Lockout/Tagout Procedure Development Services

City of Broken Arrow
Broken Arrow, OK

RFP: 26.149

April 23, 2026

Cage: 7PL41
UEI:JKPGTKHSKRP4
Tax ID:47-3017768

ATTN:
Kelly Cox
Human Resources Director
kcox@brokenarrowok.gov

POC:
Jeff Abbate, Principal, Project Manager
303.325.3460; jeffa@citrinellc.com
710 Kipling St., #406, Lakewood, CO 80215

Citrine®

Engineering I Consulting I Commissioning I Construction

Lakewood, CO • Grand Junction, CO • Albuquerque, NM
www.CitrineLLC.com

Citrine LLC
710 Kipling St., #406
Lakewood, CO 80215
www.CitrineLLC.com

April 23, 2026

City of Broken Arrow, Human Resources
P.O. Box 610
201 E. Commercial Street
Broken Arrow, OK 74013
Human Resources Director: Kelly Cox

RE: Lockout/Tagout (LOTO) Written Procedure Development Services; Request for Proposals 26.149

Dear Kelly,

Citrine LLC (Citrine) is pleased to present our response to RFP Number: 26.149 for the Lockout/Tagout Written Procedure Development Services for the City of Broken Arrow, Oklahoma.

Founded in 2015, Citrine LLC is a consulting firm specializing in engineering design, construction management, commissioning, and electrical safety services, with expertise in Lockout/Tagout (LOTO) program development. Citrine is a Service-Disabled Veteran-Owned Small Business (SDVOSB), Small Business Enterprise (SBE), Disadvantaged Business Enterprise (DBE), and Minority Woman Owned Business Enterprise (MWBE) with offices in Lakewood and Grand Junction, Colorado, and Albuquerque, New Mexico.

Citrine brings extensive experience supporting public-sector and industrial clients with safety-focused programs, delivering high-quality, compliant, and field-ready solutions tailored to operational environments. Our team provides a wide range of services including safety evaluations, LOTO program implementation, electrical surveys, safety training, feasibility studies, project estimating, commissioning, and project management.

Our proposal and fee shall remain in full force and effective for ninety (90) calendar days following the date of opening.

We appreciate the opportunity to be of service and look forward to working with the City of Broken Arrow. If you have any questions or require additional information concerning this response, please contact me directly.

Sincerely,

Jeff Abbate, Principal, Project Manager
Citrine LLC
jeffa@citrinellc.com
303.325.3460

UEI Number	JKPGTKHSKRP4
CAGE Code	7PL41
Tax ID Number	47-3017768

ORGANIZATIONAL STRUCTURE

Citrine LLC has established a streamlined, project-specific organizational structure designed to efficiently deliver Lockout/Tagout (LOTO) Procedure Development Services. Our team structure emphasizes clear lines of responsibility, strong field execution, and rigorous quality control to ensure accurate, compliant, and user-friendly deliverables.

Day-to-day execution will be led by a dedicated Project Manager, Jeff Abbate, who will serve as the single point of contact for the City of Broken Arrow. He will be responsible for overall coordination, schedule management, communication with City stakeholders, and oversight of quality assurance and deliverable consistency across both facilities.

Field execution will be performed by a dedicated assessment team consisting of experienced LOTO and safety professionals. This team will conduct on-site evaluations at City Hall and the Field Operations Center, identify and inventory applicable equipment, and documents all energy sources. Our team will work efficiently within active facilities while coordinating closely with City personnel to validate equipment data and ensure completeness.

HOW WE QUALIFY TO BE RESPONSIVE TO REQUIREMENTS OF RFP

The Citrine team has direct experience developing and implementing LOTO programs for municipal and mission-critical facilities, and our engineering professionals bring extensive field experience applying NFPA 70E and OSHA requirements in active operational environments.

Citrine understands that the scope of this effort includes comprehensive facility assessments and the development of standardized, equipment-specific LOTO procedures for machinery and equipment located at City Hall and the Field Operations Center in Broken Arrow, Oklahoma. Our team is experienced in evaluating multiple energy sources—including electrical, mechanical, hydraulic, pneumatic, and thermal systems—and translating field conditions into clear, accurate, and OSHA-compliant procedures.

Citrine further recognizes the City's objective to enhance employee safety, reduce risk, and standardize documentation across facilities. Our integrated QA/QC process ensures all procedures meet OSHA 29 CFR 1910.147 requirements and industry best practices, resulting in high-quality, field-ready documentation that is easy for personnel to understand and implement.

