



City of Phoenix
WATER SERVICES DEPARTMENT
ENVIRONMENTAL & SAFETY DIVISION
Quality Reliability Value

INDUSTRIAL WASTEWATER PERMIT APPLICATION

Note to Signing Official: In accordance with Title 40 of the Code of Federal Regulations Part 403 Section 403.14, information and data provided in this permit application which identifies the nature and frequency of discharge shall be available to the public without restriction. Requests for confidential treatment of other information shall be governed by procedures specified in 40 CFR Part 2.

For new Permittees, an ORIGINAL SIGNED HARD-COPY of the completed and signed application and ALL supplementary materials are to be received by IPP 180-days prior to your projected date to commence discharge OR as otherwise specified in writing.

DUE DATE: _____

SUBMIT ORIGINAL SIGNED HARD-COPY APPLICATION TO:

City of Phoenix Water Services Department
Industrial Pretreatment Program (IPP)
2474 South 22nd Avenue, Building 31
Phoenix, Arizona 85009-6918

ATTN: _____

FOR CITY USE ONLY

This application is for:

- ☒ New Permit
☐ Permit Renewal
☐ Permit Revision

Determination:

- ☐ Permit Not Required
☐ Class A SIU Permit
☐ Class B Permit:
 ☐ High Strength
 ☐ Groundwater Remediation
 ☐ Pollution Prevention/BMP
 ☐ Other
☐ Class C Permit

iPACS ID №: _____

SECTION A. GENERAL INFORMATION

Please type or print:

1. BUSINESS INFORMATION

Legal Business Name: _____
Mailing Address: _____
Business Owner: _____
Mailing Address: _____
Facility Name: _____
Facility Address: _____
Facility Contact/Title: _____
Contact Telephone №: _____ Contact E-mail: _____
Name of Signing Official: _____
Pursuant to 40 § 403.12(f)
Title of Signing Official: _____

2. PROPERTY INFORMATION

Property Address: _____
Property Owner: _____
Mailing Address: _____
Property Owner Telephone №: _____

3. Date that operations commenced at current location: _____

SECTION B. PRODUCT OR SERVICE INFORMATION

1. Attach an inventory of raw materials and/or chemicals used at the facility:
☐ **Raw Materials and/or Chemicals Inventory Attached**
2. List or attach a brief description of manufacturing or service activity conducted at the facility. List *all* processes and production rates.
☐ **Description of Processes Attached**

3. Indicate applicable Standard Industrial Classification (SIC) Codes(s) for all activities.
(If more than one applies, list in descending order of importance with a. as the primary SIC code)

a. _____ b. _____ c. _____ d. _____ e. _____

SECTION C. FACILITY OPERATIONAL CHARACTERISTICS

1. SHIFT INFORMATION

Shift Start/End Times: 1st _____ 2nd _____ 3rd _____

Average number of employees per shift per day:

	SUN	MON	TUE	WED	THUR	FRI	SAT
1 st	_____	_____	_____	_____	_____	_____	_____
2 nd	_____	_____	_____	_____	_____	_____	_____
3 rd	_____	_____	_____	_____	_____	_____	_____

2. Is production seasonal or intermittent? ☐ **YES** ☐ **NO**

3. Describe monthly manufacturing, service activities, and shutdowns (maintenance, vacation, etc.) below:

4. Manufacturing processes which generate wastewater or have the potential to generate wastewater:

Process Description:	Is The Wastewater Discharge?			% Batch	% Continuous
	Batch	Continuous	Both		
_____	☐	☐	☐	_____	_____
_____	☐	☐	☐	_____	_____
_____	☐	☐	☐	_____	_____

SECTION C. FACILITY OPERATIONAL CHARACTERISTICS - continued

5. Are any process changes or expansions planned during the next five (5) years that would alter wastewater volumes or characteristics?

Consider production, manufacturing, water reuse or conservation, wastewater treatment changes or any other change which would effect the volume or type of discharge.

☐ YES ☐ NO (If "NO", skip item C-6)

6. Describe these changes and their effects on the wastewater volume and characteristics:
(Attach additional sheet(s) if necessary.)

7. Are any water reclamation or conservation systems, material recovery or recycling systems in use or planned?

☐ YES ☐ NO (If "NO", skip item C-8)

8. Briefly describe conservation, recovery or recycling process(es); substance recovered or recycled; percent recovered, recycled or conserved; and the remaining concentration in the spent solution. Submit flow diagram for each process: (Attach additional sheets if needed.)

9. Have any material substitutions, for the purpose of eliminating or reducing wastes, been implemented, or planned?

☐ YES ☐ NO (If "NO", skip item C-10)

10. Briefly describe the material substitution and the manufacturing process in which the substitution material is used. Include the economic and environmental benefits (i.e., dollars saved, amount of waste eliminated, waste handling modifications, etc.) derived from this substitution. (Attach additional sheets if needed.)

11. Has a State of Arizona required Pollution Prevention Plan been implemented? ☐ YES ☐ NO

SECTION D. INCOMING WATER USAGE

Is water used in manufacturing or for any industrial process?

☐ YES

☐ NO

Does the facility receive water from a private well?

☐ YES

☐ NO

Describe in detail any water treatment processes used for incoming raw water and which industrial process this treated water is used for:

List the sources and process use for any liquids used in industrial processes onsite that are discharged to sewer and the average daily volume of the discharge.

<u>Liquid Description</u>	<u>Source</u>	<u>Process Use</u>	<u>Volume Incoming</u>

5. List water consumption in facility processes: (Daily average based on 12 months of City water bills. For a new facility, provide the best engineering estimate.)

Non-Contact Cooling Water	_____	gallons per day
Boiler Feed	_____	gallons per day
Manufacturing Process/ Business Operations	_____	gallons per day
Personnel Sanitary Use	_____	gallons per day
Contained in product	_____	gallons per day
Landscaping/Other	_____	gallons per day
TOTAL	_____	gallons per day

6. **Provide a Water Balance Diagram** showing average per day volumes for ALL (1) Sources of incoming water, (2) Water purification or treatment processes, (3) Processes for which water is used or becomes product, (4) Water evaporation or losses, (5) Wastewater generated from each process, (6) Wastewater wastestreams sent to pretreatment, (7) Wastewater wastestreams evaporated, (8) Wastewater wastestreams shipped offsite for treatment and disposal.

☐ **Water Balance Diagram attached as required (refer to Appendix 4-5)**

SECTION E. OUTGOING WASTEWATER DISCHARGE

1. List average volume of water discharged to: (For a new facility provide the best engineering estimate.)

City sanitary sewer	_____	gallons per day
City storm sewer	_____	gallons per day
Waste hauler	_____	gallons per day
Other ()	_____	gallons per day
TOTAL	_____	gallons per day

SECTION E. OUTGOING WASTEWATER DISCHARGE - continued

Is the discharge to sewer: ☐ Intermittent? ☐ Continuous?

2. List average volume of water lost (not discharged) to:

Food Preparation	_____	gallons per day
Evaporation	_____	gallons per day
Contained in product	_____	gallons per day
Irrigation	_____	gallons per day
Other ()	_____	gallons per day
TOTAL	_____	gallons per day

3. List the flows from individual manufacturing/service processes in gallons per day (GPD) (including boiler blowdown, RO reject, non-contact cooling, etc.):

Process Description	Avg Flow (gallons/day)	Max Flow (gallons/day)	Type of Discharge Batch, Continuous, None

4. **Provide on a separate sheet(s) a schematic drawing showing the following:**

(1) All wastewater flows and types. (2) Location of all wastewater treatment system(s) and devices including interceptors, traps (grease, sand/oil, grit, or other); ion exchange, filtration, neutralization systems; or any other wastewater treatment device in use. (3) Sampling locations. (4) Connection(s) to the sanitary sewer. (5) Location of all floor drains. (6) Location of chemical storage area(s). (7) Location of berms and other spill control devices. (8) Location of waste holding area(s). (9) Include construction drawings if available.

