Ohio EPA
40 years and moving forward

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

July 30, 2013

RE: NPDES Compliance Evaluation Inspection and Notice of Violation
Revised

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

Dear Mr. McDaniel:

On June 27th I met with Lisa Silva, Mike Giffen and Mike Weber to conduct a Compliance Evaluation Inspection (CEI) of your facility.

A review of discharge monitoring reports since the previous inspection revealed the following reported violations:

	Outfall 001		
Parameter	Date	Limit	Reported Value
TSS	June 8-14, 2012	18 mg/l (wk. Avg.)	19 mg/l
	July 1-7, 2012		24 mg/l
	November 2012	12 mg/l (mo. Avg.)	12.83 mg/l
$CBOD_5$	July 1-7, 2012	18 mg/l (wk. Avg.)	21mg/l
Fecal Coliform	July 1-7, 2012	2,000 colonies/100 ml (wk. Avg.)	Too Numerous to Count
	July 15-21, 2012		2,200 colonies/100 ml
	July 2012	1,000 colonies/100 ml (mo. Avg.)	*
	June 1-7, 2013	2,000 colonies/100 ml (wk. Avg.)	4,700 colonies/100 ml
	Outfall 002		
Water Temperature	July 26, 2012	29°C (daily max.)	29.6°C

** With weekly monitoring values of: Too Numerous to Count, 1,400, 2,200 and 33 colonies per 100 ml, it has been determined that Navistar has also violated the monthly average limit.*

You have provided timely notification and explanations for the listed violations. Except for the need to further address the fecal coliform violations, as discussed below, no further response to these violations is necessary.

Fecal Coliform

UV lamp transmittance is said to be checked every morning and is typically between 75 and 100 percent. However, I noted that a bank of bulbs near the middle of each of the two UV chambers was missing which likely creates a flow path with insufficient UV energy for disinfection which is likely a contributing factor to the fecal violations.

Navistar should install bulbs in these empty slots as soon as possible; please indicate when this work is completed. A written explanation for the June 6, 2013 violation is otherwise necessary.

Total Suspended Solids Monitoring

Navistar indicated that TSS monitoring is performed for process control purposes. It is necessary to explain why the results from this monitoring, said to occur once or twice a week, are not reportable pursuant to Part III.4.E of the NPDES permit.

If the monitoring is of the effluent using an approved analytical method, but is not at the location described in the NPDES permit, I believe the results are reportable. I would greatly appreciate a summary of the data you have collected.

Stage 5 Boilouts

It is my understanding that the zinc phosphate solution tanks are cleaned as follows:

- The zinc phosphate solution is transferred to an unused tank;
- The cone-bottom portion of the tank (where solids accumulate) is manually cleaned;
- Phosphoric acid (?) is used to clean the tank (considered the boilout aspect of the procedure);
- The tank is rinsed with water.

All waters are treated through the industrial wastewater treatment system.

You indicated a willingness to consider hauling all wastewaters generated by the cleaning process off-site for disposal to reduce a significant amount of zinc, phosphorous and dissolved solids to Navistar's wastewater treatment systems.

Although Navistar equalizes the flow of this wastewater through its industrial and sanitary wastewater treatment systems by the use of both permanent and temporary tanks, I believe the pollutant load from this source represents a significantly heightened risk to both the operation of the biologically-based wastewater treatment system and the water quality of the receiving stream.

As such, Ohio EPA would welcome a commitment from Navistar to have the boilout water from the zinc phosphate tanks hauled off-site for proper disposal. Please let me know if you are willing to commit to this action.

Wastewater Treatment System Improvements

Navistar has recently worked to improve the operation of the industrial clarifier by replacing worn sprockets and sections of chains; although four of the larger, and more expensive, sprockets are still identified as needing replacement. I appreciate your effort to get this critical component of your wastewater treatment system back into full operation and I encourage you to pursue preventative maintenance of this, and other components, to ensure consistent performance of your treatment systems.

It is my understanding that Navistar is preparing a list of needed improvements to all of its wastewater treatment systems. I encourage you to finalize this list and to prioritize the identified actions needed and equipment to be replaced or refurbished. Please indicate when this list is expected to be finished. I would appreciate receiving a prioritized list of identified items when it becomes available.

