STATE OF COLORADO

**COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT**
**Water Quality Control Division**

**AUTHORIZATION TO DISCHARGE UNDER THE**
**COLORADO DISCHARGE PERMIT SYSTEM**
**PERMIT NUMBER CO0048143**

In compliance with the provisions of the Colorado Water Quality Control Act, (25-8-101 et seq., CRS, 1973 as amended), for both discharges to surface and ground waters, and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq.; the "Act"), for discharges to surface waters only, the

**Mesa Water and Sanitation District**

is authorized to discharge from the Mesa Water and Sanitation District wastewater treatment plant located in the SE 1/4, NE 1/4 and NE/14 , SE1/4 of S19 and SW 1/4, NW 1/4 and NW 1/4, SW 1/4 of S20, T10S, R96W; 11533 Highway 65, in Mesa, CO; at 39.173000° latitude North and 108.139400° longitude West

to **Mesa Creek**

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I and II hereof. All discharges authorized herein shall be consistent with the terms and conditions of this permit.

The applicant may demand an adjudicatory hearing within thirty (30) calendar days of the date of issuance of the final permit determination, per the Colorado State Discharge Permit System Regulation 61.7(1). Should the applicant choose to contest any of the effluent limitations, monitoring requirements or other conditions contained herein, the applicant must comply with Section 24-4-104 CRS 1973 and the Colorado State Discharge Permit System Regulations. Failure to contest any such effluent limitation, monitoring requirement, or other condition, constitutes consent to the condition by the applicant.

This permit and the authorization to discharge shall expire at midnight, March 31, 2021

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Erin R. Scott

Digitally signed by Erin R. Scott
DN: dc=local, dc=dphe, ou=Divisions, ou=WQC, ou=Users, cn=Erin R. Scott, email=erin.scott@state.co.us
Date: 2016.12.29 16:09:11 -07'00'

Erin Scott, Acting Permits Section Manager
Water Quality Control Division

**PERMIT ACTION SUMMARY**
**Modification 1: Minor Amendment Issued December 29, 2016, Effective February 1, 2017(Parts I.A.3, I.A.5)**
**Originally Issued and Signed on: February 29, 2016, Effective: April 1, 2016**

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**PART I**

## A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

### 1. Permitted Feature(s)

Beginning no later than the effective date of this permit and lasting through the expiration date, the permittee is authorized to discharge from, and self monitoring samples taken in accordance with the monitoring requirements shall be obtained from permitted feature(s):

001A, following disinfection and prior to mixing with the receiving stream. 39.173000°N, 108.139400°W

The location(s) provided above will serve as the point(s) of compliance for this permit and are appropriate as they are located after all treatment and prior to discharge to the receiving water. Any discharge to the waters of the State from a point source other than specifically authorized by this permit is prohibited.

In accordance with the Water Quality Control Commission Regulations for Effluent Limitations, Section 62.4, and the Colorado Discharge Permit System Regulations, Section 61.8(2), 5 C.C.R. 1002-61, the permitted discharge shall not contain effluent parameter concentrations which exceed the following limitations specified below or exceed the specified flow limitation.

### 2. Limitations, Monitoring Frequencies and Sample Types for Effluent Parameters

In order to obtain an indication of the probable compliance or noncompliance with the effluent limitations specified in Part I.A, the permittee shall monitor all effluent parameters at the frequencies and sample types specified below. Such monitoring will begin immediately and last for the life of the permit unless otherwise noted. The results of such monitoring shall be reported on the Discharge Monitoring Report form (See Part I.D.)

Self-monitoring sampling by the permittee for compliance with the effluent monitoring requirements specified in this permit, shall be performed at the location(s) noted in Part I.A.1 above. If the permittee, using an approved analytical method, monitors any parameter more frequently than required by this permit, then the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report Form (DMRs) or other forms as required by the Division. Such increased frequency shall also be indicated.

Percentage Removal Requirements ($CBOD_5$ Limitations) - If noted in the limits table(s), the arithmetic mean of the CBOD5 concentrations for effluent samples collected during the DMR reporting period shall demonstrate a minimum of eighty-five percent (85%) removal of both CBOD5, as measured by dividing the respective difference between the mean influent and effluent concentrations for the DMR monitoring period by the respective mean influent concentration for the DMR monitoring period, and multiplying the quotient by 100.

Oil and Grease Monitoring: For every outfall with oil and grease monitoring, in the event an oil sheen or floating oil is observed, a grab sample shall be collected and analyzed for oil and grease, and reported on the appropriate DMR under parameter 03582. In addition, corrective action shall be taken immediately to mitigate the discharge of oil and grease. A description of the corrective action taken should be included with the DMR.

Total Residual Chlorine: Monitoring for TRC is required only when chlorine is in use.

Flow Recording Device: For this facility, two flow recording devices are provided and are located at the point of inflow to and discharge from the treatment plant. Reported flows will be used to monitor both compliance with the effluent flow limitation and hydraulic loading to the plant.

Permitted Feature/Limit Set 001A

| ICIS Code | Effluent Parameter | Effluent Limitations Maximum Concentrations | | | Monitoring Requirements | |
|---|---|---|---|---|---|---|
| | | 30-Day Average | 7-Day Average | Daily Maximum | Frequency | Sample Type |
| 50050 | Effluent Flow (MGD) until August 31, 2017 | 0.04 | | Report | Instantaneous | In-Situ |
| 50050 | Effluent Flow (MGD) beginning September 1, 2017 | 0.04 | | Report | Continuous | Recorder |
| 00400 | pH (su) | | | 6.5-9 | Weekly | Grab |
| 51040 | *E. coli* (#/100 ml) | 1920 | 3840 | | Monthly | Grab |
| 50060 | TRC (mg/l) | 0.38 | | | Monthly | Grab |
| 00610 | Total Ammonia as N (mg/l) | Report | | Report | Monthly | Grab |
| | January | 20 | | 65* | Monthly | Grab |
| | February | 20 | | 52 | Monthly | Grab |
| | March | 20 | | 65* | Monthly | Grab |
| | April | 20 | | 63 | Monthly | Grab |
| | May | 20 | | 65* | Monthly | Grab |
| | June | 20 | | 65* | Monthly | Grab |
| | July | 20 | | 65* | Monthly | Grab |
| | August | 20 | | 65* | Monthly | Grab |
| | September | 20 | | 65* | Monthly | Grab |
| | October | 20 | | 65* | Monthly | Grab |
| | November | 20 | | 65* | Monthly | Grab |
| | December | 20 | | 63 | Monthly | Grab |
| 80082 | CBOD5, effluent (mg/l) | 25 | 40 | | Monthly | Grab |
| 80082 | CBOD5, effluent (lb/d) | 8.34 | | | Monthly | Calculated |
| 80091 | CBOD5 (% removal) | Report | | | Monthly | Calculated |
| 00530 | TSS, effluent (mg/l) | 75 | 110 | | Monthly | Grab |
| 84066 | Oil and Grease (visual) | | | Report | Weekly | Visual |
| 03582 | Oil and Grease (mg/l) | | | 10 | Contingent | Grab |
| 70295 | TDS (mg/l) | | | | | |
| 70295 | WWTF effluent (mg/l) | Report | | Report | Quarterly | Grab |

**Set to 65 mg/l since exceeded 65 mg/l*

## 3. Monitoring Frequency and Sample Type Influent Parameters

Regardless of whether or not an effluent discharge occurs and in order to obtain an indication of the current influent loading as compared to the approved capacity specified in Part I.A.3 and Part I.B.2; the permittee shall monitor influent parameters at the following required frequencies, the results to be reported on the Discharge Monitoring Report (See Part I.D):

If the permittee monitors any parameter more frequently than required by the permit, using an approved test procedure or as specified in the permit, the result of this monitoring shall be included in the calculation and reporting of data to the Division.

Self-monitoring samples taken in compliance with the monitoring requirements specified below shall be taken at the following location(s): **Outfall 300I, at a representative point prior to biological treatment.**

Permitted Feature 300I

| ICIS Code | Parameter | Discharge Limitations Maximum Concentrations | | | Monitoring Frequency | Sample Type |
|---|---|---|---|---|---|---|
| | | 30-Day Average | 7-Day Average | Daily Max. | | |
| 50050 G | Flow, mgd | Report | | Report | Continuous | Recorder |
| 00180 G | Plant Capacity (% of Capacity - Hydraulic) [1] | Report | | | Monthly | Calculated [1] |
| 00310 G | $BOD_5$, mg/l | Report | Report | | Monthly | Composite |
| 00310 G | $BOD_5$, lbs/day | Report | Report | | Monthly | Calculated |
| 00180 G | Plant Capacity (% of Capacity - Organic) [1] | Report | | | Monthly | Calculated [1] |
| 00530G | Total Suspended Solids, mg/l | Report | Report | | Monthly | Composite |
| 70295 G | Total Dissolved Solids * | Report | | | Quarterly | Composite |

* TDS measurements only required when the discharge is in the Colorado River Basin. Samples are to be of the raw water supply. If more than one source is being utilized, a composite sample proportioned to flow shall be prepared from individual grab samples.

[1] The % capacity is to be reported against the listed capacities of 0.04 MGD for the hydraulic capacity and 80 lbs/day for the organic capacities as noted in Site Approval 1881. The percentage should be calculated using the 30-day average values divided by the corresponding capacity, times 100.

## 4. Salinity Parameters

In order to obtain an indication of the increase in salinity due to the treatment and use of water within this service area, the permittee shall monitor the raw water source and the wastewater effluent at the following required frequencies, the results to be reported on the Discharge Monitoring Report (See Part I, Section D.1.):

Self-monitoring samples taken in compliance with the monitoring requirements specified above shall be taken prior to treatment of the raw drinking water source (with a composite sample proportioned to flow prepared from individual grab samples if more than one source is being utilized), and at the established wastewater treatment facility effluent sampling point identified above in Part I, Section B.2.

