

INCIDENT OVERVIEW 10-14-22

The City of Jackson Surface Water System was impacted by recent flooding. Both the O.B. Curtis and J.H. Fewell water treatment plants had reduced water output that created pressure problems in the system. The City lacked sufficient pressures in some areas of the City to sustain adequate access to flush toilets and maintain optimal disinfection for drinking water. Both O.B. Curtis and J.H. Fewell water treatment plants lacked sufficient Class A Operators and maintenance staff.

Dr. Daniel Edney, State Health Officer of the Mississippi State Department of Health, issued a Declaration of a Public Drinking Water Supply Emergency in the City of Jackson ordering the City including, but not limited to, employees of the Public Works Department and Emergency Management immediately cooperate with state response teams and contractors deployed to augment current staffing and to take remediation actions deemed necessary by the State Incident Commander. The Governor of Mississippi, Tate Reeves, has declared an emergency for the City of Jackson due to the effect on essential government services, medical facilities, and schools. A Unified Command has been established to combat this emergency.

Following two rounds of sample collection and bacti analyses in the Mississippi Public Health Laboratory, the state-imposed boil water notice for the City of Jackson was lifted at 1300, on 16 Sept 2022.

The City has received isolated reports of discolored water and pressure issues. These reports are decreasing each day. The City reports that many of these issues are related to routine water leaks or meter issues. Each is being assessed by the city for response.

A large group of EMAC (Emergency Management Assistance Compact) teams are now on-site supplementing O.B. Curtis staff in addition to assistance from the Mississippi Rural Water Association. The teams onsite are from Maryland, Arizona, Massachusetts, and Minnesota. These teams include operators, mechanics, instrument technicians, and maintenance. This work has expanded to J.H. Fewell Water Plant.

The EPA Administrator and Assistant Attorney General Todd Kim from the Department of Justice met with City officials on September 26, 2022, to begin work on a judicially enforceable agreement that ensures a sustainable water system in the mid- and long-term.

TREATMENT FACILITY STATUS

- **O.B. Curtis**
 - Conventional Treatment Plant:
 - Authorized for **25** million gallons
 - Capacity of **18.7** million gallons
 - Producing million **18.37** gallons
 - Membrane Treatment Plant:
 - Authorized for **25** million gallons
 - Producing **16.70** million gallons

- **J.H. Fewell**
 - Authorized for **20** million gallons
 - Potential flex to **30** million gallons
 - Producing **12.2** million gallons

- **Total:**
 - City of Jackson: **47.27** million gallons

Tank/Well Status: As of 0800 hrs., the city was operating at **86.4** psi.

NOTES: Due to the system maintaining normal pressures, tank and well statuses will be updated only when significant changes occur.

GENERAL SAFETY AWARENESS MESSAGE

Safety is the number one priority. The safety message ensures critical safety information is given to all personnel and that site-specific hazards are understood prior to permitting access to the work site, thereby creating a safer work environment, and facilitating the process of adjustment for responders, contractors, and visitors. Ensure one or more knowledgeable person(s) are assigned to guide

guests/visitors through the water treatment plant or any individual facility following a safety brief conducted by the onsite Safety Officer. Three points of contact when ascending/descending stairs inside facilities. Observe surrounding crane activity and stay a safe distance away from live loads. Ensure personnel wear a high visibility vest, hard hat, and any other appropriate PPE correctly when moving throughout the plant. Keep a safe distance from hazardous materials and open/unsafe live electrical components. Upon entering a room where hazardous materials are present, identify safety eye wash stations. Do not touch or use equipment you are not certified to operate, this includes the opening and closing of valves. Do not operate any heavy equipment that belongs to the City of Jackson; if specific equipment is needed, please notify the Safety Officer or Incident Command for facilitation of that need. Avoid leaks of hazardous materials and liquids from piping system. Accidents, injuries, and illnesses need to be reported to the MSDH Safety Officer Chase Harrison, the MEMA Safety Officer David Battaly, or their designee.

FATALITIES/INJURIES

- No injuries reported

CURRENT AND PLANNED OBJECTIVES

O.B Curtis Water Treatment Facility:

- Repair high service pumps
- Establish switch over safety protocol for chlorine disinfectant process
- Improve safety throughout facilities
- Establish automation and improve accuracy of electronics
- Staffing the operator shifts
- Complete sludge handling process
- Establish process control for water treatment
- Develop a distribution system monitoring plan

J.H. Fewell Water Treatment Facility:

- Repair sump pumps in the raw water intake (round building)
- Repair Raw Service Pumps

- Repair High Service Intake Pumps
- Repair High Service Pump #3 and #4
- Ensure facility operations maintain capabilities of 20 MGD with adequate resiliency
- Ensure capacity to flex to 30 MGD to assist with maintenance activities at O.B. Curtis

PERSONNEL DEPLOYED TO O.B. CURTIS

- MEMA: 3
- MSDH: 18
- MDEQ: 1
- CITY OF JACKSON: 1 in addition to O.B. Curtis personnel
- EPA: 2
- FEMA: 1