Temperature Logs

To demonstrate that wastewater samples are being held at proper temperatures, it is necessary to provide a log of daily temperature readings for refrigerators used for sample collection, preservation and incubation and for the drying oven used for TSS analysis. The logs should be kept with each piece of equipment.

Also, it is necessary to clearly post the correction factor for each thermometer used to measure the temperature. Thermometers should be checked against an NIST-traceable thermometer at least annually with the date the correction factor was established listed with the factor.

Please provide me a summary of the correction factors for each piece of equipment and the date they were established.

Mercury Thermometer and Barometer

There was a maximum indicating mercury thermometer hanging on one of the refrigerators by magnetic hooks. I recommend that, if even needed, it be placed in a more secure location.

Unless it is used for equipment calibrations, I also recommend that the wall-mounted mercury-filled barometer be considered for removal. The potential problems from the accidental breakage of these mercury-containing devices is likely much greater than the cost associated with their removal from the facility. If needed, I can provide you information on proper disposal of, or potential markets for, these devices.

Phosphorous Monitoring

It was my understanding that Navistar has been performing phosphorous monitoring on a regular basis. Please provide me a compilation of available results not otherwise reported in DMRs.

Plant Operating Procedures

Based on its experience operating Navistar's wastewater treatment system since June 2012, Crown Solutions indicated that they are developing standard operating procedures (SOP) for the facility. I commend them for this effort and encourage it be finalized as soon as possible – even if subsequent amendments become necessary. Please let me know when the SOP is expected to become available; I would appreciate receiving a copy of the SOP.

Storage of pH Buffer Solutions

Buffer solutions kept in beakers used for pH meter calibrations were observed to be exposed to the air. They should instead be covered with a watch glass when not in use. Buffer solutions kept on the benchtop for meter calibrations are typically good for a month before it is necessary to replace them with fresh solution.

Total Dissolved Solids Monitoring

It appears that Navistar has been monitoring total dissolved solids (TDS) in response to the draft NPDES permit renewal proposing monthly effluent TDS monitoring. I observed a value from May 2013 of approximately 3,400 mg/l. A quick review of other results shows TDS typically is 1,000 mg/l or more.

To provide a prospective of the amount of TDS in Navistar's effluent, please send me a summary of available monitoring results.

Influent Screenings

Trash/debris removed from the influent wastewater by the step screen in the influent channel has been accumulating in a nearly full dumpster since early last year; the accumulated screenings looked and smelled terrible. Please consider using a smaller container that is emptied much more frequently.

Industrial Sludge Storage

The roll-off container for industrial waste sludge was not covered and the container did not otherwise appear to be water-tight. It is necessary to ensure the container is kept covered with a properly installed tarp or lid when sludge is not being added to it.

Water Blast Skid/Rack Cleaning

I observed a system located adjacent to the paint sludge pit building that is used for water blasting accumulated dried paint off skids and racks. I do not recall seeing this two-trailer system during previous inspections and do not see it depicted in your NPDES permit renewal application. This operation includes unsheltered staging of skids and racks along the driveway near the system.

Please indicate when this operation began, how often it is used and approximately how much wastewater it generates. Please also include a description and diagram of how the system is operated and a listing of chemicals used by the system.

Composite Sampling

Sampler pacing at outfall 001 is set for 30 ml every 15 minutes (96 attempted samples per day). Effluent is pumped in cycles but at a uniform rate, therefore making flow-proportional sampling less necessary. However, to show that the composite sample volume reflects the discharge pattern, please record the collected volume of the composite sample. If the composite sample volume is often 2,880 milliliters (meaning effluent was able to be pulled at every programmed opportunity, then I believe it will be necessary to make arrangements to either establish flow-proportional sampling or, at least, link the sampler to the discharge pumps so that the sampler pulls an aliquot with each pump cycle. I encourage you to look into these two means of sampling that I believe would provide more representative samples than the current sampling method.

Also, because there was confusion over how the composite sampler used at outfall 601 is programmed, please review the equipment and programming of that system and provide me a description of how composite samples are collected.

