



State of Ohio Environmental Protection Agency

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1PD0002220091214

HIGHLAND GREENFIELD WWTP

JACKSON, JOSHUA 2009/12/14

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director



State of Ohio Environmental Protection Agency

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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

December 14, 2009

Mayor & Council
City of Greenfield
P.O. Box 300
Greenfield, OH 45123

Correct

**RE: City of Greenfield WWTW/Compliance Evaluation Inspection Report
NPDES Permit No. OH0021083/OEPA PERMIT NO. 1PD00022*GD**

Ladies & Gentlemen:

On December 2, 2009, I conducted an NPDES compliance evaluation inspection at the City of Greenfield wastewater treatment works (WWTW). Jim McCoy, representing the facility, was present during the inspection. The purpose of the inspection was to evaluate compliance with the terms and conditions of the NPDES Permit.

A copy of the report on the inspection is enclosed. As noted within the inspection report, one evaluated areas received below "Satisfactory" ratings. **Please pay special attention to the compliance dates (items requiring correction) located within the report. The City of Greenfield is required to develop a Quality Assurance program for all the analytical methods performed on-site and assemble an Operation & Maintenance Manual for the new wastewater treatment works. These items will enable the City to produce defensible laboratory data and have a plan to ensure that the WWTW is operating as efficiently as possible at all times.**

Thank you and your staff for the time extended during the inspection process. If you have any questions, please feel free to contact Mr. Jackson by phone at (937) 285-6029 or by e-mail at joshua.jackson@epa.state.oh.us.

Respectfully,

Joshua Jackson
Environmental Specialist II
Division of Surface Water

cc: Jim McCoy, City of Greenfield (w/report and attachments)

Enclosures





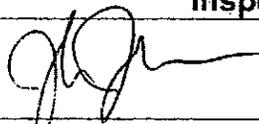
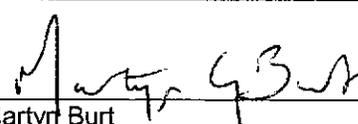
State of Ohio Environmental Protection Agency
Southwest District Office

NPDES Compliance Inspection Report

Section A: National Data System Coding					
Permit #	NPDES#	Month/Day/Year	Inspection Type	Inspector	Facility Type
1PD00022*GD	OH0021083	12/2/2009	C	S	II

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
City of Greenfield WWTW 187 Lost Bridge Road Ross County, Buckskin Township	9:20 a.m.	6/1/2009
	Exit Time	Permit Expiration Date
	12:30 p.m.	7/31/2009
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Jim McCoy, Operator of Record Chuck Duff, Operator	□ FORMTEXT 937-981-3413	
Name, Address and Title of Responsible Official	Phone Number	
Harvey Everheart, Village Council 300 Jefferson Street Greenfield, OH 45123	937-981-3500	

Section C: Areas Evaluated During Inspection					
(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)					
S	Permit	S	Flow Measurement	N	Pretreatment
S	Records/Reports	N	Laboratory	S	Compliance Schedule
S	Operations & Maintenance	S	Effluent/Receiving Waters	M	Self-Monitoring Program
S	Facility Site Review	S	Sludge Storage/Disposal	N	Other
S	Collection System				

Section D: Summary of Findings (Attach additional sheets if necessary)	
See Attached Report.	
Inspector	Reviewer
 Joshua Jackson Division of Surface Water Southwest District Office Date: 12-14-09	 Martyn Burt Compliance & Enforcement Supervisor Division of Surface Water Southwest District Office Date: 12/14/09



Sections E thru K: Complete on all inspections as appropriate
Y – Yes, N – No, N/A – Not Applicable, N/E – Not Evaluated

Section E: Permit Verification

Inspection observations verify the permit

- (a) Correct name and mailing address of permittee Y
- (b) Correct name and location of receiving waters..... Y
- (c) Product(s) and production rates conform with permit application (Industries)..... N/A
- (d) Flows and loadings conform with NPDES permit..... Y
- (e) Treatment processes are as described in permit application... Y
- (f) New treatment process(es) added since last inspection..... Y
- (g) Notification given to State of new, different or increased discharges..... N/A
- (h) All discharges are permitted..... Y
- (i) Number and location of discharge points are as described in permit..... Y

Comments/Status:

Section F: Compliance

- (a) Any significant violations since the last inspection..... Y
- (b) Appropriate Non-compliance notification of violations..... Y
- (c) Permittee is taking action to resolve violations..... Y
- (d) Permittee has a compliance schedule..... N
- (e) Compliance schedule contained in
- (f) Permittee is meeting compliance schedule..... N/A