## 5. Special Studies and Additional Monitoring

a. Flow Monitoring Equipment- The facility is required to install continuous flow monitoring equipment by **August 31, 2017** to collect the instream flow monitoring on a continuous basis.

b. Flow Monitoring Equipment- The facility is required to install continuous flow monitoring equipment by **August 31, 2017** to collect continuous effluent flow.

c. 85 Percent Removal Waiver Report- The facility is required to submit a report stating whether the 85 percent removal requirement can be met, and whether the facility requests and can substantiate a waiver for the renewal permit. The waiver for the renewal permit, if applicable, shall be evaluated on the facility's performance after compliance with all permit limits is achieved.

| Code | Event | Description | Due Date |
|---|---|---|---|
| 21599 | 85 Percent Removal Waiver Report | The permittee is to submit a report stating whether the facility can meet the 85 percent removal requirement. If the facility cannot meet the removal requirement and requests a waiver for the renewal permit, the report shall include the requirements of 62.5(2)(a) to grant a waiver: 1) demonstration that the inability to meet the percent removal requirement is not a result of excessive infiltration as defined in 40 CFR 35.2005(b)(16) and 2) data confirming the three provisions of 40 CFR 133.103(d) can be met. | 12/31/2020 |

## B. TERMS AND CONDITIONS

### 1. Service Area

All wastewater flows contributed in the service area may be accepted by the Mesa WSD WWTF for treatment at the permittee's wastewater treatment plant provided that such acceptance does not cause or contribute to an exceedance of the throughput or design capacity of the treatment works or the effluent limitations in Part I.A, or constitute a substantial impact to the functioning of the treatment works, degrade the quality of the receiving waters, or harm human health, or the environment.

In addition, the permittee shall enter into and maintain service agreements with any municipalities that discharge into the wastewater treatment facility. The service agreements shall contain all provisions necessary to protect the financial, physical, and operational integrity of the wastewater treatment works.

### 2. Design Capacity

Based on Site Approval **1881**, the design capacity of this domestic wastewater treatment works is **0.04 million gallons per day** (MGD) for hydraulic flow (30-day average) and **80 lbs. $BOD_5$ per day** for organic loading (30-day average).

### 3. Expansion Requirements

Pursuant to Colorado Law, C.R.S. 25-8-501 (5 d & e), the permittee is required to initiate engineering and financial planning for expansion of the domestic wastewater treatment works whenever throughput reaches eighty (80) percent of the treatment capacity. Such planning may be deemed unnecessary upon a showing that the area served by the domestic wastewater treatment works has a stable or declining population; but this provision shall not be construed as preventing periodic review by the Division should it be felt that growth is occurring or will occur in the area.

The permittee shall commence construction of such domestic wastewater treatment works expansion whenever throughput reaches ninety-five (95) percent of the treatment capacity or, in the case of a municipality, either commence construction or cease issuance of building permits within such municipality until such construction is commenced; except that building permits may continue to be issued for any construction which would not have the effect of increasing the input of wastewater to the sewage treatment works of the municipality involved.

Where unusual circumstances result in throughput exceeding 80% of treatment capacity, the permittee may, in lieu of initiating planning for expansion, submit a report to the Division that demonstrates that it is unlikely that the event will reoccur, or even if it were to reoccur, that 95% of the treatment capacity would not be exceeded.

Where unusual circumstances result in throughput exceeding 95% of the treatment capacity, the permittee may, in lieu of initiating construction of the expansion, submit a report to the Division that demonstrates that the domestic wastewater treatment works was in compliance at all times during the events and that it is extremely unlikely that the event will reoccur.

Where the permittee submits a report pursuant to unusual circumstances, and the Division, upon review of such report, determines in writing to the permittee that the report does not support the required findings, the permittee shall initiate planning and/or construction of the domestic wastewater treatment works as appropriate.

**4. Facilities Operation and Maintenance**

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control including all portions of the collection system and lift stations owned by the permittee (and related appurtenances) which are installed or used by the permittee as necessary to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes effective performance, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems when installed by the permittee only when necessary to achieve compliance with the conditions of the permit.

Any sludge produced at the wastewater treatment facility shall be disposed of in accordance with State and Federal regulations. The permittee shall take all reasonable steps to minimize or prevent any discharge of sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. As necessary, accelerated or additional monitoring to determine the nature and impact of the noncomplying discharge is required.

**5. Pretreatment Program - Industrial Waste Management**

a. The Permittee has the responsibility to protect the Domestic Wastewater Treatment Works (DWTW), as defined at section 25.8.103(5) of the Colorado Water Quality Control Act, or the Publicly-Owned Treatment Works (POTW), as defined at 40 CFR section 403.3(q) of the federal pretreatment regulations, from pollutants which would cause pass through or interference, as defined at 40 CFR 403.3(p) and (k), or otherwise be incompatible with operation of the treatment works including interference with the use or disposal of municipal sludge.

b. Pretreatment Standards (40 CFR Section 403.5) developed pursuant to Section 307 of the Federal Clean Water Act (the Act) require that the Permittee shall not allow, under any circumstances, the introduction of the following pollutants to the DWTW from any source of non-domestic discharge:

   i. Pollutants which create a fire or explosion hazard in the DWTW, including, but not limited to, wastestreams with a closed cup flashpoint of less than sixty (60) degrees Centigrade (140 degrees Fahrenheit) using the test methods specified in 40 CFR Section 261.21;

   ii. Pollutants which will cause corrosive structural damage to the DWTW, but in no case discharges with a pH of lower than 5.0 s.u., unless the treatment facilities are specifically designed to accommodate such discharges;

   iii. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the DWTW, or otherwise interfere with the operation of the DWTW;

   iv. Any pollutant, including oxygen demanding pollutants (e.g., BOD), released in a discharge at a flow rate and/or pollutant concentration which will cause Interference with any treatment process at the DWTW;

   v. Heat in amounts which will inhibit biological activity in the DWTW resulting in Interference, but in no case heat in such quantities that the temperature at the DWTW treatment plant exceeds forty (40) degrees Centigrade (104 degrees Fahrenheit) unless the Approval Authority, upon request of the DWTW, approves alternate temperature limits;

   vi. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause Interference or Pass Through;

vii. Pollutants which result in the presence of toxic gases, vapors, or fumes within the DWTW in a quantity that may cause acute worker health and safety problems;

viii. Any trucked or hauled pollutants, except at discharge points designated by the DWTW; and

ix. Any specific pollutant that exceeds a local limitation established by the Permittee in accordance with the requirements of 40 CFR Section 403.5(c) and (d).

x. Any other pollutant which may cause Pass Through or Interference.

c. EPA shall be the Approval Authority and the mailing address for all reporting and notifications to the Approval Authority shall be: USEPA 1595 Wynkoop St. 8ENF-W-NP, Denver, CO 80202-1129. Should the State be delegated authority to implement and enforce the Pretreatment Program in the future, the Permittee shall be notified of the delegation and the state permitting authority shall become the Approval Authority.

d. In addition to the general limitations expressed above, more specific Pretreatment Standards have been and will be promulgated for specific industrial categories under Section 307 of the Act (40 CFR Part 405 et. seq.).

e. The Permittee must notify the state permitting authority and the Approval Authority, of any new introductions by new or existing industrial users or any substantial change in pollutants from any industrial user within sixty (60) calendar days following the introduction or change. Such notice must identify:

i. Any new introduction of pollutants into the DWTW from an industrial user which would be subject to Sections 301, 306, or 307 of the Act if it were directly discharging those pollutants; or

ii. Any substantial change in the volume or character of pollutants being introduced into the DWTW by any industrial user;

iii. For the purposes of this section, adequate notice shall include information on:

(A) The identity of the industrial user;

(B) The nature and concentration of pollutants in the discharge and the average and maximum flow of the discharge to be introduced into the DWTW; and

(C) Any anticipated impact of the change on the quantity or quality of effluent to be discharged from or biosolids or sludge produced at such DWTW.

iv. For the purposes of this section, an industrial user shall include:

(A) Any discharger subject to Categorical Pretreatment Standards under Section 307 of the Act and 40 CFR chapter I and subchapter N;

(B) Any discharger which has a process wastewater flow of 25,000 gallons or more per day;

(C) Any discharger contributing five percent or more of the average dry weather hydraulic or organic capacity of the DWTW treatment plant;

(D) Any discharger who is designated by the Approval Authority as having a reasonable potential for adversely affecting the DWTWs operation or for violating any Pretreatment Standard or requirements;

f. At such time as a specific Pretreatment Standard or requirement becomes applicable to an industrial user of the Permittee, the state permitting authority and/or Approval Authority may, as appropriate:

i. Amend the Permittee's CDPS discharge permit to specify the additional pollutant(s) and corresponding effluent limitation(s) consistent with the applicable national Pretreatment Standards;

ii. Require the Permittee to specify, by ordinance, order, or other enforceable means, the type of pollutant(s) and the maximum amount which may be discharged to the Permittee's DWTW for treatment. Such requirement shall be imposed in a manner consistent with the program development requirements of the General Pretreatment Regulations at 40 CFR Part 403; and/or,

iii. Require the Permittee to monitor its discharge for any pollutant which may likely be discharged from the Permittee's DWTW, should the industrial user fail to properly pretreat its waste.

The state permitting authority and the Approval Authority retains, at all times, the right to take legal action against any source of nondomestic discharge, whether directly or indirectly controlled by the Permittee, for violations of a permit, order or similar enforceable mechanism issued by the Permittee, violations of any Pretreatment Standard or requirement, or for failure to discharge at an acceptable level under national standards issued by EPA under 40 CFR, chapter I, subchapter N. In those cases where a CDPS permit violation has occurred because of the failure of the Permittee to properly develop and enforce Pretreatment Standards and requirements as necessary to protect the DWTW, the state permitting authority and/or Approval Authority shall hold the Permittee and/or industrial user responsible and may take legal action against the Permittee as well as the Industrial user(s) contributing to the permit violation.

## C. DEFINITION OF TERMS

1. "Acute Toxicity" - The acute toxicity limitation is exceeded if the LC50 is at any effluent concentration less than or equal to the IWC indicated in this permit.

2. “Antidegradation limits” – See “Two (2) - Year Rolling Average”.

3. "Chronic toxicity", which includes lethality and growth or reproduction, occurs when the NOEC and IC25 are at an effluent concentration less than the IWC indicated in this permit.

4. "Composite" sample is a minimum of four (4) grab samples collected at equally spaced two (2) hour intervals and proportioned according to flow. For a SBR type treatment system, a composite sample is defined as sampling equal aliquots during the beginning, middle and end of a decant period, for two consecutive periods during a day (if possible).

5. "Continuous" measurement, is a measurement obtained from an automatic recording device which continually measures the effluent for the parameter in question, or that provides measurements at specified intervals.

