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STATE OF COLORADO

Bill Owens, Governor
Douglas H. Benevento, Acting Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

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December 31, 2002



Colorado Department
of Public Health
and Environment

Gordon Pedrow, City Manager
City of Longmont
350 Kimbark Street
Longmont, CO 80501

NPDES PER ENF PRT SLG IU GEN
DATE RVD
JUN 6 2003
SECTION 1 2 3 4 5 6
BY BK BY

RE: Issued Permit
Permit Number: CO-0026671
Boulder County

Dear Mr. Pedrow:

Enclosed please find a copy of the **permit** that was issued under the Colorado Water Quality Control Act. Your discharge permit requires that specific actions be performed at designated times. You are legally obligated to comply with all terms and conditions of your permit. It is especially important to note the **"EFFECTIVE DATE OF PERMIT"**, not the **"DATE SIGNED"**, located in the lower right hand corner of page 1, of your permit. It is illegal to discharge per the conditions of this permit until that date.

Please read the permit and if you have any questions contact me at (303) 692-3599.

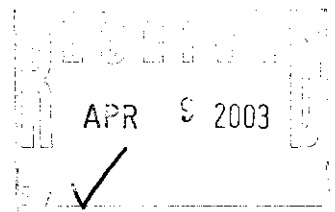
Sincerely,

Darlene Casey

Darlene Casey, Program Assistant
Water Quality Protection Section
WATER QUALITY CONTROL DIVISION

Enclosure

xc: Bruce Kent, Permit Team, Environmental Protection Agency (8P2W-P)
Regional Council of Government
Local County Health Department
Cary Pilon, D.E., Technical Services Unit, WQCD
Permit File
Permit Fees



/dc

issued

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

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

**CITY OF LONGMONT
WASTEWATER TREATMENT FACILITY**

is authorized to discharge from the CITY's wastewater treatment plant

located in the NW ¼, and NE ¼ of the NW ¼ of Sec 11, T2N, R69W; at 501 E. 1st Street in south Longmont, Colorado. The Latitude at the "Headworks", as determined by WQCD staff is 40° 09' 29" and the Longitude is 105° 05' 16" [TopoZone mjl]

to the St. Vrain River

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Part 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) days of the issuance of the final permit determination, per Regulation for the State Discharge Permit System, 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 Regulations for the State Discharge Permit System. 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, **January 31, 2008**

Issued and Signed this 31st day of **December, 2002**

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
Susan Robinson
for

Mark Pifher, Director
Water Quality Control Division

DATE SIGNED: DECEMBER 31, 2002

EFFECTIVE DATE OF PERMIT: FEBRUARY 1, 2003

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PART I

A. TERMS AND CONDITIONS

1. Service Area

The service area for this treatment facility is delineated in Figure 2. All wastewater flows contributed in this service area may be accepted by the City of Longmont for treatment at the authority's wastewater treatment plant provided that such acceptance does not exceed the throughput or design capacity of the treatment works or constitute a substantial impact to the functioning of the treatment works, quality of the receiving waters, 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 complete wastewater treatment works.

2. Design Capacity

The design capacity of this domestic wastewater treatment works is 17 million gallons per day (MGD) for hydraulic flow (30-day average) and 31,500 lbs. BODs 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 and treatment reaches eighty (80) percent of design capacity. Whenever throughput and treatment reaches ninety-five (95) percent of the design capacity, the permittee shall commence construction of the necessary treatment expansion.

In the case of a domestic wastewater treatment works, which treats wastewater from users under the permittee's jurisdiction, where construction is not commenced in accordance with the above paragraph, the permittee shall cease issuance of building permits within the service area until construction has commenced. If the permittee's domestic wastewater treatment works serves other municipalities or connector districts, the permittee shall have made provisions by contract or otherwise, for the municipalities within the service area to cease issuance of building permits within such service area until construction has commenced. Building permits may continue to be issued for any construction which would not have the effect of increasing the input of sewage to the wastewater treatment works that is the subject of this permit.

If, during the previous calendar year, the monthly organic loading (lbs. BODs/day) to the facility in the maximum month exceeded either 80% or 95% of the organic capacity identified in Part I.A.2. of this permit, the permittee shall submit a report by March 31 the following year that includes:

- a. A schedule for planning for a facility expansion if 80% of the organic capacity was exceeded; or
- b. A schedule for construction of a facility expansion if 95% of the organic capacity was exceeded; or
- c. An analysis that indicates that the exceedance of the applicable percentage of the organic capacity (80% or 95%) was an anomaly and is not expected to occur during the current calendar year.

If 80% or 95% of the hydraulic capacity identified in Part I.A.2 of this permit was exceeded during the month of maximum flow, then the permittee is not required to provide the information required in paragraphs a) through c), above, unless violation(s) of effluent limits can be directly related to the magnitude of the hydraulic loading during any such months.

PART I

A TERMS AND CONDITIONS

3. Expansion Requirements

If the permittee has reason to believe that the peak flow in any major interceptor or lift station is expected to cause an overflow from the interceptor or lift station during the current calendar year, the permittee shall submit a report within 30 days of such finding that includes a schedule of actions to be taken immediately that will prevent any overflow to state waters.

4. Facilities Operation

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee as necessary to achieve compliance with the conditions of this permit. 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 guidelines and regulations.

5. Effluent Limitations

During the period beginning no later than the effective date of the permit and lasting through January 31, 2008, the permittee is authorized to discharge from outfall(s) serial number(s): 003A, following the ultra-violet disinfection and prior to discharge to the stormwater drainage ditch (004A is the with the receiving stream).

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), the permitted discharge shall comply with the following limitations.

Effluent Discharge Points 003 and 004

Parameter		<u>30-Day Average</u>	<u>7-Day Average</u>	<u>Daily Maximum</u>
Flow, MGD		17 <u>a/</u>	N/A	Report <u>e/</u>
5-day Biochemical Oxygen Demand (BOD ₅), mg/l		30 <u>a/</u>	45 <u>b/</u>	N/A
Total Suspended Solids (TSS), mg/l		30 <u>a/</u>	45 <u>b/</u>	N/A
Fecal Coliform Bacteria, Number/100 ml		251 <u>c/</u>	502 <u>c/</u>	
Total Residual Chlorine, mg/l		0.017 <u>a/</u>	N/A	0.026 <u>d/</u>
pH, s.u. (minimum-maximum)		N/A	N/A	(6.5-9.0) <u>d/</u>
Oil and Grease, mg/l		N/A	N/A	10 <u>d/</u>
Total Ammonia as N, mg/l				
Beginning on Effective Date of Permit				
Group I	Jan., Feb. and Dec.	10.8 <u>a/</u>	N/A	Report <u>e/</u>
Group II	Mar., Apr., Aug., and Sep.	7.6 <u>a/</u>	N/A	Report <u>e/</u>
Group III	May., Jun. and Jul.	6.5 <u>a/</u>	N/A	Report <u>e/</u>
Group IV	Oct. and Nov.	9.6 <u>a/</u>	N/A	Report <u>e/</u>
Beginning on April 1, 2004				
Group I	Jan., Feb. and Dec.	7.4 <u>a/</u>	N/A	Report <u>e/</u>

PART I

A. TERMS AND CONDITIONS

5. Effluent Limitations

Effluent Discharge Points 003 and 004

Parameter		<u>30-Day Average</u>	<u>7-Day Average</u>	<u>Daily Maximum</u>
Group II	Mar., Apr., Aug., And Sep.	5.1 <u>a/</u>	N/A	Report <u>e/</u>
Group III	May., Jun. and Jul.	4.4 <u>a/</u>	N/A	Report <u>e/</u>
Group IV	Oct. and Nov.	6.5 <u>a/</u>	N/A	Report <u>e/</u>
Whole Effluent Toxicity, Chronic Ceriodaphnia dubnia and Pimephales promelus		N/A	N/A	IWC 65% IC ₂₅ > 65%
METALS				
Mercury (Total), ug/l		0.015 <u>a/</u>	N/A	Report <u>e/</u>
Cadmium, Total Recoverable, ug/l		9.2 <u>al/</u>	N/A	24 <u>e/</u>
Hex. Chromium, Total Recoverable, ug/l		17 <u>aln/</u>	N/A	22 <u>e/</u>
Copper, Total Recoverable, ug/l.		40 <u>al/</u>	N/A	63 <u>e/</u>
Lead, Total Recoverable, ug/l		15 <u>al/</u>	N/A	Report <u>e/</u>
Selenium, Total Recoverable, ug/l		5.5 <u>al/</u>	N/A	23 <u>e/</u>
Silver, Total Recoverable, ug/l		4.9 <u>al/</u>	N/A	27 <u>e/</u>
Iron, Total Recoverable, ug/l		Report <u>al/</u>	N/A	Report <u>e/</u>
Manganese, Total Recoverable, ug/l		Report <u>al/</u>	N/A	Report <u>e/</u>
Nickel, Total Recoverable, ug/l		Report <u>al/</u>	N/A	Report <u>e/</u>
Zinc, Total Recoverable, ug/l		Report <u>al/</u>	N/A	Report <u>e/</u>

6. Percentage Removal Requirements (BODs and TSS Limitations)

In addition to the concentration limitations on BODs and Total Suspended Solids (TSS) indicated above, the arithmetic mean of the BODs and TSS concentrations for effluent samples collected during the calendar month shall demonstrate a minimum of eighty-five percent (85%) removal of BODs and TSS, as measured by dividing the respective difference between the mean influent and effluent concentrations for the calendar month by the respective mean influent concentration for the calendar month, and multiplying the quotient by 100.

7. Compliance Schedule(s)

Ammonia Permit Limits:

Maintain the previous ammonia permit limits until April 1, 2004 to allow approval of draft TMDL for St. Vrain Creek before meeting effluent limits at the new design flow.

PART I

A. TERMS AND CONDITIONS

8. Industrial Pretreatment Program - Contributing Industries and Pretreatment Requirements

- a. The Permittee shall operate an industrial pretreatment program in accordance with the following permit requirements developed pursuant to Section 402(b)(8) of the Clean Water Act, the General Pretreatment Regulations (40 CFR Part 403), Section 25-8-501 and 25-8-508 of the Colorado Water Quality Control Act, the Colorado Pretreatment Regulations (5 CCR 1002-63) and the approved pretreatment program submitted by the Permittee. The pretreatment program was approved and has subsequently incorporated substantial modifications as approved by the Approval Authority. The approved pretreatment program, and any approved modifications thereto, is hereby incorporated by reference and shall be implemented in a manner consistent with the following requirements:
 - i. Industrial user information shall be updated at a minimum of once per year or at that frequency necessary to ensure that all Industrial Users are properly permitted and/or controlled. The records shall be maintained and updated as necessary;
 - ii. The Permittee shall sample and inspect each Significant Industrial User (SIU) at least once per calendar year (40 CFR Section 403.8(f)(2)(v)). This is in addition to any industrial self-monitoring activities;
 - iii. The Permittee shall evaluate, at least every two years, whether each SIU needs a spill or slug control plan or needs to update such a plan. Where needed, the Permittee shall require the SIU to prepare or update, and then implement the plan. Where a slug prevention plan is required, the Permittee shall ensure that the plan contains at least the minimum elements required in 40 CFR Section 403.8(f)(2)(v);
 - iv. The Permittee shall investigate instances of non-compliance with Pretreatment Standards and requirements indicated in reports and notices required under 40 CFR Section 403.12, or indicated by analysis, inspection, and surveillance activities.
 - v. The Permittee shall enforce all applicable Pretreatment Standards and requirements and obtain remedies for noncompliance by any industrial user;
 - vi. The Permittee shall control, through the legal authority in the approved pretreatment program, the contribution to the Domestic Wastewater Treatment Works (DWTW) by each industrial user to ensure compliance with applicable Pretreatment Standards and requirements. In the case of industrial users identified as significant under 40 CFR Section 403.3(t), this control shall be achieved through permit, order, or similar means and shall contain, at a minimum, the following conditions:
 - (A) Statement of duration (in no case more than five (5) years);
 - (B) Statement of non-transferability without, at a minimum, prior notification to the Permittee and provision of a copy of the existing control mechanism to the new owner or operator;
 - (C) Effluent limits based on applicable Pretreatment Standards, Categorical Pretreatment Standards, local limits, and State and local law;
 - (D) Self-monitoring, sampling, reporting, notification and record keeping requirements, including an identification of the pollutants to be monitored, sampling location, sampling frequency, and sample type, based on the applicable Pretreatment Standards in 40 CFR Part 403, Categorical Pretreatment Standards, local limits, and State and local law; and,

PART I

A. TERMS AND CONDITIONS

8. Industrial Pretreatment Program

- (E) Statement of applicable civil and criminal penalties for violation of Pretreatment Standards and requirements, and any applicable compliance schedule. Such schedules may not extend the compliance date beyond deadlines mandated by federal statute or regulation.
- vii. The Permittee shall provide adequate staff, equipment, and support capabilities to carry out all elements of the pretreatment program as required by 40 CFR Section 403.8(f)(3);
- viii. The approved program shall not be substantially modified by the Permittee without the approval of the EPA. Substantial and non-substantial modifications shall follow the procedures outlined in 40 CFR Section 403.18;
- ix. The Permittee shall develop, implement, and maintain an enforcement response plan as required by 40 CFR Section 403.8(f)(5); and
- x. The Permittee shall notify all Industrial Users of the users' obligations to comply with applicable requirements under Subtitles C and D of the Resource Conservation and Recovery Act (RCRA) as required by 40 CFR Section 403.8(f)(2)(iii).
- b. The Permittee shall establish and enforce specific local limits to implement the provisions of 40 CFR Section 403.5(a) and (b), as required by 40 CFR Section 403.5(c). The Permittee shall continue to develop these limits as necessary and effectively enforce such limits.

