



City of Murray

Lockout Tagout Procedures

Machine: Actuator Valve Plant: Wastewater Treatment Plant
 Area: Filter Press Building Updated: 7-9-10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|---|--|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> This machine only has one lock out point at breaker beside valve. This machine can be turned off by the cannibal system computer, but shall be locked out at breaker. |
|---|--|

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:

| | |
|---|---|
| <ol style="list-style-type: none"> Notify affected personnel that you intend to lockout or tagout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Actuator Valve knife switch on power box located along the north wall 3 feet from the valve. De-energize switch by turning to OFF position. | <ol style="list-style-type: none"> Apply 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. |
|---|---|

| | | | | |
|--|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control panel along north wall by valve | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. 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: Blower 1 Plant: Wastewater Treatment Plant
 Area: Filter Press Building Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|---|--|
| <ol style="list-style-type: none"> 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:

| | |
|---|---|
| <ol style="list-style-type: none"> Notify affected personnel that you intend to lockout or tagout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Blower 1 knife switch on the southeast side of the Filter Press Building on the right side of the control panel. De-energize knife switch by turning to OFF position. | <ol style="list-style-type: none"> Apply 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. |
|---|---|

| | | | | |
|--|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Filter Press Building | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. |
|--|

Prepared by: _____ Date: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Blower 2 Plant: Wastewater Treatment Plant
 Area: Filter Press Building Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|---|--|
| <ol style="list-style-type: none"> 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:

| | |
|---|---|
| <ol style="list-style-type: none"> Notify affected personnel that you intend to lockout or tagout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Blower 2 knife switch on the southeast side of the Filter Press Building on the right side of the control panel. De-energize knife switch by turning to OFF position. | <ol style="list-style-type: none"> Apply 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. |
|---|---|

| | | | | |
|--|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Filter Press Building | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. |
|--|

Prepared by: _____ Date: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Blower 3 Plant: Wastewater Treatment Plant
 Area: Filter Press Building Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|---|--|
| <ol style="list-style-type: none"> 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:

| | |
|---|---|
| <ol style="list-style-type: none"> Notify affected personnel that you intend to lockout or tagout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Blower 3 knife switch on the southeast side of the Filter Press Building on the right side of the control panel. De-energize knife switch by turning to OFF position. | <ol style="list-style-type: none"> Apply 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. |
|---|---|

| | | | | |
|--|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Filter Press Building | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. |
|--|

Prepared by: _____ Date: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Clarifier 1 Plant: Wastewater Treatment Plant
 Area: North West Updated: 7/9/10

Personal Protective Equipment:

| | | | | |
|--|---|---|--|--|
|  |  |  | | |
| Safety Glasses | Steel Toe Shoes | Leather Gloves (as needed) | | |

SAFE OPERATING PROCEDURES:

| | |
|---|--|
| <ol style="list-style-type: none"> 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:

| | |
|---|---|
| <ol style="list-style-type: none"> Notify all affected personnel that you intend to lockout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Clarifier 1 knife switch on the north side of the Sludge Handling Building on the top left of the control panel. Denergize knife switch by pulling to OFF position. | <ol style="list-style-type: none"> 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. Dissipate or release any stored energy by trying to turn knife switch ON at box located above the motor at the end of walkway of Clarifier 1. Return knife switch to OFF position. |
|---|---|

| | | | | |
|-------------------------------------|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Sludge Handling Building | | | |

After Servicing or Maintenance:

| | |
|--|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. | |
|--|--|

Prepared by: _____ Date: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Clarifier 2 Plant: Wastewater Treatment Plant
 Area: North West Updated: 7/9/10

Personal Protective Equipment:

| | | | |
|--|---|---|--|
|  |  |  | |
| Safety Glasses | Steel Toe Shoes | Leather Gloves (as needed) | |

SAFE OPERATING PROCEDURES:

| | |
|---|--|
| <ol style="list-style-type: none"> 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:

| | |
|---|---|
| <ol style="list-style-type: none"> Notify all affected personnel that you intend to lockout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Clarifier 2 knife switch on the north side of the Sludge Handling Building on the top left of the control panel. Denergize knife switch by pulling to OFF position. | <ol style="list-style-type: none"> 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. Dissipate or release any stored energy by trying to turn knife switch ON at box located above the motor at the end of walkway of Clarifier 2. Return knife switch to OFF position. |
|---|---|

| | | | | |
|-------------------------------------|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Sludge Handling Building | | | |

After Servicing or Maintenance:

| | |
|--|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. | |
|--|--|

Prepared by: _____ Date: 7/9/10
 Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Clarifier 3 Plant: Wastewater Treatment Plant
 Area: North West Updated: 7/9/10

Personal Protective Equipment:

| | | | |
|--|---|---|--|
|  |  |  | |
| Safety Glasses | Steel Toe Shoes | Leather Gloves (as needed) | |

SAFE OPERATING PROCEDURES:

| | |
|---|--|
| <ol style="list-style-type: none"> 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:

| | |
|--|---|
| <ol style="list-style-type: none"> Notify all affected personnel that you intend to lockout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Clarifier 3 knife switch on the north side of the Sludge Handling Building on the top right of the control panel. Denergize knife switch by pulling to OFF position. | <ol style="list-style-type: none"> 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. Dissipate or release any stored energy by trying to turn knife switch ON at box located above the motor at the end of walkway of Clarifier 3. Return knife switch to OFF position. |
|--|---|

| | | | | |
|-------------------------------------|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Sludge Handling Building | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. |
|--|

Prepared by: _____ Date: 7/9/10
 Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Clarifier 4 Plant: Wastewater Treatment Plant
 Area: North West Updated: 7/9/10

Personal Protective Equipment:

| | | | | |
|--|---|---|--|--|
|  |  |  | | |
| Safety Glasses | Steel Toe Shoes | Leather Gloves (as needed) | | |

SAFE OPERATING PROCEDURES:

| | |
|---|--|
| <ol style="list-style-type: none"> 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:

| | |
|--|---|
| <ol style="list-style-type: none"> Notify all affected personnel that you intend to lockout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Clarifier 4 knife switch on the north side of the Sludge Handling Building on the top right of the control panel. Denergize knife switch by pulling to OFF position. | <ol style="list-style-type: none"> 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. Dissipate or release any stored energy by trying to turn knife switch ON at box located above the motor at the end of walkway of Clarifier 4. Return knife switch to OFF position. |
|--|---|

| | | | | |
|-------------------------------------|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Sludge Handling Building | | | |

