OhioEPA
State of Ohio Environmental Protection Agency

Southwest District Office

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Dayton, Ohio 45402

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

July 22, 2009

RE: Wastewater Inspection and Notice of Violation

Mr. Tim McDaniel
Navistar, Inc.
6125 Urbana Road
Springfield, OH 45502

Dear Mr. McDaniel:

On June 18, 2009 I met with Ms. Lisa Silva to conduct a Compliance Evaluation Inspection (CEI) of your facility. I appreciate the extended amount of time Lisa provided me in conducting the inspection. Unlike my previous inspection, I was informed that all manufacturing operations were active - albeit at reduced levels due to the economic climate reducing demand.

Effluent Toxicity

Ohio EPA recently conducted two bioassays at your facility (April 6 & 7 and June 8 & 9, 2009) with both results revealing Navistar's effluent to be acutely toxic. Navistar's own chronic toxicity monitoring result on August 20, 2008 was 16 TUc. Effluent toxicity is a violation of Part III.2.D of your NPDES permit, *General Effluent Limitations* and Ohio Administrative Code 3745-1-04(D), *Criteria Applicable to All Waters.*

Lisa indicated that the effluent toxicity is believed to be associated with the polymer used in the industrial treatment system. Beginning in May, polymer use rates were reduced fifty-five percent and that toxicity monitoring done by Navistar in June looked good. She said the results were not reportable because the test was run with only three dilutions.

In light of the toxicity results, Ohio EPA will be evaluating the appropriateness of toxicity monitoring and limits for your NPDES permit. In the meantime, please inform me of any actions Navistar plans to take to investigate the causes of its effluent toxicity. This should at least include further studies of polymer usage.

Compliance Review

A review of your self-monitoring reports for the period of December 2007 through June 2009 revealed a slight violation of the weekly $CBOD_5$ limit during the first week of July 2008. The limit is 18 mg/l and you reported a value of 19 mg/l. Lisa explained that the violation was caused by an excessive

amount (high strength and rate) of e-coat primer wastewater being sent through the treatment system and cited improper process checks by the plant operator. No further response for this violation is necessary. An Oil and grease loading limit violation on May 8, 2008 at outfall 002 also does not necessitate a response given the subsequent elimination of the loading limit from the permit.

Finally, I noted that Navistar failed to conduct weekly oil and grease monitoring at outfall 002 during the second, third and forth weeks of April 2009. Please explain this failure to monitor and how you plan to ensure monitoring at the frequency specified by your permit will be ensured in the future.

Wastewater Treatment Plant Improvements

I was very pleased to meet Navistar's new Plant Engineer and hear about his plans for improving the physical state of the wastewater treatment plant. I believe that the facilities are due the attention he appears willing to support and I encourage you to develop a prioritized list of improvements. Stripping away unused and dilapidated equipment and then optimizing the remaining equipment will likely set Navistar up to operate its treatment system well into the future. Thank you for this fresh approach to improving your facility operations.

The proposed installation of an influent step screen to replace the missing bar screen is one of the improvements to be implemented soon. Please note that a permit to install (PTI) is necessary prior to installation of this important stage of wastewater treatment.

Industrial Wastewater Equalization Tank

In prioritizing treatment plant improvements, I believe the aeration blowers serving the industrial equalization tank must be a high priority. The blowers were not operating at the time of the inspection despite the equalization tank being fairly full. I noted that both the surge and vibration alarms were lit on the blower control panel. There was no objectionable odor from the tank but it did look stagnant and I am concerned that a lack of mixing will lead to problems associated with solids settling in the tank. Please consider that the tank provides both flow and load equalization and the lack of mixing negatively impacts load equalization. I ask that you inform me how long the blowers have been inactive and when the blowers were returned to service.

Mercury Compliance Schedule

Navistar's most recent mercury compliance schedule update sent to me on May 12th via e-mail was very cursory and when I brought this up during the inspection I was presented with a project update summary prepared for Navistar by Environmental Quality Management (EQM). The summary contained much more specific information such as monitoring data, strategic planning, actions completed and planned and a plan for confirmatory sampling. The e-mailed update did not reflect EQM's update that presented sewer sediment and water column sampling results or the plan for cleaning of two lift stations, 2,370 feet of sewers and fifteen manholes during shutdown. Please provide me a copy of this update and ensure that future updates contain a similar level of detail.

