



Binghamton-Johnson City JOINT SEWAGE BOARD



Eugene Hulbert, Sr.
Gary Holmes
Edward Crumb

Stephen Andrew
George Kolba, Jr.
Ron C. Davis

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MINUTES OF A SPECIAL/EMERGENCY MEETING OF THE BINGHAMTON - JOHNSON CITY JOINT SEWAGE BOARD

Monday, February 23, 2015

Conference Room, Training and Office Building, JSTP

Members Present: Eugene Hulbert, Sr., Chairman
George Kolba, Jr., Vice-Chairman (via Phone Conference at 4:05 pm)
Edward Crumb
Ronald Davis
Steve Andrew (via Face Time)
Gary Holmes

Also Present: Cathy (Aingworth) Young, Superintendent
Charles Pearsall, Business Manager
Michele Cuevas, Confidential Secretary
Alfred Paniccia, Jr., Esq., Co-Counsel (arrived 4:26 pm)
Jerry Motsavage, City of Binghamton Councilman
Laura Lee Perkins, Transcriptionist

Guests: Elliott Wagner, Head Electrician
Michael Tanzini, News Channel 34
Beth Rousseau, Fox 40

Chairman, Eugene Hulbert, Sr. called the meeting to order at 4:04 PM. A quorum of five (5) Board Members was present. Sign-in sheet passed for signatures. Meeting Waiver of Notice passed for signatures.

(George Kolba, Jr. joined the meeting by telephone conference. All Board Members are now present).

A written report from Head Electrician Elliott Wagner regarding the failure of the Main Power Supply in the Head house was reviewed – provided to Board Members prior to the meeting via e-mail, including details regarding a failure that occurred at 3:30am Sunday morning that involves deteriorated feeder cables to Thickener #1, which could not be re-energized:

Catherine P. Young, Superintendent
Binghamton-Johnson City Joint Sewage Treatment Facilities
4480 Vestal Road, Vestal, New York 13850
Phone: 607-729-2975 Fax: 607-729-0110
Email: bjcwwtp@stny.rr.com

DPI Feeder

On February 17, 2015 a **Square D Breaker model #LA-25a** which feeds DP 1 opened at approximately 9 am. **DPI is a Power distribution panel** fed with 600 amps at 480 volts. This Breaker is housed in a Square D Line-up that was installed in 1959.

The Square D Line-up also houses the following Breakers:

- a **Type LA-50a 1200 amp Main at 480 volts** (This breaker was replaced on 4/29/03 after the original breaker burned up after a main pump Horsepower increase),
- a **Type LA-50a 600 amp at 480 volts** feeding the Klockner Moeller MCC attached to the Square D gear which appears to have been added in 1983, and
- a **Type LA-15a 100 amp at 480 volts.** This breaker is a spare.

The **DPI** power distribution panel feeds the following Motor Control Centers and equipment:

- The **Binghamton Grit house MCC** feeds the following equipment:
 - Primary flights and Cross collectors for tanks 1-5,
 - East and West Primary piston pumps,
 - Binghamton Grit house sump pump,
 - South Grit channel flights and pump,
 - North and South Gate operators,
 - 480-volt welding receptacles on the Primary flight deck,
 - Building 7 East and West Grinders,
 - Building 7 Heater, Franklin Miller Grinder, and
 - a Lighting and receptacle panel in the Binghamton Grit house.
- The **Johnson City Grit house MCC** feeds:
 - the Sump pump,
 - Johnson City Grit house Heater,
 - South Grit channel and flights,
 - Tank 6 primary flights and Cross Collector,
 - 6 Auma Valves in Building 7,
 - the East and West Hayward Gordon pump VFDs in Building 7, and
 - a Lighting and power panel in the Johnson City Grit house.
- Thickener #1 building,
- Garage distribution panel, and the
- Headhouse 120 gallon hot water heater.

During the investigation to determine the cause of this breaker opening, we found the feeder on the back side of the South Grit channel flight drive to have developed a pinhole in a fiberboard insulator which created a direct connection to the frame of the bucket which caused the Breaker feeding DPI to open. At the same time, the Starter for Primary flight tank 6 contacts were welded shut.

After the faults were cleared we tried to close the DPI feeder breaker to no avail. The internal mechanism is not engaging keeping us from closing the breaker. The last time this gear was inspected was September of 2013. At that time, the Breaker feeding DPI was found to have an Alert on the A phase showing a Hot Buss. Page 6A of the Infrared Inspection Report Sheet shows a 5.7 C temperature difference. It further states, "The Buss may be overheating due to an overload condition, or a poor connection". Upon removal of the breaker it was found to have a loose connection at the "Fingers" or the point of attachment. These breakers are known for problems in this area and are no longer made this way.

To temporarily feed DPI, we have disconnected main pump 3 VFD from its 400 amp breaker and fed DPI. This is an emergency "Stopgap" only. If we get into a high water situation or lose a main pump we will need to put #3 back on-line thereby eliminating our ability to remove solids from the primaries until another electrical source is found. Currently we are looking at Switchboard LVS-4 in the Centrifuge room. We are working on a quote for Temporary feeders long enough to connect these two panels.

