AGENDA
SPECIAL MEETING OF THE AMES CITY COUNCIL
CITY HALL COUNCIL CHAMBERS
515 CLARK AVENUE
OCTOBER 17, 2017

CALL TO ORDER: 6:00 p.m.

1. Requests for "Over the Edge" event on Friday, October 27:
   a. Motion approving blanket Temporary Obstruction Permit for the closed area
   b. Resolution approving closure of Chamberlain Street, from Stanton Avenue to the entrance of Municipal Parking Lot Z, from 6:30 a.m. to 5:00 p.m.
   c. Resolution approving closure of 57 metered parking spaces and suspension of parking regulations within closed area

2. Criminal Justice briefing for Ames and Story County

3. Staff Report on digester gas utilization at Water Pollution Control facility

4. Staff Report on proposed revisions to Chapter 28 Divisions II and III and Appendix N

5. Staff Report on proposed revision to Industrial Pretreatment Program document

COUNCIL COMMENTS:

ADJOURNMENT:

ITEM# 1
DATE: 10-17-17

COUNCIL ACTION FORM

SUBJECT: REQUESTS FOR BOYS AND GIRLS CLUB OVER THE EDGE FUNDRAISING EVENT

BACKGROUND:

The Boys and Girls Club of Story County is planning to host an event called "Over the Edge" at The Edge Building located at 2311 Chamberlain Street on the Friday of Homecoming Week, October 27, 2017. Over the Edge is a rappelling fundraiser that is scheduled to start at 9:00 a.m. and go until 5:00 p.m. Participants who fundraise a minimum of $1,000 will be able to rappel down The Edge building. The event will include music, laser tag, food trucks, vehicle test drives, and special guest appearances. The event is expected to have approximately 100 participants, over 50 volunteers and staff, and others who come to watch the rappelling. Event coordinators expect between 200-400 people at the event throughout the day.

Organizers have requested the use of metered parking stalls along Chamberlain Street from Lynn Avenue to Stanton Avenue, metered parking stalls in Municipal Parking Lot Z, and closure of Chamberlain Street from Stanton Avenue to the entrance of Municipal Parking Lot Z in Campustown (see attached map). A blanket Temporary Obstruction Permit and suspension of parking regulations for the closed area are also requested.

The Boys and Girls Club has agreed to pay for the 57 affected metered stalls. Meters will be hooded in advance of the event to allow the public time to clear from those spaces; this would equate to $128.25 for the day ($0.25/hour/space for 9 hours). Access to the 26 reserved parking stalls located in Municipal Lot Z will be maintained during the event because these are under contract between the City and private citizens.

ALTERNATIVES:

1. Approve the requests for the Over the Edge special event, including a blanket Temporary Obstruction Permit, closure of a portion of Chamberlain Street, suspension of parking regulations for the closed area, and closure of 57 metered parking stalls along Chamberlain Street and in Municipal Parking Lot Z.

   Under this alternative, the Boys and Girls Club will pay the City for the use of the parking meters.

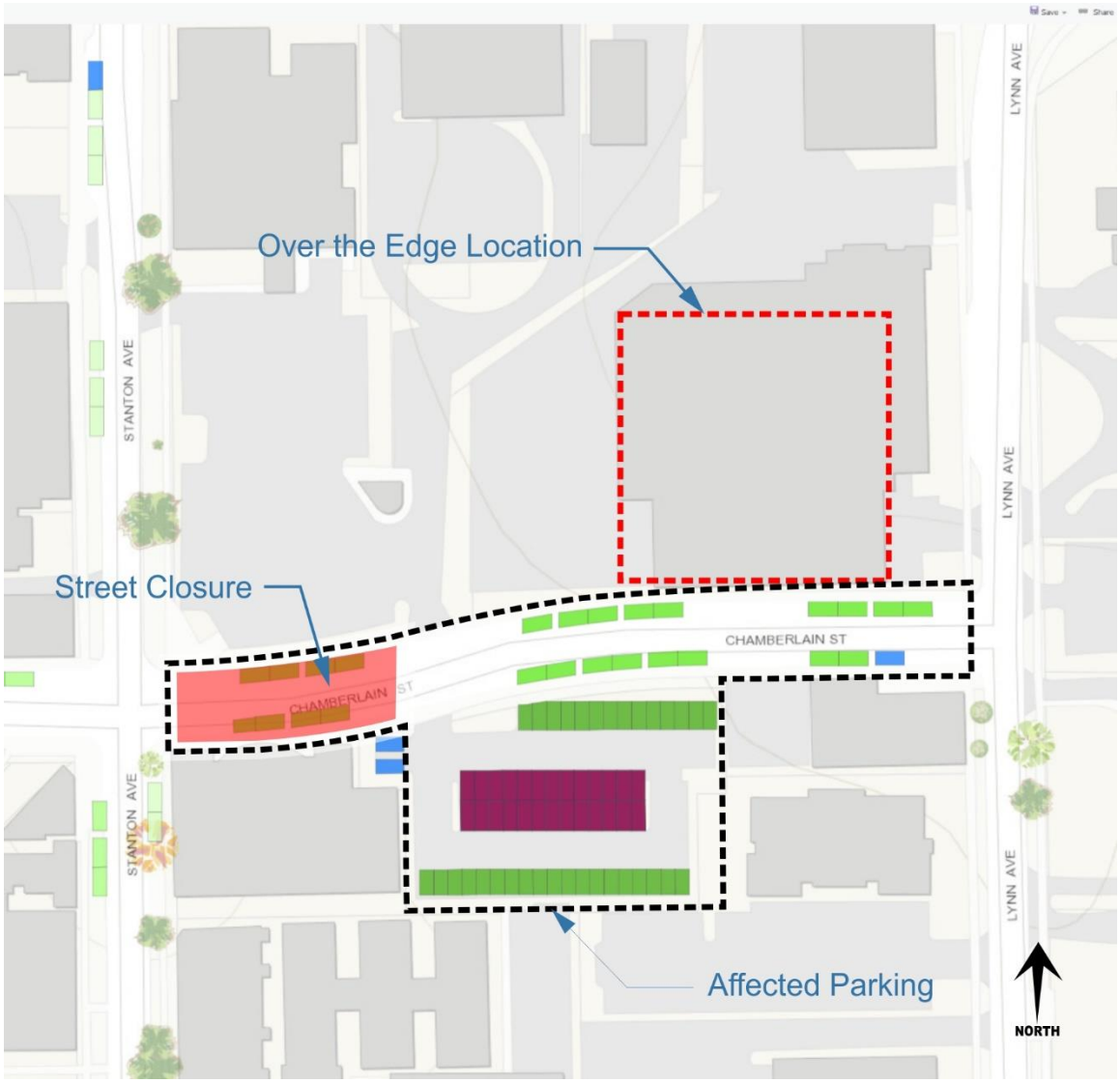
2. Do not approve the requests and ask the Over the Edge special event to contain their activities to private property.

CITY MANAGER'S RECOMMENDATION:

The Over the Edge special event is expected to be an exciting and positive fundraising activity for the Ames community. It also adds to the number of family-friendly events that occur during ISU's Homecoming week.

Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1, as described above.

<u>Attachment 1</u>: Requested Closure Map



Criminal Justice Presentation

Chief Charles Cychosz
Ames Police Dept.
515 Clark Avenue
Ames, Iowa 50010

Jessica A. Reynolds
Story County Attorney
1315 South B. Avenue
Nevada, Iowa 50201

Story County Attorney Office Overview

- 14 attorneys, 10 staff
  - Criminal division
    - 11 attorneys
    - Prosecute state crimes simple misdemeanors to Class A felonies
    - Prosecute county ordinance violations
  - Civil division
    - 1 attorney, PAAB hearings, SO firearm permit appeal hearings, employment law, contract review, advise al elected officials and Dept heads, defend lawsuits, sue on behalf of Story County.
  - Juvenile division
    - 2 attorneys, Child in Need of Assistance cases, delinquency cases, MH/SA committals
- 2 Office Locations
- $2.3 Million Annual Budget
- 24/7 On-call county attorney
  - Initial appearances 24/7, 365 days/yr

County Attorney mission statement: "To do justice."
We follow the law and always do the right thing.

Community Outreach

- "Start by Believing" Campaign
- Domestic Violence Awareness Month
- Crime Victims' Rights Award

Law Enforcement Training

- Attorney designated liaison to each law enforcement entity in Story County (monthly meetings).
- Regular law enforcement lunch and learns sponsored by the Story County Attorney's Office.
- Provide written legal updates about changing case law, specialized trainings to each department during their patrol shifts.

TRAINING TO WORK IN A DIVERSE COMMUNITY

Department Wide Training Examples

- Begins with who we hire/how we hire.
- Iowa Law Enforcement Academy-Diversity, Special Populations, FIP
- Fair and Impartial Policing-2016/2017 Sgt. Marshall-Certified FIP Trainer
- Cultural Diversity-2014 The New Human Terrain of Iowa-Mark Gray (UNI)
- Understanding Class in Law Enforcement-2011-Jodi Pfarr
- Diversity Training-2009 Ric Martinez
- Diversity Training-Cultural Competency- 2008 Preston Daniels

TRAINING TO WORK IN A DIVERSE COMMUNITY

- Individual Training Examples:

  Teaching Diversity,

  Cultural Diversity/Racial Profiling;

  Beyond Cultural Sensitivity;

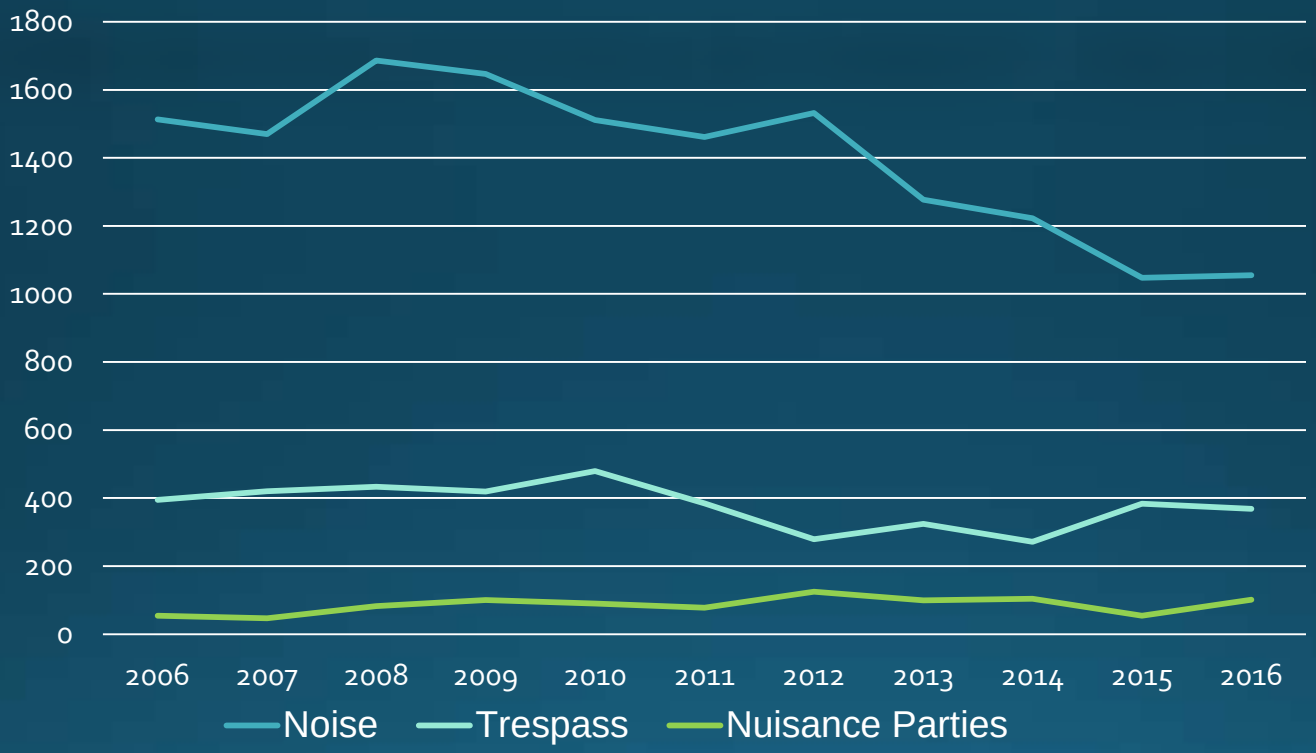
  Community Conversations/Diversity Roundtable, etc.

  Everyday contact with a diverse community-both on and off the job.

Local Crime Trends

October 2017

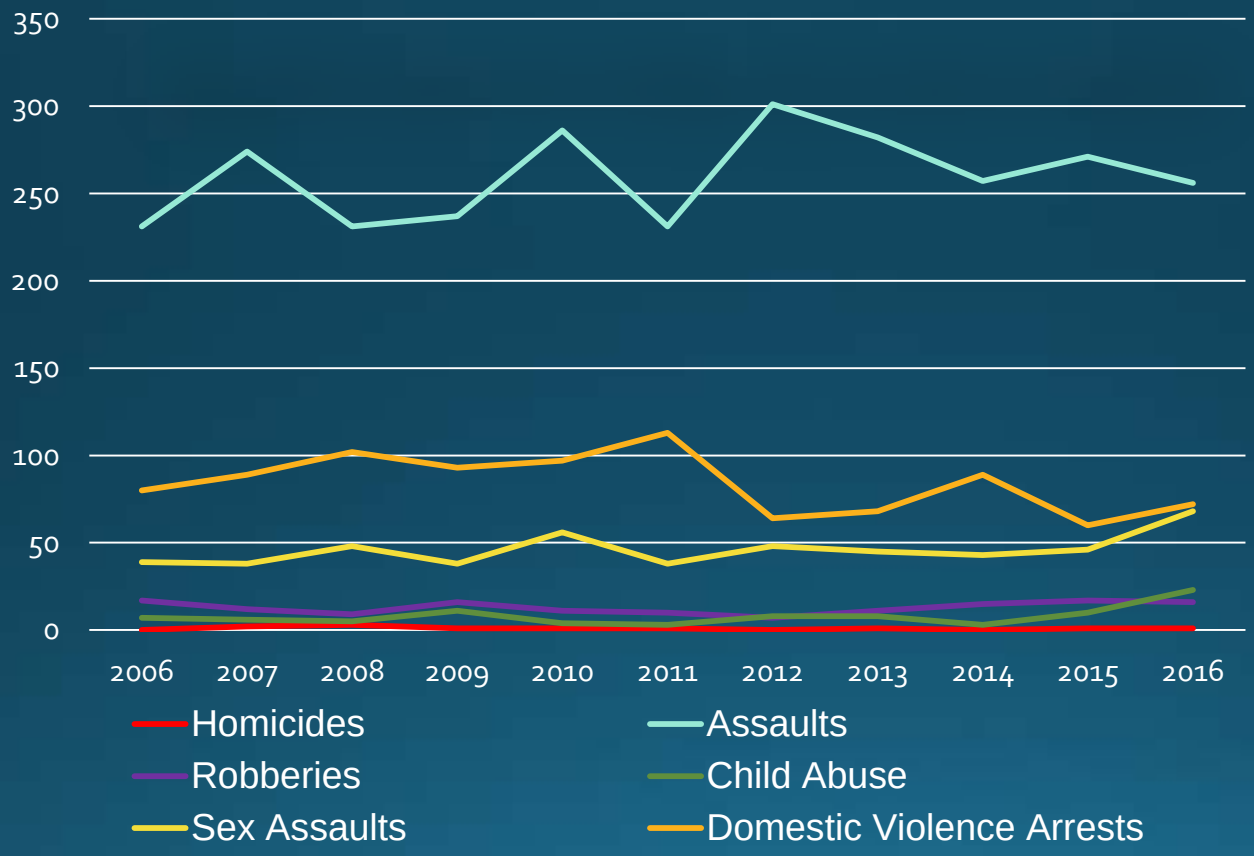
Neighborhood Quality of Life



Action

Safe Neighborhoods Team
Crime Free Housing
CPTED

Personal Crimes



Action

Investigators
Drug Task Force
SART
DART
Victim Witness Support

Property Crimes

Action

Drug Task Force
Restitution/Recovery
Electronic Resale Monitoring
ID Theft
Scam Alerts
Regional Retail Collaboration

Early Intervention/Diversion

Underage alcohol
Intoxication
Liquor violations/bar environments
MH Outreach
DV - non arrest CFS

Ames City Attorney
Story County Attorney

- Roles and responsibilities
- Collaboration

Drugs as a Dimension of Personal and Property Crime

- Increase in robbery/theft cases (drug related).
- Methamphetamine
- Opioids
- Drug court – SCAO applied for DOJ grant to implement a drug court in Story County but was not selected as a grant recipient.

Public Events

Fines Recovery Program

- In calendar year 2015 the Story County Attorney's
- In calendar year 2015 the Story County Attorney's

This brings the deposits into Story County's general fund to over $1,892,269.67 since the program was started in 2009.

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osited
into the county general fund. In calendar year 2015 Story County received $262,018.41 into its general fund from the program.

Benefits of Fines Recovery Program

- Crime Victims
- Defendants
- Taxpayers

Truancy Task Force

- Collaboration of public schools in Story County, Story County Attorney's Office, DHS, JCS. Involve school resource officers in the team.
- Meet as a team with the child and their family before it becomes a truancy case.
- Identify barriers to attendance, identify services to overcome the barriers, work collaboratively to solve the issue and get kids attending school.

Domestic Violence Crimes

- High lethality rate.
- Collaborative effort from the start of the investigation.
- Investigate assuming we will have no victim at trial.
  - Dispatcher
  - Talk to neighbors/family/friends.
  - Document injuries at the scene (photos), go back days later to continue to document injuries.
  - Encourage medical treatment at the scene.
  - Expert witnesses at trial explaining the cycle of violence and power/control dynamics.

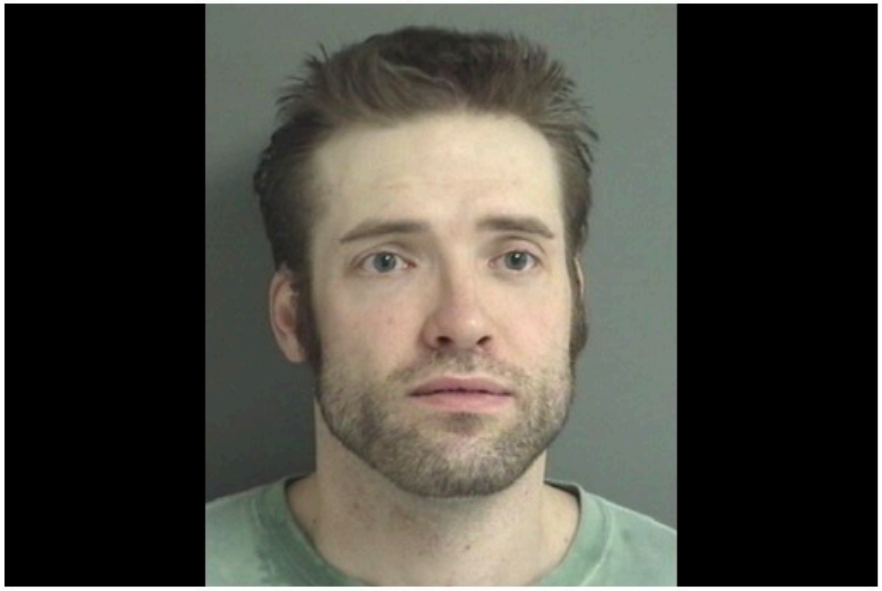
Murder Cases

- Overlap with serious violent crime and drugs.
- Heavy on resources.
  - Costly to prosecute.
  - Time consuming to prosecute.

What We Do

State v. Lepon

Appeals court affirms conviction of Ames man in 2013 murder



Story County Attorney's Office

2017

Crime Victims' Rights Week

Award of Recognition:

Nyaroma Gatawas

Sister & Hero

May 22, 2015
Ames, Iowa at midnight

- Nyaroma (13 y.o.) is asleep in her basement bedroom, when she awakes to a flashlight in her face and hears someone in her room. At first, she thinks it's her sister.
- She hears the person trip and realizes it's not her sister.
- She goes to the basement living room to investigate and hears her brother Kai's (5 y.o) voice.

“Kai’s being kidnapped!”

- Nyaroma sees her brother’s legs being pulled up out of the window well.
- She starts screaming to wake family members.
- She runs up the stairs, out the front door, and all the way around the house, chasing the suspect and yelling Kai’s name.

“He pulled my brother out the window.”