After Servicing or Maintenance:

| | |
|--|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. | |
|--|--|

Prepared by: _____ Date: 7/9/10
 Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Clarifier 5 Plant: Wastewater Treatment Plant
 Area: North West Updated: 7/9/10

Personal Protective Equipment:

| | | | |
|--|---|---|--|
|  |  |  | |
| Safety Glasses | Steel Toe Shoes | Leather Gloves (as needed) | |

SAFE OPERATING PROCEDURES:

| | |
|---|--|
| <ol style="list-style-type: none"> 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. | <p>**Clarifier 5 is wired into main breaker in Filter Press Building. It is my suggestion that there be installed an isolated disconnect in order to release any stored energy this may have.**</p> |
|---|--|

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:

| | |
|--|--|
| <ol style="list-style-type: none"> Notify all affected personnel that you intend to lockout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Clarifier 5 knife switch located above the motor on control panel in the middle of walkway. Denergize knife switch by pulling to OFF position. | <ol style="list-style-type: none"> 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. Dissipate or release any stored energy by trying to turn knife switch ON at box located above the motor at the end of walkway of Clarifier 5. Return knife switch to OFF position. |
|--|--|

| | | | | |
|-------------------------------------|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel above motor | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. |
|--|

Prepared by: _____ Date: 7/9/10
 Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Cyclone Feed Pump Plant: Wastewater Treatment Plant
 Area: Filter Press Building Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|---|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> This machine can be turned off by the cannibal system computer, but shall be locked out at breaker. |
|---|---|

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:

| | |
|--|--|
| <ol style="list-style-type: none"> Notify affected personnel that you intend to lockout or tagout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Cyclone Feed Pump knife switch on the southeast side of the filter Press Building in the upper left of the control panel. De-energize knife switch by turning to OFF position. | <ol style="list-style-type: none"> Apply 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. Dissipate energy by turning Cyclone Feed Pump knife switch ON, located along north wall 3 feet from pump. Return Switch to OFF position. |
|--|--|

| | | | | |
|--|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Filter Press Building | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. |
|--|

Prepared by: _____ Date: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Oxidation Wheel- Ditch 1 Rotor 1 Plant: Wastewater Treatment Plant
 Area: South West Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|--|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> 2. Use caution when motor is off due to the flow of the water still turning rotor. 3. There is possible bloodborne pathogen contact associated with working around oxidation wheels. |
|--|---|

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:

| | |
|--|---|
| <ol style="list-style-type: none"> 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 Ditch 1 Rotor 1 knife switch in the Influent MCC Building on south control panel in the center. 4. Denergize knife switch by pulling to OFF position. | <ol style="list-style-type: none"> 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 knife switch ON at box located next to the motor. 7. Return knife switch to OFF position. |
|--|---|

| | | | | |
|-------------------------------------|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Influent MCC Building | | | |

After Servicing or Maintenance:

| | |
|--|--|
| <ol style="list-style-type: none"> 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: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Oxidation Wheel- Ditch 1 Rotor 2 Plant: Wastewater Treatment Plant
 Area: South West Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|--|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> 2. Use caution when motor is off due to the flow of the water still turning rotor. 3. There is possible bloodborne pathogen contact associated with working around oxidation wheels. |
|--|---|

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:

| | |
|--|---|
| <ol style="list-style-type: none"> 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 Ditch 1 Rotor 2 knife switch in the Influent MCC Building on south control panel on the left. 4. Denergize knife switch by pulling to OFF position. | <ol style="list-style-type: none"> 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 knife switch ON at box located next to the motor. 7. Return knife switch to OFF position. |
|--|---|

| | | | | |
|-------------------------------------|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Influent MCC Building | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> 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: 7/9/10
 Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Oxidation Wheel- Ditch 1 Rotor 3 Plant: Wastewater Treatment Plant
 Area: South West Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|---|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> Use caution when motor is off due to the flow of the water still turning rotor. There is possible bloodborne pathogen contact associated with working around oxidation wheels. |
|---|---|

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:

| | |
|---|--|
| <ol style="list-style-type: none"> Notify all affected personnel that you intend to lockout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Ditch 1 Rotor 3 knife switch in the Influent MCC Building on north control panel on the left center. Denergize knife switch by pulling to OFF position. | <ol style="list-style-type: none"> 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. Dissipate or release any stored energy by trying to turn knife switch ON at box located next to the motor. Return knife switch to OFF position. |
|---|--|

| | | | | |
|-------------------------------------|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Influent MCC Building | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. |
|--|

Prepared by: _____ Date: 7/9/10
 Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Oxidation Wheel- Ditch 1 Rotor 4 Plant: Wastewater Treatment Plant
 Area: South West Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|---|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> Use caution when motor is off due to the flow of the water still turning rotor. There is possible bloodborne pathogen contact associated with working around oxidation wheels. |
|---|---|

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:

| | |
|---|--|
| <ol style="list-style-type: none"> Notify all affected personnel that you intend to lockout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Ditch 1 Rotor 4 knife switch in the Influent MCC Building on north control panel on the left center. Denergize knife switch by pulling to OFF position. | <ol style="list-style-type: none"> 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. Dissipate or release any stored energy by trying to turn knife switch ON at box located next to the motor. Return knife switch to OFF position. |
|---|--|

| | | | | |
|-------------------------------------|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Influent MCC Building | | | |

After Servicing or Maintenance:

| | |
|--|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. | |
|--|--|

Prepared by: _____ Date: 7/9/10
 Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Oxidation Wheel- Ditch 2 Rotor 1 Plant: Wastewater Treatment Plant
 Area: Central Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|--|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> 2. Use caution when motor is off due to the flow of the water still turning rotor. 3. There is possible bloodborne pathogen contact associated with working around oxidation wheels. |
|--|---|

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:

| | |
|---|---|
| <ol style="list-style-type: none"> 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 Ditch 2 Rotor 1 knife switch in the Influent MCC Building on south control panel on the left center. 4. Denergize knife switch by pulling to OFF position. | <ol style="list-style-type: none"> 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 knife switch ON at box located next to the motor. 7. Return knife switch to OFF position. |
|---|---|

| | | | | |
|-------------------------------------|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Influent MCC Building | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> 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: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Oxidation Wheel- Ditch 2 Rotor 2 Plant: Wastewater Treatment Plant
 Area: Central Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|---|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> Use caution when motor is off due to the flow of the water still turning rotor. There is possible bloodborne pathogen contact associated with working around oxidation wheels. |
|---|---|

