City of Murray
Lockout Tagout Procedures

Machine: Alum Pump 1 Plant: Water Treatment Plant
Area: Filter Building Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. Use caution working around chemicals.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

					
Lock	**2 Tags**	**Hasp**	**Single Pole Breaker**		

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify Alum Pump 1 breaker switch, labeled 36, in PA breaker panel located in southwest of Filter Building.
   - If working on pump diaphragm close valves ATV1, AP1A and AP1B, by turning clockwise and release pressure by opening AP1C valve.
4. Denergize breaker by flipping switch to OFF position.
5. Apply single pole breaker cover, lock, and tag on breaker.

NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.

6. Dissipate or release any stored energy by trying to turn the Alum Pump 1 knife switch ON, located on wall behind the pump.
7. Return knife switch to OFF position, and place tag on knife disconnect.

Energy Sources:				
Magnitude:	**460V**			
Energy Isolation Device & Location:	Breaker panel located in south west of Filter Building			

After Servicing or Maintenance:

1. Verify all controls are "off" or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Reverse lockout steps and re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Alum Pump 2 Plant: Water Treatment Plant
Area: Filter Building Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. Use caution working around chemicals.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

					
Lock	**2 Tags**	**Hasp**	**Single Pole Breaker**		

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify Alum Pump 2 breaker switch, labeled 38, in PA breaker panel located in southwest of Filter Building.
   - If working on pump diaphragm close valves ATV2, AP2A and AP2B, by turning clockwise and release pressure by opening AP2C valve.
4. Denergize breaker by flipping switch to OFF position.
5. Apply single pole breaker cover, lock, and tag on breaker.

NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.

6. Dissipate or release any stored energy by trying to turn the Alum Pump 2 knife switch ON, located on wall behind the pump.
7. Return knife switch to OFF position, and place tag on knife disconnect.

Energy Sources:				
Magnitude:	**460V**			
Energy Isolation Device & Location:	Breaker panel located in south west of Filter Building			

After Servicing or Maintenance:

1. Verify all controls are "off" or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Reverse lockout steps and re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: _____ Date: _____

Approvals: _____

_____

_____

_____

City of Murray
Lockout Tagout Procedures

Machine: Alum Transfer Pump Plant: Water Treatment Plant
Area: Filter Building Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves	Faceshield	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.	2. Use caution working around chemicals.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

					
Lock	**2 Tags**	**Hasp (as needed)**			

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment. 2. Clear the area and equipment of tools, parts and other materials. 3. Identify Alum Transfer Pump disconnect switch located above the motor on lefthand side. ➢ Close valves labeled ATP1 and ATP2. 4. Denergize breaker by pushing switch to OFF position.	5. Apply hasp, lock, and tag on disconnect switch. *NOTE* Tag shall include date taken out of service, person/persons that took out of service, and work being done. 6. Dissipate or release any stored energy by trying to turn the Alum Transfer Pump secondary switch ON, located on the right side of the Alum Pump 2. 7. Return switch to OFF position.

Energy Sources:				
Magnitude:	**460V**			
Energy Isolation Device & Location:	Breaker panel located in south west of Filter Building			

After Servicing or Maintenance:

1. Verify all controls are "off" or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Backwash Drain Valve 1 Plant: Water Treatment Plant
Area: Filter Building Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves (as needed)	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. Ladder may be needed to reach knife disconnect switch.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

					
Lock	**Tag**	**Hasp**			

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify Backwash Drain Valve 1 disconnect switch located directly 5 feet behind the valve on the wall in the pipe gallery.
4. Denergize knife switch by flipping to OFF position.
5. Apply hasp, lock, and tag on knife switch.
NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Dissipate or release any stored energy by trying to turn the Backwash Drain Valve 1 motor green switch to open located on the face of the valve.
7. Return green switch to the CLOSE position.

Energy Sources:				
Magnitude:	**110V**			
Energy Isolation Device & Location:	Disconnect switch located behind valve in gallary			

After Servicing or Maintenance:

1. Verify all controls are “off” or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Backwash Drain Valve 2 Plant: Water Treatment Plant
Area: Filter Building Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves (as needed)	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. Ladder may be needed to reach knife disconnect switch.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:


Lock

Tag


Hasp

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify Backwash Drain Valve 2 disconnect switch located directly 5 feet behind the valve on the wall in the pipe gallery.
4. Denergize knife switch by flipping to OFF position.
5. Apply hasp, lock, and tag on knife switch.
NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Dissipate or release any stored energy by trying to turn the Backwash Drain Valve 2 motor green switch to open located on the face of the valve.
7. Return green switch to the CLOSE position.