- The man drops Kai momentarily while jumping the fence.
- Nyaroma catches up to them, rescues her brother, and carries him back to her family inside the house.

Nyaroma:

- Testified at trial.
- Testified in a deposition.
- Her testimony led to the conviction of the defendant as charged of Child Stealing, Burglary in the First Degree, Assault while Participating in a Felony. Investigating agency was Ames PD – lead by Sgt. Elijah Hansen
- Ensured this will not happen to anyone else as the defendant was sentenced to 27 years in prison.
- Saved her brother's life.


Law enforcement in Story County - It's a team effort!
SEAL OF STORY COUNTY
IOWA

ITEM #: 3

Staff Report

WATER POLLUTION CONTROL DIGESTER GAS UTLITIZATION STUDY

October 17, 2017

POLICY ISSUE:

The policy issue before the Council is to determine if the sustainability benefits of continuing to generate electrical power from methane gas produced on-site ("cogeneration") offset the increased capital and operating expenses when compared to simply purchasing electricity from the rural electrical cooperative.

Ames Water Pollution Control has a long standing history of utilizing cogeneration. The previous plant south of Highway 30 near Hunziker Youth Sports Complex used cogeneration to offset, at times, nearly 100% of the electricity needed for the plant. When the most recent plant was constructed in 1989, cogeneration was continued. With increased electricity demands on this facility, cogeneration has been offsetting approximately 15-20% of the electricity demand.

The current capital improvements plan has over $1.5 million in improvements in the next three years to the cogeneration and grease receiving systems. This includes a replacement of Methane Generator No. 1 with a boiler and overhauling Methane Generator No. 3 in the current fiscal year and replacing Methane Generator No. 2 in FY 19/20. These systems are operation- and maintenance-intensive, leading staff to hire Strand & Associates to help the City evaluate the full picture of the costs involved before proceeding with the budgeted projects. **Staff had anticipated that the study would reaffirm the continued use of cogeneration. However, upon evaluation of all the costs, it was determined savings from the electricity generation did not offset all the capital and operation costs incurred.**

Staff is now seeking the City Council's direction for choosing one of the following paths:

- Replace the methane engines entirely with boilers to supply the necessary heat, but no electricity for the plant ($1.25 million) or

- Choose a path that includes cogeneration supplying both the heat and electricity for the plant at higher cost ($3.1 million).

- Choose a short-term path that splits the difference, staying with cogeneration in the short-term, essentially "buying time" to see how the economics might change over the next few years.

The project cost comparison looks at capital costs, future equipment costs, and projected annual operations and maintenance costs over 20 years.

BACKGROUND:

The Ames Water Pollution Control Facility (WPCF) treatment process includes an anaerobic digestion process to stabilize the solids removed from the entering wastewater. The anaerobic digestion process creates methane ("biogas") as a by-product. The facility captures that gas and uses it as a feedstock for three cogeneration engines. Each cogeneration engine drives a generator that is connected to the plant's electrical grid via automatic switchgear. Heat recovered from the cogeneration engines is used to heat the digesters to maintain anaerobic digestion, eliminating the need to purchase natural gas for this purpose.

Two of the three dual-fuel gas generators (MG Nos. 1, 2) are original to the construction of the plant in 1989, and one (MG No. 3) was added in 2003. The original cogeneration engines operated for years without any problems with routine maintenance procedures. About ten years after the initial installation, the maintenance costs of the cogeneration engines began to increase. The presence of siloxanes (a common contaminant in municipally-generated biogas) has led to premature fouling of the engines' valves and the more frequent need for complete engine overhauls. In 2007, staff increased the frequency of oil changes which has helped to decrease maintenance costs associated with the cogeneration engines. These oil changes, along with regular overhauls, have allowed the cogeneration engines to remain operational.

Staff undertook the study of the facility's digester gas handling components as a result of two factors. The first is the implementation of a new Fats, Oils, and Grease (FOG) control ordinance and how it may impact the loadings and gas production at the digestion facilities. The second factor is the capacity and condition of the existing engine-generator system. The study is intended to be used as a guideline for future planning and design of projects related to the solids treatment process. **Over $1.5 million dollars of improvements are scheduled within the next five years and it was important to ensure that spending those dollars is in the best interest of the utility and its rate payers.**

On December 20, 2016 City Council awarded a contract to Strand Associates, Inc. of Madison, Wisconsin to perform this study.

STUDY SUMMARY:

Eight alternatives were evaluated on a present worth basis to compare various options for beneficially using the digester gas. These alternatives include four cogeneration options and three options for using biogas in boilers. Alternative 4 was found not to be feasible and therefore not fully evaluated. The table provides a summary of the options, with a narrative description that follows.

Alternative	Existing Engines	New Engines	Boilers	Micro-Turbines	Gas Conditioning	Controls Upgrade	Sell Gas to Pipeline
1	X					X	
2a		X				X	
2b		X			X	X	
3				X	X	X	
4						X	X
5a			X			X	
5b	X		X			X	
5c		X	X		X	X	

- Alternative 1 – Use digester gas to fuel the existing cogeneration engines. This alternative does not include gas conditioning and does not include future engine replacement. ($1.5 Million).

- Alternative 2a – This continues to use digester gas in one or more new cogeneration engine(s). This alternative does not include digester gas conditioning,.($2.7 million)

- Alternative 2b – This continues to use digester gas in one or more new cogeneration engine(s) with gas conditioning. ($2.5 million).

- Alternative 3 – Use digester gas to fuel a CHP system with microturbines. This alternative includes digester gas conditioning. ($2.7 million)

- Alternative 4 – Use digester gas to produce pipeline quality natural gas. The treatment system could be owned and operated by a third party or by the City. The location of the WPCF likely makes compressed natural gas (CNG) production for vehicle fueling impractical so this alternative was not further priced.

- Alternative 5a - Use digester gas in a dual fuel boiler without cogeneration ($1.25 million)

- Alternative 5b – Use digester gas in a duel fuel boiler with existing engines. This does not include any future replacement of engines. ($2.3 million).

- Alternative 5c - Use digester gas in a dual fuel boiler with a new cogeneration engine with digester gas conditioning. ($3.1 million). This alternative best reflects the current projects planned in the CIP; however staff had not accounted for the need to have gas conditioning for newer efficient engines.

Each alternative includes the costs of instrumentation, controls, and SCADA graphics upgrades.

CONCLUSION:

Based on the present worth analyses conducted at all digester gas flow rates, the alternative with the *lowest present worth cost* is alternative 5a. This alternative uses digester gas as a fuel for two boilers and includes demolition of the existing cogeneration engines. **If this approach were pursued, the Water Pollution Control Facility would no longer generate power on-site from a renewable source (biogas). Instead, the facility would need to purchase additional electricity from the rural electrical cooperative.**

The City Council has adopted a goal of expanding the City's sustainability efforts. When evaluating the net impact of a switch away from cogeneration, consideration needs to be given to where to draw the line between the City's carbon contributions as opposed to those of a third party energy provider. If you look at the City's carbon contribution alone, then elimination of cogeneration would not eliminate the facility's carbon emissions. This is because the same amount of biogas will still be produced and will still need to be burned – either in an engine or in a flare. However, since the facility would need to increase its consumption of purchased power if it no longer uses cogeneration, the carbon emissions of a third party electric provider would clearly go up, with an overall net increase in carbon emissions.

The Water Pollution Control Facility has a long history (50+ years) of using biogas as a fuel source to heat the digesters and produce electricity. Stepping away from this current practice is a change that would have a significant impact on how future dollars would be allocated. The staff is seeking direction from the City Council, so that the preferred project can be inserted in the Capital Improvements Plan.

The question being presented to Council is this: **Do the sustainability benefits of continuing to maintain a cogeneration system offset the increased capital and operating expenses?**

- If the Council finds the answer to that question to be "yes," direction can be given to staff to purse alternative 5c and continue the practice of on-site cogeneration and pursue the $3.1 million present-worth project. Or

- If the Council finds the answer to that question to be “yes,” but wishes to defer the large dollar capital expenses to see how much hauled grease and high strength waste may be received at the facility, direction can be given to staff to pursue alternative 5b ($2.3 million present worth project).

  Of the two alternatives shown above, the staff would recommend this option should the Council believe the benefits of continuing to maintain a cogeneration system offset the increased capital and operating expenses.

- If the Council finds the answer to that question to be “no,” direction can be given to staff to pursue Alternative 5a, which implements long-term alternatives to handling the biogas and heating the digesters using boilers and a waste gas flare at a cost of $1.25 million present worth project).

OPINION OF PRESENT WORTH COST ANALYSIS WITHOUT HSW

Digester Gas Alternatives							
	Alternative 1 Existing Engines[1]	Alternative 2 New Engine without Gas Conditioning	Alternative 2b New Engine with Gas Conditioning	Alternative 3 Microturbines	Alternative 5a Boilers	Alternative 5b Boiler and Existing Engines	Alternative 5C Boiler and New Engines
Total Capital Costs	**$ 790,000**	**$ 693,000**	**$ 693,000**	**$ 2,839,000**	**$ 1,172,000**	**$ 1,515,000**	**$ 1,203,000**
Total Future Equipment Costs[5]		**$ 1,564,000**	**$ 2,222,000**				**$ 2,222,000**
Average Annual O&M Costs							
Power	$ -	$ -	$ 1,500	$ 5,500	$ 300	$ 300	$ 1,500
Value of Electrical Production[1]	$ (36,000)	$ (46,500)	$ (43,500)	$ (35,500)	$ -	$ (36,000)	$ (43,500)
Gas Conditioning Equipment and Media Replacement[2]	$ -	$ -	$ 5,000	$ 8,500	$ -	$ -	$ 5,000
Equipment Maintenance and Overhaul[3]	$ 84,000	$ 109,500	$ 60,500	$ 17,500	$ 7,000	$ 88,000	$ 64,500
Subtotal Opinion of Annual O&M	**$ 48,000**	**$ 63,000**	**$ 23,500**	**$ (4,000)**	**$ 7,150**	**$ 52,150**	**$ 27,500**
Present Worth of O&M	$ 714,000	$ 940,000	$ 272,000	$ (58,000)	$ 108,000	$ 777,000	$ 370,000
Present Worth of Future Equipment	$ -	$ 1,283,000	$ 1,821,000	$ -	$ -	$ -	$ 1,821,000
Present Worth of Salvage	$ -	$ (191,000)	$ (265,000)	$ (63,000)	$ (34,000)	$ (31,000)	$ (275,000)
Total Present Worth[4]	**$ 1,504,000**	**$ 2,725,000**	**$ 2,521,000**	**$ 2,718,000**	**$ 1,246,000**	**$ 2,261,000**	**$ 3,119,000**

Notes:

[1] Value of electrical production is based on $0.04/kwh.

[2] Alternatives 2b, 3, and 5c include costs for gas conditioning.

[3] Maintenance costs were provided by equipment manufacturers or based on engineering judgement.

[4] Based on a 20-year project life using the Iowa DNR discount rate of 2.875 percent.

[5] Engine replacement is assumed to occur in Year 7.

Table 8.02-14 Summary of Nonmonetary Considerations

	Alternative 1– Existing Engines	Alternative 2a– New Engine w/o Gas Conditioning	Alternative 2b– New Engine w/ Gas Conditioning	Alternative 3– Microturbines	Alternative 5a– Boilers	Alternative 5b– Boiler and Existing Engines	Alternative 5c– Boiler and New Engine
Operational Complexity	0	0	-1	-1	1	0	-1
Future Expandability	1	1	0	0	1	0	-1
Energy Reuse/Sustainability	1	1	1	1	0	1	1
Air Emissions	-1	0	0	0	1	-1	0
Constructability	1	1	0	0	1	1	0
Total	**2**	**3**	**0**	**0**	**4**	**1**	**-1**

ITEM #: 4

Staff Report

REVISIONS TO CHAPTER 28 AND APPENDIX N OF THE AMES MUNICIPAL CODE (UTILITIES)

October 17, 2017

BACKGROUND:

Staff has prepared a series of updates to Chapter 28 to address a number of different goals.

- To better reflect current practice by City staff. (For example, with the start of the Automated Meter Reading (AMR) project, changes to the Code were necessary to reflect the new technology and its requirements.)

- To provide additional flexibility to Water & Pollution Control, Utility Customer Service, and Public Works when addressing the needs of customers.

- To use more uniform nomenclature throughout the Code, and to better reflect the common terminology being used in the industry today.

In the narrative below, each of the changes are identified, with a brief explanation of the reasoning behind the change. Items in red are additions and items with strikethrough are deletions.

The presentation at the October 17 Council workshop is informational only.

- **If Council is comfortable with the proposed changes, no action will be needed at the workshop.** Staff will bring the Chapter 28 changes to the City Council in ordinance form on October 24 for the first of three readings; and will bring the revised Industrial Pretreatment Program document to Council for adoption that same night. The Pretreatment Program revisions are loosely related to the Chapter 28 revisions, and are a combination of updates being recommended by staff and required modifications to the program being directed by the US EPA. In order to meet a US EPA deadline to certify the changes to the Industrial Pretreatment Program by December 15, the third and final reading of the ordinance needs to occur at the final Council meeting in November. Staff will also present the revision to Appendix N on October 24 for adoption by resolution.

- **If, however, there are elements that Council wishes to handle differently than is proposed, direction on those changes would be necessary at the workshop.** That will allow staff to make the requested changes so that Council is comfortable approving the ordinance on October 24, and thus meeting the deadline set by the US EPA.

STAFF COMMENTS:

A significant change being proposed is the requirement for individual water meters for apartment and commercial buildings with the edits to Section 28.214 (Page 12). This requirement is recommended primarily as a means to encourage water conservation and provide better water accountability. The Water and Pollution Control Department surveyed larger utilities in the State, and while most utilities do not have this requirement, the utilities in Boone, Des Moines, Cedar Rapids, Ft. Madison and Waterloo do have a requirement for individual meters for apartment and commercial buildings.

PROPOSED CHANGES TO THE CODE:

Reflected below are the specific changes being recommended to Chapter 28.

Sec. 28.201. WATER RATES AND CHARGES

The rates and charges for water supplied to consumers by the water utility of the city, to be billed on or after July 1, 2010 are as follows:

(2) ***Non-residential (Commercial) Rates***

(a) ***Availability.*** *The non-residential rate shall apply to all accounts that do not meet the criteria for residential, irrigation and yard water, rural water, or ~~preferred~~ non-peaking industrial* rates

(8) ***Multiple dwellings – Mobile home parks.*** *Existing multiple dwellings, including mobile home parks, may continue to be ~~serviced~~ served from a single water meter. However, there shall be a surcharge added to the water rates set forth above, to be calculates as follows:*

Staff Comment: Changes to Section 28.201(2) and (8) are minor text changes to be consistent with nomenclature used elsewhere in the Code.

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(9) ***Unintentional Summer Water Use.*** *During the summer billing periods, the City Manager or the Manager's designee shall have the authority to approve an adjustment to a customer's water, yard water, or irrigation charges if there was unintentional water usage as the result of a malfunction of an appliance or a plumbing fixture (e.g. water heater, washing machine, toilet, or irrigation system) and the unintentional usage exceeds the customer's average summer usage by at least one thousand cubic feet. To be eligible for an adjustment, the customer must provide documentation from the person who repaired the malfunction (e.g. plumber, maintenance worker) which describes the cause of the malfunction and the action taken to correct the malfunction. The amount of the adjustment shall not exceed the difference between the actual water, yard water, or irrigation charges billed and the charges that would have been billed using the winter rate.*

Staff Comment: Staff recommends a new paragraph be added to Section 28.201 to address issues that arise when a customer has a leak during the summer billing periods. Council has had to address each of these issues as they come up. The new language proposed would give staff the ability to make the appropriate adjustments without needing council action for each instance.

Sec. 28.203. METERS FURNISHED AND OWNED.

(1) All water meters shall be furnished and owned by the City. The customer shall pay for the water meter(s) according to the current schedule of fees for meter installations as stated in Appendix Q of the Municipal Code.

(2) The type and size of meter(s) to be installed may be reviewed with the customer or customer's representative, but the Water and Pollution Control Department shall have final authority to ~~set~~ select the meter(s) considered most appropriate for the proposed installation. No water meter shall be set nor shall the water service be turned on unless the location and setting comply with the Code and all fees and deposits have been paid. If any customer requests a meter for a new installation and has any unpaid fees or charges for other locations, no new meters shall be set until all fees and charges are paid in full.

(3) Locations with irrigation systems may be required to install a separate meter and have a separate utility account for the irrigation system. The requirement for a separate meter will be based on maintaining accuracy and accountability and will be determined by the Water and Pollution Control Department.

(Ord. No. 854, Sec. 45; Code 1956, Sec. 31-45; Ord. No. 3199, Sec. 1, 9-24-92)

Water Meter Sizing Guide

Maximum Number of Fixture Units As Determined from UPC Table 6-4 to Size Service Lines and Meters	*Normal Operating Flow Range In gallons per minute (gpm)*	*Meter Size Typical Residential and Commercial Applications with Flush Tanks*
29	*¼ - 20*	*5/8" x 3/4" Positive Displacement*
52	*¼ - 30*	*3/4" Positive Displacement*
125	*½ - 50*	*1" Positive Displacement*
275	*1 – 80*	*1½" Positive Displacement or Ultrasonic*

Staff Comment: These changes to Section 28.203 to address new construction. In recent years, there has been an increase in the number of new irrigation systems for commercial locations. In the interest of accountability, the City is requiring a separate meter for these irrigation systems. The City has had great cooperation from builders and developers in implementing this but the current practice is not reflected clearly in the Code. This will help accomplish that objective.

Sec. 28.204. METER TO REMAIN WHERE INSTALLED

(3) Only employees of the Water Meter Division are authorized to remove meters except as provided in Section 28.210(2). A resetting fee, at the current rate stated in appendix Q of the municipal Code, shall be assessed for removal of a meter without authorization.
(Ord. No. 854, Sec. 46; Code 1956, Sec. 31-46; Ord. No. 3199, Sec. 1, 9-24-92)

Staff Comment: The addition to Section 28.204 is to clarify where the resetting fee for a meter is specified in the Municipal Code.

Sec. 28.205. LOCATION AND ACCESSIBILITY

*(1) **Basement mechanical room.** The water meter(s) shall be located in the basement or mechanical/utility room if one is provided. The ~~master~~ water meter(s) shall be placed where the water service line comes through the basement wall or basement floor. Where no basement is provided, the ~~master~~ meter(s) shall be placed where the service line comes through the floor of the utility room. Meters shall be indoors and protected from freezing. A floor drain shall be located in the room containing the meter(s). Meters cannot be located above the first or ground floor level under any conditions. Only the individual water meter(s) serving a dwelling unit can be located within the private occupancy space of that dwelling unit.*

*(2) **Multi-family dwellings.***

(a) In a duplex, the preferred meter location is in ~~the~~ a joint basement or mechanical room. If this is not possible, ~~each~~ individual meter(s) must be in the private occupancy area (utility room, for example) of that dwelling unit.
(b) In multi-family dwellings on one level, the preferred meter location is in a joint mechanical, utility, or meter room. However, with prior approval, individual meters may be located in the utility room of each dwelling unit.
(c) In multi-family dwellings on more than one level, meters shall be ~~congregated~~ located in one or more mechanical/utility or meter rooms in the basement or first floor level of the building where the service line comes through the wall or floor. ~~Location of~~ Individual meters in each ~~individual~~ utility room or apartment is prohibited~~. In an apartment complex where a mechanical room is not provided, a water meter room shall be provided at the point~~ A floor drain must also be provided in this area.

~~*(3) All meters shall be placed within 30" and no more than 42" from where the water service first penetrates the floor or wall of the structure.*~~

(4) ***Meter setting height.*** *Single water meters shall be set at a height not less than 30 inches and not more than 42 inches above the finished floor. A minimum of 18 inches of clear space is required above and below the meter and a minimum of 36 inches of clearance is required in front of the meter for maintenance purposes.*

(a) Multiple water meters may be stacked vertically, ~~either directly above or~~ and offset, within general limits of not less than 20 inches and not more than 48 inches above the finished floor. A scaled drawing of the proposed manifold installation shall be submitted to the Water and Pollution Control Department for review and approval. A master shut-off valve shall be provided where the meter manifold is connected to the building's domestic water service. The meter manifold shall be located in a common mechanical room accessible for meter maintenance and reading purposes. The piping on the discharge side of each meter shall be permanently labeled for the corresponding unit served. For commercial installations, access to the meter room by means of an exterior door is recommended. Refer to the Reference Guide for Obtaining Permits and Utility Services for New Construction for an example of a typical manifold installation.

