

**Monthly Operating Report
February, 2013
Concord Wastewater Treatment Facility
Operated by Woodard & Curran**

Date: March 18, 2013

To: Alan Cathcart, Concord Water & Sewer Superintendent
cc: Chris Whelan, Town Manager
Richard Reine, Director Concord Public Works

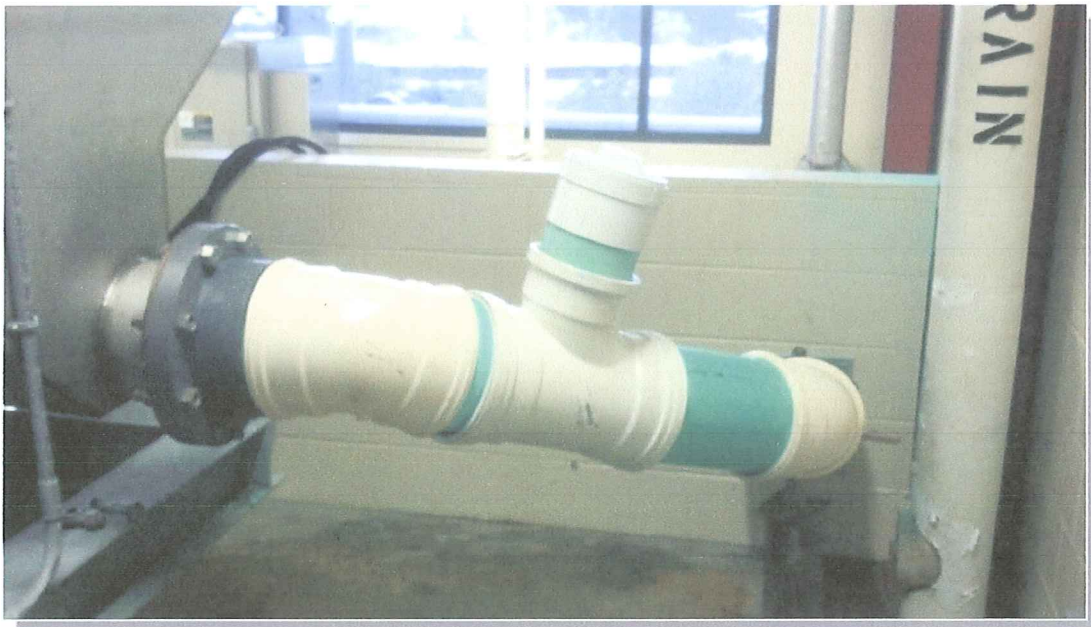
From: John Parkhurst and Staff

Key Activities This Month/Capital Program:

During February all treatment processes were either operational or in ready standby. Flow through the facility in February averaged 1.17 million gallons per day (MGD) and the permit critical 12-month average flow increased slightly to 0.94 MGD. This is the 1st month that the 12-month average flow increased and moved towards the 1.20 MGD limit for 12-month average flow.

Events that are more notable or tasks accomplished in February include:

February 27th, 2013: Concord Public Works and staff installed a new discharge pipe on the rotary drum thickener for smoother flow to avoid back-ups.



New discharge pipe on plant rotary drum thickener.

February '13 WWTF MOR

Health and Safety Activities or Training:

During February, all plant staff participated in a 30 minute on site safety meeting on “Complacency”.

Maintenance Management

The following is a brief list of a portion of maintenance items completed in February:

February 2nd, 2013: Staff reset obsolete chlorine alarm as a power loss alarm in the brick building that use to be the chlorine building.

February 7th, 2013: Staff replaced an air-line for the U.V. system.

February 8th, 2013: Snow removal.

February 10th, 2013: Power outage.

February 12th, 2013: Staff calibrated the online pH probes.

February 12th, 2013: Staff replaced U.V. bulbs and piston in Bank B.

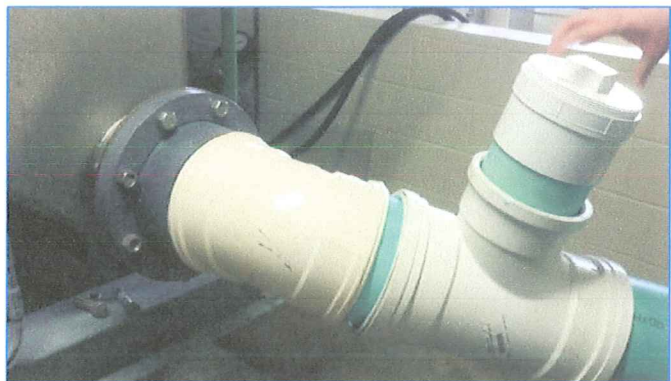
February 14th, 2013: Concord Municipal Light working on running fiber optic lines down to the plant for town internet connection.

February 17th, 2013: Power outage.

February 19th, 2013: Staff received a new tote of polymer for the CoMag system. Once, online we began to lose control of the turbidity and flocculation in the reaction tanks. It was later determined that the chemical company did not send the correct polymer thus giving us the drastic change in performance. During this time we hand dosed with granulated polymer throughout the night until a 55gal drum was received the following day to supply us with the correct polymer till a new tote of “good” polymer was delivered. During this time there were no compliance violations.

February 20th, 2013: Staff cleaned the entire polymer system for the CoMag treatment process.

February 27th, 2013: Concord Public Works and staff installed a new discharge pipe on the rotary drum thickener for smoother flow to avoid back-ups.



February '13 WWTF MOR

Environmental Compliance

Parameter	Monthly Avg.	Permit Limit	Notes
Flow, MGD	0.94 MGD (12-month avg.)	1.2 MGD	February avg. = 1.17 MGD Max. Daily Flow = 2.29 MG on Thu. 02/18
BOD5 (mg/l)	4 mg/l	30 mg/l	98% average BOD removal in February
TSS (mg/l)	7 mg/l	30 mg/l	97% average TSS removal in February
Coliform, Geo.Mean #/100ml	1 cfu*/100ml	200 cfu/100ml	6 f-coliform counts daily max on Thur. 02/07
Phosphorus	0.4 mg/l	1.0 mg/l Nov '12– Mar '13	0.6 mg/l daily max. occurred on Tues. 02/19
Total Ammonia Nitrogen	1.10 mg/l	Report Only	1.60 mg/l daily max. on Mon. 02/04

*cfu = coliform forming unit or colony.

During February, the Concord WWTP performed continuous two-stage total phosphorus (TP) removal using aluminum sulfate. First stage chemical TP treatment occurred in the secondary clarifiers and second stage TP treatment took place within the CoMag® advanced treatment process. The monthly average effluent TP concentration in February is 0.4mg/l, thereby meeting the CWWTP's winter permit limit not to exceed 1.0 mg/l TP as a monthly average.

Additionally, during February all effluent disinfection was performed using ultra violet light.

Alarm Activity

This section provides the Town information on events that activate the facility's alarm response system. The events occur while the plant is unmanned and while both the plant's SCADA system and The *Lexington Alarm* are monitoring the facility's alarm system. This report identifies alarm activity from the start of the calendar year to the present.

Concord WWTF Off-Hours Alarm Log

Date	Time	Alarm Source	Observations/Corrective Action/Comments
Mar. '12	NA	NA	No off hours alarms in March.
Apr. 29, '12	10:30 am	Numerous	A very brief loss of utility power lead to a number of motor faults that required reset by an onsite operator who was performing weekend (Sat.) rounds.
May '12	NA	NA	No off hours alarms in May.
Jun. 17, '12	8:30 PM	Numerous	Plant water alarm came in. Plant staff cleaned intake screens and reset system. (All OK)
Jul. 28, '12	8:00 AM	Numerous	A very brief loss of utility power lead to a number of motor faults that required reset by an onsite operator who was performing weekend (Sat.) rounds.
Aug. 5, '12	8:00 AM	Numerous	Corridor motion detectors triggered nuisance alarms. Staff reset alarm - so far so good.
Sept. 9, '12	8:00 AM	Numerous	Intrusion alarm clarifier room south motion sensor- no apparent reason other than windy outside.

February '13 WWTF MOR

Oct. 29, '12	5:45 PM	Numerous	A loss of utility power lead to a number of motor faults that required reset by an onsite operator who was performing Hurricane Sandy coverage.
Nov '12	NA	NA	No off hours alarms in November.
Dec '12	NA	NA	No off hours alarms in December.
Jan 30, '13	6:56 PM	Numerous	Plant water alarm due to break in the plant water feed line in the brick building by the effluent parshall flume.
Feb 10/17 '13	7:00PM	Numerous	A loss of utility power lead to a number of motor faults that require to be reset by an on-call operator.

Septage Receiving

The Concord WWTF receives septage only from in-Town sources. A total of 35,750 gallons of septage received at the Concord WWTF in February.

WWTF Septage Receipts in gallons:

	2013	2012	2011
January	27,500	56,000	44,050
February	35,700	34,000	31,750
March		83,000	102,950
April		111,500	139,750
May		110,250	113,500
June		112,750	130,000
July		137,750	73,750
August		71,000	69,500
September		84,250	98,750
October		124,150	82,250
November		111,700	90,250
December		93,500	117,250
Annual Totals:	65,000	1,129,850	1,093,500

Sludge Production

During February, 82,650 gallons of liquid sludge, equivalent to 17.31 dry tons, transported to Upper Blackstone Water Pollution Abatement District (UBWPAD) in Millbury, Massachusetts.

	WWTF Sludge Production in gallons /dry tons		
	2013	2012	2011
January	109,811/22.44	112,896/17.12	98,309/16.78
February	82,650/17.31	62,183/11.1	72,916/13.5
March		99,452/13.71	72,617/13.89
April		97,796/11.75	81,000/14.90
May		107,500/16.66	108,000/27.85
June		116,530/18.53	108,000/19.67
July		116,141/22.36	106,060/17.69
August		113,340/18.71	135,224/18.83
September		104,302/18.64	108,008/15.10
October		123,425/20.70	141,003/23.05
November		80,786/14.44	114,905/20.28
December		80,804/16.58	105,573/18.56
Annual Totals:	192,461/39.75	1,214,155/200.34	1,251,615/205.18