Energy Sources:				
Magnitude:	110V			
Energy Isolation Device & Location:	Disconnect switch located behind valve in gallary			

After Servicing or Maintenance:

1. Verify all controls are “off” or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Backwash Drain Valve 3 Plant: Water Treatment Plant
Area: Filter Building Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves (as needed)	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. Ladder may be needed to reach knife disconnect switch.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

					
Lock	**Tag**	**Hasp**			

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify Backwash Drain Valve 3 disconnect switch located directly 5 feet behind the valve on the wall in the pipe gallery.
4. Denergize knife switch by flipping to OFF position.
5. Apply hasp, lock, and tag on knife switch.
NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Dissipate or release any stored energy by trying to turn the Backwash Drain Valve 3 motor green switch to open located on the face of the valve.
7. Return green switch to the CLOSE position.

Energy Sources:				
Magnitude:	**110V**			
Energy Isolation Device & Location:	Disconnect switch located behind valve in gallary			

After Servicing or Maintenance:

1. Verify all controls are “off” or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Backwash Drain Valve 4 Plant: Water Treatment Plant
Area: Filter Building Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves (as needed)	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. Ladder may be needed to reach knife disconnect switch.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

					
Lock	**Tag**	**Hasp**			

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify Backwash Drain Valve 4 disconnect switch located directly 5 feet behind the valve on the wall in the pipe gallery.
4. Denergize knife switch by flipping to OFF position.
5. Apply hasp, lock, and tag on knife switch.
NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Dissipate or release any stored energy by trying to turn the Backwash Drain Valve 4 motor green switch to open located on the face of the valve.
7. Return green switch to the CLOSE position.

Energy Sources:				
Magnitude:	**110V**			
Energy Isolation Device & Location:	Disconnect switch located behind valve in gallary			

After Servicing or Maintenance:

1. Verify all controls are “off” or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Backwash Pump Plant: Water Treatment Plant
Area: High Service Pump Room Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Hearing Protection (as needed)	Leather Gloves (as needed)	

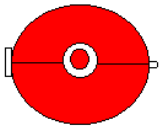
SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. Use caution tightening or loosening pump spindle due to spindle must be running. *(Spindle components may be HOT)
3. Step ladder may be needed to reach disconnect switch above pump.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

					
4 Locks	Tag	Hasp	3 Valve Covers		

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify Backwash Pump disconnect switch in the High Service Pump Room located directly above Backwash Pump on the west side.
4. Denergize knife switch by turning to OFF position.
5. Apply hasp, lock, and tag on knife switch.
   NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Turn a, b, and c valves clockwise until shut.
7. Apply valve covers to A, B, and C valves and then apply locks to each.
8. Dissipate or release any stored energy by trying to push START button on the Backwash Pump main breaker box located behind pump along the west wall.
9. Push STOP button.

Energy Sources:				
Magnitude:	460V			
Energy Isolation Device & Location:	Breaker box located above Backwash pump on west side			

After Servicing or Maintenance:

1. Verify all controls are “off” or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Backwash Supply Valve 1 Plant: Water Treatment Plant
Area: Filter Building Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves (as needed)	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. Ladder may be needed to reach knife disconnect switch.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

					
Lock	**Tag**	**Hasp**			

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify Backwash Supply Valve 1 disconnect switch located to the right behind the valve on the wall in the pipe gallery.
4. Denergize knife switch by flipping to OFF position.
5. Apply hasp, lock, and tag on knife switch.
NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Dissipate or release any stored energy by trying to turn the Backwash Supply Valve 1 motor green switch to open located on the face of the valve.
7. Return green switch to the CLOSE position.

Energy Sources:				
Magnitude:	**110V**			
Energy Isolation Device & Location:	Disconnect switch located behind valve in gallary			

After Servicing or Maintenance:

1. Verify all controls are “off” or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Backwash Supply Valve 2 Plant: Water Treatment Plant
Area: Filter Building Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves (as needed)	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. Ladder may be needed to reach knife disconnect switch.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

					
Lock	**Tag**	**Hasp**			

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify Backwash Supply Valve 2 disconnect switch located to the right behind the valve on the wall in the pipe gallery.
4. Denergize knife switch by flipping to OFF position.
5. Apply hasp, lock, and tag on knife switch.
NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Dissipate or release any stored energy by trying to turn the Backwash Supply Valve 2 motor green switch to open located on the face of the valve.
7. Return green switch to the CLOSE position.

Energy Sources:				
Magnitude:	**110V**			
Energy Isolation Device & Location:	Disconnect switch located behind valve in gallary			

After Servicing or Maintenance:

1. Verify all controls are “off” or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Backwash Supply Valve 3 Plant: Water Treatment Plant
Area: Filter Building Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves (as needed)	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. Ladder may be needed to reach knife disconnect switch.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

					
Lock	**Tag**	**Hasp**			

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify Backwash Supply Valve 3 disconnect switch located to the right behind the valve on the wall in the pipe gallery.
4. Denergize knife switch by flipping to OFF position.
5. Apply hasp, lock, and tag on knife switch.
NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Dissipate or release any stored energy by trying to turn the Backwash Supply Valve 3 motor green switch to open located on the face of the valve.
7. Return green switch to the CLOSE position.