6. "Daily Maximum limitation" for all parameters (except temperature, pH and dissolved oxygen) means the limitation for this parameter shall be applied as an average of all samples collected in one calendar day. For these parameters the DMR shall include the highest of the daily averages. For pH and dissolved oxygen, this means an instantaneous maximum (and/or instantaneous minimum) value. The instantaneous value is defined as the analytical result of any individual sample. For pH and dissolved oxygen, DMRs shall include the maximum (and/or minimum) of all instantaneous values within the calendar month. Any value beyond the noted daily maximum limitation for the indicated parameter shall be considered a violation of this permit. For temperature, see Daily Maximum Temperature.

7. “Daily Maximum Temperature (DM)” is defined in the Basic Standards and Methodologies for Surface Water 1002-31, as the highest two-hour average water temperature recorded during a given 24-hour period. This will be determined using a rolling 2-hour maximum temperature. If data is collected every 15 minutes, a 2 hour maximum can be determined on every data point after the initial 2 hours of collection. Note that the time periods that overlap days (Wednesday night to Thursday morning) do not matter as the reported value on the DMR is the greatest of all the 2-hour averages.

   For example data points collected at:

08:15, 08:30, 08:45, 09:00, 09:15, 09:30, 09:45, 10:00, would be averaged for a single 2 hour average data point
08:30, 08:45, 09:00, 09:15, 09:30, 09:45, 10:00, 10:15, would be averaged for a single 2 hour average data point
08:45, 09:00, 09:15, 09:30, 09:45, 10:00, 10:15, 10:30, would be averaged for a single 2 hour average data point

This would continue throughout the course of a calendar day. The highest of these 2 hour averages over a month would be reported on the DMR as the daily maximum temperature. At the end/beginning of a month, the collected data should be used for the month that contains the greatest number of minutes in the 2-hour maximum. Data from 11 pm to 12:59 am, would fall in the previous month. Data collected from 11:01 pm to 1:00 am would fall in the new month.

8. "Dissolved (D) metals fraction" is defined in the Basic Standards and Methodologies for Surface Water 1002-31, as that portion of a water and suspended sediment sample which passed through a 0.40 or 0.45 UM (micron) membrane filter. Determinations of "dissolved" constituents are made using the filtrate. This may include some very small (colloidal) suspended particles which passed through the membrane filter as well as the amount of substance present in true chemical solution.

9. "Geometric mean" for *E. coli* bacteria concentrations, the thirty (30) day and seven (7) day averages shall be determined as the geometric mean of all samples collected in a thirty (30) day period and the geometric mean of all samples taken in a seven (7) consecutive day period respectively. The geometric mean may be calculated using two different methods. For the methods shown, a, b, c, d, etc. are individual sample results, and n is the total number of samples.

Method 1:

Geometric Mean = $(a*b*c*d*\ldots)^{(1/n)}$ "*" - means multiply

Method 2:

Geometric Mean = antilog ( [log(a)+log(b)+log(c)+log(d)+...]/n )

Graphical methods, even though they may also employ the use of logarithms, may introduce significant error and may not be used.

In calculating the geometric mean, for those individual sample results that are reported by the analytical laboratory to be "less than" a numeric value, a value of 1 should be used in the calculations. If all individual analytical results for the month are reported to be less than numeric values, then report "less than" the largest of those numeric values on the monthly DMR. Otherwise, report the calculated value.

For any individual analytical result of "too numerous to count" (TNTC), that analysis shall be considered to be invalid and another sample shall be promptly collected for analysis. If another sample cannot be collected within the same sampling period for which the invalid sample was collected (during the same month if monthly sampling is required, during the same week if weekly sampling is required, etc.), then the following procedures apply:

i. A minimum of two samples shall be collected for coliform analysis within the next sampling period.

ii. If the sampling frequency is monthly or less frequent: For the period with the invalid sample results, leave the spaces on the corresponding DMR for reporting coliform results empty and attach to the DMR a letter noting that a result of TNTC was obtained for that period, and explain why another sample for that period had not been collected.

If the sampling frequency is more frequent than monthly: Eliminate the result of TNTC from any further calculations, and use all the other results obtained within that month for reporting purposes. Attach a letter noting that a result of TNTC was obtained, and list all individual analytical results and corresponding sampling dates for that month.

10. "Grab" sample, is a single "dip and take" sample so as to be representative of the parameter being monitored.

11. "IC25" or "Inhibition Concentration" is a point estimate of the toxicant concentration that would cause a given percent reduction in a non-lethal biological measurement (e.g. growth or reproduction) calculated from a continuous model (i.e. interpolation method). IC25 is a point estimate of the toxic concentration that would cause a 25-percent reduction in a non-lethal biological measurement.

12. "In-situ" measurement is defined as a single reading, observation or measurement taken in the field at the point of discharge.

13. "Instantaneous" measurement is a single reading, observation, or measurement performed on site using existing monitoring facilities.

14. "LC50" or "Lethal Concentration" is the toxic or effluent concentration that would cause death in 50 percent of the test organisms over a specified period of time.

15. "Maximum Weekly Average Temperature (MWAT)" is defined in the Basic Standards and Methodologies for Surface Water 1002-31, as an implementation statistic that is calculated from field monitoring data. The MWAT is calculated as the largest mathematical mean of multiple, equally spaced, daily temperatures over a seven-day consecutive period, with a minimum of three data points spaced equally through the day. For lakes and reservoirs, the MWAT is assumed to be equivalent to the maximum WAT from at least three profiles distributed throughout the growing season (generally July-September).

    The MWAT is calculated by averaging all temperature data points collected during a calendar day, and then averaging the daily average temperatures for 7 consecutive days. This 7 day averaging period is a rolling average, i.e. on the 8$^{th}$ day, the MWAT will be the averages of the daily averages of days 2-8. The value to be reported on the DMR is the highest of all the rolling 7-day averages throughout the month. For those days that are at the end/beginning of the month, the data shall be reported for the month that contains 4 of the 7 days.

    Day 1: Average of all temperature data collected during the calendar day.
    Day 2: Average of all temperature data collected during the calendar day.
    Day 3: Average of all temperature data collected during the calendar day.
    Day 4: Average of all temperature data collected during the calendar day.
    Day 5: Average of all temperature data collected during the calendar day.
    Day 6: Average of all temperature data collected during the calendar day.
    Day 7: Average of all temperature data collected during the calendar day.
    1$^{st}$ MWAT Calculation as average of previous 7 days
    Day 8: Average of all temperature data collected during the calendar day.
    2$^{nd}$ MWAT Calculation as average of previous 7 days
    Day 9: Average of all temperature data collected during the calendar day.
    3$^{rd}$ MWAT Calculation as average of previous 7 days

16. "NOEC" or "No-Observed-Effect-Concentration" is the highest concentration of toxicant to which organisms are exposed in a full life cycle or partial life cycle (short term) test, that causes no observable adverse effects on the test organisms (i.e. the highest concentration of toxicant in which the values for the observed responses are not statistically different from the controls). This value is used, along with other factors, to determine toxicity limits in permits.

17. "Potentially dissolved (PD) metals fraction" is defined in the Basic Standards and Methodologies for Surface Water 1002-31, as that portion of a constituent measured from the filtrate of a water and suspended sediment sample that was first treated with nitric acid to a pH of 2 or less and let stand for 8 to 96 hours prior to sample filtration using a 0.40 or 0.45-UM (micron) membrane filter. Note the "potentially dissolved" method cannot be used where nitric acid will interfere with the analytical procedure used for the constituent measured.

18. "Practical Quantitation Limit (PQL)" means the minimum concentration of an analyte (substance) that can be measured with a high degree of confidence that the analyte is present at or above that concentration. The use

of PQL in this document may refer to those PQLs shown in Part I.D of this permit or the PQLs of an individual laboratory.

19. "Quarterly measurement frequency" means samples may be collected at any time during the calendar quarter if a continual discharge occurs. If the discharge is intermittent, then samples shall be collected during the period that discharge occurs.

20. "Recorder" requires the continuous operation of a chart and/or totalizer (or drinking water rotor meters or pump hour meters where previously approved.)

21. SAR and Adjusted SAR - The equation for calculation of SAR-adj is:

$$SAR\text{-}adj = \frac{Na^{+}}{\sqrt{\frac{Ca_{x} + Mg^{++}}{2}}}$$

Where:

Na+ = Sodium in the effluent reported in meq/l
Mg++ = Magnesium in the effluent reported in meq/l
Cax = calcium (in meq/l) in the effluent modified due to the ratio of bicarbonate to calcium

The values for sodium (Na+), calcium (Ca++), bicarbonate (HCO3-) and magnesium (Mg++) in this equation are expressed in units of milliequivalents per liter (meq/l). Generally, data for these parameters are reported in terms of mg/l, which must then be converted to calculate the SAR. The conversions are:

$$\text{meq/l} = \frac{Concentration\ in\ mg/l}{Equivalent\ weight\ in\ mg/meq}$$

Where the equivalent weights are determined based on the atomic weight of the element divided by the ion's charge:

Na+ = 23.0 mg/meq (atomic weight of 23, charge of 1)
Ca++ = 20.0 mg/meq (atomic weight of 40.078, charge of 2)
Mg++ = 12.15 mg/meq (atomic weight of 24.3, charge of 2)
HCO3- = 61 mg/mep (atomic weight of 61, charge of 1)

The EC and the HCO3 -/Ca++ ratio in the effluent (calculated by dividing the HCO3 - in meq/l by the Ca++ in meq/l) are used to determine the Cax using the following table.