Comments/Status:



Section G: Operation & Maintenance

Treatment Works:

Treatment facility properly operated and maintained

- (a) Standby power available.....generator or dual feed Y
- (b) Adequate alarm system available for power or equipment failures.. N
- (c) All treatment units in service other than backup units..... N
- (d) Wastewater Treatment Works classification (OAC 3745-7)..... III
- (e) Operator of Record holds unexpired license of class required by permit..... Y
 Class: III
- (f) Copy of certificate of Operator of Record displayed on-site..... Y
- (g) Has the Operator of Record submitted an ORC Notification form. Y
- (h) Minimum operator staffing requirements fulfilled (OAC 3745-7)... Y
- (i) Routine and preventative maintenance scheduled/performed... Y
- (j) Any major equipment breakdown since last inspection..... N
- (k) Operation and maintenance manual provided and maintained.... N
- (l) Any plant bypasses since last inspection..... N
- (m) Regulatory agency notified of bypasses..... N/A
 On MORs and/or Spill Hotline (1-800-282-9378)
- (n) Any hydraulic and/or organic overloads since last inspection..... N

Record Keeping:

- (a) Log book provided..... Y
- (b) Format of log book (i.e. computer log, hard bound book)

Spiral. I informed Mr. McCoy that the log book needs to be hard bound.
- (c) Log book(s) kept onsite (in an area protected from weather)..... Y
- (d) Log book contains the following:
 - I. Identification of treatment works..... N
 - II. Date/times of arrival/departure for Operator of Record and any other operator required by OAC 3745-7..... Y
 - III. Daily record of operation and maintenance activities (including preventative maintenance, repairs and request for repairs)..... Y
 - IV. Laboratory results (unless documented on bench sheets)... Y
 - V. Identification of person making log entries..... Y
- (e) Has the operator of record submitted written notification to the permittee, Ohio EPA and (if applicable) any local environmental agencies when a collection system overflow, treatment plant bypass or effluent limit violation has occurred..... N/A



Section G: Operation & Maintenance (con't)

Collection System:

- (a) Percent combined system: 0%
- (b) Any collection system overflows since last inspection..... N
(CSO and/or SSO)
- (c) Regulatory agency notified of overflows (SSOs)..... N/A
- (d) CSO O&M plan provided and implemented..... N/A
- (e) CSOs monitored and reported in accordance with permit..... N/A
- (f) Portable pumps used to relieve system..... Y
- (g) Lift station alarms provided and maintained..... Y
- (h) Are lift stations equipped with permanent standby power
or equivalent..... Y
- (i) Is there an inflow/infiltration problem (separate sewer system),
or were there any major repairs to collection system since
last inspection..... Y
- (j) Any complaints received since last inspection of basement flooding N
- (k) Are any portions of the sewer system at or near capacity..... Y

Comments/Status:

Complaints of basement flooding were received but none were identified as problematic due to the City's main lines.
2 storm sewer cross connections were identified and repaired by the City in 2009.
The City is about to award a contract for a manhole rehabilitation contract (ARRA funding). It appears construction will begin in January 2010 and 250 manholes have been identified for some sort of rehab work.



Section H: Sludge Management

- (a) Method of Sludge Disposal... Land Application
 Haul to Another NPDES Permittee
 Haul to a Mixed Solid Waste Landfill

Class B Sewage Sludge (monitoring station 581)

Pathogen Reduction Alternative	84370 Vector Attraction Reduction Options									
	Option 1 -38% Volatile Solids Reduction	Option 2 -Anaerobic Bench Scale Analysis	Option 3 - Aerobic Bench Scale Analysis	Option 4 - Specific Oxygen Uptake Rate	Option 5 - Aerobic Time and Temperature	Option 6 - Alkali Addition	Option 7 - >75% Percent Solids without Unstabilized	Option 8 - >75% Percent Solids with Unstabilized	Option 9 - Land Injection	Option 10 - Immediate Incorporation
Alternative 1 - Geometric Mean of Seven Fecal Samples (84369)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- (b) If sludge incinerated..... N
 (Name of ash disposal site:)
 (c) Is sludge disposal contracted..... Y
 (Name:Faulconer Farms)
 (d) Has amount of sludge generated changed significantly since the last inspection..... N
 (e) Adequate sludge storage provided at plant..... Y
 (f) Records kept in accordance with State and Federal law..... Y
 (g) Any complaints received in last year regarding sludge..... N
 (h) Is sludge adequately processed (digestion, pathogen control)..... Y

