

Exhibit 8

Sanitary District of Decatur

501 DIPPER LANE • DECATUR, ILLINOIS 62522 • 217/422-6931 • FAX: 217/423-8171

Exhibit 8

December 29, 2008

Illinois Environmental Protection Agency
Attn.: Michael S. Garretson
Bureau of Water Compliance Assurance Section, MC #19
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

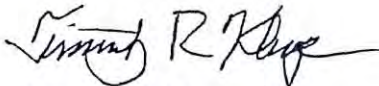
Re: NPDES Permit IL0028321
Compliance Schedule Interim Report

Dear Mr. Garretson:

Enclosed is the Interim Report regarding compliance with nickel and zinc limits required by Special Condition 18 of the Sanitary District of Decatur's NPDES Permit.

Please contact me at 422-6931 ext. 214 or at timk@sdd.dst.il.us if you have any questions regarding this report.

Sincerely,



Timothy R. Kluge, P.E.
Technical Director

cc: Bob Mosher, DWPC Standards
Rick Pinneo, DWPC Permits
Joe Koronkowski, Champaign Region

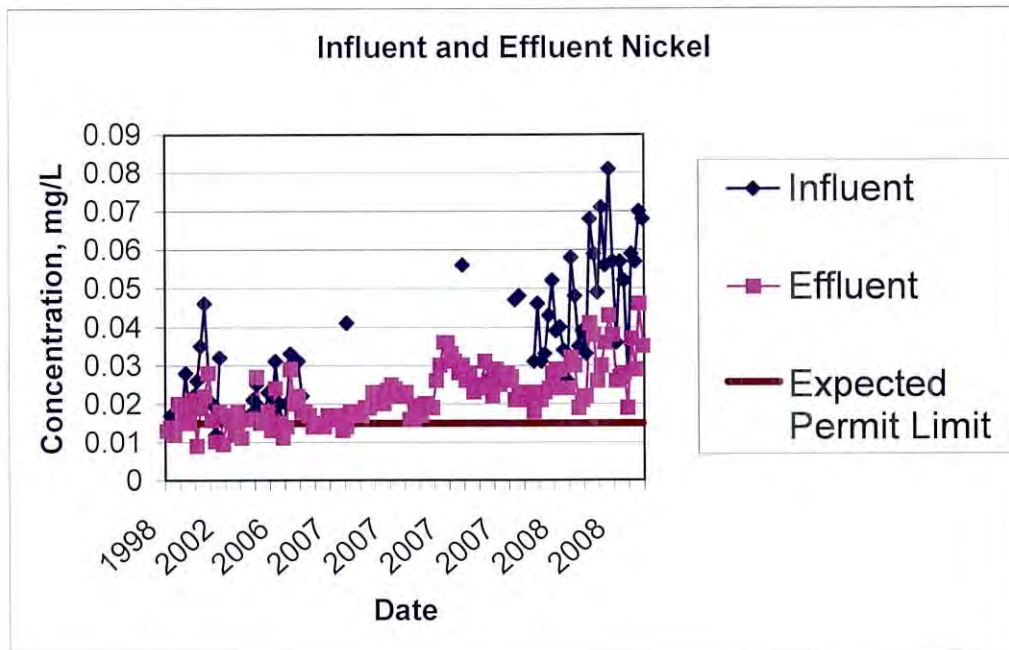
**Sanitary District of Decatur
Nickel and Zinc Limits
December 2008 Interim Report**

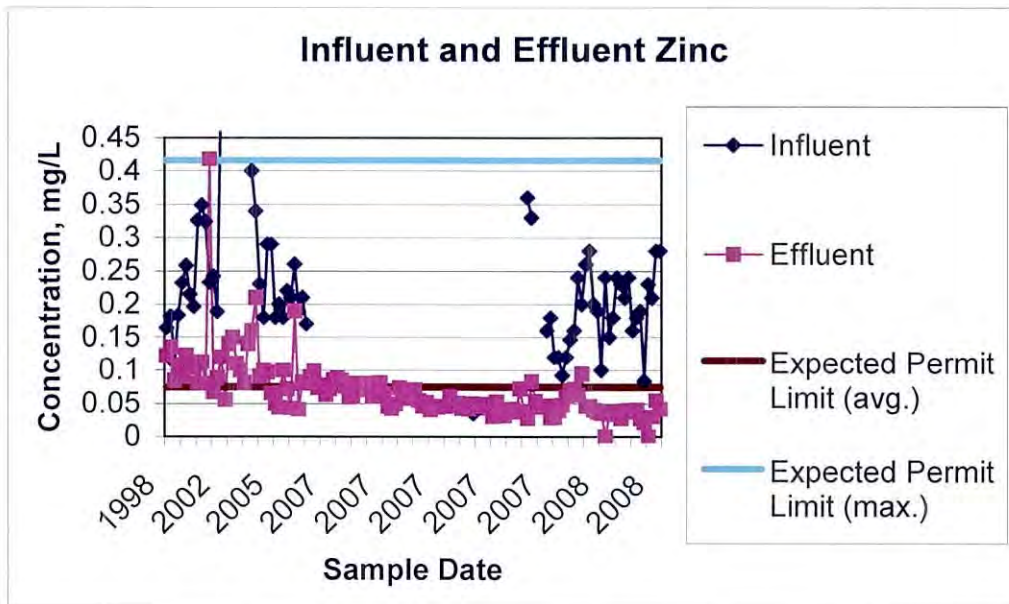
The reissued NPDES permit for the Sanitary District of Decatur that became effective July 1, 2007 contains new limits for nickel and zinc and a two-year compliance schedule for meeting the limits. Special Condition 18 requires that an interim progress report be submitted to Illinois EPA by January 1, 2009. A summary of information gathered and activities since the July 1, 2008 report is provided below.

Plant Influent and Effluent Sampling

Nickel and zinc have been included in quarterly plant influent and effluent sampling for many years. During 2007, effluent sampling frequency increased to twice weekly as part of the translator study. Ongoing influent and effluent sampling for nickel and zinc is planned to continue at a frequency of twice monthly. The District will begin performing metals analysis in-house in early 2009.

An updated summary of influent and effluent values is shown below. Review of past data shows that the plant discharge would not be able to consistently meet the expected nickel limit calculated on a hardness of 359 mg/L (per 1/2/08 email from Scott Twait of Illinois EPA). Recent zinc concentrations appear to be below the expected limit.





Industrial Source Sampling

Analyses for metals including nickel and zinc have been performed semi-annually as part of the District's industrial pretreatment program. Sampling of the major industries (ADM and Tate & Lyle) has been increased to monthly and other industries discharging metals are now sampled quarterly.

Receiving Stream Sampling

Upstream and downstream sampling at the locations described in the translator study will be continued at a twice monthly frequency to provide a more complete picture of nickel and zinc in the Sangamon River.

Chronic WET Testing

Chronic toxicity tests were conducted in July and September 2007. An additional chronic toxicity test using EDTA to chelate metals in the samples was conducted in December 2007. The EDTA treated tests showed more chronic toxicity than the untreated effluent, which the laboratory attributed to the possibility that EDTA itself was causing toxicity. Results of the toxicity testing have been reviewed by Illinois EPA personnel.

Industrial Source Investigations

Tentative pretreatment local limits have been calculated based on the expected permit limits for nickel and zinc. The District's two major industrial users have been made aware of the tentative limits. During 2008, three formal meetings have been held with ADM personnel and one with Tate & Lyle; inspections and other contacts with each during the year also included discussion of nickel and zinc issues. Both industries

formerly utilized zinc as part of their cooling tower treatment programs, and both have eliminated or greatly reduced zinc in their towers. At this time, both industries are meeting the expected zinc pretreatment limit. ADM is continuing to investigate the possible impact of the zinc limit on their planned wasting of solids from the pretreatment system to the District.

ADM is by far the most significant industrial source of nickel. While it is primarily used as a catalyst in hydrogenation processes, investigations have found that even very small amounts that exist in other plant waste streams become important when pretreatment limits are very low. Incoming grain and sodium hydroxide used in the plant contain small but significant amounts of nickel. Production swings and changes in product mix present sampling challenges. A summary of ADM's investigations and findings to date is attached. A meeting with ADM early in January 2009 is planned to further review their investigations and plans for compliance.

Several other industrial users would also be impacted by reduced pretreatment limits for nickel and zinc. While their concentrations are a concern, they discharge a very small volume of wastewater relative to the two large users and have an insignificant impact on concentrations in the plant influent. Use of mass rather than concentration pretreatment limits is being considered for these small users.

Water Quality Standard Investigations

The year 2008 was unusually wet, and did not present the opportunity to gather additional data related to a translator for nickel and zinc under critical low flow conditions. Following consultation with Illinois EPA, the District is continuing to investigate approaches to a water quality standard adjustment including the biotic ligand model and the water effect ratio approach. An initial contact has been made with a consultant that seems to be very familiar with these approaches, and information is being gathered to evaluate their possible application. In addition, the District has begun to consider what information might be needed to justify a standard based on a different level of water quality protection, as allowed for by state and federal regulations.

Compliance Plan

During the next reporting period, the District will continue to work toward compliance with final nickel and zinc limitations by means of the following activities:

1. Request a modification of the District's NPDES permit extending the compliance schedule for meeting the nickel and zinc limits. In spite of ongoing investigations by the District and ADM, it appears that the current nickel limit cannot be achieved without changes to treatment processes, operations (in particular, operations at industrial users), a site-specific adjustment of the water quality standard, or some combination of these three actions.

2. Continued effluent and stream monitoring to determine whether further adjustment of NPDES permit limits may be justified.
3. Finalization of local pretreatment limits for nickel and zinc, and ongoing discussions with industrial users regarding pollution prevention or control measures to enable reductions of nickel and zinc.
4. Ongoing review and analysis of technical information that would be needed to support a site-specific water quality standard. This information includes both biological and toxicity data related to the standard, and economic data that would also be required for a legal proceeding.

The next report will be submitted by July 1, 2009 as required by our NPDES permit.