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:

| | |
|--|--|
| <ol style="list-style-type: none"> Notify all affected personnel that you intend to lockout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Ditch 2 Rotor 2 knife switch in the Influent MCC Building on south control panel on the left. Denergize knife switch by pulling to OFF position. | <ol style="list-style-type: none"> 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. Dissipate or release any stored energy by trying to turn knife switch ON at box located next to the motor. Return knife switch to OFF position. |
|--|--|

| | | | | |
|-------------------------------------|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Influent MCC Building | | | |

After Servicing or Maintenance:

| | |
|--|---|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. | Prepared by: _____ Date: <u>7/9/10</u> Approvals: _____ _____ _____ _____ |
|--|---|



City of Murray

Lockout Tagout Procedures

Machine: Oxidation Wheel- Ditch 2 Rotor 3 Plant: Wastewater Treatment Plant
 Area: Central Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|---|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> Use caution when motor is off due to the flow of the water still turning rotor. There is possible bloodborne pathogen contact associated with working around oxidation wheels. |
|---|---|

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:

| | |
|--|--|
| <ol style="list-style-type: none"> Notify all affected personnel that you intend to lockout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Ditch 2 Rotor 3 knife switch in the Influent MCC Building on north control panel in the center. Denergize knife switch by pulling to OFF position. | <ol style="list-style-type: none"> 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. Dissipate or release any stored energy by trying to turn knife switch ON at box located next to the motor. Return knife switch to OFF position. |
|--|--|

| | | | | |
|-------------------------------------|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Influent MCC Building | | | |

After Servicing or Maintenance:

| | |
|--|---|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. | Prepared by: _____ Date: <u>7/9/10</u> Approvals: _____ _____ _____ _____ |
|--|---|



City of Murray

Lockout Tagout Procedures

Machine: Oxidation Wheel- Ditch 2 Rotor 4 Plant: Wastewater Treatment Plant
 Area: Central Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|--|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> 2. Use caution when motor is off due to the flow of the water still turning rotor. 3. There is possible bloodborne pathogen contact associated with working around oxidation wheels. |
|--|---|

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:

| | |
|--|---|
| <ol style="list-style-type: none"> 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 Ditch 2 Rotor 4 knife switch in the Influent MCC Building on north control panel on the right center. 4. Denergize knife switch by pulling to OFF position. | <ol style="list-style-type: none"> 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 knife switch ON at box located next to the motor. 7. Return knife switch to OFF position. |
|--|---|

| | | | | |
|-------------------------------------|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Influent MCC Building | | | |

After Servicing or Maintenance:

| | |
|--|--|
| <ol style="list-style-type: none"> 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: 7/9/10
 Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Oxidation Wheel- Ditch 3 Rotor 1 Plant: Wastewater Treatment Plant
 Area: South East Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|---|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> Use caution when motor is off due to the flow of the water still turning rotor. There is possible bloodborne pathogen contact associated with working around oxidation wheels. |
|---|---|

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:

| | |
|---|--|
| <ol style="list-style-type: none"> Notify all affected personnel that you intend to lockout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Ditch 3 Rotor 1 knife switch on the southeast first floor of the Filter Press Building located on the right side of the control panel. Denergize knife switch by pulling to OFF position. | <ol style="list-style-type: none"> 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. Dissipate or release any stored energy by trying to turn knife switch ON at box located next to the motor. Return knife switch to OFF position. |
|---|--|

| | | | | |
|-------------------------------------|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Filter Press Building | | | |

After Servicing or Maintenance:

| | |
|--|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. | |
|--|--|

Prepared by: _____ Date: 7/9/10
 Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Oxidation Wheel- Ditch 3 Rotor 2 Plant: Wastewater Treatment Plant
 Area: South East Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|---|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> Use caution when motor is off due to the flow of the water still turning rotor. There is possible bloodborne pathogen contact associated with working around oxidation wheels. |
|---|---|

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:

| | |
|---|--|
| <ol style="list-style-type: none"> Notify all affected personnel that you intend to lockout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Ditch 3 Rotor 2 knife switch on the southeast first floor of the Filter Press Building located on the right side of the control panel. Denergize knife switch by pulling to OFF position. | <ol style="list-style-type: none"> 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. Dissipate or release any stored energy by trying to turn knife switch ON at box located next to the motor. Return knife switch to OFF position. |
|---|--|

| | | | | |
|-------------------------------------|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Filter Press Building | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. |
|--|

Prepared by: _____ Date: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Oxidation Wheel- Ditch 3 Rotor 3 Plant: Wastewater Treatment Plant
 Area: South East Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|---|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> Use caution when motor is off due to the flow of the water still turning rotor. There is possible bloodborne pathogen contact associated with working around oxidation wheels. |
|---|---|

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:

| | |
|---|--|
| <ol style="list-style-type: none"> Notify all affected personnel that you intend to lockout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Ditch 3 Rotor 3 knife switch on the southeast first floor of the Filter Press Building located on the right center of the control panel. Denergize knife switch by pulling to OFF position. | <ol style="list-style-type: none"> 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. Dissipate or release any stored energy by trying to turn knife switch ON at box located next to the motor. Return knife switch to OFF position. |
|---|--|

| | | | | |
|-------------------------------------|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Filter Press Building | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. |
|--|

Prepared by: _____ Date: 7/9/10
 Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Oxidation Wheel- Ditch 3 Rotor 4 Plant: Wastewater Treatment Plant
 Area: South East Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|---|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> Use caution when motor is off due to the flow of the water still turning rotor. There is possible bloodborne pathogen contact associated with working around oxidation wheels. |
|---|---|

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:

| | |
|---|--|
| <ol style="list-style-type: none"> Notify all affected personnel that you intend to lockout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Ditch 3 Rotor 4 knife switch on the southeast first floor of the Filter Press Building located on the right center of the control panel. Denergize knife switch by pulling to OFF position. | <ol style="list-style-type: none"> 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. Dissipate or release any stored energy by trying to turn knife switch ON at box located next to the motor. Return knife switch to OFF position. |
|---|--|

| | | | | |
|-------------------------------------|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Filter Press Building | | | |

After Servicing or Maintenance:

| | |
|--|---|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. | Prepared by: _____ Date: <u>7/9/10</u> Approvals: _____ _____ _____ _____ |
|--|---|



City of Murray

Lockout Tagout Procedures

Machine: Drum Booster Pump Plant: Wastewater Treatment Plant
 Area: Filter Press Building Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|---|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> Use caution, floor may be slippery. |
|---|---|

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:

| | |
|--|--|
| <ol style="list-style-type: none"> Notify affected personnel that you intend to lockout or tagout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Drum Booster Pump panel on the south wall, left of the pump. De-energize handle switch by turning to OFF position. | <ol style="list-style-type: none"> Apply 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. Turn valves on left and right side of pump to OFF position. Dissipate energy by turning switch on pump to ON. Return switch to OFF position. |
|--|--|

| | | | | |
|--|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel on wall, left of pump | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. |
|--|