Table – Modified Calcium Determination for Adjusted Sodium Adsorption Ratio

| HCO3/Ca Ratio And EC 1, 2, 3 | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Salinity of Effluent (EC)(dS/m) | | | | | | | | | | | | | |
| | | 0.1 | 0.2 | 0.3 | 0.5 | 0.7 | 1.0 | 1.5 | 2.0 | 3.0 | 4.0 | 6.0 | 8.0 |
| Ratio of HCO3/Ca | .05 | 13.20 | 13.61 | 13.92 | 14.40 | 14.79 | 15.26 | 15.91 | 16.43 | 17.28 | 17.97 | 19.07 | 19.94 |
| | .10 | 8.31 | 8.57 | 8.77 | 9.07 | 9.31 | 9.62 | 10.02 | 10.35 | 10.89 | 11.32 | 12.01 | 12.56 |
| | .15 | 6.34 | 6.54 | 6.69 | 6.92 | 7.11 | 7.34 | 7.65 | 7.90 | 8.31 | 8.64 | 9.17 | 9.58 |
| | .20 | 5.24 | 5.40 | 5.52 | 5.71 | 5.87 | 6.06 | 6.31 | 6.52 | 6.86 | 7.13 | 7.57 | 7.91 |
| | .25 | 4.51 | 4.65 | 4.76 | 4.92 | 5.06 | 5.22 | 5.44 | 5.62 | 5.91 | 6.15 | 6.52 | 6.82 |
| | .30 | 4.00 | 4.12 | 4.21 | 4.36 | 4.48 | 4.62 | 4.82 | 4.98 | 5.24 | 5.44 | 5.77 | 6.04 |
| | .35 | 3.61 | 3.72 | 3.80 | 3.94 | 4.04 | 4.17 | 4.35 | 4.49 | 4.72 | 4.91 | 5.21 | 5.45 |
| | .40 | 3.30 | 3.40 | 3.48 | 3.60 | 3.70 | 3.82 | 3.98 | 4.11 | 4.32 | 4.49 | 4.77 | 4.98 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | .45 | 3.05 | 3.14 | 3.22 | 3.33 | 3.42 | 3.53 | 3.68 | 3.80 | 4.00 | 4.15 | 4.41 | 4.61 |
| | .50 | 2.84 | 2.93 | 3.00 | 3.10 | 3.19 | 3.29 | 3.43 | 3.54 | 3.72 | 3.87 | 4.11 | 4.30 |
| | .75 | 2.17 | 2.24 | 2.29 | 2.37 | 2.43 | 2.51 | 2.62 | 2.70 | 2.84 | 2.95 | 3.14 | 3.28 |
| | 1.00 | 1.79 | 1.85 | 1.89 | 1.96 | 2.01 | 2.09 | 2.16 | 2.23 | 2.35 | 2.44 | 2.59 | 2.71 |
| | 1.25 | 1.54 | 1.59 | 1.63 | 1.68 | 1.73 | 1.78 | 1.86 | 1.92 | 2.02 | 2.10 | 2.23 | 2.33 |
| | 1.50 | 1.37 | 1.41 | 1.44 | 1.49 | 1.53 | 1.58 | 1.65 | 1.70 | 1.79 | 1.86 | 1.97 | 2.07 |
| | 1.75 | 1.23 | 1.27 | 1.30 | 1.35 | 1.38 | 1.43 | 1.49 | 1.54 | 1.62 | 1.68 | 1.78 | 1.86 |
| | 2.00 | 1.13 | 1.16 | 1.19 | 1.23 | 1.26 | 1.31 | 1.36 | 1.40 | 1.48 | 1.54 | 1.63 | 1.70 |
| | 2.25 | 1.04 | 1.08 | 1.10 | 1.14 | 1.17 | 1.21 | 1.26 | 1.30 | 1.37 | 1.42 | 1.51 | 1.58 |
| | 2.50 | 0.97 | 1.00 | 1.02 | 1.06 | 1.09 | 1.12 | 1.17 | 1.21 | 1.27 | 1.32 | 1.40 | 1.47 |
| | 3.00 | 0.85 | 0.89 | 0.91 | 0.94 | 0.96 | 1.00 | 1.04 | 1.07 | 1.13 | 1.17 | 1.24 | 1.30 |
| | 3.50 | 0.78 | 0.80 | 0.82 | 0.85 | 0.87 | 0.90 | 0.94 | 0.97 | 1.02 | 1.06 | 1.12 | 1.17 |
| | 4.00 | 0.71 | 0.73 | 0.75 | 0.78 | 0.80 | 0.82 | 0.86 | 0.88 | 0.93 | 0.97 | 1.03 | 1.07 |
| | 4.50 | 0.66 | 0.68 | 0.69 | 0.72 | 0.74 | 0.76 | 0.79 | 0.82 | 0.86 | 0.90 | 0.95 | 0.99 |
| | 5.00 | 0.61 | 0.63 | 0.65 | 0.67 | 0.69 | 0.71 | 0.74 | 0.76 | 0.80 | 0.83 | 0.88 | 0.93 |
| | 7.00 | 0.49 | 0.50 | 0.52 | 0.53 | 0.55 | 0.57 | 0.59 | 0.61 | 0.64 | 0.67 | 0.71 | 0.74 |
| | 10.00 | 0.39 | 0.40 | 0.41 | 0.42 | 0.43 | 0.45 | 0.47 | 0.48 | 0.51 | 0.53 | 0.56 | 0.58 |
| | 20.00 | 0.24 | 0.25 | 0.26 | 0.26 | 0.27 | 0.28 | 0.29 | 0.30 | 0.32 | 0.33 | 0.35 | 0.37 |
| | 30.00 | 0.18 | 0.19 | 0.20 | 0.20 | 0.21 | 0.21 | 0.22 | 0.23 | 0.24 | 0.25 | 0.27 | 0.28 |

1 Adapted from Suarez (1981).
2 Assumes a soil source of calcium from lime ($CaCO_3$) or silicates; no precipitation of magnesium, and partial pressure of $CO_2$ near the soil surface ($P_{CO_2}$) is 0.0007 atmospheres.
3 Cax, $HCO_3$, Ca are reported in meq/l; EC is in dS/m (deciSiemens per meter).

Because values will not always be quantified at the exact EC or $HCO_3^-/Ca^{++}$ ratio in the table, the resulting Cax must be determined based on the closest value to the calculated value. For example, for a calculated EC of 2.45 dS/m, the column for the EC of 2.0 would be used. However, for a calculated EC of 5.1, the corresponding column for the EC of 6.0 would be used. Similarly, for a $HCO_3^-/Ca^{++}$ ratio of 25.1, the row for the 30 ratio would be used.

The Division acknowledges that some effluents may have electrical conductivity levels that fall outside of this table, and others have bicarbonate to calcium ratios that fall outside this table. For example, some data reflect $HCO_3^-/Ca^{++}$ ratios greater than 30 due to bicarbonate concentrations reported greater than 1000 mg/l versus calcium concentrations generally less than 10 mg/l (i.e., corresponding to $HCO_3^-/Ca^{++}$ ratios greater than 100). Despite these high values exceeding the chart's boundaries, it is noted that the higher the $HCO_3^-/Ca^{++}$ ratio, the greater the SAR-adj. Thus, using the Cax values corresponding to the final row containing bicarbonate/calcium ratios of 30, the permittee will actually calculate an SAR-adj that is less than the value calculated if additional rows reflecting $HCO_3^-/Ca^{++}$ ratios of greater than 100 were added.

22. "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. 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. **(See the "Analytical and Sampling Methods for Monitoring and Reporting Section in Part I.D.5 for guidance on calculating averages and reporting analytical results that are less than the PQL).**

23. "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, which represents a calendar month. 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. **(See the "Analytical and Sampling Methods for Monitoring and Reporting Section in Part I.D.5 for guidance on calculating averages and reporting analytical results that are less than the PQL).**

24. Toxicity Identification Evaluation (TIE) is a set of site-specific procedures used to identify the specific chemical(s) causing effluent toxicity.

25. "Total Inorganic Nitrogen (T.I.N.)" is an aggregate parameter determined based on ammonia, nitrate and nitrite concentrations. To determine T.I.N. concentrations, the facility must monitor for total ammonia and total nitrate plus nitrite (or nitrate and nitrite individually) on the same days. The calculated T.I.N. concentrations in mg/L shall then be determined as the sum of the analytical results of same-day sampling for total ammonia (as N) in mg/L, and total nitrate plus nitrite (as N) in mg/L (or nitrate as N and nitrite as N individually). From these calculated T.I.N. concentrations, the daily maximum and thirty (30) day average concentrations for T.I.N. shall be determined in the same manner as set out in the definitions for the daily maximum and thirty (30) day average. **(See the "Analytical and Sampling Methods for Monitoring and Reporting Section in Part I.D.5 for guidance on calculating averages and reporting analytical results that are less than the PQL).**

26. "Total Metals" means the concentration of metals determined on an unfiltered sample following vigorous digestion (Section 4.1.3), or the sum of the concentrations of metals in both the dissolved and suspended fractions, as described in Manual of Methods for Chemical Analysis of Water and Wastes, U.S. Environmental Protection Agency, March 1979, or its equivalent.

27. "Total Recoverable Metals" means that portion of a water and suspended sediment sample measured by the total recoverable analytical procedure described in Methods for Chemical Analysis of Water and Wastes, U.S. Environmental Protection Agency, March 1979 or its equivalent.

28. Toxicity Reduction Evaluation (TRE) is a site-specific study conducted in a step-wise process to identify the causative agents of effluent toxicity, isolate the source of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in effluent toxicity after the control measures are put in place.

29. "Twenty four (24) hour composite" sample is a combination of at least eight (8) sample aliquots of at least 100 milliliters, collected at equally spaced intervals during the operating hours of a facility over a twenty-four (24) hour period. For volatile pollutants, aliquots must be combined in the laboratory immediately before analysis. The composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either the wastewater or effluent flow at the time of sampling or the total wastewater or effluent flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically.

30. "Twice Monthly" monitoring frequency means that two samples shall be collected each calendar month on separate weeks with at least one full week between the two sample dates. Also, there shall be at least one full week between the second sample of a month and the first sample of the following month.

31. "Two (2) -Year Rolling Average" (Antidegradation limits)- the average of all monthly average data collected in a two year period. Collection of the data required to calculate a two-year rolling average shall start immediately upon the effective date of the permit, but the data is not reported on a DMR until two years after the effective date of the permit. To calculate a two-year rolling average, add the current monthly average to the previous 23 monthly averages and divide the total by 24. This methodology continues on a rolling basis for the permit term (ie., in the first reporting period use data from month 1 to month 24, in the second reporting period use data from month 2 to month 25, then month 3 to month 26, etc).
*Example:* Two year rolling average = $(MA_C + MA_1 + MA_2 + \ldots + MA_{23}) \div$ **24**
$MA_C$ = Current monthly average
$MA_1$ = First prior month's monthly average
$MA_2$ = Second prior month's monthly average
$MA_{23}$ = Twenty third prior month's monthly average

Note, if there is not a discharge from the facility in a month during a two year period **do not use zero (0) to represent the data for that month in the calculation**, but do consider that month as part of the two year time

span. The denominator in the two-year rolling average calculation will change to represent the actual number of months there was a discharge.

*Example*: Two year rolling average = (30 +45 +…+25) ÷ **22**

Current monthly average= 30 mg/l
First prior month's monthly average= no discharge
Second prior month's monthly average= no discharge
Third prior month's monthly average=45 mg/l
Twenty third prior month's monthly average= 25 mg/l

For ammonia, two-year rolling averages may be set up for individual months, or may be grouped together for several months. When individual months have a specific limit, calculate the two-year rolling average as follows:

*Example:* Permit is effective Jan 2010 and there is a two-year rolling average limit specific to the month of January.