CURRENT ADM DECATUR COMPLEX BALANCE - 11/2008
 Electronic Filing: Received, Clerk's Office 11/30/2017

	<u>Lbs / day</u>	<u>MGD</u>	<u>ppm Ni</u>	<u>lbs Ni / day</u>	<u>ppm Zn</u>	<u>lbs Zn / day</u>	<u>% of Ni from Grain</u>	<u>Ni from Grain, Lbs / day</u>	
IN	ALL Water into Complex		18.5	0		0			
	50% Sodium Hydroxide	215,000		1.7	0.4				
	ALL Grains into Complex	36,500,000		57		1300			
TO ADM WWTP	Corn Plant		5.1	0.040	1.70	0.40	16.9	50%	0.85
	East Plant		2.5	0.20	4.15	0.80	16.6	100%	4.15
	Biochem		1.65	0.030	0.41	0.30	4.1	100%	0.41
	West Plant		0.9	0.090	0.67	0.40	3.0	0%	0
	TOTAL to ADM WWTP				6.9		40.6		5.4
EFFLUENT	Clarifier Carryover - Bugs	35,000		100	3.5	800	28.0		
	Effluent, Soluble Portion		9.3	0.091	7.0	0.11	8.5		
	C. Twr Blowdown Residual		2.7	0.020	0.45	0.15	3.4		
	FINAL EFFLUENT to SDD	35,000	12.0	0.11	11.0	0.40	39.8		
SDD Avg Limit (Proposed)			0.0365	3.588	0.352	34.605			

These numbers represent our best estimates of the current balance however these numbers may not take into account various factors including:

- | | |
|-------------------------------------|---|
| Storm Water | Future Soy Expansion |
| Glycol Plant Start-up (Ni Catalyst) | 50% NaOH contains nickel & Soda Ash availability |
| Complex Variability: | Future In-plant Water Re-use efforts, reduced Effluent flow |
| --- Fructose Production swings | |
| --- New Ion Exchange product, Feb09 | |
| --- Changes in IX / Non-IX balance | |

A

SOURCES

	ppm Nickel <u>Dry Basis</u>	ppm Zinc <u>Dry Basis</u>	<u>Bushels / day</u>	<u>Lbs Dry Grain / day</u>	<u>Lbs Nickel / day</u>	<u>Lbs Zinc / day</u>
Corn:	0.53	32	550,000	26,026,000	14	833
Soybeans:	4.1	46	200,000	10,440,000	43	480
TOTAL with GRAIN				36,466,000	57	1,313
Effluent, Lbs / day Max @ 12 MGD					3.6	34.6

Additional Nickel & Zinc Sources:

- Nickel Catalysts used at Corn and West Plants.
- Residual nickel & zinc at Corn Plant Towers, residual zinc at Bio Products Towers.

B

THESE STREAMS ARE OK

<u>Co-gen:</u>	Boiler Blowdown RO Reject water IX Waste Neutralization #6 Cooling Tower
<u>East Plant:</u>	Refinery (low salt)
<u>Biochem:</u>	Bio Condensate (low salt) Cooling Tower Blowdowns
<u>Corn Plant:</u>	Mill Hotwell condensate Feed Scrubber discharge Waste Heat condensate Alcohol waste Cooling Tower Blowdowns
<u>West Plant:</u>	Greasy Tower Split Box Car Washer (?) Bean & Germ Plant Split Boxes SFI

<u>Co-gen:</u>	None	
<u>East Plant:</u>	8" & 12" Isolate (high salt) 0.2 to 0.3 ppm Ni and 1 ppm Zn.	
<u>Biochem:</u>	Biochem Waste (high salt) Nickel at 0.02 - 0.04ppm. Zinc in 0.3 - 0.6 ppm range.	
<u>Corn Plant:</u>	Refinery Fructose & Sorbitol IX regen waste High Ni and Zn, varies with batch IX operation Average Ni is 0.15ppm and zinc is 0.14 ppm	
<u>West Plant:</u>	24 hour composite at Corn Plant Periods of high Ni and Zn.	1st DAF, 2nd DAF and Primary Skimmer Periods of high nickel.
	Packaging Plant Zinc excursions > 1ppm.	SSL waste Zinc excursions > 1ppm.
	Vitamin E Nickel as high as 0.2 ppm.	Storm Water Nickel excursions > 0.1ppm.

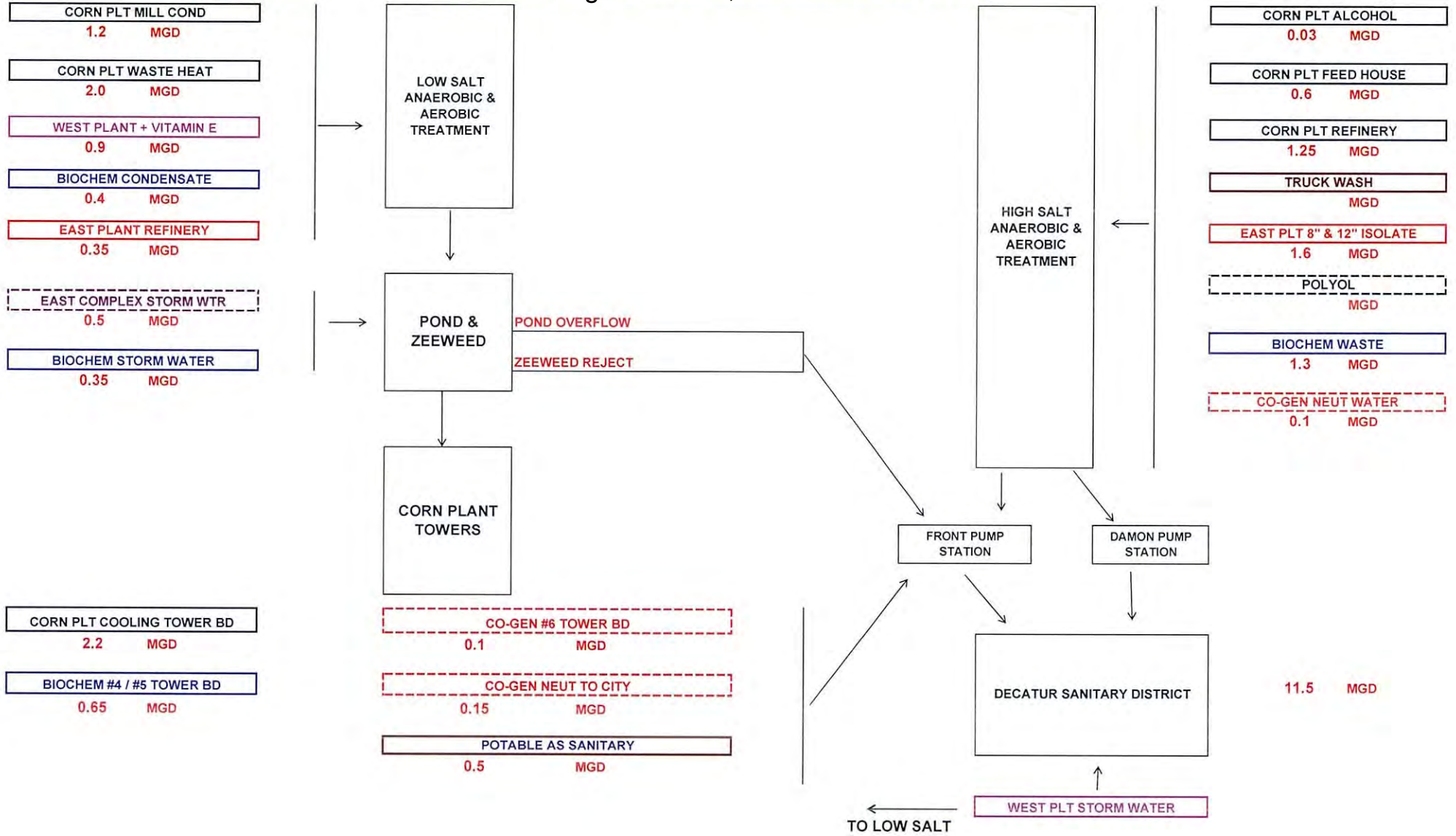
- 2006-2007**
- ▶ Investigated nickel recovery by electroplating...cost savings.
- Jan-08**
- ▶ New SDD specs on nickel and zinc: 0.17 to 0.037ppm Ni and 0.45ppm Zn.
 - ▶ Effluent was 0.06 to 0.10 ppm Ni at that time.
 - ▶ Nickel found in West Plant stream & CP Cooling Towers.
- Mar - Apr 2008**
- ▶ Hired nickel consultant at Corn Plant.
 - ▶ Ran West Plant High Salt trial.
- May-08**
- ▶ Met with SDD representatives.
 - ▶ Began sampling program throughout Corn Plant & Sewer Plant.
 - ▶ Ceased all zinc addition to Cooling Towers.
 - ▶ West Plant in-process sampling began.
 - ▶ Identified zinc analysis issues.
- June - July 2008**
- ▶ Opened dialog with nickel catalyst supplier.
 - ▶ Nickel precipitation problems surfaced...nickel-gluconate complex.
 - ▶ Hydrogenation pH looked at again.
 - ▶ SDD changed testing basis.
- Aug-08**
- ▶ Widened scope of sampling.
 - ▶ Began sharing samples with EPA lab.
 - ▶ Streams of interest confirmed by EPA lab.
 - ▶ Pursuing nickel-gluconate oxidation.
 - ▶ Sought participation by ADM Research & GE Betz
- Sept - Nov 2008**
- ▶ Turned Complex-wide sampling over to individual plants.
 - ▶ Each plant responsible for determining reduction methods.
 - ▶ Determined degree of Sludge nickel and zinc levels.
 - ▶ Learned of lower nickel limit...3.7 lbs / day to 2.3 lbs / day.
 - ▶ Began calculations on effect of Sludge wasting on effluent nickel & zinc.
 - ▶ Ran bench and plant trials on nickel removal methods at Corn Plant.
 - ▶ Determined approx % reduction necessary at each plant to reach nickel limit.
 - ▶ Chemistry change on #4 Tower lowered zinc ppm to <0.5 ppm.

- ▶ Incoming Water (SWTP, NWTP and Well Water) not an issue.
- ▶ Zinc analysis had issues through mid-summer 2008.
- ▶ ADM ICP method will under-report nickel vs. EPA lab --- use multiplier.
- ▶ Both nickel & zinc will bleed from Cooling Tower systems.
- ▶ Streams with significant zinc-containing suspended solids are very difficult to filter.
- ▶ Nickel reclamation via electroplating has many issues in facilities of our kind.
Chelating IX resins are not food grade. Expect high Acid / Base usage for any IX system.
Nickel will precipitate at ~9.5 - 10.5 pH if it is not complexed with organic material.
Organic matter can be oxidized with ozone and H₂O₂ to allow nickel precipitation. Very high ozone usage.
- ▶ In some plants, there are intermittent processes & discharges which complicate discovery of sources.
- ▶ Short-term, select streams can be sent to a Co-product, given FDA and quality compliance.
- ▶ Zinc can be brought under the limit by wasting sludge by removal from the effluent.
Clarifier operation will be critical and may require additional drying equipment with significant capital expenditure.
- ▶ If all Corn Plant acid IX waste is treated, approx 2.5MM lbs of 35% HCl per month must be raised to 10pH.
- ▶ Soy-based operation will need to find a feed / fertilizer outlet to reduce nickel & zinc.
- ▶ Oil refining operation believes that moving the entire catalyst handling system may significantly reduce nickel.