Prepared by: _____ Date: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Drum Screen Plant: Wastewater Treatment Plant
 Area: Filter Press Building Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|---|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> Use caution when machine is ON due to the turning of the drum. This machine can be turned off by the cannibal system computer, but shall be locked out at breaker. |
|---|---|

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:

| | |
|---|---|
| <ol style="list-style-type: none"> Notify affected personnel that you intend to lockout or tagout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Drum Screen knife switch on the southeast side of the filter Press Building in the lower left of the control panel. De-energize handle switch by turning to OFF position. | <ol style="list-style-type: none"> Apply 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. Dissipate energy by turning Drum Screen knife switch ON located along north wall 3 feet from drum screen. Return Switch to OFF position. |
|---|---|

| | | | | |
|-------------------------------------|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Filter Press Building | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. |
|--|

Prepared by: _____ Date: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Effluent Screw 1 Plant: Wastewater Treatment Plant
 Area: North Updated: 7/9/10

Personal Protective Equipment:

| | | | | |
|--|---|---|---|---|
|  |  |  |  |  |
| Safety Glasses | Steel Toe Rubber Boots | Nitrile Gloves (as needed) | Leather Gloves (as needed) | Hardhat (as needed) |

SAFE OPERATING PROCEDURES:

| | |
|--|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> 2. Boom truck may be needed when performing work on bottom of auger. 3. There is possible bloodborne pathogen contact associated with working around Screw 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:

| | | | | | |
|---|--|--|--|--|--|
|  |  |  | | | |
| Lock | Tag | Hasp | | | |

Before Servicing or Maintenance:

| | |
|---|---|
| <ol style="list-style-type: none"> 1. Notify affected personnel that you intend to lockout the equipment. 2. Clear the area and equipment of tools, parts and other materials. 3. Identify Effluent Screw 1 knife switch in the Effluent MCC Building on north control panel on the left side. 4. Denergize knife switch by pulling 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. | <ol style="list-style-type: none"> 6. Dissipate or release any stored energy by trying to turn knife switch ON at box located above the motor. 7. Return knife switch to OFF position. 8. If work needs to be done to bottom of auger close gate 1 at the bottom of auger clock wise until closed. |
|---|---|

| | | | | |
|--|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control panel in Effluent MCC Building | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> 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: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Effluent Screw 2 Plant: Wastewater Treatment Plant
 Area: North Updated: 7/9/10

Personal Protective Equipment:

| | | | | |
|--|---|---|---|---|
|  |  |  |  |  |
| Safety Glasses | Steel Toe Rubber Boots | Nitrile Gloves (as needed) | Leather Gloves (as needed) | Hardhat (as needed) |

SAFE OPERATING PROCEDURES:

| | |
|--|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> 2. Boom truck may be needed when performing work on bottom of auger. 3. There is possible bloodborne pathogen contact associated with working around Screw 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:

| | | | | | |
|---|--|--|--|--|--|
|  |  |  | | | |
| Lock | Tag | Hasp | | | |

Before Servicing or Maintenance:

| | |
|--|---|
| <ol style="list-style-type: none"> 1. Notify affected personnel that you intend to lockout the equipment. 2. Clear the area and equipment of tools, parts and other materials. 3. Identify Effluent Screw 2 knife switch in the Effluent MCC Building on south control panel in the center. 4. Denergize knife switch by pulling 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. | <ol style="list-style-type: none"> 6. Dissipate or release any stored energy by trying to turn knife switch ON at box located above the motor. 7. Return knife switch to OFF position. 8. If work needs to be done to bottom of auger close gate 2 at the bottom of auger clock wise until closed. |
|--|---|

| | | | | |
|-------------------------------------|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control panel in Effluent MCC Building | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> 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: 7/9/10
 Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Effluent Screw 3 Plant: Wastewater Treatment Plant
 Area: North Updated: 7/9/10

Personal Protective Equipment:

| | | | | |
|--|---|---|---|---|
|  |  |  |  |  |
| Safety Glasses | Steel Toe Rubber Boots | Nitrile Gloves (as needed) | Leather Gloves (as needed) | Hardhat (as needed) |

SAFE OPERATING PROCEDURES:

| | |
|---|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> Boom truck may be needed when performing work on bottom of auger. There is possible bloodborne pathogen contact associated with working around Screw 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:

| | | | | | |
|---|--|--|--|--|--|
|  |  |  | | | |
| Lock | Tag | Hasp | | | |

Before Servicing or Maintenance:

| | |
|---|--|
| <ol style="list-style-type: none"> Notify affected personnel that you intend to lockout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Effluent Screw 3 knife switch in the Effluent MCC Building on south control panel on the right side. Denergize knife switch by pulling to OFF position. 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. | <ol style="list-style-type: none"> Dissipate or release any stored energy by trying to turn knife switch ON at box located above the motor. Return knife switch to OFF position. If work needs to be done to bottom of auger close gate 3 at the bottom of auger clock wise until closed. |
|---|--|

| | | | | |
|-------------------------------------|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control panel in Effluent MCC Building | | | |

After Servicing or Maintenance:

| | |
|--|--|
| <ol style="list-style-type: none"> Verify all controls are OFF or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. | |
|--|--|

Prepared by: _____ Date: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Exhaust Fan 1 Plant: Wastewater Treatment Plant
 Area: Sludge Handling Building Updated: 7/9/10

Personal Protective Equipment:

| | | | |
|--|---|---|--|
|  |  |  | |
| Safety Glasses | Steel Toe Shoes | Hearing Protection (as needed) | |

SAFE OPERATING PROCEDURES:

| | |
|---|--|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> Use caution when using step ladder to work on fan. This machine only has one lock out point located on control panel in Sludge Handling Building. |
|---|--|

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:

| | |
|--|--|
| <ol style="list-style-type: none"> Notify affected personnel that you intend to lockout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Exhaust Fan 1 knife switch on the north side of the Sludge Handling Building in the left center of the control panel. Denergize knife switch by pulling to OFF position. | <ol style="list-style-type: none"> 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. |
|--|--|

| | | | | |
|--|---|--|--|--|
| <u>Energy Sources:</u> |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Sludge Handling Building | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. |
|--|

Prepared by: _____ Date: 7/9/10
 Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Exhaust Fan 2 Plant: Wastewater Treatment Plant
 Area: Sludge Handling Building Updated: 7/9/10