In accordance with EPA policy and with the requirements of 40 CFR sections 403.8(f)(4) and 403.5(c), the Permittee shall determine if technically based local limits are necessary to implement the general and specific prohibitions of 40 CFR sections 403.5(a) and (b).

This evaluation should be conducted in accordance with the latest revision of the "EPA Region VIII Strategy for Developing Technically Based Local Limits", and after review of the "Guidance Manual on the Development and Implementation of Local Discharge Limitations Under the Pretreatment Program" December 1987. Where the Permittee determines that revised or new local limits are necessary, the Permittee shall submit the proposed local limits to the Approval Authority in an approvable form based upon the findings of the technical evaluation within two-hundred and seventy (270) days from the effective date of this permit.

- c. The Permittee shall analyze the treatment facility influent and effluent for the presence of the toxic pollutants listed in 40 CFR Part 122 Appendix D (NPDES Application Testing Requirements) Table II at least twice per year and the toxic pollutants in Table III at least four times per year. If, based upon information available to the Permittee, there is reason to suspect the presence of any toxic or hazardous pollutant listed in Table V, or any other pollutant in a quantity or concentration known or suspected to adversely affect DWTW operation, receiving water quality, or solids disposal procedures, analysis for those pollutants shall be performed at least four times per year on both the influent and the effluent.
- i. Along with the Permittee's pretreatment annual report, the Permittee will submit a list of compounds included in Table V that are suspected or known to be present in its influent wastewater. This determination shall be based on a review of the Permittee's pretreatment program records. The state permitting authority and/or Approval Authority may review and comment on the list and the list may be revised if, in the opinion of the state permitting authority and/or Approval Authority, the list is incomplete. The Permittee will perform four times per year analyses on the influent for the revised list of compounds for which there are acceptable testing procedures.
- ii. Where the pollutants monitored in accordance with this section are reported as being above the method detection limit, the results for these pollutants shall be reported in the Permittee's pretreatment annual report.

PART I

A. TERMS AND CONDITIONS

8. Industrial Pretreatment Program

- d. The Permittee shall review the pollutants listed in 40 CFR Part 122 Appendix D, tables II and V. With the exception of volatiles, if any of the pollutants in these tables were above detection in the influent samples during the previous 2 years or the last two analyses, whichever is greater, the Permittee shall sample and analyze its sewage sludge for these pollutants. If the Permittee does not dispose of biosolids during the calendar year, the Permittee shall certify to that in the Pretreatment Annual Report and the monitoring requirements in this paragraph shall be suspended for that calendar year.
- i. The Permittee shall review the pollutants in 40 CFR Part 122, Appendix D, tables II and V. If any of the pollutants in these tables were above detection in the influent samples during the previous 2 years or the last two analyses, whichever is greater, the Permittee shall sample and analyze its sewage sludge for these pollutants. The Permittee shall perform this evaluation and analysis at least once per year.
- ii. The Permittee shall use sample collection and analysis procedures as approved for use under 40 CFR Part 503.
- iii. The Permittee shall report the results for these pollutants in the Permittee's pretreatment annual report.
- e. All analyses shall be in accordance with test procedures established in 40 CFR Part 136. Where analytical techniques are not specified or approved under 40 CFR Part 136, the Permittee shall use its best professional judgement and guidance from the State and the Approval Authority regarding analytical procedures. All analytical procedures and method detection limits must be specified when reporting the results of such analyses. Sampling methods shall be those defined in 40 CFR Part 136, 40 CFR Part 403, as defined in this permit, or as specified by the Approval Authority. Where sampling methods are not specified, the influent and effluent samples collected shall be composite samples consisting of at least twelve (12) aliquots collected at approximately equal intervals over a representative 24-hour period and composited according to flow. Where automated composite sampling is inappropriate, at least four (4) grab samples shall be manually taken at equal intervals over a representative 24-hour period, and composited prior to analysis using approved methods.
- f. The Permittee shall prepare annually a list of industrial users, which during the preceding twelve (12) months have significantly violated Pretreatment Standards or requirements. This list is to be published annually in the largest newspaper in the Permittee's service area as required by 40 CFR Section 403.8(f)(2)(vii).

In addition, on or before March 28, the Permittee shall submit a pretreatment program annual report to the Approval Authority and the state permitting authority that contains the following information:

- i. An updated list of all SIUs as defined at 40 CFR 403.3(t). For each SIU listed the following information shall be included:
 - (A) All applicable Standard Industrial Classification (SIC) codes and categorical determinations, as appropriate. In addition, a brief description of the industry and general activities;
 - (B) Permit status. Whether each SIU has an unexpired control mechanism and an explanation as to why any SIUs are operating without a current, unexpired control mechanism (e.g. permit);
 - (C) A summary of all monitoring activities performed within the previous twelve (12) months. The following information shall be reported:

Total number of SIUs inspected; and
Total number of SIUs sampled.

PART I

A. TERMS AND CONDITIONS

8. Industrial Pretreatment Program

- ii. For all industrial users that were in Significant Non-Compliance during the previous twelve (12) months, provide the name of the violating industrial user, indicate the nature of the violations, the type and number of actions taken (warning letter, notice of violation, administrative order, criminal or civil suit, fines or penalties collected, etc.) and current compliance status. If the industrial user was put on a schedule to attain compliance with effluent limits, indicate the date the schedule was issued and the date compliance is to be attained. Determination of Significant Non-Compliance shall be performed as defined at 40 CFR Section 403.8(f)(2)(vii).
 - iii. A summary of all enforcement actions not covered by the paragraph above conducted in accordance with the approved Enforcement Response Plan.
 - iv. A list of all SIUs whose authorization to discharge was terminated or revoked during the preceding twelve (12) month period and the reason for termination;
 - v. A report on any Interference, Pass Through, upset or CDPS permit violations known or suspected to be caused by non-domestic discharges of pollutant and actions taken by the Permittee in response;
 - vi. Verification of publication of industrial users in Significant Non-Compliance;
 - vii. Identification of the specific locations, if any, designated by the Permittee for receipt (discharge) of trucked or hauled waste;
 - viii. Information as required by the Approval Authority or state permitting authority on the discharge to the DWTW from the following activities:
 - (A) Ground water clean-up from underground storage tanks;
 - (B) Trucked or hauled waste; and,
 - (C) Groundwater clean-up from RCRA or Superfund sites.
 - ix. A description of all changes made during the previous calendar year to the Permittee's pretreatment program that were not submitted as substantial or non substantial modifications to EPA.
 - x. The Permittee shall evaluate actual pollutants loadings against the approved Maximum Allowable Headworks Loadings (MAHLs). Where the actual loading exceeds the MAHL, the Permittee shall immediately begin a program to either revise the existing local limit and/or undertake such other studies as necessary to evaluate the cause(s) of the exceedence. The Permittee shall provide a summary of its intended action.
 - xi. Other information that may be deemed necessary by the Approval Authority.
- g. The Permittee shall prohibit the introduction of the following pollutants into the DWTW:
- i. Pollutants which create a fire or explosion hazard in the publicly owned treatment works (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 pH lower than 5.0, unless the works 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 other interference with the operation of the DWTW;

PART I

A. TERMS AND CONDITIONS

8. Industrial Pretreatment Program

- 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 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 DWTW 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.
- h. The Permittee shall provide the pretreatment Approval Authority with adequate notice of any substantial change in the volume or character of pollutants being introduced into the treatment works by any SIU introducing pollutants into the treatment works at the time of application for the discharge permit. For the purposes of this section, "substantial change" shall mean a level of change which has a reasonable probability of affecting the Permittee's ability to comply with its permit conditions or to cause a violation of stream standards applied to the receiving water.
- Adequate notice shall include information on: (1) the quality and quantity of effluent to be introduced into the treatment works, and (2) any anticipated impact of the change on the quality or quantity of effluent to be discharged from the publicly owned treatment works.
- i. Section 309(f) of the Act provides that EPA may issue a notice to the DWTW stating that a determination has been made that appropriate enforcement action must be taken against an industrial user for noncompliance with any Pretreatment Standards and requirements. The notice provides the DWTW with thirty (30) days to commence such action. The issuance of such permit notice shall not be construed to limit the authority of the permit issuing authority or Approval Authority.
 - j. The state permitting authority and the Approval Authority retains, at all times, the right to take legal action against the industrial contributor for violations of a permit 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 responsible and may take legal action against the Permittee as well as the Indirect Discharger(s) contributing to the permit violation.

PART I

A. TERMS AND CONDITIONS

9. Biosolids Limitations and Management Requirements

In accordance with the Water Quality Control Commission Biosolids Regulations, Section 64.11, and the Colorado Discharge Permit System Regulations, Section 61.8(3), biosolids generated by this facility to be used for land application for beneficial use shall comply with the following limitations.

a. Pollutant Limitations

- i. Biosolids, which are to be land applied to agricultural land, forestland, a public contact site or a reclamation site, shall meet either:
 - (A) The daily maximum pollutant concentrations and the cumulative pollutant loading limits identified in the following table; or
 - (B) The daily maximum pollutant concentrations and the monthly average pollutant concentrations identified in the following table.

Table I - Biosolids Pollutant Concentrations

Pollutant	Pollutant Concentration (mg/Kg dry weight basis)		Cumulative Pollutant Loading Limits (kg/Ha)
	Daily Maximum	Monthly Average	
Total Arsenic	75	41	41
Total Cadmium	85	39	39
Total Copper	4300	1500	1500
Total Lead	840	300	300
Total Mercury	57	17	17
Total Molybdenum	75	-	-
Total Nickel	420	420	420
Total Selenium	100	100	100
Total Zinc	7,500	2,800	2,800

- i. Biosolids to be sold or given away in a bag or similar enclosure for application to the land for other than lawn or home garden use shall meet:
 - (A) The daily maximum pollutant concentrations and the annual pollutant loading limits identified in the table in Part I.A.9.a.(iii), below; or
 - (B) The daily maximum pollutant concentrations and the monthly average pollutant concentrations identified in the table in Part I.A.9.a.(iii), below.
- ii. Biosolids to be applied to a lawn or home garden shall meet the monthly average pollutant concentrations identified in Table II.

PART I

A. TERMS AND CONDITIONS

9. Biosolids Limitations and Management Requirements

Table II - Monthly Average Pollutant Concentrations

Pollutant	Pollutant Concentration (mg/Kg dry weight basis)	
	Daily Maximum	Monthly Average
Total Arsenic	75	41
Total Cadmium	85	39
Total Copper	4300	1500
Total Lead	840	300
Total Mercury	57	17
Total Molybdenum	75	-
Total Nickel	420	420
Total Selenium	100	100
Total Zinc	7,500	2,800

b. Pathogen Limitations

If the biosolids are to be land applied to agricultural land, forest land, a public contact site or a reclamation site, the biosolids shall meet either Class A (including the site restrictions) criteria identified in the following two tables. If the biosolids are to be sold or given away in a bag or similar enclosure for application to land or for use on a lawn or home garden, the biosolids shall meet Class A criteria as described in the following table. Compliance with either Class A fecal coliform or salmonella requirements as listed in the following two tables shall be determined based upon seven discrete samples for Class A.