2008

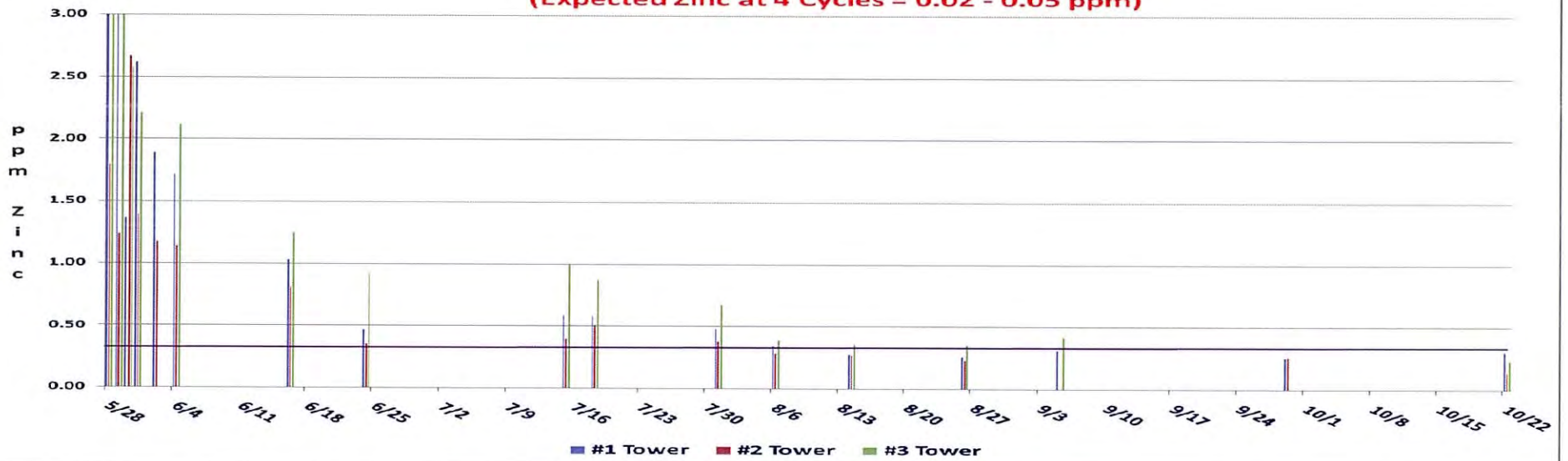
BASIC WASTE WATER TREATMENT LAYOUT

Electronic Filing: Received, Clerk's Office 11/30/2017

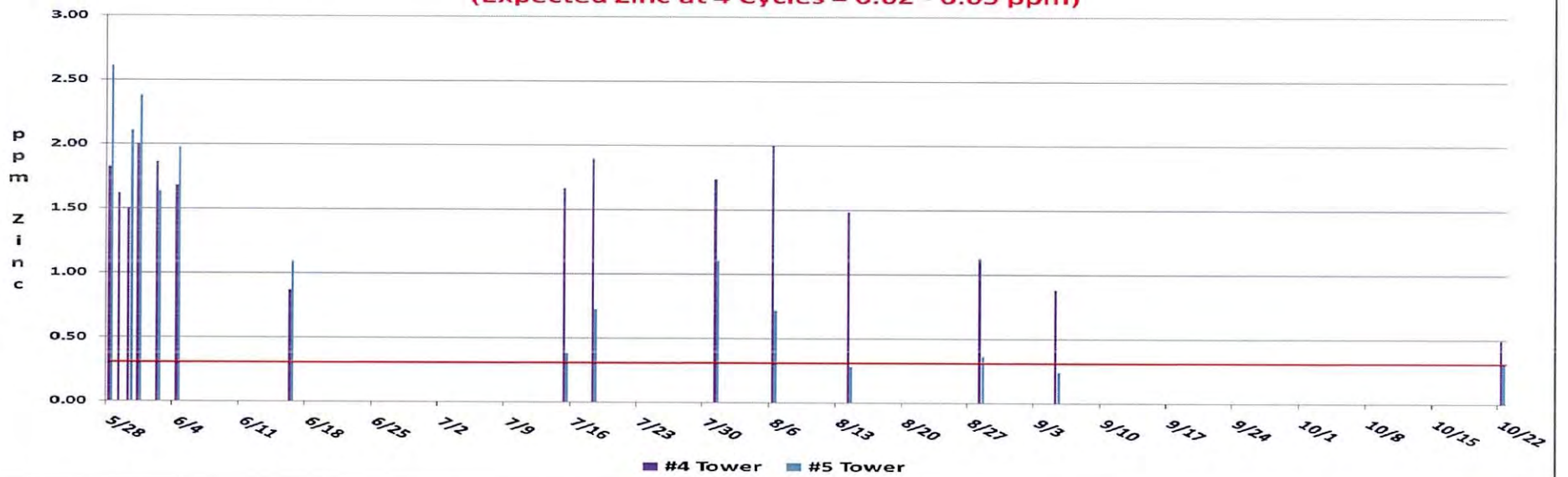


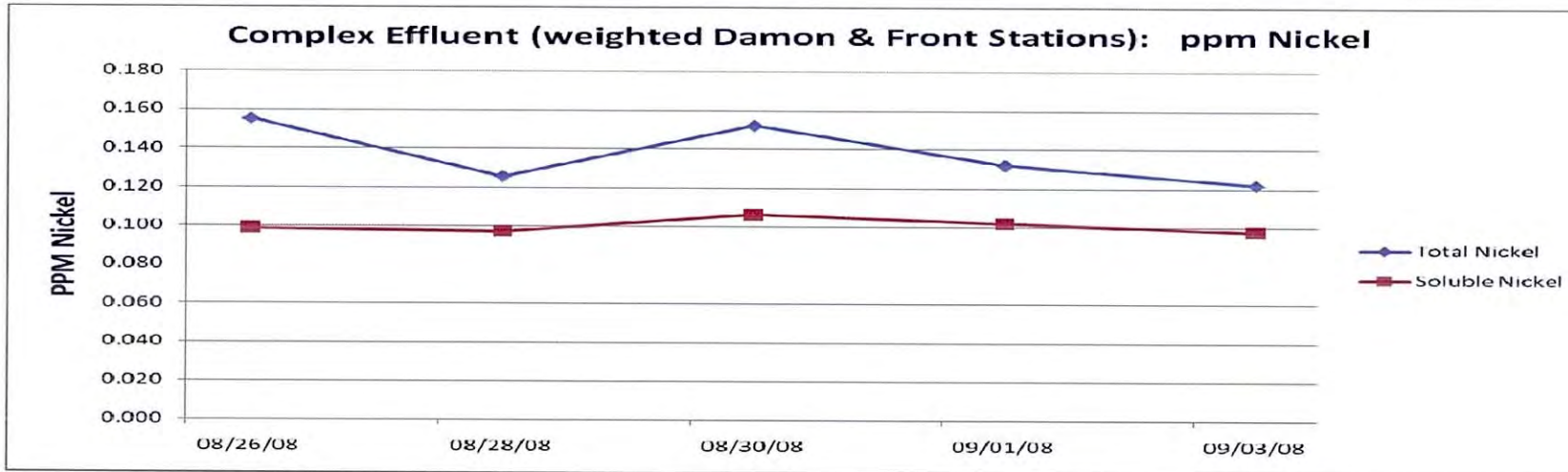
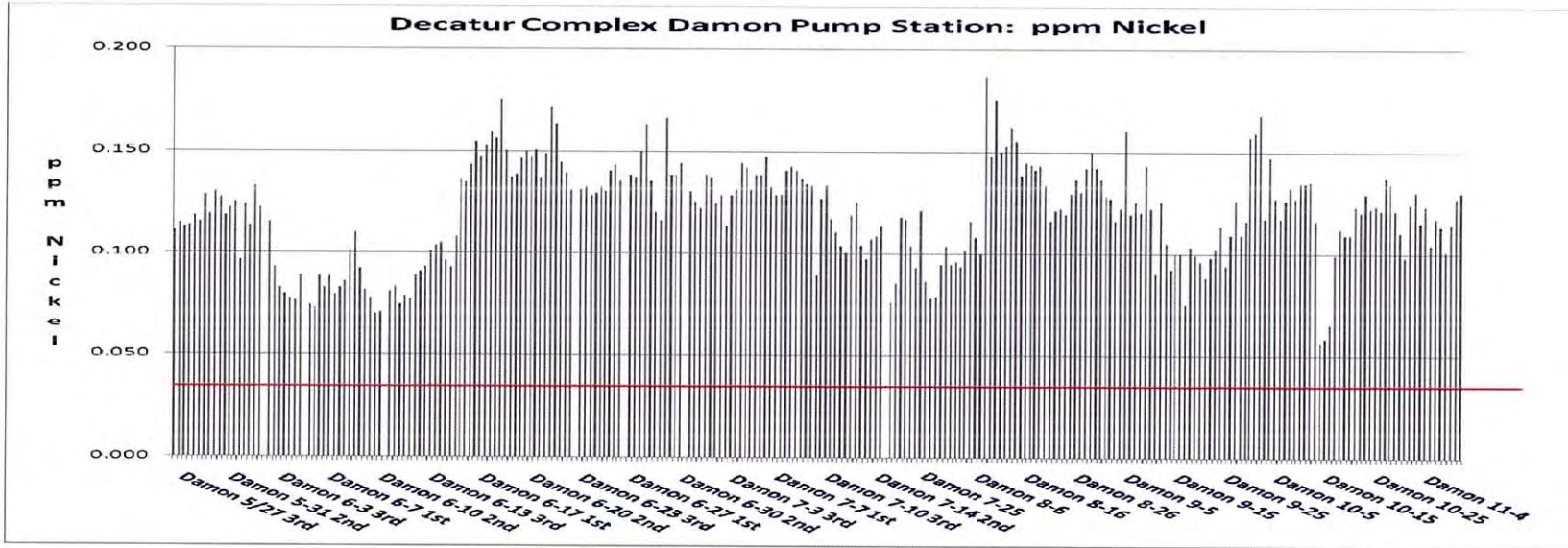
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Corn Plant Tower Samples: Zinc Shut Off on 5/28
(Expected Zinc at 4 Cycles = 0.02 - 0.05 ppm)



Biochem Tower Samples: Zinc Shut Off on 5/28
(Expected Zinc at 4 Cycles = 0.02 - 0.05 ppm)