We have received a [diagnostic "assess and repair"] price quote for the repair of our SquareD model #LA25a Breaker from HMT for \$3,000.00 – if we pick up and deliver the breaker. (We will save \$500.00 if we deliver the breaker to them in Cicero NY. We will save an additional \$500.00 if we pick it up). This seems to be the quickest most efficient way to get this breaker back in service.

The same [September 9, 2013] report shows the main breaker 1200 amps at 480 to have a temperature difference on Line side B phase, Load side B phase, and Load side C phase. Page 19 of 36 Equipment inventory - short form with images. Thus, safety issues still remain with the 1200 amp main breaker.

Mr. Wagner provided the following additional update:

This morning I sent the electricians over to the Johnson City Grit House; they tore apart the Motor Control Center and removed all buckets. All buckets seemed to be in good working order. Binghamton Grit House is fine. Performed a megger test on all conductors coming off DP 1.

Also performed a DAR test on feeder cables – Thickener #1 failed – this underground feed was installed in 1959. At the same time, the DP 1 conductors themselves – at 600 amps or parallel feed of 350 amps – are in poor condition. Elliott personally delivered the 600 amp DP 1 breaker to HMT in Cicero NY this morning. They will have that repaired as soon as they can.

Headhouse MCC – the DP 1 breaker that failed is a 600 amp breaker which was installed in 1959. The breakers have "fingers" that clamp onto a housing box ("bucket"), and the fingers are misaligned. That breaker is racked in mechanically and when you rack it in, and the fingers are

misaligned – this has the potential to short, phase-to-phase or phase-to-ground. This basically causes an arc flash and could cause an explosion;- thus putting the employees in grave danger.

The breakers are not made anymore; any breakers that might still be available will need to be certified before use.

Gary Holmes stated that the City of Binghamton could assume Lead Agency status and will enter into an emergency contract with GHD.

Edward Crumb made a motion for the Board, based on the report from the Head Electrician and Superintendent that there is a situation existing centered around the Head House Motor Control Center Distribution Panel and other connected areas of the Plant that poses a risk of personal injury, poses a risk of damage to property and equipment, and could affect public health if the equipment should fail catastrophically to the point the Plant could not process influent that the Joint Sewage Board declare an Emergency condition exists for the procurement of all safety gear and barriers if needed for the Plant and also for the procurement of replacement and/or spare circuit breakers, feeder lines and any connected equipment.

Ronald Davis seconded the motion

In discussion it was noted that a copy of the Certificate of Resolution should be provided as soon as possible to both Owners' Mayors and the City of Binghamton Board of Contract and Supply.

Motion carried 6/0

Edward Crumb made a motion for the Board to authorize the Superintendent or her designee, on an emergency basis pursuant to the Emergency Declaration Resolution, to procure personal protective gear or equipment and barricades to address the emergency conditions associated with the Head House Motor Control Center Distribution Panel and other connected areas of the Plant, with the cost to be paid out of J8130.54601 (Safety Equipment).

Ronald Davis seconded the motion

Motion carried 6/0

Edward Crumb made a motion for the Board to authorize the Superintendent or her designee to procure, on an emergency basis pursuant to the Emergency Declaration Resolution, such equipment as replacement or spare breakers, feeders, connectors, panels to address the current configuration of the Head House Motor Control Center Distribution Panel and other connected areas of the Plant to maximize the operation of the Plant, to be paid for from Capital Budget line JH8130.554027 (Head House/TPS Electrical/Switchgear).

Ronald Davis seconded the motion

Motion carried 6/0

Edward Crumb made a motion for the Board approve authorization for the Business Manager to coordinate with the Fiscal Officer/Binghamton Comptroller in relation to funding of a City Lead Agency Contract to address expedited design for the Head House Motor Control Center and the equipment and apparatus connected to it to be paid from budget line JH8130.554027 (Head House/TPS Electrical/Switchgear).

Ronald Davis seconded the motion

Motion carried 6/0

George Kolba, Jr. suggested getting Mateo involved as they are familiar with the system.

Edward Crumb thanked Elliott Wagner for his efforts, in-depth presentation and description and to the Electrical Staff for keeping the Plant running through this situation.

Ronald Davis made a motion for the Board to adjourn.

Steve Andrew seconded the motion

Motion carried 6/0

Meeting adjourned at 4:38 PM

Respectfully submitted,

Laura Lee Perkins
Transcriptionist

cc: Board Members
Mayor Rich David, City of Binghamton
Mayor Greg Deemie, Village of Johnson City
City Clerk, City of Binghamton
Village Clerk/Treasurer, Village of Johnson City
John Perticone, Esq.
Alfred Paniccia, Esq.
Chuck Shager, Fiscal Officer
Catherine Young, Superintendent
Brown & Brown Empire State
Haylor Freyer & Coon
Robert Bennett, P.E., Village of Johnson City, Engineer
Gary Holmes, P.E., City of Binghamton, Acting Engineer
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