



Confluence Rivers Utility Operating Company
Mr. Todd Thomas

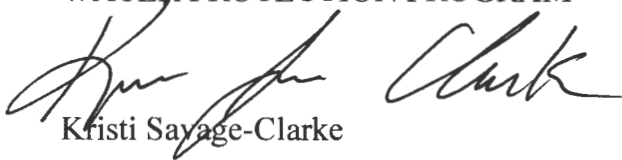
Dear Mr. Thomas,

In speaking with Mr. Jim Merciel of the Public Service Commission, I understood that there was some confusion regarding the condition of some of the wastewater treatment facilities that Confluence Rivers Utility Operating Company is interested in purchasing from their previous owners. The enclosed document is an attempt to provide additional background information about those facilities and some additional material detailing basic human health risks associated with certain types of water pollution.

If you have any questions concerning this correspondence, please contact Ms. Kristi Savage-Clarke, of my staff, at 573-522-4506, or at Department of Natural Resources, Water Protection Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102.

Sincerely,

WATER PROTECTION PROGRAM



Kristi Savage-Clarke

Water protection Program, Water Pollution Control Branch
Compliance and Enforcement Unit Chief

KSC

Enclosure

M.P.B.

Villa Ridge The WWTF consists of an extended aeration plant with two extended aeration basins a sludge holding structure and chlorination. The WWTF is required to disinfect during the recreational season and has a design flow of 66,600 gallons per day. Treated effluent from the plant discharges to Pin Oak Creek pursuant to the requirements and conditions of Missouri State Operating Permit (Permit) No. MO-0038237.

The WWTF was referred to the Department's Water Pollution Compliance and Enforcement Section on October 29, 2012 for:

1. Violation of water quality standards (see Appendix A for details on health risk)
2. Violation of permitted effluent limitations (see Appendix A for details on health risk)
3. Failure to submit Discharge Monitoring Reports (DMRs) (see Appendix A for details on health risk)
4. Caused pollution to waters of the state (see Appendix A for details on health risk)
5. Delinquent annual permit fees
6. Failure to hire a certified operator
7. Failure to operate and maintain the WWTF

Villa Ridge WWTF is one of 7 facilities owned by M.P.B. and PCB who were listed as defendants in a Default Judgement issued by Jefferson County Circuit Court on June 10, 2015 (case # 11JE-CC01030). The Judgement found that the defendants had violated Missouri Clean Water Law and assessed a penalty for those violations. See Appendix C for a copy of the Judgement detailing the violations and penalty.

The most recent compliance inspection of the Villa Ridge WWTF on June 26, 2017 determined that the WWTF was NOT in compliance with its Permit or MCWL. NOV # SL170206 was issued due to violations observed by Department staff during the inspection. Violations observed by staff include: Violation of water quality standards, causing pollution to waters of the state, and failure to comply with Chapter 8 regulations (see Appendix A for details on health risk). Analysis of an effluent sample collected by staff during the inspection revealed violations of permitted effluent limitations for Total Residual Chlorine (TRC) and E. coli (see Appendix A for details on health risk).

Lake Virginia This WWTF consists of two separate wastewater treatment lagoons, one of which, is operated pursuant to a Department issued Permit while the other is unpermitted.

- A. East lagoon is a 2 cell facultative lagoon with chlorination. Disinfection is required during the recreational season. The lagoon discharges treated effluent to Joachim Creek pursuant to the requirements and conditions of Permit No. MO-0101672 -The WWTF was referred to the Department's Water Pollution Compliance and Enforcement Section on October 29, 2012 for:
 - a. Violation of water quality standards (see Appendix A for details on health risk)

- b. Violation of permitted effluent (see Appendix A for details on health risk)
 - c. Caused pollution to waters of the state (see Appendix A for details on health risk)
 - d. Failure to submit (see Appendix A for details on health risk)
 - e. Failure to meet monitoring requirements
 - f. Failure to comply with permit conditions
- B. West Lagoon (Unpermitted)-The WWTF is a one cell facultative lagoon from which effluent discharges to Joachim Creek without a Permit. The WWTF was referred to the Department's Water Pollution Compliance and Enforcement Section on October 29, 2012 for:
- a. Unpermitted discharge
 - b. Violation of water quality standards (see Appendix A for details on health risk)
 - c. Caused pollution to waters of the state (see Appendix A for details on health risk)
 - d. Construction without a permit

The Lake Virginia WWTF is one of 7 facilities owned by M.P.B. and PCB who were listed as defendants in a Default Judgement issued by Jefferson County Circuit Court on June 10, 2015 (case # 11JE-CC01030). The Judgement found that the defendants had violated Missouri Clean Water Law and assessed a penalty for those violations. See Appendix C for a copy of the Judgement detailing the violations and penalty.