EXPERIENCE PROVIDING RECENT SIMILAR SERVICES

Citrine has successfully completed numerous electrical safety surveys and studies, including the development, implementation, and training of Lockout/Tagout (LOTO) programs for federal agencies, municipal agencies, and other mission-critical facilities. Our team is highly experienced in applying all applicable standards and requirements governing hazardous energy control, including OSHA, NFPA 70E, and agency-specific safety criteria.

Citrine's technical staff possess extensive field experience working in occupied hospitals, operating bases, power plants, and industrial facilities, where strict coordination, safety, and operational continuity are required. These projects frequently include equipment-specific LOTO procedures, durable labeling, training, documentation, and compliance recordkeeping. A significant portion of Citrine's work is repeat business, reflecting consistent client satisfaction and reliable performance.

Lockout/Tagout (LOTO) Program Assessment, Development, and Training
VA Southern Nevada Healthcare System | *North Las Vegas, NV*

Size: 1,042,331 sf
Completion: 9/30/2022
Contract #: 36C26122P0258
Point of Contact Name and Company: Owen Motter, Department of Veterans Affairs
Point of Contact Phone: 702.791.9000 x 13301
Point of Contact Email: owen.motterjr@va.gov

Citrine provided the Veterans Affairs Southern Nevada Healthcare System (VASNHS) with a comprehensive Lockout/Tagout (LOTO) program upgrade to ensure compliance with OSHA, NFPA 70E, Joint Commission, and VA standards. Our electrical safety engineers conducted a facility-wide survey to evaluate existing LOTO practices, review current procedures, and develop new procedures where gaps were identified.

As part of this effort, Citrine updated and standardized **149 equipment-specific LOTO procedures** across the campus. New procedures were created, printed, laminated, and posted directly on equipment, with copies integrated into digital binders and software records for long-term use. Additionally, Citrine identified the necessary locks, tags, gang boxes, and other safety devices required to properly support the program. To ensure sustainability, we delivered **Train-the-Trainer instruction** for VA Facilities Management staff and provided NFPA 70E training for employees responsible for implementing the program. This project demonstrates Citrine's ability to safely implement LOTO programs in **occupied VA healthcare environments** while maintaining regulatory compliance and uninterrupted facility operations.

LOTO Management and Electrical Surveys

U.S. Air Force | *Malmstrom Air Force Base, MT*

Size: 2 large aviation buildings
Completion: 01/02/2022
Contract #: FA462620P0045
Point of Contact Name and Company: Mark Bovingdon, US Air Force
Point of Contact Phone: 406-731-7702
Point of Contact Email: mark.bovingdon@us.af.mil

At Malmstrom Air Force Base in Montana, the Citrine team conducted a detailed on-site electrical survey of two large aviation buildings. The scope included inspection and assessment of switchgear, motor control centers (MCCs), and panelboards to evaluate system conditions and collect accurate load data.

To perform these measurements safely, Citrine implemented a formal Lockout/Tagout (LOTO) process throughout the assessment. Our team isolated and secured equipment using OSHA-compliant procedures, applied locks and tags, and verified de-energization before attaching power measurement devices. Electrical load measurements were then taken using two Fluke 1736 Power Loggers, one installed on Main Distribution Panel No. 1 (MDP-1) and the other on MDP-2. The LOTO procedures employed during this work included isolating the main breaker, applying locks and tags per safety protocol, and testing for absence of voltage prior to attaching current transformers and voltage probes. Power was only restored once all control conditions were verified. This process ensured worker safety, reduced risk of accidental energization, and provided a repeatable model for future maintenance and testing at the facility.

Final deliverables included updated one-line diagrams, revised panel schedules, and detailed documentation of the LOTO process used during the survey. By integrating electrical measurements with formal hazardous energy control, Citrine delivered both accurate technical data and a sustainable safety framework that the Air Force can reference during future operations and maintenance.

Recommissioning of Power Systems and LOTO Procedure Development and Training

National Oceanic and Atmospheric Administration (NOAA) | *Wallops Island, VA*

Size: 39 bldgs. - 500,000 sf
Completion: 9/29/2021
Contract #: 47QRAA19D008Z / 1332KP20FNEEA0117
Point of Contact Name and Company: Shabir Choudhary, Contracting Officer Representative, NOAA
Point of Contact Phone: 301.713.9208
Point of Contact Email: shabir.choudhary@noaa.gov

As part of NOAA's NESDIS program, Citrine recommissioned key power generation and distribution systems at WCDAS to verify implementation, operation, and reliability. Safety during recommissioning was paramount, given that much of the equipment was active and supported a nationally critical communications and data facility. To mitigate risks, Citrine's scope placed a strong emphasis on the design, documentation, and training of Lockout Tagout (LOTO) procedures.