Final Clarifiers

One of Navistar's two final clarifiers (the south one) was off-line at the time of the inspection and the on-line clarifier was producing a somewhat turbid effluent. Lisa indicated that only one clarifier was being used because flows are less than half the design flow and that it is otherwise costly to operate. While I fail to understand how operating a clarifier is a significant expense of the treatment system (especially considering that both oxidation ditches were in use), I question why you wouldn't want to maximize your treatment capability thereby maximizing effluent quality. Also, please consider that, currently, approximately 40,000 gpd of industrial wastewater is discharged to the biological treatment system during only part of the day and that sanitary flow rates to the system are also at a maximum during the day. These operating conditions may mean that the use of one clarifier may hydraulically overload it at times during the day. To address these concerns, please provide responses to the following questions:

1. Is the off-line clarifier currently completely operational?

2. What are the benefits Navistar has identified for operating one clarifier instead of both?

3. At what flow would the second clarifier be brought on-line?

In responding to the second question, please be as specific as possible in presenting cost savings or operational benefits. Also, I would appreciate it if you would indicate how the maximum flow rates during the day compare to the design surface settling and weir overflow rates of one clarifier in use.

Finally, please consider maintaining the clarifier full of water to minimize corrosion and relieve stress on the scraper arms and bearings. Periodically operating the scraper mechanism would seem to help ensure the clarifier is ready to be put into service in a moment's notice.

Final Effluent Sampling Station

The digital thermometer for the final effluent composite sample refrigerator was inoperable in that the probe wire was completely severed. To demonstrate that sample preservation requirements are being met, Navistar must provide a thermometer that is checked against an NIST-traceable thermometer at least annually. A log book must be maintained at the sampling station to record the results of these checks along with the temperature of the cooler at least at the beginning and end of each sampling event. Please inform me when this action is completed.

Effluent Monitoring Frequency at 601

Navistar collects samples at its industrial wastewater discharge monitoring station when the treatment system is being operated. Lisa stated that the sampler is turned off by the second shift operator when they leave for the day. To help ensure that the sampler is not inadvertently left running during these times or otherwise whenever the treatment system is not operating (which would cause the sampler to pull stagnant water in the discharge pipe) I would like for you to interlock the influent pump

controller for the wastewater treatment system to the composite sampler so that sampling only occurs when the discharge is active. This should involve a simple electrical control that would minimize the potential for sampling errors. Please inform me how you plan to address this issue.

Also, it is necessary for Navistar to begin using chain of custody sheets to document its monitoring events. Start and stop dates and times, name(s) of sample collectors, sampling aliquot volume and frequency, actual composite sample volume and preservatives are information necessary to ensure effluent data is defensible. Please send me a copy of the chain of custody sheet you end up developing or selecting for use.

Finally, I believe it would be better for you to increase the frequency of sample collection from once per hour currently to once every twenty or thirty minutes. Reducing the time between aliquot collection generally will produce a more representative sample just as collecting once an hour is considered more desirable than once every two hours. Please let me know if you decide to increase the collection frequency or otherwise explain why your current frequency is better justified.

Industrial Wastewater Treatment System

I noted that the pH meters for the three treatment tanks were reading 6.7, between 9.5 and 10, and 11.14 respectfully. Please explain the pH in the third tank given that the target pH for precipitation should be around 9.5 and that metals can re-dissolve as pH increases.

Please provide me a written response to this letter by August 10, 2009 with an indication of your intentions to address the issues I have raised. Please include dates when actions will be taken.

If you have questions concerning this letter or the inspection form, please call me at (937) 285-6095.