☐ **Schematic attached as required (refer to Appendix 7 for Plan Review)**

5. Are any of the following located on the property?

Storm sewers ☐ YES ☐ NO Dry wells ☐ YES ☐ NO

Private wells ☐ YES ☐ NO Abandoned water wells ☐ YES ☐ NO

If YES to any of the above, please provide a separate schematic indicating the location(s) of each in relationship to the building(s) and the process(es) conducted on the premises.

☐ **Schematic attached as required (refer to Appendix 7 for Plan Review)**

6. Do the manufacturing or service process(es) ever generate any unused liquid product(s) (i.e., bad batches, production over runs, product returned from customers, etc.)?

☐ YES ☐ NO

If YES, describe process, product, average volume per day and the disposal method.

SECTION F. WASTEWATER TREATMENT

1. For all waste streams which are treated before discharge, describe the wastestream and the types of pretreatment.

Wastestream Description	Type of Pretreatment

2. Does the facility have *any of* the following pretreatment devices:

- ☐ Grease interceptor ☐ Silver recovery ☐ Ion Exchange ☐ Ultra-filtration
☐ Sand/oil interceptor ☐ Acid neutralization ☐ Reverse Osmosis
☐ Solids interceptor ☐ Evaporator ☐ Other (list) _____

3. Provide a separate schematic for all pretreatment systems or equipment. Include flow paths, directional arrows, flow capacity ratings, retention times, and location(s) of City sewer tap into which the pretreatment system is connected.

☐ **Schematic attached as required (refer to Appendix 7 for Plan Review)**

4. If any form of new or additional **wastewater** pretreatment is planned for this facility within the next five (5) years, describe the process waste stream the type of treatment.

Expected operational date: _____

SECTION G. DISCHARGE CHARACTERISTICS

1. **Per Appendix 3, please provide sampling data as required.**
2. Indicate the priority pollutants listed below being used, stored, and/or discharged from this facility. Provide the information below and note whether the discharge is to the sanitary sewer, waste hauler, or other. **DO NOT LEAVE SECTION G BLANK OR USE N/A; NUMERICAL VALUES ARE REQUIRED.**

PRIORITY POLLUTANTS	AMOUNT OF CHEMICALS ONSITE SPECIFY UNITS	AMOUNT TO SANITARY SEWER GALLONS/YEAR	AMOUNT TO WASTE HAULER GALLONS/YEAR	AMOUNT TO OTHER () GALLONS/YEAR
1. Acenaphthene				
2. Acrolein				
3. Acrylonitrile				
4. Benzene				
5. Benzidine				
6. Carbon Tetrachloride (Tetrachloromethane)				
7. Cholorbenezene				
8. 1,2,4-trichlorobenzene				
9. Hexacholorobenzene				
10. 1,2-dichloroethane				
11. 1,1,1-trichloroethane				
12. Hexachloroethane				
13. 1,1-dichloroethane				
14. 1,1,2-trichloroethane				
15. 1,1,2,2-tetrachloroethane				
16. Bis(2-chloroethyl) ether				
17. 2-chloroethyl vinyl ether (mixed)				
18. 2-chloronaphtalene				
19. 2,4,6-trichlorophenol				
20. Parachlorometa cresol				
21. Chloroform (Trichloromethane)				
22. 2-chlorophenol				
23. 1,2-dichlorobenzene				
24. 1,3-dichlorobenzene				
25. 1,4-dichlorobenzene				
26. 3,3-dichlorobenzidine				

PRIORITY POLLUTANTS	AMOUNT OF CHEMICALS ONSITE SPECIFY UNITS	AMOUNT TO SANITARY SEWER GALLONS/YEAR	AMOUNT TO WASTE HAULER GALLONS/YEAR	AMOUNT TO OTHER () GALLONS/YEAR
27. 1,1-dichloroethylene				
28. 1,2-trans-dichloro-ethylene				
29. 2,4-dichlorophenol				
30. 1,2-dichloropropene (1,3-dichloropropene)				
31. 2,4-dimethylphenol				
32. 2,4-dinitrotoluene				
33. 2,6-dinitrotoluene				
34. 1,2-diphenylhydrazine				
35. Ethylbenzene				
36. Fluoranthene				
37. 4-chlorophenyl phenyl ether				
38. 4-bromophenyl phenyl ether				
39. Bis (2-chloroisopropyl) ether				
40. Bis (2-chloroethoxy) methane				
41. Methylene chloride (dichloromethane)				
42. Methyl chloride (dichloromethane)				
43. Methyl bromide (bromomethane)				
44. Bromoform (Tribromomethane)				
45. Dichlorobromomethane				
46. Chlorodibromomethane				
47. Hexachlorobutadiene				
48. Hexachlorocyclopentadiene				
49. Isophorone				
50. Naphthalene				
51. Nitrobenzene				
52. 2-nitrophenol				
53. 4-nitrophenol				
54. 2,4-dinitrophenol				
55. 4,6-dinitro-o-cresol				
56. N-nitrosodimethylamine				

PRIORITY POLLUTANTS	AMOUNT OF CHEMICALS ONSITE SPECIFY UNITS	AMOUNT TO SANITARY SEWER GALLONS/YEAR	AMOUNT TO WASTE HAULER GALLONS/YEAR	AMOUNT TO OTHER () GALLONS/YEAR
57. N-nitrosodiphenylamine				
58. Pentachlorophenol				
59. Phenol				
60. Bis (2-ethylhexyl) phthalate				
61. Butyl benzyl phthalate				
62. Di-N-butyl Phthalate				
63. Di-N-octyl Phthalate				
64. Diethyl Phthalate				
65. Dimethyl Phthalate				
1,2-benzanthracene				
66. (Benzo(a)anthracene)				
Benzo(a)pyrene (3,4-benzo-				
67. pyrene)				
3,4-benzofluoranthene				
68. (benzo(b)fluoranthene)				
2-benzofluoranthene				
69. (benzo(k)fluoranthene)				
70. Chrysene				
71. Acenaphthylene				
72. Anthracene				
1,12-benzoperylene				
73. (benzo(ghi)perylene)				
74. Fluorene				
75. Phenanthrene				
1,2,5,6-dibenzanthracene				
76. (dibenz(a,h)anthracene)				
Ideno(1,2,3-cd--pyrene(2-3-o-				
77. phenylene pyrene)				
78. Pyrene				
79. Tetrachloroethylene				
80. Toluene				
81. Trichloroethylene				
82. Vinyl Chloride (chloroethylene)				
83. Aldrin				
84. Dieldrin				
Chlordane				
85. (technical mixture & metabolites)				

PRIORITY POLLUTANTS	AMOUNT OF CHEMICALS ONSITE SPECIFY UNITS	AMOUNT TO SANITARY SEWER GALLONS/YEAR	AMOUNT TO WASTE HAULER GALLONS/YEAR	AMOUNT TO OTHER () GALLONS/YEAR
86. 4,4-DDT				
87. 4,4-DDE (p,p-DDX)				
88. 4,4-DDD(p,p-TDE)				
89. Alpha-endosulfan				
90. Beta-endosulfan				
91. Endosulfan sulfate				
92. Endrin				
93. Endrin Aldehyde				
94. Heptachlor				
Heptachlor epoxide (BHC-				
95. hexachlorocyclohexane)				
96. Alpha -BHC				
97. Beta-BHC				
98. Gamma-BHC (Lindane)				
Delta-BHC (Delta-				
99. Hexachlorocyclohexane)				
100. PCB-1242 (Arochlor 1242)				
101. PCB-1254 (Arochlor 1254)				
102. PCB-1221 (Arochlor 1221)				
103. PCB-1232 (Arochlor 1232)				
104. PCB-1248 (Arochlor 1248)				
105. PCB-1260 (Arochlor 1260)				
106. PCB-1016 (Arochlor 1016)				
107. Toxaphene				
108. Antimony (Total)				
Arsenic (Total) and Arsenic				
109. Compounds (list)				
110. Asbestos (Fibrous)				
111. Barium				
Beryllium (Total) and				
112. Beryllium Compounds (list)				
Cadmium (Total) and				
113. Cadmium Compounds (list)				