PERSONNEL DEPLOYED TO J.H. FEWELL

- MSDH: 1
- EPA: 1

TASKS COMPLETED: O.B. CURTIS

CITY OF JACKSON

- Day 48 of operation at O.B. Curtis –
 - One precautionary boil water advisory issued until further notice for the following area:
 - Cedarhurst Drive (39206)
 - Water conservation notice in effect for the City of Jackson

MARYLAND (WSSC)

- Repaired fluorosilicic acid level transmitter in chemical building
- Repaired sump pump in polymer room
- Sweeper arms missing nozzles and caps in conventional filter have been repaired
- Reject valve actuator on membrane train #5 have been repaired

ARIZONA (SURPRISE)

- Repaired carrier water line for polymer pump #1 in the sludge building

MASSACHUSETTS (LITTLETON)

- Repaired three plug valves on sludge thickener pump lines at sludge plant
- Connected condensate drain from refrigerator dryer drain line to floor drain
- Membrane pump room tightened up piping supports and pipe saddles
- Membrane pump room secured sodium bisulfite PVC line to hanging strut
- Repaired sump pump in conventional filter building
- Repaired the 1" PVC SCH 80 male adapter on reactor #1
- Drip in bisulfate line was identified and repaired

MISSISSIPPI STATE DEPARTMENT OF HEALTH

- Continued to provide support to the City of Jackson and EMAC teams at O.B. Curtis and J.H. Fewell
- Continued to source parts for O.B. Curtis conventional, membrane and J.H. Fewell plants, temp pump removed
- Continuing task assignments and prioritization of tasks based on availability of parts
- Worked with FEMA to update dashboard at O.B. Curtis and J.H. Fewell
- Continuing special precautions for children under five and women who are pregnant
- Synchronized EMAC task list with MEMA and project management team
- Coordinated with MSDH ERC to remove empty and leaking containers
 - Continue to identify material in unknown containers

CONTRACT PROJECT MANAGERS

- Discussed pump install for the polymer feed with Littleton
 - Hosted team call with pump distributor to assist with install
- Met with vendor to consult the installation of the ordered pressure and flow meters

- Sourced out other materials needed for install
- Materials were picked up and delivered from the site
- Attended meeting with MSDH and MEMA to review Smartsheet / task list
 - Took on additional tasks
- Assisted with coordination of used oil disposal with vendor
- Oversaw crew while drain line for Gravity Thickener #1 was jetted
- Continuing to procure materials requested by EMAC Teams as needed

TASKS COMPLETED: J.H. FEWELL

AZ/MD/MN/OH/MSDH/USEPA

- Quote for High Service pump #3 repair approved
- Quote for High Service pump #4 repair approved
- Scope of work and quote for chemical room gas line approved
 - Work is scheduled to begin on 10/17/22

EMAC

- Arizona – 3 Maintenance, and 1 Instrument Technician – onsite 10/03/22 – 10/15/22
- Massachusetts – 2 Maintenance Technician, 1 Mechanic, and 1 Instrument Technician – onsite 10/02/22 – 10/18/22
- Minnesota – 1 Operator – onsite 10/01/22 – 10/18/22
- Maryland (WSSC) – 1 Instrument Technician, 1 Electrician, 2 Mechanic, and 1 Site Lead – onsite 10/02/22 – 10/19/22
- EMAC requests made for staffing augmentation for 10/17/2022 – 10/31/2022

DIRECT FEDERAL ASSISTANCE

EPA

- Drafted report on chloramination process and sampling results to at J.H. Fewell
- Responding to information requests from utilities outside of Mississippi regarding EMAC assistance

- Provided National Water/Wastewater Agency Response Network (WARN) chairman with update on COJ water sector resources needs under EMAC. Chair will distribute to WARN members
- Ongoing coordination of process control monitoring at O.B. Curtis and J.H. Fewell
- Provided subject matter expertise, as needed, at both O.B. Curtis and J.H. Fewell

FEMA

- Reviewed documentation received from applicants
- Conducted Recovery Scoping Meetings with Belhaven University staff

USACE

- Transitioning to data validation and cost estimating
 - Researching specifications for repairs
 - Defining scopes of work
 - Assigning dollar values to the projects

UNMET NEEDS: O.B. CURTIS

- Packing for pumps
- Update evacuation plans for facility
- Mitigate risk of future chlorine leaks while providing resiliency for disinfection
- Remove HS pump #7 and associated motor
- 30 amp stainless disconnect for EQ basin crane
- Address safety hazards throughout O.B. Curtis plant
- Need for electrical repair and electrical panel for polymer pump and sludge clarifier
- Plan for removing sediments from clearwell
- Scope repairs to anhydrous ammonia tank #1
- Adequate tools and supplies

UNMET NEEDS: J.H. FEWELL

- Repair sump pump capacity

- Adequate tools and supplies
- Order parts for all four high service pumps
- Pump head studs
- Repair accurate SCADA communication between J.H. Fewell and O.B. Curtis