Table XX - Class A Pathogen Requirements

Fecal Coliform and Salmonella Limits		Process Requirements (One of the following):
Fecal Coliforms shall be < 1000 MPN per gram of total solids OR Salmonella shall be < 3 MPN per 4 grams of total solids OR Any other method of biosolids treatment which is certified as a Process to Further Reduce Pathogens by the USEPA, Region 8, or, after assumption of delegation by the State, which is certified as such by the division	AN D	1. Composting using either the within-vessel or static aerated pile method, the temperature of the sludge is maintained at 55°C or higher for three days. OR 2. Composting using the windrow method, the temperature of the sludge is maintained at 55°C or higher for 15 days or longer, with a minimum of 5 turnings of the pile during those 15 days.

PART I

A. TERMS AND CONDITIONS

9. Biosolids Limitations and Management Requirements

i. Site Restrictions

The permittee shall comply with all of the site restrictions listed below:

- (A) Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after application.
- (B) Food crops with harvested parts below the land surface shall not be harvested for 20 months after application if the biosolids remain on the land surface for four months or more prior to incorporation into the soil.
- (C) Food crops with harvested parts below the land surface shall not be harvested for 38 months after application if the biosolids remain on the land surface for less than four months prior to incorporation into the soil.
- (D) Other food crops and feed crops shall not be harvested from the land for 30 days after application.
- (E) Animals shall not be allowed to graze on the land for 30 days after application.
- (F) Turf grown on land where biosolids are applied shall not be harvested for one year after application if the harvested turf is placed on either land with a high potential for public exposure or a lawn.
- (G) Public access to land with a high potential for public exposure shall be restricted for one year after application.
- (H) Public access to land with a low potential for public exposure shall be restricted for 30 days after application.

c. Vector Attraction Reduction Limitations

If the biosolids are to be land applied to agricultural land, forest land, a public contact site or a reclamation site, the biosolids shall meet any one of the alternatives c.i. through c.v.

If the biosolids are to be sold or given away in a bag or similar enclosure for application to land or for use on a lawn or home garden, the biosolids shall meet one of the three alternatives (i) through (iii) below.

- i. The mass of volatile solids in the biosolids shall be reduced by a minimum of 38 percent prior to land application. Alternately, if aerobically digested biosolids cannot meet the 38 percent volatile solids reduction requirement, a portion of the previously digested biosolids (with a percent solids content of 2 percent or less) shall be digested aerobically in the laboratory in a bench-scale unit for an additional 30 days at a temperature between 20° and 22°C. At the end of the 30 days, the volatile solids content shall have been reduced by no more than 15 additional percent.
- ii. The specific oxygen uptake rate (SOUR) for the biosolids treated in an aerobic process shall be equal to or less than 1.5 mg of oxygen/hour/gram of total solids at a temperature of 20°C.
- iii. The biosolids shall be treated in an aerobic process for 14 days or longer with a temperature remaining above 40°C. The average temperature shall be greater than 45°C.

PART I

B. TERMS AND CONDITIONS

9. Biosolids Limitations and Management Requirements

- iv. The biosolids shall be injected below the surface of the land and no significant amount of biosolids shall be present on the land surface within one hour after the biosolids are injected. If the biosolids meet the Class A pathogen requirements (Part I.A.9.b.i.), the biosolids shall be injected below the land surface within 8 hours after the biosolids are discharged from the pathogen reduction process.
- v. Biosolids applied to the land surface shall be incorporated into the soil within 6 hours after application to the land. Biosolids that are incorporated into the soil and which meet the Class A pathogen requirements (Part I.A.9.b.i.) shall be applied to or placed on the land within 8 hours after being discharged from the pathogen treatment process.

d. Biosolids Management Practices

- i. If the biosolids or material derived from biosolids meet the pollutant concentration limits in Part I.A.9.a., the Class A pathogen reduction limits in Part I.A.9.b. and one of the first four vector attraction reduction alternatives in Part I.A.9.c., the following management practices are not required unless requested by the Division through permit modification procedures under Part II.B.8.e. of this permit.
- ii. The permittee shall operate and maintain the land application site operations in accordance with the following requirements:
 - (A) The permittee shall provide to the Division and to EPA within 90 days of the issuance of this permit a land application plan. At a minimum, the plan is to include the components listed in section 2.3 of the latest version of the EPA Region VIII Biosolids Management Handbook.
 - (B) Application of biosolids shall be conducted in a manner that will not contaminate the groundwater underlying the sites. Biosolids shall not be applied to any site area with standing water or where the annual high groundwater level is less than five feet without written permission of the Division.
 - (C) Application of biosolids shall be conducted in a manner that will not cause a violation of any receiving water quality standard from discharges of surface runoff from the land application sites. Biosolids shall not be applied to land 10 meters or less from waters of the U.S. (as defined in 40 CFR 122.2).
 - (D) Application of biosolids shall be conducted in a manner that does not exceed the agronomic rate for available nitrogen of the crops grown on the site. The treatment plant shall provide written notification to the applier of the biosolids, if not the same, of the concentration of total nitrogen (as N on a dry weight basis) in the biosolids. Written permission from the Division is required to exceed the agronomic rate.
 - (E) No person shall apply sludge for beneficial use to frozen, ice-covered, or snow-covered land where the slope of such land is greater than three percent and is less than or equal to five percent unless one of the following requirements is met:
 - (1) A vegetated buffer strip of at least 50 feet is provided between the application area and the site boundary; or,
 - (2) Division approval has been obtained based upon a plan demonstrating adequate runoff containment measures.

PART I

A. TERMS AND CONDITIONS

9. Biosolids Limitations and Management Requirements

- (F) The biosolids or the application of the biosolids shall not cause or contribute to the harm of a threatened or endangered species or result in the destruction or adverse modification of critical habitat of a threatened or endangered species after application.
- (G) For biosolids that are sold or given away, either a label shall be affixed to the bag or similar enclosure or an information sheet shall be provided to the person who receives the biosolids. The label or information sheet shall contain:
 - (1) The name and address of the person who prepared the biosolids for sale or give away for application to the land.
 - (2) A statement that prohibits the application of the biosolids to the land except in accordance with the instructions on the label or information sheet.
 - (3) When biosolids which are sold or given away do not meet the monthly average pollutant concentrations in Part I.A.9.a), the annual whole biosolids application rate for biosolids which do not cause the annual pollutant loading rates in Part I.A.9.a)(iii). to be exceeded.
- (H) Biosolids subject to the cumulative pollutant loading rates in Part I.A.9.a)(i) shall not be applied to agricultural land, forest, a public contact site, or a reclamation site if any of the cumulative pollutant loading rates in Part I.A.9.a)(i) have been reached.
- (I) If the permittee applies the sludge, it shall provide the owner or lease holder of the land on which the biosolids are applied notice and necessary information to comply with the requirements in this permit.

iii. Special Conditions on Biosolids Storage

Permanent storage of biosolids is prohibited. Biosolids shall not be temporarily stored for more than two years. Written permission to store biosolids for more than two years must be obtained from the Division. Storage of biosolids for more than two years will be allowed only if it is determined that significant treatment is occurring.

iv. Change in Biosolids Treatment System or Use/Disposal Practice

The permittee must inform the Division and the EPA at least 180 days prior to any significant change in the biosolids generation and handling processes at the plant and any major change in use/disposal practices. This includes, but is not limited to, the addition or removal of biosolids treatment units (e.g., digesters, drying beds, etc.) and/or any other change which would require a major modification of the permit (e.g., changing from land application to surface disposal). For any biosolids that are landfilled, the requirements in section 2.12 of the latest version of the Region VIII Biosolids Management Handbook should be followed.

B. MONITORING REQUIREMENTS

1. 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, Section A.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, Section D.2.):

PART I

B. MONITORING REQUIREMENTS

1. Influent Parameters

<u>Influent Parameter</u>	<u>Frequency</u>	<u>Sample Type f/</u>
Flow, MGD	Continuous	Recorder
BODs, mg/l (lbs/day)	Daily	Composite
Total Suspended Solids, TSS, mg/l	Daily	Composite

Self-monitoring samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): Monitoring point 300I, at a representative point ...

2. Effluent Parameters

In order to obtain an indication of the probable compliance or non-compliance with the effluent limitations specified in Part I, Section A.5, the permittee shall monitor effluent parameters at the following required frequencies, the results to be reported on the Discharge Monitoring Report (See Part I, Section D.2.):

<u>Effluent Parameter</u>	<u>Frequency</u>	<u>Sample Type f/</u>
Flow, MGD	Continuous	Recorder
BODs, mg/l	Daily	Composite
Total Suspended Solids, TSS, mg/l	Daily	Composite
Fecal Coliform, Number/100 ml	Daily	Grab
Total Residual Chlorine, mg/l	5x/Day g/	Grab
pH, standard units	Daily	Grab
Oil and Grease, mg/l	Daily	Visual i/
Total Ammonia, mg/l as N	Daily	Composite
Metals		
Cadmium, Total Recoverable, ug/l	Monthly	Composite
Chromium, Hex, Tot. Rec., ug/l	Monthly	Composite
Copper, Total Recoverable, ug/l	Monthly	Composite
Lead, Total Recoverable, ug/l	Monthly	Composite
Selenium, Total, ug/l	Monthly	Composite
Mercury, Total, ug/l	Quarterly	Composite
Silver, Total Recoverable, ug/l	Monthly	Composite
Nickel, Total Recoverable, ug/l	Annually	Composite
Iron, Total Recoverable, ug/l	Annually	Composite
Manganese, Tot. Rec., ug/l	Annually	Composite
Zinc, Tot. Recoverable, ug/l	Annually	Composite
Whole Effluent Toxicity, Chronic	Quarterly	3 Composites/Test

Self-monitoring samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): Discharge point 003A or 004A, following disinfection and prior to mixing with the receiving stream.

PART I

B. MONITORING REQUIREMENTS

3. Biosolids Parameters

- a. The permittee shall identify the annual biosolids production rate on a dry weight basis, in the Annual Biosolids Report (see Part I, Section D.3).
- b. If biosolids from the treatment facilities are disposed of at a solid waste disposal site or applied to land for beneficial use*, the following requirements apply.

The discharge of solid waste to land for disposal is regulated by the Colorado Solid Wastes Disposal Sites and Facilities Act (30-20, Part 1 CRS 1973). The Act requires that either a Certificate of Designation be issued by the appropriate board of county commissioners for any disposal site located within an unincorporated portion of a county, or that approval be granted by the appropriate governing body of an incorporated portion of a county for any disposal site located within that incorporated area. Biosolids are considered, by definition, [30-20-101(6)] to be a solid waste.

Section 30-20-102(6) provides an exemption from the Certificate of Designation requirement for biosolids that are used in a beneficial manner and are designated as meeting all applicable regulations of the Department. The application of biosolids to agricultural or disturbed land as a soil conditioner/fertilizer is subject to the Colorado Biosolids Regulations 64 (5CCR 1002-64). Biosolids disposed of in this manner shall comply with the requirements of these Regulations.

* "Beneficial Use" means the use of nutrients and/or moisture in the biosolids to act as a soil conditioner or low grade fertilizer for the promotion of vegetative growth on land.

- c. If land application is practiced, the permittee shall monitor biosolids quality as follows. Results of monitoring shall be included in the Annual Biosolids Report (see Part I, Section D.3.).
 - i. Upon the effective date of this permit, all chemical pollutants, pathogens and applicable vector attraction reduction requirements shall be monitored per the schedule in the following table:

Table XX

ANNUAL BIOSOLIDS PRODUCTION (dry tons)	FREQUENCY
less than 319	once per year
320 to less than 1,650	once per quarter
1,651 to less than 16,500	once per two months
16,500 and greater	monthly

- ii. If this facility does not collect samples on a regular basis because sampling occurs from long-term treatment piles, compost piles, drying beds, etc., a sampling and analysis plan is to be prepared and submitted to the Division and to EPA within 90 days of issuance of this permit. If, when the permit is issued the permittee was not sampling in this manner but a change in process necessitates this form of sampling, then the plan must be submitted 30 days before the change occurs. This plan is to detail how representative samples are to be obtained and should include elements presented in Section 2.13 of the latest version of the EPA Region VIII Biosolids Management Handbook. The number of samples collected will be at least as many as those that would be collected annually as required from the amount of sludge produced (i.e. six for this facility).