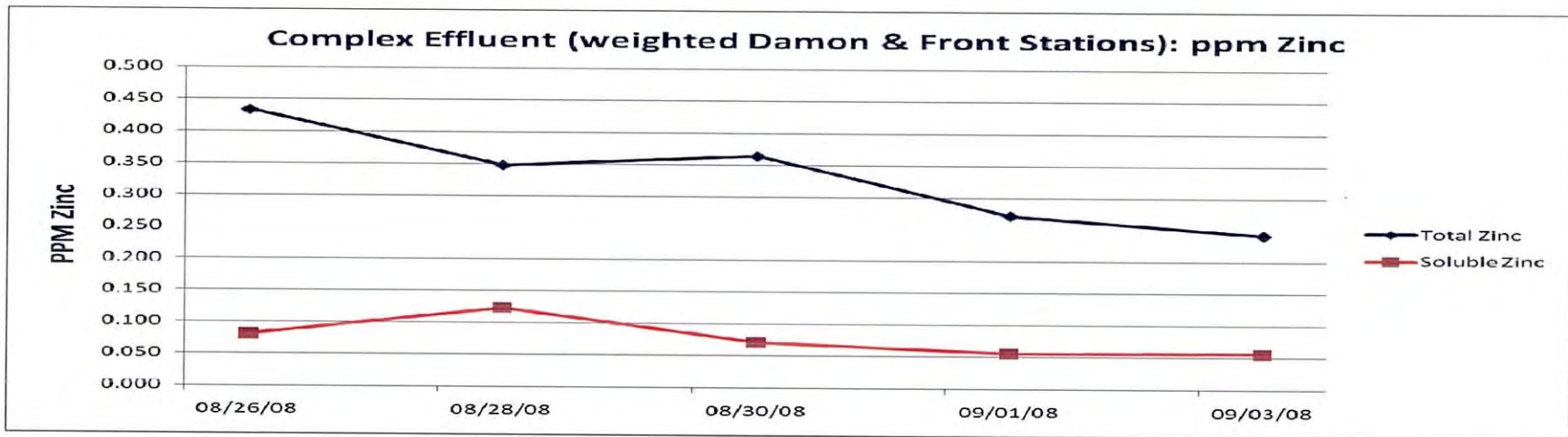
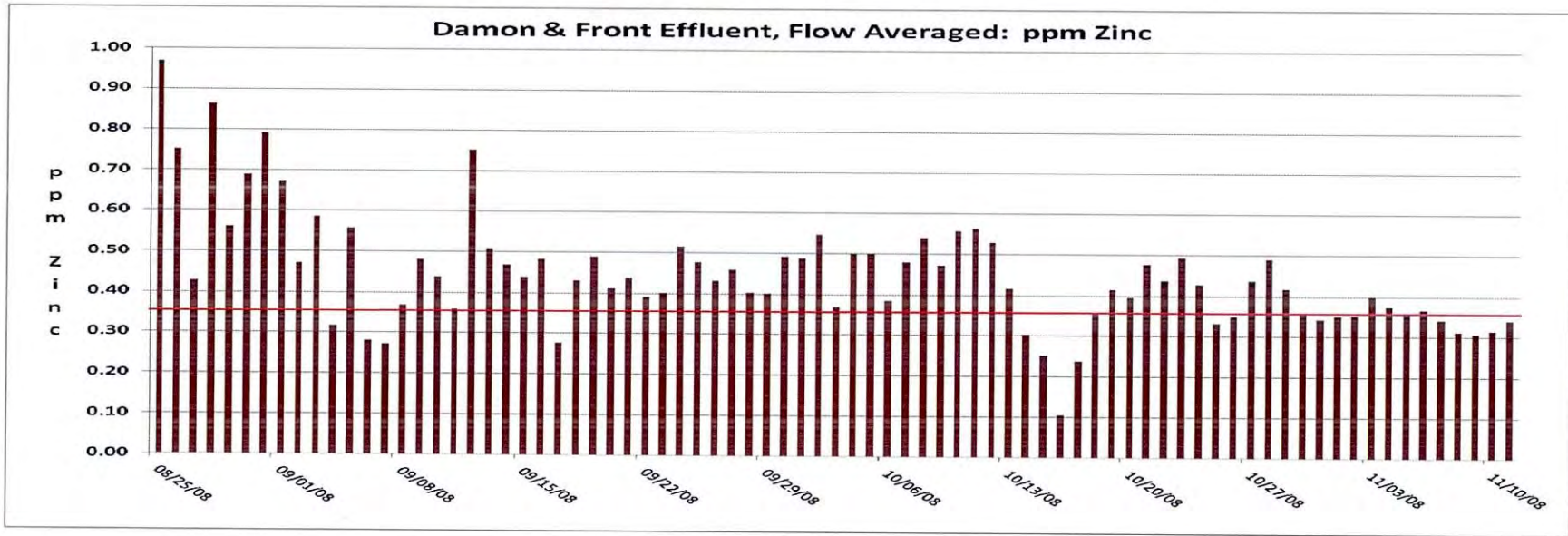


Exhibit 9

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Exhibit 9

December 30, 2009

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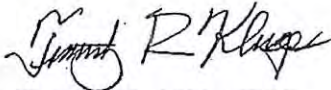
Re: NPDES Permit IL0028321
Compliance Schedule Interim Report

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Please contact me at 422-6931 ext. 214 or at timk@sdd.dst.il.us if you have any questions regarding this report.

Sincerely,



Timothy R. Kluge, P.E.
Technical Director

cc: Bob Mosher, DWPC Standards
Rick Pinneo, DWPC Permits
Joe Koronkowski, Champaign Region

**Sanitary District of Decatur
Nickel and Zinc Limits
December 2009 Interim Report**

The modified NPDES permit for the Sanitary District of Decatur that became effective July 1, 2009 contains limits for nickel and zinc and a one-year compliance schedule extension for meeting the limits. Special Condition 17 requires that an interim progress report be submitted to Illinois EPA by January 1, 2010. A summary of information gathered and activities since the previous report is provided below.

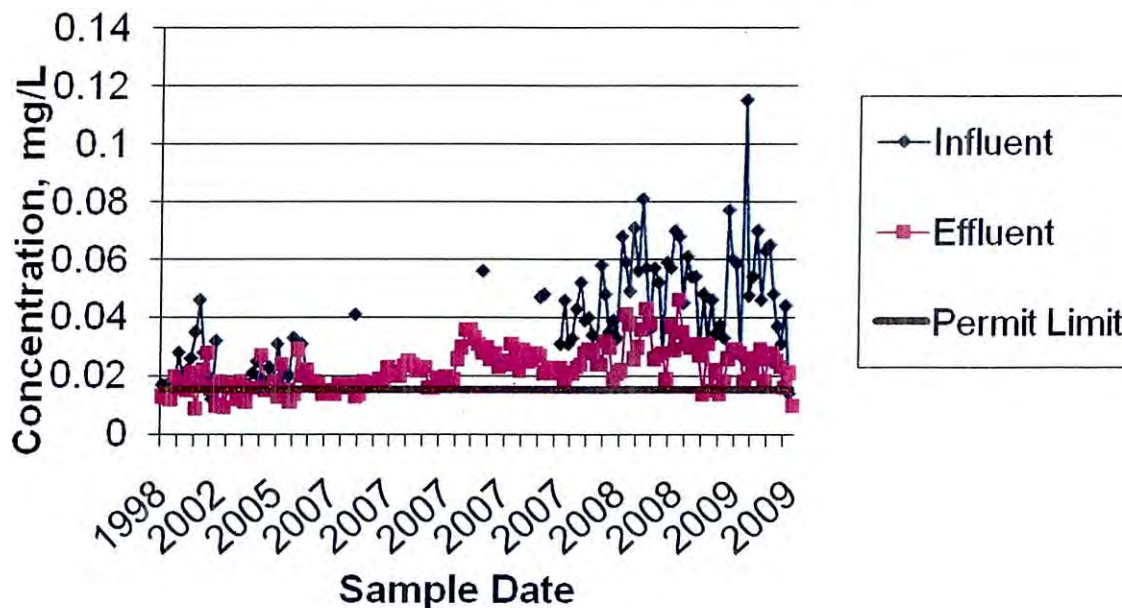
On June 15, 2009 the District submitted a variance petition to the Pollution Control Board requesting additional time to comply with final permit limits. The Board's decision deadline for the variance petition is January 7, 2010.

Plant Influent and Effluent Sampling

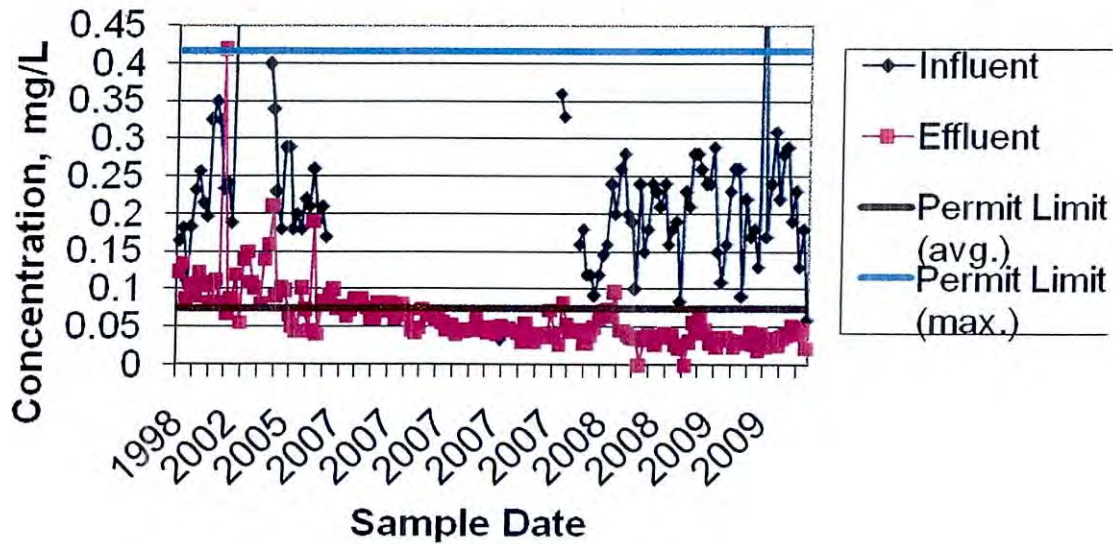
Nickel and zinc have been included in quarterly plant influent and effluent sampling for many years. Ongoing influent and effluent sampling for nickel and zinc continues at a frequency of twice monthly. The District began performing metals analysis in-house in early 2009.