Personal Protective Equipment:

| | | | |
|--|---|---|--|
|  |  |  | |
| Safety Glasses | Steel Toe Shoes | Hearing Protection (as needed) | |

SAFE OPERATING PROCEDURES:

| | |
|---|--|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> Use caution when using step ladder to work on fan. This machine only has one lock out point located on control panel in Sludge Handling Building. |
|---|--|

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:

| | |
|---|--|
| <ol style="list-style-type: none"> Notify affected personnel that you intend to lockout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Exhaust Fan knife switch on the north side of the Sludge Handling Building in the right center of the control panel. Denergize knife switch by pulling to OFF position. | <ol style="list-style-type: none"> 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. |
|---|--|

| | | | | |
|--|---|--|--|--|
| <u>Energy Sources:</u> |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Sludge Handling Building | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. |
|--|

Prepared by: _____ Date: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Filter Booster Pump Plant: Wastewater Treatment Plant
 Area: Filter Press Building Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|---|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> Use caution, floor may be slippery. |
|---|---|

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:

| | |
|--|---|
| <ol style="list-style-type: none"> Notify affected personnel that you intend to lockout or tagout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Filter Booster Pump panel on the south wall, left of the pump. De-energize handle switch by turning to OFF position. | <ol style="list-style-type: none"> Apply 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. Turn valve on pump clock-wise until valve is closed. Dissipate energy by turning switch on pump to ON. Return switch to OFF position. |
|--|---|

| | | | | |
|--|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel on wall, left of pump | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. |
|--|

Prepared by: _____ Date: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Filter Press Plant: Wastewater Treatment Plant
 Area: Filter Press Building Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|---|--|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> When changing press belt, use extreme caution due to the rollers must be turning. There is possible bloodborne pathogen contact associated with working around oxidation wheels. This machine can be turned off by the cannibal system computer, but shall be locked out at breaker. |
|---|--|

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:

| | |
|---|--|
| <ol style="list-style-type: none"> Notify affected personnel that you intend to lockout or tagout the equipment. Clear the area and equipment of tools, parts and other materials. Identify control board upstairs of Filter Press Building. (stairs located at south eastern part of building) De-energize handle switch by turning to OFF position. | <ol style="list-style-type: none"> Apply 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. Dissipate energy by pushing ON power buttons to Water control valve, Belt drive, and Sludge Conveyor. Return Buttons to OFF position. |
|---|--|

| | | | | |
|--|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control board upstairs of Filter Press Building | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. |
|--|

Prepared by: _____ Date: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Grit Blower Plant: Wastewater Treatment Plant
 Area: North Central Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|--|--|
| 1. Always perform 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 out on walkway while working on motor or changing filter. |
|--|--|

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. | 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. |
| 2. Clear the area and equipment of tools, parts and other materials. | 6. Dissipate or release any stored energy by trying to turn knife switch ON at box located right of the motor. |
| 3. Identify Grit Blower knife switch in the Influent MCC Building on north control panel at top left. | 7. Return knife switch to OFF position. |
| 4. Denergeize knife switch by pulling to OFF position. | |

| | | | | |
|--|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control panel in Influent Control 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: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Grit Screw Plant: Wastewater Treatment Plant
 Area: North Central Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|---|--|
| <ol style="list-style-type: none"> Always perform 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. | <ol style="list-style-type: none"> There is possible bloodborne pathogen contact associated with working around oxidation wheels. |
|---|--|

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:

| | |
|--|---|
| <ol style="list-style-type: none"> Notify all affected personnel that you intend to lockout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Grit Screw knife switch in the Influent MCC Building on north control panel at top left. Denergeize knife switch by pulling to OFF position. | <ol style="list-style-type: none"> 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. Dissipate or release any stored energy by trying to turn knife switch ON and pushing Start button at box located right the motor. Return knife switch to OFF position and press Stop button. |
|--|---|

| | | | | |
|--|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control panel in Influent Control Building | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. |
|--|

Prepared by: _____ Date: 7/9/10
 Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Holding Tank Blower 1 Plant: Wastewater Treatment Plant
 Area: Sludge Handling Building Updated: 7/9/10

Personal Protective Equipment:

| | | | |
|--|---|---|---|
|  |  |  |  |
| Safety Glasses | Steel Toe Shoes | Leather Gloves (as needed) | Hearing Protection (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 only has one lock out point located on control panel in Sludge Handling Building. |
|--|---|

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 affected personnel that you intend to lockout the equipment. 2. Clear the area and equipment of tools, parts and other materials. 3. Identify Holding Tank Blower 1 knife switch on the north side of the Sludge Handling Building in the left center of the control panel. 4. Denergize knife switch by pulling 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. |
|--|--|

| | | | | |
|--|---|--|--|--|
| <u>Energy Sources:</u> |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Sludge Handling 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: 7/9/10
 Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Holding Tank Blower 2 Plant: Wastewater Treatment Plant
 Area: Sludge Handling Building Updated: 7/9/10

Personal Protective Equipment:

| | | | |
|--|---|---|---|
|  |  |  |  |
| Safety Glasses | Steel Toe Shoes | Leather Gloves (as needed) | Hearing Protection (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 only has one lock out point located on control panel in Sludge Handling Building. |
|--|---|

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 affected personnel that you intend to lockout the equipment. 2. Clear the area and equipment of tools, parts and other materials. 3. Identify Holding Tank Blower 2 knife switch on the north side of the Sludge Handling Building in the right center of the control panel. 4. Denergize knife switch by pulling 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. |
|---|--|

| | | | | |
|--|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Sludge Handling 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: 7/9/10
 Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Inert Pump Plant: Wastewater Treatment Plant
 Area: Filter Press Building Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|---|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> This machine can be turned off by the cannibal system computer, but shall be locked out at breaker. |
|---|---|

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:

| | |
|--|---|
| <ol style="list-style-type: none"> Notify affected personnel that you intend to lockout or tagout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Inert Pump knife switch on the southeast side of the filter Press Building in the upper left of the control panel. De-energize handle switch by turning to OFF position. | <ol style="list-style-type: none"> Apply 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. Dissipate energy by turning Inert Pump knife switch located along north wall 3 feet from pump ON. Return Switch to OFF position. |
|--|---|

| | | | | |
|--|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Filter Press Building | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. |
|--|

Prepared by: _____ Date: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Interchange Mixer 1 Plant: Wastewater Treatment Plant
 Area: North East Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|---|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> If works need to be done to prop, winch boom must be cranked forward till prop is visible. This machine can be turned off by the cannibal system computer, but shall be locked out at breaker. |
|---|---|