LOTO Procedure Development

- *Hazard Analysis:* Each generator, UPS, switchgear, motor control center, and transformer was assessed for hazardous energy sources.
- *Procedure Drafting:* Step-by-step LOTO procedures were written specific to WCDAS equipment, ensuring compliance with OSHA 29 CFR 1910.147 and NOAA facility safety standards.
- *Customization:* LOTO sequences were tailored for both routine maintenance and emergent troubleshooting scenarios, particularly for diesel generator systems, UPS units, and automatic transfer switches.
- *Documentation Tools:* Checklists, equipment labeling, and isolation point diagrams were produced to provide operators with clear visual and written guidance.

Operator Training & Implementation

Citrine conducted structured staff training sessions combining classroom instruction with walk-downs of equipment and live demonstrations of LOTO. Training material was site-specific, incorporating both NOAA requirements and manufacturer guidelines. Operators were prepared to safely execute procedures under both normal and contingency conditions.

By integrating LOTO procedure development into the recommissioning activities, Citrine delivered not only a fully tested and reliable power system but also a sustainable safety program. This ensures that operators can safely isolate, lock out, and re-energize equipment without jeopardizing mission continuity at NOAA's critical Wallops Island facility.

LOTO Procedure Development and Electrical Studies

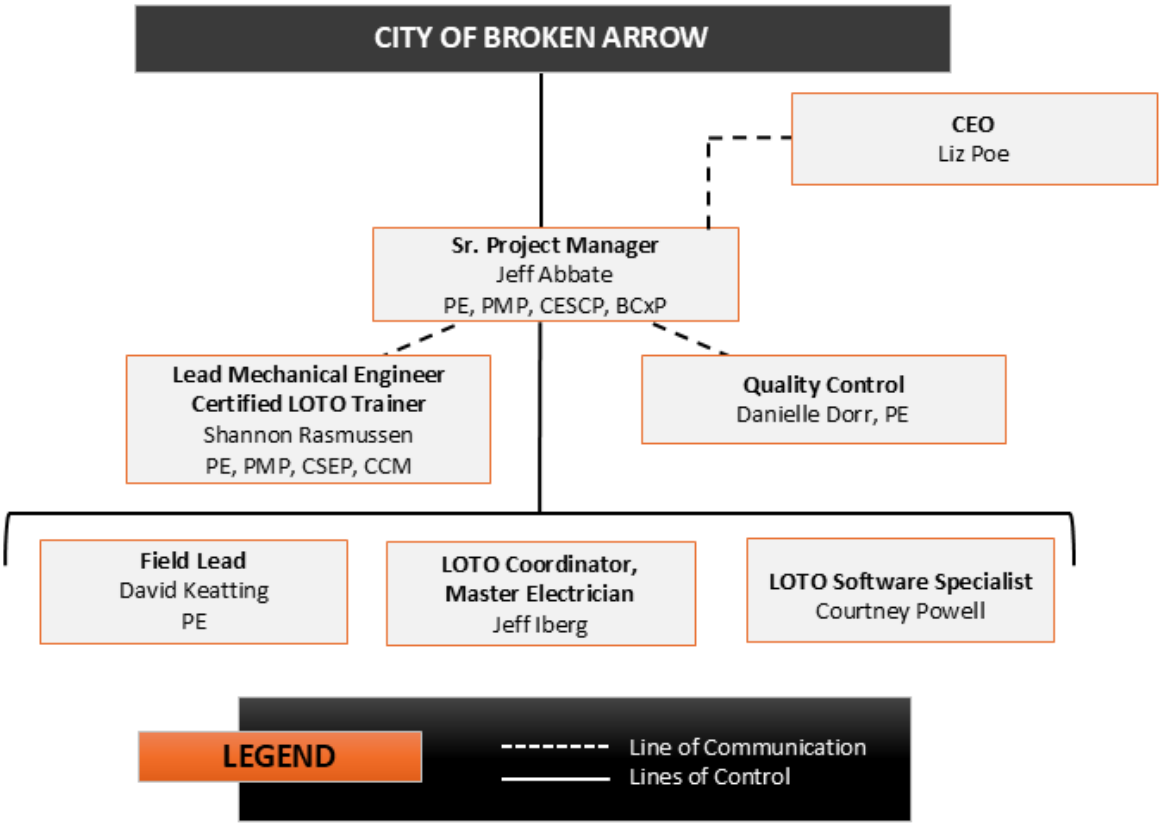
Cheyenne Prairie Generating Station | *Cheyenne, WY*