An updated summary of influent and effluent values is shown below. Review of past data shows that the plant discharge is not able to consistently meet the current nickel permit limit. Recent zinc concentrations appear to be below the permit limit.

Influent and Effluent Nickel



Influent and Effluent Zinc



Industrial Source Sampling

Sampling of the major industries (ADM and Tate & Lyle) for metals has been increased to twice monthly and other industries discharging metals are now sampled quarterly. A week-long special nickel and zinc sampling study, including the major industries and the treatment plant, was conducted the last week of September 2009.

Receiving Stream Sampling

Upstream and downstream sampling continues at a twice monthly frequency to provide a more complete picture of nickel and zinc in the Sangamon River. While the Wyckles Road sampling site is not accessible until next summer because of bridge construction, three additional river sampling sites closer to the treatment plant outfall are being sampled. These locations are approximately 100 yards, 600 yards, and 1000 yards (Rock Springs Bicycle Trail bridge) downstream of the District's outfall.

Industrial Source Investigations

Pretreatment local limits have been calculated based on the current permit limits for nickel and zinc, and the District's Board of Trustees adopted the new limits on October 21, 2009. The District's operating permit issued to ADM was modified on November 18, 2009 to reflect the new limits and provide a compliance schedule for meeting the limits. During 2009, six formal meetings have been held with ADM personnel and three with Tate & Lyle; inspections and other contacts with each during the year also included discussion of nickel and zinc issues. Both industries formerly utilized zinc as part of their cooling tower treatment programs, and both have eliminated or greatly reduced zinc in their towers. At this time, both industries are meeting the zinc pretreatment limit. ADM

is continuing to investigate the possible impact of the zinc limit on their planned wasting of solids from their pretreatment system to the District's collection system.

The discharge from ADM is by far the most significant industrial source of nickel. Investigations conducted by ADM are summarized in the District's June 15, 2009 variance petition (pages 22-31) and further in the District's September 30, 2009 response to the Agency's variance recommendation (pages 4-7). ADM has been very active in seeking treatment technology for nickel removal, involving plant management and research department personnel in addition to environmental compliance and legal staff. The District's pretreatment permit requires semi-annual reports of ADM's investigations, and a copy of the most recent report is attached.

Water Quality Standard Investigations

The District is continuing to investigate approaches to a water quality standard adjustment including the biotic ligand model and use of the water effect ratio. The District recently contracted with HydroQual, Inc. (Dr. Robert Santore) in Syracuse, New York to conduct an evaluation of the applicability of these approaches based on available data. The scope of work includes the following:

1. Obtain water quality data from the District to assemble or estimate appropriate BLM inputs in order to calculate Ni bioavailability in the receiving waters;
2. Run the BLM using those data to predict Ni bioavailability to sensitive aquatic organisms;
3. Summarize those results and the calibration of the BLM from other data from the literature, and
4. Based on those results, advise the District of the relative merits of pursuing bioavailability modeling.

In addition, the District continues to consider what information might be needed to justify a standard based on a different level of water quality protection, consistent with state and federal regulations.

Compliance Plan

A proposed compliance plan and schedule was included in the District's June 15, 2009 variance petition. Subject to the Board's decision on the variance petition, the District's plan and schedule are as follows:

1. The District will continue plant influent and effluent monitoring for nickel and zinc, along with monitoring upstream and downstream of the discharge in the Sangamon River. Currently, monitoring for nickel and zinc are performed twice monthly. Downstream monitoring has recently been modified to include four locations in the

Sangamon River rather than the one location monitored since 2007. The District has recently acquired an instrument to perform metals analyses in-house, making expanded monitoring more feasible.

2. Industrial monitoring for nickel and zinc, previously performed quarterly at ADM and Tate & Lyle, has been increased to twice monthly.
3. The District will continue refinement of pretreatment local limits for nickel and zinc necessary to meet its permit limits, and will continue work with ADM and Tate & Lyle on options for achieving compliance with local limits. Ongoing verification monitoring will be conducted to confirm that cooling tower treatment programs are achieving the necessary zinc reductions. The District will remain in frequent contact with ADM personnel regarding their ongoing work with identifying nickel sources and control options and will continue to meet with ADM personnel at least semiannually to exchange information.
4. The District will explore the possible development of stream flow-based compliance options. The District's discharge does not result in exceedences of the water quality standard except during very low flow conditions in the Sangamon River. A flow-based permit limit would not avoid the capital cost of equipment installed for nickel treatment, for example, but significant operating and energy cost savings could be possible if treatment equipment was only operated when justified by low river flows.
5. The District will continue investigation of updated toxicity information and possible alternatives for applying a nickel water quality standard. The District has done some preliminary investigations of possible options including a Water Effect Ratio calculation and application of a Biotic Ligand Model. Exploration of other possibilities such as a site-specific water quality standard will continue.
6. Over the course of the first two years of the variance, the District and ADM will be undertaking several parallel paths to review additional technologies and compliance strategies. The technologies ultimately used for compliance may be closely tied to the compliance strategy to ensure the most practical solution is employed. That is, technologies will be evaluated based on compliance strategies involving both individual process streams and total effluent flows. Thus, even if the treatment of an individual stream appears economically reasonable, if it will not be sufficient to achieve overall compliance, expenditures on such treatment could be wasted if ADM were required to provide treatment of the effluent flows. Thus, neither the District nor ADM will be in a position to properly evaluate the cost-effectiveness of an overall compliance strategy until all potential treatment options have been evaluated individually.
7. The following schedule is a general guide to the key tasks that must be completed to determine the compliance strategy to be implemented. The Board should note that the technologies set forth below for evaluation are all of the technologies of which the District and ADM are currently aware. Both the District and ADM will continue to

explore the potential for other technologies and developments in technologies already evaluated.

a. 2009-2010

ADM will complete technical and economic feasibility reviews for the following control technologies. The reviews will include determination of technical feasibility, capital and operating costs, reliability, and pilot testing as appropriate.

Nickel – Proprietary Precipitation Process – A wastewater treatment chemical company has evaluated process streams and has reported positive results for a metals precipitation process. Work is ongoing to determine feasibility and confirm results.

Nickel – Chemical Precipitation Process Using Carbamates or Organic Sulfides – Discussions with wastewater experts for metals have identified chemicals suited for low concentration precipitation of metals. Work is underway to complete confidentiality agreements and contracts to further evaluate. Concurrently, ADM has begun evaluation of these chemicals as provided by GE Betz Company.

Nickel – Reuse of Ion Exchange Resin – ADM currently disposes of resins from the fructose process that are no longer suitable from a quality perspective. Initial tests have indicated there is suitable capacity to provide effective nickel reductions. The difference between use of spent ion exchange resin and the ion exchange process reviewed and determined to be infeasible is that the spent resin would not be regenerated which saves significant chemical and energy costs.

Nickel and Zinc – Soybean Process Stream Alternative – ADM is considering installation of a thickening system necessary for sale of this product as a feed or fertilizer additive. Installation is dependent on funding and procurement of customers.

Nickel and Zinc – BioProducts Process Stream Alternative – ADM is reviewing options to install equipment to thicken a process stream for use as a fertilizer additive.

Nickel and Zinc – WWTP Sludge Removal System – Evaluation of options for sludge removal and management for the WWTP.

Nickel and Zinc – Reverse Osmosis – ADM has completed preliminary technical and cost evaluation for treating a portion of the effluent with reverse osmosis. Review has concluded that the technology will work to reduce both nickel and zinc. However, capital and operating costs are prohibitive based on the volume of wastewater to be treated. Continued evaluation of this option will occur in combination with other potential treatment options.

Nickel and Zinc – Sludge - Discussions are scheduled concerning a device which breaks apart WWTP organisms. The purpose would be to change the characteristics of the anaerobic sludge, stop its carryover and thus lower nickel and zinc content in the sludge to the District.

Nickel and Zinc – Sludge – ADM has been contacted by a company which has the potential to purchase all of ADM's sludge. Testing of the sludge is scheduled at the company's site. This would bring ADM into zinc compliance and close the gap on nickel compliance.

The District will complete the following tasks on a parallel track to ADM's technology reviews. The outcome of these tasks may impact the feasibility of the various options being considered and will be valuable in reviewing the ultimate feasibility of various control combinations.

Review of soluble/insoluble ratio of SIU dischargers versus the District's total discharge numbers, and determine if pretreatment limits need to be adjusted. Determine how much of the insoluble nickel and zinc entering the District's Main Plant is removed in the sludge and whether or not the pretreatment limits should be expressed as total or soluble limits.

The District will pursue variable limits based on flow with Illinois EPA and will seek permit modifications as necessary.

b. First Half of 2011

Compile various control strategies based on one or more of the feasible technologies. Develop flow diagrams depicting removal options, pros and cons, capital expenditures and operating costs.

Present findings to ADM division managers.

8. The District proposes the following time schedule for achieving compliance with permit limits for nickel and zinc:

July 1, 2010	-	Submit an interim report to Illinois EPA describing progress on each of the elements of the compliance plan above.
January 1, 2011	-	Submit interim report, as above.
July 1, 2011	-	Submit interim report, as above.
January 1, 2012	-	Submit interim report, as above.

- July 1, 2012 - Submit a final compliance plan to Illinois EPA containing nickel and zinc controls, treatment technologies, proposed permit modifications, or proposed site-specific water quality standards that will achieve compliance with permit limits.
- January 1, 2013 - Submit interim report, as above.
- July 1, 2013 - Submit interim report, as above.
- January 1, 2014 - Submit interim report, as above.
- July 1, 2014 - Achieve compliance with nickel and zinc permit limits.

The compliance plan described above will be modified as needed consistent with the Board's decision on the variance petition.

Exhibit 10

Sanitary District of Decatur

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Exhibit 10

July 1, 2010

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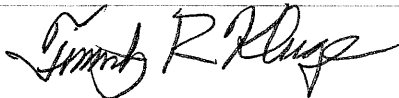
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Sincerely,



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Joe Koronkowski, Champaign Region

**Sanitary District of Decatur
Nickel and Zinc Limits
June 2010 Interim Report**

The modified NPDES permit for the Sanitary District of Decatur that became effective July 1, 2009 contains limits for nickel and zinc and a one-year compliance schedule extension for meeting the limits. Special Condition 17 requires that an interim progress report be submitted to Illinois EPA by July 1, 2010. A summary of information gathered and activities since the previous report is provided below.