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:

| | |
|---|--|
| <ol style="list-style-type: none"> Notify affected personnel that you intend to lockout or tagout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Interchange Mixer 1 knife switch on the southeast side of the Filter Press Building in the lower center of the control panel. De-energize handle switch by turning to OFF position. | <ol style="list-style-type: none"> Apply 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. Dissipate energy by turning Mixer 1 switch located beside winch boom ON. Return Switch to OFF position. |
|---|--|

| | | | | |
|--|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Filter Press Building | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. |
|--|

Prepared by: _____ Date: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Interchange Mixer 2 Plant: Wastewater Treatment Plant
 Area: North East Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|---|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> If works need to be done to prop, winch boom must be cranked forward till prop is visible. This machine can be turned off by the cannibal system computer, but shall be locked out at breaker. |
|---|---|

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:

| | |
|---|--|
| <ol style="list-style-type: none"> Notify affected personnel that you intend to lockout or tagout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Interchange Mixer 2 knife switch on the southeast side of the Filter Press Building in the left center at the top of the control panel. De-energize handle switch by turning to OFF position. | <ol style="list-style-type: none"> Apply 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. Dissipate energy by turning Mixer 2 switch located beside winch boom ON. Return Switch to OFF position. |
|---|--|

| | | | | |
|--|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Filter Press Building | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. |
|--|

Prepared by: _____ Date: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Interchange Mixer 3 Plant: Wastewater Treatment Plant
 Area: North East Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|---|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> If works need to be done to prop, winch boom must be cranked forward till prop is visible. This machine can be turned off by the cannibal system computer, but shall be locked out at breaker. |
|---|---|

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:

| | |
|---|--|
| <ol style="list-style-type: none"> Notify affected personnel that you intend to lockout or tagout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Interchange Mixer 3 knife switch on the southeast side of the Filter Press Building in the left center at the top of the control panel. De-energize handle switch by turning to OFF position. | <ol style="list-style-type: none"> Apply 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. Dissipate energy by turning Mixer 3 switch located beside winch boom ON. Return Switch to OFF position. |
|---|--|

| | | | | |
|--|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Filter Press Building | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. |
|--|

Prepared by: _____ Date: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Interchange Mixer 4 Plant: Wastewater Treatment Plant
 Area: North East Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|---|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> If works need to be done to prop, winch boom must be cranked forward till prop is visible. This machine can be turned off by the cannibal system computer, but shall be locked out at breaker. |
|---|---|

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:

| | |
|---|--|
| <ol style="list-style-type: none"> Notify affected personnel that you intend to lockout or tagout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Interchange Mixer 4 knife switch on the southeast side of the Filter Press Building in the center of the control panel. De-energize handle switch by turning to OFF position. | <ol style="list-style-type: none"> Apply 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. Dissipate energy by turning Mixer 4 switch located beside winch boom ON. Return Switch to OFF position. |
|---|--|

| | | | | |
|--|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Filter Press Building | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. |
|--|

Prepared by: _____ Date: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Polymer Mixer Plant: Wastewater Treatment Plant
 Area: Filter Press Building Updated: 7/9/10

Personal Protective Equipment:

| | | | | |
|--|---|---|---|--|
|  |  |  |  | |
| Safety Glasses | Steel Toe Shoes | Leather Gloves (as needed) | Nitrile 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, floor may be slippery. |
|--|--|

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 affected personnel that you intend to lockout or tagout the equipment. | 5. Apply 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. |
| 2. Clear the area and equipment of tools, parts and other materials. | 6. Dissipate energy by turning Mixer, Polymer Feeder, and Disperser switches to ON. |
| 3. Identify Polymer Mixer Control panel next to the Mixer. | 7. Return switches to OFF position. |
| 4. De-energize handle switch by turning to OFF position. | |

| | | | | |
|-------------------------------------|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel on Polymer Mixer | | | |

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: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Return Screw Pump 1 Plant: Wastewater Treatment Plant
 Area: North Central Updated: 7/9/10

Personal Protective Equipment:

| | | | | |
|--|---|---|---|---|
|  |  |  |  |  |
| Safety Glasses | Steel Toe Rubber Boots | Nitrile Gloves (as needed) | Leather Gloves (as needed) | Hardhat (as needed) |

SAFE OPERATING PROCEDURES:

| | |
|--|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> 2. Boom truck may be needed when performing work on bottom of auger. 3. There is possible bloodborne pathogen contact associated with working around Screw 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:

| | | | | | |
|---|--|--|--|--|--|
|  |  |  | | | |
| Lock | Tag | Hasp | | | |

Before Servicing or Maintenance:

| | |
|---|---|
| <ol style="list-style-type: none"> 1. Notify affected personnel that you intend to lockout the equipment. 2. Clear the area and equipment of tools, parts and other materials. 3. Identify Return Screw Pump 1 knife switch in the Influent MCC Building on south control panel on the top right side. 4. Denergize knife switch by pulling 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. | <ol style="list-style-type: none"> 6. Dissipate or release any stored energy by trying to turn knife switch ON at box located above the motor. 7. Return knife switch to OFF position. 8. If work needs to be done to bottom of auger close gate 1 at the bottom of auger clock wise until closed. |
|---|---|

| | | | | |
|-------------------------------------|---|--|--|--|
| <u>Energy Sources:</u> |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control panel in Influent MCC Building | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> 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: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Return Screw Pump 2 Plant: Wastewater Treatment Plant
 Area: North Central Updated: 7/9/10

Personal Protective Equipment:

| | | | | |
|--|---|---|---|---|
|  |  |  |  |  |
| Safety Glasses | Steel Toe Rubber Boots | Nitrile Gloves (as needed) | Leather Gloves (as needed) | Hardhat (as needed) |

SAFE OPERATING PROCEDURES:

| | |
|--|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> 2. Boom truck may be needed when performing work on bottom of auger. 3. There is possible bloodborne pathogen contact associated with working around Screw 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:

| | | | | | |
|---|--|--|--|--|--|
|  |  |  | | | |
| Lock | Tag | Hasp | | | |

Before Servicing or Maintenance:

| | |
|--|---|
| <ol style="list-style-type: none"> 1. Notify affected personnel that you intend to lockout the equipment. 2. Clear the area and equipment of tools, parts and other materials. 3. Identify Return Screw Pump 2 knife switch in the Influent MCC Building on south control panel on the bottom right side. 4. Denergize knife switch by pulling 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. | <ol style="list-style-type: none"> 6. Dissipate or release any stored energy by trying to turn knife switch ON at box located above the motor. 7. Return knife switch to OFF position. 8. If work needs to be done to bottom of auger close gate 2 at the bottom of auger clock wise until closed. |
|--|---|

| | | | | |
|-------------------------------------|---|--|--|--|
| <u>Energy Sources:</u> |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control panel in Influent MCC Building | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> 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: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Return Screw Pump 3 Plant: Wastewater Treatment Plant
 Area: North Central Updated: 7/9/10

