



Public Service®

Public Service  
Company of Colorado  
P.O. Box 840  
Denver, CO 80201-0840

16805 WCR 19 1/2; Platteville, Colorado 80651

March 17, 1993  
Fort St. Vrain  
Unit No. 1  
P-93029

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 20555

Docket No. 50-267

SUBJECT: Submittal of the Renewed NPDES Permit for Fort St.  
Vrain Station

REFERENCE: PSC Letter, Warembourg to NRC Document Control Desk,  
dated October 15, 1992 (P-92292)

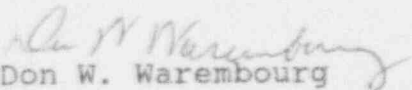
Gentlemen:

The purpose of this letter is to submit to the NRC the recent renewal of the Fort St. Vrain (FSV) Station Wastewater Discharge Permit, CO-0001121, issued by the Colorado Department of Health (CDH) on February 19, 1993. This is the National Pollutant Discharge Elimination System (NPDES) permit for liquid effluent discharges from FSV.

The Referenced letter submitted changes to the permit which were proposed by Public Service Company of Colorado in the permit renewal process. A copy of the renewed permit is attached for your information, in accordance with the requirements of Section 3.2.c of the FSV Non-Radiological Technical Specifications, Appendix B to the FSV Facility Licence. The renewed permit will become effective on April 1, 1993 and will expire on January 31, 1998.

If you have any questions regarding the attached information, please contact Mr. M. H. Holmes at (303) 620-1701.

Sincerely,

  
Don W. Warembourg  
Decommissioning Program Director

DWW/JRJ  
Attachment

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PDR ADOCK 05000267  
PDR PDR

NK10

P-93029  
March 17, 1993  
Page 2

cc: John H. Austin, Chief  
Decommissioning and Regulatory Issues Branch

Regional Administrator, Region IV

Mr. Ramon E. Hall, Director  
Uranium Recovery Field Office

Mr. Robert M. Quillin, Director  
Radiation Control Division  
Colorado Department of Health

# STATE OF COLORADO

## COLORADO DEPARTMENT OF HEALTH

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

4300 Cherry Creek Dr. S.

Denver, Colorado 80222-1530

Phone: (303) 692-2000

Laboratory Building

4210 E. 11th Avenue

Denver, Colorado 80220-3716

(303) 691-4700



Roy Roman  
Governor

Patricia A. Nolan, MD, MPH  
Executive Director

February 19, 1993

Louise Meyerkord, Unit Manager  
Public Service Company of Colorado  
P.O. Box 840  
Denver, CO 80201

CERTIFIED MAIL NO: P 784 031 982

RE: Final Permit, Colorado Wastewater Discharge Permit System  
Number: CO- 0001121 - PUBLIC SERVICE COMPANY OF COLORADO

Gentlemen:

Enclosed please find a copy of the permit which 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 this office at 692-3590.

Sincerely,

Robert J. Shukle, Chief  
Permits and Enforcement Section  
Water Quality Control Division

cc: Permits Section, Environmental Protection Agency  
Regional Council of Government  
Local County Health Department  
District Engineer, Field Support Section, WQCD  
Derald Lang, Field Support Section, WQCD  
Ginny Torrez/Anne Ihlenfeldt, Permits and Enforcement Section, WQCD  
Permit Drafters, Permits and Enforcement Section, WQCD

RJS/lg

Enclosure

RECEIVED

FEB 25 1993

RATIONALE

PUBLIC SERVICE COMPANY OF COLORADO  
FORT ST. VRAIN STATION

FACILITY NUMBER: CO-0001121, WELD COUNTY

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- I. TYPE OF PERMIT: Industrial - 3rd Renewal
- II. FACILITY INFORMATION:
- A. Facility Type and Fee Category: Category 8, Subcategory 4 - Power Plants: Process Water from 1.0 to 4.999 MGD - Current fee \$4568 per year for the process related permit; and Category 24, Subcategory 2 - Individual Industrial Storm Water Permits: Ten Acres or More - Current fee \$300/year per CRS 25-8-502. Total fee = \$4868/year.
- B. SIC No.: 4911 (Electric Services)
- C. Legal Contact: Louise Meyerkord, Unit Manager, Environmental Programs,  
Public Service Company of Colorado  
P.O. Box 840  
(1225 17th Street, Suite 2000)  
Denver, CO 80201  
(303)+294-2814
- D. Facility Contacts: Louise Meyerkord, Unit Manager, Environmental Programs, Public Service Company of Colorado  
(303)+294-2814  
  
Don Warembourg, Decommissioning Program Director  
PSC Fort St. Vrain Station  
(303)+620-1009
- E. Facility Location: The Public Service Company Fort Saint Vrain Station is located approximately 3.5 miles northwest of Platteville, Colorado in Section 3, T3N, R67W; and Sections 34 and 35, T4N, R67W; 6th Principal Meridian, as shown in figure 1 and 2 of the permit.



II. FACILITY INFORMATION: (Continued)

F. Process Water  
Discharge Points:

Outfall 001 - the discharge of service water cooling tower blowdown, treated domestic wastewater, turbine building sump waters, reactor building sump waters, prestressed concrete reactor vessel (PCRV) shield water, bypass water, and storm water runoff from the north yard drain and the south yard drain. The discharge goes to Goosequill Ditch, then to Jay Thomas Ditch, to a farm pond, and finally to a ditch to the South Platte River, as shown in figure 3 of the permit. This outfall is subdivided into 001A and 001B, as described below. Also, see page 7 of this rationale for further discussion on the PCRV discharge source.

Outfall 001A - the outfall 001 overflow from the farm pond at the Parshall flume, which is prior to entering the South Platte River, as shown in figure 3 of the permit.

Outfall 001B - the outfall 001 discharge at the Parshall flume in the Goosequill Ditch Stub located near the diversion box that receives the various waste flows, as shown in figure 3 of the permit. This discharge does not include water from the Goosequill Ditch or the Jay Thomas Ditch.

Outfall 002 - the alternate discharge for outfall 001B during times of ditch maintenance, located at the Parshall flume in the drainage slough, which does not include water from the Jay Thomas Ditch, and which is prior to entering St. Vrain Creek, as shown in figure 3.

Outfall 003 - the discharge from the trash screens at the water supply intake from the South Platte River, which is prior to entering the South Platte River, as shown in figure 3.

Outfall 004 - the discharge from the trash screens at the water supply intake from St. Vrain Creek, which is prior to entering St. Vrain Creek, as shown in figure 3.

Outfall 005 - the discharge of excess water from the settling pond for the intake water from St. Vrain Creek, which is prior to entering St. Vrain Creek, as shown in figure 3.

Outfall 006 - the internal discharge from the turbine building drain at the end of the 24-inch pipe (unless otherwise noted), which is prior to mixing with other waters, as shown in figure 4.

F. Discharge Points:  
(Cont.)

Outfall 007 - the internal discharge from the domestic sewage treatment system from the last treatment unit, prior to mixing with other waters, as shown in figure 4.

Also, there is a radioactivity assessment monitoring point located in the South Platte River at the Milliken Bridge, as shown in figure 1 (labelled 008). This monitoring station is not covered under this discharge permit.

G. Facility Flows:

The following flows were indicated in the most recent permit application (October 1990) or in later submittals for the application (October 27, 1992) as the average and maximum flows for the discharges:

Outfall 001A - 2.065 MGD (average facility flow)  
                  001A - 3.7 MGD (maximum flow)  
Outfall 001B - Same flows as 001A (assumed)  
Outfall 002 (Alternate for 001B) - Same flows as 001A (assumed)  
Outfall 003 - 42 gpm (avg); 140 gpm (max.)  
Outfall 004 - 42 gpm (avg); 140 gpm (max.)  
Outfall 005 - (No historical data available)  
Outfall 007 - 0.0030 MGD (average estimate)

In addition, the recent discharge data from 1991 through July 1992 indicates the following reported monthly average and maximum values:

2.608 MGD - mean of the average flows (001B)  
3.355 MGD - highest average facility flow (001B)  
4.70 MGD - maximum flow (001B)  
2.016 MGD - mean of the average flows (002)  
2.15 MGD - highest average facility flow (002)  
3.13 MGD - maximum flow (002)  
No Flow Data reported for the other outfalls.

The above information for 001A, 001B and 002 did not include the later estimated flows from the PCRV system (0.0144 MGD), and included the contributing water source from the main cooling tower blowdown (which was estimated to be 1.1 MGD). Since the time of the above data, the main cooling tower has been taken out of service and its water flow no longer exists. Thus, the estimate of discharge flows for 001A/001B/002 is now revised to: 2.0794 MGD (or 3.22 cfs) average flow, and 2.6144 MGD (or 4.05 cfs) maximum flow.

III. RECEIVING STREAM:

A. Identification, Classification and Standards

1. Identification: The discharges go to the following streams:  
outfalls 001A and 003 go to the South Platte River (segment 1,

1. Identification: (Continued) Middle South Platte River subbasin); 001B is located in the Goosequill Ditch Stub, which then goes to Goosequill Ditch, which is tributary to the South Platte River (Goosequill Ditch is in segment 3, Middle South Platte River subbasin); 002, 004, and 005 go to St. Vrain Creek (segment 3, St. Vrain Creek subbasin). All these receiving streams are in Region 2 of the South Platte River (or Regions 2 and 3 for St. Vrain Creek). See figure 3 of the permit for the location of the South Platte River, Goosequill Ditch, St. Vrain Creek, and other ditches and streams in the vicinity.
2. Classification: Segments 1 and 3 (of the Middle South Platte River subbasin) are each classified for the following uses: Use Protected, Recreation, Class 2; Aquatic Life, Class 2 (Warm); Agriculture. Segment 3 (Saint Vrain Creek) is classified as: Use Protected, Recreation, Class 2; Aquatic Life, Class 1 (Warm); and Agriculture.
3. Numeric Standards: The complete list of standards for segments 1 and 3 which have been assigned in accordance with the above classifications can be found in 3.2.0 Classifications and Numeric Standards for the South Platte River Basin (5 CCR 1002-8), as amended June 2, 1992. Also, basic standards for all state waters are indicated in the Basic Standards and Methodologies for Surface Water (3.1.0; see reference A). The water quality standards which have been included in this permit are as follows:

pH, standard units	Dissolved Zinc, mg/l
Total Residual Chlorine, mg/l	Total Ammonia, mg/l as N
Dissolved Chromium, mg/l	Total Phosphorus, mg/l as P
Total Recoverable Iron, mg/l	
Temperature, degrees F (from the Basic Standards)	

B. Receiving Water Data

1. Stream Low Flow: The flows which are used to calculate effluent limitations are acute flows, those that occur for one day every three years (1E3), or chronic, those that occur for thirty days every three years (30E3). These flows have been determined by the Water Quality Control Division for the South Platte River and St. Vrain Creek in the vicinity above the facility discharge points, and are as follows below.

	Type	Flow
<u>South Platte River</u>	Acute (1E3) Annual Flow	50 cfs (32.3 MGD)
	Chronic (30E3) Annual Flow	118 cfs (76 MGD)
<u>St. Vrain Creek</u>	Acute (1E3) Annual Flow	68 cfs (44 MGD)
	Chronic (30E3) Annual Flow	68 cfs (44 MGD)

2. Impacts on Downstream Water Supplies: There are no known surface water supply intakes located within 5 miles downstream on the South Platte River or Saint Vrain Creek from this facility. With compliance of permit limitations, the Fort St. Vrain facility discharge should not impact downstream classified water uses in segments 1 or 3.

#### IV. FACILITY DESCRIPTION

##### A. Industry Description:

This facility is a nuclear power plant located near Platteville, Colorado which is being decommissioned. When previously in operation, the principal product was electricity, and the plant was designed to generate 330 megawatts (MW) of electricity. There is and will be no generation of power during decommissioning.

In July 1965, contracts were signed between General Atomic Company, Public Service Company of Colorado, and the U.S. Atomic Energy Commission (AEC) to construct a 330 MW(e) demonstration High Temperature Gas-Cooled Reactor plant (HTGR), later named Fort St. Vrain. In September 1968, a construction permit was granted by the AEC and construction was begun. Initial criticality was achieved on January 31, 1974, after a series of technical and regulatory delays. Initial electrical power production occurred on December 11, 1976, when the turbine generator was synchronized with the PSC transmission system for the first time. One hundred percent power was reached, for the first and only time, in November 1981.

On December 5, 1988, Public Service Company announced that, because of financial and technical reasons, the Fort St. Vrain Station would be permanently shut down on or before June 30, 1990. On August 18, 1989, the plant was shut down to repair a control rod malfunction. Approximately one week later, a leak was discovered in an accessible portion of one of the plant's steam generators. Efforts to repair the leak revealed a large number of cracks. Because of the time required for the repair effort and the possibility that the cracking problem extended to other portions of the steam generators, nuclear operations were terminated at the plant as of August 29, 1989.

On November 27, 1989, the first radioactive fuel elements were removed from the reactor to the on-site fuel storage wells pending an agreement with the State of Idaho to permit shipment of Fort St. Vrain Station's spent fuel to the Idaho National Engineering Laboratory per an existing contract. During 1992, all of the fuel in the reactor core has been transferred to either the on-site Independent Spent Fuel Storage Installation (ISFSI) or to a permanent disposal site. For further details, refer to the discussion of Hazardous Waste Disposal in this rationale (page 7). After decommissioning is complete, the plant will probably be converted to a gas-fired electric generation facility.

Facility Processes: Besides the dismantling of radioactive materials at this site, most of the other processes remain the same as described in the previous rationale. However, two processes have changed or will be changed: the demineralizer and regeneration systems and the condensate system. During the decommissioning of the Fort St. Vrain Station, the need for the condensate polishers and makeup demineralizer units has been curtailed. The makeup demineralizer units are not in operation and the resin has been removed. The condensate polishers are presently not in use and are being maintained in standby condition for use if the need arises. However, use of the polishers during decommissioning is not anticipated and the removal of the polisher resin is currently scheduled for mid-1993.

Facility Processes: (Cont.) A mobile deionizer is presently being used for generation of plant deionized water. The neutralizing sump is in service and will remain so during decommissioning to collect any liquids from the demineralizer room floor drains. The condensate system is to remain in service through the entire decommissioning period, which is scheduled to be completed during 1995.

It should be noted that this permit will be expiring during 1997, which is after the scheduled completion of the decommissioning project. Thus, Public Service Company will need to inform the Division of any additional changes to the facility and discharges related to decommissioning or recommencement of operation which will be impacting this permit; this will be handled as a later amendment to the permit.

Contributing Sources: Contributing wastewater sources (and their estimated average flows) entering outfall 001 include: service water cooling tower blowdown (0.025 MGD) via the north yard drain; domestic wastewater (0.003 MGD) via the north yard drain; turbine building sump (0.03 MGD) via the south yard drain; reactor building sump (0.007 MGD) via the north yard drain; the Prestressed Concrete Reactor Vessel (PCR/V) Shielding Water System (0.0144 MGD) via the north yard drain; and bypass water from the intake water sedimentation ponds (2.16 MGD) via the north yard drain. In the renewal application, the total contributing flows to 001a were indicated as 2.065 MGD (average) and 3.7 MGD (maximum). With the later addition of the PCR/V water source and the deletion of the main cooling tower blowdown source, the Division assumes that the total contributing flows are now 2.24 MGD (average) and 2.96 MGD (maximum). During 1992, the main cooling tower was taken out of service and has no associated wastewater stream (the original cooling tower blowdown via the north yard drain was estimated as 1.1 MGD). At this time, the main cooling tower will probably not be put back into service until 3 to 5 years later. No changes in the volumes of the discharges from the turbine building sump are anticipated during the decommissioning period.

For the description of each discharge point for this facility, refer to the previous discussion in Section II.F. on pages 2 and 3 of this rationale. The discharge flows are in Section II.G. on page 3.

Site Hydrogeology: The following information in this section has been submitted by the permittee. The Fort St. Vrain Station site is located between the South Platte River and the St. Vrain Creek approximately two miles south of the confluence of these two waterways. Surface water rights are owned in four ditches that transverse portions of the site area. In addition, 19 shallow wells are located on the site area.

The flow of groundwater on the site is toward the alluvial deposits of both the South Platte River and the St. Vrain Creek. The contours of the water table indicate that the flow of groundwater is predominantly toward the South Platte River valley.

The surface and shallow subsurface geology in the vicinity of the site is Quaternary (less than or equal to 1.6 million years) medium to coarse-grained sand interbedded with coarse to very coarse gravel. These alluvial deposits above bedrock may be as much as 76 feet thick. These unconsolidated sediments were deposited by the South Platte River and its tributaries and are underlain by Tertiary (1.6-72 million years)



Site Hydrogeology: (Continued) and Cretaceous (72 to 144 million years) sedimentary rocks. The Tertiary Denver Formation is the uppermost bedrock unit in the area and is composed of interbedded clay, shale, and carbonaceous siltstone, with local sandstone and conglomerate layers. The underlying Cretaceous Arapahoe Formation is composed of clayey shale and sandstone.

The depth to static groundwater in the unconfined shallow water table aquifer below the site is in the range of 29 to 32 feet. Based on static water levels obtained during groundwater sampling events in November 1990 and January 1991, the groundwater horizontal gradient estimated from the water table contour maps ranges from 0.008 to 0.01 feet/feet. Data collected during slug tests conducted at the site indicate hydraulic conductivity values for the shallow aquifer of approximately  $2.1 \times 10^{-2}$  cm/sec (or about 60 ft/day). This permeability estimate is consistent with the lower end of the range of hydraulic conductivities reported for alluvial deposits of St. Vrain Creek and the South Platte River.

Based on these estimates of hydraulic conductivity, the hydraulic gradient and the formation porosity value of 38 percent estimated for the site, the average interstitial groundwater velocity across the site has been calculated to be approximately 1.5 feet per day.

Materials Containment: Containment berms are present for all above ground bulk storage tanks (four 500 gallon fuel tanks; one 5000 gallon tanker for waste oil), with the exception of a 10,000 gallon sulfuric acid storage tank, which is not being used. Although the ground below this sulfuric acid tank is covered with lime rock, prior to use this tank should be properly bermed to ensure that no spills can escape from the area. Other chemical storage areas within buildings have containment measures present. An updated Materials Containment Plan is planned to be submitted soon. A sump is associated with one buried 20,000 gallon diesel storage tank which is used for the auxiliary boilers, and which is located close to one of the yard drains. Water from this sump is collected and disposed of by CSI. One 10,000 gallon diesel storage tank is also present; this fuel is used for emergency generator(s). One new 20,000 gallon underground storage tank was installed in 1992 as a replacement for three older underground tanks.

Solid Waste Disposal: According to Public Service Company, all solid wastes are disposed in accordance with all pertinent federal, state and local regulations. At this time, non-hazardous wastes are sent to the Weld County landfill near Greeley, or are disposed by CSI if they do not qualify to be sent to landfills. At this time, non-contaminated non-hazardous waste oils are sent for recycling as a fuel blend via Tri State. Scrap metal is sold for recycling. Septic tanks are pumped out and taken to the St. Vrain Sanitation District.

Hazardous Waste Disposal: Various types of hazardous wastes are generated at the Fort St. Vrain Station. According to Public Service Company, all of these wastes are disposed through RCRA-permitted Treatment/Storage/Disposal facilities, which include, but are not limited to: OSCO (for waste solvents), U.S. Pollution Control, Inc. (dry cell mercury batteries), ENSCO, APTUS (PCBs and other incinerables), CSI or DADS (nonhazardous wastes, such as oily debris and rags). Radioactive wastes (ion exchange resin wastes) have been



Hazardous Waste Disposal: (Cont.) disposed via a contract with Westinghouse to Beatty, NV by US Ecology. The low level radioactive wastes eventually will be shipped to Hanford, WA or Barnwell, NC. High level radioactive wastes have been sent to the Idaho National Engineering Laboratory. A modular vault dry storage facility (ISFSI, or Independent Spent Fuel Storage Installation) has been constructed on site for long term storage of spent radioactive fuel.

B. Wastewater Treatment Facility Description:

The decommissioning activities at the Fort St. Vrain Station includes the dismantling and decontamination of the reactor vessel. The Prestressed Concrete Reactor Vessel (PCRVR) Shielding Water System will be utilized during the dismantlement of the core to provide shielding to personnel and to maintain water clarity. The system includes clarifying pumps, roughing cation demineralizers, cation polishing demineralizers, and a chemical feed system. Sodium nitrite, sodium hydroxide, sodium tetraborate, and hydrogen peroxide are used for control of corrosion and biological fouling. Waters from this operation will go to the PCRVR system.

Discharge from the PCRVR will be determined by the tritium concentration and would initially be less than 5 gallons per minute (gpm), and gradually be increased to 10 gpm. The discharge will be processed through the polishing demineralizers into one of two radioactive liquid waste receivers. The tank will be recirculated, sampled, analyzed, and an appropriate tank discharge rate will be determined. This water will flow from the demineralizers into the radioactive waste disposal system, enter the outlet piping of the reactor building sump, mix with dilution flow (the minimum dilution factor to be used is 110.) from the circulating water makeup pumps to the blowdown line, and subsequently be released to the Goosequill Ditch (outfall 001B) or to outfall 002.

Hydrogen peroxide will be used as necessary to prevent or minimize biological fouling. The treatment would require a concentration of 50 ppm of hydrogen peroxide. During the treatment with peroxide, the demineralizers are isolated and no discharges from the system will be permitted.

