

**Compliance Plan for City of Jackson (MS0250008)**  
**Kishia Powell, P. E., Legally Responsible Official**  
**Cynthia Hill, Designated Certified Operator**  
**February 12, 2016**

To fulfill this Compliance Plan, the City of Jackson must accomplish the following items within the time periods specified. The Legally Responsible Official:

- Must identify an individual or firm providing professional engineering service to the City of Jackson for drinking water matters and provide the name or firm by written notice to the Director of the MSDH Bureau of Public Water Supply on or before February 22, 2016.
- Must provide the required Public Education pamphlet to all City of Jackson Water System customers no later than February 29, 2016. Written certification that notification was provided must be delivered to the Director of the MSDH Bureau of Public Water Supply on or before March 2, 2016.
- Must provide the required Public Education pamphlet to all Child Care Centers, Head Start Centers, Schools, Healthcare Facilities and any other locations where the City of Jackson is aware of children in congregate settings no later than February 19, 2016. Written certification that notification was provided must be delivered to the Director of the MSDH Bureau of Public Water Supply on or before February 24, 2016.
- Must submit an engineer-designed corrosion control study and plan for optimization of water treatment for the City of Jackson Water System to the Director of the MSDH Bureau of Public Water Supply on or before April 4, 2016. Once reviewed sufficient by the MSDH Bureau of Public Water Supply, the plan will be monitored by City of Jackson assigned engineer(s) and results will be submitted to the Director of the MSDH Bureau of Public Water Supply at intervals approved in the plan. The plan shall include, at a minimum, corrosion control studies that will continue for the next ten compliance cycles.
- Must submit a map with all samples for the 01/01/2016-06/30/2016 monitoring period plotted with delineation between lead detections and non-detections. The map will be used by the City of Jackson to develop a plan for Water Quality Parameter (WQP) testing which must be submitted to the Director of the Bureau of Public Water Supply for review by March 15, 2016. Following review, the MSDH Bureau of Public Water Supply will work with the City to determine sampling frequency and specific testing locations for the required WQP monitoring.
  - Beginning February 15, 2016, all Water Quality Parameters must be tested at least once at all locations where routine Lead/Copper samples are collected. Additionally, the 25

sites with the highest lead results will be tested 30 days later (within the same monitoring period).

- Must update the City of Jackson Water System Lead/Copper Site Plan. The plan must be designed and monitored by an engineer and provided to the MSDH Bureau of Public Water Supply. The plan must include a map with all sampling locations, intakes, wells, treatment plants, storage tanks, and booster stations. The plan and the map must be submitted to the Director of the MSDH Bureau of Public Water Supply on or before March 15, 2016.
- Until such time as a completed plan for the optimization of water treatment for the City of Jackson can be developed and reviewed by the MSDH Bureau of Public Water Supply, must ensure functional treatment of water in the current system to maintain a constant pH of at least 8.5 and alkalinity between 50 mg/l and 70 mg/l. Repairs or modifications to the City of Jackson Water System to establish these values must be completed as soon as feasible but no later than October 1, 2016.
- Must ensure that the Monthly Operational Report (MOR) is updated to include a daily average, maximum, and minimum values for alkalinity, pH, and hardness for entry points.
- In coordination with the MSDH Bureau of Public Water Supply, will develop and implement a special WQP sampling plan for distribution of water in the City of Jackson Water System.
- Must submit a written summary of activities related to all areas identified in this Compliance Plan to the Director of the MSDH Bureau of Public Water Supply by the 15<sup>th</sup> of each month, beginning March 15, 2016.

Any changes to this plan must be approved in writing, by the Director of the MSDH Bureau of Public Water Supply.