Energy Sources:				
Magnitude:	**110V**			
Energy Isolation Device & Location:	Disconnect switch located behind valve in gallary			

After Servicing or Maintenance:

1. Verify all controls are “off” or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Backwash Supply Valve 4 Plant: Water Treatment Plant
Area: Filter Building Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves (as needed)	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. Ladder may be needed to reach knife disconnect switch.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:


Lock

Tag


Hasp

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify Backwash Supply Valve 4 disconnect switch located to the right behind the valve on the wall in the pipe gallery.
4. Denergize knife switch by flipping to OFF position.
5. Apply hasp, lock, and tag on knife switch.
NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Dissipate or release any stored energy by trying to turn the Backwash Supply Valve 4 motor green switch to open located on the face of the valve.
7. Return green switch to the CLOSE position.

Energy Sources:				
Magnitude:	110V			
Energy Isolation Device & Location:	Disconnect switch located behind valve in gallary			

After Servicing or Maintenance:

1. Verify all controls are “off” or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Backwash Valve Plant: Water Treatment Plant
Area: Filter Building Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves (as needed)	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. Ladder may be needed to reach knife disconnect switch.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

					
Lock	**Tag**	**Hasp**			

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify Backwash Valve disconnect switch located below valve on the wall in the pipe gallery.
4. Denergize knife switch by flipping to OFF position.
5. Apply hasp, lock, and tag on knife switch.
NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Dissipate or release any stored energy by trying to turn the Backwash Valve motor green switch to open located on the face of the valve.
7. Return green switch to the CLOSE position.

Energy Sources:				
Magnitude:	**460V**			
Energy Isolation Device & Location:	Breaker panel located next to valve in gallary			

After Servicing or Maintenance:

1. Verify all controls are “off” or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Caustic Transfer Pump Plant: Water Treatment Plant
Area: Filter Building Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves	Faceshield	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.	2. Use caution working around chemicals.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

					
Lock	**2 Tags**	**Hasp (as needed)**			

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment. 2. Clear the area and equipment of tools, parts and other materials. 3. Identify Caustic Transfer Pump disconnect switch located above the motor on righthand side. ➢ Close valves labeled CTP1 and CTP2. 4. Denergize breaker by pushing switch to OFF position.	5. Apply hasp, lock, and tag on disconnect switch. *NOTE* Tag shall include date taken out of service, person/persons that took out of service, and work being done. 6. Dissipate or release any stored energy by trying to turn the Caustic Transfer Pump secondary switch ON, located on the left side of the Alum Pump 1. 7. Return switch to OFF position.

Energy Sources:				
Magnitude:	**460V**			
Energy Isolation Device & Location:	Breaker panel located in south west of Filter Building			

After Servicing or Maintenance:

1. Verify all controls are "off" or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Effluent Valve Filter 1 Plant: Water Treatment Plant
Area: Filter Building Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves (as needed)	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. Ladder may be needed to reach knife disconnect switch.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

					
Lock	**Tag**	**Hasp**			

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify Effluent Valve Filter 1 disconnect switch located directly behind the pump on the wall in the pipe gallery.
4. Denergize knife switch by flipping to OFF position.
5. Apply hasp, lock, and tag on knife switch.
NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Dissipate or release any stored energy by trying to turn the Effluent Valve Filter 1 motor green switch to open located on the face of the valve.
7. Return green switch to the CLOSE position.

Energy Sources:				
Magnitude:	**110V**			
Energy Isolation Device & Location:	Breaker panel located behind valve in gallary			

After Servicing or Maintenance:

1. Verify all controls are “off” or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Effluent Valve Filter 2 Plant: Water Treatment Plant
Area: Filter Building Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves (as needed)	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. Ladder may be needed to reach knife disconnect switch.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

					
Lock	**Tag**	**Hasp**			

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify Effluent Valve Filter 2 disconnect switch located directly behind the pump on the wall in the pipe gallery.
4. Denergize knife switch by flipping to OFF position.
5. Apply hasp, lock, and tag on knife switch.
NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Dissipate or release any stored energy by trying to turn the Effluent Valve Filter 2 motor green switch to open located on the face of the valve.
7. Return green switch to the CLOSE position.

Energy Sources:				
Magnitude:	**110V**			
Energy Isolation Device & Location:	Breaker panel located behind valve in gallary			

After Servicing or Maintenance:

1. Verify all controls are “off” or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Effluent Valve Filter 3 Plant: Water Treatment Plant
Area: Filter Building Updated: _____

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves (as needed)	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. Ladder may be needed to reach knife disconnect switch.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

					
Lock	**Tag**	**Hasp**			

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify Effluent Valve Filter 3 disconnect switch located directly behind the pump on the wall in the pipe gallery.
4. Denergize knife switch by flipping to OFF position.
5. Apply hasp, lock, and tag on knife switch.
NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Dissipate or release any stored energy by trying to turn the Effluent Valve Filter 3 motor green switch to open located on the face of the valve.
7. Return green switch to the CLOSE position.