The most recent compliance inspection of the Lake Virginia WWTFs on March 8, 2017 determined that the WWTFs were in significant non-compliance with the MCWL and the Missouri Clean Water Commission Regulations. On March 23, 2017 NOV #SL170134 was issued due to violations observed by Department staff during the inspection. Violations observed at the West lagoon include: Discharge without a Permit, Violation of Water quality standards, causing pollution to waters of the state (see Appendix A for details on health risk). Violations observed at the East lagoon include: Violation of water quality standards, causing pollution to waters of the state, and failure to comply with Chapter 8 regulations (see Appendix A for details on health risk). Photos included with both inspection reports show significant accumulation of sludge in Joachim Creek below the outfalls for the 2 lagoons. Accumulation of sludge is an indicator that the receiving stream may have issues with BOD, TSS and E. coli (see Appendix A for details on health risk)

In addition to public health and water pollution issues caused by the poor condition of the lagoons, USDA lenders are currently not lending money to purchase homes in the subdivision because the wastewater facilities are not in compliance with Missouri Clean Water Law. Lenders, and real estate agents have called the Department asking whether the Department can write a letter stating the WWTF is compliant. The Department response is that the systems will not be compliant until they are purchased by an entity willing to repair or replace the non-compliant WWTF.

Mill Creek

Castlereagh The WWTF is an extended aeration system with a secondary clarifier and sludge holding tank. The WWTF has a design population equivalent of 277, a design flow of 27,700 gallons per day (gpd), an actual flow of 16,800 gpd and a design sludge production of 5.0 dry tons per year. Treated effluent from the WWTF discharges into Mill Creek pursuant to the requirements and conditions of Permit No. MO-0084484. The WWTF was most recently referred to the Department's Water Pollution Compliance and Enforcement Section on November 6, 2017 for:

1. Violation of permitted effluent limitations (see Appendix A for details on health risk)
2. Failure to submit reports regarding progress toward meeting final permitted effluent limitation for E. coli
3. Delinquent annual permit fees

The most recent compliance inspection of the Castlereagh WWTF on August 11, 2015 determined that the WWTF was NOT in compliance with either the Permit or the MCWL. On September 15, 2015, NOV # 4068 SL was issued due to violations observed by Department staff during the inspection. Violations include: Violation of permitted effluent limitations, failure to submit progress reports, and delinquent annual permit fees.

Majestic Lakes

The WWTF consists of a one tank sequencing batch reactor with flow equalization and ultraviolet disinfection. The WWTF has a design population equivalent of 790, a design flow of 79,000 gallons per day (gpd), and an actual flow of 12,800 gpd. Treated effluent discharges from the WWTF to Crooked Creek pursuant to the conditions and requirements of Permit No.M0-0130125. The WWTF has well documented structural flaws that if not repaired could result in collapse of the WWTF resulting in a catastrophic release of wastewater creating an obvious human health hazard and environmental contamination. See below for a snapshot from a permit issued by the Department for the Majestic Lakes WWTF. Note that the Department required an abbreviated schedule for completing construction to repair or replace the facility due to the concern the WWTF would collapse. Collapse of the facility would pose a great risk to public health and the environment, and would leave the homeowners with no wastewater treatment.

Majestic lakes has a history of missing DMRs and effluent limitation violations for BOD, DO and Ammonia as N (see Appendix A for details on health risk)

D. SCHEDULE OF COMPLIANCE

1. Submit Plan

Within 60 days of issuance of this permit the permittee shall indicate whether the HOA plans to connect to another treatment facility or the HOA plans to repair and/or replace the entire facility.

Option 1:

Connection to another treatment facility;

- a. Within 6 months, declare connection to another treatment facility and submit a timeline to eliminate the existing facility.
- b. Within 1 year connect to another treatment facility and properly close the existing facility.