Generally, according to Public Service Company, the concentrations of the other three chemical additives associated with the PCRVR water system (sodium nitrite, sodium hydroxide, sodium tetraborate) would be undetectable in the plant effluent. However, at the minimum dilution rate, the maximum concentrations of these three chemicals in the discharge are estimated to be as follows: sodium nitrite (0.68 mg/l), sodium hydroxide (0.045 mg/l), and sodium tetraborate (0.18 mg/l).

Besides the above described four chemicals that are used associated with the decommissioning activities, there are also various chemicals that have been typically used for treatment at this facility. There are no longer any chromium-based or zinc-based chemicals in use at the plant. The following chemicals on the next page are presently used at the facility.

B. Wastewater Treatment Facility Description: (Continued)

<u>Chemical Name</u>	<u>Reason Used</u>	<u>Present in What Waste Stream</u>	<u>Final Disposition at Site</u>
Ammonium Hydroxide	pH Control in Condensate	Turbine Bldg. Sump/Reactor Bldg Sump/Demineralizer Sump	001a/001b/002 Evaporation Ponds
Sodium Hydroxide	Demin. Regen. & pH Control	Demineralizer Sump/Turbine Building Sump/Reactor Bldg Sump	Evaporation Ponds 001a or 001b
Sulfuric Acid	Demin. Regen. & pH Control	Demineralizer Sump Cooling Tower Blowdown	Evaporation Ponds 001a or 001b
Calcium Hypochlorite	Chlorination of Sewage Lagoon Effl.	Sewage Lagoon Effluent	001a or 001b
Chlorine/Bromine Powder	Biocide in 42 Sys Cooling Tower	Cooling Tower Blowdown	001a or 001b
N-Dodecylguanidine Acetate	Microbiocide	Cooling Tower Blowdown	001a or 001b
Sodium Tolytriazole (Calgon CL-5)	In Cooling Tower for Corrosion Inhibitor	Cooling Tower Blowdown	001a or 001b
Calgon PCL-711	Corrosion Inhibitor	Cooling Tower Blowdown	001a or 001b
Sodium Sulfite	Reverse Osmosis/Dechlorination	N/A	Evaporation Ponds
Mineral Oil & Kerosene	Antifoam	Cooling Tower Blowdown Turbine Building Sump	001a or 001b
Soda Ash & Citric Acid	Emergency for Spills	N/A	Evaporation Ponds
Sodium Sulfite/Sodium Metabisulfite	Oxygen Scavenger	Turbine Building Sump Reactor Building Sump	001a or 001b
Potassium Hydroxide, Sodium Polymethacrylate, Polyacrylic Copolymer	pH Control & Corrosion Inhibitor	Turbine Building Sump	001a or 001b
Trisodium Phosphate	pH Control & Corrosion Inhibitor	Turbine Building Sump	001a or 001b
Disodium Phosphate	pH Control & Corrosion Inhibitor	Turbine Building Sump	001a or 001b
Calgon CL-361	Penetrant	Cooling Tower Blowdown	001a or 001b

See figures 4 and 5 of the permit for diagrams which show the flow of water for this facility. Flow measurement is done at outfall 001b with a 24 inch Parshall flume (0.43-9.5 MGD measurement range) and at outfall 002 with a 36 inch Parshall flume (0.63-32.6 MGD). Figures 6 and 7 in the permit respectively show the facility site layout and locations of materials stored onsite.

V. PERFORMANCE HISTORY

A. Monitoring Data

1. Discharge Monitoring Reports: Tables V-1a, V-1b, V-1c, V-1d, and V-1e following summarize the effluent data reported on the Discharge Monitoring Reports (DMR's) from January 1, 1991 through July 31, 1992. The total number of reporting periods indicated below is for these 19 months of discharge. For determining the average concentrations in these tables, values below the minimum detection levels (for example, 0.02 mg/l for total chromium) were assumed to be equivalent to 0 mg/l.

1. Discharge Monitoring Reports: (Continued)

Table V-1a -- Self Monitoring Results, Discharge Point 001SA (South Platte River)

Parameter	No. of Reporting Periods	Reported Concentrations Avg ; Min / Max	Previous Permit Limit(s)	No. of Exceedances
Temperature, degrees F	19	56.3 ; 37.9 / 76.0	86	<u>b/</u> None
Tot. Res. Chlorine, mg/l	19	k0.05 ; k0.05 / k0.05	0.014	<u>b/</u> None

b/ Daily Maximum

k = less than

Table V-1b -- Self Monitoring Results, Discharge Point 001SB (Goosequill Ditch)

Parameter (mg/l)	No. of Reporting Periods	Reported Concentrations Avg ; Min / Max	Previous Permit Limit(s)	No. of Exceedances
Flow, MGD	19 **	2.608 ; 1.585 / 4.70	Report	<u>a/</u> N/A
pH, s.u.	19	N/A ; 7.8 / 9.1	6.5 - 9.0	<u>c/</u> One
Oil and Grease	19	k0.22 ; 0.3 / k5 *	10 / NVS	<u>b/</u> None
Total Susp. Solids, Net	19	k5.6 ; k4 / 43	30/100	<u>a/</u> One
Total Susp. Solids (Effl.)	19	22.5 ; 9.2 / 55	Report	<u>a/</u> N/A
Total Chromium	19	k0.0028; k0.005/0.048	0.2/0.2	<u>a/</u> None
Total Copper	19	k0.0183; k0.005/0.075	0.118/0.240	<u>a/</u> None
Total Iron	19	0.588 ; 0.321/1.494	1.0/1.0	<u>a/</u> Two
Total Zinc	19	0.053 ; 0.009/0.275	0.66/1.0	<u>a/</u> None
Total Ammonia, as N	19	k1.1 ; k0.02/3.04	Report	<u>d/</u> N/A
Total Phosphorus, as P	19	1.2 ; 0.010/3.0	Report	<u>d/</u> N/A

a/ 30-Day Average/Daily Maximum

c/ Minimum-Maximum

b/ Daily Maximum

d/ 30-Day Average

k = less than

NVS = No Visual Sheen

\* = O&G range of values for grab samples taken contingent upon when a visual sheen was observed during 7 of the 19 reported months; the mean value was based upon 6 of these months.

\*\* = Of the 19 monthly reports, no discharge was reported for January 1991.

Table V-1c -- Self Monitoring Results, Discharge Point 002 (Saint Vrain Creek)

Parameter (mg/l)	No. of Reporting Periods	Reported Concentrations Avg ; Min / Max	Previous Permit Limit(s)	No. of Exceedances
Flow, MGD	19 **	2.016 ; 1.046 / 3.13	Report	<u>a/</u> N/A
pH, s.u.	19	N/A ; 7.8 / 8.7	6.5 - 9.0	<u>c/</u> None
Oil and Grease	19	k1.4 ; 0.98 / 5.4 *	10 / NVS	<u>b/</u> None
Total Susp. Solids, Net	19	k6.3 ; 5.2 / 21	30/100	<u>a/</u> None
Tot. Residual Chlorine	19	0.0 <u>e/</u> ; k0.01/k0.05	0.022	<u>b/</u> None

1. Discharge Monitoring Reports: (Continued)

Table V-1c -- Self Monitoring Results, Outfall 002 (Saint Vrain Creek) (Cont.)

Parameter (mg/l)	No. of Reporting Periods	Reported Concentrations Avg ; Min / Max	Previous Permit Limit(s)	No. of Exceedances
Temperature, degrees F	19	46.5 ; 37.7/58.8	86.0	b/ None
Total Chromium	19	0.0 <u>a/</u> ; k0.02/k0.025	0.2/0.2	<u>a/</u> None
Total Copper	19	0.014 ; 0.005/0.027	0.112/0.224	<u>a/</u> None
Total Iron	19	0.46 ; 0.231/0.706	1.0/1.0	<u>a/</u> None
Total Zinc	19	0.026 ; 0.012/0.042	0.75/1.0	<u>a/</u> None
Total Ammonia, as N	19	k0.78 ; k0.025/2.5	Report	<u>d/</u> N/A
Total Phosphorus, as P	19	1.2 ; 0.360/1.6	Report	<u>d/</u> N/A

a/ 30-Day Average/Daily Maximum

b/ Daily Maximum

c/ Minimum-Maximum

d/ 30-Day Average

e/ All values were below detectable levels

k - less than

NVS - No Visual Sheen

\* - O&G range of values for grab samples were taken contingent upon when a visual sheen was observed during 3 of the 6 months of discharge.

\*\* - Of the 19 monthly reports, a discharge was reported for six of these months; the values for the mean and the range are based upon these six months.

Table V-1d -- Self Monitoring Results, Discharge Point Int A (or Outfall 006 from the Turbine Building Drain)

Parameter (mg/l)	No. of Reporting Periods	Reported Concentrations Avg ; Min / Max	Previous Permit Limit(s)	No. of Exceedances
pH, s.u.	19	N/A ; 7.4/10.78	Report	<u>c/</u> <u>e/</u> None
Oil and Grease	19	k0.44 ; k1.2/2.0 *	15/20; Report	<u>a/</u> <u>e/</u> None
Total Suspended Solids	19	k3.3 ; k4.0/16	30/100; Report	<u>a/</u> <u>e/</u> None

a/ 30-Day Average/Daily Maximum

c/ Minimum-Maximum

b/ Daily Maximum

d/ 30-Day Average

e/ Although the CDPS permit required monthly reporting for these three parameters, the EPA permit for this facility has specified the effluent limits for Oil and Grease and TSS.

k - less than

\* - O&G range of values for grab samples taken contingent upon when a visual sheen was observed during 8 of the 19 reported months.

Table V-1e -- Self Monitoring Results, Discharge Point Int B (or Outfall 007 from

Table V-1e -- Self Monitoring Results, Discharge Point Int B (or Outfall 007 from the Domestic Sewage Treatment System)

Parameter (mg/l)	No. of Reporting Periods	Reported Concentrations Avg ; Min / Max	Previous Permit Limit(s)	No. of Exceedances
BOD <sub>5</sub>	19	k12.8 ; k1.0/32.6	30/45; Report	d/f/ One
Total Suspended Solids	19	13.6 ; 4.0/29	75/110; Report	d/f/ None
Fecal Coliform Bacteria	19	0.0 e/; k2/k2	6000/12,000; Report	d/f/ None

d/ 30-Day Average

k = less than

e/ All values were below detectable levels.

f/ Although the CDPS permit required monthly reporting for these three parameters, the EPA permit for this facility has specified the effluent limits for the three parameters.

2. State Sampling: State sampling results for the Public Service Company Fort St. Vrain Station discharge points are summarized in Tables V-2a, V-2b, and V-2c for the period from 11-19-1987 through 11-9-1990 on the next page. For the other discharges (003 and 004), no discharge occurred on 11-9-1990.

Table V-2a -- State Sampling Results - Discharge Point 001SA (South Platte River)

Parameter (mg/l)	Reported Concentrations				Previous Permit Limitations	
	4-7-88	5-4-89	11-9-89	11-9-90		
Total Suspended Solids				30	30/100	a/
Temperature, F	56	57.2	41.0	42.0	86	b/
pH, s.u.			9.63	8.83	(Not Reported)	
Total Residual Chlorine		0.00	0.00	0.00	0.014	b/

a/ 30-Day Average/Daily Maximum

c/ Minimum-Maximum

b/ Daily Maximum

Table V-2b -- State Sampling Results - Discharge Point 001SB (Goosequill Ditch)

Parameter (mg/l)	Reported Concentrations						Previous Permit Limitations	
	11-9-87	4-7-88	5-4-89	4-24-90	7-13-90	11-9-90		
Flow, MGD	0.66	1.99	0.02				Report	a/
TSS *	24	160	35		75	21	30/100	a/
Temperature, F	44.6	63.0	57.2		71.6	42.0	86	b/
pH, s.u.	8.49	7.4	8.06		9.72		6.5 - 9.0	c/
Oil and Grease		k10			k10	k10	10	b/
T. Res. Chlorine	0.00		0.00		0.00	0.00	0.014	b/
T. Chromium	k0.005	0.024	k0.005	k0.005	0.0057	k0.005	0.2/0.2	a/
T. Copper	0.009	0.012	0.026	0.007	0.030	k0.004	0.118/0.240	a/
T. Iron	0.300	6.20	0.720	0.500	0.530	0.170	1.0/1.0	a/
Total Zinc	k0.010	0.260	k0.010	0.014	0.010	0.008	0.66/1.0	a/
Dissolved Oxygen			8.5			9.7	(Not Required)	

a/ 30-Day Average/Daily Maximum

c/ Minimum-Maximum

b/ Daily Maximum

k = less than

\* TSS Limits are net; however, the effluent sample results do not indicate the net value. An additional TSS sample of 11 mg/l was taken on 1-5-1990.



2. State Sampling: (Continued)

Table V-2c -- State Sampling Results, Discharge Point 002 (Saint Vrain Creek)

Parameter (mg/l)	Reported Concentrations		Previous Permit Limitations	
	5-4-89	7-13-90		
Flow, MGD	(No Sample)	0.02	Report	a/
TSS *		57	30/100	a/
Temperature, F		71.0	86	b/
pH, s.u.		8.51	6.5 - 9.0	c/
Oil and Grease		kl0	10	b/
Total Residual Chlorine		0.00	0.022	b/
Total Chromium		0.010	0.2/0.2	a/
Total Copper		0.030	0.112/0.224	a/
Total Iron		0.720	1.0/1.0	a/
Total Zinc		0.010	0.75/1.0	a/
Dissolved Oxygen		10.1	(Not Required)	

a/ 30-Day Average/Daily Maximum

c/ Minimum-Maximum

k - less than

b/ Daily Maximum

\* TSS Limits are net; however, the effluent sample results do not indicate the net value.

3. Compliance and Enforcement History: Overall, this facility has been in compliance with the numeric limitations of this permit. As previously indicated in Table VI-b, the only exceedances above the limits occurred at outfall 01SB for pH (9.1 s.u. during May 1991), TSS (a net value of 43 mg/l during February 1991), and Total Iron (1.494 mg/l during February 1991 and 1.385 mg/l during May 1992). A letter dated May 6, 1991 from Peter J. Cohlma discussed the TSS and iron exceedances of February 1991. These exceedances were believed to be caused by the 01SB flow path being out of service for approximately two months for maintenance prior to the discharge. Flow was resumed to outfall 01SB on 2-24-91, upon completion of the work on this discharge line. As there were no exceedances in the 02SA discharge, Public Service Company believed that the TSS and iron exceedances in 01SB were a result of high solids and sediments in the discharge line, which washed out when flow was resumed. Also, only one sample was taken during that month. In order to avoid this situation from occurring again, PSC requested that their employees take additional samples whenever there is an exceedance of either the monthly average or daily maximum limit. There has been no enforcement history for this facility.

4. State Inspections of Facility: State personnel from the Water Quality Control Division have made more recent inspections of the Fort St. Vrain Station on June 21, 1991 and September 3, 1992. In both of these two inspections, no compliance problems were noted.

VI. TERMS AND CONDITIONS OF PERMIT

A. Effluent Limitations

In developing suitable effluent limitations, the Division must review all applicable standards and regulations and apply that which is more



- A. Effluent Limitations (Cont.) stringent. This review includes, but is not limited to, the water quality standard based effluent limitations, federal guidelines and standards (40 CFR Subchapter N) and State Effluent Regulations (10.1.0). Such a review has been done for this facility. The following limits will apply as shown in Table VI-1, and the limits are discussed on the following pages.

Table VI-1a -- Effluent Limits - General Requirements

- 
- (a) There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluids.
  - (b) Neither free available chlorine nor total residual chlorine may be discharged from any single generating unit for more than two hours in any one day, and not more than one unit in any plant may discharge free available chlorine or total residual chlorine at any one time unless the discharger demonstrates to the Permits and Enforcement Section of the WQCD that: a) the units in a particular location cannot operate at or below this level of chlorination, and b) a discharge for more than two hours is required for macroinvertebrate control. Simultaneous multi-unit chlorination is permitted.
  - (c) There shall be no discharge of metal cleaning wastes. The use of the term metal cleaning wastes in this permit is intended to include wastes from heat exchanger cleaning.
  - (d) There shall be no discharge of cooling tower basin cleaning wastes. During the cleaning of a cooling tower basin, there shall be no discharge of water from that basin to State waters.
  - (e) As a Best Management Practice, the combined flow rate of water from the main cooling tower, service cooling tower, and flow directly from the raw water storage ponds in the North Yard Drain shall be managed so as to minimize the exceedance of the 1100 to 2000 gpm of flow necessary to maintain compliance with 10 CFR 20 limits as required by the Nuclear Regulatory Commission.
  - (f) If a visible sheen or floating oil is observed at a discharge point, the appropriate corrective measures shall be taken as soon as practical. A log shall be maintained of all visual inspections and any corrective measures taken. The log shall be made available for inspection upon request by authorized representatives of the Division or EPA.
  - (g) With the exception of total chromium and total zinc, the service water cooling tower blowdown shall contain no detectable amounts of the 126 priority pollutants (Appendix A of 40 CFR Part 423) due to chemicals added for cooling tower maintenance. Compliance with this requirement may be determined by reported data and/or calculations which demonstrate that the regulated pollutants are not detectable in the cooling tower blowdown waters by the analytical methods in 40 CFR Part 136. Any changes in chemical use at the facility that could potentially affect the discharges should be referred to the Permits and Enforcement Section of the Water Quality Control Division to determine if these chemicals require review and approval for use. A one-time analysis of the priority pollutants, organic chemicals, PCBs, and other chemicals indicated in the permit renewal application is required for each five year permit renewal.
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A. Effluent Limitations (Continued)

Table VI-1b -- Effluent Limits for Outfall 001A (South Platte River)

Parameter	Limit		Rationale
Flow, MGD	Report	<u>e/</u>	Flow Assessment
pH, s.u.	6.5 - 9.0	<u>c/</u>	Water Quality Standards
Oil and Grease, mg/l	10/NVS	<u>d/</u>	State Effluent Regulations
Total Residual Chlorine, mg/l	0.25/0.25	<u>e/</u>	Federal BPT/BAT Limits/WQS
Temperature, degrees F	86	<u>d/</u>	Basic Standards/Best Prof. Judg.

c/ Minimum-Maximum

e/ 30-Day Avg/Daily Maximum

d/ Daily Maximum

Table VI-1c -- Effluent Limits - Outfall 001B (Goosequill Ditch)

Parameter	Limit		Rationale
Flow, MGD	Report	<u>e/</u>	Flow Assessment
pH, s.u.	6.5 - 9.0	<u>c/</u>	Water Quality Standards
Oil and Grease, mg/l	10/NVS	<u>d/</u>	State Effluent Regulations
Total Susp. Solids, mg/l **	30/46.5	<u>e/</u>	Federal BPT Limitations
Total Residual Chlorine, mg/l	0.25/0.25	<u>e/</u>	Federal BPT/BAT Limits/WQS
Temperature, degrees F	86	<u>d/</u>	Basic Standards/Best Prof. Judg.
Total Chromium, mg/l	0.0275/0.0275	<u>e/</u>	Federal BAT Limitations
Total Zinc, mg/l	0.20/0.21	<u>e/</u>	Federal BAT Limitations
Total Ammonia, mg/l as N	Report	<u>a/</u>	Water Quality Standards
Total Phosphorus, mg/l as P	Report	<u>a/</u>	Water Quality Standards
Whole Effluent Toxicity, Acute	Report	<u>d/</u>	State Discharge Permit Regs.

(Also Refer to the General Requirements in Table VI-1a.)

a/ 30-Day Average

d/ Daily Maximum

b/ 30-Day Average/7-Day Average

e/ 30-Day Average/Daily Maximum

c/ Minimum-Maximum

NVS = No Visual Sheen

\*\* = Net Value; see footnote \*\* on page 1b of permit.

A. Effluent Limitations (Continued)

Table VI-1d -- Effluent Limits for Outfall 002 (to St. Vrain Creek)

Parameter	Limit		Rationale
Flow, MGD	Report	e/	Flow Assessment
pH, s.u.	6.5 - 9.0	c/	Water Quality Standards
Oil and Grease, mg/l	10/NVS	d/	State Effluent Regulations
Total Susp. Solids, mg/l **	30/46.5	e/	Federal BPT Limitations
Total Residual Chlorine, mg/l	0.25/0.25	e/	Federal BPT/BAT Limits/WQS
Temperature, degrees F	86	d/	Basic Standards/Best Prof. Judg.
Total Chromium, mg/l	0.0275/0.0275	e/	Federal BAT Limitations
Total Recoverable Iron, mg/l	1.4	e/	Water Quality Standards
Total Zinc, mg/l	0.20/0.21	e/	Federal BAT Limitations
Total Ammonia, mg/l as N	Report	a/	Water Quality Standards
Total Phosphorus, mg/l as P	Report	a/	Water Quality Standards
Whole Effluent Toxicity, Acute	Report	d/	State Discharge Permit Regs.
Whole Effl. Toxicity, Chronic	Report	d/	See Discussion, Sec. VI.B.5
Through December 31, 1995			

(Also Refer to the General Requirements in Table VI-1a.)

a/ 30-Day Average	d/ Daily Maximum
b/ 30-Day Average/7-Day Average	e/ 30-Day Average/Daily Maximum
c/ Minimum-Maximum	
NVS = No Visual Sheen      ** = Net Value; see footnote ** on page 1c of permit.	

Table VI-1e -- Effluent Limits for Outfalls 003, 004, and 005

003 - This discharge shall consist of South Platte River water and shall contain no heat or other chemicals or material other than that removed from the intake structure.