Energy Sources:				
Magnitude:	**110V**			
Energy Isolation Device & Location:	Breaker panel located behind valve in gallary			

After Servicing or Maintenance:

1. Verify all controls are “off” or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: _____ Date: _____

Approvals: _____

_____

_____

_____

City of Murray
Lockout Tagout Procedures

Machine: Effluent Valve Filter 4 Plant: Water Treatment Plant
Area: Filter Building Updated: _____

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves (as needed)	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. Ladder may be needed to reach knife disconnect switch.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

					
Lock	**Tag**	**Hasp**			

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify Effluent Valve Filter 4 disconnect switch located directly behind the pump on the wall in the pipe gallery.
4. Denergize knife switch by flipping to OFF position.
5. Apply hasp, lock, and tag on knife switch.
NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Dissipate or release any stored energy by trying to turn the Effluent Valve Filter 4 motor green switch to open located on the face of the valve.
7. Return green switch to the CLOSE position.

Energy Sources:				
Magnitude:	**110V**			
Energy Isolation Device & Location:	Breaker panel located behind valve in gallary			

After Servicing or Maintenance:

1. Verify all controls are “off” or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: _____ Date: _____

Approvals: _____

_____

_____

_____

City of Murray
Lockout Tagout Procedures

Machine: Flocculator 1 Plant: Water Treatment Plant
Area: Sediment Tanks Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves (as needed)	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. **This machine has no Lock-Out point and can only be tagged out at this point.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

Tag

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify breaker 2 on the main breaker box located on the east side of the Sediment Tanks.
4. Denergize breaker switch by flipping to OFF position.
5. Apply tag to breaker switch.
NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Dissipate or release any stored energy by trying to turn the Flocculator 1 switch, located to left of breaker box, to the hand position and push start.
7. Return switch to the OFF position.

Energy Sources:				
Magnitude:	460V			
Energy Isolation Device & Location:	Breaker box located on east side of Sediment Tanks			

After Servicing or Maintenance:

1. Verify all controls are "off" or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Flocculator 2 Plant: Water Treatment Plant
Area: Sediment Tanks Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves (as needed)	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. **This machine has no Lock-Out point and can only be tagged out at this point.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

Tag

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify breaker 10 on the main breaker box located on the east side of the Sediment Tanks.
4. Denergize breaker switch by flipping to OFF position.
5. Apply tag to breaker switch.
NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Dissipate or release any stored energy by trying to turn the Flocculator 2 switch, located to left of breaker box, to the hand position and push start.
7. Return switch to the OFF position.

Energy Sources:				
Magnitude:	460V			
Energy Isolation Device & Location:	Breaker box located on east side of Sediment Tanks			

After Servicing or Maintenance:

1. Verify all controls are "off" or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Flocculator 3 Plant: Water Treatment Plant
Area: Sediment Tanks Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves (as needed)	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. **This machine has no Lock-Out point and can only be tagged out at this point.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

Tag

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify breaker 16 on the main breaker box located on the east side of the Sediment Tanks.
4. Denergize breaker switch by flipping to OFF position.
5. Apply tag to breaker switch.
NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Dissipate or release any stored energy by trying to turn the Flocculator 3 switch, located to left of breaker box, to the hand position and push start.
7. Return switch to the OFF position.

Energy Sources:				
Magnitude:	460V			
Energy Isolation Device & Location:	Breaker box located on east side of Sediment Tanks			

After Servicing or Maintenance:

1. Verify all controls are "off" or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Flocculator 4 Plant: Water Treatment Plant
Area: Sediment Tanks Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves (as needed)	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. **This machine has no Lock-Out point and can only be tagged out at this point.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

Tag

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify breaker 21 on the main breaker box located on the east side of the Sediment Tanks.
4. Denergize breaker switch by flipping to OFF position.
5. Apply tag to breaker switch.
NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Dissipate or release any stored energy by trying to turn the Flocculator 4 switch, located to left of breaker box, to the hand position and push start.
7. Return switch to the OFF position.

Energy Sources:				
Magnitude:	460V			
Energy Isolation Device & Location:	Breaker box located on east side of Sediment Tanks			

After Servicing or Maintenance:

1. Verify all controls are "off" or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Floride Pump Plant: Water Treatment Plant
Area: Filter Building Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves	Faceshield	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. Use caution working around Fluoride.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

					
Lock	**2 Tags**	**Hasp (as needed)**	**Single Pole Breaker**		

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
   - Valve left of pump labeled Fluoride, must be turned clock-wise 90 degrees to shut OFF.
3. Identify Fluoride Pump breaker switch, labeled 30, in PA breaker panel located in southwest of Filter Building.
4. Denergize breaker by flipping switch to OFF position.
5. Apply single pole breaker cover, lock, and tag on breaker.

NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.

6. Dissipate or release any stored energy by trying to turn the Fluoride Pump knife switch ON, located left of pump.
7. Return knife switch to OFF position, and place tag on knife disconnect.

Energy Sources:				
Magnitude:	**110V**			
Energy Isolation Device & Location:	Breaker panel located in south west of Filter Building			

After Servicing or Maintenance:

1. Verify all controls are "off" or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: _____ Date: _____

Approvals: _____

_____

_____

_____

City of Murray
Lockout Tagout Procedures

Machine: High Service Pump 1 Plant: Water Treatment Plant
Area: High Service Pump Room Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Hearing Protection (as needed)	Leather Gloves (as needed)	

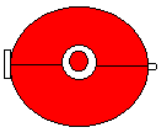
SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. Use caution tightening or loosening pump spindle due to spindle must be running. *(Spindle components may be HOT)
3. Step ladder may be needed to reach disconnect switch above pump.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

					
4 Locks	**Tag**	**Hasp**	**3 Valve Covers**		

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify High Service Pump 1 disconnect switch in the High Service Pump Room located directly above Pump 1 on the west side.
4. Denergize knife switch by turning to OFF position.
5. Apply hasp, lock, and tag on knife switch.
   NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Turn 1A, 1B, and 1C valves clockwise until shut.
7. Apply valve covers to 1A, 1B, and 1C valves and then apply locks to each.
8. Dissipate or release any stored energy by trying to push START button on the High Service Pump 1 main breaker box located along the west wall.
9. Push STOP button.

Energy Sources:				
Magnitude:	**460V**			
Energy Isolation Device & Location:	Breaker box located above Pump 1 on west side			

After Servicing or Maintenance:

1. Verify all controls are "off" or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: _____ Date: _____

Approvals: _____

_____

_____

_____

City of Murray
Lockout Tagout Procedures

Machine: High Service Pump 2 Plant: Water Treatment Plant
Area: High Service Pump Room Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Hearing Protection (as needed)	Leather Gloves (as needed)	

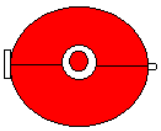
SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. Use caution tightening or loosening pump spindle due to spindle must be running. *(Spindle components may be HOT)
3. Step ladder may be needed to reach disconnect switch above pump.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

					
4 Locks	**Tag**	**Hasp**	**3 Valve Covers**		

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify High Service Pump 2 disconnect switch in the High Service Pump Room located directly above Pump 2 motor on the west side.
4. Denergize knife switch by turning to OFF position.
5. Apply hasp, lock, and tag on knife switch.
   NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Turn 2A, 2B, and 2C valves clockwise until shut.
7. Apply valve covers to 2A, 2B, and 2C valves and then apply locks to each.
8. Dissipate or release any stored energy by trying to push START button on the High Service Pump 2 main breaker box located along the west wall.
9. Push STOP button.

Energy Sources:				
Magnitude:	**460V**			
Energy Isolation Device & Location:	Breaker box located above Pump 2 on west side			

After Servicing or Maintenance:

1. Verify all controls are "off" or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: _____ Date: _____

Approvals: _____

_____

_____

_____

City of Murray
Lockout Tagout Procedures

Machine: High Service Pump 3 Plant: Water Treatment Plant
Area: High Service Pump Room Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Hearing Protection (as needed)	Leather Gloves (as needed)	

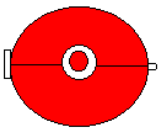
SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. Use caution tightening or loosening pump spindle due to spindle must be running. *(Spindle components may be HOT)
3. Step ladder may be needed to reach disconnect switch above pump.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

					
4 Locks	**Tag**	**Hasp**	**3 Valve Covers**		

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify High Service Pump 3 disconnect switch in the High Service Pump Room located above Pump 2 on the east side.
4. Denergize knife switch by turning to OFF position.
5. Apply hasp, lock, and tag on knife switch.
   NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Turn 3B, 3B, and 3C valves clockwise until shut.
7. Apply valve covers to 3A, 3B, and 3C valves and then apply locks to each.
8. Dissipate or release any stored energy by trying to push START button on the High Service Pump 3 main breaker box located along the north wall.
9. Push STOP button.

Energy Sources:				
Magnitude:	**460V**			
Energy Isolation Device & Location:	Breaker box located above Pump 2 on east side			

After Servicing or Maintenance:

1. Verify all controls are "off" or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: _____ Date: _____

Approvals: _____

_____

_____

_____

City of Murray
Lockout Tagout Procedures

Machine: High Service Pump 4 Plant: Water Treatment Plant
Area: High Service Pump Room Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Hearing Protection (as needed)	Leather Gloves (as needed)	

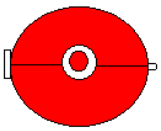
SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. Use caution tightening or loosening pump spindle due to spindle must be running. *(Spindle components may be HOT)
3. Step ladder may be needed to reach disconnect switch above pump.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

					
4 Locks	**Tag**	**Hasp**	**3 Valve Covers**		

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify High Service Pump 4 disconnect switch in the High Service Pump Room located above Pump 2 on the west side.
4. Denergize knife switch by turning to OFF position.
5. Apply hasp, lock, and tag on knife switch.
   NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Turn 4A, 4B, and 4C valves clockwise until shut.
7. Apply valve covers to 4A, 4B, and 4C valves and then apply locks to each.
8. Dissipate or release any stored energy by trying to push START button on the High Service Pump 4 main breaker box located along the north wall.
9. Push STOP button.