Comments/Status:



Section I: Self-Monitoring

Flow Measurement:

- (a) Primary flow measuring device operated and maintained..... Y
Type of device: Ultrasonic & Parshall flume Ultrasonic & Weir Weir
Calculated from influent Other (Specify: Magmeter)
- (b) Calibration frequency adequate Y
Effluent magnetic meter installed in June 2009
- (c) Secondary instruments operated and maintained..... Y
- (d) Flow measurement equipment adequate to handle full range
of flows..... Y
- (e) Actual flow discharged is measured..... Y
- (f) Flow measuring equipment inspection frequency
 Daily Weekly monthly other

Comments/Status:

Magnetic flow meter should be calibrated annually.

Sampling:

- (a) Sampling location(s) are as specified by permit..... Y
- (b) Parameters and sampling frequency agree with permit..... Y
- (c) Permittee uses required sampling method..... Y
- (d) Sample collection procedures are adequate..... N
 - (i) Samples refrigerated during compositing..... Y
 - (ii) Proper preservation techniques used..... Y
 - (iii) Containers and sample holding times prior to analysis
conform with 40 CFR 136.3..... Y
- (e) Monitoring records (i.e., flow, pH, DO) maintained for a minimum
of three years including all original strip chart recordings
(i.e, continuous monitoring instrumentation, calibration and
maintenance records)..... Y
- (f) Adequate records maintained of sampling date, time, location, etc.. Y

Comments/Status:

The two automatic composite samplers were not synchronized with the effluent and influent flow meters; for this reason a rating of "Marginal" was given in the "Self-Monitoring" section of this report. So the City is unable to take 24-hour, flow-proportioned influent and effluent samples as required by the NPDES permit. It is anticipated this part of the construction process would be completed by the end of December. The City is currently taking 24-hour, time-proportioned samples.



Section I: Self-Monitoring Program Con't

Laboratory:

General

- (a) EPA approved analytical testing procedures used (40 CFR 136.3).. Y
- (b) If alternate analytical procedures are used, proper approval has been obtained..... N/A
- (c) Analyses being performed more frequently than required by permit. N
- (d) If (c) is yes, are results in permittee's self-monitoring report..... N/A
- (e) Commercial laboratory used..... Y
Parameters analyzed by commercial lab: all parameter with the exception of temperature, dissolved oxygen and pH

Lab name: MASI

Quality Control/Quality Assurance

- (f) Quality assurance manual provided and maintained..... N
- (g) Satisfactory calibration and maintenance of instruments/equipment. N
- (h) Adequate records maintained..... Y
- (i) Results of latest USEPA quality assurance performance sampling program: Greenfield participated and had one "Unsatisfactory" parameter (chlorine residual). The City no longer monitors for this parameter because chlorine disinfection is no longer utilized (UV disinfection is now in use)

Comments/Status:



Section J: Effluent/Receiving Water Observations

(a)

Outfall Number	Oil sheen	Grease	Turbidity	Visible Foam	Visible Floating Solids	Color	Other
001						Clear	

- (b) Are outfall markers posted..... Y
- (c) Do the outfall markers meet the requirements of the permit..... Y

Comments/Status:

Section K: Multimedia Observations

- (a) Are there indications of sloppy housekeeping or poor maintenance in work and storage areas or laboratories..... N
- (b) Do you notice staining or discoloration of soils, pavement or floors.. N
- (c) Do you notice distressed (unhealthy, discolored, dead) vegetation.. N
- (d) Do you see unidentified dark smoke or dust clouds coming from sources other than smokestacks..... N
- (e) Do you notice any unusual odors or strong chemical smells..... N
- (f) Do you see any open or unmarked drums, unsecured liquids, or damaged containment facilities..... N

If any of the above are observed, ask the following questions:

- (1) What is the cause of the condition?
- (2) Is the observed condition or source a waste product?
- (3) Where is the suspected contaminant normally disposed?
- (4) Is this disposal permitted?
- (5) How long has the condition existed and when did it begin?