004 - This discharge shall consist of St. Vrain Creek water and shall contain no heat or other chemicals or material other than that removed from the intake screens.

005 - This discharge shall consist of sluiced water from the St. Vrain Creek intake and shall contain no heat or other chemicals or material other than that removed from the intake screens.

No monitoring of flow or other parameters will be required at these three outfalls (003, 004, and 005).

A. Effluent Limitations (Continued)

Table VI-1f -- Effluent Limits for Outfall 006 (or Internal A, from Turbine Building Drain)

Parameter	Limit		Rationale
Flow, MGD	Report	e/	Flow Assessment
Oil and Grease, mg/l	15/20	e/	Federal BPT Limitations
Total Suspended Solids, mg/l	30/100	e/	Federal BPT Limitations
pH, s.u.	6.0 - 9.0	c/	BPT/State Effluent Regulations
c/ Minimum-Maximum		e/ 30-Day Average/Daily Maximum	

Table VI-1g -- Effluent Limits for Outfall 007 (or Internal B, from Domestic Wastewater Treatment Facility)

Parameter	Limit		Rationale
Flow, MGD	Report	e/	Flow Assessment
Oil and Grease, mg/l	10/NVS	d/	State Effluent Regulations
pH, s.u.	6.0 - 9.0	c/	BPT/State Effluent Regulations
BOD <sub>5</sub> , mg/l	30/45	b/	State Effluent Regulations
Total Suspended Solids, mg/l	75/110	b/	State Effluent Regulations
Total Residual Chlorine, mg/l	2.0	d/	Best Practical Judgement
Fecal Coliform Bacteria, number/100 ml	6,000/12,000	b/	State Fecal Coliform Policy
a/ 30-Day Average		d/ Daily Maximum	
b/ 30-Day Average/7-Day Average		e/ 30-Day Average/Daily Maximum	
c/ Minimum-Maximum		NVS = No Visual Sheen	

B. Discussion of Permit Limitations and Conditions

1. Water Quality Standard Based Effluent Limitations: A mass balance equation was used to determine the effluent concentrations for those parameters which must be evaluated for this permit and which have assigned water quality standards as specified in segments 1 and 3 for the South Platte River and St. Vrain Creek (except in the case of pH, where the limits are set directly from stream standards). The mass balance equation is indicated as follows:

$$M_2 = \frac{M_3Q_3 - M_1Q_1}{Q_2}$$

Where:

- Q<sub>1</sub> = Upstream low flow from Part III.B.1
- Q<sub>2</sub> = Discharge flow (from Part II.G)
- Q<sub>3</sub> = Combined downstream flow (Q<sub>1</sub> + Q<sub>2</sub>)
- M<sub>1</sub> = Upstream background pollutant concentration
- M<sub>2</sub> = Unknown; effluent pollutant concentration
- M<sub>3</sub> = Water Quality Standard

B. Discussion of Permit Limitations and Conditions (Continued)

1. Water Quality Standard Based Effluent Limitations: (Cont.)

A summary of the mass balance calculations are shown and discussed in Tables VI-2a and VI-2b below and on the next pages.

The values for  $Q_1$ ,  $Q_2$  and  $Q_3$  for the South Platte River (outfall 001B), and St. Vrain Creek (002) are as follows:

001B:	<u>Chronic Flow Values</u>	<u>Acute Flow Values</u>
$Q_1$ :	118 cfs (or 76.3 MGD)	$Q_1$ : 50 cfs (or 32.3 MGD)
$Q_2$ :	3.22 cfs (2.0794 MGD)	$Q_2$ : 4.05 cfs (2.6144 MGD)
$Q_3$ :	121.22 cfs (78.3794 MGD)	$Q_3$ : 54.05 cfs (34.9144 MGD)
002:	<u>Chronic Flow Values</u>	<u>Acute Flow Values</u>
$Q_1$ :	68 cfs (or 43.9 MGD)	$Q_1$ : 68 cfs (or 43.9 MGD)
$Q_2$ :	3.22 cfs (2.0794 MGD)	$Q_2$ : 4.05 cfs (2.6144 MGD)
$Q_3$ :	71.22 cfs (45.9794 MGD)	$Q_3$ : 72.05 cfs (46.5144 MGD)

Values for  $M_1$  and  $M_3$  vary depending on the applicable water quality standard ( $M_3$ ) and the background stream quality data ( $M_1$ ). The water quality standards for the parameters limited in this permit are shown in Tables VI-2a and VI-2b on the following pages, along with the calculated effluent limitations ( $M_2$ ). The individual WQS calculations and ambient concentration calculations are included in the permit file.

Table VI-2a -- Summary of Mass Balance Calculations (Outfall 001B)

Parameter (mg/l)	Upstream Background Concentration (M1) <u>d/</u>	Stream Standard Acute/Chronic (M3)	WQS Effluent Concentration Acute/Chronic (M2)
Unionized Ammonia, as N	0.030	0.10 unionized	2.67 (un. chr.)
Total Boron	0.257	0.75	18.8
Total Residual Chlorine	0 <u>b/</u>	0.019/0.011	0.25/0.41
F. Col. Bacteria, #/100 ml	1994	2000	2200
Free Cyanide	0.0024	0.005 <u>a/</u>	0.037
Total Nitrate, as N	3.8	(10.0)	3600
Total Nitrite, as N	0 <u>b/</u>	0.50	18.8
Total Sulfide ( $H_2S$ )	0 <u>b/</u>	0.002	0.075

a/ - The acute standard is indicated. All other single WQS values are chronic.

b/ - assumed to be zero.

d/ - Ambient concentration values represent the mean value of data from the WQCD Station No. 130, South Platte River near Platteville, for the period from 1-1-1980 through 2-25-1992.

1. Water Quality Standard Based Effluent Limitations: (Cont.)

Table VI-2a -- Summary of Mass Balance Calculations (Outfall 001B) (Cont.)

Parameter (mg/l)	Upstream Background Concentration (M1) <u>d/</u>	Stream Standard Acute/Chronic (M3)	WQS Effluent Concentration Acute/Chronic (M2)
Pot. Dissolved Arsenic	0.0099	0.36/0.15	4.7/5.3
Pot. Dis. Cadmium	0.000345	0.028/0.0023 <u>c/</u>	0.36/0.075
Trivalent Chromium	0 <u>e/</u>	3.7/0.44 <u>c/</u>	0.049/0.016
Hexavalent Chromium	0 <u>e/</u>	0.016/0.011	0.21/0.41
Pot. Dis. Copper	0.005	0.042/0.026 <u>c/</u>	0.50/0.79
Total Recoverable Iron	1.6	2.4	32
Pot. Dis. Lead	0 <u>e/</u>	0.42/0.014 <u>c/</u>	5.6/0.53
Total Recov. Manganese	0.44	1.0	21.5
Total Mercury	0 <u>e/</u>	0.00001	0.00038
Pot. Dis. Nickel	0.075	1.8/0.19 <u>c/</u>	24/4.45
Pot. Dis. Selenium	0.001	0.135/0.017	1.8/0.60
Pot. Dis. Silver	0.00021	0.00975/0.0015 <u>c/</u>	0.13/0.050
Pot. Dis. Zinc	0.020	0.253/0.230 <u>c/</u>	3.1/7.9

a/ = The acute standard is indicated. All other single WQS values are chronic.

b/ = assumed to be zero.

c/ = The chronic and acute aquatic life numeric standards, when calculated (for cadmium, trivalent chromium, copper, lead, nickel, silver, and zinc) are based upon a mean total hardness of 249 mg/l as CaCO<sub>3</sub> for the South Platte River near Platteville (WQCD Station 130) from 2-22-1980 through 2-25-1992.

d/ = Ambient concentration values represent the mean value of data from the WQCD Station No. 130, South Platte River near Platteville, for the period from 1-1-1980 through 2-25-1992.

e/ = Actual data was less than the minimum detection level (KO.005 mg/l for dissolved chromium; KO.005 mg/l for dissolved lead; and KO.0005 mg/l for total mercury.

Table VI-2b -- Summary of Mass Balance Calculations (Outfall 002, St. Vrain Creek)

Parameter (mg/l)	Upstream Background Concentration (M1) <u>d/</u>	Stream Standard Acute/Chronic (M3)	WQS Effluent Concentration Acute/Chronic (M2)
Unionized Ammonia, as N	0.010	0.060 unionized	1.1 (un. chr.)
Total Ammonia, as N	0.822	1.78 (total)	22 (total)
Total Boron	0.235	0.75	11.6
Total Residual Chlorine	0 <u>b/</u>	0.019/0.011	0.34/0.24

b/;d/ = See footnotes on next page.



1. Water Quality Standard Based Effluent Limitations: (Cont.)

Table VI-2b -- Summary of Mass Balance Calculations (002, St. Vrain Creek) (Cont.)

Parameter (mg/l)	Upstream Background Concentration (M1) <u>d</u> /	Stream Standard Acute/Chronic (M3)	WQS Effluent Concentration Acute/Chronic (M2)
F. Col. Bacteria, #/100 ml	1778	2000	6700
Free Cyanide	0.00044	0.005 <u>a</u> /	0.082
Total Nitrate, as N	3.0	(10.0)	2150
Total Nitrite, as N	0 <u>b</u> /	0.50	11.1
Total Sulfide (H <sub>2</sub> S)	0 <u>b</u> /	0.002	0.044
Tot. Recoverable Arsenic	0.00105	0.050/0.050	0.87/1.1
Pot. Dis. Cadmium	0.000362	0.052/0.0036 <u>c</u> /	0.92/0.072
Trivalent Chromium	0 <u>e</u> /	5.8/0.69 <u>c</u> /	0.10/0.015
Hexavalent Chromium	0 <u>e</u> /	0.016/0.011	0.28/0.24
Pot. Dis. Copper	0.0043	0.071/0.042 <u>c</u> /	1.2/0.83
Total Recoverable Iron	0.98 <u>f</u> /	1.0	1.4
Pot. Dis. Lead	0 <u>e</u> /	1.0/0.031 <u>c</u> /	18.4/0.69
Total Recov. Manganese	0.168	1.0	18.6
Total Mercury	0 <u>b</u> /	0.00001	0.00022
Pot. Dis. Nickel	0.080	2.8/0.29 <u>c</u> /	49/4.8
Pot. Dis. Selenium	0.00245	0.135/0.017	2.4/0.32
Pot. Dis. Silver	0.00022	0.0255/0.00095 <u>c</u> /	0.45/0.015
Pot. Dis. Zinc	0.00995	0.41/0.37 <u>c</u> /	7.1/8.0

- a/ = The acute standard is indicated. All other single WQS values are chronic.  
b/ = assumed to be zero.  
c/ = The chronic and acute aquatic life numeric standards, when calculated (for cadmium, trivalent chromium, copper, lead, nickel, silver, and zinc) are based upon a mean total hardness of 436 mg/l as CaCO<sub>3</sub> for Saint Vrain Creek near Mouth (WQCD Station 29) from 2-19-1980 through 2-25-1992.  
d/ = Ambient concentration values represent the mean value of data from the WQCD Station No. 29, Saint Vrain Creek near Mouth, for the period from 1-1-1980 through 2-25-1992.  
e/ = Actual data was less than the minimum detection level (K0.005 mg/l for total recoverable chromium and K0.005 mg/l for dissolved lead).  
f/ = Ambient mean concentration for total iron.

2. Applicable Federal Effluent Guidelines and Standards: The Federal Guidelines that apply to this type of facility are from 40 CFR Part 423.12 and 423.13 for the Steam Electric Power Generating Point Source Category. The guidelines and standards which apply were in part discussed specifically in the previous renewal rationale dated June 11, 1983 (see pages 6 through 9 of this rationale). To briefly summarize, the following limits or conditions specified in this permit are based upon federal effluent guidelines and standards: PCBs (general requirements, page 1a of the permit); Total Residual Chlorine/Free Available Chlorine, (general requirements, page 1a and outfalls 001A, 001B,

B. Discussion of Permit Limitations and Conditions (Continued)

2. Applicable Federal Effluent Guidelines and Standards: (Cont.)

and 002); Total Chromium, Total Zinc, 126 Priority Pollutants - except Total Chromium and Total Zinc (outfalls 001B and 002); TSS (outfalls 001B and 002, 006); pH (006, 007); and Oil and Grease (006).

There are some significant changes from the previous rationale and permit for this facility regarding the limits based upon the federal effluent guidelines and standards. The most major change from previous BPT/BAT-based limitations is that these limits are now determined from a flow weighted calculation for the six contributing wastewater sources. Federal BPT and BAT limits were considered for the low volume waste sources (turbine building sump, reactor building sump, and PCRV system), the service cooling tower blowdown source, and the other sources which did not have specified federal limits. The flow weighted calculations and the assumptions for the concentrations for the different sources are included in Appendix A, which is in the permit file. The BPJ (Best Practical Judgement) values used in these calculations for the sources with no specified BPT/BAT limits were determined by the Division as either: a) assumed to be equal to the permit limit which would be applicable if a discharge of the specific water source occurred (for TRC for the domestic wastewater source, and TRC for all combined sources with respect to a water quality standard based limit; TSS and Oil & Grease for 001B and 002); or b) assumed to be equal to the mean plus two standard deviation determination of the mean values (for 30-day average calculations) or of the maximum values (for the daily maximum calculations) from discharge monitoring report data (for Total Chromium and Total Zinc). These BPJ concentration estimates might later be subject to a Division redetermination in a permit amendment if Public Service Company decides to submit an adequate data base of the actual parameter concentrations from the six different contributing water sources (which includes the service cooling tower blowdown, domestic wastewater, turbine building sump, reactor building sump, PCRV system, and bypass water).

Another change is that the previous state permit for this facility included limits for Total Iron (1.0 mg/l), based upon the federal categorical standards for metal cleaning wastes for the Steam Electric Power Generating Point Source Category. However, there were no limits for Total Iron in the previous EPA permit because the discharge of metal cleaning wastes was prohibited in that permit. This renewal includes a prohibition of metal cleaning wastes; thus, there is no Total Iron limit for outfall 001B. However, due to the water quality assessment for Total Recoverable Iron, a limit for this parameter has been included for outfall 002 for St. Vrain Creek. Similarly, the previous Total Copper limit (1.0 mg/l) in the State permit is not included in this renewal since this limit was related to metal cleaning wastes, there is now a prohibition of metal cleaning wastes in this permit, and the discharge levels of total copper are much lower (0.075 mg/l maximum from previous DMR data) than

2. Applicable Federal Effluent Guidelines and Standards: (Cont.)

the WQS-based effluent levels (0.79 and 0.83 mg/l for potentially dissolved copper).

Since the previous EPA permit included a prohibition of discharges of cooling tower basin cleaning wastes, as well as limitations for outfalls 006 and 007, these items are included in this renewal permit.

The limits for the above indicated parameters in the first paragraph of this section are included, even though at this time there has been no electrical production from the Fort St. Vrain Station. The Division has made a determination that these limits are applicable also through Best Professional Judgement, since eventually this power plant will be in production, and since these federal standards can be achieved in the discharge(s).

3. Regulations for Effluent Limitations: The Regulations for Effluent Limitations (10.1.0; see reference B), apply to the conventional pollutants. For this facility, the limitation for Oil and Grease, as well as for pH (006, 007) and BOD<sub>5</sub> (007) are based on this regulation.

4. Discussion of Permit Limitations:

- a) Radioactive Parameters: This renewal permit continues with no limitations or monitoring requirements for radiological parameters, since these requirements are separately addressed under the Nuclear Regulatory Commission. However, the Division is requiring that, in addition to the radiological reports being sent to the Radiation Control Division of the CDH, a duplicate report of any appropriate radiological water quality monitoring data for each year for this facility be sent to the Permits and Enforcement Section of the WQCD as is indicated in Part I.B.7 of the permit. See the permit for further details.
- b) Temperature: Monitoring for temperature is still included for this permit renewal, since 86 degrees F (or 30 degrees C) is the maximum temperature specified for Warm Water Aquatic Life in the Basic Standards and Methodologies for Surface Water 3.1.0 (Reference A).
- c) Oil and Grease: For discharge points 001A, 001B, and 002, the Division determined and evaluated the Federal flow-weighted limits for Oil and Grease. Based upon these determinations (which are included in Appendix A in the permit file), the BPT based limits for Oil and Grease were determined to be 10.1 mg/l (30-day average) and 10.25 mg/l (daily maximum). This was based upon the BPT concentrations of 15/20 mg/l for the low volume waste water sources (turbine building sump, reactor building sump, and PCRV system) and a BPT-based maximum allowable concentration of 10 mg/l for the other contributing sources. Since the 10.1/10.25 mg/l is very comparable to the 10.0 mg/l State Effluent Standard limit, and since this limit has continuously been achieved in

4. Discussion of Permit Limitations: (Continued)

- c) Oil and Grease: (Cont.) the discharges, the Division has determined that the 10 mg/l limit is appropriate for the 001A, 001B, 002, and 007 discharges. Since the 006 discharge consists entirely of low volume wastes, the Oil and Grease limit for this outfall is based upon the 15/20 mg/l BPT federal limits.
- d) Total Suspended Solids (TSS): The net limitations for TSS are continued for this permit for 001A, 001B, and 002, in accordance with 40 CFR Part 122.45(2)(g). This is based upon some previous results of effluent TSS and intake TSS values which have exceeded the existing and proposed TSS limits, but the corresponding net TSS limitations have been below these limits. However, since most of the previous effluent TSS values have been below the proposed net limits, Public Service Company should be able to achieve comparably lower TSS concentrations through the continued use of proper operation and maintenance procedures (Part II.A.12 of the permit) and best management practices.
- e) Polychlorinated Biphenyls (PCBs): In a letter dated August 25, 1992, the permittee submitted analyses for PCBs for the Public Service Company facility discharge permits, which included this facility. All of these samples were below the detectable level that was used (less than 2 mg/l). In this letter, PSC indicated that they have implemented an aggressive PCB removal program at all these facilities, and that they utilize aggressive spill prevention and response measures so that any spill that would occur is segregated from exposure to water flow paths. Therefore, PSC has indicated that "the potential for PCBs in wastewater discharges is virtually non-existent from PSC electric generating stations and PSC is confident that there is no discharge of PCBs from these facilities." As indicated in Part I.A.1.(a) of the permit, no discharge of PCBs is allowed. A one-time analysis of PCBs is required for each upcoming renewal permit application.
- f) Total Ammonia and Total Phosphorus: Monitoring for these two parameters will be continued, since there are some chemicals used at the facility which contain ammonia or phosphorus.
- g) Domestic Wastewater Treatment Facility Discharge Limitations and Monitoring: The domestic wastewater treatment facility consists of a modified small activated sludge package plant followed by a two-cell aerated lagoon system, a polishing pond, and disinfection with HTH in a chlorine contact basin. Since the primary treatment involves the aerated lagoons, the previous TSS limitations (75/110 mg/l) will continue to be applicable for this discharge (007). According to PSC, the design flow rate for this treatment system during normal operation is 5100 gallons per day (gpd) and 8000 gpd during overhaul operations. Due to the downsizing of personnel during the decommissioning program, a conservative estimate of flow rate would be 3000 gpd. The domestic wastewater

4. Discussion of Permit Limitations: (Continued)

g) Domestic Wastewater Treatment Facility Discharge Limitations and Monitoring: (Continued)

discharge flow has more recently ranged from 1500 to 4000 gpd. Based upon a current estimate of 300 employees at the Fort St. Vrain Station, the present gpcpd flow rate would be approximately 10 to 13.3 gpcpd, and 27 gpcpd at the original maximum design flow rate. Since a rate of 10 to 27 gpcpd is below the minimum per capita per day flow rates of 120 gpcpd (specified for domestic WWTF grant reviews in Colorado) and 275 gpcpd (specified in 40 CFR Part 133.103(d) for domestic wastewater and infiltration/inflow, as well as from 10.1.4 part 1 (the State Regulations for Effluent Limitations), the Division has determined that the 85 percent removal requirements for BOD<sub>5</sub> and TSS will not be applicable for this discharge (007). Thus, the previous 85 % removal requirement for BOD<sub>5</sub> in the EPA permit is no longer required in this renewal permit, and influent monitoring requirements for BOD<sub>5</sub> and TSS will also not be required for this renewal permit. The monitoring requirements for outfall 007 have been slightly revised for this discharge to be comparable to the monitoring frequencies specified for discharges from domestic wastewater treatment facilities.

h) Other Parameters: The parameters which are limited in this permit have been previously discussed and/or summarized in Tables VI-1a through VI-1e. This discussion is for the other water quality standard parameters which are not limited in the permit (except for Total Recoverable Iron, which is limited for discharge point 002). The decision for not limiting or monitoring other water quality standard-based parameters in this permit is based upon a comparison of the discharge water concentrations to the calculated effluent concentrations (M2), as summarized in the following table. Since the discharge sample analysis is usually much less than the calculated effluent concentration, no limits have been included for these parameters.