Size: 1,000,000 sq. ft.
Completion Date: 12/15/2021
Contract #: Master Engineering Services Agreement No. 16822
Point of Contact Name and Company: Black Hills Corporation – Jason Hartman, Plant Manager
Point of Contact Phone: 307-757-3040
Point of Contact Email: Jason.Hartman@blackhillscorp.com

Citrine led the development of a comprehensive Lockout/Tagout (LOTO) program to strengthen hazardous energy control across the facility. The project involved performing an electrical survey and creating LOTO procedures for more than 500 buses ranging from 13.8 kV to 120 V, covering both AC and DC systems. In alignment with NFPA 70E and OSHA requirements, Citrine conducted field inspections to validate electrical conditions, gathered critical data, and modeled the entire electrical infrastructure in ETAP.

The team produced updated electrical one-line diagrams in AutoCAD, ensuring that all equipment labeling and written LOTO procedures met the latest compliance standards. Practical, customized NFPA 70E training for facility personnel—delivered by a Certified Electrical Safety Compliance Professional (CESCP)—reinforced the new procedures. Training included hands-on instruction, supporting materials, testing, and certification for all participants. To support sustainable program implementation, Citrine also identified gaps in existing practices, updated the arc flash risk assessments, and recommended appropriate PPE. By integrating thorough system analysis, updated labeling, and customized training, Citrine provided Black Hills with a LOTO program that not only achieves compliance but also gives personnel clear, reliable tools to work safely during commissioning and everyday operations.

STAFFING ORGANIZATIONAL CHART



PROJECT TEAM

Citrine has a strong team of knowledgeable and experienced engineers and safety professionals available for this project. We have worked on a wide variety of projects including LOTO procedures, electrical safety training, building design, power generation, campus infrastructure, construction management, equipment replacement, and life-safety systems. The Citrine team possesses expert knowledge, specifically, many of our team members possess expert knowledge of 29 CFR 1910.147, 29 CFR 1910.333, 29 CFR 1926.417 and NFPA 70E requirements regarding energy control safety, a.k.a. Lockout Tag Out (LOTO).

***Project Manager* | Jeff Abbate, PE, PMP, CESCP, BCxP**

***Education* | BS, Electrical Engineering | MBA, Entrepreneurship**

***Training and Certifications* | Professional Engineer in 26 States | Project Management Professional (PMP) | Certified Electrical Safety Compliance Professional (CESCP) | Building Commissioning Professional (BCxP)**

Jeff has over 25 years of experience in electrical engineering; specifically, in the power generating industry. He has worked on a variety of projects involving engineering, procurement, construction, and commissioning. He has extensive expertise in detailed engineering, arc flash studies, LOTO procedure development, NFPA 70E audits, and electrical safety training. He has created LOTO procedures for VA Hospitals and provided electrical safety training for VA hospital staff. Jeff is our Lead Classroom Instructor and has led dozens of various electrical safety training courses throughout his career. **Jeff is an Authorized OSHA Trainer. He is qualified by the NFPA in NFPA 70E requirements as a Certified Electrical Safety Compliance Professional (CESCP). He is certified Project Management Professional, and he is a certified Commissioning Agent. Jeff is a licensed Professional Engineer in 26 states**.

Work Experience

- Lockout/Tagout (LOTO) Program Assessment, Development, & Training
  VA Southern Nevada Healthcare System | North Las Vegas, NV
- LOTO Management and Electrical Surveys

U.S. Air Force | Malmstrom Air Force Base, MT

- Recommissioning of Power Systems and LOTO Procedure Development & Training
  National Oceanic and Atmospheric Administration | Wallops Island, VA
- LOTO Procedure Development and Electrical Studies
  Cheyenne Prairie Generating Station | Cheyenne, WY
- LOTO Services, Support, and Training
  Westrock Presto Pulp and Paper Packaging Plant | Florence, SC

Lead Mechanical Engineer/Certified LOTO Trainer | Shannon Rasmussen, PE, PMP, CESP, CCM