**City Of Jackson, MS**  
**O. B. Curtis Surface Water Treatment Plant**  
**Corrosion Control Data**  
**February 2016**

Feb 2016	OBC HS1			OBC HS2			JHF HS1		
	pH	Hardness	Alkalinity	pH	Hardness	Alkalinity	pH	Hardness	Alkalinity
1	7.94	36	20	7.26	32	17	8.81	----	----
2	8.24	35	19	7.41	30	14	8.97	----	----
3	7.08	45	10	7.21	35	15	9.12	57	21
4	7.79	35	19	8.47	32	13	8.96	60	19
5	8.49	39	14	8.70	30	12	8.87	63	19
6	8.60	----	----	7.89	----	----	9.28	----	----
7	9.45	----	----	9.18	----	----	9.14	----	----
8	8.46	33	14	8.96	29	10	8.30	57	16
9	7.33	29	14	7.63	22	14	8.51	51	20
10	7.38	32	16	7.62	28	12	8.90	60	22
11	8.63	30	17	8.28	27	13	8.62	60	11
12	8.66	33	10	8.40	22	11	8.76	57	13
13	8.36	----	----	7.35	----	----	8.78	----	----
14	7.93	----	----	8.85	----	----	9.04	----	----
15	7.58	----	----	7.71	----	----	9.02	----	----
16	6.43	35	19	6.69	30	17	8.74	59	16
17	6.94	35	10	6.75	25	10	8.74	----	----
18	6.75	35	16	5.98	28	13	8.65	56	21
19	6.76	43	12	6.74	38	13	8.85	50	17
20	7.21	----	----	6.84	----	----	9.10	----	----
21	7.68	----	----	7.12	----	----	9.05	----	----
22	7.15	35	13	7.58	32	13	9.03	65	15
23	7.06	37	16	7.33	30	14	8.51	70	17
24	7.23	40	10	7.27	39	10	8.76	65	15
25	6.83	36	13	6.62	40	14	9.30	63	12
26	8.72	41	14	9.19	45	12	8.69	65	16
27	8.91	----	----	9.19	----	----	9.19	----	----
28	8.96	----	----	8.91	----	----	9.10	----	----
29	7.73	25	16	8.11	24	15	9.15	49	12
<b>MIN</b>	<b>6.43</b>	<b>25</b>	<b>10</b>	<b>5.98</b>	<b>22</b>	<b>10</b>	<b>8.30</b>	<b>49</b>	<b>11</b>
<b>MAX</b>	<b>9.45</b>	<b>45</b>	<b>20</b>	<b>9.19</b>	<b>45</b>	<b>17</b>	<b>9.30</b>	<b>70</b>	<b>22</b>
<b>AVG</b>	<b>7.80</b>	<b>35</b>	<b>15</b>	<b>7.77</b>	<b>31</b>	<b>13</b>	<b>8.89</b>	<b>59</b>	<b>17</b>