*January 2010 DMR* – Nothing to Report
*January 2011 DMR* – Two-year rolling average = ($MA_C$ +$MA_1$) ÷ **2**
$MA_C$ = January 2011 monthly average
$MA_1$ = January 2010 monthly average
*January 2012 DMR* – Two-year rolling average = ($MA_C$ +$MA_1$) ÷ **2**
$MA_C$ = January 2012 monthly average
$MA_1$ = January 2011 monthly average

Where several months are grouped together and have the same limit, calculate the two-year rolling average as follows:

*Example:* Permit is effective January 2010 and there is a two-year rolling average limit specific to the months of January, February, and June.

*January, February, June 2010 DMR*- Nothing to Report
*1st Reportable DMR – June 2011 DMR*:
Two year rolling average = ($MA_C$ +$MA_1$ +$MA_2$ +$MA_3$+$MA_4$+$MA_5$) ÷ **6**
$MA_C$ = June 2011 monthly average
$MA_1$ = February 2011 monthly average
$MA_2$ = January 2011 monthly average
$MA_3$= June 2010 monthly average
$MA_4$ = February 2010 monthly average
$MA_5$ = January 2010 monthly average
*2nd Reportable DMR* – January 2012 DMR:
Two year rolling average = ($MA_C$ +$MA_1$ +$MA_2$ +$MA_3$+$MA_4$+$MA_5$) ÷ **6**
$MA_C$ = January 2012 monthly average
$MA_1$ = June 2011 monthly average
$MA_2$ = February 2011 monthly average
$MA_3$= January 2011 monthly average
$MA_4$ = June 2010 monthly average
$MA_5$ = February 2010 monthly average .

**(See the "Analytical and Sampling Methods for Monitoring and Reporting Section in Part I.D.5 for guidance on calculating averages and reporting analytical results that are less than the PQL).**

32. "Visual" observation is observing the discharge to check for the presence of a visible sheen or floating oil.

33. "Water Quality Control Division" or "Division" means the state Water Quality Control Division as established in 25-8-101 et al.)

Additional relevant definitions are found in the Colorado Water Quality Control Act, CRS §§ 25-8-101 et seq., the Colorado Discharge Permit System Regulations, Regulation 61 (5 CCR 1002-61) and other applicable regulations.

## D. GENERAL MONITORING, SAMPLING AND REPORTING REQUIREMENTS

### 1. Routine Reporting of Data

Reporting of the data gathered in compliance with Part I.A or Part I.B shall be on a **monthly** basis. Reporting of all data gathered shall comply with the requirements of Part I.D. (General Requirements). Monitoring results shall be summarized for each calendar month and reported on Division approved discharge monitoring report (DMR) forms (EPA form 3320-1).

The permittee must submit these forms either by mail, or by using the Division's Net-DMR service (when available). If mailed, one form shall be mailed to the Division, as indicated below, so that the DMR is received no later than the 28th day of the following month (for example, the DMR for the first calendar quarter must be received by the Division by April 28th). If no discharge occurs during the reporting period, "No Discharge" shall be reported.

The original signed copy of each discharge monitoring report (DMR) shall be submitted to the Division at the following address:

Colorado Department of Public Health and Environment
Water Quality Control Division
WQCD-P-B2
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

The Discharge Monitoring Report forms shall be filled out accurately and completely in accordance with requirements of this permit and the instructions on the forms. They shall be signed by an authorized person as identified in Part I.D.8.

### 2. Annual Biosolids Report

The permittee shall provide the results of all biosolids monitoring and information on management practices, land application sites, site restrictions and certifications. Such information shall be provided no later than **February 19th** of each year. Reports shall be submitted addressing all such activities that occurred in the previous calendar year. If no biosolids were applied to the land during the reporting period, "no biosolids applied" shall be reported. Until further notice, biosolids monitoring results shall be reported on forms, or copies of forms, provided by the Division. Annual Biosolids Reports required herein, shall be signed and certified in accordance with the Signatory Requirements, Part I.D.1, and submitted as follows:

The original copy of each form shall be submitted to the following address:

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT,
WATER QUALITY CONTROL DIVISION
WQCD-PERMITS-B2
4300 CHERRY CREEK DRIVE SOUTH
DENVER, COLORADO 80246-1530

A copy of each form shall be submitted to the following address if any one of below conditions applies to this facility:

1. design flow rate is equal to or greater than one million gallons per day,
2. serves 10,000 people or more, or
3. is required to have an approved pretreatment program.

EPA BIOSOLIDS CENTER
EPA REGION 7
WWPD/WENF
11201 RENNER BOULEVARD
LENEXA, KANSAS 66219

ATTENTION: BIOSOLIDS PROGRAM MANAGER

**3. Representative Sampling**

Samples and measurements taken for the respective identified monitoring points as required herein shall be representative of the volume and nature of: 1) all influent wastes received at the facility, including septage, biosolids, etc.; 2) the monitored effluent discharged from the facility; and 3) biosolids produced at the facility. All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before the influent, effluent, or biosolids wastestream joins or is diluted by any other wastestream, body of water, or substance. Monitoring points shall not be changed without notification to and prior approval by the Division.

**4. Influent and Effluent Sampling Points**

Influent and effluent sampling points shall be so designed or modified so that: 1) a sample of the influent can be obtained after preliminary treatment and prior to primary or biological treatment and 2) a sample of the effluent can be obtained at a point after the final treatment process and prior to discharge to state waters. The permittee shall provide access to the Division to sample at these points.

**5. Analytical and Sampling Methods for Monitoring and Reporting**

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.

**Numeric Limits**

**If the permit contains a numeric effluent limit for a parameter, the analytical method and PQL selected for all monitoring conducted in accordance with this permit for that parameter shall be the one that can measure at or below the numeric effluent limit. If all specified analytical methods and corresponding PQLs are greater than the numeric effluent limit, then 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, and the permittee's analytical result is less than the PQL (the PQL achieved by the lab), the permittee shall report "BDL" on the DMR. Such reports will not be considered as violations of the permit limit, as long as the PQL obtained is lower or equal to the PQL in the table below.**

**When the analytical method which complies with the above requirements has a PQL that is equal to or less than the permit limitation, and the permittee's analytical result is less than the PQL, "< X" (where X = the actual PQL achieved by the laboratory) shall be reported on the DMR. For parameters that have a report only limitation, and the permittee's analytical result is less than the PQL, "< X" (where X = the actual PQL achieved by the laboratory) shall be reported on the DMR.**

**Report Only Limits**

**If the permit contains a report only requirement for a parameter, the analytical method and PQL chosen shall be one that can measure at or below the potential numeric effluent limit(s) (maximum allowable pollutant concentration as shown in the WQA or fact sheet). If all analytical methods and corresponding PQLs are greater than the potential numeric effluent limit(s), then the analytical method with the lowest PQL shall be used.**

**When the analytical method which complies with the above requirements has a PQL that is equal to or less than the potential numeric effluent limitation, and the permittee's analytical result is less than the PQL,**

**"< X" (where X = the actual PQL achieved by the laboratory) shall be reported on the DMR. For parameters that have a report only limitation, and the permittee's analytical result is less than the PQL, "< X" (where X = the actual PQL achieved by the laboratory) shall be reported on the DMR.**

**Interim Report Only Followed By a Numeric Limit**

**If the permit contains an interim effluent limitation (a limit is report until such time as a numeric effluent limit becomes effective) for a parameter, the analytical method and PQL chosen for all monitoring conducted in accordance with this permit for the parameter shall be one that can measure to the final numeric effluent limit. If all analytical methods and corresponding PQLs are greater than the final numeric effluent limit (s), then the analytical method with the lowest PQL shall be used.**

**While the report only limit is effective, the reporting requirements shall follow those under the Report Only Limits section. Once the numeric limit is effective, the reporting requirements shall follow the numeric limits reporting requirements.**

**T.I.N.**

**For parameters such as TIN, the analytical methods chosen shall be those that can measure to the potential or final numeric effluent limit, based on the sum of the PQLs for nitrate, nitrite and ammonia.**

**Calculating Averages**

In the calculation of average concentrations (i.e. daily average, 7- day average, 30-day average, 2-year rolling average) any individual analytical result that is less than the PQL shall be considered to be zero for the calculation purposes. When reporting:

If all individual analytical results are less than the PQL, the permittee shall report either "BDL" or "<X" (where X = the actual PQL achieved by the laboratory), following the guidance above.

If one or more individual results is greater than the PQL, an average shall be calculated and reported. Note that it does not matter if the final calculated average is greater or less than the PQL, **it must be reported as a value**.

Note that when calculating T.I.N. for a single sampling event, any value less than the PQL (for total ammonia, total nitrite, or total nitrate) shall be treated as zero. The T.I.N. concentration for a single sampling event shall then be determined as the sum of the analytical results (zeros if applicable) of same day sampling for total ammonia and total nitrite and total nitrate. From these calculated T.I.N. concentrations, the daily maximum and thirty day average concentrations shall be calculated and must be reported as a value.

Note note that *E.coli* should be calculated and reported as defined under Geometric Mean in Part I.C.9, and that the appropriate value for less than the PQL should be 1.

PQLs

The PQLs for specific parameters, as determined by the State Laboratory (November 2008) are provided below for reference. 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 further organic parameters that must meet the above requirement can be found in the Division's Practical Quantitation Limitation Guidance Document, July 2008. This document is available on the Division's website at www.coloradowaterpermits.com.

