look like this

Temperature, °C Until 3 years			##	Daily or Weekly, etc...	Grab
Temp Daily Max °C Beginning 6 months Beginning 3 years *			Report ## *	Continuous	Recorder
Temperature, MWAT °C Beginning 6 months Beginning 3 years		Report ##		Continuous	Recorder

(note that in this instance the fact sheet language would need to be adjusted to state that the previous temperature limitation will be in effect until the new limit becomes effective.)

*The fact sheet contains language that encourages the permittee to collect instream temperature data, if they would like to be able to take advantage of potential instream dilution, for future assimilative capacity calcs (either next renewal if Unknown potential facility or after 2 years of data collection if Assumed Potential facility).*

# **COLORADO DISCHARGE PERMIT SYSTEM (CDPS)**

## **FACT SHEET FOR STATEWIDE AMENDMENT REGARDING DMR REPORTING AND PRACTICAL QUANTITATION LIMITS**

### **I. TYPE OF PERMITS**

This statewide amendment is being written and is to apply to all discharge permit types for domestic and industrial facilities, which have conditions regarding practical quantitation limits (PQLs), method detection limits (MDLs), and conditions for reporting nondetects or non quantified results. This includes: Individual Permits; General Permits; Certifications under a General Permit; and Groundwater Permits.

### **II. PURPOSE OF AMENDMENT**

The purpose of this amendment is to ensure that the manner in which permittees are required to report data on their Discharge Monitoring Reports (DMRs) does not result in the new EPA database (ICIS) considering an entry a violation that the permit does not intend to be a violation. This may occur when a sampling result is less than the PQL (or in an older permit, the MDL), and the PQL is greater than the permit limitation. In such a case, the permit does not intend for this to be a violation, as long as the lowest PQL is used. Note that MDLs are no longer being used in permit documents as Regulation 61 prescribes the use of a PQL. For the remainder of this document, PQL will be used to describe the required quantitation/detection limit in a permit.

This amendment updates the standard permit language regarding how to report values that are less than the PQL on the DMRs and may also effect the Footnotes or Definitions of Terms sections of a permit. Through this amendment, language is being provided to replace existing language in all permits that contained instructions on how to report values that were less than the applicable PQL. This amendment will result in a consistent approach in all permits for the reporting of results that are less than the PQL.

The location of this language in a permit may vary due to changes in permit organization over the past several years. Typically, this language appears in one of the following locations in a permit:

- Part I.A or I.B in the section titled “Footnotes” (c, g, k, l, n, o, and/or t),
- Part I.C in the section titled “Definition of Terms”
- Part I.D or I.E, in the section titled “Analytical and Sampling Methods for Monitoring” (usually contained in Part I.D.3, I.D.5, I.E.3 or I.E.5).
- Sometimes the language may have appeared in a combination of these sections (Footnotes and Analytical and Sampling Methods)

Due to changes in standard permit language over the past several years, and depending on when a permit was last renewed, one of the following sets of language, or something similar, is included in the relevant section(s) of the permit:

- “If all individual analytical results that would be used in the calculations are below the method detection limit, then “less than x,” where x is the method detection limit, shall be reported on the monthly DMR. Otherwise, report the calculated value.”

- “When the most sensitive analytical method which complies with this part, has a detection limit greater than or equal to the permit limit, the permittee shall report "less than (the detectable limit)," as appropriate. Such reports shall not be considered as violations of the permit limit. The present lowest practical quantitation limits (PQL) for specific parameters (which have limitations that are, in some cases, less than or equal to the detection limit) are as follows:”
- “When the most sensitive analytical method which complies with this part, has a PQL greater than or equal to the permit limit, the permittee shall report "less than (the PQL)," as appropriate. Such reports shall not be considered as violations of the permit limit. The present lowest PQLs (State Lab, November 2008) for specific parameters (which have limitations that are, in some cases, less than or equal to the PQL), are as follows:”

This language was often followed by a table that contained either MDLs (older permits) or PQLs (newer permits).

### III. CHANGES RESULTING FROM AMENDMENT

This amendment modifies how permittees are to report analytical results that are less than the PQL. If the PQL is lower than or equal to the permit limit, then the permittee should continue to report “<X”, where X = PQL. However, if the PQL is greater than the permit limitation (using the lowest available PQL), then report “BDL” on the DMR. Various examples are given in the table below.

<b>Permit Limitation</b>	<b>PQL</b>	<b>Analytical Result</b>	<b>DMR Report Value</b>
10	5	<5	<5
10	10	<10	<10
10	15	<15	BDL
10	5	6	6
10	15	15	15

The language on the following pages is to be substituted into all permit documents in the relevant sections as described in Part II above. This language replaces any and all references to reporting less than detection, less than the PQL, or less than the MDL on the DMR for all permits.

Note that any site-specific PQLs or other special monitoring requirements are not affected by this amendment.