Finally, I thank Ms. Silva, Mr. Giffen and Mr. Weber for showing, explaining and describing Navistar's expansive facility, its operations, the laboratory and associated monitoring program and the wastewater treatment systems.

Please provide a written response to this inspection letter by August 26, 2013 addressing the findings I have presented. If you have any questions concerning this letter or the attached inspection form, please call me at (937) 285-6095.

Sincerely,

Matt Walbridge
Environmental Specialist
Division of Surface Water

MW/tf

ENCLOSURES

EC: Lisa Silva, Navistar
Mike Giffen, Crown Solutions

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*JD*	*6-20-13*	*CEI*	*S*	*2*

Section B: Facility Data		
Name and Location of Facility Inspected	Entry Time	Permit Effective Date
Navistar, Inc. *6125 Urbana Road* *Springfield, OH 44501*	*0900*	*8-1-07* *(modified 3-1-11)*
	Exit Time	Permit Expiration Date
	1515	*1-31-12*

Name(s) and Title(s) of On-Site Representatives	Phone Number(s)
Lisa Silva – Navistar / Environmental Engineering Supervisor *Mike Giffen – Crown Solutions (contract operator)* *Mike Weber – Crown Solutions*	*(937) 390-4026 (office) 605-0835 (cell)* *(937) 390-4024*
Name, Address and Title of Responsible Official	**Phone Number**
Tim McDaniel - Environmental Health and Safety Manager *Navistar, Inc.* *6125 Urbana Road* *Springfield, OH 44501*	*(937) 390-4024*

Section C: Areas Evaluated During Inspection – See Inspection Letter For More Information
(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

N	Permit	N	Flow Measurement	N	Pretreatment
S	Records/Reports	M	Laboratory	N	Compliance Schedule
S	Operations & Maintenance	S	Effluent/Receiving Waters	M	Self-Monitoring Program
S	Facility Site Review	M	Sludge Storage/Disposal	N	Collection System

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

The following is a summary of findings and observations that do not necessitate a response from Navistar. Additional findings are presented in the cover letter that accompanies this inspection.

1. ***Since last fall, truck production started increasing from 90 trucks per day to the current 100 trucks per day.***
2. ***At the end of 2012, the paint pretreatment line was said to be improved to operate more efficiently both in terms of production and wastewater generation.***
3. ***No new wastewaters, no new processes, no new, removed or modified treatment components are said to have occurred since the previous inspection.***
4. ***Chain sections and 12 of 16 sprockets on the industrial waste clarifier have been replaced. Largest four sprockets still need to be ordered. The clarifier looked much better than it did last year. They continue to contemplate replacing it with a lamella clarifier.***
5. ***The pH probe for Mix Reaction Tank 3 had a sticky note next to the readout saying it's bad and that a new meter was ordered on August 8, 2012. The probe/meter was said to not be used to control pH in the tank***
6. ***The drying oven thermometer was reading 120°C which corresponded to stick thermometer reading of about 106°C.***

Continued on next page ...

Section D: Summary of Findings (Continued)

7. ***They are no longer performing in-house analysis for comparison with off-site analysis. In-house analysis of effluent is being performed for pH, residual chlorine and dissolved oxygen. Testing for conventional parameters (e.g. BOD, TSS) are performed in-house on process control samples to aid operation of the plant. They are contemplating starting in-house fecal coliform testing.***

8. ***Tank T2B was empty in preparation for receiving high-strength wastewater generated during shutdown.***

9. ***They said they typically generate about a 20-yd3 roll-off of industrial wastewater sludge every two weeks.***

10. ***All UV bulbs and sleeves were said to have been replaced in April 2013. They are going to phase their future replacement so not all are being replaced at one time.***

11. ***Mike Giffen is at Navistar once per week. Staffing is otherwise one person per shift (two shifts/day) with a 1-hour overlap.***

12. ***MLSS in ditches was said to be around 7,000 mg/l; Mike Giffen indicated that they'd like to be around 5,600 mg/l.***

Inspector		Reviewer	
7-30-13		8/1/13	
Matt Walbridge Division of Surface Water Southwest District Office	Date	Joe Miller Environmental Supervisor Division of Surface Water Southwest District Office	Date