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.

| Effluent Parameter | Practical Quantitation Limits | Effluent Parameter | Practical Quantitation Limits |
|---|---|---|---|
| Aluminum | 50 µg/l | | |
| Arsenic | 1 µg/l | N-Ammonia | 1 mg/l |
| Barium | 5 µg/l | N-Ammonia (low-level) | 50 µg/l |
| Beryllium | 1 µg/l | N-Nitrate/Nitrite | 0.5 mg/l |
| BOD / CBOD | 1 mg/l | N-Nitrate | 0.5 mg/l |
| Boron | 50 µg/l | N-Nitrite | 10 µg/l |
| Cadmium | 1 µg/l | Total Nitrogen | 0.5 mg/l |
| Calcium | 20 µg/l | Total Phosphorus | 10 µg/l |
| Chloride | 2 mg/l | | |
| Chlorine | 0.1 mg/l | Radium 226 | 1 pCi/l |
| Total Residual Chlorine | | Radium 228 | 1 pCi/l |
| DPD colorimetric | 0.10 mg/l | Selenium | 1 µg/l |
| Amperometric titration | 0.05 mg/l | Silver | 0.5 µg/l |
| Chromium | 20 µg/l | Sodium | 0.2 mg/l |
| Chromium, Hexavalent | 20 µg/l | Sulfate | 5 mg/l |
| Copper | 5 µg/l | Sulfide | 0.2 mg/l |
| Cyanide (Direct / Distilled) | 10 µg/l | Total Dissolved Solids | 10 mg/l |
| Cyanide, WAD+A47 | 10 µg/l | Total Suspended Solids | 10 mg/l |
| Fluoride | 0.1 mg/l | Thallium | 1 µg/l |
| Iron | 10 µg/l | Uranium | 1 µg/l |
| Lead | 1 µg/l | Zinc | 10 µg/l |
| Magnesium | 20 µg/l | | |
| Manganese | 2 µg/l | Phenols | 15 µg/l |
| Mercury | 0.1 µg/l | Nonylphenol D7065 | 10 µg/l |
| Mercury (low-level) | 0.003 µg/l | | |
| Nickel | 50 µg/l | | |

## 6. Records

a. The permittee shall establish and maintain records. Those records shall include, but not be limited to, the following:

   i. The date, type, exact place, and time of sampling or measurements;
   ii. The individual(s) who performed the sampling or measurements;
   iii. The date(s) the analyses were performed;
   iv. The individual(s) who performed the analyses;
   v. The analytical techniques or methods used; and
   vi. The results of such analyses.
   vii. Any other observations which may result in an impact on the quality or quantity of the discharge as indicated in 40 CFR 122.44 (i)(1)(iii).

b. The permittee shall retain for a minimum of three (3) years records of all monitoring information, including all original strip chart recordings for continuous monitoring instrumentation, all calibration and maintenance records, copies of all reports required by this permit and records of all data used to complete the application for this permit. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the permittee or when requested by the Division or Regional Administrator.

## 7. Flow Measuring Devices

Unless exempted in Part I.A of this permit, flow metering at the headworks shall be provided to give representative values of throughput and treatment of the wastewater system. The metering device shall be equipped with a local flow indication instrument and a flow indication-recording-totalization device suitable for providing permanent flow records, which should be in the plant control building.

For mechanical facilities, where influent flow metering is not practical and the same results may be obtained from metering at the effluent end of the treatment facility, this type of flow metering arrangement will be considered, and if approved, noted in Part I.A of this permit. For lagoons, an instantaneous or continuous effluent flow measuring device shall be required in addition to the above described influent flow measuring device.

At the request of the Division, the permittee must be able to show proof of the accuracy of any flow-measuring device used in obtaining data submitted in the monitoring report. The flow-measuring device must indicate values within ten (10) percent of the actual flow being measured.

## 8. Signatory Requirements

a. All reports and other information required by the Division, shall be signed and certified for accuracy by the permittee in accord with the following criteria:

   i) In the case of corporations, by a responsible corporate officer. For purposes of this section, the responsible corporate officer is responsible for the overall operation of the facility from which the discharge described in the form originates;

   ii) In the case of a partnership, by a general partner;

   iii) In the case of a sole proprietorship, by the proprietor;

   iv) In the case of a municipal, state, or other public facility, by either a principal executive officer, or ranking elected official. For purposes of this section, a principal executive officer has responsibility for the overall operation of the facility from which the discharge originates;

   v) By a duly authorized representative of a person described above, only if:

      1) The authorization is made in writing by a person described in i, ii, iii, or iv above;

      2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and,

      3) The written authorization is submitted to the Division.

b. If an authorization as described in this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of this section must be submitted to the Division prior to or together with any reports, information, or applications to be signed by an authorized representative.

   The permittee, or the duly authorized representative shall make and sign the following certification on all such documents:

   "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and

evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

**PART II**

## A. NOTIFICATION REQUIREMENTS

### 1. Notification to Parties

All notification requirements under this section shall be directed as follows:

a. Oral Notifications, during normal business hours shall be to:

Water Quality Protection Section - Domestic Compliance Program
Water Quality Control Division
Telephone: (303) 692-3500

b. Written notification shall be to:

Water Quality Protection Section - Domestic Compliance Program
Water Quality Control Division
Colorado Department of Public Health and Environment
WQCD-WQP-B2
4300 Cherry Creek Drive South
Denver, CO 80246-1530

### 2. Change in Discharge

The permittee shall give advance notice to the Division, in writing, of any planned physical alterations or additions to the permitted facility. Notice is required only when:

a. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged, or;

b. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported pursuant to an approved land application plan.

Whenever notification of any planned physical alterations or additions to the permitted facility is required pursuant to this section, the permittee shall furnish the Division such plans and specifications which the Division deems reasonably necessary to evaluate the effect on the discharge, the stream, or ground water. If the Division finds that such new or altered discharge might be inconsistent with the conditions of the permit, the Division shall require a new or revised permit application and shall follow the procedures specified in Sections 61.5 through 61.6, and 61.15 of the Colorado Discharge Permit System Regulations.

### 3. Noncompliance Notification

The permittee shall give advance notice to the Division, in writing, of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.

a. If, for any reason, the permittee does not comply with or will be unable to comply with any discharge limitations or standards specified in this permit, the permittee shall, at a minimum, provide the Division with the following information:

i) A description of the noncompliance and its cause;

ii) The period of noncompliance, including exact dates and times and/or the anticipated time when the discharge will return to compliance; and

iii) Steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.

b. The permittee shall report the following circumstances **orally within twenty-four (24) hours** from the time the permittee becomes aware of the circumstances, and shall mail to the Division a written report containing the information requested in Part II.A.4 (a) **within five (5) working days** after becoming aware of the following circumstances:

i) Circumstances leading to any noncompliance which may endanger health or the environment regardless of the cause of the incident;

ii) Circumstances leading to any unanticipated bypass which exceeds any effluent limitations in the permit;

iii) Circumstances leading to any upset which causes an exceedance of any effluent limitation in the permit;

iv) Daily maximum violations for any of the pollutants limited by Part I.A of this permit as specified in Part III of this permit. This includes any toxic pollutant or hazardous substance or any pollutant specifically identified as the method to control any toxic pollutant or hazardous substance.

c. Unless otherwise indicated in this permit, the permittee shall report instances of non-compliance which are not required to be reported within 24-hours at the time Discharge Monitoring Reports are submitted. The reports shall contain the information listed in sub-paragraph (a) of this section.

## 5. Transfer of Ownership or Control

The permittee shall notify the Division, in writing, thirty (30) calendar days in advance of a proposed transfer of the permit.

a. Except as provided in paragraph b. of this section, a permit may be transferred by a permittee only if the permit has been modified or revoked and reissued as provided in Section 61.8(8) of the Colorado Discharge Permit System Regulations, to identify the new permittee and to incorporate such other requirements as may be necessary under the Federal Act.

b. A permit may be automatically transferred to a new permittee if:

i) The current permittee notifies the Division in writing 30 calendar days in advance of the proposed transfer date; and

ii) The notice includes a written agreement between the existing and new permittee(s) containing a specific date for transfer of permit responsibility, coverage and liability between them; and

iii) The Division does not notify the existing permittee and the proposed new permittee of its intent to modify, or revoke and reissue the permit.

iv) Fee requirements of the Colorado Discharge Permit System Regulations, Section 61.15, have been met.

## 6. Other Notification Requirements

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule in the permit, shall be submitted on the date listed in the compliance schedule section. The fourteen (14) calendar day provision in Regulation 61.8(4)(n)(i) has been incorporated into the due date.

The permittee's notification of all anticipated noncompliance does not stay any permit condition.

All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Division as soon as they know or have reason to believe:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

i) One hundred micrograms per liter (100 µg/l);

ii) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2.4-dinitrophenol and 2-methyl-4.6-dinitrophenol; and one milligram per liter (1.0 mg/l) for antimony;

iii) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with Section 61.4(2)(g).

iv) The level established by the Division in accordance with 40 C.F.R. § 122.44(f).

b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

i) Five hundred micrograms per liter (500 µg/l);

ii) One milligram per liter (1 mg/l) for antimony; and

iii) Ten (10) times the maximum concentration value reported for that pollutant in the permit application.

iv) The level established by the Division in accordance with 40 C.F.R. § 122.44(f).

**7. <u>Bypass</u> <u>Notification</u>**

If the permittee knows in advance of the need for a bypass, a notice shall be submitted, at least ten (10) calendar days before the date of the bypass, to the Division. The bypass shall be subject to Division approval and limitations imposed by the Division. Violations of requirements imposed by the Division will constitute a violation of this permit.

**8. <u>Bypass</u>**

a. “Bypass” means the intentional diversion of waste streams from any portion of a treatment facility.

b. Bypasses are prohibited and the Division may take enforcement action against the permittee for bypass, unless:

i) The bypass is unavoidable to prevent loss of life, personal injury, or severe property damage;

ii) There were no feasible alternatives to bypass such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

iii) Proper notices were submitted in compliance with Part II.A.5.

c. "Severe property damage" as used in this Subsection means substantial physical damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

d. The permittee may allow a bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance or to assure optimal operation. These bypasses are not subject to the provisions of paragraph (a) above.

e. The Division may approve an anticipated bypass, after considering adverse effects, if the Division determines that the bypass will meet the conditions specified in paragraph (a) above.

**9. Upsets**

a. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

b. Effect of an Upset

An upset constitutes an affirmative defense to an action brought for noncompliance with permit effluent limitations if the requirements of paragraph (b) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions Necessary for a Demonstration of Upset

A permittee who wishes to establish the affirmative defense of upset shall demonstrate through properly signed contemporaneous operating logs, or other relevant evidence that:

i) An upset occurred and that the permittee can identify the specific cause(s) of the upset; and

ii) The permitted facility was at the time being properly operated and maintained; and

iii) The permittee submitted proper notice of the upset as required in Part II.A.4. of this permit (24-hour notice); and

iv) The permittee complied with any remedial measure necessary to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reason able likelihood of adversely affecting human health or the environment.