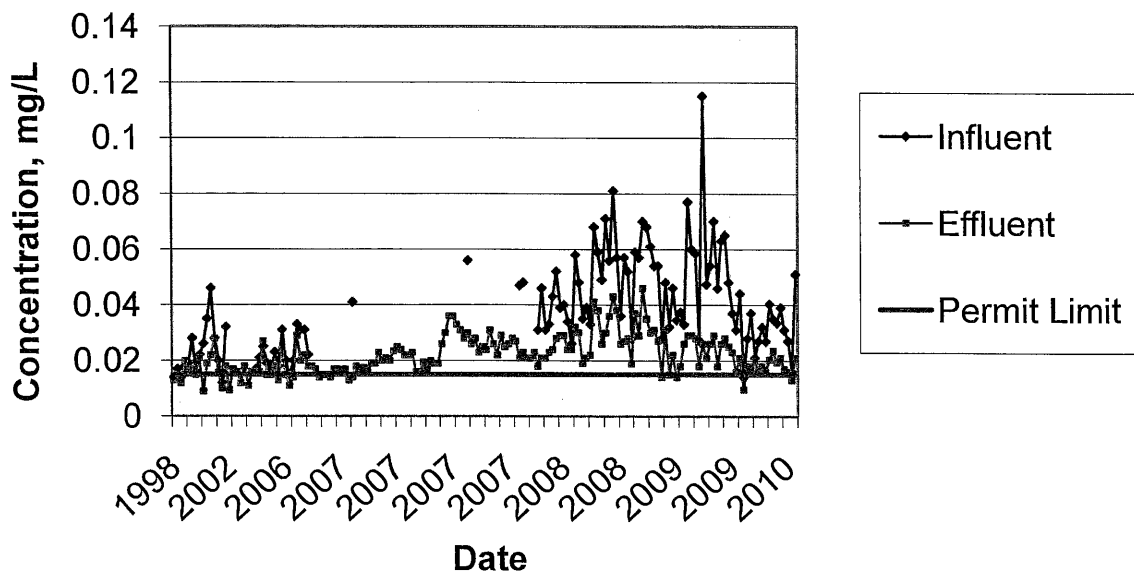
On January 7, 2010 the Illinois Pollution Control Board granted a variance to the District allowing additional time to comply with final permit limits (PCB 09-125). The final compliance date contained in the Board Order is July 1, 2014. The District's NPDES Permit has not yet been modified to incorporate the variance.

Plant Influent and Effluent Sampling

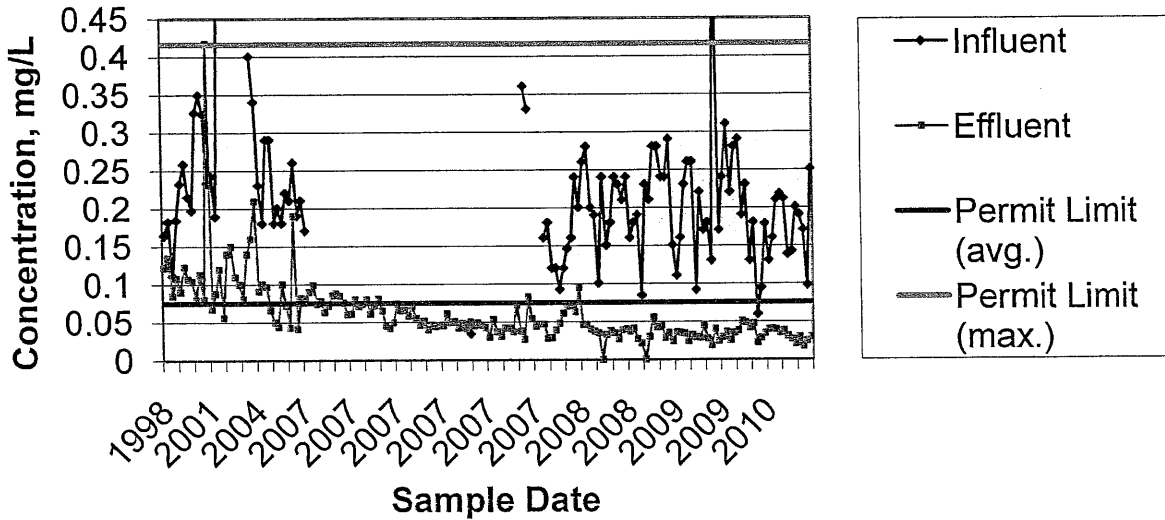
Nickel and zinc have been included in quarterly plant influent and effluent sampling for many years. Ongoing influent and effluent sampling for nickel and zinc continues at a frequency of twice monthly. The District began performing metals analysis in-house in early 2009.

An updated summary of influent and effluent values is shown below. Review of past data shows that the plant discharge is not able to consistently meet the current nickel permit limit. Recent zinc concentrations are below the permit limit.

Influent and Effluent Nickel



Influent and Effluent Zinc



Industrial Source Sampling and Investigations

Sampling of the major industries (ADM and Tate & Lyle) for metals has been increased to twice monthly and other industries discharging metals are now sampled quarterly. Sample results obtained from the major industries within the past year are attached.

Pretreatment local limits have been calculated based on the current permit limits for nickel and zinc, and the District's Board of Trustees adopted the new limits on October 21, 2009. The District's operating permit issued to ADM was modified on November 18, 2009 and again on June 17, 2010 to reflect the new limits and provide a compliance schedule for meeting the limits.

Both industries formerly utilized zinc as part of their cooling tower treatment programs, and both have eliminated or greatly reduced zinc in their towers. At this time, both industries are meeting the zinc pretreatment limit. ADM is continuing to investigate the possible impact of the zinc limit on their planned wasting of solids from their pretreatment system to the District's collection system.

The discharge from ADM is by far the most significant industrial source of nickel. Investigations conducted by ADM are summarized in the District's June 15, 2009 variance petition (pages 22-31) and further in the District's September 30, 2009 response to the Agency's variance recommendation (pages 4-7). ADM has been very active in seeking treatment technology for nickel removal, involving plant management and research department personnel in addition to environmental compliance and legal staff. The District's pretreatment permit requires semi-annual reports of ADM's investigations,

and a copy of the most recent report is attached. The District and ADM have scheduled a meeting with Illinois EPA on July 8 to review these investigations in more detail.

Receiving Stream Sampling

Upstream and downstream sampling continues at a twice monthly frequency to provide a more complete picture of nickel and zinc in the Sangamon River. While the Wyckles Road sampling site is not accessible until later this summer because of bridge construction, three additional river sampling sites closer to the treatment plant outfall are being sampled. These locations are approximately 100 yards, 600 yards, and 1000 yards (Rock Springs Bicycle Trail bridge) downstream of the District's outfall. All upstream and downstream sample results during the past year have been below the Illinois water quality standard. This period has been characterized by above-normal flows in the river.

Water Quality Standard Investigations

The District is continuing to investigate approaches to a water quality standard adjustment including the biotic ligand model and use of the water effect ratio. The District has contracted with HydroQual, Inc. (Dr. Robert Santore) in Syracuse, New York to conduct an evaluation of the applicability of these approaches based on available data. A preliminary summary of Dr. Santore's evaluation is attached. His evaluation indicates that a significantly higher site-specific nickel criterion could be justified based on bioavailability to aquatic organisms. This analysis is based on chemical data from the District's effluent, which contributes most or all of the Sangamon River flow during critical low flow conditions. Additional river sampling is planned during low flow conditions later this summer to verify stream concentrations.

Compliance Plan

A proposed compliance plan and schedule is included in the Board Order granting the District's variance. The District will continue to proceed in accordance with the schedule in the Order with efforts in three areas:

1. Continuing to work with ADM to investigate nickel removal technologies, and to determine a sludge wasting plan that will minimize zinc discharges. A summary of ADM's investigations is attached. The Order lists ten technologies that are to be investigated by December 31, 2010. Also, ADM recently reported to the District that they have done some testing and found that they should be able to dry their sludge using a centrifuge followed by a belt filter press. ADM would then be able to utilize the solids in their co-generation plant or landfill the dry solids rather than wasting to the sewer.
2. Conducting additional discussions with Illinois EPA permit personnel regarding variable permit limits based on the amount of flow available in the Sangamon River. Currently, the District anticipates a proposal with three to four tiers of river flow and accompanying permit limits.

3. Conducting additional discussions with Illinois EPA and U.S. EPA standards personnel regarding justification for a site-specific water quality standard for nickel, based on bioavailability. Further discussions are needed to gain initial input for possible development of a site-specific WQS proposal.

SDD Major Industrial Nickel and Zinc Results

Date	ADM A Total Ni	ADM A Total Zn	ADM D Total Ni	ADM D Total Zn
7/6/2009	0.101	0.327	0.114	0.313
7/13/2009	0.102	0.368	0.114	0.33
8/3/2009	0.101	0.461	0.13	0.396
8/10/2009	0.106	0.454	0.132	0.433
9/1/2009	0.0971	0.496	0.127	0.415
9/8/2009	0.094	0.5	0.122	0.393
9/28/2009	0.0833	0.342	0.105	0.324
9/29/2009	0.0897	0.406	0.107	0.33
9/30/2009	0.0956	0.462	0.117	0.425
10/1/2009	0.0901	0.504	0.121	0.459
10/13/2009	0.0657	0.339	0.0981	0.237
11/9/2009	0.107	0.449	0.112	0.372
11/23/2009	0.0989	0.346	0.0719	0.203
12/1/2009	0.0899	0.291	0.079	0.213
12/7/2009	0.0899	0.358	0.0948	0.325
1/11/2010	0.0825	0.362	0.0693	0.254
2/1/2010	0.0907	0.506	0.0949	0.435
2/8/2010	0.0921	0.375	0.112	0.378
3/8/2010	0.0824	0.329	0.0897	0.203
3/15/2010	0.0621	0.522	0.11	0.303
4/5/2010	0.0649	0.441	0.107	0.309
4/12/2010	0.106	0.593	0.119	0.374
5/3/2010	0.0654	0.386	0.0958	0.258
5/10/2010	0.0551	0.333	0.0774	0.189
SDD Ordinance Limit (Avg.)	0.0365	0.45		
SDD Ordinance Limit (Max.)	0.15	1.7		