PRIORITY POLLUTANTS	AMOUNT OF CHEMICALS ON SITE SPECIFY UNITS	AMOUNT TO SANITARY SEWER GALLONS/YEAR	AMOUNT TO WASTE HAULER GALLONS/YEAR	AMOUNT TO OTHER () GALLONS/YEAR
Chromium (Total) and 114. Chromium Compounds (list)				
Copper (Total) and 115. Copper Compounds (list)				
Cyanide(Total) and 116. Cyanide Compounds (list)				
Lead (Total) and 117. Lead Compounds (list)				
Mercury (Total) and Mercury 118. Compounds (list)				
Molybdenum (Total) and 119. Molybdenum Compounds (list)				
Nickel (Total) and 120. Nickel Compounds (list)				

PRIORITY POLLUTANTS	AMOUNT OF CHEMICALS ONSITE SPECIFY UNITS	AMOUNT TO SANITARY SEWER GALLONS/YEAR	AMOUNT TO WASTE HAULER GALLONS/YEAR	AMOUNT TO OTHER () GALLONS/YEAR
Selenium (Total) and 121. Selenium Compounds (list)				
Silver (Total) and 122. Silver Compounds (list)				
Thallium (Total) and 123. Thallium Compounds (list)				
Zinc (Total) and 124. Zinc Compounds (list)				
2,3,7,8-Tetrachloro-dibenzo-p- 125. dioxin(TCDD)				
Sulfides (Total) and 126. Sulfur Compounds (list)				

SECTION G. DISCHARGE CHARACTERISTICS – continued

3. Are any wastes or sludges generated and **not** disposed of in the sanitary sewer system?

☐ **YES** → Complete the following for all wastes **not disposed of in the sanitary sewer**.

☐ **NO** → Skip the remainder of Section G.

Wastes	Estimated Quantity Per Month (indicate units)	Disposal Method (i.e., landfill, recycle, sale, evaporation, incineration, etc.)
Waste solvent		
Oil/Grease/Lubricants		
Process baths		
Pretreatment sludge		
Filter Press Cake		
Inks/Dyes		
Paints/Thinner		
Acids and Alkalis		
Left over or extra product		
Pesticides		
Used Oil/Coolant		
Other (specify):		

4. If an outside firm removes any of the above checked wastes, give the names(s), address(es), and permit numbers of all waste haulers:

1. _____

Permit No _____

2. _____

Permit No _____

5. Do any of the wastes require Resource Conservation and Recovery Act permits? ☐ **YES** ☐ **NO**

If "Yes", please specify which wastes and provide the permit number and issuing authority name:

SECTION H. ENVIRONMENTAL CONTROL PERMITS

1. List all environmental control permits issued for this facility.

PERMIT TITLE	PERMIT NUMBER	ISSUING AGENCY	EXPIRATION DATE

2. Has a Phoenix Fire Department Hazardous Materials Application, Inventory, and Drawing been required for this facility? ☐ YES ☐ NO (If YES provide a copy with this Application)

SECTION I. LOCAL AND FEDERAL CATEGORICAL LIMITS

1. Is the facility performing any processes described in Appendix 1?
☐ YES ☐ NO

SECTION J. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name of Company Official: _____

Title of Company Official: _____

Signature of Company Official: _____
Signature Pursuant to 40 § 403.12(l) Signatory Requirements

Date: _____

Mailing Address, e-mail Address, and Phone Number of Company Official:

APPENDIX 1

SUMMARY OF CATEGORICAL PRETREATMENT STANDARDS

EPA has established categorical pretreatment standards (for indirect dischargers) for 35 categories. Plans for EPA's expansion and modification of the list are detailed in the *Effluent Guidelines Plan*, published in the *Federal Register* biennially as required at CWA section 304(m). The list of the industrial categories that have categorical pretreatment standards—Pretreatment Standards for Existing Sources (PSES) and Pretreatment Standards for New Sources (PSNS)—as of March 2011 are provided below.

No	CATEGORY	40 CFR PART	SUBPARTS	TYPE OF STANDARD	OVERVIEW OF PRETREATMENT STANDARD
1	Aluminum Forming	467	A–F	PSES PSNS	Limits are production-based daily maximums and monthly averages. Subpart C prohibits discharges from certain operations.
2	Battery Manufacturing	461	A–G	PSES PSNS	Limits are production-based daily maximums and monthly averages. No discharge is allowed from any process not specifically identified in the regulations.
3	Carbon Black Manufacturing	458	A–D	PSNS	Limits are for oil and grease only (no duration specified).
4	Centralized Waste Treatment	437	A–D	PSES PSNS	Limits are concentration-based daily maximums and monthly averages.
5	Coil Coating	465	A–D	PSES PSNS	Limits are production-based daily maximums and monthly averages.
6	Concentrated Animal Feeding Operations (CAFO)	412	B	PSNS	Discharge of process wastewater is prohibited, except when there is an overflow resulting from a chronic or catastrophic rainfall event.
7	Copper Forming	468	A	PSES PSNS	Limits are production-based daily maximums and monthly averages.
8	Electrical and Electronic Components	469	A–D	PSES PSNS	Limits are concentration-based daily maximums and 30-day averages or monthly averages (varies per subpart and pollutant parameter). Certification is allowed in lieu of monitoring for certain pollutants when a management plan is approved and implemented.
9	Electroplating	413	A,B,D–H	PSES	Limits are concentration-based (or alternative mass-based equivalents) daily maximums and four-consecutive-monitoring-days averages. Two sets of limits exist, depending on whether facility is discharging more or less than 10,000 gpd of process wastewater. Certification is allowed in lieu of monitoring for certain pollutants when a management plan is approved and implemented.

No	CATEGORY	40 CFR PART	SUBPARTS	TYPE OF STANDARD	OVERVIEW OF PRETREATMENT STANDARD
10	Fertilizer Manufacturing	418	A–G	PSNS	Limits may specify zero discharge of wastewater pollutants (Subpart A), production-based daily maximums, and 30-day averages (Subparts B–E), or may be concentration-based (Subparts F–G), with no duration of limit specified.
11	Glass Manufacturing	426	H, K–M	PSNS	Limits are concentration- or production-based daily maximums and monthly averages.
12	Grain Mills	406	A	PSNS	Discharge of process wastewater is prohibited at a flow rate or mass loading rate (BOD5 and TSS) that is excessive during periods when a POTW is receiving peak loads.
13	Ink Formulating	447	A	PSNS	Regulations specify no discharge of process wastewater pollutants to a POTW.
14	Inorganic Chemicals Manufacturing	415	A,B,F,L, AH,AJ,AL, AR,AU,BC BL,BM,BO	PSES	Limits vary for each subpart with a majority of the limits concentration-based, daily maximums, and 30-day averages, or they may specify no discharge of wastewater pollutants.
			B–F, H, K–N,P,Q, T,V,AA, AC,AE,AH AI,AJ,AL, AN,AP,AQ AR,AU,AX BB,BC,BH BK–BO	PSNS	
15	Iron and Steel Manufacturing	420	A–F, H–J, L	PSES PSNS	Limits are production-based daily maximums and 30-day averages.
16	Leather Tanning and Finishing	425	A–I	PSES PSNS	Limits are concentration-based daily maximums and monthly averages. In certain instances, applicability of pretreatment standards is dictated by volume of production.
17	Metal Finishing	433	A	PSES PSNS	Limits are concentration-based daily maximums and monthly averages. Certification is allowed for certain pollutants where a management plan is approved and implemented.
18	Metal Molding and Casting	464	A–D	PSES PSNS	Limits are primarily production-based daily maximums and monthly averages. Discharges from certain processes are prohibited (Subparts A–C).
19	Nonferrous Metals Forming and Metal Powders	471	A–J	PSES PSNS	Limits are production-based daily maximums and monthly averages. In some instances, the discharge of wastewater pollutants is prohibited.