**CITY OF JACKSON  
CORROSION CONTROL DATA**

March 2016 DAILY CALCULATIONS		SYSTEM ID: 250008-02						SYSTEM ID: 250008-01		
		OBC HS1			OBC HS2			JHF		
		pH	Hardness	Alkalinity	pH	Hardness	Alkalinity	pH	Hardness	Alkalinity
1	MIN	7.03	25	12	8.10	21	10	8.97	62	10
	MAX	8.10	31	20	9.00	50	20	8.97	62	10
	AVG	7.51	29	15	8.60	34	15	8.97	62	10
2	MIN	7.03	30	11	8.49	30	14	9.14	52	13
	MAX	7.98	35	16	8.60	33	18	9.16	57	14
	AVG	7.60	32	14	8.55	32	16	9.15	55	14
3	MIN	6.86	27	10	7.01	30	10	8.72	51	13
	MAX	8.85	40	20	9.10	55	25	9.28	56	17
	AVG	8.13	34	17	8.34	38	18	9.03	53	15
4	MIN	6.85	26	16	6.89	29	18	9.10	54	13
	MAX	7.42	55	25	8.63	50	20	9.48	58	16
	AVG	7.14	40	20	7.76	36	19	9.32	55	14
5	MIN	7.43	21	13	8.80	26	15	9.40	53	13
	MAX	7.56	40	20	8.93	30	20	9.48	58	15
	AVG	7.50	31	17	8.87	28	18	9.43	55	14
6	MIN	8.25	20	11	7.53	21	14	9.05	54	11
	MAX	8.88	28	20	9.24	30	19	9.18	54	15
	AVG	8.48	24	15	8.43	24	17	9.11	54	14
7	MIN	8.12	20	18	7.42	25	18	9.30	55	17
	MAX	9.06	26	21	8.96	40	20	9.37	57	18
	AVG	8.44	22	20	8.31	34	19	9.35	56	17
8	MIN	8.96	20	17	9.09	25	16	9.12	54	15
	MAX	9.08	30	20	9.46	30	20	9.30	55	17
	AVG	9.03	26	18	9.24	28	19	9.23	55	16
9	MIN	8.88	20	14	8.98	24	17	9.29	51	17
	MAX	9.10	23	15	9.46	30	20	9.31	56	18
	AVG	9.01	22	14	9.14	26	19	9.30	54	17
10	MIN	8.36	24	12	8.08	20	10	8.95	55	17
	MAX	9.00	31	14	8.37	28	14	8.95	55	17
	AVG	8.75	28	13	8.24	23	12	8.95	55	17
11	MIN	8.47	23	11	8.37	20	10	9.33	50	16
	MAX	8.64	31	18	8.89	25	14	9.50	70	20
	AVG	8.53	26	14	8.59	23	11	9.42	60	19
12	MIN	7.29	19	16	8.53	33	19	9.11	67	16
	MAX	7.53	20	20	8.78	40	21	9.34	73	16
	AVG	7.41	20	18	8.66	37	20	9.25	71	16
13	MIN	7.81	29	16	8.51	25	14	9.08	71	15
	MAX	7.81	29	16	8.51	25	14	9.31	74	18
	AVG	7.81	29	16	8.51	25	14	9.18	72	16
14	MIN	7.72	20	14	8.63	20	16	8.98	69	16
	MAX	8.24	27	17	8.76	25	17	9.36	80	18
	AVG	8.00	24	16	8.69	23	16	9.21	75	17
15	MIN	8.03	19	14	8.85	21	13	9.00	62	15
	MAX	8.17	21	16	8.90	22	15	9.41	73	16
	AVG	8.10	20	15	8.88	22	14	9.23	69	16
16	MIN	7.55	35	10	7.93	39	11	9.34	63	18
	MAX	7.69	38	11	7.97	42	12	9.50	64	20
	AVG	7.62	37	11	7.95	41	12	9.44	63	18