Sincerely,

Matt Walbridge
Environmental Specialist
Division of Surface Water

ENCLOSURES

CC: Lisa P. Silva – Navistar

OhioEPA

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
OH0009954	*1IN00022*ID*	*06/18/2009*	*C*	*S*	*1*

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Navistar, Inc. *6125 Urbana Road* *Springfield, OH 44501*	*0915*	*8-1-07*
	Exit Time	Permit Expiration Date
	1500	*1-31-12*
Name(s) and Title(s) of On-Site Representatives	Phone Number(s)	
Lisa Silva - Environmental Engineering Supervisor	*(937) 390-4026*	
Name, Address and Title of Responsible Official	Phone Number	
Tim McDaniel - Environmental Health and Safety Manager *International Truck and Engine* *6125 Urbana Road* *Springfield, OH 44501*	*(937) 390-4024*	

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	S	Laboratory	M	Compliance Schedule
S	Operations & Maintenance	U*	Effluent/Receiving Waters	S	Self-Monitoring Program
S	Facility Site Review	S	Sludge Storage/Disposal		Other
N	Collection System				

* Because of recent effluent toxicity results

Section D: Summary of Findings (Attach additional sheets if necessary)

Bright green algae on bottom of pool at outfall 002.

Both oxidation ditches in use but only one clarifier is on-line (said to be switched once a year).

E-coat tank was about half full. Aeration system not operating at the time and it looks like it could use some work to make it more effective. The other isolation tank's aeration mixing also looked like it needs work.

pH in tank #1 of industrial wastewater treatment system was 6.7, tank #2 fluctuated between 9.5 and 10, tank #3 was 11.14.

Two WWTP operators – one each on 1st and 2nd shifts.

See Inspection letter for further findings.

Inspector		Reviewer	
Matt Walbridge 7-22-09		Martyn Burt 7/23/09	
Matt Walbridge Division of Surface Water Southwest District Office	Date	Martyn Burt Environmental Supervisor Division of Surface Water Southwest District Office	Date

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).....	Y
(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.....	N
(g) Notification given to State of new, different or increased discharges.....	NA
(h) All discharges are permitted.....	Y
(i) Number and location of discharge points are as described in permit.....	Y

Comments/Status:

e) All units except one secondary clarifier is in service.

Section E: Permit Verification

(a) Any significant violations since the last inspection.....	Y
(b) Permittee is taking actions to resolve violations.....	Y
(c) Permittee has a compliance schedule.....	Y
(d) Compliance schedule contained in ***NPDES permit Part I for Hg.***	
(e) Permittee is meeting compliance schedule.....	Y

Comments/Status:

a) Failed two recent acute toxicity sampling events (April and June 2009). The quarterly chronic toxicity sample on 8-20-08 was 16 TUc.

e) Second update with more substance to be submitted by August 1st (it will reflect results of sampling done after sewer cleanings.

Section G: Operation & Maintenance

Treatment Works:

(a)	Standby power available.....generator ☑ and/or dual feed ☑.....	Y
(b)	Adequate alarm system available for power or equipment failures..	Y
(c)	All treatment units in service other than backup units.....	Y
(d)	Operator holds unexpired license of class required by permit..... Class: I	Y
(f)	Routine and preventative maintenance schedule/performed on time.....	N
(g)	Any major equipment breakdown since last inspection.....	N
(h)	Operation and maintenance manual provided and maintained.....	Y
(i)	Any plant bypasses since last inspection.....	N
(j)	Regulatory agency notified of bypasses..... On MORs ☐ and/or Spill Hotline (1-800-282-9378) ☐	NA
(k)	Any hydraulic and/or organic overloads since last inspection.....	N

Comments/Status:

b) High level for wet well, EQ basin, mix reaction, chemical feed and pH on outfall 601. There are contingency plans for outages.
d) Need to submit Operator of Record certification.
f) Not really. They need to formalize one now that they have a supportive plant engineer.
g) A low oil level on one of the oxidation ditch mixers caused it to shut down for a while. Bar screen ahead of the pump station is still out of service. They are now looking to go with a step screen.

Collection System:

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

Comments/Status:

Section H: Sludge Management

(a) Sludge management plan (SMP)
Submitted date: ***5-29-96*** Approval #: ***05-352-IW*** Not submitted ☐ N/A ☐
(b) Sludge management plan current..... Y
(c) Sludge adequately disposed..... Y
(Method: ***Liquid to sanitary landfill where it is mixed with bulking agent until solid enough for disposal***)
(d) If sludge is incinerated, where is ash disposed of NA
(e) Is sludge disposal contracted..... Y
(Name: ***Metropolitan Environmental Services comes as needed***)
(f) Has amount of sludge generated changed significantly since the last inspection..... N
(g) Adequate sludge storage provided at plant..... ... Y
Land application sites monitored and inspected per SMP.....NA
(i) Records kept in accordance with State and Federal law..... Y
(j) Any complaints received in last year regarding sludge..... N
(k) Is sludge adequately processed (digestion, pathogen control)..... Y

Comments/Status:

f) Approximately 3.3 dry tons
g) Storage other than what is provided by the aerated tank can also be accomplished by increasing MLSS.
k) Even though it is being sent to the Suburban Landfill.

Section I: Self-Monitoring Program

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: ***Doppler***)

(b) Calibration frequency adequate ..... ND
(Date of last calibration: ***ND***)
(c) Secondary instruments operated and maintained..... NA
(d) Flow measurement equipment adequate to handle the full range of flows..... Y
(e) Actual flow discharged is measured..... Y
(f) Flow measuring equipment inspection frequency
☑ Daily ☐ Weekly ☐ monthly ☐ other

Comments/Status:

a) Flow is monitored into and from the EQ basin. Ultrasonic w/ weir is provided at outfall 002. Outfall 001 has a flume with conductance.

b) Told that it is calibrated once per year. Need to know this is happening.

Section I: Self-Monitoring Program (con't)

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..... Y
  (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

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.....NA
(c) Analyses being performed more frequently than required by permit. N
(d) If (c) is yes, are results in permittee's self-monitoring report.....NA
(e) Commercial laboratory used..... Y
Parameters analyzed by commercial lab:

Lab name: ***Alloway Laboratories*** ***(beginning in 2009)***

Quality Control/Quality Assurance
(f) Quality assurance manual provided and maintained..... Y
(g) Satisfactory calibration and maintenance of instruments/equipment. Y
(h) Adequate records maintained..... Y
(i) Results of latest USEPA quality assurance performance sampling program: ☑ Satisfactory ☐ Marginal ☐ Unsatisfactory
Date:

Comments/Status:

Sampling:
b) The permit was modified to align quarterly monitoring frequencies.

Laboratory:
e) Alloway Laboratory analyzes mercury, TTOs, heptachlor and effluent toxicity.
f) Service contract with off-site provider.

Section J: Effluent/Receiving Water Observations

Outfall Number	Oil sheen	Grease	Turbidity	Visible Foam	Visible Floating Solids	Color	Other
001	***No***	***None***	***slight***	***No***	***No***	***None***	***No***
002	***No***	***None***	***Clear***	***No***	***No***	***None***	***No***

Comments/Status:

The pool at outfall 002 had bright green algae on the bottom of the stream (not present upstream).