No	CATEGORY	40 CFR PART	SUBPARTS	TYPE OF STANDARD	OVERVIEW OF PRETREATMENT STANDARD
20	Nonferrous Metals Manufacturing	421	C,F–M,P, Q,V,X,Y, AA–AC	PSES	Limits are production-based daily maximums and monthly averages. PSES (Subpart F) specify no discharge from existing facilities of process wastewater pollutants to the POTW except for some stormwater events.
			A–Z, AA–AE	PSNS	Limits are production-based daily maximums and monthly averages. PSNS (Subparts D and F) specify no discharge from existing facilities of process wastewater pollutants to the POTW.
21	Oil and Gas Extraction	435	D	PSES PSNS	Regulations specify no discharge of wastes (e.g., produced water, drill cuttings) to a POTW.
22	Organic Chemicals, Plastics, and Synthetic Fibers	414	B–H, K	PSES PSNS	Limits are mass-based (concentration-based standards multiplied by process flow) daily maximums and monthly averages. Standards for metals and cyanide apply only to metal- or cyanide-bearing wastestreams.
23	Paint Formulating	446	A	PSNS	Regulations specify no discharge of process wastewater pollutants to the POTW.
24	Paving and Roofing Materials (Tars and Asphalt)	443	A–D	PSNS	Limits are for oil and grease only (no limit duration specified).
25	Pesticide Chemicals	455	A, C, E	PSES PSNS	Limits are mass-based (concentration-based standards multiplied by process flow) daily maximums and monthly averages. Subpart C specifies no discharge of process wastewater pollutants but provides for pollution-prevention alternatives. Subpart E specifies no discharge of process wastewater pollutants.
26	Petroleum Refining	419	A–E	PSES PSNS	Limits are concentration-based (or mass-based equivalent) daily maximums.
27	Pharmaceutical Manufacturing	439	A–D	PSES PSNS	Limits are concentration-based daily maximums and monthly averages. Such facilities may certify that they do not use or generate cyanide in lieu of performing monitoring to demonstrate compliance.
28	Porcelain Enameling	466	A–D	PSES PSNS	Limits are concentration-based (or alternative production-based) daily maximums and monthly averages. Subpart B prohibits discharges from certain operations.
29	Pulp, Paper, and Paperboard	430	A–G, I–L	PSES PSNS	Limits are production-based daily maximums and monthly averages. Such facilities may certify that they do not use certain compounds in lieu of performing monitoring to demonstrate compliance. Facilities subject to Subparts B and E must also implement BMPs as identified.
30	Rubber Manufacturing	428	E–K	PSNS	Limits are concentration- or production-based daily maximums and monthly averages.

№	CATEGORY	40 CFR PART	SUBPARTS	TYPE OF STANDARD	OVERVIEW OF PRETREATMENT STANDARD
31	Soap and Detergent Manufacturing	417	O–R	PSNS	Regulations specify no discharge of process wastewater pollutants to a POTW when the wastewater chemical oxygen demand (COD)/BOD ₇ ratio exceeds 10.0 and the COD concentrations exceed subcategory specific concentrations.
32	Steam Electric Power Generating	423	—	PSES PSNS	Limits are concentration-based daily maximums, or <i>maximums for any time</i> , or compliance may be demonstrated through engineering calculations.
33	Timber Products Processing	429	F–H	PSES PSNS	All PSNS (and PSES for Subpart F) prohibit the discharge of wastewater pollutants. PSES for Subparts G and H are concentration-based daily maximums (with production-based alternatives).
34	Transportation Equipment Cleaning	442	A–C	PSES PSNS	Operators subject to effluent guidelines in subparts A–B must either meet concentration-based daily maximum standards or develop a Pollutant Management Plan. Operators subject to effluent guidelines in subpart C must meet concentration-based daily maximum standards.
35	Waste Combustors	444	A	PSES PSNS	Limits are concentration-based daily

GLOSSARY OF TERMS

Batch - The quantity produced as a result of an operation.

Categorical Standards - (National/Federal Categorical Pretreatment Standards) - Those standards promulgated by the U.S. Environmental Protection Agency (EPA) under the authority of Section 307(b) and (c) of the Clean Water Act (33 U.S.C. 1317) which apply to a specific category or industrial user and which are published in 40 CFR Chapter I, subchapter N (Parts 405-471).

Continuous - extended or prolonged production without interruption or cessation.

Cooling water - The clean wastewater discharged from any heat transfer system such as condensation, air conditioning, cooling or refrigeration.

Industrial User - Any POTW user generating or having the potential to generate commercial or industrial wastewater discharges to the POTW.

Discharge - The disposal of any sewage, pollutant(s), water, or any liquid from any sewer user into the sewerage system.

Drywell - Also referred to as a shallow drainage well, is any shallow hole dug or bored in the ground to allow surface storm water runoff, excess irrigation flow, or other drainage to percolate into the ground. It is typically constructed as a 10 to 20 feet deep boring of 2 to 4 feet diameter filled with cobbles and rocks and lined with a perforated corrugated metal pipe. They may be found in parking lots or other areas where drainage of storm water is required.

Natural outlet - Any outlet into a watercourse, ditch, or other body of surface or ground water.

POTW - Publicly Owned Treatment Works and connecting sewer collection system which are owned and/or operated, in whole or in part, by the City and which provide the City with wastewater collection and disposal services.

Pretreatment - The physical, chemical, biological or other treatment of any industrial discharge prior to discharge to the sewer, for the purpose of:

- (a) Reducing the amount or concentration of any pollutant; or
- (b) Eliminating the discharge or any pollutant; or
- (c) Altering the nature of any pollutant characteristic to a less harmful state.

Process Wastewater - Any water which, during manufacturing or processing, comes into direct contact with or results from the production of or use of any raw material, intermediate product, finished product, byproduct, or waste product.

Regulated Wastestream - An industrial process wastestream regulated by a national categorical pretreatment standard and/or the Phoenix City Code, Chapter 28.

Sanitary sewer - A sewer which carries sewage and to which storm, surface and groundwaters are not intentionally admitted.

Slug Control Plan - A plan prepared by an industrial user to minimize the likelihood of a spill or slug discharge and to expedite control and cleanup activities should a spill occur.

Storm sewer or storm drain - A sewer which carries storm and surface waters and drainage, but excludes sewage and polluted industrial wastes.

Toxic Organic Management Plan - Written plan submitted by industrial users in accordance with some categorical pretreatment standards as an alternative to TTO monitoring which specifies the toxic organic compounds used, the method of disposal used, and procedures for assuring that toxic organics do not routinely spill or leak into wastewater discharged to the POTW.

Unregulated Wastestream - A wastestream that is not regulated by a national categorical pretreatment standard and is not considered a dilute wastestream.

Wastewater - Any liquid or water-carried pollutant, including an industrial discharge, which is introduced into the sewer from any source.