PART I

B. MONITORING REQUIREMENTS

3. Biosolids Parameters

- iii. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations: 1) For biosolids stability/volatile solids reduction, samples shall be taken before digestion and dewatering (or other stabilization processes) and after the biosolids has been digested and/or dewatered (or otherwise stabilized) but prior to transport or disposal; 2) For all other parameters, samples shall be taken after digestion and/or dewatering (or other stabilization processes) but prior to transport or disposal. All samples shall be representative of the biosolids stream being sampled.

d. Analytical and Sampling Methods for Monitoring

Sample collection, preservation and analysis shall be performed in a manner consistent with the requirements of the Biosolids Regulations, 64 (5CCR 1002-64) and/or other criteria specified in this permit. Metals analyses are to be performed using method SW 846 with samples prepared in accordance with method 3050. The methods are also described in the latest version of the EPA Region VIII Biosolids Management Handbook.

e. Records

Biosolids which are Class A with respect to pathogens and which meet the monthly pollutant concentration limits identified in Part I.A.9.a. shall comply with the record keeping requirements identified in sections 4.e.i.(A) through 4.e.i.(C), below. If the biosolids are Class B with respect to pathogens, or if any pollutant limited in Part I.A.9.a increases to the point where the biosolids no longer meet the monthly average pollutant concentration limits in Part I.A.9.a., the permittee shall comply with all of the record keeping requirements identified below:

- i. The permittee is required to have access to the following information for at least 5 years:

- (A) Test results showing the concentration of each pollutant in Part I.A.9.a.;
- (B) A description of how the pathogen reduction requirements in Part I.A.9.b. were met;
- (C) A description of how the vector attraction reduction requirements in Part I.A.9.c. were met;
- (D) A description of how the management practices in Part I.A.9.d. were met (if necessary);
- (E) A description of how the site restrictions in Part I.A.9.b. were met (if necessary); and
- (F) The following certification statement:

"I certify under the penalty of law, that the pathogen requirements in Part I.A.9.b., one of the vector attraction reduction alternatives in Part I.A.9.c., the management practices in Part I.A.9.d. (if necessary) and the site restrictions in Part I.A.9.b. (if necessary) have been met. This determination has been made under my direction and supervision in accordance with the system designed to assure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements, the vector attraction reduction requirements, the management practices and the site restrictions have been met. I am aware that there are significant penalties for false certification including the possibility of imprisonment."

PART I

B. MONITORING REQUIREMENTS

3. Biosolids Parameters

ii. Records of monitoring information shall include the following:

- (A) The date, exact place, and time of sampling or measurements and the initials or name(s) of the individual(s) who performed the sampling or measurements;
- (B) The date(s) and times analyses were performed;
- (C) The initials or name(s) of individual(s) who performed the analyses;
- (D) All references and written procedures, when available, for the analytical techniques or methods used; and
- (E) The results of such analyses, including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine these results.

iii. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit and records of all data used to complete the application for this permit for the life of the permit. Data collected on site, copies of Biosolids Report forms, and a copy of this permit must be maintained on site during the duration of activity at the permitted location.

4. Chronic WET Testing-Outfall(s): 003A and 004A

a. Testing and Reporting Requirements

Tests shall be done at the frequency listed in Part I.B. Test results shall be reported along with the Discharge Monitoring Report (DMR) submitted for the reporting period during which the sample was taken. (i.e., WET testing results for the first calendar quarter ending March 31 shall be reported with the DMR due April 28.) The results shall be submitted on the Chronic Toxicity Test report form, available from the Division. Copies of these reports are to be submitted to both the Division and EPA along with the DMR.

The permittee shall conduct each chronic WET test in general accordance with methods described in Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, EPA/600/4-89/001 or the most current edition, except as modified by the most current Division guidance document entitled Guidelines for Conducting Whole Effluent Toxicity Tests. The permittee shall conduct such tests using *Ceriodaphnia dubia* and fathead minnows.

b. Failure of Test and Division Notification)

A chronic WET test is failed whenever 1) there is a statistically significant difference in lethality between the control and any effluent concentration less than or equal to the instream waste concentration ("IWC") and, 2) the IC₂₅, which represents an estimate of the effluent concentration at which 25% of the test organisms demonstrate inhibition as reflected by lethality, is at any effluent concentration less than or equal to the IWC. The IWC for this permit has been determined to be 65%. The permittee must provide written notification of the failure of a WET test to the Division, along with a statement as to whether a Preliminary Toxicity Investigation ("PTI")/Toxicity Identification Evaluation ("TIE") or accelerated testing is being performed (see Part I.B.4.(d)). Notification must be received by the Division within 21 calendar days of the demonstration of chronic WET in the routine required test. "Demonstration" for the purposes of Parts I.B.4(b),(c),(d) and (f) means no later than the last day of the laboratory test.

PART I

B. MONITORING REQUIREMENTS

4. Chronic WET Testing-Outfall(s): 003A and 004A

b. Failure of Test and Division Notification

A chronic WET test is failed whenever there is a statistically significant difference in lethality between the control and any effluent concentration less than or equal to the instream waste concentration ("IWC"). The IWC for this permit has been determined to be 65%. The permittee must provide written notification of the failure of a WET test to the Division, along with a statement as to whether a Preliminary Toxicity Investigation ("PTI")/Toxicity Identification Evaluation ("TIE") or accelerated testing is being performed. Notification must be received by the Division within 21 calendar days of the demonstration of chronic WET in the routine required test. "Demonstration" for the purposes of Parts I.B.4(b),(c),(d), (e) and (g) means no later than the last day of the laboratory test.

c. Automatic Compliance Schedule Upon Failure of Test

If a routine chronic WET test is failed, the following automatic compliance schedule shall apply. As part of this, the permittee shall either:

- i. Proceed to conduct the PTI/TIE investigation as described in Part I.B.4.d, or
- ii. Conduct accelerated testing using the single species found to be more sensitive.

If accelerated testing is being performed, the permittee shall provide written notification of the results within 14 calendar days of completion of the "Pattern of Toxicity"/"No Toxicity" demonstration. Testing will be at least once every two weeks for up to five tests until; 1) two consecutive tests fail or three of five tests fail, in which case a pattern of toxicity has been demonstrated or 2) two consecutive tests pass or three of five tests pass, in which case no pattern of toxicity has been found. If no pattern of toxicity is found the toxicity episode is considered to be ended and routine testing is to resume. If a pattern of toxicity is found, a PTI/TIE investigation is to be performed. If a pattern of toxicity is not demonstrated but a significant level of erratic toxicity is found, the Division may require an increased frequency of routine monitoring or some other modified approach.

d. PTI/TIE

The results of the PTI/TIE investigation are to be received by the Division within 120 days of the demonstration of chronic WET in the routine test, as defined above, or if accelerated testing is performed, the date the pattern of toxicity is demonstrated. A status report is to be provided to the Division at the 30, 60 and 90 day points of the PTI/TIE investigation. The Division may extend the time frame for investigation where reasonable justification exists. A request for an extension must be made in writing and received prior to the 120 day deadline. Such request must include a justification and supporting data for such an extension.

The permittee may use the time for investigation to conduct a PTI or move directly into the TIE. A PTI consists of a brief search for possible sources of WET, which might reveal causes of such toxicity and appropriate corrective actions more simply and cost effectively than a formal TIE. If the PTI allows resolution of the WET incident, the TIE need not necessarily be conducted. If, however, WET is not identified or resolved during the PTI, the TIE must be conducted within the allowed 120 day time frame.

Any permittee that is required to conduct a PTI/TIE investigation shall do so in conformance with procedures identified in the following documents, or as subsequently updated: 1) Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I, EPA/600/6-91/005F May 92, 2) Methods for Aquatic Toxicity Identification Evaluations, Phase I Toxicity Characterization Procedures, EPA/600/6-91/003 Feb. 91 and 3) Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures, EPA/600/3-88/035 Feb. 1989.

PART I

B. MONITORING REQUIREMENTS

4. Chronic WET Testing-Outfall(s): 003A and 004A

A fourth document in this series is Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures, EPA/600/3-88/036 Feb. 1989. As indicated by the title, this procedure is intended to confirm that the suspected toxicant is truly the toxicant. This investigation is optional.

Within 90 days of the determination of the toxicant or no later than 210 days after demonstration of toxicity, whichever is sooner, a control program is to be developed and received by the Division. The program shall set down a method and procedure for elimination of the toxicity to acceptable levels.

e. Request For Relief

The permittee may request relief from further investigation and testing where the toxicant has not been determined and suitable treatment does not appear possible. In requesting such relief, the permittee shall submit material sufficient to establish the following:

- i. It has complied with terms and conditions of the permit compliance schedule for the PTI/TIE investigation and other appropriate conditions as may have been required by the WQCD;
- ii. During the period of the toxicity incident it has been in compliance with all other permit conditions, including, in the case of a POTW, pretreatment requirements;
- iii. During the period of the toxicity incident it has properly maintained and operated all facilities and systems of treatment and control; and
- iv. Despite the circumstances described in paragraphs (i) and (iii) above, the source and/or cause of toxicity could not be located or resolved.

If deemed appropriate by the Division, the permit or the compliance schedule may be modified to revise the ongoing monitoring and toxicity investigation requirements to avoid an unproductive expenditure of the permittee's resources, provided that the underlying obligation to eliminate any continuing exceedance of the toxicity limit shall remain.

f. Spontaneous Disappearance

If toxicity spontaneously disappears at any time after a test failure, the permittee shall notify the Division in writing within 14 days of a demonstration of disappearance of the toxicity. The Division may require the permittee to develop and submit additional information, which may include, but is not limited to, the results of additional testing. If no pattern of toxicity is identified or recurring toxicity is not identified, the toxicity incident response is considered closed and normal WET testing shall resume.

g. Toxicity Reopener

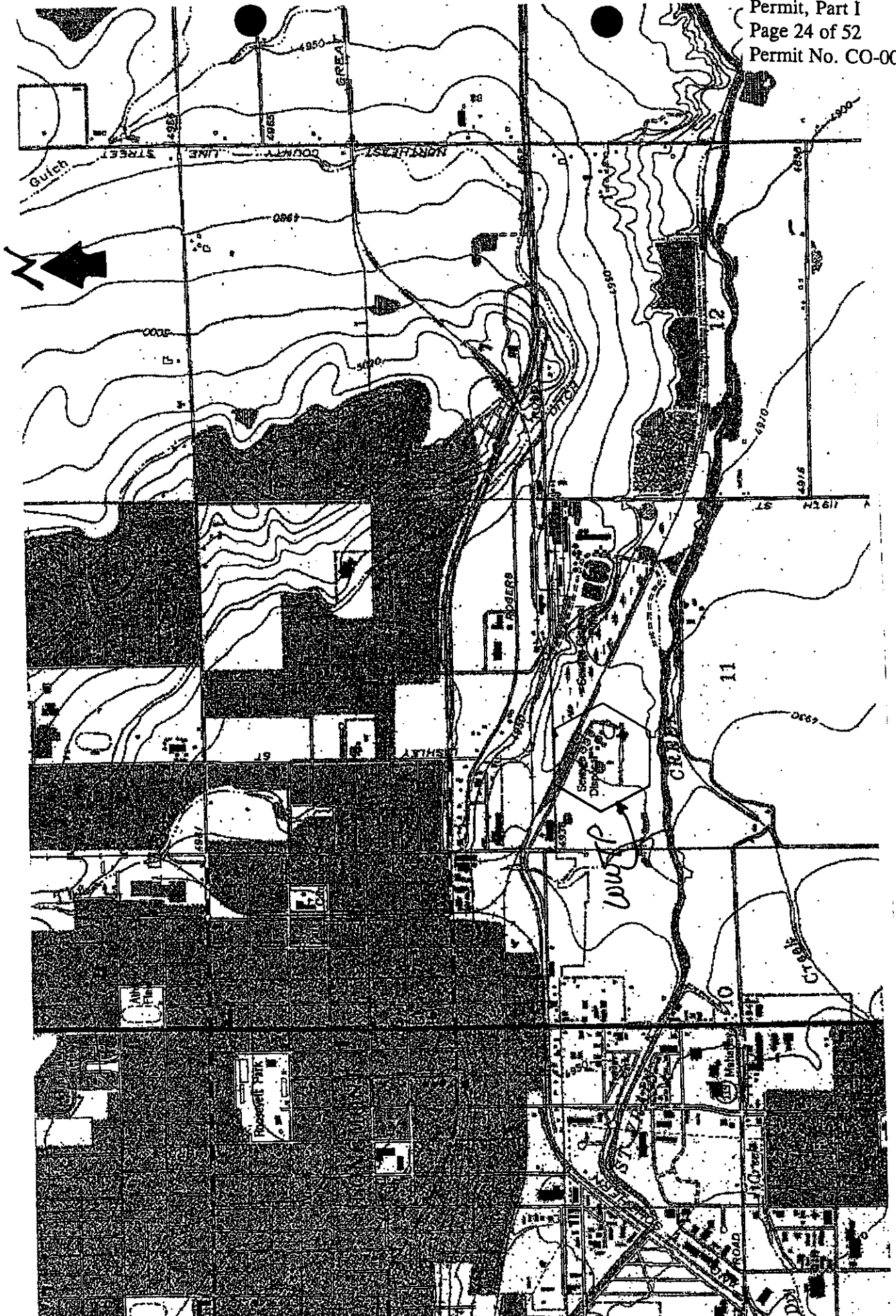
This permit may be reopened and modified (following proper administrative procedures) to include new compliance dates, additional or modified numerical permit limitations, a new or different compliance schedule, a change in the whole effluent toxicity testing protocol, or any other conditions related to the control of toxicants if one or more of the following events occur:

PART I

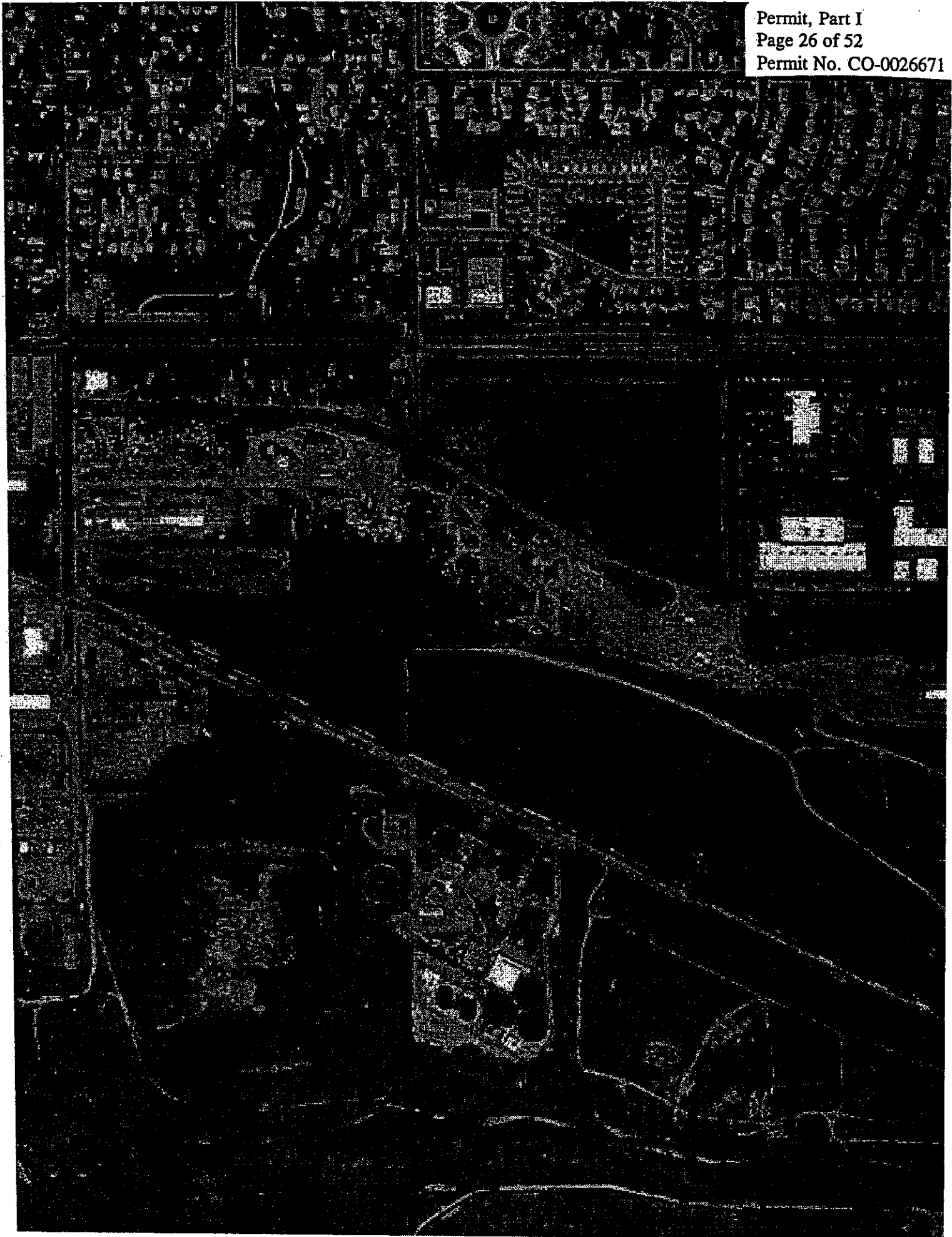
B. MONITORING REQUIREMENTS

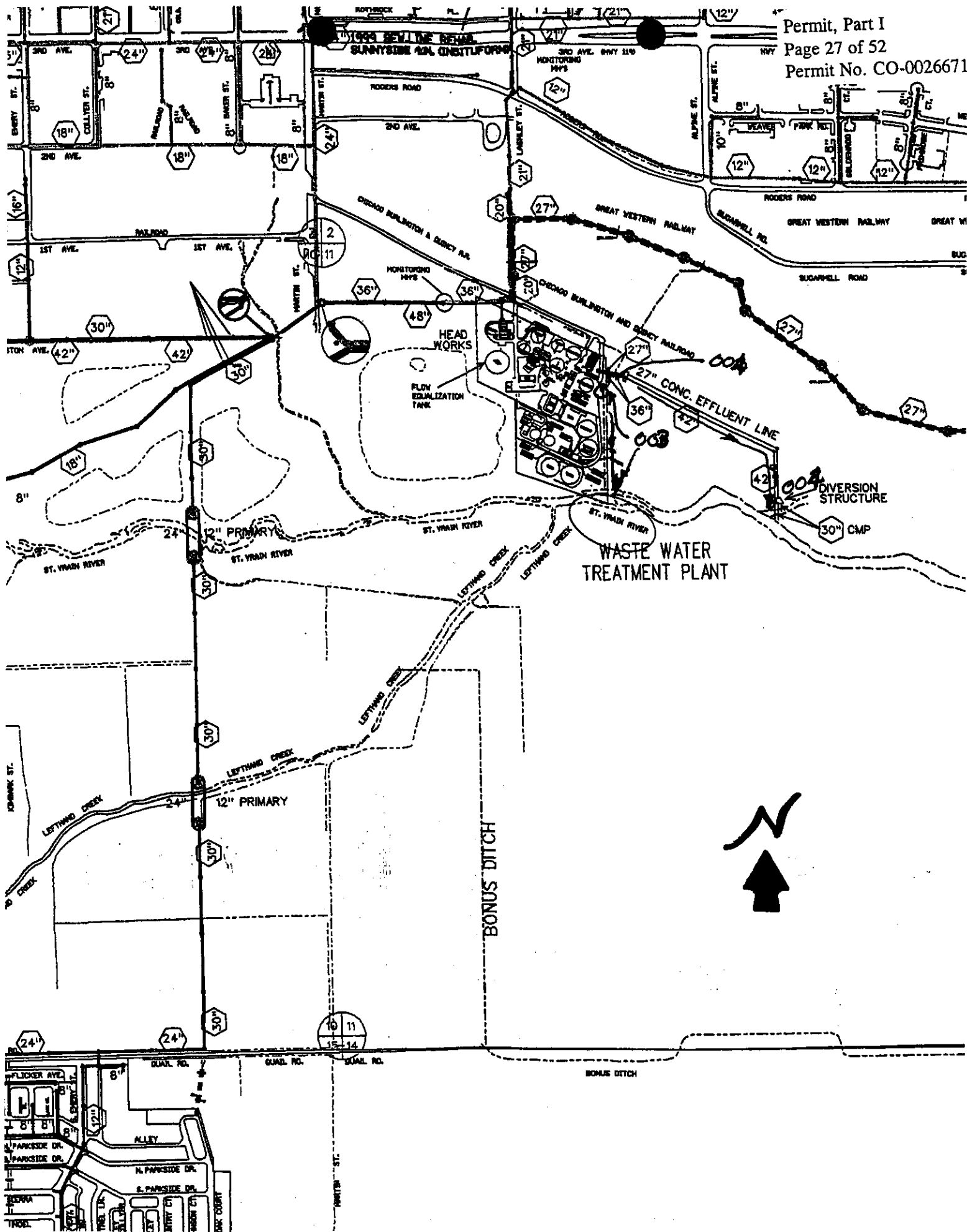
4. Chronic WET Testing-Outfall(s): 003A and 004A

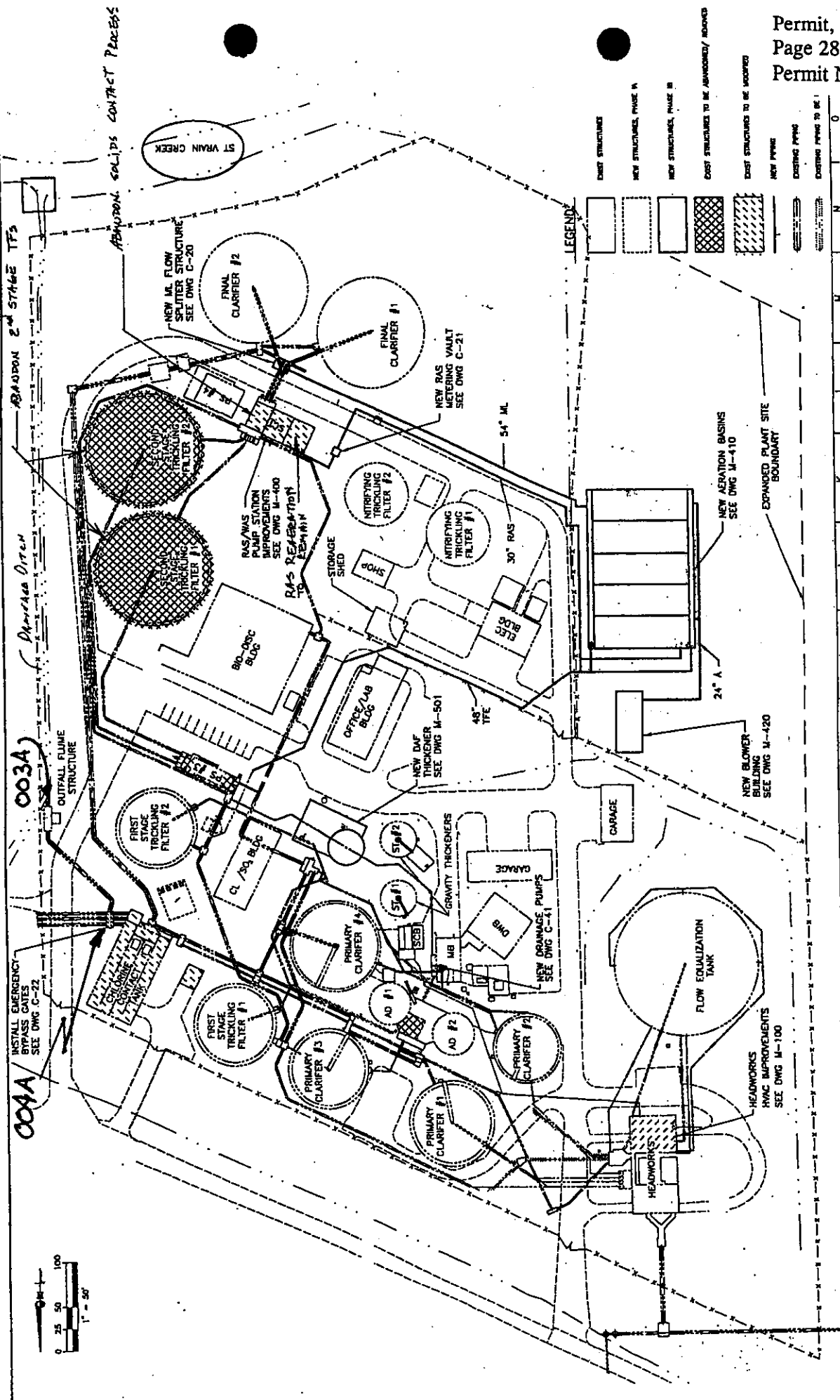
- i. Toxicity has been demonstrated in the effluent and the permit does not contain a toxicity limitation.
- ii. The PTI/TIE results indicate that the identified toxicant(s) represent pollutant(s) that may be controlled with specific numerical limits and the permit issuing authority agrees that the control of such toxicants through numerical limits is the most appropriate course of action.
- iii. The PTI/TIE reveals other unique conditions or characteristics, which, in the opinion of the permit issuing authority, justify the incorporation of unanticipated special conditions in the permit.