<u>Parameter</u>	9-10-1990 Sample Reported Concentration <u>in Discharge</u>	Table VI-2 Chronic/Acute Calculated Effluent <u>Concentrations (M2)</u>	
		001A/001B	002
Outfalls:	001B		
Potent. Dis. Arsenic, mg/l	K0.010 (Total)	4.7/5.3	0.87/1.1
Potent. Dis. Cadmium, mg/l	K0.005 (T. Rec.)	0.36/0.075	0.92/0.072
Potentially Dis. Copper, mg/l	0.015 (T. Rec.)	0.50/0.79	1.2/0.83
Total Recoverable Iron, mg/l	0.525	32	1.4 (Limit)
Pot. Dissolved Lead, mg/l	K0.005 (T. Rec.)	5.6/0.53	18.4/0.69
Total Recov. Manganese, mg/l	0.118	21.5	18.6
Total Mercury, mg/l	K0.0002	0.00038	0.00022
Potentially Dis. Nickel, mg/l	0.020 (T. Rec.)	24/4.45	49/4.8
Potent. Dis. Selenium, mg/l	K0.010 (Total)	1.8/0.60	2.4/0.32
Pot. Dis. Silver, mg/l	K0.010 (T. Rec.)	0.13/0.050	0.45/0.015
Total Ammonia, mg/l as N	0.40	2.7 (un.)	22 (tot.)
Total Boron, mg/l	0.41	19	22



4. Discussion of Permit Limitations: (Continued)

h) Other Parameters: (Continued)

Free Cyanide, mg/l	0.101 (Total)	0.037	0.082
Fecal Coliform Bacteria	30	2200	6700
(Nitrate, mg/l as N)	1.4	(3600)	(2150)
Nitrite, mg/l as N	0.27	19	11
Sulfide, mg/l	K0.1	0.075	0.044

K - less than

( ) - assessment of a mass balance equation calculation done for parameter which is not specified as a water quality standard for segments 1 and 3.

5. Whole Effluent Toxicity (WET) Testing: For this facility, acute and chronic WET testing are required for discharge points 001B (acute) and 002 (acute and chronic). (See Parts I.A and I.B of the permit.)

Purpose of WET Testing: Section 6.9.7 of the "Regulations for the State Discharge Permit System", passed by the Water Quality Control Commission (WQCC), has established the use of WET testing as a method for identifying and controlling toxic discharges from wastewater treatment facilities. WET testing is being utilized as a means to ensure that there are no discharges "in amounts, concentrations or combinations which are harmful to the beneficial uses or toxic to humans, animals, plants, or aquatic life" as required by Section 3.1.11 (1)(d) of the "Basic Standards and Methodologies for Surface Waters".

Chemical analysis of effluent has provided only a partial evaluation of the potential impact a discharge could have on the receiving stream. Also, chemical analysis cannot evaluate the synergistic or antagonistic effect of compounds. There are also compounds for which an accurate or reproducible method of chemical analysis has not yet been developed, as well as compounds which are just beginning to be evaluated for toxic effects. WET testing will provide a more comprehensive means of evaluating the toxicity of a discharge than could otherwise currently be accomplished.

Instream Waste Concentration (IWC): As a condition of the permit, the permittee will be required to conduct routine monitoring for acute toxicity. Acute toxicity occurs when 1) there is a statistically significant difference in the mortality (at the 95% confidence level) observed, for Ceriodaphnia sp. (water flea) and fathead minnows, between the control and any effluent concentration less than or equal to the Instream Waste Concentration (IWC) or 2) a species mortality in any dilution of effluent (including 100% effluent) exceed 50%. The IWC is determined using the following equation:

$$IWC = [Facility\ Flow\ (FF) / (Stream\ Low\ Flow\ (annual) + FF)] \times 100\%$$



Instream Waste Concentration (IWC): (Continued)

The flows and corresponding IWC for the appropriate discharge point are:

Discharge Point	Stream Low Flow (1E3)	Facility Flow	IWC
001B	32.3 MGD	2.08 MGD	6.1 %
002	44.0 MGD	2.08 MGD	4.5 %

The IWC for this permit for Outfall 001B is 6.1 %, which represents a wastewater concentration of 6.1% effluent to 93.9% dilution water or receiving stream.

Acute Biomonitoring: At this time, the Division believes there is no reasonable potential for the discharge to interfere with attainment of applicable water quality classifications or standards. The basis for this belief is that to date there has been no acute toxicity found in discharges from other comparable Public Service Company facilities. Therefore, only WET monitoring is being required for this permit. If, however, an unacceptable level of toxicity is identified, the permittee is required to conduct a toxicity incident response and identify a control program to eliminate that toxicity, as identified in Part I.B. of the permit. Additionally, the permit will be modified to incorporate an acute toxicity limit, as provided in regulation.

Chronic Biomonitoring: The determination as to whether or not an individual facility must conduct chronic WET testing is in part dependent upon the type of discharge and the receiving water classifications. For discharges to the South Platte River (001B), chronic WET testing is not required as is indicated below; however, for the 002 discharge to St. Vrain Creek, chronic WET testing is required. In accordance with Section 6.9.7(5) of the "Regulations for the State Discharge Permit System", chronic WET testing is required for any discharges to a Class 1 Aquatic Life stream segment (which includes St. Vrain Creek), and chronic WET testing is required for discharges to receiving waters that are classified for Class 2 Aquatic Life with numeric standards where the ratio of the chronic stream low flow (30E3) to the maximum flow from the facility is less than 19:1. For the discharges to the South Platte River, since the ratio (118:2.6144 = 45:1) is greater than 19:1, chronic WET testing will not be required for outfall 001B. However, chronic WET testing is required for 002.

The permittee should read the WET testing sections of Part 1.A and 1.B of the permit carefully, and should note that the test methods for the toxicity tests are described in detail in the Division guidance document, Guidelines for Conducting Whole Effluent Toxicity Tests. This document should be read thoroughly prior to commencing the required WET testing, to ensure that the permittee is aware of the various test conditions that could affect the test results (e.g., sample holding time).

5. Whole Effluent Toxicity (WET) Testing: (Continued)

Part I.B. of the permit contains a very rigorous automatic compliance schedule which the permittee is required to follow, if an unacceptable level of toxicity is detected in the discharge. The permit is primarily conditioned so that Division notification provisions of the compliance schedule are triggered from the date of receipt, at the Division, of mailed documents. As every day beyond the allotted time may constitute a day of violation, it may be in the best interest of the permittee to mail documents certified-return receipt requested, so as to establish a record of the submittal.

The permittee should be aware that some of the conditions outlined above may be subject to change if the facility experiences a change in discharge, as outlined in Part II.A.1 of the permit. Such changes shall be reported to the Division immediately.

6. Antidegradation Review: An antidegradation evaluation was done by the Division on August 14, 1992. Since the classifications for the South Platte River (segment 1), St. Vrain Creek (segment 3), and their tributaries are all use-protected, an antidegradation review is not required pursuant to section 3.1.8(2)(c) of the Basic Standards and Methodologies for Surface Water (reference A).

7. Stormwater: Steam-electric generating stations, both active and inactive, are included in category (vii) of the federal stormwater regulations. Such facilities are required to have applied for a permit to discharge stormwater associated with industrial activity on or before October 1, 1992. Public Service Company submitted an application for a general permit for stormwater discharges associated with heavy industries for the Fort St. Vrain Station on September 28, 1992. This facility's certification under the general permit became effective on October 28, 1992. The Fort St. Vrain Certification number is COR-020064.

Since the requirements for stormwater permits have just recently become effective, the Division's policy is to cover as many facilities as possible that are included in the regulations, with general permits. For facilities that also have individual CDPS permits for discharge of process water, any applicable stormwater provisions would then be included in individual CDPS permits at the time of individual permit renewal. The current renewal of the Fort St. Vrain CDPS permit (No. CO-0001121) will contain stormwater provisions. When this renewal becomes effective, certification COR-020064 will be inactivated. Under the terms of the combined individual permit (CO-0001121), the Fort St. Vrain Station will be authorized to discharge stormwater associated with industrial activity into waters of the State of Colorado.

The terms and conditions of this permits, related to stormwater discharges include:

7. Stormwater: (Continued)

- a. Segregation of Stormwater Discharges: All discharges covered by the stormwater portion of this permit shall be composed entirely of stormwater (except as discussed at Part I.C.4.b of the permit). Stormwater which mixes with process water is subject to process water controls. Discharges of material other than stormwater must be addressed by the process water controls in this CDPS permit.
  - b. Stormwater Management Plans (SWMPs): The purpose of a SWMP is to identify possible pollutant sources that may contaminate stormwater and to set out best management practices that, when implemented, will reduce or eliminate any possible water quality impacts. A SWMP shall be developed for the Fort St. Vrain Station in accordance with good engineering practices. The plan shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater discharges associated with industrial activity from the facility. In addition, the plan shall describe and ensure the implementation of practices which are to be used to reduce the pollutants in stormwater discharges associated with industrial activity at the facility and to assure compliance with the terms and conditions of this permit. The Fort St. Vrain Station must implement the provisions of the SWMP as a condition of this permit. Contents and requirements of the SWMP are discussed in Part I.C.2 of the permit.
  - c. Compliance Dates: The Fort St. Vrain Station SWMP shall be submitted to the Division, as soon as possible but no later than June 1, 1993. The Fort St. Vrain Station shall have implemented and be in compliance with the SWMP as soon as possible but no later than December 1, 1993. The SWMP shall be updated as appropriate.
  - d. Comprehensive Facility Inspections: The permittee will be required to make a thorough inspection of their stormwater management system, at least twice per year (in the spring and fall). These inspections must be documented and summarized in the annual report. See Part I.C.2.e. of the permit.
  - e. Annual Report: The permittee will be required to submit an annual report, covering October 1 through September 30, on the overall compliance with the SWMP. The annual report will be due to the Division on or before November 28 of each year. See Part I.C.6. of the permit.
8. Economic Reasonableness Evaluation: Section 25-8-503(8) of the Colorado Water Quality Control Act required the Division to "determine whether or not any or all of the water quality standard based effluent limitations are reasonably related to the economic, environmental, public health and energy impacts to the public and affected persons, and are in furtherance of the policies set forth in sections 25-8-192 and 25-8-104."

8. Economic Reasonableness Evaluation: (Continued)

The Regulations for the State Discharge Permit System, 6.1.0, further define this requirement under 6.12.0 and state: "Where economic, environmental, public health and energy impacts to the public and affected persons have been considered in the classifications and standards setting process, permits written to meet the standards may be presumed to have taken into consideration economic factors unless:

- a) A new permit is issued where the discharge was not in existence at the time of the classification and standards rulemaking, or
- b) In the case of a continuing discharge, additional information or factors have emerged that were not anticipated or considered at the time of the classification and standards rulemaking.

The evaluation for this permit shows that the discharges from this facility were in existence at the time of water quality standards rulemaking. The Water Quality Control Commission considered economic reasonableness during the proceedings to adopt the Classifications and Standards for the South Platte River Basin. Thus, based on this information, the resulting water quality standard-based effluent limitations are determined to be reasonably related to the economic, environmental, public health and energy impacts to the public and affected persons. If the permittee disagrees with this finding, pursuant to 6.12.0(2)(b) the permittee should submit all pertinent information to the Division prior to final issuance of this permit.

9. Waste Minimization/Pollution Prevention: Waste minimization and pollution prevention are two terms that are becoming increasingly more common in industry today. Waste minimization includes reducing the amount of waste at the source through changes in industrial processes, and reuse and recycling of wastes for the original or some other purpose (such as materials recovery or energy production). Pollution prevention goes hand-in-hand with waste minimization. If the waste is eliminated at the front of the line, it will not have to be treated at the end of the line. The direct benefits to the industry are often significant, both in terms of increased profit and in public relations.

This program can affect all areas of process and waste control with which an industry deals. Elimination or reduction of a wastewater pollutant can also result in a reduction in an air pollutant or a reduction in the amount of hazardous materials which must be handled or disposed.

This discharge permit does not specifically dictate waste minimization conditions at this time. The Division does strongly encourage the permittee to continue working in developing and implementing a waste minimization plan. Several industries have already developed plans and found that implementation resulted in

9. Waste Minimization/Pollution Prevention: (Cont.) substantial savings. The Environmental Protection Agency has information and resources available. For in-depth information, please contact:

Neil Kolwey	-or-	Marie Zanowick, Manager
Pollution Prevention Program		Hazardous Waste Minimization Program
Colorado Dept. of Health		U.S. EPA Region VIII
4300 Cherry Creek Drive South		999 18th Street, Suite 500
Denver, Colorado 80222-1530		Denver, CO 80202
(303)+692-3300		(303)+294-1065

C. Monitoring and Reporting

1. Monitoring: Tables VI-3a, VI-3b, and VI-3c following lists the monitoring requirements for this facility, including sample type and frequency. Since the time of the previous permit, the measurement frequency has been increased for flow, pH, TRC, and Oil and Grease because the discharges should be assessed at least on a weekly basis.

Table VI-3a -- Monitoring Requirements for Discharge Point 001A

Parameter	Measurement Frequency	Sample Type
Flow, MGD	Weekly	Instantaneous
Oil and Grease, mg/l f/	Weekly	Visual
pH, s.u.	Weekly	Grab
Temperature, degrees F	Weekly	In-Situ
Total Residual Chlorine, mg/l	Weekly	Grab

f/ See footnote f/ on page 3 of the permit.

Table VI-3b -- Monitoring Requirements for Discharge Points 001B and 002

Parameter	Measurement Frequency	Sample Type
Flow, MGD	Daily	Instantaneous
Oil and Grease, mg/l f/	Daily	Visual
pH, s.u.	Daily	Grab
Temperature, degrees F	Daily	In-Situ
Total Residual Chlorine, mg/l	Weekly	Grab
Total Suspended Solids, mg/l **	Weekly	Grab
Total Ammonia, mg/l as N	Monthly	Grab
Total Phosphorus, mg/l as P	Monthly	Grab

\*\* - Net Value; see footnote \*\* on pages 1c and 1d of the permit.



1. Monitoring: (Continued)

Table VI-3b -- Monitoring Requirements for Outfalls 001B and 002 (Cont.)

Parameter	Measurement Frequency	Sample Type
Total Chromium, mg/l	Monthly	Grab
Total Recoverable Iron, mg/l	Monthly (002 Only)	Grab
Total Zinc, mg/l	Monthly	Grab
Whole Effluent Toxicity, Acute	Quarterly - See Part I.B.8&9	Grab
Whole Effluent Toxicity, Chronic Through December 31, 1995	Semiannually - See Part I.B.15 (WET Chronic for 002 Only)	Composite

Table VI-3c -- Monitoring Requirements for Outfalls 006 and 007

Parameter	Measurement Frequency	(Outfall)	Sample Type
Flow, MGD	Weekly	(006, 007)	Instantaneous
Oil and Grease, mg/l	Weekly	(006, 007)	Visual
pH, s.u.	Weekly	(006, 007)	Grab
Total Suspended Solids, mg/l	Monthly	(006, 007)	Grab
Total Residual Chlorine, mg/l	Weekly	(007)	Grab
BOD <sub>5</sub> , mg/l	Monthly	(007)	Grab
Total Suspended Solids, mg/l	Monthly	(007)	Grab
Fecal Colif. Bacteria, no/100 ml	Monthly	(007)	Grab

2. Reporting: For the Fort St. Vrain Station, Public Service Company of Colorado must submit Discharge Monitoring Reports (DMRs) for discharge points 001A, 001B, 002, 006, and 007 on a monthly basis to the Division. This report should contain the required summarization of the test results for parameters shown in Table VI-3 and Part I.B.1 of the permit. See the permit, Part I.B for details on such submission.
3. Additional Monitoring: There is no additional monitoring required for this renewal permit. The results submitted for the previously required one-time analysis indicated that no further additional analysis is necessary. A one-time analysis for the 126 Priority Pollutants and PCBs is required to be submitted with each permit renewal application.

D. Additional Terms and Conditions

1. Materials Containment Plan Update: Previously, a Materials Containment Plan (MCP) update for this facility (dated May 30, 1986) was received by the Division. An update of this is required to be submitted within 90 days of this renewal permit's effective date, detailing all changes which have occurred since the original submittal. If no changes have occurred, a letter to this effect is required. For specific requirements, see Part I.F.1 of the permit.

E. Specific Compliance Requirements

1. Submissions to the Division: Below are specific compliance items which require permittee action. Please check the referenced parts of the permit for details on what is required.

<u>Office Code</u>	<u>Event</u>	<u>Permit Citation</u>	<u>Due Date</u>
90508	Materials Containment Plan Update	Part I.F.1	90 days after effective date of permit
05899	Stormwater Management Plan Submittal	Part I.C.3.b	June 1, 1993
59499	Implementation of Stormwater Management Plan	Part I.C.3.b	December 1, 1993
90199	Stormwater Management Plan Annual Reports	Part I.C.3.6	First report is due November 28, 1994

VII. REFERENCES

- A. Colorado Dept. of Health, Water Quality Control Commission. Basic Standards and Methodologies for Surface Water (3.1.0). Denver: CDH, as revised 10/8/1991.
- B. Colorado Dept. of Health, Water Quality Control Commission. Regulations for Effluent Limitations (10.1.0). Denver: CDH, as revised 1/31/1990.
- C. Colorado Dept. of Health, Water Quality Control Commission. Regulations for the State Discharge Permit System (6.1.0). Denver: CDH, as revised 1/6/1992.

Don Holmer  
Sarah Plocher (Stormwater portions)  
November 10, 1992

VIII. CHANGES TO PERMIT AND RATIONALE FOLLOWING PUBLIC NOTICE:

A comment letter from the permittee was received during the public notice period. In this letter from Louise Meyerkord of Public Service Company of Colorado, dated January 28, 1993, several comments were made. The Division made some changes to the rationale and the permit, based in part upon this comment letter.

The changes made to the permit include the following items: the expiration date of the permit was changed to January 31, 1998; reference to the facility was made as the Fort St. Vrain Station throughout the permit and rationale; the general limitation for free available chlorine/total residual chlorine in Part I.A.1.(b) was corrected to be consistent with the federal categorical limit; the BMP for flow rates specified in Part I.A.1.(e) was revised; the section in Parts I.A.1.(e) and (g) were revised to eliminate the reference to the main cooling tower blowdown, and a sentence was added at the end of page 1b regarding discharges from the main cooling tower; the location description of outfall 001B was revised; the ending date for chronic WET testing was changed to December 31, 1995; the net limitation footnote (\*\*) on pages 1d, 1e, and 1j was revised for the figure reference; the daily maximum limit for total residual chlorine for outfall 007 was changed on page 1h; the monitoring frequency for outfalls 001B and 002 on page 1j was changed to a daily basis for flow, oil and grease, pH, and temperature; there were slight modifications to the stormwater requirements in Part I.C.2.e and Part I.C.5.a; revised pages for figures 3, 4, 5, and 6 were included in the permit; and a correction was made for the Materials Containment Plan Update on page 6 of the permit.

Where appropriate, comparable changes were made to the rationale for the above indicated items. Additional changes made in the rationale include a change in the title for the facility contact (page 1); a slight revision in the description of contributing sources for outfall 001 (page 2), various corrections and updates for the facility descriptions on pages 3 through 9; the deletion of the Chronic WET testing from Table VI-1c (page 15), which does not apply to outfall 001B; the addition of a revised Total Residual Chlorine limit in Table VI-1g (page 17), which is applicable for this discharge (007); a correction of the  $Q_3$  flow value (page 18); a clarification of WET testing requirements for the first paragraph of this section (page 25); and the addition of Section VIII (starting on page 33).

In the January 28, 1993 letter, Public Service Company (PSC) commented on two major items. In the first comment, PSC contested the proposed 0.5 mg/l daily maximum limitation for total residual chlorine (TRC) for outfall 007 from the domestic wastewater treatment facility. PSC also indicated that adequate chlorination at this facility requires that the chlorine concentration in this effluent be 1 to 2 mg/l as an operational necessity. Since the basis of the proposed 0.5 mg/l TRC limit was based upon Section 10.1.0 of the State Effluent Regulations for discharges to surface waters, since this discharge 007 does not discharge directly to surface waters, and since TRC is limited at outfalls 001B and 002 (to which the 007 would ultimately go to, and which are to surface waters), PSC requested that the daily maximum limit for TRC at outfall be increased to 2.0 mg/l. The Division has reviewed this request, and has changed the TRC limit to 2.0 mg/l at discharge point 007. This is based on the above information plus the fact that the TRC concentrations at 001A, 001B and 002 have all been below these permit limits previously (and mostly

VIII. CHANGES TO PERMIT AND RATIONALE FOLLOWING PUBLIC NOTICE: (Continued)

have been below detectable levels) with the normal chlorination operational practices ongoing at the domestic wastewater treatment plant.

In the second major comment by the permittee, Public Service Company (PSC) stated that they disagreed with the proposed Best Management Practice language in Part I.A.1.(e) of the permit regarding flows. PSC stated that the 1100 gpm base flow is a minimum flow required by the Nuclear Regulatory Commission to comply with maximum permissible concentration limits in the Goosequill Ditch defined in 10 CFR 20. PSC anticipates a required flow of 1100 to 2000 gpm, with an average flow of 1500 gpm, in the Goosequill Ditch to meet 10 CFR 20 limits when radioactive releases are in progress. For this reason, PSC requires that the Best Management Practice be revised to read "minimize the exceedance of the 1100 to 2000 gpm of flow necessary to maintain compliance with 10 CFR 20 limits as required by the Nuclear Regulatory Commission." After review of this comment from PSC, the Division made this change in the Best Management Practice language for this condition.

The Division also made a change in this permit's monitoring frequency for discharge points 001B and 002 for several parameters to a daily basis (for flow, oil and grease, pH, and temperature). This is based a review and a decision by the Division for a consistent monitoring frequency for these parameters in the various Public Service Company of Colorado permits, and because the discharge and these parameters should be assessed on a more frequent (daily) basis.