Personal Protective Equipment:

| | | | | |
|--|---|---|---|---|
|  |  |  |  |  |
| Safety Glasses | Steel Toe Rubber Boots | Nitrile Gloves (as needed) | Leather Gloves (as needed) | Hardhat (as needed) |

SAFE OPERATING PROCEDURES:

| | |
|--|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> 2. Boom truck may be needed when performing work on bottom of auger. 3. There is possible bloodborne pathogen contact associated with working around Screw 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:

| | | | | | |
|---|--|--|--|--|--|
|  |  |  | | | |
| Lock | Tag | Hasp | | | |

Before Servicing or Maintenance:

| | |
|---|---|
| <ol style="list-style-type: none"> 1. Notify affected personnel that you intend to lockout the equipment. 2. Clear the area and equipment of tools, parts and other materials. 3. Identify Return Screw Pump 3 knife switch in the Influent MCC Building on north control panel on the bottom left side. 4. Denergize knife switch by pulling 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. | <ol style="list-style-type: none"> 6. Dissipate or release any stored energy by trying to turn knife switch ON at box located above the motor. 7. Return knife switch to OFF position. 8. If work needs to be done to bottom of auger close gate 3 at the bottom of auger clock wise until closed. |
|---|---|

| | | | | |
|-------------------------------------|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control panel in Influent MCC Building | | | |

After Servicing or Maintenance:

| | |
|--|--|
| <ol style="list-style-type: none"> 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: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Rotomat Screen 1 Plant: Wastewater Treatment Plant
 Area: North Central Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|---|--|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> Rotomat Screen 1 cannot be locked out without locking out Rotomat Screen 2 also. |
|---|--|

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:

| | |
|---|---|
| <ol style="list-style-type: none"> Notify affected personnel that you intend to lockout or tagout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Rotomat Screen 1 button switch on control panel 3 feet south of motor. De-energize switch by turning to OFF position. | <ol style="list-style-type: none"> Apply tag on button switch. *NOTE* Tag shall include date taken out of service, person/persons that took out of service, and work being done. |
|---|---|

| | | | | |
|--|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control panel in beside Rotomat Screens | | | |

After Servicing or Maintenance:

| | |
|--|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. | |
|--|--|

Prepared by: _____ Date: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Rotomat Screen 2 Plant: Wastewater Treatment Plant
 Area: North Central Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|---|--|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> Rotomat Screen 2 cannot be locked out without locking out Rotomat Screen 1 also. |
|---|--|

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:

| | |
|---|---|
| <ol style="list-style-type: none"> Notify affected personnel that you intend to lockout or tagout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Rotomat Screen 2 button switch on control panel 3 feet south of motor. De-energize switch by turning to OFF position. | <ol style="list-style-type: none"> Apply tag on button switch. *NOTE* Tag shall include date taken out of service, person/persons that took out of service, and work being done. |
|---|---|

| | | | | |
|--|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control panel beside Rotomat Screens | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. |
|--|

Prepared by: _____ Date: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Screw Compactor Plant: Wastewater Treatment Plant
 Area: Filter Press Building Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|---|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> Use caution when machine is ON due to the turning of the drum. This machine can be turned off by the cannibal system computer, but shall be locked out at breaker. |
|---|---|

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:

| | |
|---|--|
| <ol style="list-style-type: none"> Notify affected personnel that you intend to lockout or tagout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Screw Compactor knife switch on the southeast side of the filter Press Building in the lower left of the control panel. De-energize handle switch by turning to OFF position. | <ol style="list-style-type: none"> Apply 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. Dissipate energy by turning Screw Compactor knife switch ON located along north wall 10 feet from compactor. Return Switch to OFF position. |
|---|--|

| | | | | |
|--|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Filter Press Building | | | |

After Servicing or Maintenance:

| | |
|--|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. | |
|--|--|

Prepared by: _____ Date: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Screw Pump #1 Plant: Wastewater Treatment Plant
 Area: West Updated: 7/9/10

Personal Protective Equipment:

| | | | | |
|--|---|---|---|---|
|  |  |  |  |  |
| Safety Glasses | Steel Toe Rubber Boots | Nitrile Gloves (as needed) | Leather Gloves (as needed) | Hardhat (as needed) |

SAFE OPERATING PROCEDURES:

| | |
|--|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> 2. Boom truck may be needed when performing work on bottom of auger. 3. There is possible bloodborne pathogen contact associated with working around Screw 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:

| | | | | | |
|---|--|--|--|--|--|
|  |  |  | | | |
| Lock | Tag | Hasp | | | |

Before Servicing or Maintenance:

| | |
|--|---|
| <ol style="list-style-type: none"> 1. Notify affected personnel that you intend to lockout the equipment. 2. Clear the area and equipment of tools, parts and other materials. 3. Identify Screw Pump 1 knife switch in the Influent MCC Building on north control panel on the right side. 4. Denergize knife switch by pulling 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. | <ol style="list-style-type: none"> 6. Dissipate or release any stored energy by trying to turn knife switch ON at box located above the motor. 7. Return knife switch to OFF position. 8. If work needs to be done to bottom of auger close gate 1 at the bottom of auger clock wise until closed. |
|--|---|

| | | | | |
|--|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control panel in Influent MCC Building | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> 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: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Screw Pump #2 Plant: Wastewater Treatment Plant
 Area: West Updated: 7/9/10

Personal Protective Equipment:

| | | | | |
|--|---|---|---|---|
|  |  |  |  |  |
| Safety Glasses | Steel Toe Rubber Boots | Nitrile Gloves (as needed) | Leather Gloves (as needed) | Hardhat (as needed) |

SAFE OPERATING PROCEDURES:

| | |
|---|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> Boom truck may be needed when performing work on bottom of auger. There is possible bloodborne pathogen contact associated with working around Screw 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:

| | | | | | |
|---|--|--|--|--|--|
|  |  |  | | | |
| Lock | Tag | Hasp | | | |

Before Servicing or Maintenance:

| | |
|---|--|
| <ol style="list-style-type: none"> Notify affected personnel that you intend to lockout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Screw Pump 2 knife switch in the Influent MCC Building on north control panel on the right side. Denergize knife switch by pulling to OFF position. 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. | <ol style="list-style-type: none"> Dissipate or release any stored energy by trying to turn knife switch ON at box located above the motor. Return knife switch to OFF position. If work needs to be done to bottom of auger close gate 2 at the bottom of auger clock wise until closed. |
|---|--|

| | | | | |
|-------------------------------------|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control panel in Influent MCC Building | | | |