APPENDIX 3 SAMPLING PLAN ADDENDUM					
REQ?	Sample Description	Analysis Method	Collection Method	Total Number	Frequency
☐	pH Study	EPA 150.2	Continuous	5-Consecutive Days	Continuous (Reported in 1 minute intervals via MS Excel)
☐	Flow Study	Electronic Flow Meter	Continuous	5-Consecutive Days	Continuous (Reported in 1 minute intervals via MS Excel)
☐	Asbestos	EPA 100.2	Process Day Composite	1	1 per Day
☐	BOD ¹	SM 5210B	Process Day Composite	1	1 per Day
☐	TSS ²	SM 2540D	Process Day Composite	1	1 per Day
☐	Cyanide	SM 4500-CN- B-1999 or C-1999	Grab	1	1 per Day
☐	Metals ³	EPA 200.7 or EPA 200.8	Process Day Composite	1	1 per Day
☐	Mercury	EPA 245.1	Process Day Composite	1	1 per Day
☐	Volatile Organics ⁴	EPA 624	Grab – Lab Composite	3 Total	1 vial from Beginning, Middle, & End of the Process Discharge Day
☐	Semi-Volatile Organics ⁵	EPA 625	Process Day Composite	1	1 per Day
☐	Pesticides/PCBs ⁶	EPA 608	Process Day Composite	1	1 per Day
☐	Carbamates ⁸	EPA 630/630.1/632	Process Day Composite	1	1 per Day
☐	Oil & Grease ⁹	EPA 1664 HEM	Grab	3 Total	1 jar from Beginning, Middle, & End of the Process Discharge Day
☐	Oil & Grease – Non-polar ¹⁰	EPA 1664 SGT-HEM	Grab	3 Total	1 jar from Beginning, Middle, & End of the Process Discharge Day

Notes:

- 1 BOD – Biological Oxygen Demand
- 2 TSS – Total Suspended Solids
- 3 Metals – All Priority Pollutant Metals or as otherwise checked
- 4 VOCs – All Volatile Organic Compounds or as otherwise checked
- 5 Semi- VOCs – All Semi – Volatile Organic Compounds or as otherwise checked
- 6 Pesticides/PCBs – All Pesticides and Polychlorinated Biphenyls or as otherwise checked
- 7 CN - Cyanide
- 8 Carbamates – All Carbamates or as otherwise checked
- 9 O&G – Oil and Grease; HEM -n-Hexane Extractable Material
- 10 O&G SGT-HEM – Oil and Grease -Silica Gel Treated n-Hexane Extractable Material

☐ PRIORITY POLLUTANT METALS			
☐	Antimony (Total)	☐	Lead (Total)
☐	Arsenic (Total)	☐	Mercury (Total)
☐	Asbestos (Fibrous)	☐	Molybdenum (Total)
☐	Barium	☐	Nickel (Total)
☐	Beryllium (Total)	☐	Selenium (Total)
☐	Cadmium (Total)	☐	Silver (Total)
☐	Chromium (Total)	☐	Thallium (Total)
☐	Copper (Total)	☐	Zinc (Total)
☐ VOLATILE ORGANIC COMPOUNDS			
☐	1,1 – Dichloroethane	☐	Carbon Tetrachloride
☐	1,1 – Dichloroethylene	☐	Chlorobenzene
☐	1,1,1 - Trichloroethane	☐	Chlorodibromoethane
☐	1,1,2 - Trichloroethane	☐	Chloroethane
☐	1,1,2,2 - Tetrachloroethane	☐	Chloroform
☐	1,2 – Dichloroethane	☐	Dichlorobromomethane
☐	1,2 - Dichloropropane	☐	Ethylbenzene
☐	1,2 - Dichloropropylene	☐	Methyl Bromide
☐	1,2 - Trans - Dichloroethylene	☐	Methyl Chloride
☐	2-Chloroethylvinyl Ether	☐	Methylene Chloride
☐	Acrolein	☐	Tetrachloroethylene
☐	Acrylonitrile	☐	Toluene
☐	Benzene	☐	Trichloroethylene
☐	Bromoform	☐	Vinyl Chloride
☐ SEMI-VOLATILE ORGANIC COMPOUNDS			
ACID EXTRACTABLES			
☐	2,4,6-trichlorophenol	☐	4,6-dinitro-o-cresol
☐	2,4-dichlorophenol	☐	4-nitrophenol
☐	2,4-dimethylphenol	☐	p-chloro-m-cresol
☐	2,4-dinitrophenol	☐	Pentachlorophenol
☐	2-chlorophenol	☐	Phenol
☐	2-nitrophenol		
BASE NEUTRALS			
☐	1,12-benzoperylene (benzo(ghi)perylene)	☐	Bis (2-ethylhexyl) phthalate
☐	1,2,4-trichlorobenzene	☐	Bis(2-chloroethyl) ether
☐	1,2,5,6-dibenzanthracene (dibenz(a,h)anthracene)	☐	Butyl benzyl phthalate
☐	1,2-benzanthracene (Benzo(a)anthracene)	☐	Chrysene
☐	1,2-dichlorobenzene	☐	Diethyl Phthalate
☐	1,2-diphenylhydrazine	☐	Dimethyl Phthalate
☐	1,3-dichlorobenzene	☐	Di-N-butyl Phthalate
☐	1,4-dichlorobenzene	☐	Di-N-octyl Phthalate
☐	11,12-benzofluoranthene (benzo(k)fluoranthene)	☐	Fluoranthene
☐	2,4-dinitrotoluene	☐	Fluorene
☐	2,6-dinitrotoluene	☐	Hexachlorobutadiene
☐	2-chloronaphthalene	☐	Hexachlorocyclopentadiene
☐	3,3-dichlorobenzidine	☐	Hexachloroethane
☐	3,4-benzofluoranthene (benzo(b)fluoranthene)	☐	Hexachlorobenzene
☐	4-bromophenyl phenyl ether	☐	Ideno(1,2,3-cd--pyrene(2-3-o-phenylene pyrene)
☐	4-chlorophenyl phenyl ether	☐	Isophorone
☐	Acenaphthene	☐	Naphthalene
☐	Acenaphthylene	☐	Nitrobenzene
☐	Anthracene	☐	N-nitrosodimethylamine
☐	Benzidine	☐	N-nitrosodiphenylamine
☐	Benzo(a)pyrene (3,4-benzo-pyrene)	☐	Phenanthrene
☐	Bis (2-chloroethoxy) methane	☐	Pyrene
☐	Bis (2-chloroisopropyl) ether		

☐ PESTICIDES/PCBs			
☐	Aldrin	☐	Endrin
☐	Alpha – BHC	☐	Endrin Aldehyde
☐	Beta - BHC	☐	Heptachlor
☐	Gamma - BHC (Lindane)	☐	Heptachlor Epoxide
☐	Delta - BHC	☐	PCB - 1242
☐	Chlordane	☐	PCB - 1254
☐	4,4 - DDT	☐	PCB - 1221
☐	4,4 - DDE	☐	PCB - 1232
☐	4,4 - DDD	☐	PCB - 1248
☐	Dieldrin	☐	PCB - 1260
☐	Alpha-Endosulfan	☐	PCB - 1016
☐	Beta-Endosulfan	☐	Toxaphene
☐	Endosulfan Sulfate		
☐ CARBAMATES (All Metal Finishing and Iron & Steel Manufacturing facilities)			
☐	Busan 85 [Potassium dimethyldithiocarbamate	☐	Carbam-S [Sodium dimethyldithio-carbamate]
☐	Busan 40 [Potassium N-hydroxymethyl-N-methyldithiocarbamate]	☐	Vapam [Sodium methyldithiocarbamate]
☐	KN Methyl [Potassium N-methyl-dithiocarbamate]	☐	Ziram [Zinc dimethyldithiocarbamate]
☐	Nabonate [Disodium cyanodithioimidocarbonate]		