**CITY OF JACKSON  
CORROSION CONTROL DATA**

March 2016  DAILY CALCULATIONS		SYSTEM ID: 250008-02						SYSTEM ID: 250008-01		
		OBC HS1			OBC HS2			JHF		
		pH	Hardness	Alkalinity	pH	Hardness	Alkalinity	pH	Hardness	Alkalinity
17	MIN	7.25	21	16	8.32	22	13	8.96	57	15
	MAX	7.44	28	23	8.62	29	16	9.50	63	18
	AVG	7.36	25	20	8.50	25	15	9.27	59	16
18	MIN	7.35	25	11	7.45	20	10	9.13	58	14
	MAX	8.23	34	19	8.55	31	22	9.44	64	16
	AVG	7.81	29	15	8.00	24	15	9.26	61	15
19	MIN	7.67	27	13	8.98	25	10	8.99	62	17
	MAX	7.86	35	15	9.14	28	12	9.56	64	19
	AVG	7.77	31	14	9.06	27	11	9.32	63	18
20	MIN	7.35	29	16	8.86	27	14	8.99	63	18
	MAX	7.53	30	18	8.90	29	17	9.59	68	22
	AVG	7.44	30	17	8.88	28	16	9.33	65	20
21	MIN	8.35	31	20	9.06	25	17	9.30	60	17
	MAX	8.80	31	22	9.29	27	19	9.60	69	21
	AVG	8.58	31	21	9.18	26	18	9.48	64	19
22	MIN	7.38	30	12	7.59	30	12	9.27	58	14
	MAX	8.04	45	20	8.01	40	20	9.34	62	18
	AVG	7.78	37	16	7.74	34	15	9.30	61	16
23	MIN	7.88	20	15	7.00	20	15	9.09	61	15
	MAX	8.63	33	23	9.16	40	20	9.37	66	16
	AVG	8.28	26	19	7.87	32	17	9.27	63	15
24	MIN	7.88	20	15	7.00	20	15	8.92	59	14
	MAX	8.63	33	23	9.16	40	20	9.16	66	18
	AVG	8.28	26	19	7.87	32	17	9.08	63	16
25	MIN	7.96	23	12	7.91	20	10	9.10	59	16
	MAX	9.25	32	21	8.56	40	20	9.33	69	17
	AVG	8.76	27	16	8.29	28	15	9.23	64	16
26	MIN	8.65	20	18	8.40	35	17	9.27	67	16
	MAX	9.08	30	20	8.60	40	22	9.48	69	18
	AVG	8.87	27	19	8.53	38	20	9.34	68	17
27	MIN	9.15	26	18	8.76	27	16	9.18	66	20
	MAX	9.48	30	19	9.57	28	18	9.52	67	23
	AVG	9.34	28	19	9.20	27	17	9.40	66	21
28	MIN	8.37	30	15	8.17	22	11	8.87	67	20
	MAX	8.76	32	18	8.30	24	13	9.54	74	27
	AVG	8.57	31	17	8.24	23	12	9.25	71	24
29	MIN	9.31	26	15	8.50	20	10	9.36	58	20
	MAX	9.41	30	15	9.17	40	20	9.45	65	26
	AVG	9.36	29	15	8.91	28	15	9.40	61	23
30	MIN	8.27	22	14	8.45	19	10	9.43	54	16
	MAX	9.35	40	14	9.25	25	20	9.69	60	23
	AVG	8.95	29	14	8.82	21	16	9.54	57	20
31	MIN	8.59	26	16	9.06	23	15	9.22	56	17
	MAX	9.13	26	17	9.26	26	21	9.53	69	19
	AVG	8.86	26	17	9.16	25	18	9.41	62	18
MONTHLY MIN		6.85	19	10	6.89	19	10	8.72	50	10
MONTHLY MAX		9.48	55	25	9.57	55	25	9.69	80	27
MONTHLY AVG		8.28	28	17	8.53	29	16	9.29	62	17



MISSISSIPPI STATE DEPARTMENT OF HEALTH

March 22, 2016

Ms. Kishia L. Powell, P.E., Director  
Department of Public Works  
City of Jackson  
200 S. President Street  
Jackson, Mississippi 39201

RE: System Status with February 12, 2016, Compliance Plan for Lead and the Mississippi State Department of Health's Response to the City of Jackson's Request for Extensions

Dear Ms. Powell:

This letter documents progress on the items set forth in the February 12, 2016, Compliance Plan for the City of Jackson (MS025008) and responds to your request for extensions that were received March 21, 2016. The water quality parameter results submitted for March 14, 2016, indicated better corrosion control values in the parts of the city served by the city wells; however, results from areas served by the surface water plants continue to show corrosive water. It is paramount that activities leading to further optimization of the surface water system are conducted in compliance with or ahead of this modified Compliance Plan for the benefit of the customers of the City of Jackson water system. Below is a summary of current Compliance Plan activities and the adjusted dates and activities in response to your extension request. Updated dates are in **bold**.

- *Must identify an individual or firm providing professional engineering service ...*

The City identified Phillip Gibson, P.E., with Trilogy Engineering as the individual providing professional engineering services to the City of Jackson for drinking water matters. It is our understanding that an initial procurement process to obtain these professional services was rejected by the City Council but that administration planned to continue efforts to retain Mr. Gibson to serve in this capacity. If this information needs to be updated, you must notify the Director of the Bureau of Public Water Supply in writing within two working days of receipt of this letter.

- *Must provide the required Public Education pamphlet to all City of Jackson Water System customers no later than February 29, 2016.*

Completed

- *Must provide the required Public Education pamphlet to all Child Care Centers, Head Start Centers, Schools, Healthcare Facilities and any other locations where the City of Jackson is aware of children in congregate settings no later than February 19, 2016.*

Completed

- *Must submit an engineer-designed corrosion control study and plan for optimization of water treatment for the City of Jackson Water System to the Director of the MSDH Bureau of Public Water Supply on or before April 4, 2016.*

Your request for extension of the April 4, 2016, deliverable deadline is granted. The new date for delivering an engineer-designed corrosion control study and plan for optimization of water treatment to the MSDH Director of the Bureau of Public Water Supply will be on or before **April 18, 2016**. Again, it is paramount that activities leading to further optimization of the surface water system are conducted in compliance with or ahead of this modified Compliance Plan for the benefit of the customers of the City of Jackson water system.

- *Must submit a map with all samples for the 01/01/2016-06/30/2016 monitoring period plotted with delineation between lead detections and non-detections.*

The map was received on March 16, 2016. Upon review, sampling points identified on the map need to be further clarified. The legend and points identify lead exceedances and lead non-detects, but do not indicate lead sites with values above the detection limit but below the lead action level. While it is important that the city include copper sampling as part of their Lead/Copper Site Plan, please remove any copper information from the requested map on lead detections and non-detections. Once corrections are made, further review will be necessary to work with the City to best determine ongoing water quality parameter (WQP) testing locations.

- *Update the City of Jackson Water System Lead/Copper Site Plan.*

The Lead/Copper Site Plan map submitted is not complete and includes sites that are not Tier 1 sites. As a reminder, Tier 1 sites should be given top priority. Tier 2 and Tier 3 sites can only be used in the absence of a sufficient number of Tier 1 sites. As you are aware in the Compliance Plan, the selected engineer is required to participate in the development and monitoring of a revised plan. Your request to extend the submission of the Revised Lead/Copper Site Plan to **April 1, 2016**, is hereby granted.

- *The City of Jackson must ensure functional treatment of water in the current system to maintain a constant pH of at least 8.5 and alkalinity between 50 mg/l and 70 mg/l. Repairs or modifications to the City of Jackson Water System to establish these values must be completed as soon as feasible but no later than October 1, 2016.*

Based on Water Quality Parameters taken on March 14, 2016, and submitted in response to this compliance plan, it appears that water in the surface water system remains aggressive. Additional efforts must be taken to optimize system water through increased pH and alkalinity levels. It is paramount that a plan to achieve optimization of water in the city must be submitted on or before **April 18, 2016**, and include an aggressive time frame to address increases and stabilization of pH and alkalinity in the system. The plan must include Water Quality Parameters taken at the top 25 lead level sites every thirty days beginning April 18, 2016, until such time as the parameters consistently meet a constant pH of at least 8.5 and alkalinity between 50 mg/l and 70 mg/l. Water Quality Parameter data must be reported to the Director of the Bureau of Public Water Supply within three business days of collection. Failure to achieve improved consistent optimization by **April 22, 2016**, may lead to violations of the Safe Drinking Water Act.

- *Must ensure that the Monthly Operational Report (MOR) is updated to include a daily average, maximum, and minimum values for alkalinity, pH, and hardness for entry points.*

Ongoing

- *In coordination with the MSDH Bureau of Public Water Supply, will develop and implement a special WQP sampling plan for distribution of water in the City of Jackson Water System.*

Ongoing, the lead and copper site plan must be updated before this item can be completed.

- *Must submit a written summary of activities related to all areas identified in this Compliance Plan to the Director of the MSDH Bureau of Public Water Supply by the 15th of each month, beginning March 15, 2016.*

This written summary due March 15, 2016, has not been received by the Director of the Bureau of Public Water Supply. Per your correspondence of February 19, 2016, you indicated that you would provide the status and completion dates for actions required in the Compliance Plan and attach your updated summary table along with any other required narrative. These items are delinquent and must be submitted immediately on receipt of this letter.

If you have questions please feel free to contact me.

Sincerely,



Jim Craig, Director  
Office of Health Protection

cc: Mayor Tony Yarber

pc: Leslie Royals, P.E., Director, Office of Environmental Health  
William F. Moody, P.E. Director, Bureau of Public Water Supply