Education **| BS, Mechanical Engineering**

Training and Certifications **| Professional Engineer in 14 States | Project Management Professional (PMP) | Certified Systems Engineering Professional (CSEP) | Certified Construction Manager (CCM) | Certified OSHA Lockout Trainer**

Shannon has over 25 years of experience in engineering and managing projects, specifically LOTO services projects. He has direct project management experience and is a licensed professional engineer in eight states. **He managed and oversaw the creation of hundreds of LOTO procedures** for the National Oceanic Atmospheric Administration (NOAA) Wallops Command and Data Acquisition Station at Wallops Island, Virgina. Shannon has proven experience delivering complex projects on time and budget. **Shannon is a certified Hard Hat LOTO Trainer and is a licensed Professional Engineer in 14 states.**

Work Experience

- Lockout/Tagout (LOTO) Program Assessment, Development, & Training
  VA Southern Nevada Healthcare System | North Las Vegas, NV
- LOTO Management and Electrical Surveys
  U.S. Air Force | Malmstrom Air Force Base, MT
- Recommissioning of Power Systems and LOTO Procedure Development & Training
  National Oceanic and Atmospheric Administration | Wallops Island, VA
- LOTO Procedure Development and Electrical Studies
  Cheyenne Prairie Generating Station | Cheyenne, WY
- LOTO Services, Support, and Training
  Westrock Presto Pulp and Paper Packaging Plant | Florence, SC

Quality Control | Danielle Dorr, PE

Education **| BS, Civil Engineering**

Training and Certifications **| Professional Engineer in 26 States**

Danielle has over 10 years of engineering experience with a strong background in **field investigations, safety protocol implementation, and regulatory compliance.** She is skilled at reviewing technical deliverables for accuracy, consistency, and alignment with OSHA 29 CFR 1910.147, NFPA 70E, and VA requirements. Her expertise includes validating Lockout/Tagout procedures, ensuring clear documentation, and translating complex technical findings into practical recommendations. As Quality Control Engineer, Danielle will oversee procedure reviews, verify hazardous energy identification, and ensure all final deliverables meet contract requirements and support safe, compliant facility operations. **Danielle is a licensed Professional Engineer in 18 states.**

Work Experience

- Lockout/Tagout (LOTO) Program Assessment, Development, & Training
  VA Southern Nevada Healthcare System | North Las Vegas, NV
- Semi Annual Boiler Testing
  Jack C Montgomery VA Medical Center | Muskogee, OK
- Lockout/Tagout Program and Boiler Safety Device Testing
  Hampton VA Medical Center | Hampton, VA
- Electrical Hazard Assessment and Arc Flash Analysis
  City of Aurora | Aurora, CO
- On-Call Facility Equipment Assessment
  City of Aspen | Aspen, CO

LOTO Coordinator, Master Electrician | Jeff Iberg

Education **| BS, Electrical Engineering**

Jeff is a Master Electrician and Senior Electrical Technician with over 23 years of experience in electrical field engineering and construction. With his extensive experience as a Master Electrician, Jeff has become an expert in the field of electrical studies, testing

and repairs. His profound understanding of electrical systems and hands-on experience enables him to identify potential risks and implement effective safety measures. Jeff's expertise not only encompasses the technical aspects of preventing arc flash incidents but also involves conducting comprehensive risk assessments and delivering tailored solutions to ensure the safety of electrical installations and personnel.

Work Experience

- Lockout/Tagout (LOTO) Program Assessment, Development, & Training
  VA Southern Nevada Healthcare System | North Las Vegas, NV
- Semi Annual Boiler Testing
  Jack C Montgomery VA Medical Center | Muskogee, OK
- Lockout/Tagout Program and Boiler Safety Device Testing
  Hampton VA Medical Center | Hampton, VA
- Electrical Hazard Assessment and Arc Flash Analysis
  City of Aurora | Aurora, CO
- On-Call Facility Equipment Assessment
  City of Aspen | Aspen, CO

LOTO Software Specialist | Courtney Powell

Education **| BS, Mechanical Engineering**

Courtney is an experienced mechanical engineer with hands-on LOTO procedure experience. **She created hundreds of LOTO procedures** for NOAA's Wallops Command and Data Acquisition Station at Wallops Island, Virgina. Courtney's mechanical background allows her to quickly identify the pertinent components of mechanical systems such as isolation valves and mechanical energy sources. She is very efficient in using LOTO management software and equipment tracking databases.