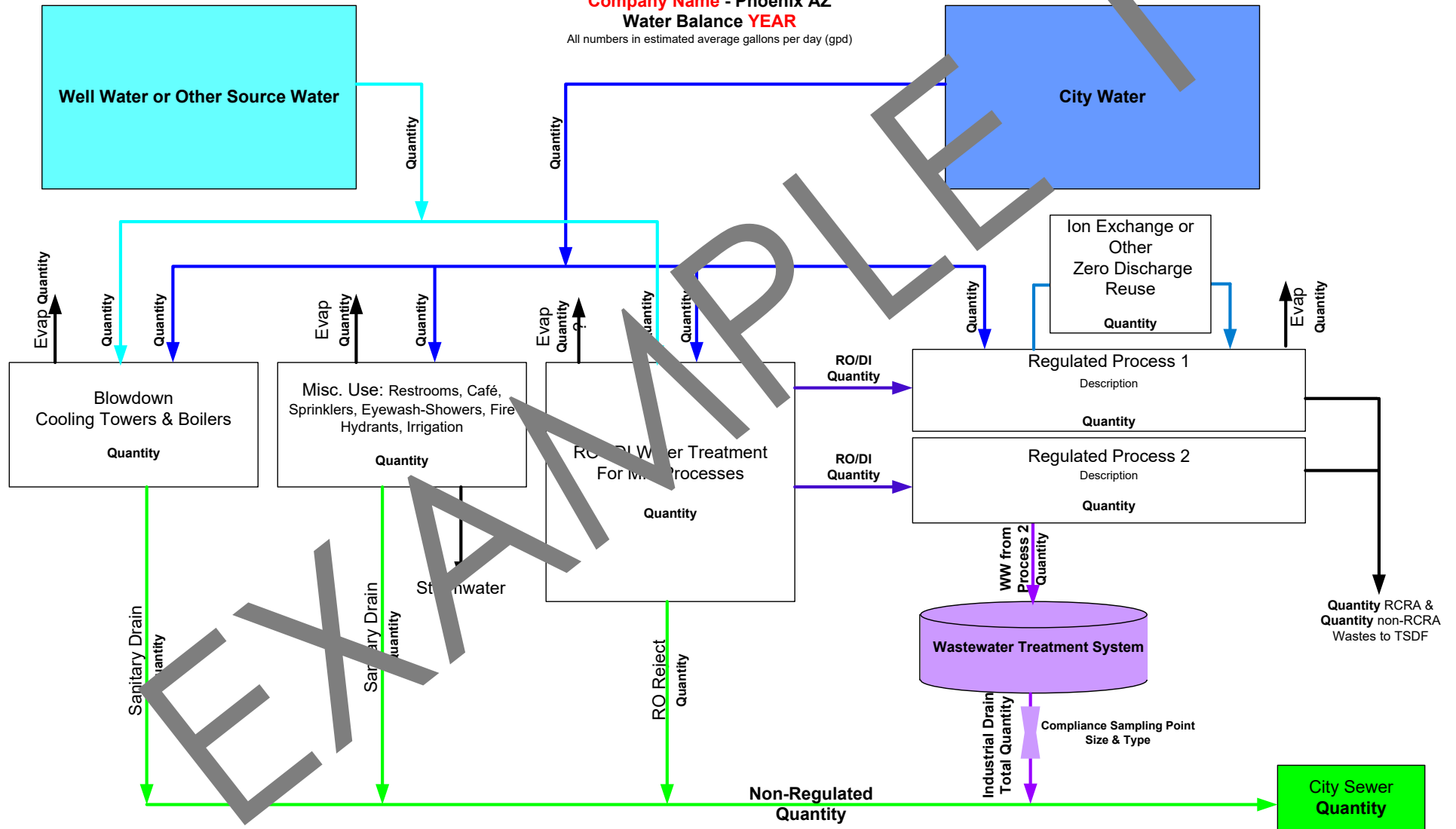
APPENDIX 4

WATER BALANCE DIAGRAM

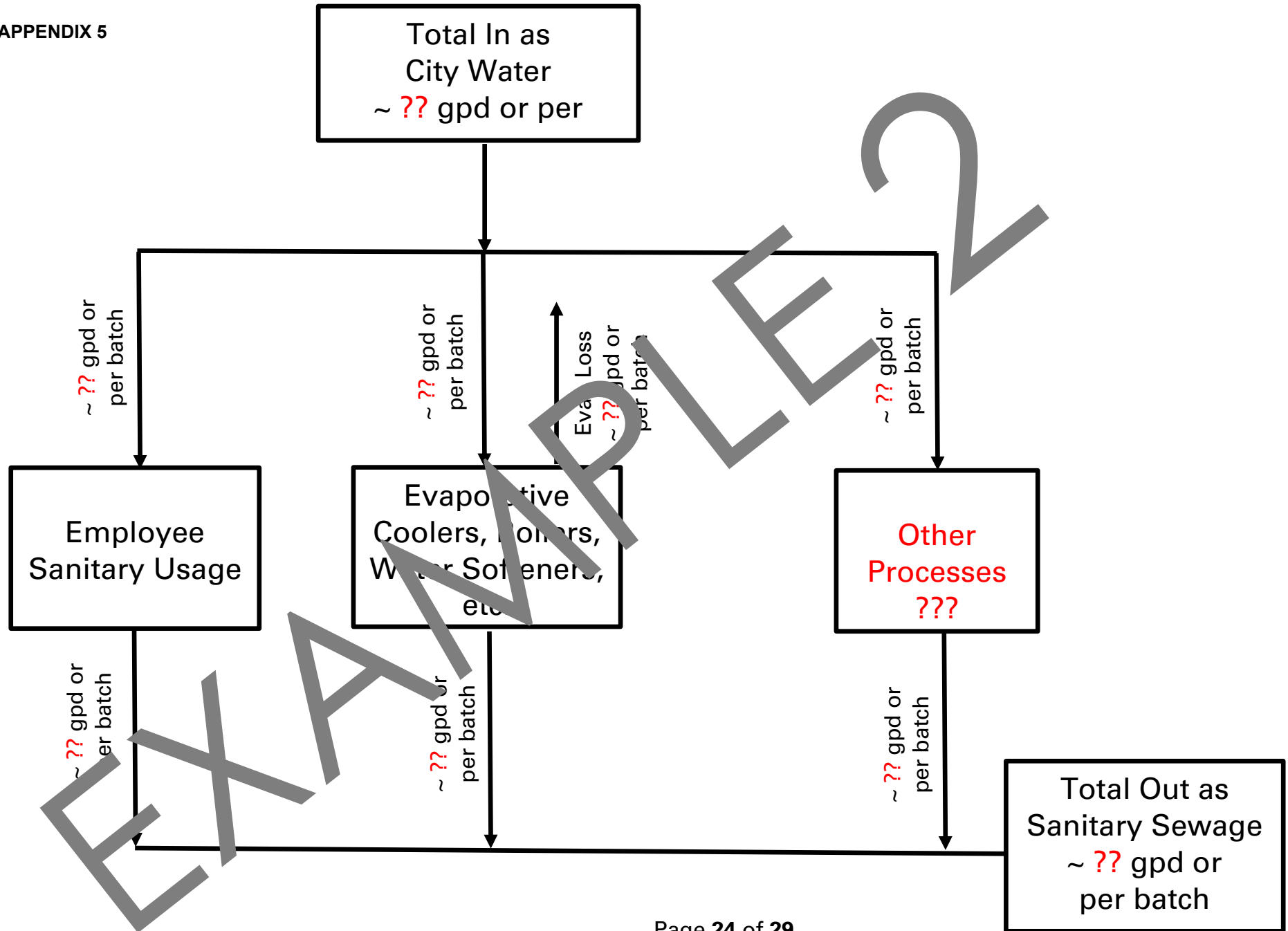
Company Name - Phoenix AZ

Water Balance YEAR

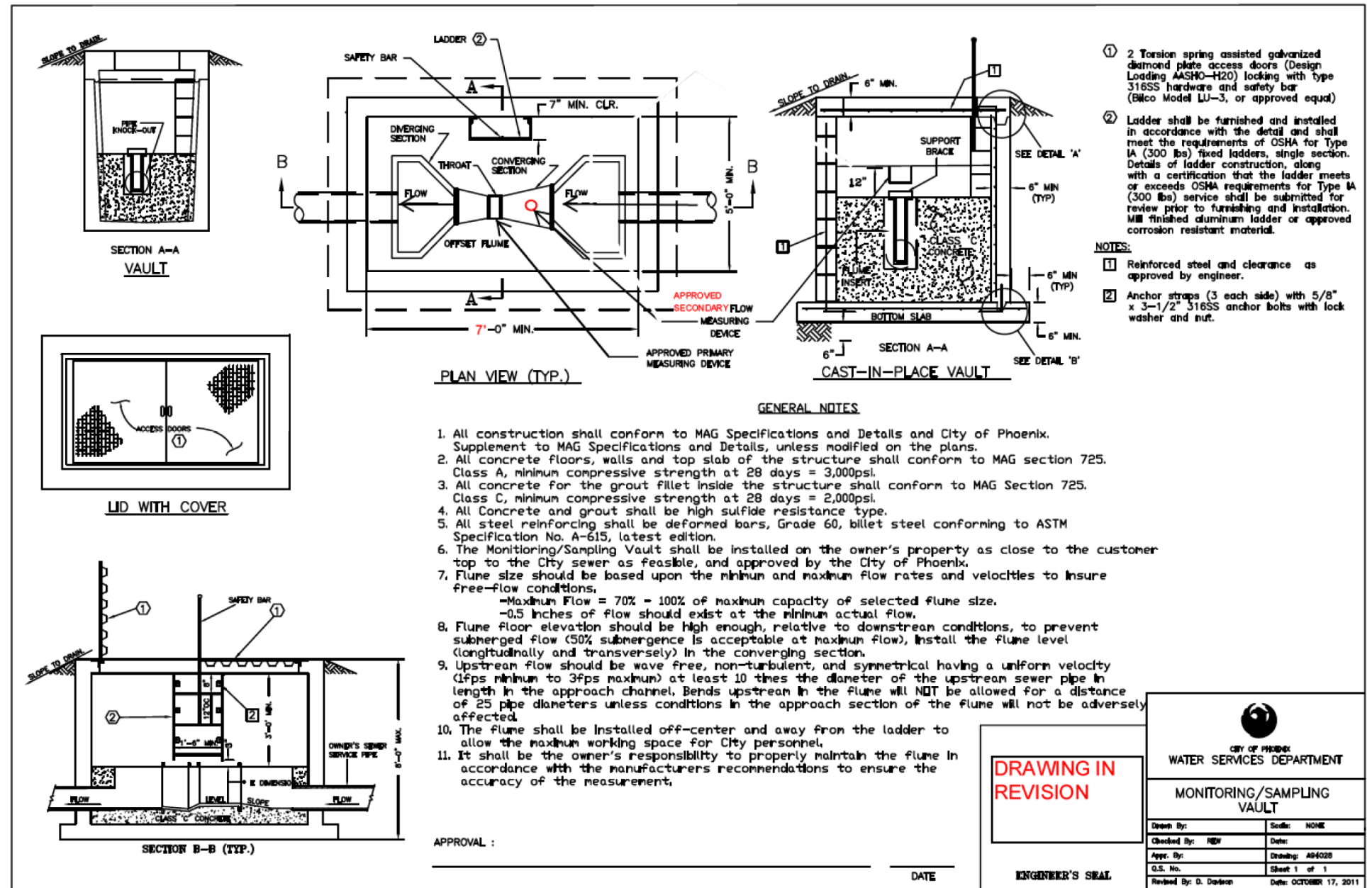
All numbers in estimated average gallons per day (gpd)



APPENDIX 5



APPENDIX 6





City of Phoenix

CONSTRUCTION PLANS REVIEW CHECKLIST FOR INDUSTRIAL USERS

The design of pretreatment equipment and systems, whether for a new installation or for renovations or upgrade of an existing system, will require the production of engineering drawings and specification documents to meet construction, wastewater discharge permitting, and other regulatory requirements. In general, engineering design documents include:

- Facility and pretreatment system layout drawings
- Piping & instrumentation diagrams
- Equipment foundation drawings and support system details
- Mechanical, piping, electrical, instrumentation, controls, and operational drawings and specifications
- Specifications for installation coordination, testing, and demonstration of system performance.

Construction drawings and engineering design manuals for industrial manufacturing or industrial servicing facilities must be submitted for review and approval by the City of Phoenix Industrial Pretreatment Program (IPP) **prior to submittal to the City of Phoenix Planning & Development Department.**

All submissions must first be received at:

**City of Phoenix Industrial Pretreatment Program
23rd Avenue Wastewater Treatment Plant
2474 South 22nd Avenue, Building 31
Phoenix, Arizona 85009**

Note - Installation inspections by City of Phoenix IPP staff of the pretreatment system and/or the compliance sampling point and/or vault are required prior to final approval. Pretreatment systems must be approved prior to discharge when possible. Compliance sampling points and vault inspections must be scheduled prior to pouring of concrete and upon final completion. Call the Principal Engineering Technician at 602-534-7588 and/or the Pretreatment Compliance Coordinator at 602-495-5926, not less than 2-working days in advance to request inspection.

Pursuant to Phoenix City Code Chapter 28, Section 28-10, And Title 40 of the Code of Federal Regulations Part 403, the following minimum details must be shown within industrial wastewater drawings and included engineering design manual (as requested) for industrial manufacturing or industrial servicing facilities:

Site Plans - Sealed by an architect or engineer in the State of Arizona (as required)

The following requirements for the site plan do not cover or include Site Planning Requirements as required by City of Phoenix Planning and Development (P&D).

Y N N/A

- ☐ ☐ ☐ Legal business name and physical address of the facility (suite number and floor number if applicable)
- ☐ ☐ ☐ Show the size and shape of the site
- ☐ ☐ ☐ Identify the property lines with dimensions
- ☐ ☐ ☐ Show all buildings and structures (delineate existing vs. proposed)
- ☐ ☐ ☐ Show the streets and alleys



City of Phoenix

CONSTRUCTION PLANS REVIEW CHECKLIST FOR INDUSTRIAL USERS

Y N N/A

- ☐☐☐ Indicate the North direction
- ☐☐☐ Show complete floor layout including equipment
- ☐☐☐ Provide complete equipment schedule
- ☐☐☐ Show location of chemical storage area(s).
- ☐☐☐ Show location of waste storage and holding area(s).
- ☐☐☐ Show secondary containment structures with dimensions and calculations demonstrating containment of 110% of the largest tank or container within the structure or otherwise in compliance with City of Phoenix Fire Code requirements.
- ☐☐☐ Show location of berms and other spill control devices.
- ☐☐☐ Identify the use or industrial process within each room, area, or structure
- ☐☐☐ Show site grading with spot elevations and flow arrows
- ☐☐☐ Show slopes and heights of berming and depth of stormwater retention areas or structures
- ☐☐☐ Show location of storm sewers or drains, stormwater retention areas, dry wells, private wells, abandoned wells.
- ☐☐☐ Show location of each wastewater treatment system and/or devices including interceptors, traps (grease, sand/oil, grit, or other); ion exchange, filtration, neutralization systems; or any other wastewater treatment device in use.
- ☐☐☐ Show location of wastewater sampling point(s) and respective conveyance into City sewer tap(s)
- ☐☐☐ Show location(s) of City sewer tap and sewer main into which the pretreatment system(s) and/or wastewater sampling point(s) are connected

Plumbing Plans - Sealed by a registered mechanical engineer in State of Arizona (as required)

The following requirements for the plumbing plan do not cover or include Plumbing Planning Requirements as required by City of Phoenix Planning and Development (P&D).