In addition to the demonstration required above, a permittee who wishes to establish the affirmative defense of upset for a violation of effluent limitations based upon water quality standards shall also demonstrate through monitoring, modeling or other methods that the relevant standards were achieved in the receiving water.

d. Burden of Proof

In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

**10. Submission of Incorrect or Incomplete Information**

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Division, the permittee shall promptly submit such facts or information.

**B. RESPONSIBILITIES**

**1. Reduction, Loss, or Failure of Treatment Facility**

The permittee has the duty to halt or reduce any activity if necessary to maintain compliance with the effluent

limitations of the permit. Upon reduction, loss, or failure of the treatment facility, the permittee shall, to the extent necessary to maintain compliance with its permit, control production, control sources of wastewater, or all discharges, until the facility is restored or an alternative method of treatment is provided. This provision also applies to power failures, unless an alternative power source sufficient to operate the wastewater control facilities is provided.

It shall not be a defense for a permittee in an enforcement action that it would be necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

**2. Inspections and Right to Entry**

The permittee shall allow the Division and/or the authorized representative, upon the presentation of credentials:

a. To enter upon the permittee's premises where a regulated facility or activity is located or in which any records are required to be kept under the terms and conditions of this permit;

b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit and to inspect any monitoring equipment or monitoring method required in the permit; and

c. To enter upon the permittee's premises in a reasonable manner and at a reasonable time to inspect and/or investigate, any actual, suspected, or potential source of water pollution, or to ascertain compliance or non compliance with the Colorado Water Quality Control Act or any other applicable state or federal statute or regulation or any order promulgated by the Division. The investigation may include, but is not limited to, the following: sampling of any discharge and/or process waters, the taking of photographs, interviewing of any person having knowledge related to the discharge permit or alleged violation, access to any and all facilities or areas within the permittee's premises that may have any affect on the discharge, permit, or alleged violation. Such entry is also authorized for the purpose of inspecting and copying records required to be kept concerning any effluent source.

d. The permittee shall provide access to the Division to sample the discharge at a point after the final treatment process but prior to the discharge mixing with state waters upon presentation of proper credentials.

In the making of such inspections, investigations, and determinations, the Division, insofar as practicable, may designate as its authorized representatives any qualified personnel of the Department of Agriculture. The Division may also request assistance from any other state or local agency or institution.

**3. Duty to Provide Information**

The permittee shall furnish to the Division, within a reasonable time, any information which the Division may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Division, upon request, copies of records required to be kept by this permit.

**4. Availability of Reports**

Except for data determined to be confidential under Section 308 of the Federal Clean Water Act and the Colorado Discharge Permit System Regulations 5 CCR 1002-61, Section 61.5(4), all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Division and the Environmental Protection Agency.

The name and address of the permit applicant(s) and permittee(s), permit applications, permits and effluent data shall not be considered confidential. Knowingly making false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Federal Clean Water Act, and Section 25-8-610 C.R.S.

## 5. Modification, Suspension, Revocation, or Termination of Permits By the Division

The filing of a request by the permittee for a permit modification, revocation and reissuance, termination or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

a. A permit may be modified, suspended, or terminated in whole or in part during its term for reasons determined by the Division including, but not limited to, the following:

   i) Violation of any terms or conditions of the permit;

   ii) Obtaining a permit by misrepresentation or failing to disclose any fact which is material to the granting or denial of a permit or to the establishment of terms or conditions of the permit; or

   iii) Materially false or inaccurate statements or information in the permit application or the permit.

   iv) A determination that the permitted activity endangers human health or the classified or existing uses of state waters and can only be regulated to acceptable levels by permit modifications or termination.

b. A permit may be modified in whole or in part for the following causes, provided that such modification complies with the provisions of Section 61.10 of the Colorado Discharge Permit System Regulations:

   i) There are material and substantial alterations or additions to the permitted facility or activity which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit.

   ii) The Division has received new information which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of different permit conditions at the time of issuance. For permits issued to new sources or new dischargers, this cause includes information derived from effluent testing required under Section 61.4(7)(e) of the Colorado Discharge Permit System Regulations. This provision allows a modification of the permit to include conditions that are less stringent than the existing permit only to the extent allowed under Section 61.10 of the Colorado Discharge Permit System Regulations.

   iii) The standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued. Permits may be modified during their terms for this cause only as follows:

      (A) The permit condition requested to be modified was based on a promulgated effluent limitation guideline, EPA approved water quality standard, or an effluent limitation set forth in 5 CCR 1002-62, § 62 et seq.; and

      (B) EPA has revised, withdrawn, or modified that portion of the regulation or effluent limitation guideline on which the permit condition was based, or has approved a Commission action with respect to the water quality standard or effluent limitation on which the permit condition was based; and

      (C) The permittee requests modification after the notice of final action by which the EPA effluent limitation guideline, water quality standard, or effluent limitation is revised, withdrawn, or modified; or

      (D) For judicial decisions, a court of competent jurisdiction has remanded and stayed EPA promulgated regulations or effluent limitation guidelines, if the remand and stay concern that portion of the regulations or guidelines on which the permit condition was based and a request is filed by the permittee in accordance with this Regulation, within ninety (90) calendar days of judicial remand.

   iv) The Division determines that good cause exists to modify a permit condition because of events over which the permittee has no control and for which there is no reasonable available remedy.

v) Where the Division has completed, and EPA approved, a total maximum daily load (TMDL) which includes a wasteload allocation for the discharge(s) authorized under the permit.

vi) The permittee has received a variance.

vii) When required to incorporate applicable toxic effluent limitation or standards adopted pursuant to § 307(a) of the Federal act.

viii) When required by the reopener conditions in the permit.

ix) As necessary under 40 C.F.R. 403.8(e), to include a compliance schedule for the development of a pretreatment program.

x) When the level of discharge of any pollutant which is not limited in the permit exceeds the level which can be achieved by the technology-based treatment requirements appropriate to the permittee under Section 61.8(2) of the Colorado Discharge Permit System Regulations.

xi) To establish a pollutant notification level required in Section 61.8(5) of the Colorado Discharge Permit System Regulations.

xii) To correct technical mistakes, such as errors in calculation, or mistaken interpretations of law made in determining permit conditions, to the extent allowed in Section 61.10 of the Colorado State Discharge Permit System Regulations.

xiii) When required by a permit condition to incorporate a land application plan for beneficial reuse of sewage sludge, to revise an existing land application plan, or to add a land application plan.

xiv) When another State whose waters may be affected by the discharge has not been notified.

xv) For any other cause provided in Section 61.10 of the Colorado Discharge Permit System Regulations.

c. At the request of a permittee, the Division may modify or terminate a permit and issue a new permit if the following conditions are met:

i) The Regional Administrator has been notified of the proposed modification or termination and does not object in writing within thirty (30) calendar days of receipt of notification,

ii) The Division finds that the permittee has shown reasonable grounds consistent with the Federal and State statutes and regulations for such modifications or termination;

iii) Requirements of Section 61.15 of the Colorado Discharge Permit System Regulations have been met, and

iv) Requirements of public notice have been met.

d. For permit modification, termination, or revocation and reissuance, the Division may request additional information from the permittee. In the case of a modified permit, the Division may require the submission of an updated application. In the case of revoked and reissued permit, the Division shall require the submission of a new application.

e. Permit modification (except for minor modifications), termination or revocation and reissuance actions shall be subject to the requirements of Sections 61.5(2), 61.5(3), 61.6, 61.7 and 61.15 of the Colorado Discharge Permit System Regulations. The Division shall act on a permit modification request, other than minor modification requests, within 180 calendar days of receipt thereof. Except for minor modifications, the terms of the existing permit govern and are enforceable until the newly issued permit is formally modified or revoked and reissued following public notice.

f. Upon consent by the permittee, the Division may make minor permit modifications without following the requirements of Sections 61.5(2), 61.5(3), 61.7, and 61.15 of the Colorado Discharge Permit System Regulations. Minor modifications to permits are limited to:

i) Correcting typographical errors; or

ii) Increasing the frequency of monitoring or reporting by the permittee; or

iii) Changing an interim date in a schedule of compliance, provided the new date of compliance is not more than 120 calendar days after the date specific in the existing permit and does not interfere with attainment of the final compliance date requirement; or

iv) Allowing for a transfer in ownership or operational control of a facility where the Division determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittees has been submitted to the Division; or

v) Changing the construction schedule for a discharger which is a new source, but no such change shall affect a discharger's obligation to have all pollution control equipment installed and in operation prior to discharge; or

vi) Deleting a point source outfall when the discharge from that outfall is terminated and does not result in discharge of pollutants from other outfalls except in accordance with permit limits.

vii) Incorporating conditions of a POTW pretreatment program that has been approved in accordance with the procedures in 40 CFR 403.11 (or a modification thereto that has been approved in accordance with the procedures in 40 CFR 403.18) as enforceable conditions of the POTW's permits.

g. When a permit is modified, only the conditions subject to modification are reopened. If a permit is revoked and reissued, the entire permit is reopened and subject to revision and the permit is reissued for a new term.

h. The filing of a request by the permittee for a permit modification, revocation and reissuance or termination does not stay any permit condition.

i. All permit modifications and reissuances are subject to the antibacksliding provisions set forth in 61.10(e) through (g).

j. If cause does not exist under this section, the Division shall not modify or revoke and reissue the permit.

## 6. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under Section 311 (Oil and Hazardous Substance Liability) of the Clean Water Act.

## 7. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority granted by Section 510 of the Clean Water Act. Nothing in this permit shall be construed to prevent or limit application of any emergency power of the division.

## 8. Permit Violations

Failure to comply with any terms and/or conditions of this permit shall be a violation of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit. Except as provided elsewhere in this permit, nothing in

this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance (40 CFR 122.41(a)(1)).

**9. Severability**

The provisions of this permit are severable. If any provisions or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances and the application of the remainder of this permit shall not be affected.

**10. Confidentiality**

Any information relating to any secret process, method of manufacture or production, or sales or marketing data which has been declared confidential by the permittee, and which may be acquired, ascertained, or discovered, whether in any sampling investigation, emergency investigation, or otherwise, shall not be publicly disclosed by any member, officer, or employee of the Commission or the Division, but shall be kept confidential. Any person seeking to invoke the protection of this Subsection (12) shall bear the burden of proving its applicability. This section shall never be interpreted as preventing full disclosure of effluent data.

**11. Fees**

The permittee is required to submit payment of an annual fee as set forth in the 2005 amendments to the Water Quality Control Act. Section 25-8-502 (l) (b), and the Colorado Discharge Permit System Regulations 5 CCR l002-61, Section 61.l5 as amended. Failure to submit the required fee when due and payable is a violation of the permit and will result in enforcement action pursuant to Section 25-8-60l et. seq., C.R.S. l973 as amended.