Work Experience

- Lockout/Tagout (LOTO) Program Assessment, Development, & Training
  VA Southern Nevada Healthcare System | North Las Vegas, NV
- Semi Annual Boiler Testing
  Jack C Montgomery VA Medical Center | Muskogee, OK
- Lockout/Tagout Program and Boiler Safety Device Testing
  Hampton VA Medical Center | Hampton, VA
- Electrical Hazard Assessment and Arc Flash Analysis
  City of Aurora | Aurora, CO
- On-Call Facility Equipment Assessment
  City of Aspen | Aspen, CO

Field Lead | David Keatting, PE

Education **| BS, Electrical Engineering**

Training and Certifications **| Professional Engineer in 7 States**

David has over 24 years of experience in power distribution design, system coordination, and electrical safety. He has managed complex electrical projects for government, military, and commercial facilities, with expertise in arc flash risk assessments, protective relay settings, and NFPA 70E compliance. David's experience includes **developing and reviewing LOTO procedures**, conducting feasibility studies, and delivering reliable solutions to enhance safety and performance. **David is a licensed Professional Engineer in 7 states.**

Work Experience

- Lockout/Tagout (LOTO) Program Assessment, Development, & Training
  VA Southern Nevada Healthcare System | North Las Vegas, NV
- Semi Annual Boiler Testing
  Jack C Montgomery VA Medical Center | Muskogee, OK

- Lockout/Tagout Program and Boiler Safety Device Testing
  Hampton VA Medical Center | Hampton, VA
- Rubey Pump Station Emergency Power Safety Assessment
  City of Aspen | Aspen, CO
- Energy Isolation Assessment Program
  U.S. Air Force | Luke Air Force Base, AZ

UNIQUE TOOLS OR SERVICES / HOW WE RISE ABOVE COMPETITORS

To create and implement a uniform LOTO Procedure, Citrine will begin by reviewing all current inventories of equipment requiring LOTO procedures and individual written procedures, where available in order of the provided facility priority list. Citrine will then draft procedures and provide them for visual verification. Citrine will make updates as necessary. All procedures will be in accordance with 29 CFR 1910.147, 29 CFR 1910.333, 29 CFR 1926.417, NFPA 70E (most recent edition), and manufacturer's guidance (if available). We will then create procedures in Brady LINK360 Software. Citrine has used this software when creating LOTO procedures at other facilities. This software is commercially available and widely used throughout the country to create and manage LOTO procedures. Our team has extensive experience with multiple LOTO management platforms, including Brady LOTO Writer and Brady LINK360, which we successfully deployed at other facilities.

Our detailed LOTO procedures will include the room, location, pictures, unique valve, and circuit breaker tag numbers (if they exist), and a diagram of the equipment for consistent identification and cross-referencing with the written procedure. Each piece of equipment will be inventoried and linked to the appropriate LOTO Procedure for easy identification. Procedures will also include a list of all personal protective equipment (PPE) that is required by any authorized employee as part of the test-before-touch step. LOTO Procedures with multiple pages will include a total number of Locks and Tags needed across all pages for uniformity and consistency.

ID numbers shown in the detailed LOTO procedures will be consistent with the following and will be included at the bottom of each procedure for easy identification.

- A = Air
- C = Chemical
- CP = Control Panel
- E = Electrical
- G = Gas
- GL = Glycol
- P = Pneumatic
- S = Steam
- V = Valve
- W = Water

METHODOLOGY FOR IDENTIFYING EQUIPMENT AND DEVELOPING PROCEDURES

Equipment Assessment and Inventory

Citrine will conduct a comprehensive equipment assessment and inventory for all machinery and equipment requiring Lockout/Tagout (LOTO) procedures at City Hall and the Field Operations Center. All applicable equipment will be identified, documented, and organized using a standardized, sequential naming and numbering system to ensure clarity, consistency, and ease of use for City personnel.

Each piece of equipment will be assigned a unique identifier based on equipment type, facility, and location, enabling straightforward tracking and cross-referencing between the equipment inventory and corresponding LOTO procedures. This structured approach eliminates duplication, ensures consistency across facilities, and supports long-term maintainability of the City's LOTO program. An example of this standardized format is provided below:

- A fan coil unit in building 1 would be labeled as: FCU-1-B-00X
  - FCU = Fan Coil Unit
  - 1 = Building Number
  - B = Floor Number (Basement)
  - 00X = The unique sequence that would not be repeated in Building 1, Basement

During field assessments, Citrine will collect and verify key equipment data to support accurate procedure development. This includes equipment identification, location, manufacturer, model number, serial number (as available), and all associated hazardous energy sources, including electrical, mechanical, hydraulic, pneumatic, and thermal systems. Where applicable, stored energy sources and isolation points will also be documented.