Don Holmer  
February 8, 1993

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) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et. seq.; the "Act"),

PUBLIC SERVICE COMPANY OF COLORADO

is authorized to discharge from the Fort St. Vrain Station,

located in Section 3, T3N, R67W; and Sections 34 and 35, T4N, R67W; 6th Principal Meridian, as shown in figure 1,

to the South Platte River, St. Vrain Creek, and natural and man-made tributaries of these two streams,

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 6.8.0 (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 Regulation 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, 1998.

Issued and Signed this 19th day of February, 1993

COLORADO DEPARTMENT OF HEALTH

*Robert J. Shultz for*

J. David Holm, Director  
Water Quality Control Division

CERTIFIED LETTER NO. P484031982  
DATE SIGNED 2/19/93  
EFFECTIVE DATE OF  
PERMIT 4/1/93



A. TERMS AND CONDITIONS

1. Effluent Limitations - General Requirements

Beginning immediately and lasting through January 31, 1998, the permittee is authorized to discharge from the following outfalls: outfall 001A, 001B, 002, 003, 004, 005, 006, and 007.

In accordance with the Water Quality Control Commission Regulations for Effluent Limitations, Section 10.1.3, and State Discharge Permit System Regulations, Section 6.9.2, 5 C.C.R. 1002-2, the following general requirements are applicable for this facility.

- (a) There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluids.
- (b) Neither free available chlorine nor total residual chlorine may be discharged from any single generating unit for more than two hours in any one day, and not more than one unit in any plant may discharge free available chlorine or total residual chlorine at any one time unless the discharger demonstrates to the Permits and Enforcement Section of the WQCD that: a) the units in a particular location cannot operate at or below this level of chlorination, and b) a discharge for more than two hours is required for macroinvertebrate control. Simultaneous multi-unit chlorination is permitted.
- (c) There shall be no discharge of metal cleaning wastes. The use of the term metal cleaning wastes in this permit is intended to include wastes from heat exchanger cleaning.
- (d) There shall be no discharge of cooling tower basin cleaning wastes. During the cleaning of a cooling tower basin, there shall be no discharge of water from that basin to State waters.
- (e) As a Best Management Practice, the flow rate of water from the service cooling tower and flow directly from the raw water storage ponds in the North Yard Drain shall be managed so as to minimize the exceedance of the 1100 to 2000 gpm of flow necessary to maintain compliance with 10 CFR 20 limits as required by the Nuclear Regulatory Commission.
- (f) If a visible sheen or floating oil is observed at a discharge point, the appropriate corrective measures shall be taken as soon as practical. A log shall be maintained of all visual inspections and any corrective measures taken. The log shall be made available for inspection upon request by authorized representatives of the Division or EPA.

A. TERMS AND CONDITIONS

1. Effluent Limitations - General Requirements (Continued)

In accordance with the Water Quality Control Commission Regulations for Effluent Limitations, Section 10.1.3, and State Discharge Permit System Regulations, Section 6.9.2, 5 C.C.R. 1002-2, the following general requirements are applicable for this facility.

- (g) With the exception of total chromium and total zinc, the service water cooling tower blowdown shall contain no detectable amounts of the 126 priority pollutants (Appendix A of 40 CFR Part 423) due to chemicals added for cooling tower maintenance. Compliance with this requirement may be determined by reported data and/or calculations which demonstrate that the regulated pollutants are not detectable in the cooling tower blowdown waters by the analytical methods in 40 CFR Part 136. Any changes in chemical use at the facility that could potentially affect the discharges should be referred to the Permits and Enforcement Section of the Water Quality Control Division to determine if these chemicals require review and approval for use. A one-time analysis of the priority pollutants, organic chemicals, PCBs, and other chemicals indicated in the permit renewal application is required for each five year permit renewal.

Since the main cooling tower is out of service and is not included in this permit, discharges of blowdown from this cooling tower are not authorized in this permit.

A. TERMS AND CONDITIONS

2. Effluent Limitations - Outfall 001A (to the South Platte River)

Beginning immediately and lasting through January 31, 1998, the permittee is authorized to discharge from: outfall 001A, the overflow from the farm pond at the Parshall flume, which is prior to entering the South Platte River, as shown in figure 2.

In accordance with the Water Quality Control Commission Regulations for Effluent Limitations, Section 10.1.3, and State Discharge Permit System Regulations, Section 6.9.2, 5 C.C.R. 1002-2, the permitted discharge shall not contain effluent parameter concentrations which exceed the following limitations, discharge more than the mass pollutant loadings specified below, or exceed the specified flow limitation.

<u>Effluent Parameter</u>	<u>Discharge Limitations</u>		
	<u>30-Day Avg a/</u>	<u>7-Day Avg b/</u>	<u>Daily Max c/</u>
Flow, MGD	Report	N/A	Report
Temperature, degrees F	Report	N/A	86
Total Residual Chlorine, mg/l *	0.25	N/A	0.25

pH - standard units shall remain between 6.5 and 9.0 c/.

Oil and Grease shall not exceed 10 mg/l c/ nor shall there be a visible sheen, see footnote f/. There shall be no discharge of floating solids.

\* See also Part I.A.1.(b) on page 1a.

See Part I.C. for Footnotes.

A. TERMS AND CONDITIONS

2. Effluent Limitations - Outfall 001B (to the South Platte River)

Beginning immediately and lasting through January 31, 1998, the permittee is authorized to discharge from: outfall 001B - the outfall 001 discharge at the Parshall flume in the Goosequill Ditch Stub located near the diversion box that receives the various waste flows, as shown in figure 3.

In accordance with the Water Quality Control Commission Regulations for Effluent Limitations, Section 10.1.3, and State Discharge Permit System Regulations, Section 6.9.2, 5 C.C.R. 1002-2, the permitted discharge shall not contain effluent parameter concentrations which exceed the following limitations, discharge more than the mass pollutant loadings specified below, or exceed the specified flow limitation.

<u>Effluent Parameter</u>	<u>Discharge Limitations</u>	
	<u>30-Day Avg a/</u>	<u>Daily Max c/</u>
Flow, MGD	Report	Report
Total Susp. Solids, Net, mg/l **	30	46.5
Temperature, degrees F	Report	86
Total Residual Chlorine, mg/l *	0.25	0.25
Total Chromium, mg/l	0.0275	0.0275
Total Zinc, mg/l	0.20	0.21
Total Ammonia, mg/l as N	Report	N/A
Total Phosphorus, mg/l as P	Report	N/A
Whole Effluent Toxicity, Acute	N/A	Report
126 Priority Pollutants, except Total Chromium and Total Zinc	No detectable amount as a result of chemical addition for cooling tower maintenance.	

pH - standard units shall remain between 6.5 and 9.0 c/.

Oil and Grease shall not exceed 10 mg/l c/ nor shall there be a visible sheen, see footnote f/. There shall be no discharge of floating solids.

\* See also Part I.A.1.(b) on page 1a.

\*\* TSS shall be monitored at the two following locations so that net limitations may be applied: (1) raw water supply after the settling ponds and prior to the holding ponds shown in figure 4; (2) at outfall 001B or 002, depending on the discharge point. Both of these values and the resultant net TSS value shall be reported on the Discharge Monitoring Report form.

See Part I.C. for Footnotes.

A. TERMS AND CONDITIONS

3. Effluent Limitations - Discharge Point 002 (to Saint Vrain Creek)

Beginning immediately and lasting through January 31, 1998, the permittee is authorized to discharge from outfall 002, the alternate discharge for outfall 001B during times of ditch maintenance, located at the Parshall flume in the drainage slough, which does not include water from the Jay Thomas Ditch, and which is prior to entering St. Vrain Creek, as shown in figure 3.

In accordance with the Water Quality Control Commission Regulations for Effluent Limitations, Section 10.1.3, and State Discharge Permit System Regulations, Section 6.9.2, 5 C.C.R. 1002-2, the permitted discharge shall not contain effluent parameter concentrations which exceed the following limitations, discharge more than the mass pollutant loadings specified below, or exceed the specified flow limitation.

<u>Effluent Parameter</u>	<u>Discharge Limitations</u>	
	<u>30-Day Avg a/</u>	<u>Daily Max c/</u>
Flow, MGD	Report	Report
Total Susp. Solids, Net, mg/l **	30	46.5
Temperature, degrees F	Report	86
Total Residual Chlorine, mg/l *	0.25	0.25
Total Chromium, mg/l	0.0275	0.0275
Total Recoverable Iron, mg/l	1.4	Report
Total Zinc, mg/l	0.20	0.21
Total Ammonia, mg/l as N	Report	N/A
Total Phosphorus, mg/l as P	Report	N/A
Whole Effluent Toxicity, Acute	N/A	Report
Whole Effluent Toxicity, Chronic		
Through December 31, 1995	N/A	Report
126 Priority Pollutants, except	No detectable amount as a result of chemical addition for cooling tower maintenance.	
Total Chromium and Total Zinc		

pH - standard units shall remain between 6.5 and 9.0 c/.

Oil and Grease shall not exceed 10 mg/l c/ nor shall there be a visible sheen, see footnote f/. There shall be no discharge of floating solids.

\* See also Part I.A.1.(b) on page 1a.

\*\* TSS shall be monitored at the two following locations so that net limitations may be applied: (1) raw water supply after the settling ponds and prior to the holding ponds shown in figure 4; (2) at outfall 001B or 002, depending on the discharge point. Both of these values and the resultant net TSS value shall be reported on the Discharge Monitoring Report form.

See Part I.C. for Footnotes.



A. TERMS AND CONDITIONS

4. Effluent Limitations - Discharge Points 003, 004, and 005

Beginning immediately and lasting through January 31, 1998, the permittee is authorized to discharge from outfalls 003, 004, and 005. Outfall 003 is the discharge from the trash screens at the water supply intake from the South Platte River, which is prior to entering the South Platte River, as shown in figure 3. Outfall 004 is the discharge from the trash screens at the water supply intake from St. Vrain Creek, which is prior to entering St. Vrain Creek, as shown in figure 3. Outfall 005 is the discharge of excess water from the settling pond for the intake water from St. Vrain Creek, which is prior to entering St. Vrain Creek, as shown in figure 3. Discharge from outfalls 003, 004, and 005 is subject to the following effluent limitations and conditions:

003 - This discharge shall consist of South Platte River water and shall contain no heat or other chemicals or materials other than that removed from the intake structure.

004 - This discharge shall consist of St. Vrain Creek water and shall contain no heat or other chemicals or materials other than that removed from the intake screens.

005 - This discharge shall consist of sluiced water from the St. Vrain Creek intake and shall contain no heat or other chemicals or materials other than that removed from the intake screens.

No monitoring of flow or other parameters will be required at these three outfalls (003, 004, and 005).

A. TERMS AND CONDITIONS

5. Effluent Limitations - Discharge Point 006

Beginning immediately and lasting through January 31, 1998, the permittee is authorized to discharge from outfall 006. Outfall 006 is the internal discharge from the turbine building drain at the end of the 24-inch pipe, which is prior to mixing with other waters, as shown in figure 4.

In accordance with the Water Quality Control Commission Regulations for Effluent Limitations, Section 10.1.3, and State Discharge Permit System Regulations, Section 6.9.2, 5 C.C.R. 1002-2, the permitted discharge shall not contain effluent parameter concentrations which exceed the following limitations, discharge more than the mass pollutant loadings specified below, or exceed the specified flow limitation.

<u>Effluent Parameter</u>	<u>Discharge Limitations</u>		
	<u>30-Day Avg a/</u>	<u>7-Day Avg b/</u>	<u>Daily Max c/</u>
Flow, MGD	Report	N/A	Report
Total Suspended Solids, mg/l	30	N/A	100
Oil and Grease, mg/l	<u>f/</u> 15	N/A	20

pH - standard units shall remain between 6.0 and 9.0 c/.

There shall be no discharge of floating solids.

The above effluent limitations for Total Suspended Solids and Oil and Grease do not apply when there is a discharge of storm water runoff from either of the smaller pipes located adjacent to the end of the 24-inch pipe.

See Part I.C. for Footnotes.

A. TERMS AND CONDITIONS

6. Effluent Limitations - Discharge Point 007

Beginning immediately and lasting through January 31, 1998, the permittee is authorized to discharge from outfall 007. Outfall 007 is the internal discharge from the domestic sewage treatment system from the last treatment unit, prior to mixing with other waters, as shown in figure 4.

In accordance with the Water Quality Control Commission Regulations for Effluent Limitations, Section 10.1.3, and State Discharge Permit System Regulations, Section 6.9.2, 5 C.C.R. 1002-2, the permitted discharge shall not contain effluent parameter concentrations which exceed the following limitations, discharge more than the mass pollutant loadings specified below, or exceed the specified flow limitation.

<u>Effluent Parameter</u>	<u>Discharge Limitations</u>		
	<u>30-Day Avg a/</u>	<u>7-Day Avg b/</u>	<u>Daily Max c/</u>
Flow, MGD	Report	N/A	Report
BOD <sub>5</sub> , mg/l	30	45	Report
Total Suspended Solids, mg/l	75	110	Report
Fecal Coliform Bacteria, number/100 ml	6,000	12,000	N/A
Total Residual Chlorine, mg/l	III/ Report	N/A	2.0

pH - standard units shall remain between 6.0 and 9.0 c/.

Oil and Grease shall not exceed 10 mg/l c/ nor shall there be a visible sheen, see footnote f/. There shall be no discharge of floating solids.

See Part I.C. for Footnotes.

B. MONITORING REQUIREMENTS

1. Frequency and Sample Type - Discharge Point 001A

In order to obtain an indication of the probable compliance or non-compliance with the effluent limitations specified in Section A, the permittee shall monitor all effluent parameters at the following frequencies:

<u>Effluent Parameter</u>	<u>Measurement Frequency d/</u>	<u>Sample Type e/</u>
Flow, MGD	Weekly	Instantaneous
Oil and Grease, mg/l f/	Weekly	Visual
pH, s.u.	Weekly	Grab
Temperature, degrees F	Weekly	In-Situ
Total Residual Chlorine, mg/l	Weekly	Grab

Sampling by the permittee for compliance with the monitoring requirements specified above shall be performed at outfall 001A, the overflow from the farm pond at the Parshall flume, which is prior to entering the South Platte River, as shown in figure 3.

See Part I.C. for Footnotes

B. MONITORING REQUIREMENTS

2. Frequency and Sample Type - Discharge Points 001B and 002

In order to obtain an indication of the probable compliance or non-compliance with the effluent limitations specified in Section A, the permittee shall monitor all effluent parameters at the following frequencies:

<u>Effluent Parameter</u>	<u>Measurement Frequency d/</u>	<u>Sample Type e/</u>
Flow, MGD	Daily	Instantaneous
Oil and Grease, mg/l f/	Daily	Visual
pH, s.u.	Daily	Grab
Temperature, degrees F	Daily	In-Situ
Total Residual Chlorine, mg/l	Weekly	Grab
Total Suspended Solids, Net mg/l **	Weekly	Grab
Total Ammonia, mg/l as N	Monthly	Grab
Total Phosphorus, mg/l as P	Monthly	Grab
Total Chromium, mg/l	Monthly	Grab
Total Recoverable Iron, mg/l	Monthly (002 Only)	Grab
Total Zinc, mg/l	Monthly	Grab
Whole Effluent Toxicity, Acute	Quarterly a/	Grab
Whole Effluent Toxicity, Chronic Through December 31, 1995	Semiannually - See Part I.B.12 (WET Chronic for 002 Only)	Composite

Sampling by the permittee for compliance with the monitoring requirements specified above shall be performed at outfall serial numbers 001B and 002. Outfall 001B is the outfall 001 discharge at the Parshall flume in the Goosequill Ditch Stub located near the diversion box that receives the various waste flows, as shown in figure 3. Outfall 002 is the alternate discharge for outfall 001B during times of ditch maintenance, located at the Parshall flume in the drainage slough, which does not include water from the Jay Thomas Ditch, and which is prior to entering St. Vrain Creek, as shown in figure 3.

\*\* TSS shall be monitored at the two following locations so that net limitations may be applied: (1) raw water supply after the settling ponds and prior to the holding ponds shown in figure 4; (2) at outfall 001B or 002, depending on the discharge point. Both of these values and the resultant net TSS value shall be reported on the Discharge Monitoring Report form.

See Part I.C. for Footnotes

3. Frequency and Sample Type - Discharge Points 003, 004, and 005

No monitoring of flow or other parameters will be required at these three outfalls (003, 004, and 005).



B. MONITORING REQUIREMENTS

4. Frequency and Sample Type - Discharge Point 006

In order to obtain an indication of the probable compliance or non-compliance with the effluent limitations specified in Section A, the permittee shall monitor all effluent parameters at the following frequencies:

<u>Effluent Parameter</u>		<u>Measurement Frequency d/</u>	<u>Sample Type e/</u>
Flow, MGD		Weekly	Instantaneous
Oil and Grease, mg/l	f/	Weekly	Visual
pH, s.u.		Weekly	Grab
Total Suspended Solids, mg/l		Monthly	Grab

Sampling by the permittee for compliance with the monitoring requirements specified above shall be performed at outfall 006. Outfall 006 is the internal discharge from the turbine building drain at the end of the 24-inch pipe, which is prior to mixing with other waters, as shown in figure 4.

5. Frequency and Sample Type - Discharge Point 007

In order to obtain an indication of the probable compliance or non-compliance with the effluent limitations specified in Section A, the permittee shall monitor all effluent parameters at the following frequencies:

<u>Effluent Parameter</u>		<u>Measurement Frequency d/</u>	<u>Sample Type e/</u>
Flow, MGD		Weekly	Instantaneous
Oil and Grease, mg/l	f/	Weekly	Visual
pH, s.u.		Weekly	Grab
Total Residual Chlorine, mg/l		Weekly	Grab
BOD <sub>5</sub> , mg/l		Monthly	Grab
Total Suspended Solids, mg/l		Monthly	Grab
Fecal Coliform Bacteria,		Monthly	Grab
no/100 ml	m/	Monthly	Grab

Sampling by the permittee for compliance with the monitoring requirements specified above shall be performed at outfall 007. Outfall 007 is the internal discharge from the domestic sewage treatment system from the last treatment unit, prior to mixing with other waters, as shown in figure 4.

See Part I.C. for Footnotes

B. MONITORING REQUIREMENTS

6. Reporting of Data

Reporting of the data gathered in compliance with Part I.B.1, I.B.2, I.B.4, and I.B.5 shall be on a monthly basis. Monitoring results obtained during the previous month shall be summarized and reported on Division approved discharge monitoring report forms, postmarked no later than the 28th day of the month following the completed month. If no discharge occurs during the reporting period, "No Discharge" shall be reported.

Duplicate signed copies of the discharge monitoring report forms shall be submitted to the following addresses:

Colorado Department of Health  
Water Quality Control Division  
WQCD-PE-B2  
4300 Cherry Creek Drive South  
Denver, Colorado 80222-1530

U.S. Environmental Protection Agency  
Water Management Division  
NPDES Branch 8WM-C  
999 18th Street, Suite 500  
Denver, CO 80202-2466

7. Reporting of Radiological Data

Radiological monitoring data is sampled for this facility in accordance with requirements under the Nuclear Regulatory Commission. A copy of applicable water quality monitoring data for radiological parameters has previously been submitted by Public Service Company of Colorado to the Colorado Department of Health (CDH) for review, and usually this has been received at the Radiation Control Division at the CDH.

In addition to the radiological reports being sent to the Radiation Control Division, a duplicate report of any appropriate radiological water quality monitoring data for each year for this facility shall be sent to the Permits and Enforcement Section of the WQCD at the following address:

Colorado Department of Health  
Water Quality Control Division  
WQCD-PE-B2  
4300 Cherry Creek Drive South  
Denver, Colorado 80222-1530

B. MONITORING REQUIREMENTS

8. Frequency and Sample Type, Acute WET Testing - Outfalls 001b and 002

Quarterly test results shall be reported along with the Discharge Monitoring Report (DMR) submitted for the end of the reporting calendar quarter (i.e., WET testing results for the calendar quarter ending March 31 shall be reported with the DMR due April 28, with the remaining WET testing reports submitted with DMRs due each July 28, October 28 and January 28). The results shall be submitted on the Acute Toxicity Test report form, available from the Division. Copies of these reports are to be submitted to both the Division and EPA.

The permittee shall conduct each acute WET test in general accordance with methods described in the Division guidance document entitled Guidelines for Conducting Whole Effluent Toxicity Tests. The permittee shall conduct an acute 48-hour WET test using Ceriodaphnia sp., and an acute 96-hour WET test using fathead minnows. Acute tests will be replacement static tests of a single effluent grab sample.

9. Accelerated Testing - Outfalls 001b and 002

If an individual toxicity test shows toxicity at any concentration less than or equal to the following Instream Waste Concentration (IWC) or if 50% species mortality in any dilution (including 100% effluent) is detected in any acute WET test conducted in accordance with this permit, the permittee shall notify the Division verbally within 24 hours and in writing (date of receipt) within 5 days of receipt of written lab test results and proceed with the following compliance schedule.

Discharge Point	IWC
001b	6.1 %
002	4.5 %

Within 7 days of becoming aware of the toxicity, the permittee shall then begin accelerated testing of the discharge with whichever species has proven (through the first instance of toxicity) to be the most sensitive. The permittee will continue such testing with one species until 2 consecutive weekly tests demonstrate acute toxicity, 2 consecutive weekly tests demonstrate no acute toxicity or a maximum of 5 weekly tests have been conducted.