**Andrew Neuhart**  
**March 17, 2009**

### IV. PUBLIC NOTICE COMMENTS

(this section to be completed after public notice)

## Statewide Permit Amendment Language

### Definitions:

"Seven (7) day average" means, with the exception of fecal coliform or *E. coli* bacteria (see geometric mean), the arithmetic mean of all samples collected in a seven (7) consecutive day period. When calculating the 7-day average, a value of zero should be used in place of any value that is less than the reporting limit. **If all values are less than the PQL, and the PQL is greater than the permit limit "BDL" should be reported. If all values are less than the PQL, and the PQL is less than or equal to the permit limit, "<x" should be reported, where "x" is the reporting limit. Otherwise, the calculated average shall be reported. Note that it does not matter if a calculated average is greater or less than the PQL, it must be reported as a value.** Such seven (7) day averages shall be calculated for all calendar weeks, which are defined as beginning on Sunday and ending on Saturday. If the calendar week overlaps two months (i.e. the Sunday is in one month and the Saturday in the following month), the seven (7) day average calculated for that calendar week shall be associated with the month that contains the Saturday. Samples may not be used for more than one (1) reporting period.

"Thirty (30) day average" means, except for fecal coliform or *E. coli* bacteria (see geometric mean), the arithmetic mean of all samples collected during a thirty (30) consecutive-day period. When calculating the 30-day average, a value of zero should be used in place of any value that is less than the PQL. **If all values are less than the PQL, and the PQL is greater than the permit limit "BDL" should be reported. If all values are less than the PQL, and the PQL is less than or equal to the permit limit, "<x" should be reported, where "x" is the reporting limit. Otherwise, the calculated average shall be reported. Note that it does not matter if a calculated average is greater or less than the PQL, it must be reported as a value.** The permittee shall report the appropriate mean of all self-monitoring sample data collected during the calendar month on the Discharge Monitoring Reports. Samples shall not be used for more than one (1) reporting period.

### Analytical and Sampling Methods for Monitoring:

The permittee shall install, calibrate, use and maintain monitoring methods and equipment, including biological and indicated pollutant monitoring methods. All sampling shall be performed by the permittee according to specified methods in 40 C.F.R. Part 136; methods approved by EPA pursuant to 40 C.F.R. Part 136; or methods approved by the Division, in the absence of a method specified in or approved pursuant to 40 C.F.R. Part 136.

**The analytical method and PQL selected for a parameter shall be the one that can measure compliance with the permit limitation. If all analytical methods and corresponding PQLs are greater than the permit limit, then the analytical method with the lowest PQL shall be used. If the permit contains a monitoring or report only requirement, the analytical method with the lowest PQL shall be used.**

When the analytical method which complies with the above requirements has a PQL greater than the permit limit, the permittee shall report "BDL" on the DMR. Such reports will not be considered as violations of the permit limit, as long as the lowest available PQL is used for the analysis. When the analytical method which complies with the above requirements has a PQL that is equal to or less than the permit limitation, "< X" (where X = the actual PQL achieved by the laboratory) shall be reported on the DMR. For parameters that have only a monitoring or report only limitation, "< X" (where X = the actual PQL achieved by the laboratory) shall be reported on the DMR.

The present lowest PQLs for specific parameters, as determined by the State Laboratory (November 2008) are provided below. If the analytical method cannot achieve a PQL that is less than or equal to the permit limit, then the method, or a more precise method, must achieve a PQL that is less than or equal to the PQL

in the table below. A listing of the PQLs for organic parameters that must meet the above requirement can be found in the Division's *Practical Quantitation Limitation Guidance Document, July 2008*.

Parameter	Practical Quantitation Limits,	Parameter	Practical Quantitation Limits, µg/l
Aluminum	50 µg/l	Manganese	2 µg/l
Ammonia	1 mg/l	Mercury	0.1 µg/l
Arsenic	1 µg/l	Mercury (low-level)	0.003 µg/l
Barium	5 µg/l	Nickel	50 µg/l
Beryllium	1 µg/l	N-Ammonia	50 µg/l
BOD / CBOD	1 mg/l	N Nitrate/Nitrite	0.5 mg/l
Boron	50 µg/l	N-Nitrate	50 µg/l
Cadmium	1 µg/l	N-Nitrite	10 µg/l
Calcium	20 µg/l	Total Nitrogen	0.5 mg/l
Chloride	2 mg/l	Phenols	100 µg/l
Chlorine	0.1 mg/l	Phosphorus	10 µg/l
Total Residual Chlorine		Radium 226	1 pCi/l
DPD colorimetric	0.10 mg/l	Radium 228	1 pCi/l
Amperometric titration	0.05 mg/l	Selenium	1 µg/l
Chromium	20 µg/l	Silver	0.5 µg/l
Chromium, Hexavalent	20 µg/l	Sodium	0.2 mg/l
Copper	5 µg/l	Sulfate	5 mg/l
Cyanide (Direct / Distilled)	10 µg/l	Sulfide	0.2 mg/l
Cyanide, WAD+A47	5 µg/l	Total Dissolved Solids	10 mg/l
Fluoride	0.1 mg/l	Total Suspended Solids	10 mg/l
Iron	10 µg/l	Thallium	1 µg/l
Lead	1 µg/l	Uranium	1 µg/l
Magnesium	20 µg/l	Zinc	10 µg/l

These limits apply to the total recoverable or the potentially dissolved fraction of metals.

For hexavalent chromium, samples must be unacidified so dissolved concentrations will be measured rather than potentially dissolved concentrations.

The procedure for determining settleable solids is contained in 40 CFR 434.64. The practical quantitation limit for measuring settleable solids under this part shall be 0.4 ml/l.