**12. Duration of Permit**

The duration of a permit shall be for a fixed term and shall not exceed five (5) years. If the permittee desires to continue to discharge, a permit renewal application shall be submitted at least one hundred eighty (180) calendar days before this permit expires. Filing of a timely and complete application shall cause the expired permit to continue in force to the effective date of the new permit. The permit's duration may be extended only through administrative extensions and not through interim modifications.If the permittee anticipates there will be no discharge after the expiration date of this permit, the Division should be promptly notified so that it can terminate the permit in accordance with Part II.B.4.

**13. Section 307 Toxics**

If a toxic effluent standard or prohibition, including any applicable schedule of compliance specified, is established by regulation pursuant to Section 307 of the Federal Act for a toxic pollutant which is present in the permittee's discharge and such standard or prohibition is more stringent than any limitation upon such pollutant in the discharge permit, the Division shall institute proceedings to modify or revoke and reissue the permit to conform to the toxic effluent standard or prohibition.

**14. Effect of Permit Issuance**

a. The issuance of a permit does not convey any property or water rights in either real or personal property, or stream flows or any exclusive privilege.

b. The issuance of a permit does not authorize any injury to person or property or any invasion of personal rights, nor does it authorize the infringement of federal, state, or local laws or regulations.

c. Except for any toxic effluent standard or prohibition imposed under Section 307 of the Federal act or any standard for sewage sludge use or disposal under Section 405(d) of the Federal act, compliance with a permit during its term constitutes compliance, for purposes of enforcement, with Sections 301, 302, 306, 318, 403, and 405(a) and (b) of the Federal act. However, a permit may be modified, revoked and reissued, or terminated during its term for cause as set forth in Section 61.8(8) of the Colorado Discharge Permit System Regulations.

d. Compliance with a permit condition which implements a particular standard for biosolid use or disposal shall be an affirmative defense in any enforcement action brought for a violation of that standard for biosolid use or disposal.

**PART III**

**Table I—Testing Requirements for Organic Toxic Pollutants by Industrial Category for Existing Dischargers**

| Industry Category | |
|---|---|
| Adhesives and sealants | Ore mining |
| Aluminum forming | Organic chemicals manufacturing |
| Auto and other laundries | Paint and ink formulation |
| Battery manufacturing | Pesticides |
| Coal mining | Petroleum refining |
| Coil coating | Pharmaceutical preparations |
| Copper forming | Photographic equipment and supplies |
| Electrical and electronic components | Plastics processing |
| Electroplating | Plastic and synthetic materials manufacturing |
| Explosives manufacturing | Porcelain enameling |
| Foundries | Printing and publishing |
| Gum and wood chemicals | Pulp and paper mills |
| Inorganic chemicals manufacturing | Rubber processing |
| Iron and steel manufacturing | Soap and detergent manufacturing |
| Leather tanning and finishing | Steam electric power plants |
| Mechanical products manufacturing | Textile mills |
| Nonferrous metals manufacturing | Timber products processing |

**Table II—Organic Toxic Pollutants in Each of Four Fractions in Analysis by Gas Chromatography/Mass**

| Volatiles | Acid Compounds | Base/Neutral | Pesticides |
|---|---|---|---|
| 1V acrolein | 1A 2-chlorophenol | 1B acenaphthene | 1P aldrin |
| 2V acrylonitrile | 2A 2,4-dichlorophenol | 2B acenaphthylene | 2P alpha-BHC |
| 3V benzene | 3A 2,4-dimethylphenol | 3B anthracene | 3P beta-BHC |
| 5V bromoform | 4A 4,6-dinitro-o-cresol | 4B benzidine | 4P gamma-BHC |
| 6V carbon tetrachloride | 5A 2,4-dinitrophenol | 5B benzo(a)anthracene | 5P delta-BHC |
| 7V chlorobenzene | 6A 2-nitrophenol | 6B benzo(a)pyrene | 6P chlordane |
| 8V chlorodibromomethane | 7A 4-nitrophenol | 7B 3,4-benzofluoranthene | 7P 4,4′-DDT |
| 9V chloroethane | 8A p-chloro-m-cresol | 8B benzo(ghi)perylene | 8P 4,4′-DDE |
| 10V 2-chloroethylvinyl ether | 9A pentachlorophenol | 9B benzo(k)fluoranthene | 9P 4,4′-DDD |
| 11V chloroform | 10A phenol | 10B bis(2-chloroethoxy)methane | 10P dieldrin |
| 12V dichlorobromomethane | 11A 2,4,6-trichlorophenol | 11B bis(2-chloroethyl)ether | 11P alpha-endosulfan |
| 14V 1,1-dichloroethane | | 12B bis(2-chloroisopropyl)ether | 12P beta-endosulfan |
| 15V 1,2-dichloroethane | | 13B bis (2-ethylhexyl)phthalate | 13P endosulfan sulfate |
| 16V 1,1-dichloroethylene | | 14B 4-bromophenyl phenyl ether | 14P endrin |
| 17V 1,2-dichloropropane | | 15B butylbenzyl phthalate | 15P endrin aldehyde |
| 18V 1,3-dichloropropylene | | 16B 2-chloronaphthalene | 16P heptachlor |
| 19V ethylbenzene | | 17B 4-chlorophenyl phenyl ether | 17P heptachlor epoxide |
| 20V methyl bromide | | 18B chrysene | 18P PCB-1242 |
| 21V methyl chloride | | 19B dibenzo(a,h)anthracene | 19P PCB-1254 |
| 22V methylene chloride | | 20B 1,2-dichlorobenzene | 20P PCB-1221 |
| 23V 1,1,2,2-tetrachloroethane | | 21B 1,3-dichlorobenzene | 21P PCB-1232 |
| 24V tetrachloroethylene | | 22B 1,4-dichlorobenzene | 22P PCB-1248 |
| 25V toluene | | 23B 3,3′-dichlorobenzidine | 23P PCB-1260 |
| 26V 1,2-trans-dichloroethylene | | 24B diethyl phthalate | 24P PCB-1016 |
| 27V 1,1,1-trichloroethane | | 25B dimethyl phthalate | 25P toxaphene |
| 28V 1,1,2-trichloroethane | | 26B di-n-butyl phthalate | |
| 29V trichloroethylene | | 27B 2,4-dinitrotoluene | |
| 31V vinyl chloride | | 28B 2,6-dinitrotoluene | |
| | | 29B di-n-octyl phthalate | |
| | | 30B 1,2-diphenylhydrazine (as azobenzene) | |
| | | 31B fluroranthene | |
| | | 32B fluorene | |
| | | 33B hexachlorobenzene | |
| | | 34B hexachlorobutadiene | |
| | | 35B hexachlorocyclopentadiene | |
| | | 36B hexachloroethane | |
| | | 37B indeno(1,2,3-cd)pyrene | |
| | | 38B isophorone | |
| | | 39B napthalene | |
| | | 40B nitrobenzene | |
| | | 41B N-nitrosodimethylamine | |
| | | 42B N-nitrosodi-n-propylamine | |
| | | 43B N-nitrosodiphenylamine | |
| | | 44B phenanthrene | |
| | | 45B pyrene | |
| | | 46B 1,2,4-trichlorobenzene | |

**Table III—Other Toxic Pollutants (Metals and Cyanide) and Total Phenols**

| |
|---|
| Antimony, Total |
| Arsenic, Total |
| Beryllium, Total |
| Cadmium, Total |
| Chromium, Total |
| Copper, Total |
| Lead, Total |
| Mercury, Total |
| Nickel, Total |
| Selenium, Total |
| Silver, Total |
| Thallium, Total |
| Zinc, Total |
| Cyanide, Total |
| Phenols, Total |

**Table IV—Conventional and Nonconventional Pollutants Required To Be Tested by Existing Dischargers if Expected to be Present**

| |
|---|
| Bromide |
| Chlorine, Total Residual |
| Color |
| Fecal Coliform |
| Fluoride |
| Nitrate-Nitrite |
| Nitrogen, Total Organic |
| Oil and Grease |
| Phosphorus, Total |
| Radioactivity |
| Sulfate |
| Sulfide |
| Sulfite |
| Surfactants |
| Aluminum, Total |
| Barium, Total |
| Boron, Total |
| Cobalt, Total |
| Iron, Total |
| Magnesium, Total |
| Molybdenum, Total |
| Manganese, Total |
| Tin, Total |
| Titanium, Total |

**Table V—Toxic Pollutants and Hazardous Substances Required To Be Identified by Existing Dischargers if Expected To Be Present**

**Toxic Pollutants**

Asbestos

**Hazardous Substances**

Acetaldehyde
Allyl alcohol
Allyl chloride
Amyl acetate
Aniline
Benzonitrile
Benzyl chloride
Butyl acetate
Butylamine
Captan
Carbaryl
Carbofuran
Carbon disulfide
Chlorpyrifos
Coumaphos
Cresol
Crotonaldehyde
Cyclohexane
2,4-D (2,4-Dichlorophenoxy acetic acid)
Diazinon
Dicamba
Dichlobenil
Dichlone
2,2-Dichloropropionic acid
Dichlorvos
Diethyl amine
Dimethyl amine
Dintrobenzene
Diquat
Disulfoton
Diuron
Epichlorohydrin
Ethion
Ethylene diamine
Ethylene dibromide
Formaldehyde
Furfural
Guthion
Isoprene
Isopropanolamine Dodecylbenzenesulfonate
Kelthane
Kepone
Malathion
Mercaptodimethur
Methoxychlor
Methyl mercaptan
Methyl methacrylate
Methyl parathion
Mevinphos
Mexacarbate
Monoethyl amine
Monomethyl amine
Naled
Napthenic acid
Nitrotoluene
Parathion
Phenolsulfanate
Phosgene
Propargite
Propylene oxide
Pyrethrins
Quinoline
Resorcinol
Strontium
Strychnine
Styrene
2,4,5-T (2,4,5-Trichlorophenoxy acetic acid)
TDE (Tetrachlorodiphenylethane)
2,4,5-TP [2-(2,4,5-Trichlorophenoxy) propanoic acid]
Trichlorofan
Triethanolamine dodecylbenzenesulfonate
Triethylamine
Trimethylamine
Uranium
Vanadium
Vinyl acetate
Xylene
Xylenol
Zirconium