Option 2:

Repair and/or replace existing facility

- a. Within 6 months of the effective date of this permit, the permittee shall submit a construction permit to repair and/or replace the facility including plans and specifications. This report shall include information as required by special condition 1.
- b. Within one year of the effective date of this permit, the permittee shall submit a report detailing progress made in attaining compliance with the final effluent limits.
- c. Within 3 years of the effective date of this permit, the permittee shall attain full compliance with the final effluent limits for Ammonia.

Please submit progress reports to the Missouri Department of Natural Resources, St. Louis Regional Office, 7545 Lindbergh, Ste. 210, St. Louis, MO 63125.

The Department is requiring this rapid schedule due to the possible threat public health and the environment in the event of catastrophic failure of the facility.

Port Perry

The Willows WWTF Permit No. MO-0052281 is composed of extended aeration, tertiary filtration, chlorination, dechlorination, and a sludge holding tank. The system has a design flow capacity of 100,000 gallons per day. Discharge from this facility discharges into a tributary to Pond Creek pursuant to the requirements and conditions of Permit No. MO-0052281

The WWTF was referred to the Department's Water Pollution Compliance and Enforcement Section on October 29, 2012 for:

1. Violation of water quality standards (see Appendix A for details on health risk)
2. Violation of permitted effluent limitations (see Appendix A for details on health risk)
3. Caused pollution to waters of the state (see Appendix A for details on health risk)
4. Failure to report bypass of partially treated wastewater as required
5. Failure to operate and maintain the WWTF.

The most recent compliance inspection of the WWTF was conducted on June 1-2, 2016. Staff found the WWTF was not in compliance with the applicable statutory and regulatory requirements of the state of Missouri and noted violations for Failure to submit required reports, failure to provide a flow measurement device and failure to perform minimum testing

requirements. A review of DMRs submitted from 2016 through present shows violations of the permitted effluent limitations for BOD, Chlorine, E. coli and Ammonia as N (see Appendix A for details on health risk).

Gladlo

The WWTF consists of a 3 cell facultative lagoon with sludge stored in the lagoon. Treated effluent from the WWTF discharges to a tributary to Little Prairie Lake pursuant to the requirements and conditions of Permit No. MO-0084191.

The most recent inspection of the WWTF was conducted on September 26, 2013. Staff found the WWTF to have violations of the MCWL and issued a letter of Warning on October 7, 2013. Violations observed by staff include violation of sample collection protocol,

DMRs indicate that the WWTF had 2 violations of the permitted effluent limitation for Chlorine in 2017, and 2 incomplete DMRs in 2016 (see Appendix A for details on health risk).

Roy-L

The WWTF consists of a single cell lagoon with chlorination during the recreational season. The WWTF serves 3 full time residences and approximately 200 seasonal residences. Effluent discharged from the WWTF has had significant violations of the permitted effluent limitation for E. coli 8 times since 2012 (see Appendix A for details on health risk).

Treated effluent from the WWTF discharges to a tributary to Bear Creek pursuant to the requirements and conditions of Permit No. MO-0087211. A representative of Roy-L Utilities has stated that the collection system for the WWTF is comprised of clay pipe and is suspected to have significant issues with inflow and infiltration causing higher than expected flows at the WWTF.

The most recent compliance inspection of the Roy-L WWTF on May 22, 2017 determined that the WWTF was NOT in compliance with either the Permit or the MCWL. On June 13, 2017, NOV # SL170158 was issued due to violations observed by Department staff during the inspection. Violations include: Violation of permitted effluent limitations (see Appendix A for details on health risk).

Appendix A

A description of various violations and specific water contaminants and the human health and other hazards that they pose.

Under the Missouri Clean Water law and the Federal Clean Water Act Sanitary Sewer Overflows (SSOs) and Bypasses are prohibited because the discharge of untreated or partially treated wastewater creates a public health risk and negatively impacts the environment. Such discharges have the potential to contaminate lakes and streams causing serious water quality problems that negatively impact the beneficial uses listed in 10 CSR 20-7.031.

The discharge of effluent that does not comply with permitted effluent limitations contributes to the further impairment of the receiving stream and endangers the aquatic life in the stream, livestock, wildlife, and public health. Such discharges have the potential to contaminate lakes and streams causing serious water quality problems that negatively impact the beneficial uses of the receiving stream as listed in 10 CSR 20-7.031.