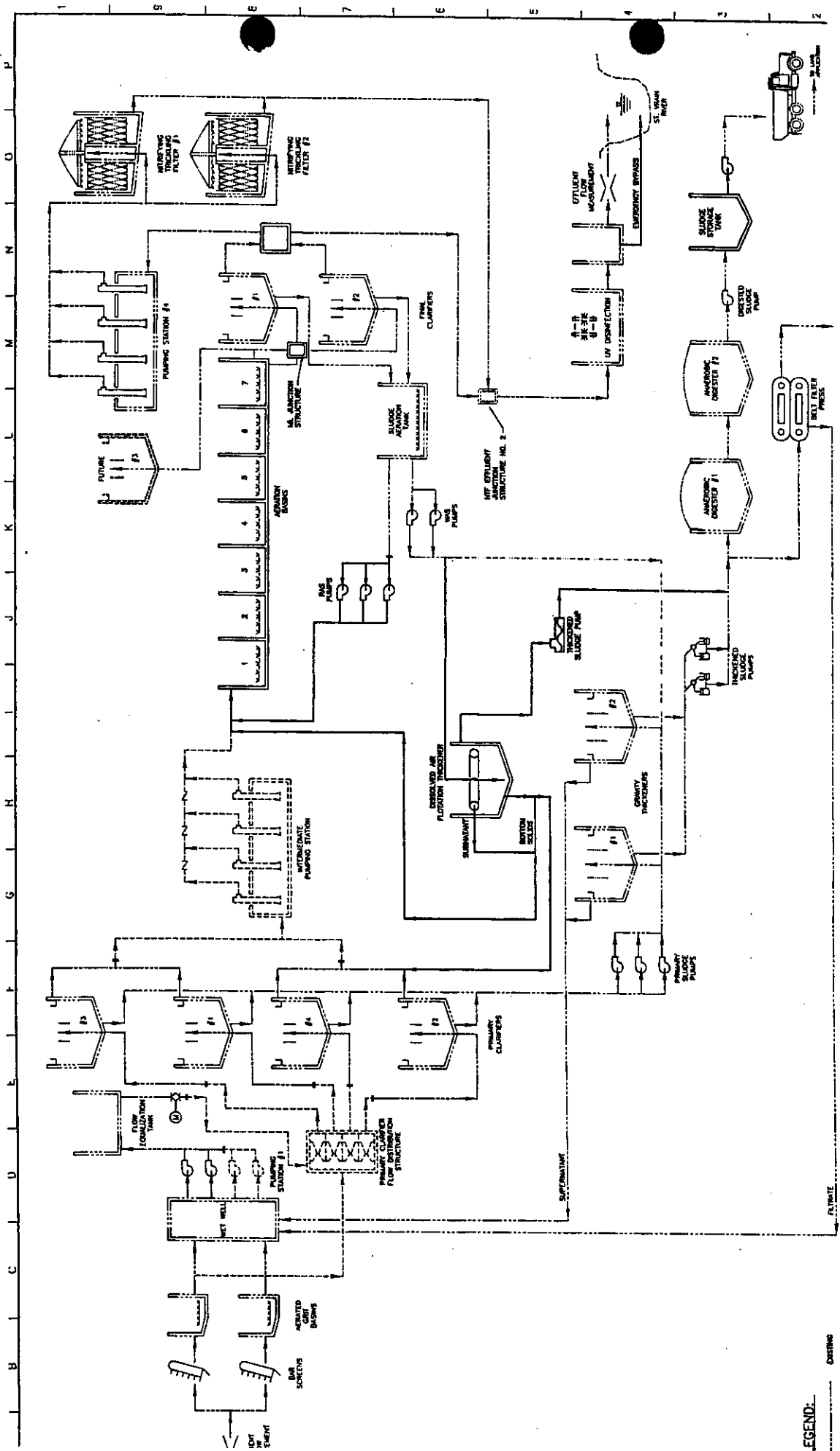








CITY OF LONGMONT
 CAPACITY IMPROVEMENTS
 PHASE 1B



PROCESS FLOW DIAGRAM

**CITY OF LONGMONT, COLORADO
 WASTEWATER TREATMENT PLANT**

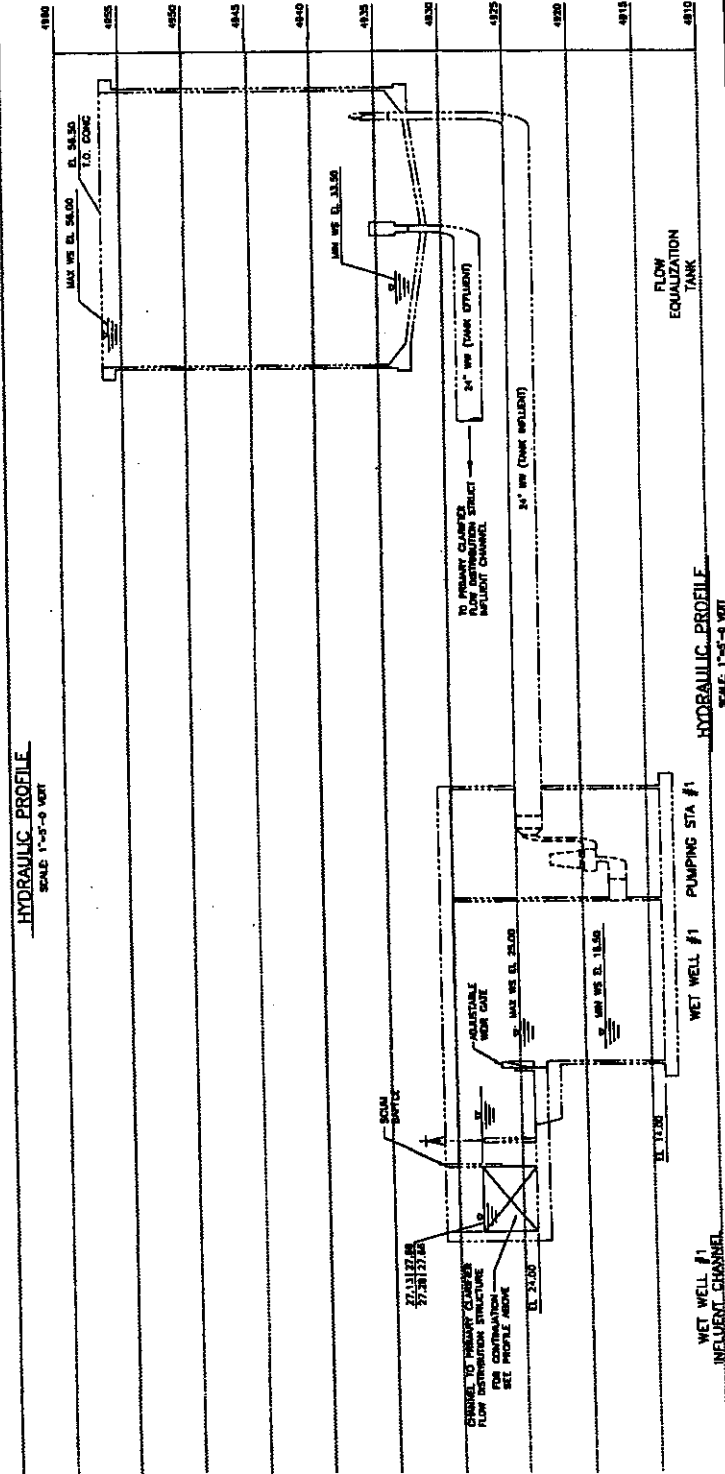
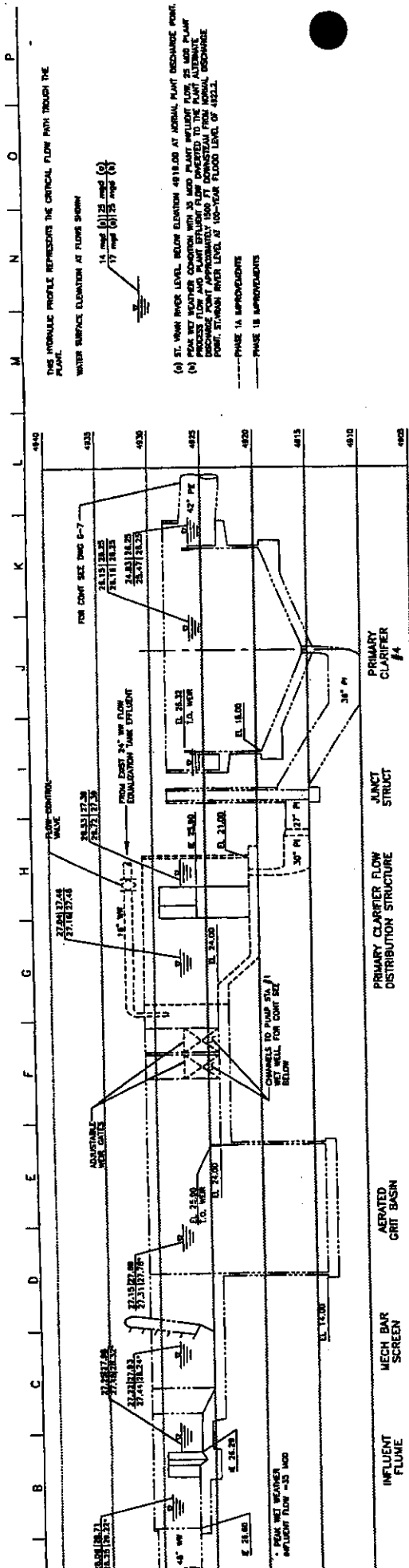
CAPACITY IMPROVEMENTS, PHASE IB

REV.	DESCRIPTION	BY	DATE	APP.
1	REVISION	REP	11-28-03	
2	REVISION	REP	11-28-03	

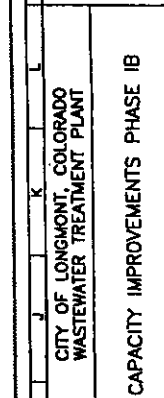
APPROVED: _____
 DATE: _____

DESIGNED: LAM40004.DWG
 DRAWN: KSR
 CHECKED: KSR
 OFFERED: JEN

ra engineering
 R STREET
 COLORADO 80204 (303)925-1802



C		B	D	E	F	G	H	J	K	L	M	N	O
NAME & ADDRESS AT FULL SIZE of not 2'-0" x 3'-6" (recommended)				APPROVALS	REV	RECORD DRAWS	BY	DATE	CITY OF LONGMONT, COLORADO WASTEWATER TREATMENT PLANT				
DESIGNED LMC-40000 JUNE DRAWN ESR CHECKED KOB ORDER JHP				PROJECT MGR	1		ERT	11-2-88 JHP					
CAPACITY IMPROVEMENTS PHASE IB													
HYDRAULIC PROFILE													



HYDRAULIC PROFILE

CAPACITY IMPROVEMENTS PHASE IB

...ra engineering

FOOTNOTES

- a/ - The thirty (30) day average is defined as being the arithmetic mean of the analytical results for all samples collected during a thirty (30) consecutive day period. The permittee shall report the arithmetic mean of all self-monitoring sample data collected during the calendar month on the Discharge Monitoring Reports. No individual sample result may be used for more than one thirty (30) day average. (For fecal coliform and E. coli bacteria determinations, see footnote c/).
- b/ - The seven (7) day average shall be determined by an arithmetic mean of the analytical results for all samples collected during 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 a 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. No individual sample result may be used for more than one (1) seven (7) day average. (For fecal coliform and E. coli bacteria determinations, see footnote c/).
- c/ - For fecal coliform bacteria and E. coli bacteria concentrations, the thirty (30) day and seven (7) day averages shall be determined as explained in footnotes a/ and b/ above, respectively, except that the geometric mean shall be used instead of the arithmetic mean. 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 = $(a \cdot b \cdot c \cdot d \cdot \dots)^{(1/n)}$ "*" - means multiply

Method 2:

Geometric Mean = $\text{antilog} ([\log(a) + \log(b) + \log(c) + \log(d) + \dots] / n)$

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, the numeric value shall be used in the calculations unless the result is "less than 2.2". If the result is "less than 2.2", use a value of 1 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.