Energy Sources:				
Magnitude:	**460V**			
Energy Isolation Device & Location:	Breaker box located above Pump 2 on west side			

After Servicing or Maintenance:

1. Verify all controls are "off" or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: _____ Date: _____

Approvals: _____

_____

_____

_____

City of Murray
Lockout Tagout Procedures

Machine: Influent Valve 1 Plant: Water Treatment Plant
Area: Filter Building Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves (as needed)	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:


Lock

Tag


Hasp

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify Influent Valve 1 disconnect switch located directly behind the pump on the wall.
4. Denergize knife switch by flipping to OFF position.
5. Apply hasp, lock, and tag on knife switch.
NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Dissipate or release any stored energy by trying to turn the Influent Valve 1 motor green switch to open located on the face of the valve.
7. Return green switch to the CLOSE position.

Energy Sources:				
Magnitude:	110V			
Energy Isolation Device & Location:	Breaker panel located behind valve on wall			

After Servicing or Maintenance:

1. Verify all controls are “off” or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Influent Valve 2 Plant: Water Treatment Plant
Area: Filter Building Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves (as needed)	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:


Lock

Tag


Hasp

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify Influent Valve 2 disconnect switch located directly behind the pump on the wall.
4. Denergize knife switch by flipping to OFF position.
5. Apply hasp, lock, and tag on knife switch.
NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Dissipate or release any stored energy by trying to turn the Influent Valve 2 motor green switch to open located on the face of the valve.
7. Return green switch to the CLOSE position.

Energy Sources:				
Magnitude:	110V			
Energy Isolation Device & Location:	Breaker panel located behind valve on wall			

After Servicing or Maintenance:

1. Verify all controls are “off” or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Influent Valve 3 Plant: Water Treatment Plant
Area: Filter Building Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves (as needed)	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

					
Lock	**Tag**	**Hasp**			

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify Influent Valve 3 disconnect switch located directly behind the pump on the wall.
4. Denergize knife switch by flipping to OFF position.
5. Apply hasp, lock, and tag on knife switch.
NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Dissipate or release any stored energy by trying to turn the Influent Valve 3 motor green switch to open located on the face of the valve.
7. Return green switch to the CLOSE position.

Energy Sources:				
Magnitude:	**110V**			
Energy Isolation Device & Location:	Breaker panel located behind valve on wall			

After Servicing or Maintenance:

1. Verify all controls are “off” or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Influent Valve 4 Plant: Water Treatment Plant
Area: Filter Building Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves (as needed)	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:


Lock

Tag


Hasp

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify Influent Valve 4 disconnect switch located directly behind the pump on the wall.
4. Denergize knife switch by flipping to OFF position.
5. Apply hasp, lock, and tag on knife switch.
NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Dissipate or release any stored energy by trying to turn the Influent Valve 4 motor green switch to open located on the face of the valve.
7. Return green switch to the CLOSE position.

Energy Sources:				
Magnitude:	**110V**			
Energy Isolation Device & Location:	Breaker panel located behind valve on wall			

After Servicing or Maintenance:

1. Verify all controls are “off” or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Post-Caustic Pump Plant: Water Treatment Plant
Area: Filter Building Updated:

Personal Protective Equipment:

				
Safety Glasses	Rubber Steel Toe Shoes	Nitrile Gloves	Faceshield	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. Use caution working around chemicals.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

					
Lock	**2 Tags**	**Hasp (as needed)**	**Single Pole Breaker**		

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify Post-Caustic Pump breaker switch, labeled 34, in PA breaker panel located in southwest of Filter Building.
   - If working on pump diaphragm close valves labeled POS-TV, POS1, and POS2 OFF, by turning clock-wise and release pressure by opening POS3 valve.
4. Denergize breaker by flipping switch to OFF position.
5. Apply single pole breaker cover, lock, and tag on breaker.

NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.

6. Dissipate or release any stored energy by trying to turn the Post-Caustic Pump knife switch ON, located on wall behind the pump.
7. Return knife switch to OFF position, and place tag on knife disconnect.