(b) When a backflow assembly for containment is installed where a meter manifold is present, the assembly shall be installed according to the requirements of Section 5.208. (8)(b)(viii) of the Municipal Code.

(c) For manifold installations where non-metallic pipe is used for supply piping, a minimum of 24 inches of rigid pipe shall be installed on the vertical rise on the discharge side of the water meter. The discharge piping shall be attached directly to the wall to maintain proper spacing and alignment for the meter setting.

(5) ***Accessibility.*** *All water meters shall be in an accessible location. There shall be no obstruction or storage of other materials preventing access to the meter. The meter shall not be placed above or behind a furnace, water heater, washer or dryer, or other such arrangement limiting access to the meter. ~~No shelf may be placed less than two feet above any meter.~~ For meters one inch and smaller, a minimum of ~~two feet~~ 18 inches of ~~working~~ clearance ~~around~~ above and below the meter ~~is necessary~~ and a minimum of 36 inches in front of the meter is necessary for meter maintenance and routine change. For meters larger than one inch, a minimum of 24 inches ~~three feet~~ of working clearance ~~around~~ above and below and 36 inches in front of the meter is necessary for maintenance purposes.*

(Ord. No. 3199, Sec. 1, 9-24-92)

(6) ***Access Granted.*** *As a condition of service, all customers must consent to provide access to the property for the purposes of meter reading, and to perform routine and emergency service and maintenance of the water meter. Failure or refusal to grant access may result in termination of water service.*

(Ord. No. 4010, 09-22-09)

Staff Comment: Access to meters, especially in commercial and apartment buildings, can be a challenge. To address this issue, staff has provided guidance to developers and plumbers through an informational pamphlet. Staff feels it is appropriate to adopt language in the Code to give specific clearance requirements for meter access. The requirements called out above in red are current requirements that have been used for quite some time; the changes simply adopt them into the Code.

Sec. 28.207. METER ACCESSORIES

(1) ***Bypass****. A valved bypass line shall be provided for every commercial water meter installation ~~1½~~ 5/8" x 3/4" inch and larger so that the meter can be removed without interrupting service to the customer. ~~It is recommended that valved bypass lines be provided for smaller meter installations where interruption of service is not acceptable to the customer.~~ All valved bypass lines shall be equipped with a ball valve with a locking mechanism which shall be closed and sealed by the Water Meter Division. If the seal is broken for any reason except as may be authorized by the Water Meter Division, the customer shall be billed for unauthorized use of water at the current rate stated in Appendix Q of the Municipal Code.*

(2) ***Jumper wire.*** *All water services constructed of metallic pipe material shall have a jumper wire installed around the water meter to ground the water ~~service~~ piping when the water meter is removed for testing or maintenance. A jumper wire is not required where meter installations are equipped with a meter bypass constructed of metallic pipe material. ~~All water services constructed of metallic pipe materials shall be permanently grounded in a manner that allows the water meter to be removed for testing or maintenance without interrupting the ground. The grounding shall be provided by the required meter bypass, constructed of metallic pipe materials, or a jumper wire.~~ The use of the water service as a primary ground for the electrical, telephone, cable TV, or other systems is prohibited. In the event the water service is constructed of non-metallic pipe material, neither primary nor secondary grounding is permitted. If a water service is constructed of non-metallic pipe material, a jumper wire is not required.*

(3) ***Water Meter Supports.*** *If a water service is constructed of non-metallic pipe material, the water meter shall be supported or mounted in an approved manner at the location specified in Sec. 28.205. Acceptable supports include a shelf attached/anchored to the building wall or a steel support anchored in the concrete floor. The support shall be of sufficient strength to hold the weight of the meter and accessories. A temporary support may be used for construction meters.*

(Ord. No. 3199, Sec. 1, 9-24-92)

Staff Comment: Interruption of service for meter maintenance is something certain customers are reluctant to allow. The language is proposed to require all commercial

customers, with a one-inch meter or larger, to install a meter by-pass. Staff also added a provision that any customer that could not have water service interrupted is allowed to have a meter by-pass installed. This allows the customer to have a constant water supply and makes scheduling the meter change easier for the customer and City staff. Clarifying language has been added to the requirements for a jumper wire around the meter, and a requirement for a sort piece of rigid piping to stabilize the water meter when PEX or other flexible piping materials are used.

Sec. 28.208. METER PITS

Meter pits will generally not be approved because of the difficulty and safety hazards in meter reading and maintenance. For meter installations one-inch and smaller, pre-fabricated meter pits which do not require entry may be approved by the Water and Pollution Control Department. Installations for meters larger than one-inch, especially those requiring a backflow prevention assembly, shall be installed above grade in an enclosed structure and insulated and/or heated to prevent freezing. ~~If no other alternative is available, a meter pit constructed in accordance with Water and Pollution Control Department specifications may be approved.~~
(Ord. No. 3199, Sec. 1, 9-24-92)

Staff Comment: Meter pits pose a safety issue for City staff. This language clarifies their allowed use in limited applications.

Sec. 28.209. RADIO READ DEVICE

(1) ***New meter installations.*** *All new water meter installations shall have a radio read device. ~~remote reading register placed on the outside of installed inside the building or residence.~~ Any residential dwelling units located within the City of Ames municipal electric service territory may have the radio read device located inside the dwelling. ~~remote register within three feet of the electric meter~~ All commercial buildings, located within the City of Ames municipal electric service territory, and any residential or commercial buildings located outside of the City of Ames municipal electric utility territory, shall install for each meter a 22/3 gauge, stranded, shielded wire with plastic sheath from the water meter on the inside of the building to within three feet of the electric meter on the outside of the building. Meters located in meter pits or vaults shall have the radio read device located inside the pit or vault, or located in a pedestal near the meter pit or vault. If the electric meter is located on a transformer, or other remote location, the wiring for the radio read device shall terminate on the side of the building nearest the transformer or remote location. A minimum of three feet of excess wire shall be left*

at each end to allow connection to the water meter and installation of the radio read device. Any portion of the wire that will not be exposed (i.e. installed behind finished walls, above finished ceilings, etc.) shall be placed in conduit to protect the wire from damage and to facilitate replacement if necessary. The City will provide and install the radio read device and connect it the customer-installed wire.
(Code 1956, Sec. 31-29.1; Ord. No. 2073, Sec. 1, 5-11-65; Ord. No. 2416, Sec. 2, 9-26-72; Ord. No. 3199, Sec. 1, 9-24-92)

(3) ***Rural Water customer remote readers.*** *Rural customers shall provide a mounting location for a radio read device that will facilitate easy access for meter reading. For locations that are served by the City of Ames municipal electric utility territory, the radio read device shall be placed within three feet of the electric meter wherever practical. Alternate locations and installation requirements shall be approved by the Water and Pollution Control Department prior to installation of the water meter.*

It shall be the responsibility of the customer to maintain an adequate clearance around the remote reading device to prevent landscaping, snow drifts or piles, or other obstructions from interfering with access to the radio read device for meter reading, service, or maintenance. (Ord. No. 4010, 09-22-09)

Staff Comment: City staff has been successfully installing a new Automated Meter Reading system for two years. The Code needs to be updated to reflect the requirements of this new technology. In particular, there is a need to address the requirements of this system when the water service is located outside of the City of Ames Electric Services' territory. Within the electric services territory, the electric meters will serve as a mesh network to transmit the readings. Outside of the electric service territory, collectors will need to be installed to capture the meter readings and transmit them for billing. The water meter radios will transmit the signals directly to the collectors. As a result, all radio ERTs need to be located on the outside of residences that exist outside of the electric service territory.

Sec. 28.209A. RURAL CUSTOMER BACKFLOW PREVENTION. *For all water customers outside the Ames corporate limits, a ~~testable backflow prevention device~~ reduced pressure principle backflow prevention assembly (RP) shall be required for containment.*

(1) ***Location.*** *The ~~backflow prevention device~~ reduced pressure principle backflow prevention assembly (RP) shall be installed directly after the meter.*

(2) ***Installation.*** *It is the responsibility of the customer to provide this device and it shall be installed by a plumber licensed by the City of Ames pursuant to a plumbing permit acquired from the City of Ames, and installed in compliance with all Plumbing Codes applicable in the City of Ames.*

(3) ***Maintenance/Testing.*** *The ~~device~~ reduced pressure principle backflow prevention assembly (RP) shall be tested upon installation and at least annually thereafter by a registered backflow prevention assembly technician. Results of all backflow prevention assembly test reports shall be submitted to the Water Meter Division within 10 working days of when the device was tested.*

It is the responsibility of the customer to maintain the ~~backflow prevention device~~ reduced pressure principle backflow prevention assembly (RP).

If backflow occurs at a rural water location, the customer shall comply with provisions of Ames Municipal Code Sec. 21.501(47) (b) (xii).

Failure to perform the required testing at least annually, or to maintain the device in good repair, may result in termination of service.

(Code 1956, Sec. 31-29.1; Ord. No. 2073, Sec. 1, 5-11-65; Ord. No. 2416, Sec. 2, 9-26-72; Ord. No. 3199, Sec. 1, 9-24-92; Ord. No. 4010, 09-22-09)

Staff Comment: Changes to Section 28.209A are to adopt the common nomenclature used in the industry.

Sec. 28.212. HYDRANT METER

As a general rule, hydrant meters will not be allowed except under unusual circumstances. Prior approval of the Water and Pollution Control Department is required. ~~A fee shall be charged for setting and removing each hydrant meter. In addition, a deposit is required before each hydrant meter is set. The deposit less damages, if any, will be returned after the hydrant meter is removed.~~ *The customer shall complete a Hydrant Meter Application form to request a hydrant meter. All fees and charges, including any damage to the hydrant, hydrant meter, or backflow prevention assembly, will be billed to the customer when the hydrant meter is removed from service. A monthly fee, based on the meter size, will be charged for use of the hydrant meter. If the hydrant meter is used fewer than 30 days, the monthly charge will be prorated on a daily basis. Please refer to Appendix Q of the Municipal Code for current fees. Only employees of the Water Meter Division are authorized to install and remove or move a hydrant meter.*

(Ord. No. 854, Sec. 40; Code 1956, Sec. 31-48; Ord. No. 3199, Sec. 1, 9-24-92)

Staff Comment: With the increase in commercial construction there has been an increased need for hydrant meters. The practice was changed to charge a monthly fee for the use of the hydrant meter. This was done to encourage contractors to keep the hydrant meter only as long as necessary. This section was expanded to give more detail about this practice.

Sec. 28.213. UNMETERED WATER USE

Unmetered water use at any location for any purpose, without prior authorization from the Water and Pollution Control Department, shall be billed at the rate, ~~set by city council~~ *stated in Appendix Q of the Municipal Code,* per occurrence or per month, whichever is greater. *The exception would be to use water to perform a water test for the sanitary sewer, drain, or waste and vent piping within a structure.* In addition, any damages shall be charged to the person using the water without authorization. Authorized use of water without a meter will be billed at the rate ~~set by city council~~ listed in Appendix Q of the Municipal Code. To initiate or terminate this service the customer shall make such request through the *Water Meter Division.* ~~Customer Service Division of the Finance Department.~~

(Ord. No. 854, Sec. 40; Code 1956, Sec. 31-48; Ord. No. 3199, Sec. 1, 9-24-92)

Staff Comment: Edits to Section 28.213 provide some clarification to plumbing contractors on specific instances where unmetered water use would be allowed.

Sec. 28.214. OWNERSHIP AND REPAIR, WATER SERVICE CONNECTIONS

All service connections with the city water supply from the main to the meter, including the corporation cock, service line, curb cock and curb box, and shut-off valves for the meter setting, shall be installed and maintained at the expense of the property to be served. Ownership of the entire service connection remains with the property. Whenever any part of the water service line between the main and the consumer's meter develops a leak or becomes out of repair, it shall be the duty of the ~~City Manager to notify~~ the property owner, ~~the property owner's legal agent, or the consumer of~~ to repair the defect. Leaking water services which are constructed of galvanized ~~service line~~ iron piping ~~materials~~ shall be replaced entirely between the water main and the meter with a water service line of proper size and approved material. The Administrative Authority may require replacement of leaking water services made of other non-approved materials if it is determined that the condition of the service line presents safety or sanitary concerns. To prevent or reduce damage to public or private property, the City Manager or his designee shall, if the owner ~~or consumer~~ does not act to correct the defect within fourteen (14) calendar days after notice, cause the discontinuance of water service to the premises. The City Manager is authorized to discontinue service or repair service leaks without prior notice to the property owner or tenant in emergency situations to prevent service interruption, damages,

or injury to others. Any costs incurred by the city for excavation and replacement, and repair of damages to property caused by such, shall be charged to the owner and may be assessed as a lien against the property as provided in Sections 384.62 and 364.12 Code of Iowa.

(1) For the purpose of accountability, Apartment Dwellings, Condominiums, Commercial Buildings, Dwelling House, Family Home, Single-Family, Single Family Attached, Two-Family Attached, Efficiency Unit Dwellings, Manufactured Homes, and Mobile Homes (by means of individual meter pits), shall be individually metered. Assisted Living Facilities, Congregate Housing, Hospice Facilities, Hospitals, Hotels, Independent Senior Living Facilities, Nursing Homes, Residential Corrections Facilities, and Sorority or Fraternity Facilities would not be required to meter individual dwelling units. Requirements and exceptions are based on definitions stated in Section 29.201 of the Ames Municipal Code.

(Ord. No. 3199, Sec. 1, 9-24-92)

Staff Comment: Edits to Section 28.214 clarify the ownership of the shut off valves. In addition, clarification is provided on who is responsible for repairing the service line and City Manager notification is no longer prior to a property owner being responsible to repair a service line. **A significant change being proposed is the requirement for individual water meters for apartment and commercial buildings.** This requirement is recommended primarily as a means to encourage water conservation and provide better water accountability. The Water and Pollution Control Department surveyed larger utilities in the State, and while most utilities do not have this requirement, the utilities in Boone, Des Moines, Cedar Rapids, Ft. Madison and Waterloo do have a requirement for individual meters for apartment and commercial buildings. A description of the public outreach on this proposed change is provided near the end of the report.

New Section 28.214(1)

*(1) **Lead Service Line Replacement.** Any service line that contains any lead piping, fitting, fixture, solder, or other component; and, that develops a leak or otherwise becomes out of service shall be replaced.*

(a) It shall not be lawful to leave any lead component in service when repairing or replacing a water service line.

(b) Where the service line is composed entirely of lead pipe, or consists of a mix of lead and galvanized piping materials, the service line shall be replaced in its entirety, from the point of connection to the City water main to the master water meter for the property.

(c) Where the service line consists of a lead "pigtail" or "gooseneck" between the water main and the curb stop box, and consists of copper or plastic from the curb stop box to the water meter, only the portion between the water main and the curb stop must be replaced.

(d) The cost of such replacement shall be the responsibility of the property owner.

(2) Any lead service line encountered during a City water main replacement project shall be replaced by the City. The cost shall be borne by the water utility as a part of the project, and shall not be passed on to the property owner.

Staff Comment: The purpose of the new section related to lead service lines is to require the replacement of these lines when in disrepair. The Code currently would not require a property owner to replace the entire service line. Studies published in water industry trade journals show that partial replacement of lead service lines can result in even higher lead levels at the tap than if the lead service line had not been touched. It is expected that updates to the EPA's lead and copper rule in the next couple of years will not allow for partial lead service line replacements.

Sec. 28.215. DISCONNECTION AND RECONNECTION OF WATER SERVICE -- CHARGES.

When requested by the customer, the city will cause the water to be turned off at the curb stop ~~box~~, provided the curb stop is in working order and is accessible. A fee may be charged to the customer for this ~~the~~ service. The cost of locating and servicing an inaccessible or damaged curb cock or curb box will be at the expense of the customer ordering discontinuance of service. Should it become necessary to cut off the water at the corporation cock in the main, the expense thereof shall be charged to the owner of the premises. ~~Water rents~~ All utility bills and service charges will be made until notice of discontinuance of service is given to the city at the office of the Finance Director. When water service is discontinued, all ~~water rentals~~ utility bills and service charges of the city for water service to the customer shall be immediately due and payable. When service is ~~temporarily~~ disconnected ~~at the request of the customer or~~ for non-payment of bills, a charge may be made for disconnecting and reconnecting the service. Customer requested water service reconnection and disconnection is subject to a fee for each service call/trip as stated in Appendix Q of the Municipal Code.

(Ord. No. 854, Sec. 22; Code 1956, Sec. 31-22; Ord. No. 2009, Sec. 1, 12-17-63, Ord. No. 2550, Sec. 2, 7-6-76; Ord. No. 3199, Sec. 1, 9-24-92)

Staff Comment: Section 28.215 provides some language clarification related to the disconnection and reconnection of water service and the associated fees with these services.

Sec. 28.302. DEFINITIONS.

Unless the context specifically indicates otherwise, the meaning of terms used in this ordinance shall be as follows:

*(6) **'High Strength Surcharge'** shall mean a system to assess a sewer surcharge to any contributor discharging wastewater that is higher in concentrations of COD, TSS, TKN, and/or Oil & Grease than normal domestic wastewater. Concentrations of normal domestic wastewater are defined as follows; COD – 550 mg/L, TSS – 300 mg/L, TKN – 45 mg/L, and Oil & Grease – 300 mg/L.*

*(7) **'Local Limits'** shall mean discharge limits determined by a treatment plant headworks calculation on local facilities.*

Staff Comment: Staff have added definitions of High Strength Surcharge and Local Limits for better clarification. The list of other definitions will be renumbered to allow the new definitions to be inserted alphabetically.

Sec. 28.304. SEWER RATES ESTABLISHED.

(9) Where a "yard meter" is not installed, but it appears in any month that more than ~~two~~ one thousand (~~2,000~~ 1,000) cubic feet of water was used in a way that the water did not reach the sanitary sewer, that amount of water shall be exempt from the sewer rate on application to the City Manager or the City Manager's designee. The total exemption allowed under this provision shall be granted over no more than two consecutive billing periods. (Ord. No. 3950, 05-13-08; Ord. No. 4003, 08-11-09)

(11) For those users which operate Food Service Establishments licensed by the State of Iowa, a Restaurant Surcharge, Restaurant Fee, or High-Strength Surcharge Rate, in addition to the normal user charge, shall be collected. The Restaurant Surcharge, Restaurant Fee, and High-Strength Surcharge Rate shall be listed in Appendix Q.

(a) Users which are billed for sewer usage shall be assessed the Restaurant Surcharge.

(b) Users which are not billed for sewer usage or whose sewer usage is not representative of the facility's food service activities shall be assessed the Restaurant Fee.

(c) Users whose sanitary sewer discharge flows through an outfall monitored by the City of Ames Industrial ~~Waste~~ Pretreatment Program shall be assessed a High-Strength Surcharge Rate that includes the surcharge for Oil and Grease as calculated based on their sampling results. (Ord. 4199, 11-25-14; Ord. No. 4263, 6-28-16)

Staff Comment: The reduction in the size of leak needed to be eligible for an adjustment was a request by Utility Customer Service in an effort to provide more flexibility in making adjustments to customers' bills, and is consistent with the new wording added for similar issues with a water leak. The elimination of the word "Waste" from the title of the "City of Ames Industrial Pretreatment Program" is to make the nomenclature in Chapter 28 match the Pretreatment Program document. This title change has been made elsewhere in the Code revisions as well.

Sec. 28.305. SEWER SERVICE, CONNECTION CHARGE.

(1) There is established hereby, as a fee for connection to the sanitary sewer main, such charge as the City Council shall by resolution set for the property served by and adjacent to the main, provided that no sanitary sewer utility special assessment has been made previously with respect to said adjacent property and the sanitary sewer was financed with funds of the city.

(Ord. No. 2928, Sec. 1, 7-2-85; Ord. No. 3199, Sec. 1, 9-24-92; Ord. No. 3204, Sec. 1, 12-8-92; Ord. No. 3209, Sec. 1, 12-8-92; Ord. No. 3565, 5-23-00

(2) ADD NEW SECTION

OWNERSHIP AND REPAIR, SANITARY SEWER LATERAL

All service connections with the City sewage collection system beginning at the sewer main and extending to the building or structure, including the wye connection at the sewer main, shall be installed and maintained at the expense of the property to be served. Ownership of the entire service connection remains with the property.

(a) Whenever any part of the sewer lateral between the main and the building or structure develops a leak or otherwise becomes out of repair, it shall be the duty of the property owner to repair the defect.

(b) Any repairs or replacement shall be made with approved materials.