- d/ - The "Daily Maximum" limitation for this parameter shall be applied as an instantaneous maximum (or, for pH or DO, instantaneous minimum) value. The instantaneous value is defined as the analytical result of any individual sample. Report the maximum (and/or minimum) of all instantaneous values within the calendar month. Any instantaneous value beyond the noted daily maximum limitation for the indicated parameter shall be considered a violation of this permit.
- e/ - The "Daily Maximum" limitation for this parameter shall be applied as a maximum daily average. The daily average is defined as the arithmetic mean of the analytical results for all samples collected during a 24-hour period. If only one sample is collected during the 24-hour period, the analytical result for that single sample shall be used as the daily average. Report the maximum of all daily average values within the calendar month. Any daily average beyond the noted daily maximum limitation for the indicated parameter shall be considered a violation of this permit.
- f/ - Definitions for sample types are as follows:
- i. A "recorder" requires the continuous operation of a chart and/or totalizer (or drinking water rotor meters or pump hour meters where previously approved).
 - ii. A "composite" sample, for monitoring requirements, is defined as a minimum of four (4) grab samples collected at equally spaced two (2) hour intervals and proportioned according to flow.
 - iii. A "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.
 - iv. A "grab" sample, for monitoring requirements, is defined as a single "dip and take" sample collected so as to be representative of the parameter being monitored.
 - v. An "instantaneous" measurement, for monitoring requirements, is defined as a single reading, observation, or measurement using existing monitoring facilities.
 - vi. A "sludge composite" sample is a representative sample of sludge from a wastewater treatment process unit, storage unit or stabilization process unit. The sample shall consist of a minimum of three grab samples of 500 milliliters each taken at the start, middle and end of a pumping cycle, or if discharge is continuous or of a cyclical nature, grab samples of 250 milliliters each shall be taken four times during a twenty-four (24) hour period and combined. Composited samples of semi-dewatered, dewatered and dried sludge shall consist of a minimum of four (4) grab samples of 0.5 kilograms each taken four times during a twenty-four (24) hour period and combined.
- g/ - Monitoring is required only when chlorine is used for disinfection. In the calculation of average total residual chlorine concentrations, those analytical results that are less than the method detection limit shall be considered to be zero for calculation purposes. If all individual analytical results that would be used in the calculations are below the method detection limit, then "less than $\bar{x}$ ", where $\bar{x}$ is the method detection limit, shall be reported on the monthly DMR. Otherwise, report the calculated value.

For purposes of this permit the method detection limits of the DPD colorimetric and the amperometric titration methods of analysis for total residual chlorine are as follows:

<u>Method</u>	<u>Method Detection Limit, mg/l</u>
DPD colorimetric	0.10 mg/l
Amperometric titration	0.05 mg/l

If, during the life of this permit, there are improvements in approved analytical procedures that result in lower detection limits, this permit may be reopened to propose the incorporation of those detection limits into this permit. Modification of the permit will be in accordance with the requirements of 40 CFR, Part 124.

- h/ - For this facility, a single flow recording device is provided and is located at the point of inflow to/discharge from the treatment plant. Since effluent flows will not be significantly different from influent flows, the single flow measurement device will be used for the recording and reporting of both influent and effluent flows. Reported effluent/influent flows will be used to monitor compliance with the effluent flow limitation/hydraulic loading to the plant.
- h/ - "RESERVED" (this to be used for all lagoons and mechanical plants with influent and effluent monitoring devices)
- i/ - If visible sheen is noted, a grab sample shall be collected and analyzed for oil and grease. The results are to be reported on the DMR under parameter 03582.
- j/ - When the measurement frequency indicated is quarterly, samples may be collected at any time during the calendar quarter, with the results being reported on the monthly DMR corresponding to the last month of the quarter (March, June, September or December). If the discharge is intermittent, samples must be collected during the period when discharge occurs.
- k/ - "(PD)" means potentially dissolved as defined in the Basic Standards and Methodologies [31.5(22)]. The selection of the sample preparation procedures (e.g., potentially dissolved) used in this permit was based on acceptable procedures that would best approximate the species of metal that was used in establishing water quality criteria for this metal in the receiving water. If there is a change in the species of metal upon which the water quality criterion is based and/or if a more appropriate sample preparation procedure is developed and it is acceptable to the division, the permittee may request that the permit be reopened to propose the appropriate modifications of the effluent limitations and self-monitoring requirements. Modifications of the permit will be in accordance with the requirements of 40 CFR, Part 124.
- l/ - Metals and phenols must be analyzed by methods capable of producing calculated method detection limits equal to or less than the values listed below. In the calculation of average concentrations of metals, those analytical results that are less than the method detection limit shall be considered to be zero for calculation purposes. If all individual analytical results that would be used in the calculations are below the method detection limit, then "less than x", where x is the method detection limit, shall be reported on the monthly DMR. Otherwise, report the calculated value.

<u>Effluent Characteristic</u>	<u>Method Detection Limits, ug/l</u>
Arsenic	10
Cadmium	0.5
Chromium	10
Chromium, Hexavalent	10
Copper	5
Lead	5
Mercury	0.003
Nickel	20
Phenols	50
Selenium	10
Silver	0.2
Zinc	10

If during the life of this permit, the Division considers the use of analytical procedures capable of producing lower method detection limits to be appropriate for any of the above pollutants, this permit may be amended, in accordance with the Colorado Discharge Permit System Regulations (5 CCR 1002-61), in order to modify the method detection limits listed above.

- m/ - Metals concentrations measured in compliance with the effluent monitoring requirements listed in Part I.B.2. of this permit may be used to satisfy any pretreatment or industrial waste management metals monitoring requirements listed in Part I.A.8., with the potentially dissolved, dissolved, or total recoverable concentrations, as specified in Part I.B.2., being substituted for the total metals concentrations specified in Part I.A.8. However, the special sampling procedures (e.g. 24-hour composite samples) specified in Part I.A.8. must be followed. For hexavalent chromium, special provisions apply - see footnote n/.
- n/ - For hexavalent chromium, samples must be un-acidified to prevent conversion of the trivalent species to the hexavalent species. Accordingly, dissolved concentrations will be measured rather than potentially dissolved concentrations. In addition, the holding time must be under 24-hours. If performing 24-hour composite sampling for dissolved hexavalent chromium, the sample must be refrigerated during collection and laboratory analysis of the sample must begin within 2 hours after the last aliquot is collected.
- o/ - Due to the fact that there is no reliable method of measuring free cyanide in a chlorinated effluent, the American Society for Testing and Materials (ASTM) analytical procedure D2036-91, Method C, which detects weak acid dissociable cyanides, shall be the analytical procedure used. The lower method detection limit for the analysis described above must be at least as low as 0.030 mg/l. In the calculation of average concentrations of cyanide, those analytical results that are less than the method detection limit shall be considered to be zero for calculation purposes. If all individual analytical results that would be used in the calculations are below the method detection limit, then "less than x ", where x is the method detection limit, shall be reported on the monthly DMR. Otherwise, report the calculated value.

PART I

C. ADDITIONAL MONITORING REQUIREMENTS

1. 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.

2. 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.

3. Analytical and Sampling Methods for Monitoring

The permittee shall install, calibrate, use and maintain monitoring methods and equipment, including biological and indicated pollutant monitoring methods. Analytical and sampling methods utilized by the discharger shall be approved methods as defined by the Regulations for Effluent Limitations (5 CCR 1002-62, 62.5), Federal regulations (40 CFR 136) and any other applicable State or Federal regulations.

When requested in writing, the Water Quality Control Division may approve an alternative analytical procedure or any significant modification to an approved procedure.

4. 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.
- 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.

5. Additional Monitoring by Permittee

If the permittee, using the approved analytical methods, 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 or other forms as required by the division. Such increased frequency shall also be indicated.

PART I

C. ADDITIONAL MONITORING REQUIREMENTS

6. Flow Measuring Devices

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. 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 entering the facility.

D. REPORTING

1. Signatory Requirements

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:

- a. In the case of corporations, by a principal executive officer of at least the level of vice-president or his or her duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge described in the form originates;
- b. In the case of a partnership, by a general partner;
- c. In the case of a sole proprietorship, by the proprietor;
- d. In the case of a municipal, state, or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

The permittee shall make 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".

2. Monthly Reports

Monitoring results shall be summarized for each month and reported on the Discharge Monitoring Report forms (EPA forms 3320-1). One form shall be mailed to the Water Quality Control Division, as indicated below, so that the DMR is received no later than the 28th day of the following month. If no discharge occurs during the reporting period, "No Discharge" shall be reported.

PART I

C. ADDITIONAL MONITORING REQUIREMENTS

The Discharge Monitoring Report forms shall be filled out accurately and completely in accordance with the requirements of this permit and the instructions on the forms, and shall be signed by an authorized person as identified in the preceding section, Part I.D.1. The Discharge Monitoring Report forms consist of four pages - the top "original" copy, and three attached no-carbon-required copies. After the DMR form has been filled out and signed, the four copies must be separated and distributed as follows.

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

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

The additional copies are for the permittee's records.

Monitoring results shall be summarized for each month and reported on the Discharge Monitoring Report forms (EPA forms 3320-1). The forms shall be mailed to the agencies listed below so that they are received by the agencies no later than the 28th day of the following month. If no discharge occurs during the reporting period, "No Discharge" shall be reported.

The Discharge Monitoring Report forms shall be filled out accurately and completely in accordance with the requirements of this permit and the instructions on the forms, and shall be signed by an authorized person as identified in the preceding section, Part I.D.1. The Discharge Monitoring Report forms consist of four pages - the top "original" copy, and three attached no-carbon-required copies. After the DMR form has been filled out and signed, the four copies must be separated and distributed as follows.

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

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

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

U. S. ENVIRONMENTAL PROTECTION AGENCY
TECHNICAL ENFORCEMENT PROGRAM 8ENF-T
OFFICE OF ENFORCEMENT, COMPLIANCE ASSISTANCE AND ENVIRONMENTAL JUSTICE
999 18th STREET SUITE 500
DENVER, CO 80202-2466

The third and fourth copies are for the permittee's records.

PART I

C. ADDITIONAL MONITORING REQUIREMENTS

3. Annual Biosolids Report

The permittee shall provide the results of all biosolids monitoring performed in accordance with Part I.B.3, 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:

WATER PROGRAM REGIONAL BIOSOLIDS PROGRAM
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION VIII, P2-W-P
999 18TH STREET, SUITE 500
DENVER, CO 80202-2466

ATTENTION: BIOSOLIDS PROGRAM MANAGER

4. Special Notifications

a. Definitions

- i. Bypass: The intentional diversion of waste streams from any portion of a domestic wastewater treatment works.
- ii. Severe Property Damage: A) Substantial physical damage to property at the treatment facilities to cause them to become inoperable, or B) substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.
- iii. Spill: An incident in which flows or solid materials are accidentally or unintentionally allowed to flow or escape so as to be lost from the domestic wastewater treatment works as defined in the Colorado Water Quality Control Act, which may cause pollution of state waters.
- iv. Upset: 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 preventive maintenance, or careless or improper operation.

PART I

C. ADDITIONAL MONITORING REQUIREMENTS

b. Noncompliance Notification

- i. If, for any reason, the permittee does not comply with or will be unable to comply with any maximum discharge limitations, standards or conditions specified in this permit, the permittee shall, at a minimum, provide the Water Quality Control Division and EPA with the following information:
 - (A) A description of the discharge and cause of noncompliance.
 - (B) The period of noncompliance, including exact dates and times and/or the anticipated time when the discharge will return to compliance; and
 - (C) Steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.
- ii. The following instances of noncompliance shall be reported orally within twenty-four (24) hours from the time the permittee becomes aware of the circumstances. A written report, containing the information requested in Part I.D.4.b(i), above, shall be mailed to the Division within five (5) working days of the time the permittee becomes aware of the circumstances.
 - (A) Any instance of noncompliance which may endanger human health or the environment, regardless of the cause for the incident.
 - (B) Any unanticipated bypass, or any upset or spill, which causes any permit limitation to be exceeded.
 - (C) Any suspected discharge of toxic pollutants or hazardous substances, which are listed in Part III. of this permit, in excess of a daily maximum limit or where there is no limit for the toxic pollutant or hazardous substance in question.
- iii. The permittee shall report all other instances of noncompliance, which are not required to be reported within twenty-four (24) hours, at the time Discharge Monitoring Reports are submitted, except as required in (iv) below. The reports shall contain the information listed in "Noncompliance Notification" (paragraph (i) above).
- iv. If the permittee knows in advance of the need for a bypass, it shall submit written notification to the division of the need for such bypass at least ten days before the date of the contemplated bypass.

c. 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 report to the division, it shall promptly submit such facts or information.

d. Compliance Schedule Notification

No later than fourteen (14) calendar days following a date identified in the compliance schedules in this permit, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

PART I

C. ADDITIONAL MONITORING REQUIREMENTS

e. Change in Discharge or Wastewater Treatment Facility

The permittee shall inform the Division (Permits Unit) in writing of any intent to construct, install, or alter any process, facility, or activity that is likely to result in a new or altered discharge either in terms of location or effluent quality prior to the occurrence of the new or altered discharge, and shall furnish the Division such plans and specifications which the Division deems reasonably necessary to evaluate the effect on the discharge and receiving stream.

Notice is required only when:

- i. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged; or
- ii. 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.