Losing streams are streams which distribute thirty percent (30%) or more of its flow during low flow conditions through natural processes, such as through permeable geologic materials into a bedrock aquifer within two (2) miles' flow distance down-stream of an existing or proposed discharge. Groundwater is defined as water occurring beneath the surface of the ground, including underground watercourses, artesian basins, underground reservoirs and lakes, aquifers, other bodies of water located below the surface of the ground, and water in the saturated zone. Groundwater is the source of drinking water for approximately 35% of the nation's urban population and 95% of the rural area population making it a vital resource for Missouri. In losing streams, groundwater levels are lower than water levels in the stream, and water from the stream recharges the groundwater system making the groundwater supply susceptible to contamination if the stream feeding the groundwater system has been polluted. When groundwater becomes contaminated it is both very costly and difficult to restore its quality. Contaminated groundwater poses a potentially serious health threat to humans, livestock, and wildlife. WWTFs that violate permitted effluent limitations and also discharge to losing streams pose an even greater hazard to human health than those that discharge to gaining streams.

Missing and or Incomplete DMRs- besides constituting a violation of Section 644.076.1, RSMo, and 10 CSR 20-7.015(9)(D)1, missing DMRs also represent missing data. Permits are essentially an agreement between the entity and the Department that discharge of treated wastewater will be allowed as long as permitted effluent limitations are not violated. If there is no DMR, or if the DMR is incomplete then there can be no confirmation that the effluent discharged from the WWTF does not pose a risk to human health or the environment.

Ammonia (NH₃) is toxic to early stages of aquatic life. NH₃ removal prevents damage to aquatic life and enables the receiving stream to support a healthier and diverse aquatic life community. Please see the Water Protection Program fact sheet titled "Changes to the Water Quality Standard for Ammonia" at <http://dnr.mo.gov/pubs/pub2481.htm> for further information.

E. coli is an indicator of the presence of fecal contamination and possible disease-causing bacteria and viruses in water and wastewater. If the receiving stream has designated uses (as listed in 10 CSR 20-7.031) that include human contact, then a WWTF which discharges effluent

in violation of the permitted effluent limitation for E. coli poses a serious threat to human health in accordance with Water Quality Standards and the Clean Water Act. The appropriate disinfection of wastewater benefits human health by reducing exposure to disease-causing bacteria and viruses and reducing health care costs to those infected by contaminated water.

Total Residual Chlorine (TRC)- Humans can be exposed to chlorine by absorption through the skin from water and air, by drinking and eating, or by breathing in fumes. If effluent from a WWTF violates the maximum permitted effluent limitation for TRC and is discharging to a stream whose uses include human contact, long term exposure could cause a human health risk. In addition Chlorine is toxic to aquatic life and elevated levels can cause a fish kill.

Nutrients are mineral compounds that are required for organisms to grow and thrive. Of the six (6) elemental macronutrients, Nitrogen and Phosphorus are generally not readily available and limit growth of organisms. If excess Nitrogen and Phosphorus are introduced into a waterbody, some species' populations will dramatically increase, while other populations will not be able to sustain life. This causes a shift in the ecosystem's food web. Competition and productivity are two factors in which nutrients can alter aquatic ecosystems and the designated uses of a waterbody. For example, designated uses, like drinking water source or recreational uses, become impaired when algal blooms take over a waterbody. These blooms can cause foul tastes and odors in the drinking water, and also cause unsightly appearance, and fish mortality in the waterbody. Some algae also produce toxins that may cause serious adverse health conditions such as liver damage, tumor promotion, paralysis, and kidney damage. Increased productivity of aquatic life may also clog treatment equipment, can reduce dissolved oxygen, and suffocate fish and other aquatic life in the waterbody.

Biochemical oxygen demand (BOD) is a measurement of the amount of oxygen utilized by the decomposition of organic material, over a specified time period in a wastewater sample. Wastewater from sewage treatment plants contains organic materials that are decomposed by microorganisms, which use oxygen in the process. Oxygen is measured in its dissolved form as dissolved oxygen. When more oxygen is consumed than is produced, dissolved oxygen levels in the stream receiving the effluent from a wastewater treatment facility can decline and some sensitive animals may move away, weaken, or die.

Total Suspended Solids (TSS) is a measure of the filterable solids present in a wastewater or effluent sample that includes dissolved solids and settleable solids. The concentration of total dissolved solids affects the water balance in the cells of aquatic organisms. An organism placed in water with a high concentration of solids will shrink somewhat because the water in its cells will move out. This will in turn affect the organism's ability to maintain the proper cell density, making it difficult to keep its position in the water column. It might float up or sink down to a depth to which it is not adapted, and it might not survive. Higher concentrations of suspended solids can serve as carriers of toxic materials, which readily cling to particles suspended in the water. Total solids also affect water clarity. Effluent with low clarity is more difficult to disinfect using Ultra violet light, and will require a higher dose of chlorine/greater contact time when using Chlorination to disinfect. In addition, higher solids decrease the passage of light through water, thereby slowing photosynthesis by aquatic plants. Water will heat up more rapidly and

hold more heat; this, in turn, might adversely affect aquatic life that has adapted to a lower temperature regime.

In order to correct deficiencies in the wastewater treatment process, the Department recommends that the owner assure proper operation of the existing WWTF. If proper operation does not result in compliance, then the following may be considered:

1. Connection of the facility to a larger facility with the capability of treating the additional wastewater.
2. Converting the existing wastewater treatment lagoon to a no-discharge system with land application of the wastewater, the owner of the facility will be avoiding the direct discharge of effluent into the receiving stream, reducing the health risks of the community. The wastewater treatment modifications provide an opportunity to lessen the environmental impacts associated with surface water discharges, improves recreational water quality, and the wastewater recharges the groundwater to increase the base flow in the stream. Additionally, the natural treatment of the wastewater that takes place in the soil allows plants to remove nitrogen and phosphorus from the wastewater.
3. Construction of improvements to the WWTF or a new WWTF that will produce effluent that complies with permit Requirements and the MCWL.

Appendix B

Parties and Attorneys related to Case # 11JE-CC01030 (Note M.P.B. is listed as a defendant and the facilities involved include Villa Ridge and Lake Virginia)

11JE-CC01030 - STATE OF MISSOURI V PCB INC ET AL

Case Header	Parties & Attorneys	Docket Entries	Charges, Judgments & Sentences	Service Information	Filings Due	Scheduled Hearings & Trials	Civil Judgments	Garnishments/ Execution
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This information is provided as a service and is not considered an official court record.

STATE OF MISSOURI , Plaintiff	represented by	BLIGH , SHAWNA MARIE , Assistant Attorney General
OFFICE STATE COURTS ADMIN 2112 INDUSTRIAL DRIVE P O BOX 104480 JEFFERSON CITY, MO 65110		P.O. Box 899 JEFFERSON CITY, MO 65102 Business: (573) 751-8847
PCB INC , Defendant		
505 BRICK CHURCH ROAD LABADIE, MO 63055		
PFEFFER , NICOLE , Defendant	represented by	HAMILL , PAUL CHRISTIAN , Attorney for Defendant
505 BRICK CHURCH ROAD LABADIE, MO 63055		12801 FLUSHING MEADOW DRIVE SAINT LOUIS, MO 63131 Business: (314) 965-2255
Party End Date: 05/28/2014 Party End Reason: Party Dismissed		
PFEFFER , GREGORY , Defendant		
2853 STONECREST DRIVE ARNOLD, MO 63010		
Year of Birth: 1970		
M.P.B. INC. , Defendant		
C/O REG AGENT - NICOLE PFEFFER 505 BRICK CHURCH ROAD LABADIE, MO 63055		
GNP SERVICES, LLC , Defendant		
C/O REG AGENT - NICOLE PFEFFER 505 BRICK CHURCH ROAD LABADIE, MO 63055		

Appendix C
Default Judgement

IN THE CIRCUIT COURT OF JEFFERSON COUNTY, MISSOURI

STATE OF MISSOURI ex rel.)
 Attorney General Chris Koster and)
 Missouri Department of)
 Natural Resources,)
)
 Plaintiff,)
)
 v.)
)
 P.C.B. INC., d/b/a Wastewater Treatment)
 Facilities at Sandia Heights, Sennawood)
 Village, Wedgewood Village, Secluded)
 Forest, and Bel Air Subdivisions, et al.,)
)
 Defendants.)

Case No. 11JE-CC01030

FILED
 JUN 10 2015
 MICHAEL E. REUTER
 CIRCUIT CLERK

ENTRY OF FINAL DEFAULT JUDGMENT
AGAINST DEFENDANT GNP SERVICES, LLC

This Court, upon review and after the hearing on Plaintiff's Motion for Default Judgment against Defendant GNP Services, LLC, finds that:

1. On February 23, 2015, this Court issued its order granting Plaintiff's motion for sanctions due to Defendant GNP Services, LLC's failure to obey this Court's order that Defendant provide documents in response to Plaintiff's discovery requests. This Court ruled that:

- A. Defendant GNP Services, LLC is deemed to be in default of the issues raised in Plaintiff's Amended Petition;
- B. Defendant GNP Services, LLC is precluded from raising any defense of inability to pay a civil penalty; and
- C. Defendant GNP Services, LLC is to be assessed a heightened civil penalty for its recalcitrance.

2. In addition, Defendant GNP Services, LLC, though served with a

copy of the First Amended Petition on December 12, 2013, failed to file an answer.

3. As Defendant GNP Services, LLC is deemed to be in default of the issues raised in Plaintiff's First Amended Petition, pursuant to this Court's February 23, 2015 order, Defendant GNP Services, LLC has violated § 644.051.1(1), RSMo by placing water contaminants in a location where they are reasonably certain to cause pollution to waters of the State; has violated § 644.051.1(2), RSMo by discharging water contaminants into waters of the state that reduced the quality of such waters below water quality standards; has violated § 644.051.2, RSMo by operating wastewater treatment facilities without permits; has violated § 644.051.1(3), RSMo by discharging water contaminants into waters of the state which exceed effluent regulations or permit limits; has violated 10 CSR 20-7.015(9)(A)(1) and the permits by failing to submit discharge monitoring reports; has violated 10 CSR 20-7.015(9)(E)(2) by failing to report bypasses; has violated 10 CSR 20-6.010(7)(A) by failing to submit documents and complete construction upgrades; has violated 10 CSR 20-8.010(11)(C)(11) by failing to install fencing; and has violated § 644.052, RSMo and 10 CSR 20-6.011 by failing to pay permit fees.

4. Section 644.076, RSMo, authorizes injunctive relief and civil penalties of up to \$10,000 for each day, or part thereof, a violation of the Missouri Clean Water occurs or continues to occur.

THEREFORE, IT IS HEREBY ORDERED, ADJUDGED AND DECREED:

1. The Court finds that the terms of this Judgment protect the public's interest.

2. For purposes of this decree, this Court has jurisdiction over the subject matter of this action and over the parties hereto. This Judgment covers matters alleged in Plaintiff's First Amended Petition.

3. The provisions of this Judgment shall be binding upon the parties to this Judgment as well as their agents, servants, employees, heirs, successors, assigns, and to all persons, firms, corporations and other entities who are, or will be acting in concert or privity with, on behalf of the parties to this judgment or their agents, servants, employees, heirs, successors, and assigns.

4. Defendant GNP Services, LLC is permanently ordered and enjoined to obey, abide by and comply with this Judgment, Chapter 644, RSMo, the Missouri Clean Water Law, and the rules and regulations promulgated thereunder for any and all future activities in the State of Missouri.

5. Defendant GNP Services, LLC is ordered and enjoined to obtain a Missouri State Operating Permit for all wastewater treatment facilities owned or operated by Defendant GNP Services, LLC in the State of Missouri and to operate any such facilities in accordance with the standards and conditions set forth in the Missouri State Operating Permit. In particular, Defendant GNP Services, LLC is ordered and enjoined to cease from all illegal and/or unauthorized discharges to waters of the state.

6. Defendant GNP Services, LLC is hereby ordered to immediately forward civil penalties in the amount of \$189,671 in the form of a certified check, made payable to the “*State of Missouri (Jefferson County)*,” and delivered to Collections Specialist, P.O. Box 899, Jefferson City, MO 65102-0899. Execution for said sum to issue immediately.

7. This Judgment does not discharge any other potentially responsible parties.

IT IS SO ORDERED.



Judge

Dated this 10th day of June 2015.