B. MONITORING REQUIREMENTS

9. Accelerated Testing - Outfalls 001b and 002 (Cont.)

If no acute toxicity was demonstrated in the 2 consecutive weekly tests or in 3 of the 5 weekly tests, the permittee shall resume routine quarterly testing. In all other cases, a pattern of toxicity has been demonstrated and the permittee shall proceed with the Preliminary Toxicity Investigation. When a pattern of toxicity is demonstrated, the permittee shall orally notify the Division within 24 hours of becoming aware of the test result which demonstrates the pattern of toxicity and in writing within 5 days (date of receipt) after receiving the written lab test result which demonstrates the pattern of toxicity.

10. Preliminary Toxicity Investigation

The permittee will have 15 working days from the date of demonstration of the pattern of toxicity to complete a preliminary toxicity investigation and submit (date of receipt) the results to the Division, in writing. The date of demonstration shall be the date the permittee becomes aware of the final test result that established the pattern of toxicity. The preliminary toxicity investigation may include, but is not limited to: additional chemical and biological monitoring, examination of pretreatment program records, examination of discharge monitoring reports, evaluation of treatment processes and chemical use, inspection of material storage and transfer areas to determine if a spill may have occurred, and similar procedures.

If the preliminary toxicity investigation identifies a probable toxicant and/or a probable source of toxicity, the permittee shall submit, as part of its final report results, written notification to that effect to the Division. Within 30 days of completing the preliminary toxicity investigation, the permittee shall submit (date of receipt) for the Division's approval a control program to control effluent toxicity, and shall proceed to implement such plan within 7 days following receipt of written approval from the Division.

If no probable explanation for toxicity is identified in the 15-day preliminary toxicity investigation, a Phase I Toxicity Reduction Evaluation (TRE) is required. The permittee shall notify the Division, as part of its final report, of its intent to proceed with the Phase I TRE.

If toxicity disappears during the preliminary toxicity investigation, the permittee shall submit written notification to that effect to the Division. The Division may require the permittee to conduct accelerated testing to demonstrate the continued absence of toxicity. If, after completing any Division directed accelerated testing, no acute toxicity is found to exist, the permittee shall resume normal quarterly testing.

B. MONITORING REQUIREMENTS

11. Phase I TRE

The Phase I TRE performed by the permittee shall be in general accordance with Methods for Aquatic Toxicity Identification Evaluations, Phase I, Toxicity Characterization Procedures (September, 1988) published by EPA, or in accordance with procedures approved by the Division. If only one species demonstrated toxicity during accelerated testing, then that species alone may be used in the Phase I TRE. The permittee has 45 days from the submission (date of receipt) of the final report on the preliminary toxicity investigation to complete the Phase I TRE and submit (date of receipt) a report to the Division on the results of the study.

If the Phase I TRE identifies a probable toxicant and/or a probable source of toxicity, the permittee shall submit written notification to that effect to the Division as part of the report. Within 30 days of submission (date of receipt) of the Phase I TRE, the permittee shall submit (date of receipt) for the Division's approval a control program to control WET, and shall proceed to implement such plan within 7 days following approval by the Division.

If the Phase I TRE fails to identify a probable toxicant and/or a probable source of toxicity, the permittee shall notify the Division of its findings and proceed with a Phase II TRE.

If toxicity disappears during the Phase I TRE, the permittee shall submit written notification to that effect to the Division. The Division may require the permittee to conduct accelerated testing to demonstrate the continued absence of toxicity. If no acute toxicity is found to exist, the permittee shall resume normal quarterly testing.

12. Phase II TRE

A plan for a Phase II TRE shall be submitted (date of receipt) to the Division by the permittee within 60 days of the submission (date of receipt) of the Phase II TRE Report. The Phase II TRE, as submitted to or revised by the Division, shall be incorporated into the permit as a modified compliance schedule.

The Phase II TRE plan shall include the scope, methods, procedures, reporting requirements, and schedules. A Phase II TRE may follow either of two directions, as appropriate: toxicant treatability studies, or toxicant/source identification and control studies. Toxicant treatability studies are designed to assess the feasibility of eliminating WET via addition or modification of treatment processes at the wastewater treatment facility.



B. MONITORING REQUIREMENTS

12. Phase II TRE (Continued)

Toxicant/source identification and control efforts are designed to identify toxicants, identify the sources of toxicants, and control whole effluent toxicity by eliminating the introduction of toxicants into the wastewater treatment facility. Toxicity identification studies performed by the permittee shall be in general accordance with accepted methods for Toxicity Identification Procedures and Toxicity Confirmation Procedures. The Phase II TRE permit conditions may be amended, if so requested and justified by the permittee.

The Phase II TRE report shall indicate the results of the Phase II TRE study. If the Phase II TRE results in the identification of the toxicants, the sources of toxicants, or treatment for elimination of the toxicant, the permittee shall submit for Division approval a control program to control WET within 60 days of submission (date of receipt) of the Phase II TRE Report, and shall proceed to implement such plan within 7 days following receipt of written approval from the Division.

If toxicity disappears during the Phase II TRE, the permittee shall submit written notification to that effect to the Division. The Division may require the permittee to conduct accelerated testing to demonstrate the continued absence of toxicity. If, after completing any Division directed accelerated testing, no acute toxicity is found to exist, the permittee shall resume normal quarterly testing.

13. Control Program

If required pursuant to Part I.B of this permit, the permittee shall develop a control program to eliminate WET, through the identification and elimination of any toxicants or toxicant sources responsible for WET, or through the identification and implementation of toxicant treatability processes. The control program, along with any cost/benefit analysis to determine whether the costs of construction bear a reasonable relationship to the resulting benefits, shall be submitted within the specified time frames. Such cost benefit analysis shall be used in accordance with Section 25-8-503(8) and (9), C.R.S. The control program, as submitted to or revised by the Division, may be incorporated into the permit.

A control program may include, but shall not be limited to: additional pretreatment requirements imposed on specific indirect permittees by POTW's, modification of internal source control programs by industries, modifications of treatment plants, and/or best management practices for spills, leaks, etc.

B. MONITORING REQUIREMENTS

14. Toxicity Incident Closure

If WET is controlled through implementation of numeric limits for specific toxicants, through a control program eliminating toxicants from the waste stream, or through the implementation of treatment processes, or if WET disappears and Division required accelerated testing demonstrate the continued absence of toxicity, the toxicity incident response shall be considered closed and normally quarterly monitoring shall resume.

If the permittee completes all required phases of the toxicity incident response specified in compliance schedules, and is unable either to identify the causative toxicants and their sources or to identify feasible treatment options, the permittee may petition the Division for relief from further investigation and testing, consistent with the permit regulations.

15. Frequency and Sample Type - Chronic WET Testing - Outfall 002 Only

The monitoring frequency for chronic toxicity tests shall be once every six months on a January - June, July - December sequence, and cannot coincide with acute testing. Chronic tests will be static replacement tests using three composite effluent samples, each of which is to be composited for a minimum of eight hours. Chronic testing will be conducted with both Ceriodaphnia sp. and fathead minnows during the first year. During years two and three, if requested in writing by the permittee, the Division may grant relief from continued two species testing. Such relief shall be for continued testing with only that species which has demonstrated the greatest sensitivity during the first year of testing. 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.

The permittee shall conduct each chronic toxicity test in general accordance with methods described in the Division guidance document entitled Guidelines for Conducting Whole Effluent Toxicity Tests.

As general information, chronic toxicity occurs when there is a statistically significant difference in survival, growth or reproduction for either species.

16. Toxicity Reopener

This permit may be reopened and modified (following proper administrative procedures) to include new compliance dates, additional or modified numerical permit limitation(s), 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 the more following events occur:

B. MONITORING REQUIREMENTS

16. Toxicity Reopener (Continued)

- a. Toxicity has been demonstrated in the effluent and the permit does not contain a toxicity limitation.
- b. The TRE results indicate that the toxicant(s) represent pollutant(s) that may be controlled with specific numeric limits, and the permit issuing authority agrees that the numerical controls are the most appropriate course of action.
- c. The TRE 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.

C. STORMWATER REQUIREMENTS

1. General Limitations.

- a. Stormwater which mixes with process water is subject to process water controls.
- b. Stormwater discharges from industrial activities shall not cause or threaten to cause pollution, contamination or degradation of State waters.
- c. Bulk storage structures for petroleum products and other chemicals shall have adequate protection so as to contain all spills and prevent any spilled material from entering State waters.

2. Stormwater Management Plan - Contents and Requirements. A Stormwater Management Plan (SWMP) shall be developed for the Fort St. Vrain Station, and submitted to the Division. The SWMP shall include the following items:

- a. Industrial Activity Description. The plan shall provide a narrative description of the industrial activities taking place at the Fort St. Vrain Station.
- b. Site Map. The plan shall include a site map indicating an outline of the drainage area of each stormwater and process water outfall, each existing structural control measure to reduce pollutants in stormwater runoff, and any surface water bodies.

C. STORMWATER REQUIREMENTS

2. Stormwater Management Plan - Contents and Requirements. (Continued)

c. Description of Potential Pollutant Sources/Material Inventory.

Each plan shall provide a description of potential sources which may be reasonably expected to add significant amounts of pollutants to stormwater discharges. The plan shall identify all activities and materials which may potentially be significant pollutant sources. The plan shall include:

- i. A narrative description of significant materials that have been treated, stored or disposed of in a manner to allow exposure to stormwater from January 1, 1990 to the present; method of on-site storage or disposal; materials management practices employed to minimize contact of these materials with stormwater runoff from January 1, 1990 to the present; and materials loading and access areas;
- ii. A list of significant spills and significant leaks of toxic or hazardous substances that occurred within the areas tributary to the stormwater outfalls from January 1, 1990 to the present;
- iii. For each plant area that contributes runoff to stormwater outfalls and that has a reasonable potential for containing significant amounts of pollutants, provide an estimate of the direction of flow, and of the types of pollutants which are likely to be present in the stormwater discharges; and
- iv. A summary of any existing discharge sampling data describing pollutants in stormwater discharges.

d. Stormwater Management Controls. The SWMP shall include a description of stormwater management controls to be implemented at the Fort St. Vrain Station. The control measures shall reflect identified potential sources of pollutants at the facility. The description of stormwater management controls shall address the following components, including a schedule for implementing such controls:

- i. SWMP Administrator - The SWMP shall identify a specific individual(s) within the plant organization who is responsible for developing the SWMP and assisting the plant manager in its implementation, maintenance, and revision. The activities and responsibilities of the administrator should address all aspects of the facility's SWMP
- ii. Risk Identification and Assessment - The SWMP shall assess the potential of various sources at the plant to contribute pollutants to stormwater discharges associated with industrial activity. Each of the following shall be evaluated for the reasonable potential for contributing

C. STORMWATER REQUIREMENTS

2. Stormwater Management Plan - Contents and Requirements. (Continued)

c. Description of Potential Pollutant Sources/Material Inventory.

- ii. Risk Identification and Assessment (Cont.) pollutants to runoff: loading and unloading operations; outdoor storage activities; outdoor manufacturing or processing activities; significant dust or particulate generating processes; and on-site waste disposal practices. Factors to consider include the toxicity of chemicals; quantity of chemicals used, produced, or discharged; the likelihood of contact with stormwater; and history of significant leaks or spills of toxic or hazardous substances.
- iii. Preventive Maintenance - A preventive maintenance program is required, and shall involve inspection and maintenance of stormwater management devices (cleaning oil/water separators, catch basins, etc.) as well as inspecting and testing plant equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters.
- iv. Good Housekeeping - Good housekeeping requires the maintenance of a clean, orderly facility. This part of the SWMP should address cleaning and maintenance schedules, trash disposal and collection practices, grounds maintenance, etc.
- v. Spill Prevention and Response Procedures - Areas where potential spills can occur, and their accompanying drainage points, shall be identified clearly in the SWMP. Procedures for cleaning up spills shall be identified in the plan and made available to the appropriate personnel.
- vi. Best Management Practices (BMPs) - The plan shall contain a narrative description of the stormwater management practices for the Fort St. Vrain Station. The measures shall be implemented and maintained. Any existing controls should also be discussed. The description of the BMPs shall include:
  - a) Stormwater diversion: Describe how and where stormwater will be diverted away from industrial areas to prevent stormwater contamination.
  - b) Materials handling and spill prevention: Where materials can impact stormwater runoff, existing practices that reduce the potential for contamination shall be described.



C. STORMWATER REQUIREMENTS

2. Stormwater Management Plan - Contents and Requirements. (Continued)

vi. Best Management Practices (BMPs) (Cont.)

c) Sediment and erosion prevention: The plan shall identify areas which, due to topography, activities, or other factors, have a high potential for significant soil erosion, and identify measures taken to limit erosion.

d) Other pollution prevention measures: The plan shall identify any other structural and non-structural measures for stormwater quality control on site.

vii. Employee Training - Employee training programs shall inform personnel at all levels of responsibility of the components and goals of the SWMP. The SWMP shall identify periodic dates for such training and shall include contractors and temporary personnel.

viii. Testing for Non-Stormwater Discharges - The SWMP shall include a certification that the discharges have been tested or evaluated for the presence of non-stormwater discharges. The certification shall include a description of the results of any test for the presence of non-stormwater discharges, the method used, the date of any testing, and the on-site drainage points that were directly observed during the test.

e. Comprehensive Inspection. The SWMP shall identify qualified personnel that shall inspect designated equipment and plant areas. The procedures and intervals of the comprehensive inspection shall also be specified in the plan and shall be consistent with Part I.C.5. The operator shall keep a record of such inspections. This record shall be made available to the Division upon request and summarized in the annual report.

f. Recordkeeping and Internal Reporting Procedures. Incidents such as spills or other discharges, along with other information describing the quality and quantity of stormwater discharges, shall be included in the records. Inspections and maintenance activities shall be documented and recorded. The SWMP shall identify procedures for recordkeeping and internal reporting.

g. Consistency with Other Plans. SWMPs may reflect requirements for Spill Prevention Control and Countermeasure (SPCC) plans under section 311 of the CWA, or Best Management Practices (BMPs) Programs otherwise required by a CDPS permit, and may incorporate any part of such plans into the SWMP by reference.



C. STORMWATER REQUIREMENTS

2. Stormwater Management Plan - Contents and Requirements. (Continued)

- h. Allowable Non-Stormwater Discharges. Except for flows from fire fighting activities, sources of non-stormwater listed in Part I.C.4.b of this permit that are combined with stormwater discharges associated with industrial activity must be identified in the plan. The plan shall identify and ensure the implementation of appropriate pollution prevention measures for the non-stormwater component(s) of the discharge.

3. Stormwater Management Plan Review, Implementation, and Compliance

- a. SWMP Review/Changes: Upon review of the SWMP, the Division may notify the permittee at any time that the plan does not meet one or more of the minimum requirements of this permit. After such notification, the permittee shall make changes to the plan and shall submit to the Division an update to the plan including the requested changes. Unless otherwise provided by the Division, the permittee shall have 30 days after such notification to both make the necessary changes to the plan and to implement them.

The permittee shall amend the plan whenever there is a change in design, construction, operation, or maintenance which has a significant effect on the potential for the discharge of pollutants to the waters of the State, or if the SWMP proves to be ineffective in achieving the general objectives of controlling pollutants in stormwater discharges associated with industrial activity. Amendments to the plan may be reviewed by the Division in the same manner as described above.

- b. SWMP Implementation and Compliance: The Fort St. Vrain Station SWMP shall be submitted to the Division, as soon as possible but no later than June 1, 1993. The Fort St. Vrain Station shall have implemented and be in compliance with the SWMP as soon as possible but no later than December 1, 1993.

4. Prohibition of Non-stormwater Discharges

- a. Except as provided in paragraph b, below, all discharges authorized by this portion of this permit shall be composed entirely of stormwater. Discharges of material other than stormwater must be addressed by the process water controls in this CDPS permit.
- b. Discharges from the following sources that are combined with stormwater discharges associated with industrial activity may be authorized by this permit, provided that the non-stormwater component of the discharge is identified in the SWMP: fire fighting activities, foundation or footing drain where flows are not contaminated, springs, and landscaping irrigation return flow.

C. STORMWATER REQUIREMENTS

5. Facility Inspections: Qualified personnel identified by the operator shall make a comprehensive inspection of their stormwater management system, at least twice per year (in the spring and fall). These comprehensive inspections must be documented and summarized in the annual report (see Part I.C.6 of the permit).
  - a. Material handling areas, disturbed areas, areas used for material storage that are exposed to precipitation, and other potential sources of pollution identified in the SWMP in accordance with Part I.B.3 of this permit shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Structural stormwater management measures, sediment and control measures, and other structural pollution prevention measures identified in the plan shall be observed to ensure that they are operating correctly. A visual inspection of equipment needed to implement the plan, such as spill response equipment, shall be made.
  - b. Based on the results of the inspection, the description of potential pollutant sources and pollution prevention measures identified in the plan shall be revised as appropriate within two weeks of such inspection. Such revisions shall provide for implementation of any changes to the plan in a timely manner, but in no case more than 90 days after the inspection.
  - c. A report summarizing the scope of the inspection, personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of the SWMP, and actions taken in accordance with paragraph (b), above, shall be made and retained as part of the SWMP for at least three years. The report shall be signed in accordance with Part I.E.1 of this permit.
6. Annual Report: The permittee will be required to submit an annual report, covering October 1 through September 30 of each year, on the overall compliance with the SWMP. The first report is due November 28, 1994. The annual report shall contain, at a minimum:
  - a. Name of permittee, address, phone number, and permit certification number.
  - b. A report on the facility's overall compliance with the SWMP.
  - c. Changes made in the individual items of the SWMP, and any proposed changes.
  - d. A summary of each comprehensive stormwater facility inspection made, including date, findings, and action taken.

The annual report will be due to the Division on or before November 28 of each year. All reports required for submittal shall be signed and certified for accuracy by the permittee. (See Part I.E.1 of the permit.)

C. STORMWATER REQUIREMENTS

7. SWMP Availability: A copy of the SWMP shall be provided to EPA upon request.

The SWMP required by this permit is considered a report that shall be available to the public under Section 308(b) of the CWA. The owner or operator of a facility with stormwater discharges covered by this permit shall make plans available to members of the public upon request. However, the permittee may claim any portion of a stormwater pollution plan as confidential in accordance with 40 CFR Part 2.

8. Salt Storage: Any storage piles of salt used for deicing or other commercial or industrial purposes and which generate a stormwater discharge associated with industrial activity which is discharged to state waters shall be enclosed or covered to prevent exposure to precipitation, except for exposure resulting from adding or removing materials from the pile. Dischargers shall demonstrate compliance with this provision as expeditiously as practicable, but in no event later than October 1, 1995.

9. Stormwater Definitions:

- a) Stormwater discharge associated with industrial activity means any point source which is used for collecting and conveying stormwater and which is located at an industrial plant or directly related to manufacturing, processing or raw materials storage areas at an industrial plant. The term includes, but is not limited to, stormwater discharges from drainage areas in which are located: industrial plant yards, immediate access roads and rail lines, drainage ponds, material handling sites, refuse sites, sites used for the application or disposal of process waters, sites used for storage and maintenance of material handling equipment, sites that are or have been used for residual treatment, storage or disposal, dust or particulate generating processes, shipping and receiving areas, manufacturing buildings, and storage areas (including tank farms) for raw materials, and intermediate and finished products.
- b) Material handling activities include: storage, loading and unloading of any raw material, intermediate product, finished product, by-product, or waste product where such products could come in contact with precipitation.
- c) Significant materials include but are not limited to: raw materials; fuels; materials such as metallic products; hazardous substances designated under section 101(14) of CERCLA; any chemical the facility is required to report pursuant to section 313 of SARA III; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with stormwater discharge.