(c) The Administrative Authority may require the complete replacement in lieu of allowing a repair to damaged sewer laterals made of non-approved materials if it is determined that the condition of the service line presents safety or sanitary concerns.

(d) To prevent or reduce damage to public or private property, the City Manager or his designee shall, if the owner or consumer does not act to correct the defect within 14 calendar days after notice, cause the discontinuance of sewer service to the premises. The City Manager is authorized to discontinue service or repair service damage without prior notice to the property owner or tenant in emergency situations to prevent service interruption, damages, or injury to others. Any costs incurred by the City for excavation and replacement, and repair of damages to property caused by such, shall be charged to the owner and may be assessed as a lien against the property as provided in Sections 384.62 and 364.12 Code of Iowa.

Staff Comment: The addition of a new section in 28.305 clarifies that the sewer lateral is owned by the property owner, and that the obligation to maintain it in good repair is the responsibility of the property owner. It is not a change in ownership or responsibility to maintain the lateral; it simply adds a clear statement that mirrors existing language in the Code for the water service line.

Sec. 28.306. GENERAL PROHIBITIONS FOR WASTE DISPOSAL IN THE SEWER.

(Ord No. 3526, 6-22-99)

(6) Any trucked or hauled pollutants, except at discharge points designated by the City when delivered by licensed haulers.

Sec. 28.307. INDUSTRIAL PRETREATMENT REQUIREMENTS.

All discharges of wastewater, gases, or solids which are not similar to domestic sewage shall meet the following pretreatment requirements.

(1) City of Ames ~~Non-Domestic Waste~~ Industrial Pretreatment Program as adopted and amended from time to time by city council resolution.

(7) All users who are significant or minor ~~non-domestic waste contributors~~ industrial users as defined in the revised Ames Industrial ~~Non-Domestic Waste~~ Pretreatment Program shall have obtained a permit from the city pursuant to said program before discharging non-domestic wastewaters. Any contributor now discharging pursuant to a contract shall be issued a permit within six (6) months of approval of the revised Ames ~~Non-Domestic Waste~~ Industrial Pretreatment Program.

Staff Comment: Edits to the sections above are to help create uniformity in nomenclature between the Municipal Code and the Industrial Pretreatment Program.

Sec. 28.308 FATS, OILS, AND GREASE CONTROL PROGRAM.

(3) FSEs subject to the FOG Control Program may apply for exemption from the Restaurant Surcharge/Restaurant Fee. Exemptions shall utilize evidence gathered in the preceding six (6) month period to determine whether an FSE is exempt from the Restaurant Surcharge/Restaurant Fee for sewer bills mailed during the following six (6) month period. Exemption periods shall be from January to June and from July to December.

(4) The use of any additive into a grease interceptor, grease trap, or other on -premise plumbing for the purpose of "treating" FOG shall be prohibited unless prior approval is granted by the Director of Water and Pollution Control.

(c) To be approved, products must be composed of non-emulsifying active biological additives designed to decompose the grease in the grease trap or grease interceptor.

(ii) Examples of products that are not approved are those that include, but are not limited to, the following types of components:

(f) Other components that are deemed to be otherwise incompatible with the purpose of the FOG Control Program or the municipal sewerage system as described in Section 28.306.

(5) The Director of Water and Pollution Control, or designee, may exempt an FSE from the Restaurant Surcharge/Restaurant Fee for a six (6) month period if one of the following criteria is met during the preceding six (6) month period:

(a) Submission of records of grease interceptor cleanings occurring in the previous six (6) months. If a grease interceptor is not cleaned during the previous six (6) months, the reason(s) for this must be submitted to and approved by the Director of Water and Pollution Control or designee. Such records shall include the following information:

(iii) The quantity of grease removed during each cleaning.

(a) In the case of a gravity-flow grease interceptor, the quantity of grease shall be calculated by comparing the depth of the floating fats, oils, and grease, plus the depth of the accumulated solids, and dividing that depth by the total depth of the unit (the design liquid level), expressed as a percentage. The measurements shall be taken in the compartment nearest the inlet of a multi-compartment grease interceptor and in the interceptor immediately preceding connection to the sanitary sewer when more than one interceptor is installed in series and in all interceptors when more than one interceptor is installed in parallel. In instances where an interceptor requires cleaning multiple times during the six (6) month review period, records shall be submitted for each cleanout. The owner or operator of the FSE shall require the grease interceptor to be cleaned when FOG and solids reach 25% or less of the design liquid level of the grease interceptor. When multiple cleanouts are required during a review period, the level of FOG and solids from each cleanout shall average 25% or less and no single instance shall equal or exceed 35%.

(b) In the case of a hydromechanical grease interceptor, the quantity of grease shall be calculated by comparing the depth of the floating fats, oils, and grease, plus the depth of the accumulated solids, and dividing that depth by the total depth of the unit (the design liquid level), expressed as a percentage. The measurements shall be taken in the compartment nearest the inlet of a multi-compartment grease interceptor, in the interceptor immediately preceding connection to the sanitary sewer when more than one interceptor is installed in series and in all interceptors when more than one interceptor is installed in parallel. In instances where an interceptor requires cleaning multiple times during

the six (6) month review period, records shall be submitted for each cleanout. The owner or operator of the FSE shall require the grease interceptor to be cleaned when FOG and solids reach 25% or less of the design liquid level of the grease interceptor. When multiple cleanouts are required during a review period, the level of FOG and solids from each cleanout shall average 25% or less and no single instance shall equal or exceed 35%. In situations where a hydromechanical grease interceptor is not able to be measured prior to cleanout, it shall be required that the interceptor be cleaned on a monthly basis.

(b) Submission of a laboratory test to determine the oil and grease content of typical wastewater discharge. Such tests shall be conducted by a laboratory certified by the State of Iowa to test oil and grease under the procedures specified in Chapter 567.83 of the Iowa Administrative Code. Laboratory tests shall conform to the following conditions:

(iv) The FSE shall also be required to meet the same requirements as defined in Sec. 28.308(5)(a).

(8) Submission of incomplete records or failure to submit records as described in Sec. 28.308(5)(a-c) shall constitute a violation of Sec. 28.306(2). Violators are subject to a municipal infraction and recovery of costs as described in Appendix N.

Staff Comment: These are proposed revisions to the Fats, Oils, and Grease (FOG) Control Program. Language will be added that would allow for Municipal Infractions to be levied on Food Service Establishments that have not submitted the required documentation and that contribute to sanitary sewer overflows. The City has not been able to pursue Municipal Infractions after recent sanitary sewer overflows because the Code did not include language that allowed it; and this change was recommended by the Legal Department to allow those to be imposed moving forward. Lastly, the use of grease interceptors both in series and parallel operation is addressed. This will give flexibility to food service establishments when installing new equipment while still pursuing the goals of the program.

28.309 Pretreatment Local Limits Established.

Pollutant	***Local Limit (mg/L)***
Arsenic	*0.02*
Acetone	*14.9*
Benzene	*0.05*
BTEX	*0.75*
Cadmium	*0.04*
Chromium (Total)	*0.93*

Copper	*0.57*
Cyanide	*0.88*
Lead	*0.89*
Mercury	*0.01*
Molybdenum	*0.29*
Nickel	*11.0*
Phenol	*2.6*
Total Petroleum Hydrocarbons	*10*
Selenium	*0.09*
Silver	*0.05*
Sulfide	*2.0*
Zinc	*4.3*
Oil and Grease	*300*
CBOD5	*1,800*
COD	*2,700*
TSS	*1,600*
Ammonia	*225*
TKN	*280*
pH (Standard Units)	*6.0-10.0*

Staff Comment: The Local Limits required by the Industrial Pretreatment Program have been added to Chapter 28 of the Municipal Code as a new paragraph 28.309. Previously, these limits had been approved by Council and the Iowa Department of Natural Resources, but had not been formally included in the Municipal Code or the Industrial Pretreatment Program document. The Local Limit for Chloride has been removed. The City had originally imposed a limit on Chloride during the last NPDES renewal cycle. The belief was that the NPDES permit would have a limit on Chloride, so staff preemptively took the corresponding action with the Local Limits. However, a limit was not included with the most recent NPDES permit, making the Local Limit unnecessary. **No new limits are being added; this simply codifies limits that have been previously adopted by Council and are already in place.**

Appendix N, Sec. 28.306(2). WASTE DISPOSAL ~~*Up to $1,000,*~~ *$250, in addition to the actual cost of cleanup for any sanitary sewer overflow caused by an introduction of substances as described in Sec. 28.306(2), for a facility's 1st violation* ~~*and*~~*, $500 for a facility's second violation, and $1,000 for each subsequent violation. In the event that more than one utility customer is responsible for the overflow, the municipal infraction may be levied upon each customer, and the cost of cleanup shall be prorated among those responsible.*

Staff Comment: A schedule for Municipal Infractions is proposed in Appendix N which includes escalating penalties for repeated infractions. This change was discussed conceptually with Council at a workshop on July 18, 2017.

PUBLIC OUTREACH FOR CHAPTER 28 CHANGES:

Builders from Ames that have recently constructed apartment buildings with a single master water meter were invited to submit comments and also to attend a public meeting on August 22, 2017 to discuss this matter. Three plumbing contractors that have built apartment buildings with single water meters and also with individual water meters were invited as well to help gain a better perspective of the cost difference in the two types of buildings. Staff also mailed copies of the proposed Code changes for their reference.

Staff received one written comment from a plumbing contractor concerned about the additional cost of buildings with individual meters. No comments were received from any of the builders or developers. No one was in attendance for the public meeting.

Because of the low response, staff decided to expand the number of contacts to ensure City staff had done their due diligence. Letters were sent to 68 owners of apartment buildings with single water meters, which included owners at the local level as well as out-of-town and out-of-state owners and investors. Again, copies of the Code changes being considered were included for their reference. Staff did not schedule a second public meeting because of the number of out-of-town and out-of-state owners. Only one response was received from this mailing. It was from a local apartment building owner. The concerns stated involved the additional cost of construction for buildings with individual meters and also maintenance concerns of having water heaters above the basement or ground level in case of water heater tank failures resulting in costly repairs. It was also expressed the Water and Pollution Control Department should have a rebate program to help pay for low flow toilets, faucets and appliances.

ITEM #: 5

Staff Report

REVISIONS TO INDUSTRIAL PRETREATMENT PROGRAM

October 17, 2017

BACKGROUND:

All communities with wastewater treatment facilities designed to receive more than five million gallons per day of wastewater flow must implement an industrial pretreatment program consistent with the federal requirements. The program is designed to prevent the introduction of pollutants into the sanitary sewer which could interfere with the wastewater treatment process, pass through the system untreated, cause harm to personnel working with the sanitary sewer or treatment plant, or cause the City to be in non-compliance with the conditions of its National Pollutant Discharge Elimination System permit.

The City's Industrial Pretreatment Program (IPP) has been completely rewritten to ensure that the formal document reflects the actual practices already in place. The original program was written in 1983 with a partial rewrite in 2010 to adopt the US EPA's mandatory Pretreatment Streamlining Rule. By rewriting the entire program, staff was able to put all the information into one document that has clear and consistent formatting and is updated to reflect current information for the plant.

The content of the revised program mirrors that of a model provided by the Environmental Protection Agency (EPA) and also includes suggestions made by the EPA after a recent audit. The City was specifically asked to update the Enforcement Response Plan to reflect the Streamlining regulations changes made in 2010.

In addition, the EPA requested that the program authorize the use of the Best Management Practices permits the City has issued in lieu of regular monitoring. The Best Management Permits have been used to monitor entities that are required by federal rule to be regulated under the program but that have little to no risk to the City. One example is Iowa State University's Environmental Health and Safety (EH&S) building. The flows from this building are so low it makes it difficult for the City to accurately get a representative sample. EH&S has taken measures to prevent any discharge to the sanitary sewer. Because city staff view this facility as posing a low risk to the treatment plant, EH&S provides documentation of its preventative practices every six months in lieu of performing sampling.

The City has also implemented a Memorandum of Understanding with Iowa State University Research Park in order to better track new industries coming into the park.

This is helpful in determining if a specific industry will need further evaluation to be put on the Industrial Pretreatment Program.

Other updates to the pretreatment program include clarification of instances when two labs analyze a sample for the same parameter and how it should be handled should any parameters exceed an industries' pretreatment permit. Staff also clarified the requirement for industries to use a certified lab for analysis.

It was recently decided to move away from issuing both a 20 year contract and a 5 year permit for our industries, and has moved all of the necessary control language into the permits. It is uncommon for a utility to use two separate control documents, and almost all municipalities work off of 5 year permits. The City has three more permits to issue under this new format to bring all the industries in to the new format. The formal program document now reflects the new permit format.

STAFF COMMENTS:

The full draft Industrial Pretreatment Program document can be found at www.cityofames.org/ipp. Industries were mailed a letter the week of September 18th. No comments have been received by our industrial pretreatment customers. National Centers for Animal Health have indicated they are reviewing the program and may provide comments. The program was sent to Iowa Department of Natural Resources on August 24 for review and approval. Staff anticipates comments from them within the week.

Completing these specific changes are time sensitive, as the City has an agreement with the EPA that requires the recommendations from the audit be put into place by December 15, 2017.

- **If Council is comfortable with the proposed Industrial Pretreatment Program document, no action will be needed at the workshop.** Staff will bring the document to Council for adoption by resolution on October 24.

- **If, however, there are things that Council wishes to handle differently than is proposed, direction on those changes would be necessary at the workshop.** That will allow staff to make the requested changes so that Council is comfortable approving the ordinance on October 24, and thus meeting the deadline set by the US EPA.

Industrial Pretreatment Program

City of Ames, Iowa

Water & Pollution Control Department

2017

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CHAPTER 1
INTRODUCTION

A. Requirements for Program

The City of Ames received a National Pollution Discharge Elimination System (NPDES) permit for the now abandoned (1989) municipal wastewater treatment facility in January, 1983. This permit was issued by the Iowa Department of Environmental Quality (now Iowa Department of Natural Resources) under procedures established by the U.S. Environmental Protection Agency to implement provisions to the Federal Water Pollution Control Act Amendments of 1972 (Public Law 92-500). The NPDES permit included a requirement for the City of Ames to establish and implement an Industrial Pretreatment Program by July 1, 1983 in accordance with applicable provisions of the Clean Water Act (33 United States Code [U.S.C.] section 1251 et seq.) and the General Pretreatment Regulations (Title 40 of the *Code of Federal Regulations* [CFR] Part 403). Please see Appendix I for definitions of terms used throughout this document.

All communities with wastewater treatment facilities designed for or receiving more than five million gallons per day of wastewater flow must implement an industrial waste pretreatment program consistent with the federal requirements.

The City complied with the requirement and in 1983, established an Industrial Pretreatment Program. The City of Ames continues to administer the program today. However, requirements for the program have been modified by subsequent legislation or rules. The City of Ames has updated its program to meet the current requirements.

Chapter 28 of the Ames Municipal Code gives the City the legal authority to administer and enforce the Industrial Pretreatment Program. The Ames Municipal Code can be accessed at http://www.cityofames.org/government/municipal-code and the pertinent sections of the Code of Federal Regulations can be accessed at http://www.ecfr.gov.

B. Purpose of the Program

This program requires adequate treatment for industrial discharge to the municipal sanitary sewer system. Wastewater discharges from industrial contributors may include toxic or deleterious materials which may not be adequately treated in publicly-owned treatment works (POTW). These materials may pass through the POTW to the receiving streams and have adverse impacts on aquatic systems; may be removed by the POTW but cause problems with the ability to recycle or reclaim treated wastewater or biosolids; or may cause inhibitions to the treatment processes; or disrupt the treatment units to the extent that the facility is not able to properly treat wastewater. This program has the following objectives:

1. To prevent the introduction of pollutants into the POTW which will interfere with the treatment plant operations;

2. To prevent the introduction of pollutants into the POTW which will pass through the system, inadequately treated, into the receiving waters, the atmosphere, or otherwise be incompatible with the system;

3. To protect both the general public and POTW personnel who may be affected by wastewater and biosolids in the course of their employment;

4. To improve the opportunity to recycle and reclaim wastewaters and biosolids from the system;

5. To enable the City to comply with its National Pollutant Discharge Elimination System permit conditions, biosolids use and disposal requirements, and any other Federal or State laws to which the POTW is subject;

6. To provide for fees for the equitable distribution for the cost of monitoring industrial discharges; and

The Industrial Pretreatment Program adopted by the City must accomplish the above goals. To meet these goals, the program must:

1. Identify the quantity and quality of industrial wastewater discharges to the POTW system from each industrial source;

2. Establish minimum criteria and define which industrial contributors are required to apply for and obtain a permit to discharge to the POTW;

3. Establish limitations on the quality and quantity of industrial wastewater that will be accepted by the City from each industrial contributor; and

4. Establish a procedure to monitor and enforce the quantity and quality limitations set for each permitted industrial contributor to the POTW.

C. **General Description of the Ames Program**

Few industrial contributors in Ames meet the federal definition of Significant Industrial User or Categorical Industrial User. While there is not a serious problem from industrial discharges, it is the general consensus that a uniform procedure for administering this program for all industrial contributors is in the best interests of the City. Therefore, the general procedures described in this document will be followed by the City.

The general intent of the Industrial Pretreatment Program is to establish a program to protect the POTW and require pretreatment where it is necessary. In all cases, pretreatment limitations will be established where appropriate, based on the most stringent requirements of applicable local, state, or federal standards.

CHAPTER 2
BACKGROUND

A. Description of Ames

The City of Ames consists primarily of small- to medium-sized commercial and light industrial facilities. In addition, a number of local, state, and federal government agencies are located within the City. Ames is also home to the Iowa State Research Park, which aids in the development and expansion of science- and technology-related business.

Census data for the City of Ames was compiled from Census Bureau publications and Iowa State University offices. The following population statistics for Ames are provided:

	1990 Data	2000 Data	2010 Data
Total City Population	47,198	50,731	58,685
ISU Spring Enrollment	23,522	24,333	26,283

The Ames Planning and Housing Department compiled the following land-use data in 1994 for the area within the corporate limits of Ames:

Land Use	Area (Acres)	% of Total
Residential	2,834	28
Commercial	643	6
Industrial	315	3
Public/Semi-Public	5,133	50
Agricultural	1,096	11
Vacant	250	2
Total	10,271	100

This data shows the primarily domestic, commercial, and light industrial nature of the Ames community. It follows that the wastewater characteristics are primarily domestic.

B. Description of the Ames Water Pollution Control Facility

The Water Pollution Control (WPC) facility, completed in 1989, was designed to treat the following parameters:

Parameter	Avg. Annual	Avg. Wet Weather	Max. Wet Weather
Flow, mgd	8.6	12.1	20.4
cBOD5, mg/L	173	160	140
cBOD5, lbs/day	12,430	16,150	23,740
TKN, mg/L	47	49	41

TKN, lbs/day	3,540	4,950	6,930

Actual WPC Facility loadings were as follows:

Parameter	2014 Average	2015 Average	2016 Average
Flow, mgd	6.27	7.16	6.54
cBOD5, mg/L	167	157	175
cBOD5, lbs/day	8,125	8,768	9,367
TSS, mg/L	210	187	212
TSS, lbs/day	10,553	10,667	11,276
NH3, mg/L	25.2	23.8	22.5
NH3, lbs/day	1,247	1,337	1,203

For normal flows, Mode 4 plant components include climber screens/grinders, raw wastewater pumping station, equalization basins, grit removal, trickling filter pump station, primary clarifiers, first-stage trickling filters, solids contact/aeration basins, intermediate clarifiers, second-stage trickling filters, final clarifiers, ultraviolet disinfection, and a cascade aerator. In high rate Mode 5, both final clarifiers are converted to intermediate clarifiers.

Solids are stabilized in primary and secondary digestion tanks. Anaerobically digested solids are stored in a lined lagoon until disposed of on cropland in accordance with state land application regulations (IAC 567-67). The figure included in Appendix IV outlines the relative location of these individual units at the plant site and indicates the direction of wastewater flow through the plant. Technical data concerning the size of each unit are also listed in Appendix IV.