Sample LOTO Procedure

The included LOTO procedure below highlights Citrine's understanding and experience in developing LOTO procedures. These procedures were created in Brady LINK360 and were physically verified to ensure accuracy and compliance with requirements.

Lockout/Tagout Posted Procedure

ID#:	R.O. Pump 2	Facility:	VASNHS	Location:	Building 1 - 4th Floor - RO Water Room
Created:	9/12/2022				
Revised:	9/12/2022	Description:	R.O. Pump 2		

3	Lockout Points	Note:	Hydraulic equipment can store energy. Ensure all pressures have bled off before proceeding.

NEXT AUDIT DUE NEXT AUDIT DUE NEXT AUDIT DUE

Step #	Action	Info	Verification
1 Electrical E-1 480V	The E-1 Disconnect is located on the East side of the machine. Turn Disconnect to the off position and lock out. Use a Lock and hasp device.		Attempt restart at all control panels.
2 Water W-1 R.O. Water Supply	The W-1 Globe/Gate Valve is located on the East side of the machine. Turn Globe/Gate Valve to the off position and lock out. Use a Gate valve lockout device.		Verify pressure has bled off.
3 Water W-2 R.O. Water Return	The W-2 Globe/Gate Valve is located on the West side of the machine. Turn Globe/Gate Valve to the off position and lock out. Use a Gate valve lockout device.		Verify pressure has bled off.

Lockout Removal Process

1. Ensure all tools and items have been removed. 2. Confirm that all employees are safely located. 3. Verify that controls are in neutral. 4. Remove lockout devices and reenergize machine. 5. Notify affected employees that servicing is completed.

Lockout Tagout Procedure	
Purpose:	To protect authorized employees against unexpected or unplanned activation of equipment or energy while servicing equipment.
Scope:	Utilize this procedure for all scheduled PM shutdowns, any maintenance task that requires you to place your body in harms way of the equipment, or if you have to leave the area while the equipment is in service.
Enforcement:	**Failure to properly follow lockout-tagout procedure may result in corrective action.**

SHUTDOWN, LOCK, TAG & TEST SEQUENCE		
#	**STEP**	**DESCRIPTION**
1	*Notify Employees*	Notify all affected employees that servicing or maintenance is required on a machine or equipment, and that the machine or equipment must be shut down and locked out to perform the servicing or maintenance.
2	*Review Lockout Procedure*	The authorized employee shall refer to the company procedure to identify the type and magnitude of the energy that the machine or equipment utilizes, shall understand the hazards of the energy, and shall know the methods to control the energy.
3	*Perform Machine Stop*	If the machine or equipment is operating, shut it down by the normal stopping procedure (depress the stop button, open switch, close valve, etc.). Reference machine operating procedure for normal shutdown.
4	*Isolate Energy*	Follow graphical lockout-tagout procedure from top to bottom to de-activate the energy isolating device(s) so that the machine or equipment is isolated from the energy source(s). NOTE: It may be necessary to dissipate the non-lockable energy sources before isolating the lockable energy sources. (i.e. lower the machine to lowest position before locking out.)
5	*Lockout Energy*	Lock out & tagout as required the energy isolating device(s) with assigned individual lock(s) and tag(s).
6	*Dissipate Energy*	Stored or residual energy (such as that in capacitors, springs, elevated machine members, rotating flywheels, hydraulic systems,as well as air, gas, steam, or water pressure, etc.) must be dissipated or restrained by methods such as grounding, repositioning, blocking, bleeding down, etc.
7	*Attempt Restart*	Ensure that the equipment is disconnected from the energy sources by first checking that no personnel are exposed, then verify the isolation of the equipment by operating the push button or other normal operating controls or by testing to make certain the equipment will not operate. Caution: Return operating controls to neutral or "off" position after verifying the isolation of the equipment.