After Servicing or Maintenance:

| | |
|--|--|
| <ol style="list-style-type: none"> Verify all controls are OFF or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. | |
|--|--|

Prepared by: _____ Date: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Screw Pump #3 Plant: Wastewater Treatment Plant
 Area: West Updated: 7/9/10

Personal Protective Equipment:

| | | | | |
|--|---|---|---|---|
|  |  |  |  |  |
| Safety Glasses | Steel Toe Rubber Boots | Nitrile Gloves (as needed) | Leather Gloves (as needed) | Hardhat (as needed) |

SAFE OPERATING PROCEDURES:

| | |
|--|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> 2. Boom truck may be needed when performing work on bottom of auger. 3. There is possible bloodborne pathogen contact associated with working around Screw 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:

| | | | | | |
|---|--|--|--|--|--|
|  |  |  | | | |
| Lock | Tag | Hasp | | | |

Before Servicing or Maintenance:

| | |
|--|---|
| <ol style="list-style-type: none"> 1. Notify affected personnel that you intend to lockout the equipment. 2. Clear the area and equipment of tools, parts and other materials. 3. Identify Screw Pump 3 knife switch in the Influent MCC Building on south control panel in the center. 4. Denergize knife switch by pulling 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. | <ol style="list-style-type: none"> 6. Dissipate or release any stored energy by trying to turn knife switch ON at box located above the motor. 7. Return knife switch to OFF position. 8. If work needs to be done to bottom of auger close gate 3 at the bottom of auger clock wise until closed. |
|--|---|

| | | | | |
|--|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control panel in Influent MCC Building | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> 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: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Sludge Pump 1 Plant: Wastewater Treatment Plant
 Area: Downstairs of Sludge Handling Building Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|---|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> There is possible bloodborne pathogen contact associated with working around Sludge Pump. Hearing protection is required if blowers, located on the first floor, are on. |
|---|---|

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:

| | |
|--|--|
| <ol style="list-style-type: none"> Notify affected personnel that you intend to lockout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Sludge Pump 1 knife switch on the north side of the Sludge Handling Building in the left center of the control panel. Denergize knife switch by pulling to OFF position. | <ol style="list-style-type: none"> 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. Dissipate or release any stored energy by trying to turn knife switch ON at box located above the motor. Return knife switch to OFF position. |
|--|--|

| | | | | |
|--|---|--|--|--|
| <u>Energy Sources:</u> |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Sludge Handling Building | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. |
|--|

Prepared by: _____ Date: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Sludge Pump 2 Plant: Wastewater Treatment Plant
 Area: Downstairs of Sludge Handling Building Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|---|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> There is possible bloodborne pathogen contact associated with working around Sludge Pump. Hearing protection is required if blowers, located on the first floor, are on. This machine has two lock out points, that both need to be de-energized. |
|---|---|

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:

| | |
|---|---|
| <ol style="list-style-type: none"> Notify affected personnel that you intend to lockout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Sludge Pump 2 knife switch on the north side of the Sludge Handling Building in the bottom left of the control panel. Denegize knife switch by pulling to OFF position. | <ol style="list-style-type: none"> 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. Dissipate or release any stored energy by trying to turn knife switch, labeled Sludge Pump 2, ON at variable control box located at the bottom of stairs on left. Return knife switch to OFF position. Also dissipate or release any stored energy by trying to turn knife switch ON located above the motor. Return knife switch to OFF position. |
|---|---|

| | | | | |
|--|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Sludge Handling Building | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. |
|--|

Prepared by: _____ Date: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Sludge Pump 3 Plant: Wastewater Treatment Plant
 Area: Downstairs of Sludge Handling Building Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|---|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> There is possible bloodborne pathogen contact associated with working around Sludge Pump. Hearing protection is required if blowers, located on the first floor, are on. This machine has two lock out points, that both need to be de-energized. |
|---|---|

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:

| | |
|---|---|
| <ol style="list-style-type: none"> Notify affected personnel that you intend to lockout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Sludge Pump 3 knife switch on the north side of the Sludge Handling Building in the right center of the control panel. Denergize knife switch by pulling to OFF position. | <ol style="list-style-type: none"> 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. Dissipate or release any stored energy by trying to turn knife switch, labeled Sludge Pump 3, ON at variable control box located at the bottom of stairs on left. Return knife switch to OFF position. Also dissipate or release any stored energy by trying to turn knife switch ON located above the motor. Return knife switch to OFF position. |
|---|---|

| | | | | |
|-------------------------------------|---|--|--|--|
| Energy Sources: |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Sludge Handling Building | | | |

After Servicing or Maintenance:

| |
|--|
| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. |
|--|

Prepared by: _____ Date: 7/9/10

Approvals: _____



City of Murray

Lockout Tagout Procedures

Machine: Sludge Pump 4 Plant: Wastewater Treatment Plant
 Area: Downstairs of Sludge Handling Building Updated: 7/9/10

Personal Protective Equipment:

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

SAFE OPERATING PROCEDURES:

| | |
|---|---|
| <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> There is possible bloodborne pathogen contact associated with working around Sludge Pump. Hearing protection is required if blowers, located on the first floor, are on. |
|---|---|

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:

| | |
|---|--|
| <ol style="list-style-type: none"> Notify affected personnel that you intend to lockout the equipment. Clear the area and equipment of tools, parts and other materials. Identify Sludge Pump 4 knife switch on the north side of the Sludge Handling Building in the bottom right of the control panel. Denergize knife switch by pulling to OFF position. | <ol style="list-style-type: none"> 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. Dissipate or release any stored energy by trying to turn knife switch ON at box located above the motor. Return knife switch to OFF position. |
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| <u>Energy Sources:</u> |  | | | |
| Magnitude: | 460V | | | |
| Energy Isolation Device & Location: | Control Panel in Sludge Handling Building | | | |

After Servicing or Maintenance:

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| <ol style="list-style-type: none"> Verify all controls are "off" or in neutral position. Clear machine or equipment of tools, parts, or people. Make sure all guarding is in place. Notify affected personnel that the machine or equipment will be re-energized. Remove locks, devices, and tags from energy isolation devices. Re-energize or power-up machine by returning energy isolating devices to normal operating position. |
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Prepared by: _____ Date: 7/9/10

Approvals: _____