PART I  
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Permit No.:  
CO-0001121

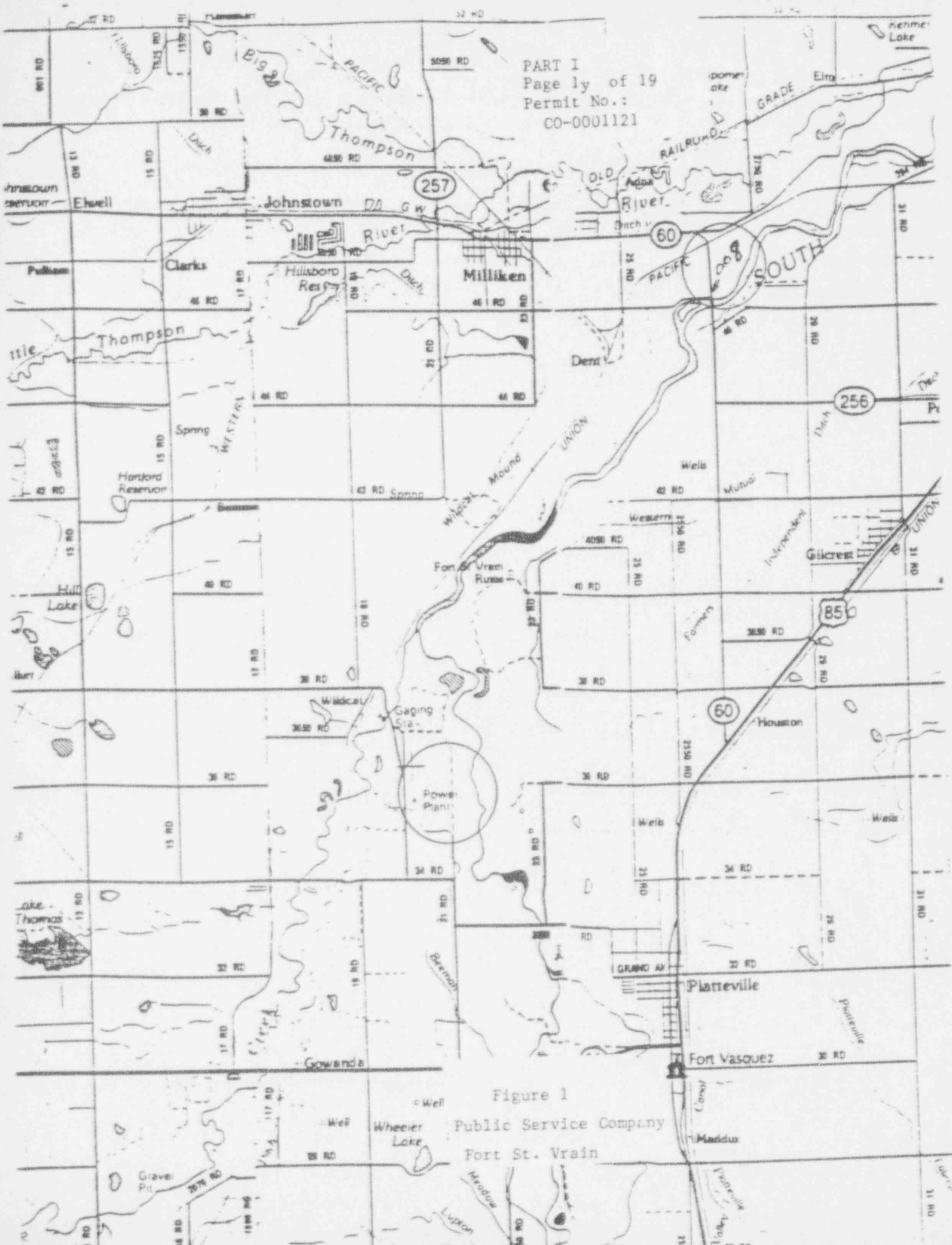


Figure 1  
Public Service Company  
Fort St. Vrain



FORT ST. VRAIN NUCLEAR GENERATING STATION  
PUBLIC SERVICE COMPANY OF COLORADO

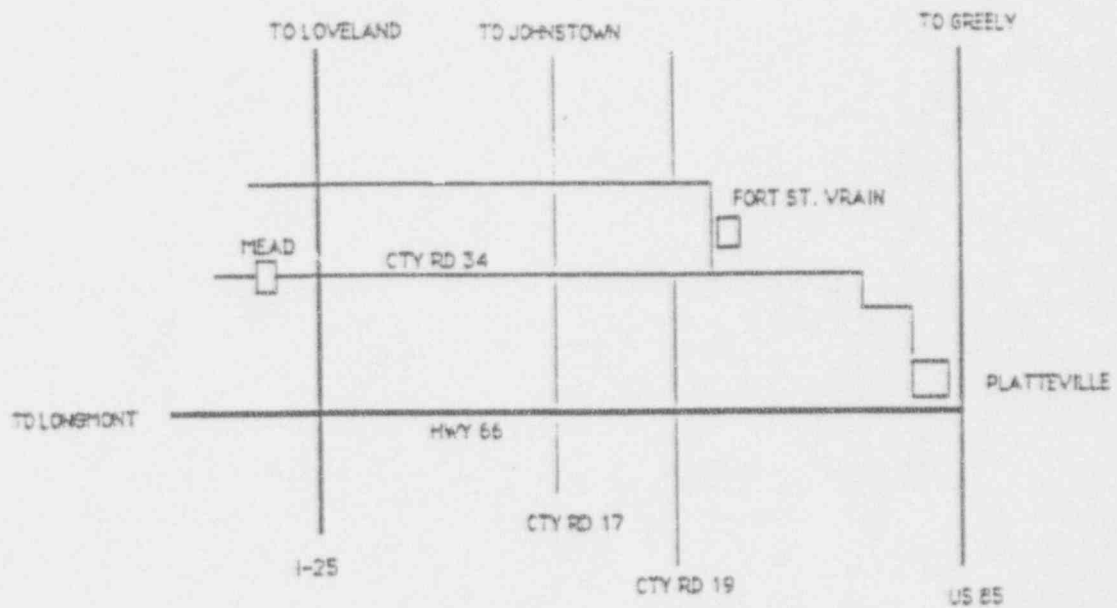
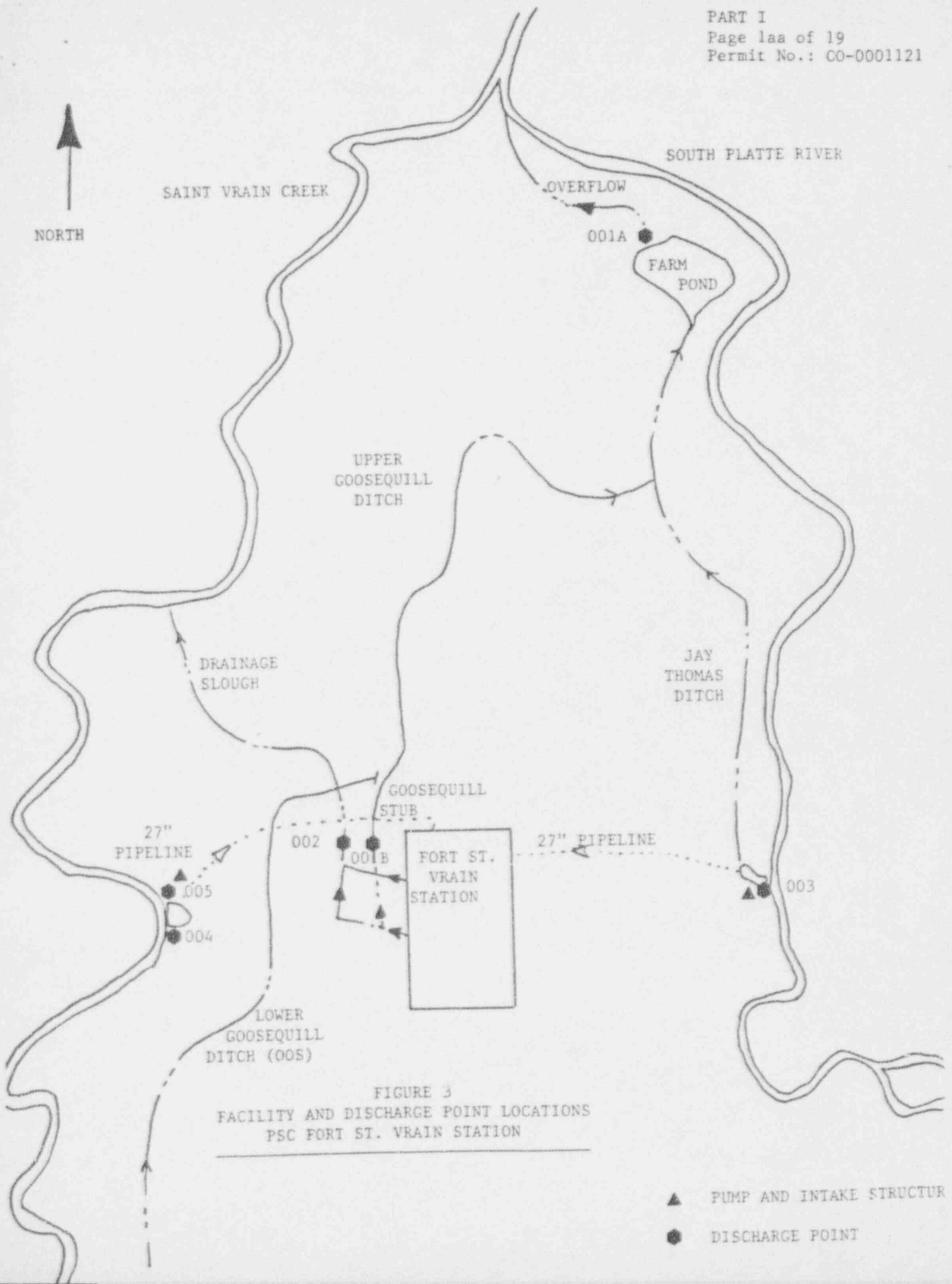


Figure 2

Location of Public Service Company  
Fort St. Vrain Station





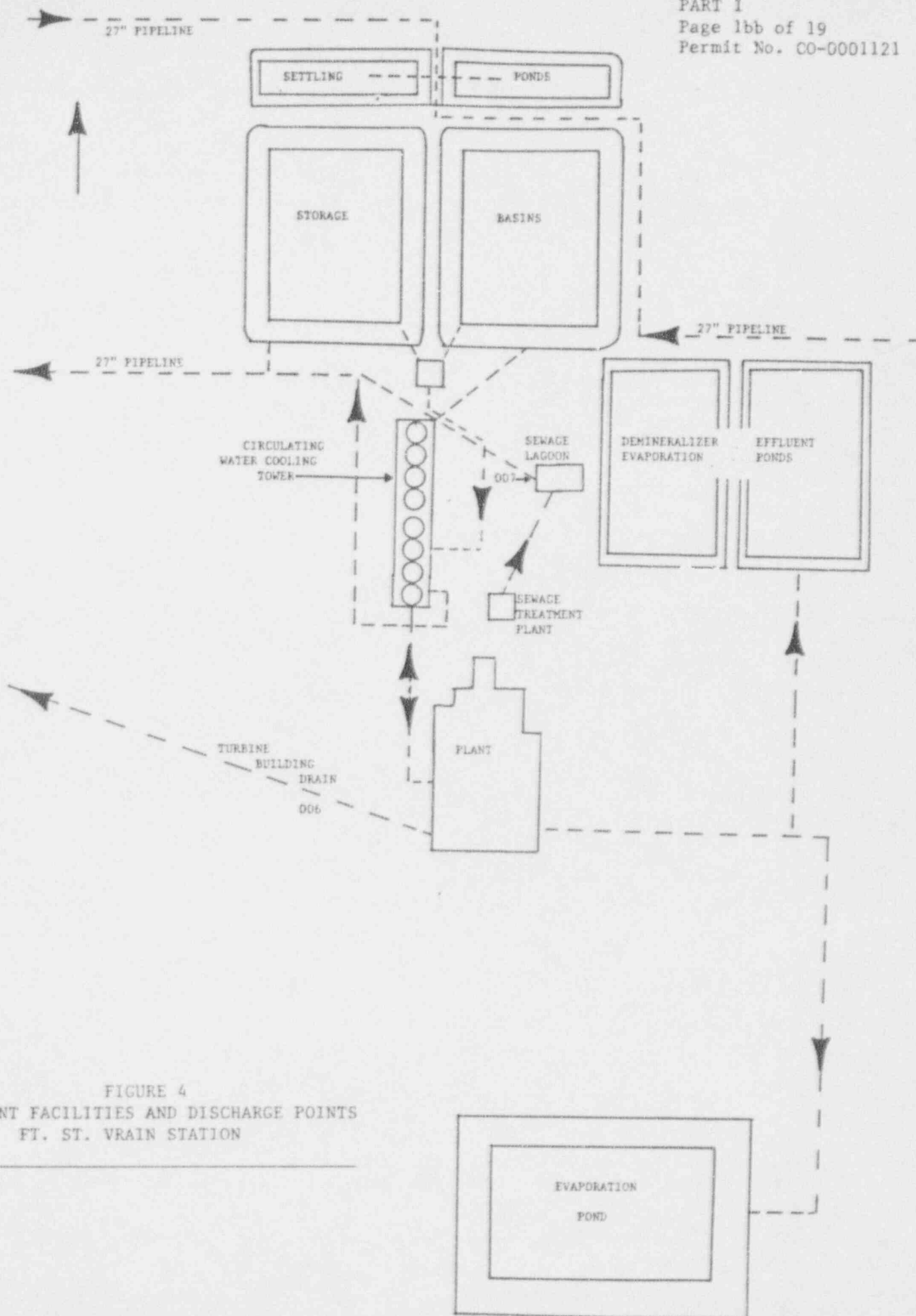
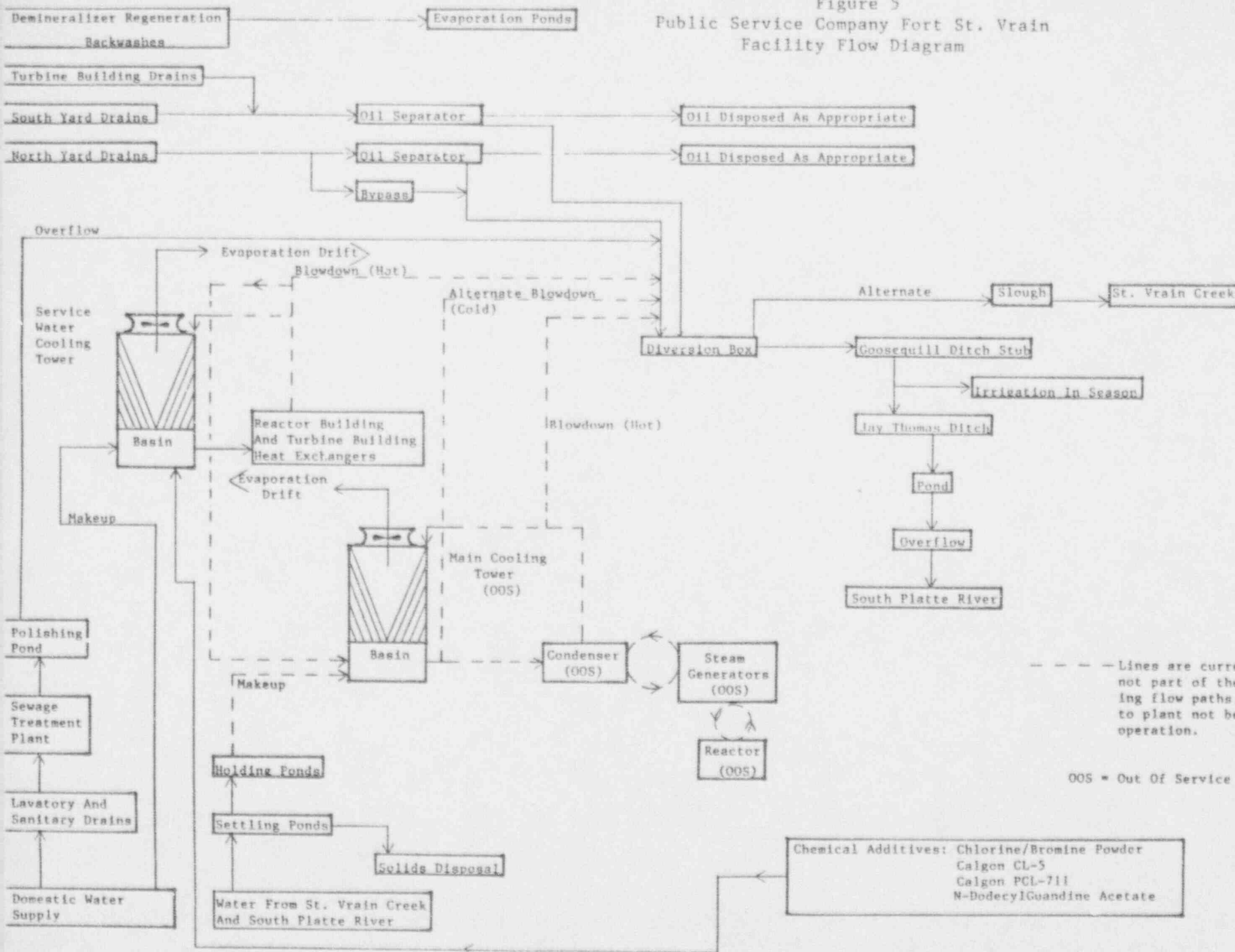


FIGURE 4  
 PLANT FACILITIES AND DISCHARGE POINTS  
 FT. ST. VRAIN STATION

Figure 5  
Public Service Company Fort St. Vrain  
Facility Flow Diagram

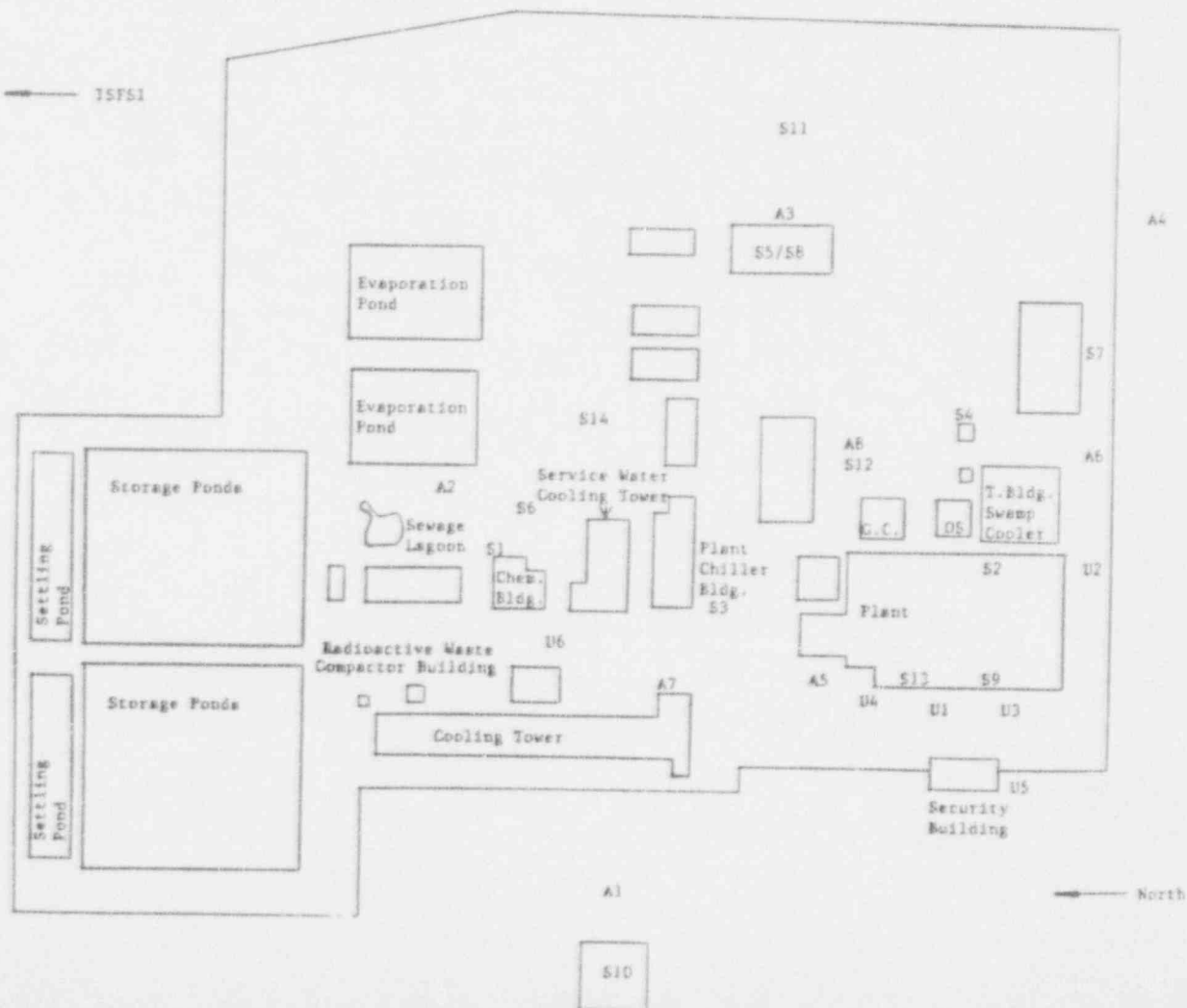


# SITE LAYOUT AND CHEMICAL STORAGE

- |                                  |                                |
|----------------------------------|--------------------------------|
| S1 Chemical Storage Building     | S8 PSC Hazardous Waste Storage |
| S2 Main Plant Demineralizer Room | S9 Formula 713 Tote Location   |
| S3 Sulfuric Acid Storage Tank    | S10 WT (Receiving) Warehouse   |
| S4 Oils/Solvents                 | S11 WT Hazardous Waste Storage |
| S5 Pole Barn Storage Building    | S12 WT Radiochemistry Lab      |
| S6 Portable Chemical Building    | S13 PSC Water Chemistry Lab    |
| S7 Portable Chemical Building    | S14 Propane Tank Facility      |

## OIL TANKS

- A1 Receiving Warehouse Gas and Diesel ASTs
- A2 North Evaporation Ponds Gas and Diesel ASTs
- A3 500 Gallon Mobile Storage Tanker
- A4 5,000 Gallon Mobile Storage Tanker
- A5 Security Diesel Day Tank (T-7802)
- A6 ACM Diesel Day Tank
- A7 Fire Pump Diesel Storage Tank (T-4503)
- A8 Chicago Pneumatic Compressor Receiver (E-8205)
- U1 System 84 Fuel Oil Storage Tanks (T-8401 & 2) - CLOSED
- U2 System 92 Fuel Oil Storage Tank (T-9201) - CLOSED
- U3 System 84 Fuel Oil Storage Tank (T-8403)
- U4 Security Diesel Storage Tank (T-7801)
- U5 South Oil Separator
- U6 North Oil Separator