Comments/Status:



Inspection Findings

The City of Greenfield wastewater treatment works (WWTW) is designed to treat and discharge an average daily design flow of 1.6 million gallons/day (MGD). Ohio EPA approved a Permit to Install in 2007, for the "Phase I" upgrade of the WWTW; the following main components were included in the approval:

- Mechanical influent bar screen
- Vortex grit removal
- Conversion of existing Shreiber counter-current aeration tanks to "Jet" aeration activated sludge system. (with new rotary positive displacement blowers)
- Ultraviolet disinfection system
- Return sludge pumps

At the time of the inspection, all of the main components were installed and operating. It is anticipated that the new laboratory/operations building will be completed by the end of December as well as some of the other ancillary items (e.g. SCADA system, synchronizing flow meters with automatic composite samplers, etc.).

The NPDES permit contains a compliance schedule for constructing the Phase II portion of the WWTW upgrades. This portion will include improvements to the secondary clarifiers and plant piping as well as other items detailed in the "Wastewater Treatment Plant Design Report, City of Greenfield, Ohio, August 2007"; this report was prepared by Woolpert, Inc.

EFFLUENT LIMIT VIOLATIONS

(Period of Review: January 2009 – November 2009)

7D = Weekly 30D = Monthly 1D = Daily
 Conc. = Concentration (mg/l) Qty. = Quantity (Kg/Day)

Reporting Period	Parameter	Limit Type	Limit	Reported Value
June 2009	Nitrogen, Ammonia (NH3)	30D Conc	1.0	2.38333
June 2009	Nitrogen, Ammonia (NH3)	7D Conc	1.5	1.86667
June 2009	Nitrogen, Ammonia (NH3)	7D Conc	1.5	7.13333
June 2009	Nitrogen, Ammonia (NH3)	7D Qty	9.1	12.9906
July 2009	Phosphorus, Total (P)	30D Conc	1.0	1.005
September 2009	Phosphorus, Total (P)	30D Conc	1.0	1.1
September 2009	Phosphorus, Total (P)	7D Conc	1.5	1.96
September 2009	Phosphorus, Total (P)	7D Conc	1.5	1.51

*The City notified Ohio EPA of all the exceedences shown above. Mr. McCoy stated that since the alum line was relocated to a manhole that provides



better mixing, better phosphorus results are expected. There have been no phosphorus violations since the line was installed. During this same period of review, the average daily effluent flow was 0.81 MGD with a maximum daily value of 2.9 MGD on February 11, 2009.

Items Noted During the Inspection

1. The automatic samplers should have thermometers located within the refrigeration unit that confirm a holding temperature of 4° Celsius (+/- 2°). The thermometer should be immersed in water without touching the sides of the container (typically immersed in a liquid-filled bottle).
2. Both jet aeration tanks were operational and the mixed liquor was a good color with an earthy odor. According to Mr. McCoy, one blower was providing air to both aeration tanks and the mixed liquor had a dissolved oxygen concentration of 4.0 mg/l.
3. One of the clarifiers was down for repair and cleaning but operations staff were about to put it back on-line. The effluent in the remaining clarifier was clear with just a small amount of ash on the surface. According to Mr. McCoy, the sludge blanket depth was around 7 inches.
4. Because recreation season is over, the ultraviolet bulbs had been removed from the UV channel for winterizing.
5. The primary clarifiers were decommissioned but the structures remain. Most of the contents have been pumped out. The City is still evaluating whether these tanks should be demolished or utilized for some future purpose.
6. The new mechanical screen and grit removal systems were on-line. Operations staff have been impressed with the performance of these units thus far.
7. The new perimeter fence is installed with the exception of a small section on the stream-side of the dike near the outfall.
8. The permit-required sign had been placed next to the outfall. The discharge to the stream was clear but there were solids in the surrounding pool area. It is believed that a portion of the solids are attributed to historical permit violations at the WWTW and the remainder to stream sediment. There were no odors at the outfall or other indicators of a low dissolved oxygen environment caused by sewage sludge (e.g. tubifex worms, sewage fungus).

Quality Assurance & Standard Operating Procedures



The foundation of the NPDES permitting program is the reliability of data "self-reported" by wastewater dischargers under permit. Part III, 3., of the City's NPDES permit requires "All wastewater treatment works shall be operated in a manner consistent with the following: At all times, the permittee shall maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee necessary to achieve compliance with the terms and conditions of this permit. *Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures...*" Part III, 5., goes on to say, "Test procedures for the analysis of pollutants shall conform to regulation 40 CFR 136... The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals to insure accuracy of measurements."