Electronic Filing: Received, Clerk's Office 11/30/2017

Date	TLIA A Total Ni	TLIA A Total Zn	TLIA C Total Ni	TLIA C Total Zn
7/6/2009	0.0128	0.0903	0.00705	0.214
7/13/2009	0.00943	0.226	0.00593	0.0989
8/3/2009	0.0128	0.119	0.00826	0.109
8/10/2009	0.00849	0.126	0.00358	0.0833
9/1/2009	0.00717	0.0726	0.0118	0.309
9/28/2009	0.0286	0.073	0.00433	0.143
9/29/2009	0.00966	0.0763	0.0123	0.143
9/30/2009	0.0207	0.0574	0.00789	0.142
10/1/2009	0.014	0.112	0.0189	0.316
10/13/2009	0.00823	0.0915	0.00934	0.477
11/9/2009	0.0117	0.102	0.00563	0.221
12/1/2009	0.0046	0.0901	0.00233	0.0646
12/7/2009	0.00381	0.081	0.00898	0.118
1/11/2010	0.00307	0.0429	0.00598	0.453
2/1/2010	0.00392	0.112	0.00353	0.232
2/8/2010	0.00171	0.0294	0.00205	0.109
3/8/2010	0.00565	0.0752	0.00633	0.13
3/15/2010	0.00356	0.0606	0.00455	0.168
4/5/2010	0.00265	0.0354	0.00294	0.198
4/12/2010	0.0128	0.188	0.00489	0.579
5/3/2010	0.00339	0.0817	0.00479	0.234
5/10/2010	0.00429	0.107	0.00839	0.388
SDD Ordinance Limit (Avg.)	0.0365	0.45		
SDD Ordinance Limit (Max.)	0.15	1.7		



COPY

June 15, 2010

Pretreatment Coordinator
Sanitary District of Decatur
501 Dipper Lane
Decatur, Illinois 62522

RECEIVED

JUN 18 2010

SANITARY DISTRICT
OF DECATUR

Re: Interim Nickel and Zinc Report

Dear Sir,

Per Special Condition E.8. of Industrial Discharge Permit #200, we are submitting this summary of our research efforts to reduce nickel and zinc in our effluent. To date we have investigated the following:

1) Status of Anaerobic TSS Carry-over

- Anaerobic TSS carry-over and microbiologist findings
Effect of changes recommended by consultant.

2) Ongoing Nickel Reduction Work w/ outside companies

- Bench work at the start-up company's site w/ treated clay is on-going. Latest results erratic.
- Inorganic substrate with attached ligand/skeleton using nanotechnology. Latest results promising.
Work is on-going at start-up company's site. A 2nd Decatur visit is planned.
- Very small, water dispersable nano particles; nano-IX.
Testing at start-up company's site is on-going. Very little promise, so far.
- Liquid chemistry said to be 'green'. Apparently a 2 step process that can utilize a DAF unit.
2nd lengthy study completed. Process does not look as promising as originally hoped.
- Current ADM-contracted water treatment company has their Research team involved.
Nothing of interest at this point.
- Two more water treatment companies have received samples and performed tests.
Metal precipitant is currently under initial testing at ADM.

3) RO Pilot Work

- Long-expected proposal from GE Betz for 100gpm UF & RO test skid did not pan out.
Looking elsewhere



4) Internal ADM Lab Work

- Performed tests based on a patent for inorganic substrate used to concentrate trace materials in pollutant testing. Not promising.

- Dry product, metal precipitant. Did not function well.

- Series of tests were performed using a combination of flocculants, polymers and coagulants. About 0.065ppm was the lowest soluble Ni attained.

- Diatomaceous earth-based, specially treated material can meet the Ni limit w/ Low Salt dilution. Not affordable w/o regeneration, which has not been done before. Will try their liquid version.

- A Dow adsorbent (de-colorizing resin) will meet the Ni limit with Low Salt dilution. Isotherm data has been collected & Dow performed vessel size & cycle time calculations. Problematic regeneration. Very expensive resin. Nickel waste requires RO treatment. We're waiting on Dow's final cost calculations to see if a column pilot study is warranted.

- Metal precipitant blend utilizing some DTC will meet the Ni limit w/ Low Salt dilution. Minimum dose studies have been performed. Another attempt being made to tie up residual DTC. Expect results in <2 weeks.

As you are aware, we are pursuing many options and will keep you apprised of our progress, and which technologies show the most promise. Feel free to contact me if you have any questions regarding this summary.

Respectfully submitted,

A handwritten signature in cursive script that reads "Mark Carroll".

Mark Carroll
Environmental Compliance Manager
ADM Decatur Corn Processing Plant

Estimate of BLM Adjustment to Ni Criterion for Decatur Sanitation District

Robert Santore
HydroQual, Inc



March 30, 2010

Preliminary results, Please do not cite or distribute

1

Outline

- Estimated downstream water quality
- Predicted toxicity to *Daphnia magna*
 - Example use as a WER test organism
- Predicted estimate of WQC

March 30, 2010

Preliminary results, Please do not cite or distribute

2

Supplied info

Plant Final Effluent									
Sampling Date	Sodium	Potassium	Calcium	Magnesium	pH	Alkalinity	Sulfate	Chloride	Carbonaceous BOD ₅
	Total (mg/L)	Total (mg/L)	Total (mg/L)	Total (mg/L)					
11/13/2008	520	130	54	64	7.82	359		631	< 2.0
11/18/2008					7.63	357	521		< 2.0
11/20/2008					7.86	332		635	2.4
11/25/2008					7.68	315	333		2.0
11/26/2008					7.81	337		712	
11/27/2008									2.0
12/2/2008					7.76	422	283		< 2.0
12/4/2008	500		53	59	7.73	396		651	2.5
12/9/2008					7.58	357	366		2.6
12/11/2008					7.55	344		524	< 2.0
12/16/2008					7.60	379	315		< 2.0
12/18/2008			58	59	7.80	376		660	< 2.0

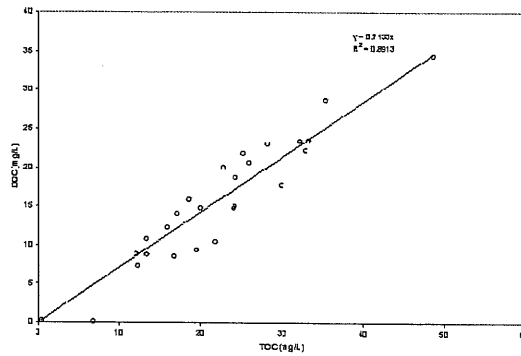
Hardness 390

March 30, 2010

Preliminary results, Please do not cite or distribute

3

Estimation of DOC



NYSDEC CARP project
(www.dec.state.ny.us/website/dow/bwam/CARP).

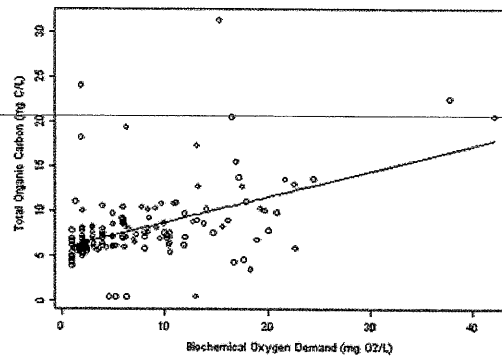
March 30, 2010

Preliminary results, Please do not cite or distribute

4

Estimation of TOC

TOCavg ~ BODavg (All Samples)



Monitoring data from all major POTWs reporting TOC and 5-day BOD in the United States were downloaded from the PCS web site, www.epa.gov/enviro/html/pcs/adhoc.html.

March 30, 2010

Preliminary results, Please do not cite or distribute

5

Method 1 – Calculate WER

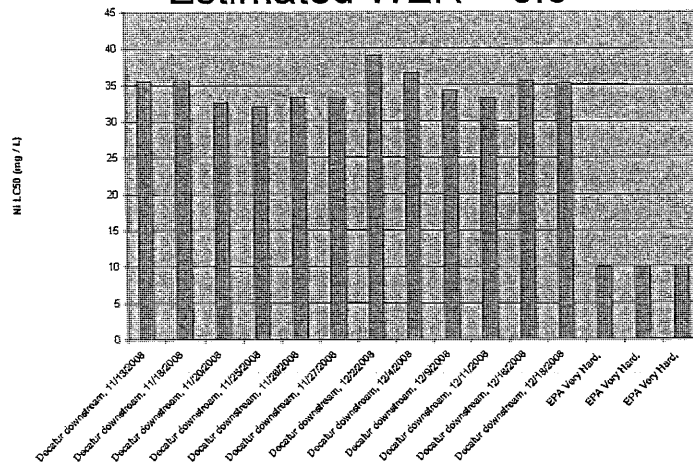
- Use the BLM to estimate Ni toxicity to a sensitive aquatic organism suitable for use in a WER study
- Site water will be characterized by the provided chemistry, along with estimated DOC from BOD
- Reference water will be standard EPA recipe
- $WER = (\text{Site Water LC50}) / (\text{Reference LC50})$

March 30, 2010

Preliminary results, Please do not cite or distribute

6

BLM Estimated Ni toxicity to *D magna* Estimated WER = 3.5



7

Estimated WER

- The acute standard in IL
CMC = $e(0.8460[\ln(\text{hardness})] + 0.5173)$
 - At a hardness of 390, CMC = 261 $\mu\text{g/L}$
 - Adjusted by WER, SSCMC = 913 $\mu\text{g/L}$
- The chronic (geomean) standard in IL
FCV = $e(0.8460[\ln(\text{hardness})] - 1.865)$
 - At a hardness of 390, FCV = 14 $\mu\text{g/L}$
 - Adjusted by WER, SSFCV = 84 $\mu\text{g/L}$

Method 2 – Use the BLM to estimate SSWQC

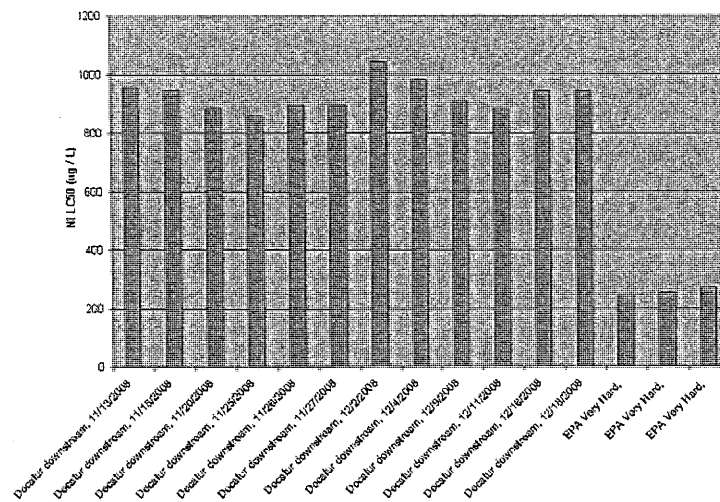
- The BLM was adjusted to match the CMC at a hardness of 50 in a typical test water (e.g., standard EPA recipe)
- Application of the BLM to waters with higher hardness and DOC can then estimate a site-specific WQC

March 30, 2010

Preliminary results, Please do not cite or distribute

9

BLM Estimated Ni CMC



10

Summary and Conclusions

- Downstream water quality was estimated from effluent characteristics (personal communication from T. Kluge, the downstream water is effluent dominated and frequently there is no other flow upstream of discharge)
- The Ni BLM was used to estimate downstream Ni criteria in two ways, using both a WER approach, and using a direct estimate of the CMC
- Both approaches yielded similar results, suggesting that a site-specific criterion for Ni will be considerably higher than the default value used for the state

Exhibit 11

Sanitary District of Decatur

501 DIPPER LANE • DECATUR, ILLINOIS 62522 • 217/422-6931 • FAX: 217/423-8171

Exhibit 11

December 29, 2010

Illinois Environmental Protection Agency
Attn.: Michael S. Garretson
Bureau of Water Compliance Assurance Section, MC #19
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

Re: NPDES Permit IL0028321
IPCB Order PCB 09-125
Interim Report

Dear Mr. Garretson:

Enclosed is the Interim Report regarding compliance with nickel and zinc limits required by Special Condition 18 of the Sanitary District of Decatur's NPDES Permit and the Pollution Control Board Order in PCB 09-125.