The City of Ames Biosolids Land Application Plan complies with the Iowa Department of Natural Resources rules set forth in IAC 567-67 and must meet the following limits:

Parameter	Maximum Ceiling Concentration, mg/kg	Ceiling Concentration, mg/kg (If all parameters are below these limits cumulative loading limits do not apply.)	Cumulative Pollutant Loading, kg/hectare	Cumulative Pollutant Loading, lbs/acre
Arsenic	75	41	41	36
Cadmium	85	39	39	34
Copper	4,300	1,500	1,500	1,335
Lead	840	300	300	267
Mercury	57	17	17	15
Molybdenum	75			
Nickel	420	420	420	373
Selenium	100	100	100	89
Zinc	7,500	2,800	2,800	2,490
Total Nitrogen			Agronomic loading rate	Agronomic loading rate

C. **WPC NPDES Permit Limitations**

The 2013 Amended NPDES Permit for the Ames WPC Facility contains the following limits. This permit is the most recently issued permit for the WPC Facility.

Average wet-weather flow: 12.1 mgd
Maximum wet-weather flow: 20.4 mgd

	7-Day Average		30-Day Average		Maximum Day	
Effluent Parameter	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day
cBOD5						
January	30	3,027	20	2,018		
February	30	3,027	20	2,018		
March	30	3,027	20	2,018		
April	30	3,027	20	2,018		
May	30	3,027	20	2,018		
June			20	2,018	30	3,027
July			20	2,018	30	3,027
August			20	2,018	30	3,027
September			20	2,018	30	3,027
October	30	3,027	20	2,018		
November	30	3,027	20	2,018		
December	30	3,027	20	2,018		
Total Suspended Solids (TSS)	45	4,541	30	3,027		
Ammonia Nitrogen (as N)						
January			5.2	521	15.2	1,533
February			5.7	575	14.2	1,433
March			4.5	454	14.7	1,482
April			2.1	212	15.7	1,584
May			1.8	182	15.2	1,533
June			1.3	131	11.5	1,161
July			1.1	109	8.5	858
August			1.0	99	10.0	1,009
September			1.5	150	16.5	1,664
October			2.3	232	15.7	1,584
November			3.4	343	14.7	1,482
December			4.0	399	16.0	1,611
Dissolved Oxygen (Min. Value)	5.0 mg/L					

pH (Range)	6.5 – 9.0 Standard Units	

Actual WPC Facility effluent characteristics were as follows:

Parameter	2014 Average	2015 Average	2016 Average
Flow, mgd	6.27	7.16	6.54
cBOD5, mg/L	4.1	4.4	4.8
TSS, mg/L	5.5	6.0	7.7
Ammonia Nitrogen, mg/L	0.25	0.16	0.16

D. **WPC Facility Operation**

The WPC Facility is currently meeting the design limitations. However, as Ames grows and future effluent limits become more stringent, proactive programs will be essential to the efforts of the City to meet environmental standards and requirements. Thus, the Industrial Pretreatment Program's attempts to regulate the quality and quantity of contributions and reduce the level of contamination at the source will be vital elements to successful compliance.

CHAPTER 3
IDENTIFYING INDUSTRIAL USERS

A. Historical

In 1983, the U.S. EPA provided a list of potential industrial discharges based on a 1980 computer search of applicable Standard Industrial Classification (SIC) codes in Dun and Bradstreet. City staff then identified an additional seven potential discharges for consideration. Nine facilities, either out of business or not connected to the municipal sewer system, were eliminated from further investigation. The remaining 24 facilities were contacted and asked to complete and return an industrial waste information questionnaire.

B. Updating Industrial User List

The City has several methods for updating the list of industrial users to be included in the Industrial Pretreatment Program. Water & Pollution Control staff members are active on the Development Review Committee. This committee meets to review plans for development within the City of Ames. Pertinent information from these meetings is communicated to the City's Environmental Specialist.

The Water & Pollution Control Department also has a Memorandum of Understanding in place with the Iowa State University Research Park Corporation. This document states that tenant information will be provided to the City biannually and that new tenants and tenants of interest will submit an Industrial Waste Information Questionnaire upon moving locations or occupying new space within the Research Park.

Also, every five years the Water & Pollution Control Department will perform an Industrial Waste Survey (IWS). The initial list for the IWS will be determined by obtaining a list of commercial utility accounts in the City. This list will be reduced by eliminating accounts that pose no reasonable threat to the sanitary sewer, Water Pollution Control Facility, or staff members. The IWS will include both a short form and long form Industrial Waste Information Questionnaire. The short form will be distributed to all potential Industrial Users. Staff will review the responses and the long form will be distributed to those users being considered for inclusion on the Industrial Pretreatment Program. Upon receipt of the long form responses, staff will perform sampling and/or inspections, as necessary, to determine if an industry should be added to the program.

C. 2015-2016 Industrial Waste Survey

During the 2015-2016 Industrial Waste Survey, the short form Industrial Waste Information Questionnaire was mailed to 98 utility customers. Responses were received from 74 customers and the remaining 24 were investigated further by City staff and determined that no follow-up was necessary. The long form Industrial Waste Information Questionnaire was sent to 3M Company, New Link Genetics, BASF (2 locations), and

Boehringer Ingelheim Vetmedica, Inc. (2 locations). After review of all submissions, City staff determined that none of these sites needed to be added to the Industrial Pretreatment Program.

CHAPTER 4
PROGRAM IMPLEMENTATION

A. Administration

The Director of the Water & Pollution Control Department is responsible to administer and enforce the City of Ames Industrial Pretreatment Program. The day-to-day responsibilities of the program are assigned to the Environmental Specialist who is the designated pretreatment coordinator. The duties of the pretreatment coordinator include, but are not limited to, the following:

1. Review the requirements of the Industrial Pretreatment Program and recommend appropriate changes to the City Council.

2. Periodically conduct industrial waste surveys to identify new Industrial Users.

3. Review and revise local discharge limits.

4. Issue Pretreatment Permits for all applicable Industrial Users.

5. Review all self-monitoring data and reports required from Industrial Users.

6. Review and responds to special discharge requests from local facilities.

7. Investigate current and potential Industrial Users for harmful discharges.

8. Periodically monitor and inspect all Industrial Users to verify self-monitoring data and compliance with discharge limitations.

9. Enforce the provisions of this ordinance, all Pretreatment Permits, and any other Pretreatment Standards and Requirements.

The Laboratory Services Division assists with the sampling and analysis of industrial user's discharges. A majority of the analysis is performed by this state certified laboratory, but outside labs are used on an as-needed basis. Appendix 6 includes an organizational chart for the Water & Pollution Control Department.

B. General Sewer Use Requirements

1. General Prohibitions. No User shall introduce or cause to be introduced into the POTW any liquid, solid, or gas in sufficient quantity, either singly or in combination with other wastes, to cause Interference, Pass Through, acute worker health and/or safety issues, or create a toxic effect in the receiving stream. These general prohibitions apply to all Users of the POTW whether or not they are

subject to Categorical Pretreatment Standards or any other Federal, State or local Pretreatment Standards or Requirements.

2. Specific Prohibitions. No User shall introduce or cause to be introduced into the POTW the following pollutants, substances, or wastewater:

    a. Any liquid, solid or gases which may cause fire or explosion either alone or in combination with other substances, or any waste streams with a closed cup flashpoint of less than 140°F using the methods in 40 CFR 261.21;

    b. Solid or viscous substances which may cause obstruction to the flow in the sewer or other interference with the operation of the treatment facility;

    c. Any wastewater which has a pH less than 6.0 or higher than 10;

    d. Any wastewater containing anything in liquid, solid or vapor form, in sufficient quantity, either singly or in combination, to inhibit or interfere with any wastewater treatment or biosolids disposal process, constitute a hazard to humans or animals, create toxic gases, vapors or fumes that may cause acute worker health and/or safety problems, create a toxic effect in the receiving stream, or by Pass Through; exceed any standard set by the Iowa Department of Natural Resources or the U.S. Environmental Protection Agency;

    e. Any substance which either singly or in combination is sufficient to create a public nuisance or hazard to life or interferes with the possible reclamation or reuse of the wastewater or biosolids;

    f. Any trucked or hauled pollutants, except at discharge points designated by the City when delivered by licensed haulers;

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

    h. Heat in amounts which will inhibit biological activity in the POTW resulting in interference, but in no case heat in such quantities that the temperature at the POTW exceeds 40°C (104°F);

    i. Any pollutant, including oxygen demanding pollutants released in a discharge at a flow rate and/or concentration which will cause Interference with the POTW;

j. Any wastewater which the Director of the Water & Pollution Control Department determines to be unacceptable based on a case-by-case analysis;

k. Any additive or emulsifier designed for the purpose of reducing the accumulation of fats, oils, and grease in plumbing, grease removal equipment, or the POTW, except those approved for such use by the Director of Water & Pollution Control;

l. Wastewater which imparts color which cannot be removed by the treatment process, such as, but not limited to, dye or pigment wastes and vegetable tanning solutions, which consequently imparts color to the treatment plant's effluent.

C. **Designation of Industrial Users**

An Industrial User is defined as a contributor of pollutants to the Publicly Owned Treatment Works (POTW) that is non-domestic in nature. Many commercial or industrial facilities discharge only domestic waste, and do not require a Pretreatment Permit. Other contributors discharge such small volumes of non-domestic waste that their discharge is insignificant. These facilities will also be exempt from obtaining a Pretreatment Permit. Industrial Users that are required to obtain a Pretreatment Permit will be classified based on their discharge to the POTW.

The following classifications are used by the Industrial Pretreatment Program.

1. Categorical Industrial User (CIU) - An Industrial User subject to a Categorical Pretreatment Standard as defined in 40 CFR Chapter 1, Subchapter N, Parts 405-471.

2. Significant Industrial User (SIU) – Except as provided in paragraphs (3) and (4) of this section, an SIU is:

    a. An Industrial User subject to Categorical Pretreatment Standards; or

    b. An Industrial User that:

        i. Discharges an average of twenty-five thousand (25,000) gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling and boiler blowdown wastewater);

        ii. Contributes a process wastestream which makes up five (5) percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or

iii. Is designated as such by the City on the basis that it has a reasonable potential for adversely affecting the POTW's operation or for violating any Pretreatment Standard or Requirement.

3. Non-Significant Categorical Industrial User – The City may determine that an Industrial User subject to Categorical Pretreatment Standards is a Non-Significant Categorical Industrial User rather than a Significant Industrial User on a finding that the Industrial User never discharges more than 100 gallons per day (gpd) of total categorical wastewater (excluding sanitary, non-contact cooling and boiler blowdown wastewater, unless specifically included in the Pretreatment Standard) and the following conditions are met:

    a. The Industrial User, prior to the City's finding, has consistently complied with all applicable Categorical Pretreatment Standards and Requirements;

    b. The Industrial User annually submits the certification statement required in 40 CR 403.12(q), together with any additional information necessary to support the certification statement; and

    c. The Industrial User never discharges any untreated concentrated wastewater.

4. Non-Significant Industrial User – Upon a finding that an Industrial User meeting the criteria of a SIU has no reasonable potential for adversely affecting the POTW's operation or for violating any Pretreatment Standard or Requirement, the City may at any time, on its own initiative or in response to a petition received from an Industrial User, and in accordance with procedures in 40 CFR 403.8(f)(6), determine that the Industrial User should not be considered a Significant Industrial User.

D. **Pretreatment Limitations**

1. The City is authorized to establish Local Limits pursuant to 40 CFR 403.5(c). The objectives of the program set out in Chapter 1, Section B (1-5) were used as guidance to establish the Local Limits for industrial discharges and a number of factors are used to determine the Local Limits. The current Local Limits are included in Chapter 28 of the Ames Municipal Code.

    a. Prior to adoption of a new or revised Local Limit(s), the City will notify all permitted Industrial Users of the proposed limit(s) and provide an opportunity for comment. Upon adoption of new or revised limit(s), the City will provide the contributor a reasonable period of time in which to comply with the new limit(s). The City may establish and enforce deadlines for meeting the revised pretreatment standards.

2. Categorical Industrial Users are required to comply with the Categorical Pretreatment Standards found at 40 CFR Chapter I, Subchapter N, Parts 405–471.

    a. Upon promulgation of a Federal Categorical Pretreatment Standard for a particular industrial category, the Federal Standard, if more stringent than the Local Limit, will supersede the limitations imposed previously in the Pretreatment Permit for all industries included in the federal category.

    b. When wastewater subject to a Categorical Pretreatment Standard is mixed with wastewater not regulated by the same Standard, the City shall impose an alternate limit in accordance with 40 CFR 403.6(e).

3. The City may develop Best Management Practices, by ordinance or in individual Pretreatment Permits, in addition to or in place of other pretreatment limitations.

4. No Industrial User shall ever increase the use of process water, or in any way attempt to dilute a discharge, as a partial or complete substitute for adequate treatment to achieve compliance with a discharge limitation unless expressly authorized by an applicable Pretreatment Standard or Requirement. The City may impose mass limitations on Industrial Users who are using dilution to meet applicable Pretreatment Standards or Requirements or in other cases when the imposition of mass limitations is appropriate.

E. **Permit Issuance Process**

All Industrial Users which are required to obtain a Pretreatment Permit must obtain the permit from the City prior to discharging industrial pollutants to the POTW. An application (Long Form Industrial Waste Questionnaire) for a permit may be obtained from the Water & Pollution Control Department, 1800 E. 13th Street, Ames, IA 50010; (515) 239-5150, www.cityofames.org/water, or may be copied from Appendix IV. The completed Long Form Industrial Waste Questionnaire must be submitted six (6) months prior to the planned discharge.

The City will evaluate the data furnished by the Industrial User and may require additional information to determine whether to issue a permit and the requirements of the Pretreatment Permit. A Pretreatment Permit shall include such conditions as are deemed reasonably necessary by the City to prevent Interference or Pass Through, protect the quality of the receiving stream, protect worker health and safety, facilitate biosolids management and disposal, and protect against damage to the POTW.

1. Pretreatment Permits must contain:

    a. A statement that indicates the Pretreatment Permit issuance date, effective date, and expiration date;

b. A statement that the Pretreatment Permit is nontransferable without prior notification to the City and provisions for furnishing the new owner or operator with a copy of the existing Pretreatment Permit;

c. Effluent limits, including Best Management Practices, based on applicable Pretreatment Standards;

d. Self-monitoring, sampling, reporting, notification, and record-keeping requirements. These requirements shall include an identification of pollutants (or Best Management Practices) to be monitored, sampling location, sampling frequency, and sample type based on Federal, State, and local law;

e. The process for seeing a waiver from monitoring for a pollutant neither present nor expected to be present in the discharge in accordance with Section F(4)(b);

f. A statement of applicable civil and criminal penalties for violation of Pretreatment Standards and Requirements, and any applicable compliance schedule. Such schedule may not extend the time for compliance beyond that required by applicable Federal, State, or local law;

g. Requirements to control Slug Discharge, if determined by the City to be necessary;

h. Any grant of the monitoring waiver by the City must be included as a condition in the Industrial User's Pretreatment Permit.

2. Pretreatment Permits may contain, but need not be limited to, the following conditions:

a. Limits on the average and/or maximum concentration of pollutants discharged to the POTW;

b. Requirements for the installation of pretreatment technology, pollution control, or construction of appropriate containment devices, designed to reduce, eliminate, or prevent the introduction of pollutants into the treatment works. Any expenses incurred are the responsibility of the User;

c. Requirements for the development and implementation of spill control plans or other special conditions including Best Management Practices to adequately prevent accidental, unanticipated, or non-routine discharges;

d. Requirements for installation and maintenance of inspection and sampling facilities and equipment, including flow measurement devices;

e. A statement that compliance with the Pretreatment Permit does not relieve the Permittee of responsibility for compliance with all applicable Federal and State Pretreatment Standards, including those which become effective during the term of the Pretreatment Permit; and

f. Other conditions as deemed appropriate by the City to ensure compliance with this ordinance, and State and Federal laws, rules, and regulations.

The permit shall be issued for a specified time period, not to exceed five (5) years from the effective date of the permit. Industrial Users must resubmit the Long Form Industrial Waste Questionnaire at least one hundred eighty (180) days prior to the expiration of their Pretreatment Permit. In addition, notice of an anticipated significant change in quantity of discharge or increase in pollutants contributed must be given by the User to the City six (6) months in advance of the change or increase to allow for reevaluation and reissuance of the permit.

The City may also utilize Memorandums of Understanding, when appropriate. As described in Chapter 3, the City has a Memorandum of Understanding in place with the Iowa State University Research Park Corporation. This agreement outlines the responsibilities of both parties which are designed to protect the POTW and provide open communication regarding the tenants of the Research Park.

F. **Reporting Requirements**

1. Baseline Monitoring Reports

a. Within either one hundred eighty (180) days after the effective date of a Categorical Pretreatment Standard, or the final administrative decision on a category determination under 40 CFR 403.6(a)(4), whichever is later, existing Categorical Industrial Users currently discharging to or scheduled to discharge to the POTW shall submits to the City a report which contains the information listed in Section F(1)(b). At least ninety (90) days prior to the commencement of their discharge, New Sources, and sources that become Categorical Industrial Users subsequent to the promulgation of an applicable Categorical Standard, shall submit to the City a report which contains the information listed in Section F(1)(b). A new Source shall report the method of pretreatment it intends to use to meet applicable Categorical Standards. A New Source also shall give estimates of its anticipated flow and quantity of pollutants to be discharged.

b. Users described above shall submit the information set forth below.

i. The name and address of the facility, including the name of the operator and owner.

ii. A list of any environmental control permits held for the facility.

iii. A brief description of the nature, average rate of production (including each product produced by type, amount, processes, and rate of production), and standard industrial classification of the operation(s) carried out by such user. This description should include a schematic process diagram, which indicates points of discharge to the POTW from the regulated process.

iv. Information showing the measured average daily and maximum flow, in gallons per day, to the POTW from regulated process streams and other streams, as necessary, to allow use of the combined wastestream formula set out in 40 CFR 403.6(e).

v. The Categorical Pretreatment Standards applicable to each regulated process and any new categorically regulated processes for Existing Sources.

vi. The results of sampling and analysis identifying the nature and concentration, and/or mass, where required by the Standard or by the City, of regulated pollutants in the discharge from each regulated process.

vii. Instantaneous, Daily Maximum, and long-term average concentrations, or mass, where required, shall be reported.

viii. Documentation showing that sample collected is representative of the daily operations and was collected and analyzed in accordance with procedures set out in Section F(9) and (10).

ix. A statement, reviewed by the User's Authorized Representative and certified by a qualified professional, indicating whether Pretreatment Standards are being met on a consistent basis, and, if not, whether additional operation and maintenance (O&M) and/or additional pretreatment is required to meet the Pretreatment Standards and Requirements.

x. If additional pretreatment and/or O&M will be required to meet the Pretreatment Standards, the shortest schedule by which the User will provide such additional pretreatment and/or O&M must be provided. The completion date in this schedule shall not be later than the compliance date established for the applicable Pretreatment Standard. The schedule must meet the requirements set out in Section F(2).

xi. Any request for a monitoring waiver (or a renewal of an approved monitoring waiver) for a pollutant neither present nor expected to be present in the discharge based on Section F(4)(b).

c. Incomplete or inaccurate applications will not be processes and will be returned to the User for revision.

2. Compliance Schedule Progress Reports – In the event that an Industrial User is unable to meet Pretreatment Standards or Requirements, a Compliance Schedule may be incorporated into the Industrial User's Pretreatment Permit that outlines steps the Industrial User is to take in order to be able to meet the pretreatment Standards or Requirements. The following conditions shall apply to the Compliance Schedule:

   a. The schedule shall contain progress milestones in the form of dates for the commencement and completion of major events required for the Industrial User to meet the applicable Pretreatment Standards;

   b. No milestone referred to above shall exceed nine (9) months;

   c. The Industrial User shall submit a progress report to the City no later than fourteen (14) days following each date in the schedule and the final date of compliance including, as a minimum, whether or not it complied with the milestone of progress, the reason for any delay, and, if appropriate, the steps being taken by the Industrial User to return to the established schedule; and

   d. In no event shall more than nine (9) months elapse between such progress reports to the City.

3. Reports on Compliance with Categorical Pretreatment Standard Deadline

   a. Within ninety (90) days following the date for final compliance with applicable Categorical Pretreatment Standards, or in the case of a New Source following commencement of the introduction of wastewater into the POTW, any Industrial User subject to such Pretreatment Standards and Requirements shall submit to the City a report containing the information described in Section F(1)(b)(iv-viii).

4. Periodic Compliance Reports

   a. Industrial Users may be required by their Pretreatment Permit to submit periodic reports indicating the nature and concentration of pollutants in their facility's discharge and the measured or estimated average and

maximum daily flows for the reporting period. In cases where the Pretreatment Permit or Pretreatment Standard requires compliance with a Best Management Practice or pollution prevention alternative, the User must submit documentation required by the City or the Pretreatment Standard necessary to determine the compliance status of the User. These periodic reports must be submitted to the City within ten (10) days of the end of the reporting period.