Section K: Multimedia Observations

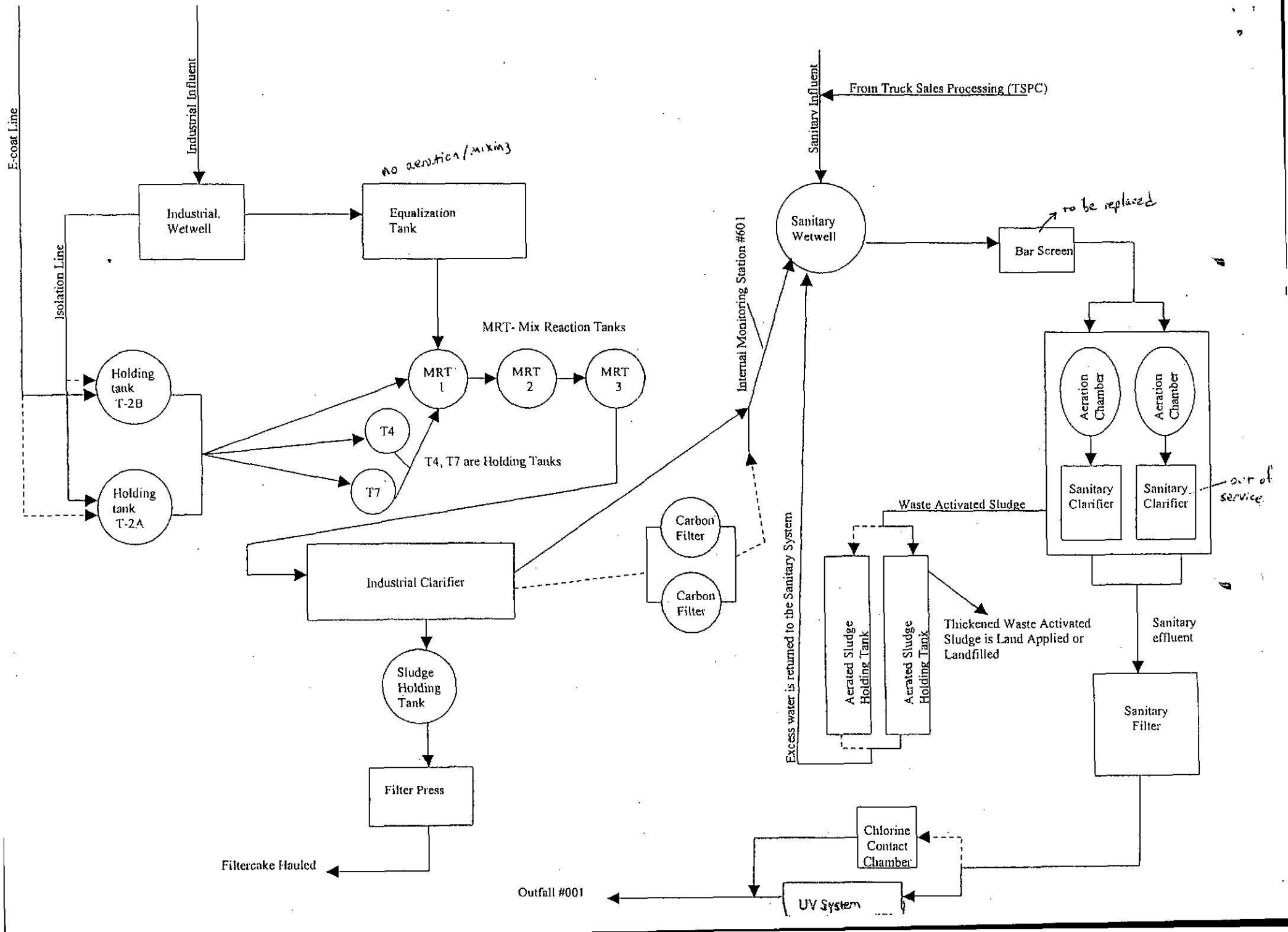
(a) Are there indications of sloppy housekeeping or poor maintenance in work and storage areas or laboratories..... N
(b) Do you notice staining or discoloration of soils, pavement or floors.. N
(c) Do you notice distressed (unhealthy, discolored, dead) vegetation.. N
(d) Do you see unidentified dark 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:

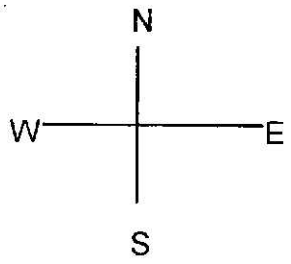
a) ***There was evidence that several improvements to wastewater storage and treatment equipment were underway and there was talk of plans for other improvements.***

Flow Diagram



WWTP LAYOUT

6-18-09



300,000 Gallon
Aeration blowers not operating
Equilization Basin

100,000 Gallons each tank

Emerg. Buffer Tank

IWD HOPPER

WWTP BUILDING

E-Coat

Orange Valve

Green Valve

2 Extended Aeration Tanks

Industrial Waste water Clarifier

Clarifier out of Service

Chlorination

Dechlorination Building

Oxidation Ditches with Clarifiers

UV SYSTEM

JMM