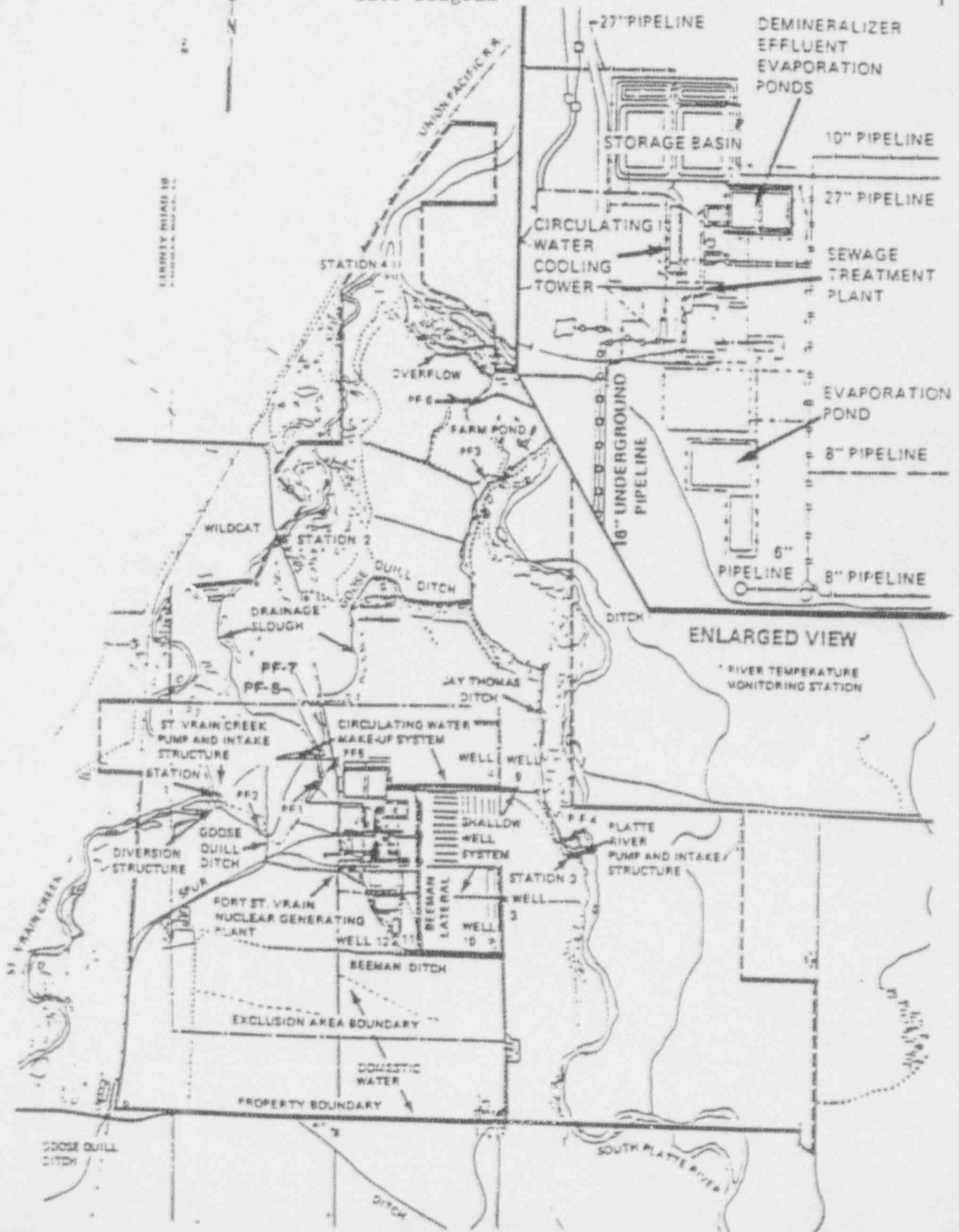




Public

PUBLIC SERVICE COMPANY OF COLORADO

### Site Diagram



D. FOOTNOTES - APPLICABLE TO PRECEDING PAGES

- a/ - The thirty (30) day average shall be determined by the arithmetic mean of all samples collected during a thirty (30) consecutive-day period. Samples shall not be used for more than one (1) reporting period. (Not applicable to fecal coliform determinations - see footnote m/.)
- b/ - The seven (7) day average shall be determined by the arithmetic mean of all samples taken in a seven (7) day period. Samples may not be used for more than one (1) reporting period. (Not applicable to fecal coliform determinations - see footnote m/.)
- c/ - This limitation shall be determined by a single sample or set of samples as required by Part I.B., Sample Type.
- d/ - When the measurement frequency indicated is quarterly, the samples shall be collected during March, June, September and December, if a continual discharge occurs. If the discharge is intermittent, then samples shall be collected during the period that discharge occurs. 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.
- e/ - Definitions of Sample Type
1. A "composite" sample, for monitoring requirements, is a minimum of four (4) grab samples collected at equally spaced two (2) hour intervals and proportioned according to flow.
  2. A "grab" sample, for monitoring requirements, is a single "dip and take" sample.
  3. An "instantaneous" measurement, for monitoring requirements, is a single reading, observation, or measurement performed on site.
  4. A "continuous" measurement, for flow monitoring requirements, is a measurement obtained from an automatic recording device which continually measures flow.
  5. A "visual" observation, for oil and grease monitoring requirements, is observing the discharge to check for the presence of a visible sheen or floating oil.
  6. An "in-situ" measurement, for monitoring requirements, is defined as a single reading, observation or measurement taken in the field at the point of discharge.

D. FOOTNOTES

- e/ - 7. 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.
- f/ - In the event an oil sheen or floating oil is observed, a grab sample shall be collected, analyzed, and reported on the appropriate DMR. In addition, corrective action shall be taken immediately to mitigate the discharge of oil and grease. A description of the corrective action taken should be included with the DMR.
- g/ - Where, based on a minimum of 5 samples, the permittee demonstrates to the satisfaction of the Water Quality Control Division that the level of total dissolved solids (TDS) in the effluent can be calculated based upon the level of electrical conductivity, the permittee may measure and report TDS in terms of electrical conductivity.
- h/ - TDS shall be sampled on a monthly basis until six samples have been analyzed. A report of "No Discharge" shall not be counted as one of the six samples. Thereafter, monitoring shall continue on a quarterly basis. Following submittal of the initial six sets of monthly data, the Division shall determine whether the permittee is required to submit a report addressing salt removal in accordance with Regulations For Implementation of the Colorado River Salinity Standards Through the NPDES Permit Program, 3.10.0. If the salinity report is required, the Division shall so advise the permittee by letter and the report shall be submitted within 180 days.
- i/ - This parameter is subject to "Noncompliance Notification" requirements of Part II.A.3.(b)(v) of this permit.
- j/ - Procedure for determining settleable solids is contained in 40 CFR 434.64. The method detection limit for measuring settleable solids under this part shall be 0.4 ml/l.
- k/ - Should a precipitation event occur which is greater than the 10-year, 24-hour event, the permittee shall submit rain gauge or other appropriate documentation in order for an exemption to be claimed. In lieu of such documentation, limitations contained in Part I.A.1.(b), shall apply. Documentation shall be reported as an attachment to the Discharge Monitoring Report for the appropriate period.



D. FOOTNOTES

- 1/ - When the most sensitive analytical method which complies with Part I.F.2 of the permit has a detection limit greater than or equal to the permit limit, the permittee shall report "less than the detectable limit", as appropriate. Such reports shall not be considered as violations of the permit limit.

The present lowest method detection limit for specific parameters (which have limitations which are, in some cases, less than or equal to the detection limit) are as follows:

Total Residual Chlorine	0.05	mg/l
Total Recoverable Cadmium	0.0003	mg/l
Total Recoverable Copper	0.005	mg/l
Total Recoverable Lead	0.005	mg/l
Total Mercury	0.00025	mg/l
Total Recoverable Nickel	0.05	mg/l
Total Recoverable Silver	0.0002	mg/l
Total Recoverable Zinc	0.05	mg/l

The present lowest method detection limits for the dissolved and also potentially dissolved parameters are the same as indicated for the above parameters.

- m/ - Fecal coliform bacteria average concentrations shall be determined by the geometric mean of all samples collected during a thirty (30) consecutive day period. The 7 day average shall be determined by the geometric mean of all samples taken during a seven (7) day period.

E. REPORTING

1. Signatory Requirements

All reports required for submittal 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.

F. SPECIAL REQUIREMENTS

1. Materials Containment Plan - Update

Pursuant to Sections 6.9.3 (5) and (6)(b) of the Regulations for the State Discharge Permit System, the permittee is required to submit a Materials Containment Plan. An update of the previous plan (which was submitted on May 30, 1986) shall be submitted to the Permits and Enforcement Section, Water Quality Control Division within ninety (90) days after the effective date of this permit. Any differences from the previous plan, such as information and procedures for the prevention and containment of spills of materials used, processed or stored at the facility which if spilled would have a reasonable probability of having a visible or otherwise detrimental impact on waters of the State, shall be included in the update 1/ 2/. The plan shall include, but not necessarily be limited to, any changes for the following:

- a) A history of spills which have occurred in the three (3) years preceding the effective date of this permit. The history shall include a causation of the spills and a discussion of measures taken to prevent them from reoccurring;
- b) A description of the reporting system which will be used to notify responsible facility management, the State Water Quality Control Division, the Environmental Protection Agency, downstream water users within 5 miles downstream of the facility, and local health officials;
- c) A description of preventative facilities (including overall facility plot) which prevent, contain, or treat spills and unplanned discharges;
- d) A list which includes the volumes or quantities of all materials used, processed, or stored at the facility which represent a potential spill threat to surface waters. The location of stored material shall be indicated on the facility plot submitted for item c);
- e) An implementation schedule for additional facilities which might be required in item c), but which are not yet operational;

- 1/ If there is no such material present at the site, this shall be indicated in writing and submitted to the Division for review.
- 2/ If there is material present but the permittee feels there is not a reasonable probability of a spill impacting waters of the State, this shall be documented in writing and submitted to the Division for review. This documentation shall include: 1) distance to nearest surface waters; and 2) a detailed description of any structure which prohibits the release of material onto the ground or into a conveyance system.

F. SPECIAL REQUIREMENTS

1. Materials Containment Plan - Update (Continued)

- f) A list of available outside contractors, agencies, or other sources which could be utilized in the event of a spill in order to clean up its effects. If the facility is capable of handling spills in-house, this shall be documented in the plan;
- g) Provision for yearly review and updating of the contingency plan, plus resubmission of the plan to the Division if conditions and/or procedures at the facility change the original plan.

The foregoing provisions shall in no way render inapplicable those requirements imposed by Section 311 of the Water Pollution Control Act Amendments of 1972, regulations promulgated thereunder, the Colorado Water Quality Control Act, and regulations promulgated thereunder. This plan should be prepared by a professional engineer registered in the State of Colorado.

Nothing herein contained shall be construed as allowing any discharge to waters of the State other than through the discharge points specifically authorized in this permit. Nothing herein contained shall be construed as excusing any liability the permittee might have, civil or criminal, for any spill.

The requirement for this update applies to the previously submitted Spill Prevention Control and Countermeasure Plan (SPCC Plan) or the previously submitted Materials Containment Plan (MCP).

G. GENERAL REQUIREMENTS

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before the effluent joins or is diluted by any other wastestream, body of water, or substance. Monitoring points shall not be changed without notification to and approval by the Division.

2. Analytical and Sampling Methods for Monitoring

Analytical and sampling methods utilized by the discharger shall conform to Colorado Regulations for Effluent Limitations (10.1.5), and to regulations published pursuant to Section 304 (h) of the Clean Water Act.

The analytical method selected for a parameter shall be the one that can measure the lowest detected limit for that parameter unless the permit limitation or stream standard for those parameters not limited, is within the testing range of another approved method.

3. Records

The permittee shall establish and maintain records. Those records shall include the following:

- a) The date, type, exact location, and time of sampling or measurements;
- b) The individual(s) who performed the sampling or measurements;
- c) The date(s) the analyses were performed;
- d) The individual(s) who performed the analyses;
- e) The analytical techniques or methods used;
- f) The results of such analyses; and
- g) Any other observations which may result in an impact on the quality or quantity of the discharge as indicated in 40 CFR 122.44 (i)(1)(iii).

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 of EPA.

F. GENERAL REQUIREMENTS

4. Flow Measuring Device

If not already a part of the permitted facility, within ninety (90) days after the effective date of the permit, a flow measuring device shall be installed to give representative values of effluent quantities at the respective discharge points. Unless specifically exempted, or modified in Part I.B.2 of this permit, a flow measuring device will be applicable at all designated discharge points.

At the request of the Water Quality Control Division, or the Environmental Protection Agency, the permittee shall show proof of the accuracy of any flow-measuring device used in obtaining data submitted in the monitoring report. The flow-measuring device must indicate values within ten (10) percent of the actual flow being discharged from the facility.



PART II

A. MANAGEMENT REQUIREMENTS

1. Change in Discharge

The permittee shall inform the Division (Permits and Enforcement Section) 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, in 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.

The permittee shall submit this notice within two (2) weeks after making a determination to perform the type of activity referred to in the preceding paragraph. Process modifications include, but are not limited to, the introduction of any new pollutant not previously identified in the permit, or any other modifications which may result in a discharge of a quantity or quality different from that which was evaluated in the drafting of the permit including subsequent amendments. Following such notice, the permittee shall be required to submit a new CDPS application and the permit may be modified to specify and limit any pollutants not previously limited, if the new or altered discharge might be inconsistent with the conditions of the existing permit. In no case shall the permittee implement such change without first notifying the Division.

2. Special Notifications - Definitions

- a) Bypass: The intentional diversion of waste streams from any portion of a treatment facility.
- b) Severe Property Damage: Substantial physical damage to property at the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. It does not mean economic loss caused by delays in production.
- c) Spill: An unintentional release of solid or liquid material which may cause pollution of state waters.
- d) 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 preventative maintenance, or careless or improper operation.

A. MANAGEMENT REQUIREMENTS

3. Noncompliance Notification

- a) If, for any reason, the permittee does not comply with or will be unable to comply with any discharge limitations or standards specified in this permit, the permittee shall, at a minimum, provide the Water Quality Control Division and EPA with the following information:
  - (i) A description of the discharge and cause of noncompliance;
  - (ii) The period of noncompliance, including exact dates and times and/or the anticipated time when the discharge will return to compliance; and
  - (iii) Steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.
- b) The permittee shall report the following instances of noncompliance orally within twenty-four (24) hours from the time the permittee becomes aware of the noncompliance, and shall mail to the Division a written report within five (5) days after becoming aware of the noncompliance:
  - (i) Any instance of noncompliance which may endanger health or the environment;
  - (ii) Any unanticipated bypass;
  - (iii) Any upset which causes an exceedance of any effluent limitation in the permit;
  - (iv) Any spill which causes any effluent limitation to be violated;
  - (v) Daily maximum violations for any toxic pollutants or hazardous substances limited by PART I-A of this permit and specified as requiring 24 hour notification.
- c) The permittee shall report all other instances of non-compliance not requiring 24-hour notification at the time Discharge Monitoring Reports are submitted. The reports shall contain the information listed in sub-paragraph (a) of this section.

A. MANAGEMENT REQUIREMENTS

4. Submission of Incorrect or Incomplete Information

Where the permittee failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or report to the Division, the permittee shall promptly submit the relevant application information which was not submitted or any additional information needed to correct any erroneous information previously submitted.

5. Bypass

The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but if and only if it is for essential maintenance to assure efficient operation.

Bypass is prohibited, and the Division may take enforcement action against a permittee for bypass, unless:

- a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- b) 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
- c) The permittee submitted notices as required in "Bypass Notification", Part II.A.6.

6. Bypass Notification

If the permittee knows in advance of the need for a bypass, a notice shall be submitted, at least ten days before the date of the bypass, to the Division and the Environmental Protection Agency (EPA). The bypass shall be subject to Division approval and limitations imposed by the Division and EPA.

A. MANAGEMENT REQUIREMENTS

7. 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; and
- (ii) The permitted facility was at the time being properly operated; and
- (iii) The permittee submitted notice of the upset as required in Part II.A.3. of this permit (24-hour notice); and
- (iv) The permittee complied with any remedial measures required under Section 122.7(d) of the federal regulations.

c) Burden of Proof

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

8. Removed Substances

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

A. MANAGEMENT REQUIREMENTS

9. Minimization of Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to waters of the State resulting from noncompliance with any effluent limitations specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

10. Discharge Point

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

11. Reduction, Loss, or Failure of Treatment Facility

The permittee has the duty to halt or reduce any activity if necessary to maintain compliance with the effluent limitations of the permit. Upon reduction, loss, or failure of the treatment facility, the permittee shall, to the extent necessary to maintain compliance with its permit, control production, or all discharges, or both until the facility is restored or an alternative method of treatment is provided. This provision for example, applies to power failures, unless an alternative power source sufficient to operate the wastewater control facilities is provided.

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

12. Proper Operation and Maintenance

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 to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

B. RESPONSIBILITIES

1. Inspections and Right to Entry

The permittee shall allow the Director of the State Water Quality Control Division, the EPA Regional Administrator, and/or their authorized representative, upon the presentation of credentials:

- a) To enter upon the permittee's premises where a regulated facility or activity is located or in which any records are required to be kept under the terms and conditions of this permit;
- b) At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit and to inspect any monitoring equipment or monitoring method required in the permit; and
- c) To enter upon the permittee's premises to investigate, within reason, any actual, suspected, or potential source of water pollution, or any violation of the Colorado Water Quality Control Act. The investigation may include, but is not limited to, the following: sampling of any discharge and/or process waters, the taking of photographs, interviewing permittee staff on alleged violations, and 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.
- d) The Division shall split any sample taken with the permittee if requested to do so by the permittee.

2. Duty to Provide Information

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

3. Transfer of Ownership or Control

A permit may be transferred to a new permittee if:

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



B. RESPONSIBILITIES

3. Transfer of Ownership or Control (Continued)

- 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
- c) The current permittee has met all fee requirements of the State Discharge Permit System Regulations, Section 6.16.0.

4. Availability of Reports

Except for data determined to be confidential under Section 308 of the Federal Clean Water Act and Regulations for the State Discharge Permit System 6.6.4 (2), all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the State Water Quality Control Division and the Environmental Protection Agency.

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

All permit modification, termination or revocation and reissuance actions shall be subject to the requirements of the State Discharge Permit System Regulations, Sections 6.6.2, 6.6.3, 6.8.0 and 6.16.0, 5 C.C.R. 1002-2, except for minor modifications. Minor modifications may only correct typographical errors, require a change in the frequency of monitoring or reporting by the permittee, change an interim date in a schedule of compliance or allow for a change in ownership or operational control of a facility including addition, deactivation or relocation of discharge points where the Division determines that no other change in the permit is necessary.

- a) This permit may be modified, suspended, or revoked 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;
  - (iii) Materially false or inaccurate statements or information in the application for the permit;

B. RESPONSIBILITIES

5. Modification, Suspension, or Revocation of Permits By the Division  
(Continued)

- (iv) Promulgation of toxic effluent standards or prohibitions (including any schedule of compliance specified in such effluent standard or prohibition) which are established under Section 307 of the Clean Water Act, where such a toxic pollutant is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit.
- b) This permit may be modified in whole or in part due to a change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge, such as:
  - (i) Promulgation of Water Quality Standards applicable to waters affected by the permitted discharge; or
  - (ii) Effluent limitations or other requirements applicable pursuant to the State Act or federal requirements; or
  - (iii) Control regulations promulgated; or
  - (iv) Data submitted pursuant to Part I.B indicates a potential for violation of adopted Water Quality Standards or stream classifications.
  - (v) Removal of a temporary modification to a stream standard thereby requiring the application of the stream standard.
- c) This permit may be modified in whole or in part to include new effluent limitations and other appropriate conditions where data submitted pursuant to Part I.B.3 indicates that such effluent limitations and conditions are necessary to ensure compliance with applicable water quality standards and protection of classified uses.
- d) At the request of the permittee, the Division may modify or terminate this permit if the following conditions are met:

B. RESPONSIBILITIES

5. Modification, Suspension, or Revocation of Permits By the Division  
(Continued)

- (i) In the case of termination, the permittee notifies the Division of its intent to terminate the permit 90 days prior to the desired date of termination;
- (ii) In the case of termination, the permittee has ceased any and all discharges to state waters and demonstrates to the Division there is no probability of further uncontrolled discharge(s) which may affect waters of the State.
- (iii) The Environmental Protection Agency has been notified of the proposed modification or termination and does not object in writing within thirty (30) days of receipt of notification;
- (iv) The Division finds that the permittee has shown reasonable grounds consistent with the Federal and State statutes and regulations for such modification, amendment or termination;
- (v) Fee requirements of Section 6.16.0 of State Discharge Permit System Regulations have been met; and
- (vi) Requirements of public notice have been met.

6. Oil and Hazardous Substance Liability

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

7. State Laws

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

8. Permit Violations

Failure to comply with any terms and/or conditions of this permit shall be a violation of this permit.

B. RESPONSIBILITIES

9. Property Rights

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

10. Severability

The provisions of this permit are severable. If any provisions of this permit, or the application of any provision of this permit to 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.

11. 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 should be promptly notified so that it can terminate the permit in accordance with Part II.B.6.

12. Confidentiality

Any information relating to any secret process, method of manufacture or production, or sales or marketing data which has been declared confidential by the permittee, and which may be acquired, ascertained, or discovered, whether in any sampling investigation, emergency investigation, or otherwise, shall not be publicly disclosed by any member, officer, or employee of the Commission or the Division, but shall be kept confidential. Any person seeking to invoke the protection of this Subsection (2) shall bear the burden of proving its applicability. This section shall never be interpreted as preventing full disclosure of effluent data.

13. Fees

The permittee is required to submit payment of an annual fee as set forth in the 1983 amendments to the Water Quality Control Act. Section 25-8-502 (1) (b), and State Discharge Permit Regulations 5CCR 1002-2, Section 6.16.0 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.