If a User monitors more frequently than specified in the permit, the results of this monitoring shall be submitted to the City within ten (10) days of receipt by the User.

If a collected sample is split between the User and the City, the results from the respective laboratories will be averaged to determine if a violation has occurred. When a result for a parameter is less than the reporting limit, the reporting limit will be used to average the result with the other lab's data.

b. The City may authorize an Industrial User subject to a Categorical Pretreatment Standard to forego sampling of a pollutant regulated by a Categorical Pretreatment Standard if the Industrial User has demonstrated through sampling and other technical factors that the pollutant is neither present nor expected to be present in the Discharge, or is present only at background levels from intake water and without any increase in the pollutant due to activities of the Industrial User. This authorization is subject to the following conditions:

    i. The waiver may be authorized where a pollutant is determined to be present solely due to sanitary wastewater discharged from the facility provided that the sanitary wastewater is not regulated by an applicable Categorical Standard and otherwise includes no process wastewater.

    ii. The monitoring waiver is valid only for the duration of the effective period of the Pretreatment Permit, but in no case longer than 5 years. The Industrial User must submit a new request for the waiver before the waiver can be granted for each subsequent Pretreatment Permit.

    iii. In making a demonstration that a pollutant is not present, the Industrial User must provide data from at least one sampling of the facility's process wastewater prior to any treatment present at the facility that is representative of all wastewater from all processes.

iv. The request for a monitoring waiver must be signed by the User's Authorized Representative, and include the certification statement in Section F(13)(a).

v. Non-detectable sample results may be used only as a demonstration that a pollutant is not present if the EPA approved method from 40 CFR Part 136 with the lowest minimum detection level for that pollutant was used in the analysis.

vi. Any grant of the monitoring waiver by the City must be included as a condition in the Industrial User's Pretreatment Permit. The reasons supporting the waiver and any information submitted by the Industrial User in its request for the waiver must be maintained by the City for three (3) years after expiration of the waiver.

vii. Upon approval of the monitoring waiver and revision of the Industrial User's Pretreatment Permit by the City, the Industrial User must certify on each report with the statement in Section F(13)(c), that there has been no increase in the pollutant in its wastestream due to activities of the Industrial User.

viii. In the event that a waived pollutant is found to be present or is expected to be present because of changes that occur in the Industrial User's operations, the User must immediately notify the City and comply with the requirements of Section F(4)(a) or other more frequent monitoring requirements imposed by the City.

ix. This provision does not supersede certification processes and requirements established in Categorical Pretreatment Standards, except as otherwise specified in the Categorical Pretreatment Standard.

c. All periodic compliance reports must be signed and certified in accordance with Section F(13)(a).

d. All wastewater samples must be representative of the User's discharge. Wastewater monitoring and flow measurement facilities shall be properly operated, kept clean, and maintained in good working order at all times. The failure of a User to keep its monitoring facility in good working order shall not be grounds for the User to claim that sample results are unrepresentative of its discharge.

5. Reports of Changed Conditions

Each Industrial User must notify the City of any significant changes to the User's operations or system which might alter the nature, quality, or volume of its wastewater at least six (6) months before the change.

a. The City may require the User to submit such information as may be deemed necessary to evaluate the changed condition, including the submission of the Long Form Industrial Waste Questionnaire located in Appendix IV.

b. The City may modify or revoke an existing Pretreatment Permit under Section E in response to changed conditions or anticipated changed conditions.

6. Reports of Potential Problems

a. In the case of any discharge, including, but not limited to, accidental discharges, discharges of a non-routine, episodic nature, a non-customary batch discharge, a Slug Discharge or Slug Load, that might cause potential problems for the POTW, the User shall immediately telephone and notify the City of the incident. This notification shall include the location of the discharge, type of waste, concentration and volume, if known, and corrective actions taken by the User.

b. Within five (5) days following such discharge, the User shall, unless waived by the City, submit a detailed written report describing the cause(s) of the discharge and the measures to be taken by the User to prevent similar future occurrences. Such notification shall not relieve the User of any expense, loss, damage, or other liability which might be incurred as a result of damage to the POTW, natural resources, or any other damage to person or property; nor shall such notification relieve the User of any fines, penalties, or other liability which may be imposed pursuant to this ordinance.

c. A notice shall be permanently posted on the User's bulletin board or other prominent place advising employees who to call in the event of a discharge described in Section F(6)(a). Employers shall ensure that all employees, who could cause such a discharge to occur, are advised of the emergency notification procedure.

d. Significant Industrial Users are required to notify the City immediately of any changes at its facility affecting the potential for a Slug Discharge.

7. Notice of Violation/Repeat Sampling and Reporting

If sampling performed by a User indicates a violation, the User must notify the City within twenty-four (24) hours of becoming aware of the violation. The User shall also repeat the sampling and analysis and submit the results of the repeat analysis to the City within thirty (30) days after becoming aware of the violation. Resampling by the Industrial User is not required if the User or the City performs sampling and analysis for the parameter found to be in violation at the User's facility between the time when the initial sampling was conducted and the time when the City receives the results of this sampling.

If sampling performed by the City indicates a violation, the City shall repeat the sampling and analysis. The results of this repeat analysis shall be submitted to the Pretreatment Coordinator within thirty (30) days after originally becoming aware of the violation. Resampling by the City is not required if the City or the User performs sampling and analysis for the parameter found to be in violation at the User's facility between the time when the initial sampling was conducted and the time when the City receives the results of this sampling.

When resampling indicated a repeated violation, the User may be required by the City to investigate the cause of the violations and report any findings.

8. Notification of the Discharge of Hazardous Waste

The City must approve on a case-by-case basis any discharge to the POTW of any waste that, if disposed of in another manner, would be a considered hazardous waste. Hazardous wastes are defined under the Resource Conservation and Recovery Act in 40 CFR Part 261. Requests for disposal of hazardous wastes must be made fifteen (15) days prior to the anticipated date of discharge. The discharge request must include the name of the hazardous waste under 40 CFR Part 261, the EPA hazardous waste number, the type of discharge (continuous, batch, or other), and an estimation of the mass and concentration of the hazardous constituents in the discharge.

9. Analytical Requirements

All pollutant analyses, including sampling techniques, to be submitted as part of a Pretreatment Permit application or report shall be performed in accordance with the techniques prescribed in 40 CFR Part 136 and amendments thereto, unless otherwise specified in an applicable Categorical Pretreatment Standard. If 40 CFR Part 136 does not contain sampling or analytical techniques for the pollutant in question, or where the City determines that the Part 136 sampling and analytical techniques are inappropriate for the pollutant in question, sampling and analyses shall be performed by using validated analytical methods or any other applicable sampling and analytical procedures acceptable to the City.

In addition, all analysis shall be performed by a laboratory certified by the State of Iowa. If analysis is performed by a laboratory outside of the State of Iowa the laboratory shall hold similar certification showing that it is capable of performing such analysis.

10. Sample Collection

Samples collected to satisfy reporting requirements must be based on data obtained through appropriate sampling and analysis performed during the period covered by the report, based on data that is representative of conditions occurring during the reporting period.

a. Except as indicated in Section F(10)(b-c), the User must collect wastewater samples using 24-hour flow-proportional composite sampling techniques, unless time-proportional composite sampling or grab sampling is authorized by the City. Where time-proportional composite sampling or grab sampling is authorized by the City, the samples must be representative of the discharge. Composite samples for parameters unaffected by the compositing procedures as documented in approved EPA methodologies may be authorized by the City, as appropriate. In addition, grab samples may be required to show compliance with Instantaneous Limits.

b. Samples for oil and grease, temperature, pH, cyanide, total phenols, sulfides, and volatile organic compounds must be obtained using grab collection techniques.

c. For sampling required in support of baseline monitoring and 90-day compliance reports required in Section F(1) and (3), a minimum of four (4) grab samples must be used for pH, cyanide, total phenols, oil and grease, sulfide and volatile organic compounds for facilities for which historical sampling data do not exist; for facilities for which historical sampling data are available, the City may authorize a lower minimum. For the reports required by Section F(4), the Industrial User is required to collect the number of grab samples necessary to assess and assure compliance by with applicable Pretreatment Standards and Requirements.

11. Recordkeeping

Users subject to the reporting requirements of this ordinance shall retain, and make available for inspection and copying, all records of information obtained pursuant to any monitoring activities required by this ordinance, any additional records of information obtained pursuant to monitoring activities undertaken by the User independent of such requirements, and documentation associated with Best Management Practices. Records shall include the date, exact place, method,

and time of sampling, and the name of the person(s) taking the samples; the dates analyses were performed; who performed the analyses; the analytical techniques or methods used; and the results of such analyses. These records shall remain available for a period of at least three (3) years. This period shall be automatically extended for the duration of any litigation concerning the User or the City, or where the User has been specifically notified of a longer retention period by the City.

12. Spill Prevention and Control Plans

All Significant Industrial Users will be evaluated at least annually and Non-Significant Industrial Users will be evaluated at least once every two years to determine if a Slug Control Plan is required. A Slug Control Plan is intended to assist the User in evaluating their current practice in prevention and control of slug discharges. Additionally, completion of a Slug Control Plan will allow the City to properly assess the User's potential to impact the POTW, as well as the User's ability to prevent and remediate slug discharges. The Slug Discharge Prevention and Control Plan shall contain, at a minimum, the following elements:

a. A description of discharge practices, including non-routine batch discharges;

b. A listing of stored chemicals, including the manner and location in which they are stored;

c. Procedures for immediately notifying the City of slug discharges, including any discharge that would violate prohibition under 40 CFR 403.5(b), with procedures for follow-up written notification within five days; and

d. If necessary, procedures to prevent adverse impact to the POTW from accidental spills, including inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site run-off, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants, and/or measures and equipment for emergency response.

13. Certification Statements

a. Certification of Permit Applications, User Reports and Initial Monitoring Waiver - The following certification statement is required to be signed and submitted by Users submitting permit applications; Users submitting baseline monitoring reports; Users submitting reports on compliance with the Categorical Pretreatment Standard deadlines; Users submitting periodic compliance reports, and Users submitting an initial request to

forego sampling of a pollutant. The following certification statement must be signed by an Authorized Representative:

> *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.*

b. Annual Certification for Non-Significant Categorical Industrial Users - A facility determined to be a Non-Significant Categorical Industrial User by the City must annually submit the following certification statement signed by the Authorized Representative:

> *Based on my inquiry of the person or persons directly responsible for managing compliance with the Categorical Pretreatment Standards under 40 CFR ____, I certify that, to the best of my knowledge and belief that during the period from _____, _____ to _____, _____ :*
>
> > *(a) The facility described as _____ met the definition of a Non-Significant Categorical Industrial User as described in 40 CFR 403.3(v)(2);*
> > *(b) The facility complied with all applicable Pretreatment Standards and requirements during this reporting period; and*
> > *(c) The facility never discharged more than 100 gallons of total categorical wastewater on any given day during this reporting period.*

c. Certification of Pollutants Not Present - Users that have an approved monitoring waiver must certify on each report with the following statement that there has been no increase in the pollutant in its wastestream due to activities of the User.

> *Based on my inquiry of the person or persons directly responsible for managing compliance with the Pretreatment Standard for 40 CFR _____, I certify that, to the best of my knowledge and*

belief, there has been no increase in the level of _____ in the wastewaters due to the activities at the facility since _____.

If the designation of an Authorized Representative is no longer accurate because a different individual or position has responsibility for the overall operation of the facility or overall responsibility for environmental matters for the company, a new written authorization must be submitted to the City prior to or together with any reports to be signed by an Authorized Representative.

G. **Right of Entry - Inspection and Sampling**

All Significant Industrial Users and Categorical Industrial Users will be inspected at least annually and Non-Significant Industrial Users will be inspected at least once every two (2) years. Representatives of the City shall have the right to enter the premises of any User to determine whether the User is complying with all requirements of this ordinance and any Pretreatment Permit or order issued hereunder. Users shall allow representatives of the City ready access to all parts of the premises for the purposes of inspection, sampling, records examination and copying, and the performance of any additional duties.

1. Where a User has security measures in force which require proper identification and clearance before entry into its premises, the User shall make necessary arrangements with its security guards so that, upon presentation of suitable identification, representatives of the City shall be permitted to enter without delay for the purposes of performing specific responsibilities.

2. The City shall have the right to set up on the User's property, or require installation of, such devices as are necessary to conduct sampling and/or metering of the User's operations.

3. The City may require the User to install monitoring equipment as necessary. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the User at its own expense. All devices used to measure wastewater flow and quality shall be calibrated at least once per year to ensure their accuracy.

4. Any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled shall be promptly removed by the User at the written or verbal request of the City and shall not be replaced. The costs of clearing such access shall be borne by the User.

5. Unreasonable delays in allowing representatives of the City access to the User's premises shall be a violation of this ordinance.

If a representative of the City has been refused access to a building, structure, or property, or any part thereof, and is able to demonstrate probable cause to believe that there may be a violation of this ordinance, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program of the City designed to verify compliance with this ordinance or any Pretreatment Permit or order issued hereunder, or to protect the overall public health, safety and welfare of the community, the City may seek issuance of a search warrant from a court of competent jurisdiction.

H. **Administrative Enforcement**

When the City finds that a User has violated, or continues to violate, any provision of this ordinance, a Pretreatment Permit, or any other Pretreatment Standard or Requirement, the City may serve upon that User an enforcement response for the violation(s). Instances of violations may be identified through, but are not limited to, required reports submitted by the User, inspections or sampling performed by City or other governmental staff, or by notifications from the public.

Examples of the enforcement responses include, but are not limited to, the following:

1. Notice of Violation – The City will issue a written Notice of Violation (NOV) to the User within 10 days of becoming aware of the violation. The NOV will include a description of the violation and any steps the User needs to take to determine the cause of the violation and/or correct the violation. An NOV will typically be the first enforcement response taken, but the City is not precluded from escalating the response when it is deemed necessary.

2. Consent Order – The City is empowered to enter into consent orders, assurances of voluntary compliance, or other similar documents establishing an agreement with the user responsible for any noncompliance. Such orders will include specific action to be taken by the user to correct noncompliance within a time period specified by the order.

3. Show Cause Hearing – The City may order a User which has violated, or continues to violate, any provision of this ordinance, a Pretreatment Permit, or order issued hereunder, or any other Pretreatment Standard or Requirement, to appear before the City and show cause why the proposed enforcement action should not be taken. Notice shall be served on the User specifying the time and place for the meeting, the proposed enforcement action, the reasons for such action, and a request that the User show cause why the proposed enforcement action should not be taken. The notice of the meeting shall be served personally or by registered or certified mail (return receipt requested) at least fifteen (15) days prior to the hearing. Such notice may be served on any Authorized Representative of the User.

4. Municipal Infractions – When the City finds that a User has violated, or continues to violate, any provision of this ordinance, a Pretreatment Permit, or order issued hereunder, or any other Pretreatment Standard or Requirement, the City may fine such User in an amount not to exceed $1,000. Such fines shall be assessed on a per-violation, per-day basis. In the case of monthly or other long-term average discharge limits, fines may be assessed for each day during the period of violation.

   The City may also recover from the User damages to the City caused by any instance of non-compliance, including, but not limited to, any penalties, fines, additional City staff time or resources, or damages for which the City becomes liable as a result of the non-compliance.

5. Criminal Prosecution – The City will pursue criminal charges against any user who willfully or negligently violates any provision of this ordinance, a Pretreatment Permit, or order issued hereunder, or any other Pretreatment Standard or Requirement.

6. Injunctive Relief – When the City finds that a User has violated, or continues to violate, any provision of this ordinance, a Pretreatment Permit, or order issued hereunder, or any other Pretreatment Standard or Requirement, the City may petition a court of competent jurisdiction through the City's Attorney for the issuance of a temporary or permanent injunction, as appropriate, which restrains or compels the specific performance of the Pretreatment Permit, or other requirement imposed by this ordinance on activities of the User. The City may also seek such other action as is appropriate for legal and/or equitable relief, including a requirement for the User to conduct environmental remediation. A petition for injunctive relief shall not be a bar against, or a prerequisite for, taking any other action against a User.

7. Emergency Suspensions – The City may immediately suspend a User's discharge, after informal notice to the User, whenever such suspension is necessary to stop an actual or threatened discharge which reasonably appears to present or cause an imminent or substantial endangerment to the health or welfare of persons, the POTW, or the environment.

   a. Any User notified of a suspension of its discharge shall immediately stop or eliminate its contribution. In the event of a User's failure to immediately comply voluntarily with the suspension order, the City may take such steps as deemed necessary, including immediate severance of the sewer connection, to prevent or minimize damage to the POTW, its receiving stream, or endangerment to any individuals. The City may allow the User to recommence its discharge when the User has demonstrated to the satisfaction of the City that the period of endangerment has passed, unless Termination of Service proceedings are initiated against the User.

b. A User that is responsible, in whole or in part, for any discharge presenting imminent endangerment shall submit a detailed written statement, describing the causes of the harmful contribution and the measures taken to prevent any future occurrence, to the City prior to the date of any show cause or termination hearing.

Nothing in this section shall be interpreted as requiring a hearing prior to any Emergency Suspension under this section.

8. Termination of Service – In addition to the enforcement actions of this ordinance listed above, any User who violates, or continues to violate, any provisions of this ordinance, a Pretreatment Permit, or order issued hereunder, or any other Pretreatment Standard or Requirement, is subject to discharge termination. Such User will be notified of the proposed termination of its discharge and be offered an opportunity to show cause of why the proposed action should not be taken. Exercise of this option by the City shall not be a bar to, or a prerequisite for, taking any other actions against the User.

The enforcement actions provided for in this ordinance are not exclusive. The City may take any, all, or any combination of these actions against a noncompliant User. Enforcement of pretreatment violations will generally be in accordance with the City's Enforcement Response Plan included in Appendix III. However, the City may take other action against any User when the circumstances warrant. Further, the City is empowered to take more than one enforcement action against any noncompliant User.

I. Confidential Information

In accordance with 40 CFR Part 2, any information submitted to the City as required by a Pretreatment Permit shall be considered public information and shall be made available to the public without further notice unless the User claims such information as being confidential. If such a claim is asserted and the City receives a request for such information, the User will be notified by the City. The User will then bear the burden to obtain an injunction to prevent the release of the information. Wastewater constituents and characteristics and other effluent data, as defined at 40 CFR 2.302 shall not be recognized as confidential information and shall be available to the public without restriction.

J. Publication of Users in Significant Non-Compliance

The City shall publish annually, in a newspaper of general circulation that provides meaningful public notice within the jurisdiction served by the POTW, a list of the Industrial Users which, at any time during the previous twelve (12) months, were in Significant Non-Compliance with applicable Pretreatment Standards and Requirements. The term Significant Non-Compliance shall be applicable to all Significant Industrial

Users (or any other Industrial User that violates paragraphs (3), (4), or (8) of this Section) and shall mean:

1. Chronic violations of wastewater discharge limits, defined here as those in which sixty-six percent (66%) or more of all the measurements taken for the same pollutant parameter during six- (6-) month period exceed (by any magnitude) a numeric Pretreatment Standard or Requirement, including Instantaneous Limits as defined in Chapter 28 of the Ames Municipal Code;

2. Technical Review Criteria (TRC) violations, defined here as those in which thirty-three percent (33%) or more of wastewater measurements taken for each pollutant parameter taken during a six- (6-) month period equals or exceeds the product of the numeric Pretreatment Standard or Requirement including Instantaneous Limits, as defined by Chapter 28 of the Ames Municipal Code multiplied by the applicable criteria (1.4 for $cBOD_5$, TSS, fats, Oil & Grease, and 1.2 for all other pollutants except pH);

3. Any other violation of a Pretreatment Standard or Requirements that the City determines has caused, alone or in combination with other discharges, Interference or Pass Through, including endangering the health of POTW personnel or the general public;

4. Any discharge of a pollutant that has caused imminent endangerment to the public or to the environment, or has resulted in City's exercise of its emergency authority to halt or prevent such a discharge.

5. Failure to meet, within ninety (90) days after the scheduled date, a compliance schedule milestone contained in a Pretreatment Permit or enforcement order for starting construction, completing construction, or attaining final compliance.

6. Failure to provide, within forty five (45) days after the due date, any required reports, including baseline monitoring reports, reports on compliance with Categorical Pretreatment Standard deadlines, periodic self-monitoring reports, and reports on compliance with compliance schedules.

7. Failure to accurately report non-compliance.

8. Any other violation(s), which may include a violation of Best Management Practices, which the City determines will adversely affect the operation of the POTW or implementation of the local pretreatment program.