The federal regulatory benchmark for all water and wastewater sampling/laboratory procedures is 40 CFR 136. This rule lists acceptable sampling and laboratory procedures published in "Standard Methods for the Examination of Water and Wastewater" (Standard Methods) among other resources such as the American Society for Testing and Materials (ASTM). Standard Methods is a comprehensive reference widely used throughout the industry and is cooperatively published by the American Water Works Association, Water Environment Federation and the American Public Health Association.

Standard Methods 1020A establishes that "Quality assurance (QA) is the definitive program for laboratory operation that specifies the measure required to produce defensible data of known precision and accuracy". *Without a QA program, the City is without defensible data showing compliance with the NPDES permit.* Standard Methods goes on to require the inclusion of Standard Operating Procedures (SOP) for each analytical method within the QA manual. The SOP should include the following applicable categories:

- Title
- Scope and Application
- Summary
- Sample Handling and Preservation
- Interferences
- Apparatus and Materials
- Reagents
- Procedure
- Calculations
- Quality Control (calibration)
- Maintenance
- Corrective Action
- Reference (Parent Method)

During the inspection, Mr. McCoy was given example SOPs and/or sections of Standard Methods for every analytical method performed at the WWTW. **It is expected that the City of Greenfield develop SOPs for the following analytical procedures (at a minimum) by no later than May 1, 2009: pH, temperature, dissolved oxygen and sample collection. Each of the SOPs should comply with the analytical methods outlined in Standard Methods.**



As stated earlier in the report, operations staff will be relocating to a new laboratory/operators building by the end of December. If the City has the resources, Ohio EPA encourages expansion of the current testing program to include additional analytical methods (e.g. suspended solids, CBOD5, etc.). In the long term, this could save the City laboratory testing fees and give operations staff more of an "ownership" role in the WWTW monitoring & sampling program. If the City does expand the scope of in-house testing, SOPs will need to be developed for the additional procedures. Contact Ohio EPA Southwest District Office for additional information if needed.

Operation & Maintenance Manual

As stated in the above section, Part III of the City's NPDES permit requires the permittee to keep the WWTW in good working order and operate it as efficiently as possible...*at all times*. This means even when the operator of record is not available (e.g. vacation, sick, etc.), or in the event when the operator of record will eventually be replaced due to retirement or other reasons. **To create consistency in WWTW with current and future operations staff, the City must develop an Operation & Maintenance manual written specifically for the operations staff. The City should develop this manual by no later than October 1, 2010. The attached guidelines have been included for your benefit.**

Sanitary Sewer Overflows

During 2008, the City had several sanitary sewer overflows at the Washington & Oak St. location. This was in violation of Administrative Orders issued to the City calling for the elimination of all sanitary sewer overflows in the collection system. To address the issue, the City had completed work to install 63 manhole chimney seals and 85 manhole inserts in September of 2008. Sewer cleaning work (tributary to the Washington & Oak SSO) was also completed. The City is about to begin an ARRAWPCLF-funded manhole rehabilitation project. Starting in January of 2010, 250 manholes will receive some sort of improvement ranging from raised manhole castings to complete sealing of the inner portion of the manhole.

There have been no reported sanitary sewer overflows in the City of Greenfield sewage collection system in 2009.



Guidelines for Developing Operation & Maintenance Manuals

The Operation & Maintenance (O&M) manual for wastewater treatment works (WWTW) should be living documents that will be updated as conditions warrant. For this reason, the document should be kept in an electronic format to allow ease of accessibility and alteration. If a hard copy is maintained, it should be kept in a three-ring binder to allow for page replacement as updates are made. The following provides a recommended (minimum) outline for the preparation of O&M manuals. The general content listed followed by suggested details for each section.

- Include a Table of Contents
- Tab sections as appropriate
- Identify the author of the manual; preferably, the operator of record for the WWTW, but can also be prepared by another certified operator familiar with the day to day operations of the WWTW and/or a Professional Engineer familiar with the design of the WWTW.
- The initial O&M manual should be provided to Ohio EPA in electronic or hard copy format and any future versions should be made available upon request.

I. Introduction

a) Manual should briefly describe the historical background of the facility

b) WWTW treatment requirements:

- 1) Type of treatment: Briefly describe the type of treatment process employed.
- 2) Description of plant: Briefly describe the various units or processes incorporated in the facility.
- 3) Flow diagram: Include a simple schematic showing the individual units and flow sequence
- 4) Design efficiency: State and briefly discuss the design efficiency in terms of percent removal of biochemical oxygen demand, suspended solids, etc.
- 5) State specifically, the certification required by the operator of record per Ohio Administrative Code 3745-7-04 and staffing hours required by the operator of record. If there is an approved reduction of operator of record staffing hours due to SCADA or support staffing, this should be discussed as should any contingency plan if the operator of record is on extended leave.
- 6) Provide a table of general design criteria, such as: capacity of individual units, size of pumps and motors, pumping rates, clarifier overflow rate, aerator size and capacity, design efficiency, loading rates, etc.