Y N N/A

- ☐☐☐ Show complete on-site water & sewer plans for the entire facility (segregation of process/industrial and non-process/domestic should be included)
- ☐☐☐ Show complete plumbing floor plan and roof drainage systems for the entire facility
- ☐☐☐ Show all waste plumbing, fixtures, flow directions, and flow rates related to industrial manufacturing or service operations, including wet air scrubbers, the wastewater pretreatment system, the compliance sampling point, and the final discharge point (or plumbing fixture)
- ☐☐☐ Show waste minimum plumbing fixture analysis
- ☐☐☐ Show waste plumbing fixture specifications
- ☐☐☐ Show waste plumbing fixture connection schedule
- ☐☐☐ Show drain, waste, and vent sizing isometrics
- ☐☐☐ Show backflow devices [as required] – Type(s) and Location(s).
- ☐☐☐ Show expansion tanks [as required] -- Size(s) and Location(s).

Compliance Sampling Point & Vault Plans - Sealed by a registered mechanical engineer in State of Arizona (as required)

Provide cut sheet of open channel flow primary measuring device (flume, weir box, etc.)

Y N N/A showing:

- ☐☐☐ A. Type (Parshall, Trapezoidal, H, V-notch, etc.)



City of Phoenix

CONSTRUCTION PLANS REVIEW CHECKLIST FOR INDUSTRIAL USERS

Y N N/A

- ☐ ☐ ☐ B. Model (Tracom, etc.)
- ☐ ☐ ☐ C. Size (based on expected minimum and maximum flow rates and velocities to ensure correct measurements, free flow conditions, and an adequate level to obtain samples)
- ☐ ☐ ☐ D. Material of molded fiberglass, reinforced polyester or other City approved material
- ☐ ☐ ☐ E. Constructed of one piece with ample wall thickness and reinforcing ribs to prevent distortion during shipment, installation and operation
- ☐ ☐ ☐ F. Ability to support itself and require no external supporting structure in order to maintain its dimensional integrity and prevent sagging, deformation, or dislodgement
- ☐ ☐ ☐ G. Conditions of gravity flow, wave free, non-turbulent, symmetrical and uniform velocity of wastewater discharge; upstream floor elevation of the device shall be high enough relative to downstream conditions to prevent submergence or submerged flow condition
- ☐ ☐ ☐ H. An approach channel length of at minimum 10 times the diameter of the upstream sewer pipe
- ☐ ☐ ☐ I. A cover or enclosure for devices installed above ground and/or in areas exposed to inflow of stormwater, precipitation, particulates and/or pollutants
- ☐ ☐ ☐ Flow monitoring equipment with data logging capability and +/- 10 percent accuracy
- ☐ ☐ ☐ Continuous pH monitoring equipment (if required) with data logging capability and +/- 10 percent accuracy
- ☐ ☐ ☐ Show the height from the surface of the finished floor to the top of the open flow channel measuring device

Y N N/A Provide cut sheet of alternate compliance sampling point (tank with spigot, utility sink):

- ☐ ☐ ☐ Showing tank size and/or sink setup with valves and location for sample collection
- ☐ ☐ ☐ Showing demarcations on holding tank for flow-proportional sampling

Y N N/A Provide a sampling vault cutsheet and detail showing:

- ☐ ☐ ☐ A. Material, make and model
- ☐ ☐ ☐ B. Inner and outer dimensions (minimum interior length of no less than 8-feet and minimum interior width of no less than 5-feet)
- ☐ ☐ ☐ C. Positioning of the open flow channel device within the vault (must be positioned off center and opposite the vault entry/exit ladder to maximize working space for sample collection)
- ☐ ☐ ☐ D. Depth of vault from the finished floor to the top of the finished opening (critical dimension for eliminating permit required confined space entry is < 48-inches)
- ☐ ☐ ☐ E. Ladder detail (rungs positioned 12-inches apart, clearance of 12-inches from flume minimum, stainless steel corrosion resistant hardware and mounting brackets)
- ☐ ☐ ☐ F. Safety pole detail (high strength aluminum, corrosion resistant, vertically fixed in position or extendable, no less than 42-inches above top of vault door frame or landing; telescoping post or pole weighing no more than 25 pounds provided with a pull up loop at the upper end to facilitate raising, a safety locking mechanism when fully extended, and a release level for disengagement and return to lowered position)
- ☐ ☐ ☐ G. Locking double-leaf door detail (aluminum/stainless steel corrosion resistant with torsion or compression spring assist, automatic lock-open safety arm, exterior lock or hasp with loops, and frame opening dimensions of no less than 3-feet by 5-feet)
- ☐ ☐ ☐ Sampling vaults should be installed as close to the IU sewer tap as feasible and the location shall be approved in writing by the IPP Section



City of Phoenix

CONSTRUCTION PLANS REVIEW CHECKLIST FOR INDUSTRIAL USERS

Y N N/A

- ☐☐☐ Show lineal footage between the outlet of the final wastewater pretreatment system component and the inlet for the open flow channel measuring device (must show there are no bends in pipe for 25-pipe diameters upstream of device). If minimum lineal footage requirement cannot be met, provide Froude number with all calculations demonstrating that laminar flow velocity of 1 to 3 feet per second can be achieved.
- ☐☐☐ Show lineal footage between the outlet of the open flow channel measuring device and any downstream bends of components (must show there are no bends in pipe for 10-pipe diameters downstream of device)

Wastewater Pretreatment System Plans - Sealed by a registered mechanical engineer in State of Arizona (as required)

Y N N/A Show ALL wastewater pretreatment system component details including:

- ☐☐☐ A. Pretreatment system components (manufacturers' specifications, detail, anticipated pollutant reduction rates with engineering citations)
- ☐☐☐ B. Tanks, tank sizes and heights, tank material, tank cutsheets
- ☐☐☐ C. Tank influent, effluent, overflow heights (bypasses are prohibited)
- ☐☐☐ D. Flow capacity ratings and flow directions between components
- ☐☐☐ E. Pumps, mixers, float switches
- ☐☐☐ F. Chemical dosing equipment
- ☐☐☐ G. pH monitoring equipment (in-process will have data logging capability of +/- 0.1 standard unit accuracy and 0.01 standard unit resolution)
- ☐☐☐ H. Alarms
- ☐☐☐ Show itemized schedule of drainage fixture units for all industrial process drainage fixtures and equipment with pretreatment component or device sizing calculations demonstrating achievement of industry standard hydraulic retention times
- ☐☐☐ Show secondary containment structures with dimensions and calculations demonstrating containment of 110% of the largest tank or container within the structure or otherwise in compliance with City of Phoenix Fire Code requirements.
- ☐☐☐ Show roofs, awnings, or other structures preventing the inflow of stormwater into outdoor waste plumbing fixtures, the wastewater sampling point, and the sanitary sewer
- ☐☐☐ Provide a raw materials, chemicals, and bulk chemical storage tank inventory with full identification of raw materials and chemicals – not product names (If City of Phoenix Fire Prevention required it, provide a copy of the Hazardous Materials Application, the Hazardous Material Inventory Statement, and the Site Plan Worksheet).

All Plans

Y N N/A

- ☐☐☐ All construction shall conform to City of Phoenix Supplements to the Maricopa Association of Governments (MAG) Specifications and Details. Modifications to City of Phoenix MAG Specifications may be requested and require IPP written approval.