K. **Surcharge Program**

In 1989, the City began implementation of a system to assess a sewer surcharge to any contributor discharging wastewater that is higher in concentrations of COD, TSS, TKN,

$cBOD_5$, Ammonia, and/or Oil & Grease than normal domestic wastewater. Concentrations of normal domestic wastewater are defined as follows; COD – 550 mg/L, TSS – 300 mg/L, TKN – 45 mg/L, $cBOD_5$ – 25 mg/L, Ammonia – 30 mg/L, and Oil & Grease – 300 mg/L.

Surcharges are calculated at least every six months and are based on data from samples collected by the City and/or by the User during the previous six (6) months. A minimum of three data sets is used to determine the rate. If three samples were not collected in the previous six (6) months, the three (3) most recent data sets are used. The rates used in the surcharge program are located in Appendix Q of the Ames Municipal Code.

L. **Hauled Waste**

All deliveries of hauled waste to the Water Pollution Control (WPC) facility must be accompanied by a complete waste tracking form. The Waste Hauler Tracking Form is included in Appendix 5. Each load is sampled and will be analyzed at the discretion of the WPC Superintendent. If a disruption occurs in the treatment process and/or the analyses determine that any wastes are incompatible, we will notify the hauler and the source of the waste that we will no longer accept those wastes or any loads containing wastes from that source. The WPC facility does not accept hauled hazardous wastes.

M. **Fats, Oils, and Grease (FOG) Control Program**

The City has implemented a program to aid in the prevention of sanitary sewer blockages and obstructions from contribution and accumulation of FOG into the POTW. Such discharges from commercial kitchens, restaurants, and all other food service establishments, where FOG of vegetable or animal origin is discharged directly or indirectly into the POTW, can contribute to line blockages and/or spills in violation of 40 CFR, Part 403.

CHAPTER 5
PROGRAM FEES

The City of Ames Industrial Pretreatment Program is funded through regular community sewer billing, although the City may collect reasonable fees for reimbursement of costs of operating the City's Industrial Pretreatment Program, which may include:

1. Fees for monitoring, inspection, and surveillance procedures including the cost of collection and analyzing an Industrial User's discharge;

2. Fees for responding to accidental discharges; and

3. Fees to cover the cost of any damage to the POTW incurred as a result of an industrial user's discharge.

Each industrial user will be billed in January and July for actual costs incurred by the City during the previous six months. Costs will vary depending on the amount of sampling, analysis, and maintenance effort required.

APPENDIX I

Definitions

Definitions

Unless a provision explicitly states otherwise, the following terms and phrases, as used in this ordinance, shall have the meanings hereinafter designated.

A. Act or "the Act:" The Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 U.S.C. section 1251 et seq.

B. Authorized or Duly Authorized Representative of the User:

1. If the User is a corporation:

a. The president, secretary, treasurer, or a vice-president of the corporation in charge of the principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or

b. The manager of one or more manufacturing, production, or operating facilities; provided the manager is authorized to make management decisions that govern the operation of the regulated facility, including having the explicit or implicit duty of making major capital investment recommendations, and initiate and direct other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; can ensure that the necessary systems are established or actions taken to gather complete and accurate information for individual Pretreatment Permit requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

2. If the User is a partnership or sole proprietorship: a general partner or proprietor, respectively.

3. If the User is a Federal, State, or local government facility: a director or highest official appointed or designated to oversee the operation and performance of the activities of the government facility, or their designee.

4. The individuals described in paragraphs 1 through 3 above, may designate a Duly Authorized Representative if the authorization is in writing, the authorization specifies the individual or position responsible for the overall operation of the facility from which the discharge originates or having overall responsibility for environmental matters for the company, and the written authorization is submitted to the City.

C. Best Management Practices or BMPs: Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to implement the prohibitions listed in 40 CFR 403.5(a)(1) and (b). BMPs may include, but are not limited to, treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw materials storage.

D. Categorical Pretreatment Standard or Categorical Standard: Any regulation containing pollutant discharge limits promulgated by EPA in accordance with sections 307(b) and (c) of the Act (33 U.S.C. section 1317) that apply to a specific category of Users and that appear in 40 CFR Chapter I, Subchapter N, Parts 405-471.

E. City or "the City:" City of Ames, Iowa

F. Fats, Oils, and Grease or FOG: Organic polar compounds derived from animal and/or plant sources that contain multiple carbon chain triglyceride molecules. These substances are detectable and measurable using analytical test procedures in 40 CFR 136, as may be amended from time to time. All are sometimes referred to herein as "grease," "greases," and "oil and grease."

G. Indirect Discharge or Discharge: The introduction of pollutants into the POTW from any nondomestic source.

H. Industrial User or User: A source of indirect discharge.

I. Interference: A discharge that, alone or in conjunction with a discharge or discharges from other sources, inhibits or disrupts the POTW, its treatment processes or operations or its sludge processes, use or disposal; and therefore, is a cause of a violation of City's NPDES permit or of the prevention of sewage sludge use or disposal in compliance with any of the following statutory/regulatory provisions or permits issued thereunder, or any more stringent State or local regulations: section 405 of the Act; the Solid Waste Disposal Act, including Title II commonly referred to as the Resource Conservation and Recovery Act (RCRA); any State regulations contained in any State sludge management plan prepared pursuant to Subtitle D of the Solid Waste Disposal Act; the Clean Air Act; the Toxic Substances Control Act; and the Marine Protection, Research, and Sanctuaries Act.

J. Local Limits: Discharge limits set by the City as described in Chapter 28 of the Ames Municipal Code.

K. New Source:

1. Any building, structure, facility, or installation from which there is (or may be) a discharge of pollutants, the construction of which commenced after the publication of proposed Pretreatment Standards under section 307(c) of the

Act that will be applicable to such source if such Standards are thereafter promulgated in accordance with that section, provided that:

a. The building, structure, facility, or installation is constructed at a site at which no other source is located; or

b. The building, structure, facility, or installation totally replaces the process or production equipment that causes the discharge of pollutants at an Existing Source; or

c. The production or wastewater generating processes of the building, structure, facility, or installation are substantially independent of an Existing Source at the same site. In determining whether these are substantially independent, factors such as the extent to which the new facility is integrated with the existing plant, and the extent to which the new facility is engaged in the same general type of activity as the Existing Source, should be considered.

2. Construction on a site at which an Existing Source is located results in a modification rather than a New Source if the construction does not create a new building, structure, facility, or installation meeting the criteria of Section 1 b. or c. above but otherwise alters, replaces, or adds to existing process or production equipment.

3. Construction of a New Source as defined under this paragraph has commenced if the owner or operator has:

a. Begun, or caused to begin, as part of a continuous onsite construction program

i. any placement, assembly, or installation of facilities or equipment; or

ii. significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or

b. Entered into a binding contractual obligation for the purchase of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under this paragraph.

L. Pass Through: A discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirements of the City's NPDES permit, including an increase in the magnitude or duration of a violation.

M. Pretreatment Requirement: Any substantive or procedural requirement related to pretreatment imposed on a User, other than a Pretreatment Standard.

N. Pretreatment Standards or Standards: Pretreatment Standards shall mean prohibited discharge standards, categorical Pretreatment Standards, and Local Limits.

O. Publicly Owned Treatment Works or POTW: A treatment works, as defined by section 212 of the Act (33 U.S.C. section 1292), which is owned by the City. This definition includes any devices or systems used in the collection, storage, treatment, recycling, and reclamation of sewage or industrial wastes of a liquid nature and any conveyances, which convey wastewater to a treatment plant.

P. Slug Discharge: Any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge, which has a reasonable potential to cause Interference or Pass Through, or in any other way violate the POTW's regulations or permit conditions.

APPENDIX II

WPC Facility Layout & Technical Data for WPC Facility Units

Appendix II

Technical Data for the Various Unit Processes
Used in the Ames Water Pollution Control Facility

	Unit Sizes	
	per Unit	**Total**
Equalization Basins (2 units)		
Bottom Dimension, ft.	100 x 200	
Effective Depth, ft.	10	
Storage Volume, cu. ft.	300,800	601,600
Mechanically Raked Screen (2 units)		
Bar Spacing, in.	0.5	-
Angle of Inclination, deg.	80	-
Grit Removal (4 units)		
Diameter, in.	94	-
Particle Size, micron	100	-
Primary Clarifiers (4 units)		
Diameter, ft.	70	
Surface Area, sq. ft.	3,848	15,392
Sidewater Depth, ft.	9	-
First-Stage Trickling Filters (2 units)		
Diameter, ft.	80	-
Media Depth, ft.	26	-
Maximum Hydraulic Loading, gal/min/sq. ft.	2.09	-
Second-Stage Trickling Filters (2 units)		
Diameter, ft.	80	-
Media Depth, ft.	26	-
Maximum Hydraulic Loading, gal/min/sq. ft.	2.09	-
Solids Contact Basins (2 units)		
Sidewater Depth, ft.	15	-
Volume, cu. ft.	48,600	97,200
Sludge Re-Aeration Basins (2 units)		
Sidewater Depth, ft.	15	-
Volume, cu ft.	11,760	23,520

	Unit Sizes	
	per Unit	**Total**
Final Clarifiers* (4 units)		
Diameter, ft.	100	-
Surface Area, sq. ft.	7,854	31,416
Sidewater Depth, ft.	14	-

* 2 units can be used as intermediate clarifiers

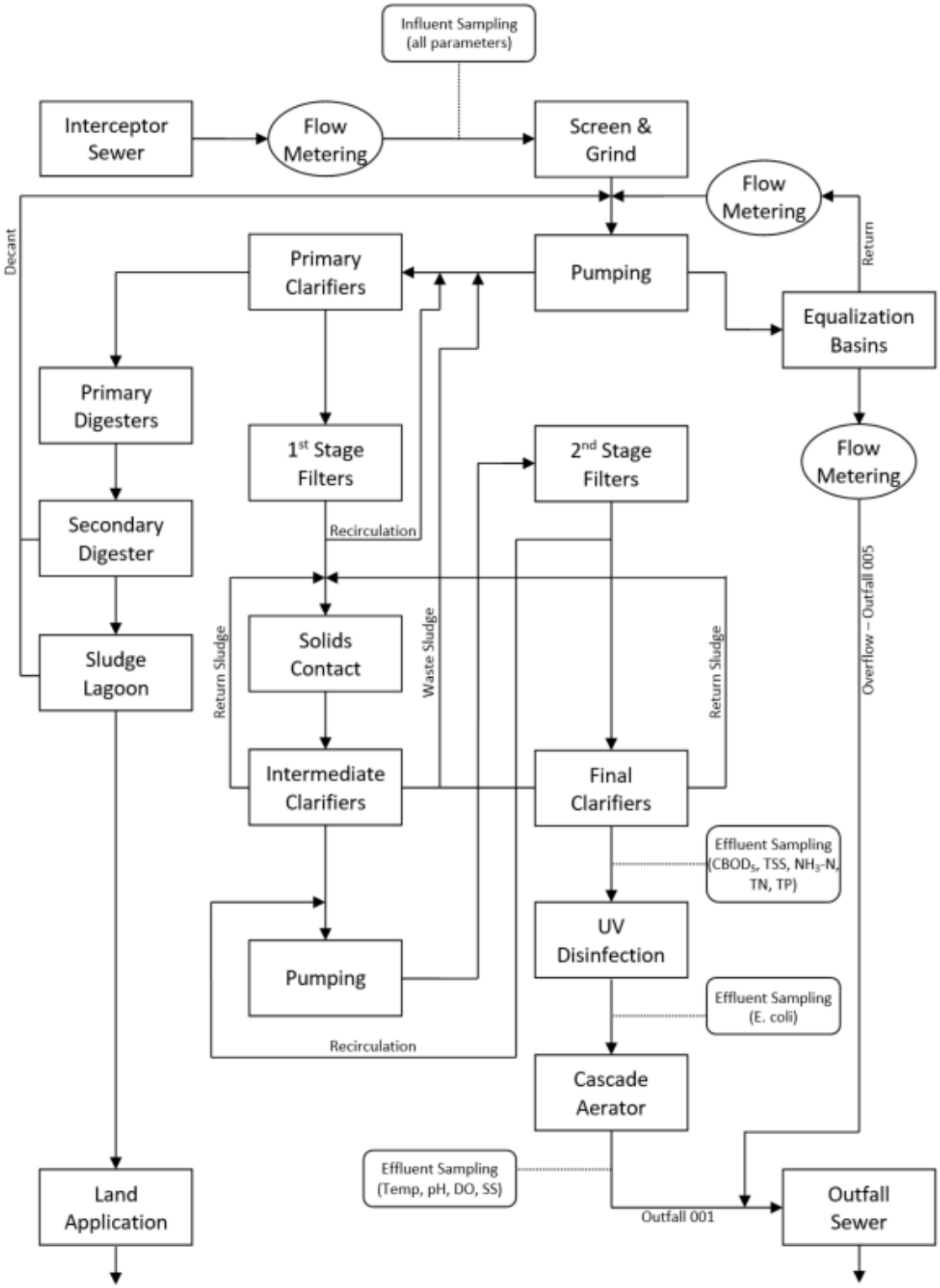
Anaerobic Digestion System		
Primary Digesters (2 units)		
Diameter, ft.	65	-
Sidewater Depth, ft.	29	-
Volume (w/o cone), cu. ft.	96,000	192,000
Secondary Digester (1 unit)		
Diameter, ft.	80	-
Sidewater Depth, ft.	24.6	-
Volume (w/o cone), cu. ft.	124,000	-
Gas Holder Storage Capacity, cu. ft.	36,000	

Sludge Lagoon (80 ft. x 160 ft. at 2-ft depth)		
Minimum Liquid Depth, ft.	2	-
Maximum Liquid Depth, ft.	17	-
Freeboard, ft	3	-
Sideslope, Horizontal:Vertical	3:1	-
Volume, cu. ft.	415,000	

Ultraviolet Disinfection (2 units)		
Lamps	112	224
Dosage Output, uW/cm^2	16232.5	32,465

Effluent Re-Aeration Structure		
Minimum Total Liquid Fall, ft.	4.24	-

Appendix II



Process Flow Schematic for the Water & Pollution Control Facility (Mode 4)

APPENDIX III

Enforcement Response Plan

General Purpose

Federal regulations (40 CFR 403.8(f)(5)) require that the City develop an Enforcement Response Plan (ERP) containing detailed procedures for investigation and response to instances of Industrial User non-compliance with pretreatment regulations. Chapter 28 of the Ames Municipal Code gives the Director of the Ames Water & Pollution Control Department and any designee the authority to implement and enforce the ERP.

Examples of non-compliance with pretreatment program requirements include, but are not limited to, unpermitted discharges, exceeding discharge limits, failure to follow required Best Management Practices (BMPs), failure to monitor as required, and/or failure to report as required.

Instances of non-compliance may be identified through self-monitoring reports submitted by Industrial Users, City monitoring results, inspections by City or other governmental staff, or through notification of non-compliant situations (such as spills, illegal discharges, etc.) by the contributor, City staff, other governmental employees, or by concerned citizens.

Suspected non-compliance will generally be investigated by the Environmental Specialist within five (5) working days. If the Environmental Specialist is unavailable, the Director of the Water & Pollution Control Department will assign this task to another staff member within the department. Any alleged violation which has the potential to threaten public health, safety, property, or environmental quality will be investigated immediately.

Upon confirmation of a violation, the City will issue an enforcement action within ten (10) working days. Examples of the types of escalating enforcement actions the City will take are outlined in the ERP. The ERP is intended to be a guide and will be followed as closely as individual circumstances allow. However, in instances where the City deems it necessary, the enforcement action used may exceed the enforcement response prescribed in the ERP.

The enforcement actions available for use by the City include, but are not limited to, those described in Chapter 4, Section H – Administrative Enforcement.

In addition to the formal enforcement actions, the City may require a violator to make immediate corrective or preventive measures to stop or prevent future violations. Also, the City is authorized by the Municipal Code (Section 28.307(4-5)) to assess the violator any costs for fines levied by State or Federal agencies and additional staff time or resources necessary as a result of the violation.

A. Prohibited Discharges

1. A routine discharge that violates the prohibitions included in Chapter 4, Section B – General Sewer Use Requirements, the Local Limits listed in Chapter 28 of the Ames Municipal Code, a User's Pretreatment Permit, or any Categorical Standard will result in a Notice of Violation. Enforcement for repeated violations and/or

violations that cause Interference, Pass Through, acute worker health and/or safety issues, a toxic effect in the receiving stream, or potential or actual harm to the POTW may include, but are not limited to, Municipal Infractions and/or Termination of Service. In addition, the User must perform the investigation as described in Chapter 4, Section F(7).

2. A non-routine, accidental, or Slug Discharge that violates the prohibitions included in Chapter 4, Section B – General Sewer Use Requirements, the Local Limits listed in Chapter 28 of the Ames Municipal Code, a User's Pretreatment Permit, or any Categorical Standard will result in a Notice of Violation. Enforcement for repeated violations and/or violations that cause Interference, Pass Through, acute worker health and/or safety issues, a toxic effect in the receiving stream, or potential or actual harm to the POTW may include, but are not limited to, Municipal Infractions and/or Termination of Service. In addition, the User must perform the required actions described in Chapter 4, Section F(7).

3. Use of process water, or any attempt to dilute a discharge, as a partial or complete substitute for adequate treatment will result in a Notice of Violation. Any repeated violation will result in a Municipal Infraction.

4. Failure to implement required Best Management Practices (BMPs) which are intended to control, limit, or improve a User's discharge will result in a Notice of Violation. Any ongoing failure to implement the required BMPs may include, but is not limited to, issuance of a Municipal Infraction.

B. **Reporting Requirements**

1. Submission of a report that is improperly signed or fails to contain any required certification will result in a Notice of Violation. Any repeated violation may result in additional Notices of Violation or a Municipal Infraction.

2. Late submission of any required report by five (5) or more days will result in a Notice of Violation. Repeated late submissions and/or submissions that are thirty (30) or more days late will result in additional Notices of Violation or a Municipal Infraction.

3. Falsification of any report will result in a Municipal Infraction and/or Termination of Service.

4. Failure to report any non-routine, accidental, or Slug Discharge that violates the prohibitions included in Chapter 4, Section B – General Sewer Use Requirements, the Local Limits listed in Chapter 28 of the Ames Municipal Code, a User's Pretreatment Permit, or any Categorical Standard will result in a Notice of Violation.
   Note: This Notice of Violation would be in addition to the Notice of Violation for the unintended discharge.

5. Failure to notify the City six (6) months in advance of any anticipated increase in discharge quantity or increase in pollutants discharged will result in a Notice of Violation.

6. Failure to retain and/or make available any records from the previous three (3) years pertaining to the User's discharge will result in a Notice of Violation. Any ongoing or intentional violations of this nature will result in a Municipal Infraction.

7. Failure to submit a progress report required by a compliance schedule within fourteen (14) days of the scheduled progress milestone will result in a Notice of Violation. Any recurring violation of this nature may result in additional Notices of Violation or a Municipal Infraction.

8. Failure to meet a progress milestone required by a compliance schedule by thirty (30) days or less will result in a Notice of Violation. Repeated failures and/or missing a progress milestone by more than thirty (30) days may result in additional Notices of Violation or a Municipal Infraction.

C. **Monitoring Requirements**

1. Failure to monitor all parameters as required by a Pretreatment Permit will result in a Notice of Violation. Any ongoing failure may result in additional Notices of Violation or a Municipal Infraction.

2. Failure to monitor the correct sampling location, use of incorrect sampling technique, or use of incorrect sample type will result in a Notice of Violation. Any ongoing failure may result in additional Notices of Violation or a Municipal Infraction.

3. Delayed installation any required monitoring equipment will result in a Notice of Violation. Any delay that exceeds thirty (30) days may result in an additional Notice of Violation or a Municipal Infraction

D. **Other Requirements**

1. Denial of entry to City personnel for pretreatment sampling and/or compliance inspections will result in a Notice of Violation. Any ongoing or willful hindrance will result in a Municipal Infraction.

2. Failure to properly operate and/or maintain a pretreatment system will result in a Notice of Violation.
   Note: This Notice of Violation would be in addition to any Notice of Violation for a prohibited discharge to the sanitary sewer resulting from any improper operation/maintenance.

3. Failure to mitigate non-compliance or halt violating operations will result in a Notice of Violation. The Notice of Violation may be escalated to a Municipal Infraction or Termination of Service if the violation causes Interference, Pass Through, acute worker health and/or safety issues, a toxic effect in the receiving stream, or potential or actual harm to the POTW.

Any other violation of the Ames Industrial Pretreatment Program or any other Federal, State, or local Pretreatment Standard or Requirement that is not covered in the ERP above will be addressed on a case-by-case basis.

CITY OF AMES, IOWA
WATER AND POLLUTION CONTROL DEPARTMENT

Industrial Waste Questionnaire – Long Form

City of Ames Water Plant
1800 E. 13th Street
Ames, IA 50010

Main: (515) 239-5150
Fax: (515) 239-5251

For questions, contact:
Dustin Albrecht
dalbrecht@cityofames.org

Christina Murphy
cmurphy@cityofames.org

I. GENERAL INFORMATION – *40CFR 403.12(b)(1)*

A. Contributing Facility: _____

Address: _____

_____

Address of Facility Discharging Wastewater if Different from Above:

_____

_____

B. Authorized Representative
Name: _____

Title: _____

Telephone: _____ Fax: _____ E-mail: _____

C. Immediate Contacting Official
Name: _____

Title: _____

Telephone: _____Fax: _____E-mail: _____

Emergency or Cell Phone: _____

D. Certification
I understand that official correspondence may be sent by e-mail. I agree to promptly inform the City of changes in correspondence information. The information contained in this questionnaire is familiar to me; and, to the best of my knowledge and belief, such information is true, complete, and accurate.

_____
Signature of Industrial User Authorized Representative

Name of Signee (print) _____ Date: _____

Title: _____ Fax: _____

Phone: _____ E-mail:_____

II. PLANT OPERATIONAL CHARACTERISTICS – *40CFR 403.12(b)(3)*

Complete a separate Section II for each business activity occurring on the premises.

A. General

1. Business Activity. Provide a brief description of the manufacturing or service activity on the premises.

_____

_____

_____

2. Please provide the NAICS or SIC Code for the Primary Business Activity

NAICS Code _____
(Can be found at http://www.census.gov/epcd/www/naics.html)

SIC Code _____
(Can be found at https://www.osha.gov/pls/imis/sic_manual.html)

3. Raw Materials and Products.

	DESCRIPTION	DAILY QUANTITIES (Include Units)	
		Avg.	**Max.**
Principal Raw Materials Used			
Catalysts or Intermediates			
Products or Services Produced			

4. Shift Information

a. Days of week in operation (check all that apply):
Mon____ Tue____ Wed____ Thu____ Fri____ Sat____ Sun____

b. Average number of employees per shift:
1st _____ 2nd _____ 3rd _____

c. Shift start times:
1st _____ 2nd _____ 3rd _____

5. Do any of the following exist for this facility? Please complete all relevant information for each. *40CFR 403.12(b)(2)*

Type	Permit/Plan number	Date Issued/Created	Expiration Date	Facility or process covered/purpose
National Pollutant Discharge Elimination System (NPDES) Permit				
SPCC (Spill Prevention, Countermeasure and Control) Plan				
Slug Control Plan				
Toxic Organic Management Plan (TOMP)				
Chemical Hygiene Plan				
Resource Conservation and Recovery Act (RCRA) Plan or disposal permit				
Clean Air permit				
Stormwater Permit				

Note: The need for a Slug Control Plan and Toxic Organic Management Plan is determined by Ames Water & Pollution Control staff. All others may be required by DNR or EPA.

B. Water Sources and Uses – *40CFR 403.12(b)(4)*

1. Estimate the average quantity of water received and wastewater discharged in gallons per day. Please use recent water bills to verify the estimates of total water supply. Use appropriate number of days per week to correspond to operational days per week or month.

	Supply From			**Discharged To**		
		Other (1)		**Sanitary Sewer**	**Other (2)**	
Water Use	**City gal/day***	**gal/day**	**Source**	**gal/day**	**gal/day**	**Discharge**
Sanitary						
Process						
Boiler Feed						
Cooling						
Washing						
Contained in Product						
Other						
Total [Total supply must equal total discharge]						

* Water bill quantities are listed in units of 100 cubic feet, 1 cubic foot = 7.48 gallons.

(1) Indicate the quantity and appropriate code letter for the source.

a. Well b. Surface Water c. Rural Water
d. Stormwater e. Reclaimed Water

(2) Indicate the quantity and appropriate code letter for the discharge location.

a. Surface Water b. Waste Hauler c. Evaporation
d. Storm Drain e. Land Application f. Contained in Product

2. Do you have wells or any other water supply source at this address which are not in use at the present time? If so, describe.

3. Describe any water supply treatment process in use and any resulting brines or wastewaters that may be created by the treatment process.

4. Describe any plans for expansion that may impact water used or wastewater discharged.

C. Wastewater Characterization – *40CFR 403.12(b)(3)*

1. Describe any wastewater treatment equipment or processes in use and any byproducts produced by the treatment equipment. Include disposal practices for byproducts.

2. Wastewater Flow Diagram

For each unit process generating wastewater, indicate on a simple schematic the flow of the water from start to completed product.

3. Building and Sewer Layout

Draw a simple site plan. Please indicate the location of the following:
a. Water sources for the facility
b. Regulated wastewater generating processes
c. Sampling sites
d. Pretreatment facilities (if any)
e. Facility connection to the sanitary sewer

An attached blueprint or drawing of the facility, including the above items, may be substituted for the sketch.

4. Pollutant Checklist. Indicate by placing an X in the space following each chemical if the chemical is suspected or known to be present in your service activity, manufacturing activity, or generated as a by-product. *40CFR 403.12(p)(1)*

1	1,1,1-Trichloroethane	
2	1,1,2,2-Tetrachloroethane	
3	1,1,2-Trichlorethane	
4	1,1-Dichloroethane	
5	1,1-Dichloroethene	
6	1,2-Dichloroethane	
7	1,2-Dichloropropane	
8	1,3-Dichloropropylene	
9	2-Chloroethylvinyl ether	
10	Acetone	
11	Acrolein	
12	Acrylonitrile	
13	Benzene	
14	Bromodichloromethane	
15	Bromoform	
16	Carbon Tetrachloride	
17	Chlorobenzene	
18	Chloroethane	
19	Chloroform	
20	Dibromochloromethane	
21	Dichloroethylene	
22	Ethylbenzene	
23	Methyl Bromide	
24	Methyl Chloride	
25	Methylene Chloride	
26	Tetrachloroethene	
27	Toluene	
28	Trichloroethene	
29	Vinyl Chloride	
30	1,2,4-Trichlorobenzene	
31	1,2-Dichlorobenzene	
32	1,2-Diphenylhydrazine	
33	1,3-Dichlorobenzene	
34	1,4-Dichlorobenzene	
35	2,2'-oxybis(1-chloropropane)	
36	2,4,6-Trichlorophenol	
37	2,4-Dichlorophenol	
38	2,4-Dimethylphenol	
39	2,4-Dinitrophenol	
40	2,4-Dinitrotoluene	
41	2,6-Dinitrotoluene	
42	2-Chloronaphthalene	
43	2-Chlorophenol	
44	2-Methylnaphthalene	
45	2-Nitrophenol	
46	3,3'-Dichlorobenzidine	
47	4,6-Dinitro-o-cresol	
48	4-Bromophenyl phenyl ether	
49	4-Chlorophenyl phenyl ether	
50	4-Nitrophenol	
51	Acenaphthene	
52	Acenaphthylene	
53	Anthracene	
54	Benzidine	
55	Benzo(a)anthracene	
56	Benzo(a)pyrene	

57	Benzo(b)fluoranthene	
58	Benzo(g,h,i)perylene	
59	Benzo(k)fluoranthene	
60	bis(2-Chloroethoxy)methane	
61	bis(2-Chloroethyl)ether	
62	bis(2-Chloroisopropyl)ether	
63	bis(2-Ethylhexyl)phthalate	
64	Butyl benzyl phthalate	
65	Chrysene	
66	Dibenzo(a,h)anthracene	
67	Diethyl phthalate	
68	Dimethyl phthalate	
69	Di-n-butyl phthalate	
70	Di-n-octyl phthalate	
71	Fluoranthene	
72	Fluorene	
73	Hexachlorobenzene	
74	Hexachlorobutadiene	
75	Hexachlorocyclopentadiene	
76	Hexachloroethane	
77	Indeno(1,2,3-cd)pyrene	
78	Isophorone	
79	Naphthalene	
80	Nitrobenzene	
81	N-Nitrosodi-methylamine	
82	N-Nitrosodi-n-propylamine	
83	N-Nitrosodi-phenylamine	
84	p-Chloro-m-cresol	
85	Pentachlorophenol	
86	Phenanthrene	
87	Pyrene	
88	Antimony	
89	Arsenic	
90	Beryllium	
91	Cadmium	
92	Chloride	
93	Chromium	
94	Copper	
95	Cyanide	
96	Iron	
97	Lead	
98	Phosphorus (total)	
99	Magnesium	
100	Manganese	
101	Mercury	
102	Molybdenum	
103	Nickel	
104	Oil & Grease	
105	Phenol	
106	Selenium	
107	Silver	
108	Thallium	
109	Zinc	

5. Process Discharge Characterization Summary

Toxic Pollutants:

a. For each pollutant identified on the Pollutant Checklist, describe the source, average rate of discharge, and maximum rate of discharge. Discharge may be expressed in gallons/day, gallons/batch, etc. A table may be used for this summary.

b. List any other potentially toxic substances known or anticipated to be present in the discharge.

_____

_____

_____

c. List any RCRA hazardous wastes that may be discharged to the sanitary sewer. For each waste listed, describe the source, the EPA hazardous waste number, the type of discharge (continuous, batch, etc.) and average rate of discharge, and maximum rate of discharge. *40CFR 403.12(p)*

_____

_____

_____

6. Pretreatment

a. Are additional pretreatment facilities and/or operation and maintenance required to meet pretreatment standards? If so, please list the schedule indicating when they will be provided.

Facility/Operation Description	Date
_____	_____
_____	_____
_____	_____

IV. STORED WASTES

This section applies to facilities whose processes or operations produce wastes which are NOT discharged to sanitary sewers, combined sewers, or to surface waters. *Please complete the following questions using a separate form for each industrial process.*

A. General

1. Process Identification: _____

2. Description of process or operation producing waste:

_____

_____

_____

3. Brief characterization of waste:

_____

_____

_____

4. Annual waste production: _____ Tons/yr. _____ Gallons/yr.

5. Frequency of waste production:
_____ Seasonal (describe) _____ Occasional
_____ Continual _____ Other (specify)

B. Waste Composition

1. Average percent solids: _____ % pH range: _____ to _____

2. Physical State: _____ Liquid _____ Slurry _____ Sludge
_____ Solid _____ Other (specify)

3. Hazardous Properties: _____ Flammable _____ Toxic
_____ Reactive _____ Explosive _____ Infectious
_____ Corrosive _____ Other (specify)

C. Storage

1. Typical length of time waste is stored:

_____ Days _____ Weeks _____ Months

2. Method of on-site storage for greater than 90 days:

_____ Drum _____ Roll-off Container
_____ Tank _____ Lagoon
_____ Other (specify)

3. Typical volume of stored waste: _____ (Tons, Gallons, etc)

4. Is storage site diked? Yes _____ No _____

5. Is surface drainage collection provided? Yes _____ No _____

6. Is there another form of secondary containment provided for the waste?
Yes ___ No ___
If so, please describe the containment.

7. Is the waste stored close to an open floor drain or sink? Yes ___ No ___

8. Is a spill kit available near waste storage site? Yes ___ No ___

D. Treatment and Disposal

1. Treatment or disposal: _____ On-site _____ Off-site
If waste is hauled off-site, fill out 3 and 4 below.

2. Waste is: _____ Reclaimed _____ Treated _____ Land Application
_____ Incinerated _____ Other (Specify)

3. Contractor Hauling Waste:

Name: _____

Address: _____

_____

E-mail: _____

4. Off-site facility receiving waste:

Name of Facility: _____

Facility Address: _____

_____

E-mail: _____

III. CHEMICALS USED/STORED ON SITE

List all chemicals used or stored in the facility in quantities that may be potentially toxic or hazardous.

Chemical Name	Chemical Components	Chemical Storage		Usage	Secondary Containment	Close to Floor Drain	Drain Plugged	Spill Kit Available	Direct Contact With Wastewater*			Potential Contact with Wastewater*	MSDS Available?
		Amount	Location		Y/N	Y/N	Y/N	Y/N	Amount	Frequency	Y/N	Y/N	Y/N

* How soon would spill be noticed?

- Direct Contact: _____
- Potential Contact: _____

City of Ames, Iowa
Water and Pollution Control

Industrial Waste Questionnaire, Short Form

Facility Name: _____

Address: _____

_____

Provide a general description of business/industry and typical daily activities:

_____

_____

Provide the NAICS or SIC code for the primary business activity: _____

Estimate how much water the facility uses during a typical work day:

☐ Less than 1,000 gallons ☐ 1,000 – 10,000 gallons ☐ 10,000 – 25,000 gallons ☐ More than 25,000 gallons

Does the facility have a laboratory? ☐ Yes ☐ No

If yes, please describe:

_____

_____

Are any hazardous chemicals stored on site? ☐ Yes ☐ No

If yes, please describe (include quantities):

_____

_____

Does the facility have a boiler, water softener, chiller system, etc? ☐ Yes ☐ No

If yes, please describe:

_____

_____

Does the facility discharge anything besides domestic sewage into the sewer system, possibly through floor drains, mop sinks, kitchen sinks, etc? ☐ Yes ☐ No

If yes, please describe:

_____

_____

Is any solid or liquid waste hauled off-site? ☐ Yes ☐ No

If yes, describe the waste and where it is hauled for disposal:

_____

_____

Does the facility perform any of the following processes? *Check all that apply.*

Yes	No		Yes	No	
		Metal Manufacturing (Forming, Casting, Molding, etc.)			Chemical Production (Organic, Inorganic, Pesticide, etc.)
		Food Processing			Pharmaceutical Production
		Metal Finishing (Plating, Coating, etc.)			Leather Tanning/Finishing
		Battery Manufacturing			Plastic Molding/Forming
		Fertilizer Manufacturing			Porcelain Enameling
		Glass Manufacturing			Rubber Manufacturing
		Ink/Dye/Pigment/Paint Formulating			Soap/Detergent Manufacturing
		Electronic Component Manufacturing			Grain Processing

_____ _____

Signature* Date Name (Printed)

Title: _____ Company: _____

Phone: _____ E-mail: _____

Fax: _____

*The above-named person will be the primary contact for all correspondence between the industry and the City of Ames Water and Pollution Control Department.

Please submit the completed form by one of the following ways:

Water & Pollution Control	E-Mail	Fax
1800 E. 13th St., Building 1 Ames, IA 50010	Pretreatment@cityofames.org	(515) 239-5251

Water Pollution Control Facility

Hauled Waste Manifest

Hauler Information

Company _____ Phone ( ) _____

Address _____ City _____

Truck Number _____ Tank Capacity _____ gallons

Waste Generator Information

1. Facility Name _____ Phone ( ) _____

   Facility Contact _____

   Address _____ City _____

   Date Pumped _____ Gallons Pumped _____

   Provide a short description of the waste: _____

   _____

2. Facility Name _____ Phone ( ) _____

   Facility Contact _____

   Address _____ City _____

   Date Pumped _____ Gallons Pumped _____

   Provide a short description of the waste: _____

   _____

If additional sites were included in this load attach another manifest.

I certify under penalty of law that this manifest was prepared by me or under my direct supervision. The information 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. I further certify that the wastes covered by this manifest are not hazardous as defined by 40 CFR Part 261 and that all discharges made are in accordance and compliance with requirements specified in the Ames Municipal Code.

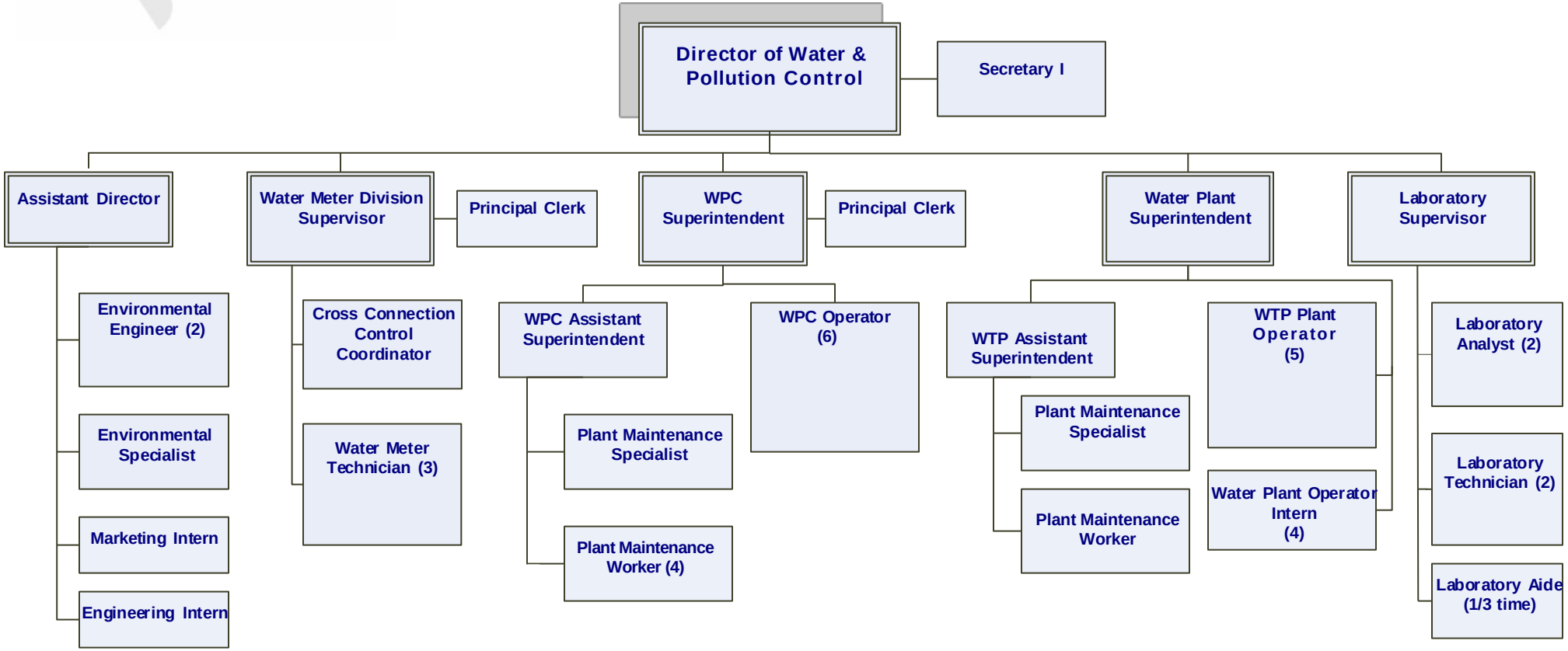
Name (Printed): _____ Signature: _____ Date: _____

Received by (Please Print): _____ Date: _____ Time: _____AM/PM

Sample Collected: Yes ☐ No ☐ pH: _____

Comments: _____

WATER & POLLUTION CONTROL



Appendix VII

Industrial Users
Required to Obtain Pretreatment Permits

Industry	Classification	Categorical Standard	Water Usage (gallons/month)	Description
Barilla America, Inc.	Non-Significant		2,900,000	Wheat Milling Pasta Production
Biova, LLC	Significant		330,000	Processing Egg Shell Membranes
Danfoss Power Solutions	Categorical Significant	40 CFR Part 433	1,250,000	Hydraulic Pump Mfg.
Hach Company North Outfall	Significant		100,000	Chemical Production
Hach Company South Outfall	Non-Significant		40,000	Chemical Production
Merck Animal Health	Categorical Significant	40 CFR Part 439	35,000	Vaccine Production
Industrial Plating Company	Categorical Significant	40 CFR Part 413	55,000	Electroplating
Iowa State University Central Campus	Significant		16,000,000	Housing, Research, Elec. Prod.
Iowa State University EH&S Building	Non-Significant		20,000	Hazardous Waste Disposal
Iowa State University Veterinary Medicine	Non-Significant		1,400,000	Veterinary Med. & Research
Iowa State University VMRI/LIDIF	Non-Significant		240,000	Veterinary Research
Mary Greeley Medical Center	Non-Significant		2,500,000	Medical Facility
National Centers for Animal Health North Outfall	Non-Significant		7,100,000	Veterinary Research
National Centers for Animal Health South Outfall	Non-Significant		170,000	Veterinary Research