II. Standard Operating Procedures for Each Unit Process

*the following information should be developed for each SOP



a) Description of Unit Processes

- 1) Describe each unit mechanically, including each unit component and its function
- 2) Describe the flow sequence through each unit, identifying all valves, pumps or gates involved. Prescribe normal operating positions of all gates and valves (whether opened or closed). Provide a flow schematic showing valve, gate and pump locations, and employ an index system for identification.
- 3) Describe thoroughly the treatment process employed in each unit; biological, physical, chemical or combination.
- 4) Describe the relationship of each unit to adjacent units in the facility.

b) Control of Unit Processes

Describe thoroughly and in detail how each unit is to be operated and how to control the unit process. Thoroughly discuss all applicable laboratory or other process control parameters. For example, a conventional activated sludge facility may employ any or all of following parameters for controlling process: dissolved oxygen, settleable solids, suspended solids, volatile suspended solids, total solids, total volatile solids, pH, sludge volume index, sludge age, food to microorganism ratio, return activated sludge rate, and waste sludge and dictated by unit process employed. These parameters should be defined and their significance to WWTW operation or process control thoroughly discussed. This discussion should include normal operational levels or ranges and how these levels are maintained. Include discussion of problems anticipated when operational ranges are not maintained. For parameters such as food to microorganism ratio, sludge volume index, sludge age, return sludge rates, give formulas and examples for calculating respective values.

c) Common Operating and Control Problems

Discuss common operating problems such as: foaming, frothing, sludge bulking, rising sludge, ashing, shock loads, hydraulic washouts, short circuiting, insufficient oxygen, or include in this discussion the probable causes and possible remedies. Where appropriate, describe means by which the operator may visually identify certain problems; either visually or by calculated means.

d) Alternate Operational Modes

Describe, if applicable, alternative operational modes. Include flow diagrams and valve indices. Discuss any changes in unit process control that may be necessitated by the alternate mode. Describe advantages or disadvantages. Indicate situations that may dictate a change to an alternate mode. Discuss any change in treatment efficiency.



e) Emergency Operations and Failsafe Features

Describe, in detail, all applicable failsafe features or features incorporated into design, such as: warning devices, standby power, high water, flooding, and overload alarms, etc.

f) Equipment Maintenance Summary

- 1) Summarize lubrication schedules, including frequency and specific lubricant to be used for each type of equipment. It is suggested the schedule to tabular for ease of continuing use/duplication.
- 2) Recommended preventative maintenance schedules. It is suggested the schedule be tabular for ease of continuing use/duplication.

g) Safety

- 1) Keep Material Data Safety Sheets (MSDS), available and up to date. Reference location.
- 2) Discuss safety precautions: Prescribe means of preventing and/or procedures for testing for hazardous conditions, specifically toxic or explosive gas. Discuss and define "Confined Space Entry" requirements.
- 3) Prescribe first aid procedures for dealing with accidents involving personal injury or provide a first aide handbook and training.

h) Training

- 1) For those certified operators on staff, annually identify continuing education credit opportunities so that there are opportunities to keep certifications up to date.
- 2) Annually identify training needs for the upcoming year (e.g. first aid, lockout/tagout, etc.). Provide training during a time that meets all affected staffing schedules.

i) Laboratory

- 1) Develop SOPs for all analytical methods performed on-site. These SOPs should be part of the QA manual for the laboratory.
- 2) Provide updated references for all analytical methods performed on-site. These references should be taken from "Standard Methods for the Examination of Water and Wastewater".
- 3) Provide laboratory bench sheets for all analytical methods performed on-site; including calibration documentation and equipment operation logs.



III. Appendix – General Information

- a) Provide recorded engineering drawings of facilities.
- b) Provide a copy of the most current NPDES permit.
- c) Provide a list of WWTW operating references.
- d) Provide a copy of the municipality's sewer ordinance and pretreatment ordinance.
- e) Contact numbers: List emergency phone numbers and contacts for all the utilities serving the facility, including electrical, telephone, gas, water, fire, hazmat, and emergency rescue