Please contact me at 422-6931 ext. 214 or at timk@sdd.dst.il.us if you have any questions regarding this report.

Sincerely,



Timothy R. Kluge, P.E.
Technical Director

**Sanitary District of Decatur
Nickel and Zinc Limits
December 2010 Interim Report**

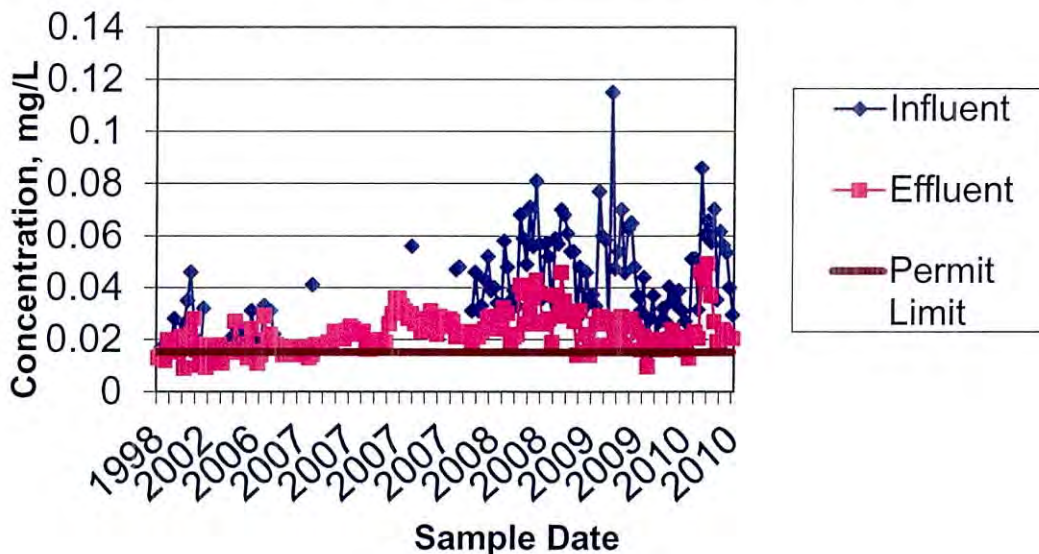
The modified NPDES permit for the Sanitary District of Decatur that became effective July 1, 2009 contains limits for nickel and zinc and a one-year compliance schedule extension for meeting the limits. Special Condition 17 requires that an interim progress report be submitted to Illinois EPA by January 1, 2011.

On January 7, 2010 the Illinois Pollution Control Board granted a variance to the District allowing additional time to comply with final permit limits (PCB 09-125). The final compliance date contained in the Board Order is July 1, 2014. The District's NPDES Permit has not yet been modified to incorporate the variance. The Board Order also requires that an interim progress report be submitted by January 1, 2011 and lists a number of other activities and investigations that are to be completed. This report is submitted to meet both the permit and variance requirements.

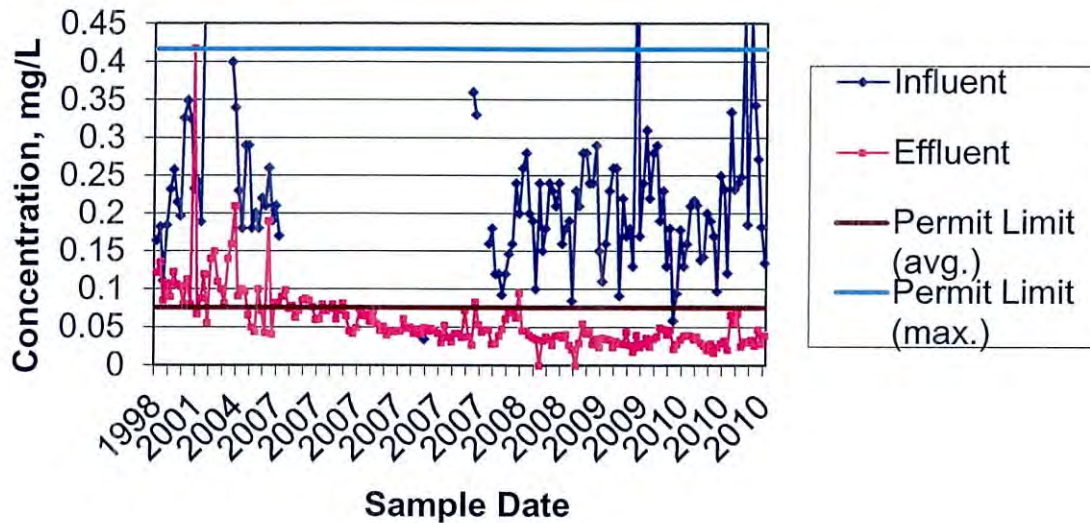
Plant Influent and Effluent Sampling

Ongoing influent and effluent sampling for nickel and zinc continues at a frequency of twice monthly. An updated summary of influent and effluent values is shown below. Past data shows that the plant effluent is not able to consistently meet the current nickel permit limit. Zinc concentrations remain below the permit limit.

Influent and Effluent Nickel



Influent and Effluent Zinc



Receiving Stream Sampling

Upstream and downstream sampling continues at a twice monthly frequency to provide a more complete picture of nickel and zinc in the Sangamon River. One upstream and four downstream sampling sites are being monitored. All upstream and downstream zinc results during the past year have been below the Illinois water quality standard. Downstream nickel concentrations during the relatively dry fall weather in 2010 reflected effluent concentrations with minimal upstream dilution available. A summary of 2010 river monitoring data is attached.

Pretreatment Ordinance Limits

The District's pretreatment ordinance was amended in October 2009 as noted in previous reports.

Stream Flow-Based Compliance Options

The District continues investigation of flow-based permit limits, to take advantage of upstream flow for mixing when it is available. This concept could potentially allow a savings in treatment facility operating costs when the upstream flow is sufficient to meet water quality standards after mixing with treatment plant effluent. A USGS flow gaging station is located about two miles upstream of the District's discharge point, and provides near- real time flow information. We are currently developing a proposal that would establish three to four tiers of limits based on ranges of upstream flow, providing an administratively straightforward way to define and evaluate permit compliance. Informal discussions with Illinois EPA personnel have indicated that the concept of flow-based

limits could be considered. We expect to have a proposal for presentation to Illinois EPA early in 2011, to be followed at a later time with a permit modification request.

Water Quality Standard Investigations

The District is continuing to investigate approaches to a water quality standard adjustment including the biotic ligand model (BLM) and use of the water effect ratio. Additional river sampling was conducted during low flow conditions later this summer to verify stream concentrations. On December 9, discussions were initiated with U.S. EPA and Illinois EPA on the reaction to a bioavailability approach. Personnel from U.S. EPA indicated that they would like to review published information on the nickel BLM and a follow-up call is anticipated in early January 2011. The District anticipates preparation of a petition for a site-specific nickel standard to occur in the first half of 2011.

The District has also been notified by Illinois EPA of a possible revision of the zinc water quality standard, based on an error discovered in the derivation of the current standard. We are currently evaluating the impact of this possible change on the District's zinc pretreatment ordinance limit.

Industrial Source Sampling and Investigations

Sampling of the major industries (ADM and Tate & Lyle) for metals continues at a frequency of twice monthly and other industries discharging metals are sampled quarterly. Sample results obtained from the major industries within the past year are attached.

The District's operating permit issued to ADM was modified on November 18, 2009 and again on June 17, 2010 to reflect the new limits and provide a compliance schedule for meeting the limits. Final local limits will be effective upon expiration of the District's variance.

Both major industries formerly utilized zinc as part of their cooling tower treatment programs, and both have eliminated or greatly reduced zinc in their towers. At this time, both industries are meeting the zinc pretreatment limit. ADM is continuing to investigate the possible impact of the zinc limit on their planned wasting of solids from their pretreatment system to the District's collection system.

The discharge from ADM is by far the most significant industrial source of nickel. ADM has been very active in seeking treatment technology for nickel removal, involving plant management and research department personnel in addition to environmental compliance and legal staff. The District's pretreatment permit requires semi-annual reports of ADM's investigations, and a copy of the most recent report is attached. The report includes status updates on the specific treatment technologies required to be investigated. District staff met with ADM on December 22, 2010 to review the information in the report.

Additional Pretreatment Limit Investigations

Pretreatment ordinance limits adopted in 2009 were adopted as total (rather than soluble) limits based on review of soluble/insoluble data. Refinement of pretreatment limits is an ongoing process and will depend on final permit limits as well as treatment technologies that might be employed by industrial users. The required determination of soluble/insoluble vs. total limits will be updated as part of the final compliance plan submitted to the Agency.

Compliance Plan

In summary, the District's proposed compliance plan includes ongoing work as required by the Board Order granting the District's variance. The District will continue to proceed in accordance with the schedule in the Order with efforts in three areas:

1. Continuing to work with ADM to investigate nickel removal technologies, and to determine a sludge wasting plan that will minimize zinc discharges. The Order lists ten technologies that are to be investigated by December 31, 2010, and the summary documents work on all ten as required.
2. Conducting additional discussions with Illinois EPA permit personnel regarding variable permit limits based on the amount of flow available in the Sangamon River. As noted above, Illinois EPA has been receptive to this concept. Additional evaluations are underway to possibly extend the concept to other parameters. The District plans to submit a comprehensive proposal to Illinois EPA during the first half of 2011.
3. Conducting additional discussions with Illinois EPA and U.S. EPA standards personnel regarding justification for a site-specific water quality standard for nickel, based on bioavailability. As noted above, development of a petition for the Pollution Control Board is planned in the first half of 2011.