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 the Colorado Discharge Permit System Regulations, 5CCR 1002.61, Sections 61.5 through 61.6, and 61.15 prior to the date that the new or altered discharge takes place.

f. Deactivation

The permittee shall notify the Permits Unit of the Division within thirty (30) days of deactivation of the permitted facility. Deactivation includes ceasing operation of the facility, ceasing all discharges to State Waters for the remaining term of the existing permit and/or the connection to another wastewater treatment facility.

PART II

A. MANAGEMENT REQUIREMENTS AND RESPONSIBILITIES

1. Bypass

- a. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure optimal operation. These bypasses are not subject to the provisions noted in item b., below. Division notification is not required.
- b. A bypass which causes effluent limitations to be exceeded is prohibited, and the division may take enforcement action against a permittee for such a bypass, unless:
 - i. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - ii. There were no feasible alternatives to the 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 the permittee could have installed adequate backup equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and
 - iii. The permittee submitted notices as required in "Non-Compliance Notification," Part I, Section D

2. Upsets

a. 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.

b. 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;
- ii. The permitted facility was at the time being properly operated and maintained; and
- iii. The permittee submitted notice of the upset as required in Part I, Section C of this permit (24-hour notice).
- iv. The permittee took all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

PART II

A. MANAGEMENT REQUIREMENTS AND RESPONSIBILITIES

2. Upsets (Continued)

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

c. Burden of proof

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

3. 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 this permit, control sources of wastewater, or all discharges, or both 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.

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

4. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the State.

For all domestic wastewater treatment works, the permittee shall dispose of sludge in accordance with State and Federal regulations.

5. Minimization of Adverse Impacts

The permittee shall take all reasonable steps to minimize or prevent any discharge or 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 of the influent or effluent will be required to determine the nature and impact of noncompliance.

6. Discharge Point

Any discharge to the waters of the State from a point source other than specifically authorized herein is prohibited.

7. Inspections and Right to Entry

The permittee shall allow the Director of the Division, and/or authorized representatives, 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;

PART II

A. MANAGEMENT REQUIREMENTS AND RESPONSIBILITIES

7. Inspections and Right to Entry (Continued)

- b. At reasonable times to have access to inspect 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 noncompliance with any 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 persons having any 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.

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.

- d. The Division shall split samples taken by the Division during any investigation with the permittee if requested to do so by the permittee.

8. 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.

9. 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)(b), 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 Regional Administrator.

As required by the Federal Clean Water Act, effluent data shall not be considered confidential. Knowingly making any 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.

10. Transfer of Ownership or Control

A permit may be transferred to a new permittee only upon the completion of the following:

- a. The current permittee notifies the division in writing 30 days in advance of the proposed transfer date;
- b. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage and liability between them; and

PART II

A. MANAGEMENT REQUIREMENTS AND RESPONSIBILITIES

10. Transfer of Ownership or Control (Continued)

- c. The Division does not notify the existing permittee and the proposed new permittee of its intent to modify, or revoke and reissue, the permit.
- d. Fee requirements of the Colorado Discharge Permit System Regulations, Section 61.15 have been met.

11. Contract Requirements

The permittee shall include pertinent terms and conditions of this permit in all contracts for receipt by the permittee of any effluent not required to be received by the permittee.

B. ADDITIONAL CONDITIONS

1. 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.

2. Civil and Criminal Liability

Except as provided in Part I, Section C and Part II, Section A, nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance (See 40 CFR 122.41).

3. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibility, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Clean Water Act.

4. Division Emergency Power

Nothing in this permit shall be construed to prevent or limit application of any emergency power of the division.

5. Severability

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

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 under Section 311 (Oil and Hazardous Substance Liability) of the Clean Water Act, except as recognized by federal law.

PART II

B. ADDITIONAL CONDITIONS (CONTINUED)

7. Property Rights

The issuance of this permit does not convey any property or water rights in either real or personal property or stream flow or any exclusive privileges, nor does it authorize any injury to private property, any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

8. Modification, Suspension, or Revocation of Permit

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

All permit modification, termination or revocation and reissuance actions shall be subject to the requirements of the Colorado Discharge Permit System Regulations, Sections 61.5 (2&3), 61.6, 61.7 and 61.15 except for minor modifications.

- a. This 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 of the permit; or
 - 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:
 - 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 general permits, this cause includes information indicating that cumulative effects on the environment are unacceptable. For permits issued to new sources or new dischargers, this cause includes information derived from effluent testing required under Section 61.4 (7(e)). 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.
 - 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:

PART II

B. ADDITIONAL CONDITIONS

8. Modification, Suspension, or Revocation of Permit (Continued)

- (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 1002-63, Regulation No. 63, 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 as required in the Colorado Discharge Permit System Regulations 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) 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. The permittee has received a variance.
 - vi. When required to incorporate applicable toxic effluent limitation or standards adopted pursuant to ' 307(a) of the Federal act.
 - vii. When required by the reopener conditions in the permit.
 - viii. As necessary under 40 C.F.R. 403.8(e), to include a compliance schedule for the development of a pretreatment program.
 - ix. 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.
 - x. To establish a pollutant notification level required in Section 61.8 (5) of the Colorado Discharge Permit System Regulations.
 - xi. 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 Discharge Permit System Regulations.
 - xii. 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.
 - xiii. For any other cause provided in Section 61.10 of the Colorado Discharge Permit System Regulations.

PART II

B. ADDITIONAL CONDITIONS

8. Modification, Suspension, or Revocation of Permit (Continued)

- c. Any condition set forth in the approval of the site location may become a condition of the permit, if so identified. Any site approval condition that is included in this permit pursuant to these regulations shall only be subject to enforcement through the Colorado Water Quality Control Act, C.R.S. 25-8-101, et seq.
- d. 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) 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.
- e. Permit modification (except for minor modifications), termination or revocation and reissuance actions shall be subject to the requirements of Sections 61.5 (2&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 modifications requests, within 180 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&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 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

PART II

B. ADDITIONAL CONDITIONS

8. Modification, Suspension, or Revocation of Permit (Continued)

- 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; or
- vii. Incorporating conditions of a POTW pretreatment program that has been approved in accordance with the procedures in 40 C.F.R. 403.11 (or a modification thereto that has been approved in accordance with the procedures in 40 C.F.R. 403.18) as enforceable conditions of the POTW's permits.
- g. When the permit is modified, only the conditions subject to modification are reopened. If the 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.

All permit modifications and reissuances are subject to the antibacksliding provisions set forth in 61.10 (e) through (g) of the Colorado Discharge Permit System Regulations.

9. Permit Renewal Application

If the permittee desires to continue to discharge, a permit renewal application shall be submitted at least one hundred eighty (180) days before this permit expires. If the permittee anticipates there will be no discharge after the expiration date of this permit, the division must be promptly notified so that it can terminate the permit in accordance with Part II Section B.8.

10. Confidentiality

Any information relating to any secret process, method of manufacture or production, or sales or marketing data, 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 (10) 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 an annual fee as set forth in the 1998 amendments to the Water Quality Control Act, Section 25-8-502 (l) (b), and the Colorado Discharge Permit System Regulations 5CCR 1002-61, Section 61.15 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 25-8-601 et. seq., C.R.S. 1973 as amended.

PART III

CATEGORICAL INDUSTRIES

Aluminum Forming	Meat Products
Asbestos Manufacturing	Metal Finishing
Battery Manufacturing	Metal Molding and Casting (Foundries)
Builders' Paper and Board Mills	Mineral Mining and Processing
Canned & Preserved Fruits and Vegetables Processing	Nonferrous Metals Manufacturing
Canned & Preserved Seafood Processing	Nonferrous Metals Forming and Metal Powders
Carbon Black Manufacturing	Oil and Gas Extraction
Cement Manufacturing	Organic Chemicals, Plastics, and Synthetic Fibers
Coal Mining	Ore Mining and Dressing
Coil Coating	Paint Formulation
Copper Forming	Paving and Roofing Materials (Tars and Asphalt)
Dairy Products Processing	Pesticide Chemicals
Electrical and Electronic Components	Petroleum Refining
Electroplating	Pharmaceutical Manufacturing
Explosives Manufacturing	Phosphate Manufacturing
Feedlots	Photographic
Ferroalloy Manufacturing	Plastics Molding and Forming
Fertilizer Manufacturing	Porcelain Enameling
Glass Manufacturing	Pulp, Paper, and Paperboard Manufacturing
Grain Mills	Rubber Manufacturing
Gum and Wood Chemicals Manufacturing	Soap and Detergent Manufacturing
Hospital	Steam Electric Power Generating
Ink Formulation	Sugar Processing
Inorganic Chemicals Manufacturing	Textile Mills
Iron and Steel Manufacturing	Timber Products Processing
Leather Tanning and Finishing	

PRIORITY POLLUTANTS AND HAZARDOUS SUBSTANCES

ORGANIC TOXIC POLLUTANTS IN EACH OF FOUR FRACTIONS
IN ANALYSIS BY GAS CHROMATOGRAPHY/MASS SPECTROSCOPY (GC/MS)

Volatiles

acrolein
acrylonitrile
benzene
bromoform
carbon tetrachloride
chlorobenzene
chlorodibromomethane
chloroethane
2-chloroethylvinyl ether
chloroform
dichlorobromomethane
1,1-dichlorethane
1,2-dichlorethane
1,1-dichlorethylene
1,2-dichloropropane
1,3-dichloropropylene
ethylbenzene
methyl bromide
methyl chloride
methylene chloride

Base/Neutral

acenaphthene
acenaphthylene
anthracene
benzidine
benzo(a)anthracene
benzo(a)pyrene
3,4-benzofluoranthene
benzo(ghi)perylene
benzo(k)fluoranthene
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
bis(2-chloroisopropyl)ether
bis(2-ethylhexyl)phthalate
4-bromophenyl phenyl ether
butylbenzyl phthalate
2-chloronaphthalene
4-chlorophenyl phenyl ether
chrysene
dibenzo(a,h)anthracene
1,2-dichlorobenzene

Acid Compounds

2-chlorophenol
2,4-dichlorophenol
2,4,-dimethylphenol
4,6-dinitro-o-cresol
2,4-dinitrophenol
2-nitrophenol
4-nitrophenol
p-chloro-m-cresol
pentachlorophenol
phenol
2,4,6-trichlorophenol

Pesticides

aldrin
alpha-BHC
beta-BHC
gamma-BHC
delta-BHC
chlordane
4,4'-DDT
4,4'-DDE
4,4'-DDD
dieldrin
alpha-endosulfan
beta-endosulfan
endosulfan sulfate
endrin
endrin aldehyde
heptachlor
heptachlor epoxide
PCB-1242
PCB-1254
PCB-1221

PRIORITY POLLUTANTS AND HAZARDOUS SUBSTANCES
ORGANIC TOXIC POLLUTANTS IN EACH OF FOUR FRACTIONS
IN ANALYSIS BY GAS CHROMATOGRAPHY/MASS SPECTROSCOPY (GC/MS)

<u>Volatiles</u>	<u>Base/Neutral</u>	<u>Acid Compounds</u>	<u>Pesticides</u>
1,1,2,2-tetrachloroethane	1,3-dichlorobenzene		PCB-1232
tetrachloroethylene	1,4-dichlorobenzene		PCB-1248
toluene	3,3-dichlorobenzidine		PCB-1260
1,2-trans-dichloroethylene	diethyl phthalate		PCB-1016
1,1,1-trichloroethane	dimethyl phthalate		toxaphene
1,1,2-trichloroethane	di-n-butyl phthalate		
trichloroethylene	2,4-dinitrotoluene		
vinyl chloride	2,6-dinitrotoluene		
	di-n-octyl phthalate		
	1,2-diphenylhydrazine (as azobenzene)		
	fluorene		
	fluoranthene		
	hexachlorobenzene		
	hexachlorobutadiene		
	hexachlorocyclopentadiene		
	hexachloroethane		
	indeno(1,2,3-cd)pyrene		
	isophorone		
	naphthalene		
	nitrobenzene		
	N-nitrosodimethylamine		
	N-nitrosodi-n-propylamine		
	N-nitrosodiphenylamine		
	phenanthrene		
	pyrene		
	1,2,4-trichlorobenzene		

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
Total Recoverable Thallium, mg/
Silver, Total
Thallium, Total
Zinc, Total
Cyanide, Total
Phenols, Total

TOXIC POLLUTANTS AND HAZARDOUS SUBSTANCES
REQUIRED TO BE IDENTIFIED BY EXISTING DISCHARGERS
IF EXPECTED TO BE PRESENT

Toxic Pollutants

Asbestos

Hazardous Substances

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