Energy Sources:				
Magnitude:	**110V**			
Energy Isolation Device & Location:	Breaker panel located in south west of Filter Building			

After Servicing or Maintenance:

1. Verify all controls are "off" or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Reverse lockout steps and re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Pre-Caustic Pump Plant: Water Treatment Plant
Area: Filter Building Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves	Faceshield	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. Use caution working around chemicals.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

					
Lock	**2 Tags**	**Hasp (as needed)**	**Single Pole Breaker**		

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify Pre-Caustic Pump breaker switch, labeled 32, in PA breaker panel located in southwest of Filter Building.
   - If working on pump diaphragm close valves labeled PRE-TV, PRE1, and PRE2 OFF, by turning clock-wise and release pressure by opening PRE3 valve.
4. Denergize breaker by flipping switch to OFF position.
5. Apply single pole breaker cover, lock, and tag on breaker.

NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.

6. Dissipate or release any stored energy by trying to turn the Pre-Caustic Pump knife switch ON, located on wall behind the pump.
7. Return knife switch to OFF position, and place tag on knife disconnect.

Energy Sources:				
Magnitude:	**110V**			
Energy Isolation Device & Location:	Breaker panel located in south west of Filter Building			

After Servicing or Maintenance:

1. Verify all controls are "off" or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Reverse lockout steps and re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: _____ Date: _____

Approvals: _____

_____

_____

_____

City of Murray
Lockout Tagout Procedures

Machine: Raw Water Valve Plant: Water Treatment Plant
Area: Filter Building Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves (as needed)	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. Ladder may be needed to reach knife disconnect switch.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:


Lock

Tag


Hasp

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify Raw Water Valve disconnect switch located behind valve on the wall in the pipe gallery.
4. Denergize knife switch by flipping to OFF position.
5. Apply hasp, lock, and tag on knife switch.
NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Dissipate or release any stored energy by trying to turn the Raw Water Valve motor green switch to open located on the face of the valve.
7. Return green switch to the CLOSE position.

Energy Sources:				
Magnitude:	**460V**			
Energy Isolation Device & Location:	Disconnect switch located behind valve in gallary			

After Servicing or Maintenance:

1. Verify all controls are “off” or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Sediment Drive 1 Plant: Water Treatment Plant
Area: Sediment Tanks Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves (as needed)	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. **This machine has no Lock-Out point and can only be tagged out at this point.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

Tag

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify breaker 9 on the main breaker box located on the east side of the Sediment Tanks.
4. Denergize breaker switch by flipping to OFF position.
5. Apply tag to breaker switch.
NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Dissipate or release any stored energy by trying to turn the Sediment Drive 1 switch, located to left of breaker box, to the hand position and push start.
7. Return switch to the OFF position.

Energy Sources:				
Magnitude:	460V			
Energy Isolation Device & Location:	Breaker box located on east side of Sediment Tanks			

After Servicing or Maintenance:

1. Verify all controls are “off” or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Sediment Drive 2 Plant: Water Treatment Plant
Area: Sediment Tanks Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves (as needed)	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. **This machine has no Lock-Out point and can only be tagged out at this point.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

Tag

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify breaker 15 on the main breaker box located on the east side of the Sediment Tanks.
4. Denergize breaker switch by flipping to OFF position.
5. Apply tag to breaker switch.
NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Dissipate or release any stored energy by trying to turn the Sediment Drive 2 switch, located to left of breaker box, to the hand position and push start.
7. Return switch to the OFF position.

Energy Sources:				
Magnitude:	460V			
Energy Isolation Device & Location:	Breaker box located on east side of Sediment Tanks			

After Servicing or Maintenance:

1. Verify all controls are “off” or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Surface Wash Valve 1 Plant: Water Treatment Plant
Area: Filter Building Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves (as needed)	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. Ladder may be needed to reach knife disconnect switch.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

					
Lock	**Tag**	**Hasp**			

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify Surface Wash Valve 1 disconnect switch located 10 feet below the valve on the wall in the pipe gallery.
4. Denergize knife switch by flipping to OFF position.
5. Apply hasp, lock, and tag on knife switch.
NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Dissipate or release any stored energy by trying to turn the Surface Wash Valve 1 motor green switch to open located on the face of the valve.
7. Return green switch to the CLOSE position.

Energy Sources:				
Magnitude:	**110V**			
Energy Isolation Device & Location:	Disconnect switch located below valve in gallary			

After Servicing or Maintenance:

1. Verify all controls are “off” or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Surface Wash Valve 2 Plant: Water Treatment Plant
Area: Filter Building Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves (as needed)	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. Ladder may be needed to reach knife disconnect switch.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:


Lock

Tag


Hasp

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify Surface Wash Valve 2 disconnect switch located 10 feet below the valve on the wall in the pipe gallery.
4. Denergize knife switch by flipping to OFF position.
5. Apply hasp, lock, and tag on knife switch.
NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Dissipate or release any stored energy by trying to turn the Surface Wash Valve 2 motor green switch to open located on the face of the valve.
7. Return green switch to the CLOSE position.