RESTORE TO SERVICE SEQUENCE		
#	**STEP**	**DESCRIPTION**
1	*Check Machine*	Check the machine or equipment and the immediate area around the machine to ensure that nonessential items have been removed and that the machine or equipment components are operationally intact.
2	*Check Area*	Check the work area to ensure that all employees have been safely positioned or removed from the area.
3	*Verify Machine*	Verify that the controls are in neutral.
4	*Remove Lockout*	Remove the locks, tags and lockout devices and re-energize the machine or equipment. In reverse order, follow all of the steps from the visual lockout-tagout procedure found on the previous page. Note: The removal of some forms of blocking may require re-energization of the machine before safe removal.
5	*Notify Employees*	Notify affected employees that the servicing or maintenance is completed and the machine or equipment is ready for use.

APPROACH TO ENSURE ACCURACY AND COMPLIANCE

Citrine employs a structured, multi-step quality assurance and quality control (QA/QC) process to ensure all Lockout/Tagout (LOTO) procedures are accurate, consistent, and fully compliant with OSHA 29 CFR 1910.147 and applicable industry best practices.

Accuracy begins during the field assessment phase, where experienced LOTO professionals perform detailed, equipment-level evaluations at each facility. All equipment is verified in the field, and energy sources—including electrical, mechanical, hydraulic, pneumatic, and thermal—are documented using standardized data collection forms. Photographic documentation is captured to support procedure development and reduce ambiguity.

Following data collection, procedures are developed using standardized templates that incorporate all required elements, including equipment identification, shutdown steps, isolation methods, stored energy release, verification of isolation, and restart procedures. This standardized format ensures consistency across all deliverables and alignment with OSHA requirements.

REFERENCES

1. **Point of Contact Name and Company:** Owen Motter, Department of Veterans Affairs
   Point of Contact Phone: 702.791.9000 x 13301
   Point of Contact Email: owen.motterjr@va.gov
   Length of service: 5 years

2. **Point of Contact Name and Company:** Mark Bovingdon, US Air Force
   Point of Contact Phone: 406-731-7702
   Point of Contact Email: mark.bovingdon@us.af.mil
   Length of service: 4 years

3. **Point of Contact Name and Company:** Shabir Choudhary, Contracting Officer Representative, NOAA
   Point of Contact Phone: 301.713.9208
   Point of Contact Email: shabir.choudhary@noaa.gov
   Length of service: 5 years

4. **Point of Contact Name and Company:** Adam Swanson, CR Meyer
   Point of Contact Phone: 920-235-3350
   Point of Contact Email: aswanson@crmeyer.com
   Length of service: 5 years

5. **Point of Contact Name and Company:** Ethan Rasmuson, Black Hills Corporation
   Point of Contact Phone: 719-696-3207
   Point of Contact Email: ethan.rasmuson@blackhillscorp.com
   Length of service: 12 years

OVERVIEW OF THE COST AND FEE STRUCTURE ASSOCIATED WITH YOUR SOLUTION OFFERINGS, WHICH MAY INCLUDE THE TOTAL PROJECT COST, COST PER PIECE OF EQUIPMENT (IF APPLICABLE), AND ANY SEPARATE PRICING FOR OPTIONAL SERVICES

Citrine offers a total project fee of $27,791.70.

Clarifications:
1. Proposal assumes up to 50 procedures in total.
2. Procedures will be submitted in PDF format. Printed procedures are not included.
3. Training is excluded.

ESTIMATED PROJECT DURATION AND MILESTONES

Citrine's project approach is structured to align with the City of Broken Arrow's anticipated schedule, with an overall project duration of four (4) weeks from kickoff to final deliverables.

Upon contract award and project kickoff, Citrine will immediately initiate coordination with City staff to confirm site access, finalize the assessment schedule, and review any available equipment information. Site visits will be conducted over a concentrated three-day period to efficiently complete equipment identification, inventory, and field data collection at both City Hall and the Field Operations Center.

Following completion of field assessments, Citrine will implement a parallel workflow in which collected data is immediately transitioned into procedure development. This approach allows for the efficient production of draft LOTO procedures while maintaining continuity between field verification and documentation.

We anticipate a complete draft package, including equipment inventory and indexed procedures, will be delivered for city review within approximately 3 weeks of project kickoff.

Key milestones include:

- Project Kickoff and Coordination
- Site Assessments
- Equipment Inventory Completion
- City Review and Comment Resolution
- Final Deliverable Schedule

J. PROVIDE ANY FEES/TRAINING/DOCUMENTATION COSTS, IF ANY, WHICH MAY BE ASSOCIATED WITH YOUR SERVICES.

N/A

K. PLEASE LIST ANY SERVICES THAT MAY BE PURCHASED SEPARATELY

We are able to offer LOTO Training.