Energy Sources:				
Magnitude:	110V			
Energy Isolation Device & Location:	Disconnect switch located below valve in gallary			

After Servicing or Maintenance:

1. Verify all controls are “off” or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Surface Wash Valve 3 Plant: Water Treatment Plant
Area: Filter Building Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves (as needed)	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. Ladder may be needed to reach knife disconnect switch.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

					
Lock	**Tag**	**Hasp**			

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify Surface Wash Valve 3 disconnect switch located 10 feet below the valve on the wall in the pipe gallery.
4. Denergize knife switch by flipping to OFF position.
5. Apply hasp, lock, and tag on knife switch.
NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Dissipate or release any stored energy by trying to turn the Surface Wash Valve 3 motor green switch to open located on the face of the valve.
7. Return green switch to the CLOSE position.

Energy Sources:				
Magnitude:	**110V**			
Energy Isolation Device & Location:	Disconnect switch located below valve in gallary			

After Servicing or Maintenance:

1. Verify all controls are “off” or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Surface Wash Valve 4 Plant: Water Treatment Plant
Area: Filter Building Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Nitrile Gloves (as needed)	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.
2. Ladder may be needed to reach knife disconnect switch.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

					
Lock	**Tag**	**Hasp**			

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment.
2. Clear the area and equipment of tools, parts and other materials.
3. Identify Surface Wash Valve 4 disconnect switch located 10 feet below the valve on the wall in the pipe gallery.
4. Denergize knife switch by flipping to OFF position.
5. Apply hasp, lock, and tag on knife switch.
NOTE Tag shall include date taken out of service, person/persons that took out of service, and work being done.
6. Dissipate or release any stored energy by trying to turn the Surface Wash Valve 4 motor green switch to open located on the face of the valve.
7. Return green switch to the CLOSE position.

Energy Sources:				
Magnitude:	**110V**			
Energy Isolation Device & Location:	Disconnect switch located below valve in gallary			

After Servicing or Maintenance:

1. Verify all controls are “off” or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Vacuum Pump 1 Plant: Water Treatment Plant
Area: High Service Pump Room Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Hearing Protection (as needed)	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.	2. Use caution some parts could be HOT.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

					
Lock	**Tag**	**Hasp**			

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment. 2. Clear the area and equipment of tools, parts and other materials. 3. Identify Vaccum Pump 1 disconnect switch in the High Service Pump Room located on the front of the Vacuum Pump. 4. Denergize handle switch by turning to OFF position. 5. Apply hasp, lock, and tag on handle switch. *NOTE* Tag shall include date taken out of service, person/persons that took out of service, and work being done.	6. Dissipate or release any stored energy by trying to turn Pump 1 switch to Hand position located underneath handle switch. 7. Return to OFF position.

Energy Sources:				
Magnitude:	**460V**			
Energy Isolation Device & Location:	Breaker box located on front of Vacuum Pump			

After Servicing or Maintenance:

1. Verify all controls are "off" or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals:

City of Murray
Lockout Tagout Procedures

Machine: Vacuum Pump 2 Plant: Water Treatment Plant
Area: High Service Pump Room Updated:

Personal Protective Equipment:

				
Safety Glasses	Steel Toe Shoes	Hearing Protection (as needed)	Leather Gloves (as needed)	

SAFE OPERATING PROCEDURES:

1. Always Lock, Tag, and Try to control hazardous energy sources prior to performing maintenance or service on this machine, when removing or bypassing a guard, and/or under any circumstance where the unexpected start-up or energization of the equipment could cause bodily harm.	2. Use caution some parts could be HOT.

LOCKOUT PROCEDURE:

(Use this procedure before any servicing or maintenance activities are performed where the expected energization, start up, or release of stored energy may cause injury. (I.e. repairs, set-up, clearing parts, etc.)

Lock Out/Tag Out Equipment Needed:

					
Lock	**Tag**	**Hasp**			

Before Servicing or Maintenance:

1. Notify all affected personnel that you intend to lockout the equipment. 2. Clear the area and equipment of tools, parts and other materials. 3. Identify Vaccum Pump 2 disconnect switch in the High Service Pump Room located on the front of the Vacuum Pump. 4. Denergize handle switch by turning to OFF position. 5. Apply hasp, lock, and tag on handle switch. *NOTE* Tag shall include date taken out of service, person/persons that took out of service, and work being done.	6. Dissipate or release any stored energy by trying to turn Pump 2 switch to Hand position located underneath handle switch. 7. Return to OFF position.

Energy Sources:				
Magnitude:	**460V**			
Energy Isolation Device & Location:	Breaker box located on front of Vacuum Pump			

After Servicing or Maintenance:

1. Verify all controls are "off" or in neutral position.
2. Clear machine or equipment of tools, parts, or people.
3. Make sure all guarding is in place.
4. Notify affected personnel that the machine or equipment will be re-energized.
5. Remove locks, devices, and tags from energy isolation devices.
6. Re-energize or power-up machine by returning energy isolating devices to normal operating position.

Prepared by: Date:

Approvals: