IN THE UNITED STATES DISTRICT COURT

MIDDLE DISTRICT OF GEORGIA

COLUMBUS DIVISION

[redacted], as Next Friend of Alex Reed Paxton, deceased; and [redacted] as Next Friend of Alex Reed Paxton, deceased, and as Administrator of the Estate of Alex Reed Paxton, *Plaintiffs*, v. GEORGIA POWER COMPANY, *Defendant and Third-Party Plaintiff*, v. GLENN INDUSTRIAL GROUP, LLC, *Third-Party Defendant*.	Civil Action No.: 4:22-CV-00081-TES

Expert Report of John H. Hamilton, P.E.

Contents

I. Introduction

1. I understand that on or about October 27, 2020 there was a fatal diving incident a the Lake Oliver Dam in which Alex Paxton lost his life.

2. I have been retained by the firm of Butler Kahn, the attorneys representing the plaintiffs, as an expert witness to examine, evaluate and reach opinions regarding Lock Out Tag Out (LOTO) and workplace safety in regard to the fatal diving incident. I have examined the materials provided and listed in the materials reviewed section and reviewed the relevant OSHA regulations also mentioned in this report in coming to my opinions.

II. Qualifications

3. I have a master's degree in Mechanical Engineering and a bachelor's degree in Mechanical Engineering from the University of Arkansas, Fayetteville. Since 2002, I have served as an Instructor in the University of Arkansas Fayetteville Mechanical Engineering Department. Within my capacity as an instructor, I created and teach a senior level class in designing for safety, within this class I teach safety topics including machine guarding. I am a Licensed Professional Engineer. My Curriculum Vitae (CV) is attached as Exhibit 1. I have worked as a Consulting Engineer where I have worked on numerous lawsuits involving Lock Out Tag Out (LOTO). I have been retained by OSHA as an expert. I have worked as a Manufacturing Engineer and as a Plant Engineer, where I was responsible for the company's safety program. I have experience in such topics as industrial safety, fluid mechanics, and LOTO, topics that are pertinent to the case at hand.

III. Compensation

4. I am being compensated at the rate of $250/hr for consulting, $150/hr for travel, $325/hr for testimony in this case.

IV. Opinions

5. The following are my principal opinions, all expressed to a reasonable degree of engineering certainty. I may have related opinions that could be considered "sub-opinions," but these are my main opinions.

a) Applicable industry standards and practices, including but not limited to OSHA regulations and due care, required that Georgia Power exercise reasonable caution and care for the safety of all employees working on the dam on October 27, 2020, including employees of Glenn Industrial.

b) Applicable industry standards and practices, including but not limited to OSHA regulations and due care, required Georgia Power to ensure that proper LOTO procedures were utilized in connection with the dive on October 27, 2020.

c) Applicable industry standards and practices, including but not limited to OSHA regulations and due care, required Georgia Power to inform Glenn industrial of all potential hazards associated with the dive on October 27, 2020.

d) Georgia Power's failure to ensure that the penstock priming valve was closed and locked prior to the dive on October 27, 2020 violated applicable industry standards and practices, including but not limited to OSHA regulations, and was unreasonably careless.

e) By failing to provide the necessary information to Glenn industrial about the penstock priming valve so that it could have been included in any dive plan developed by Glenn Industrial, Georgia Power violated applicable industry standards and practices, including but not limited to OSHA regulations, and was unreasonably careless.

f) Georgia Power's failures to comply with applicable industry standards, including but not limited to OSHA regulations and due care, and its failure to exercise reasonable caution and care caused Alex Paxton's death.

V. Description of incident, background, OSHA citations and response

6. On or about 10/27/2020, Alex Paxton was working as a diver for Glenn Industrial and was underwater doing a dive at the Lake Oliver dam owned and operated by Georgia power. During the dive, Mr. Paxton had his arm caught in a 10" diameter pipe that was open to the unfilled penstock and was fatally injured. As part of a proper LOTO procedure, the valve controlling flow through that pipe should have been closed and locked out.

7. According to Jeff Bradley, who is the Plant Superintendent for the Lake Oliver dam, in his declaration in the OSHA litigation he conducted a safety orientation meeting with Glenn Industrial Group employees on or about May 27, 2020. According to Mr. Bradley, he presented them with the lockout procedure called "LOTO 27". See below in Figure 1. Also, according to Bradley, he walked down all of the isolation points on the document including the penstock priming valve which is located away from the top of the dam and located behind a secured gate. At that time, he verified with the Glenn employees that the valve had been closed, locked and properly tagged as called out for in LOTO27.

Southe ompany Generation
LOTO ISOLATION Record

COPY

Southern Company

LOTO #: OP-01-GRP-00027	Equipment: U2-TURBINE	Equipment #: OLI002-FL-TU-3000
LOTO Information		
Plant: Oliver Dam	Requested By: Keene, Christopher, M	Date/Time Needed: 5/20/20 0917
Reason for LOTO: lower and tag head gates to unwater the unit for inspection		
Special Instructions:		

Issued By: Keene, Christopher, M	Lock Box #: OP-1-5-009	Single Locks:

Executed By: Keene, Christopher, M	Signature	Verified By: Devero, Robert	Signature

		Boundary				Operating Area				
Tag #	Device	Device #	Position	Tag Type	Locking Device	Executed By	Test Method	Test Perf By	Verifier	Notes:
1	U2-EAST HEADGATE	OLI002-FP-VL-3000E	CLOSED	RED			VISUAL		RD	
2	U2-MIDDLE HEADGATE	OLI002-FP-VL-3000M	CLOSED	RED			VISUAL		RD	
3	U2-WEST HEADGATE	OLI002-FP-VL-3000W	CLOSED	RED			VISUAL		RD	
4	U2-PENSTOCK PRIMING VALVE	OLI002-FP-VL-3003	CLOSED	RED			VISUAL		RD	

Additional Equipment:

DOL000152

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Southe ompany Generation
LOTO ISOLATION Record

COPY

Southern Company

LOTO #: OP-01-GRP-00027	Equipment: U2-TURBINE	Equipment #: OLI002-FL-TU-3000

Comments

Figure 1 LOTO 27

8. Mr. Bradley in his declaration states that on October 27, 2020, when Glenn returned that he conducted a safety orientation meeting with them and "reviewed" the LOTO27 as part of the orientation. He states that he did not do a walk down with the Glenn employees for each item, did not take them to the penstock priming valve, nor did he check that valve himself.

9. Prior to the dive, Eric Herbert, the Glenn Industrial employee who was the dive supervisor for the October 27 dive utilized a digital flow meter to search for underwater flow which would have indicated a pressure differential. Mr. Herbert lowered the instrument checking in 5-foot increments and found no flow to indicate that there was a pressure differential. (Herbert declaration)

10. Ryan Glenn, President of Glenn Industrial Group, issued a declaration in the OSHA litigation stating that no Glenn Employees where aware of the penstock priming valve at the time of the October 27, 2020 fatal incident. Mr. Glenn states in his declaration that Glenn had requested drawings of the dam from Georgia power prior to the dive and that the only drawing he received from this is figure 2 shown below. This drawing does not disclose the penstock priming valve and pipe that caused the fatal injury.

Figure 2 plan view of deck of Lake Oliver dam

11. Following the fatal incident OSHA did an investigation and cited both Georgia Power and Glenn Industrial. The citations to Georgia power were as follows:

Citation 1 Item 1 Type of Violation: **Serious** "29 CFR 1910.269(d)(6)(ii):The machine or equipment was not turned off or shut down using the procedures established for the machine or equipment:
a) Lake Oliver Dam: On or about 10/27/2020, and at times prior, the employer exposed employees to caught-in hazards, in that procedures were not established and/or implemented to shut down the appropriate valves while divers were conducting inspection and repair activities on the dam chains and head gates."

Citation 1 Item 2 a Type of Violation: **Serious**
29 CFR 1910.269(d)(6)(iii):All energy isolating devices that are needed to control the energy to the machine or equipment shall be physically located and operated in such a manner as to isolate the machine or equipment from energy sources.
a) Lake Oliver Dam: On or about 10/27/2020, and at times prior, the employer exposed employees to caught-in hazards, in that locks and chains that were required to be used to isolate the energy by locking the penstock valve, were not in place while divers were conducting inspection and repair activities on the dam.

Citation 1 Item 2 b Type of Violation: **Serious**
29 CFR 1910.269(d)(6)(iv):Lockout or tagout devices shall be affixed to each energy isolating device by authorized employees.
a) Lake Oliver Dam: On or about 10/27/2020, and at times prior, the employer exposed employees to caught-in hazards, in that the penstock valve did not have a lock out or tag out device while divers were conducting inspection and repair activities on the dam.

Citation 1 Item 2 c Type of Violation: **Serious**
29 CFR 1910.269(d)(6)(vii):Before starting work on machines or equipment that have been locked out or tagged out, the authorized employee shall verify that isolation and de-energizing of the machine or equipment have been accomplished. If normally energized patis will be exposed to contact by an employee while the machine or equipment is de-energized, a test shall be performed to ensure that these parts are de-energized.
a) Lake Oliver Dam: On or about 10/27/2020, and at times prior, the employer exposed employees to caught-in hazards in that the employer failed to verify isolation and de-energizing of all energy sources prior to dive operations.

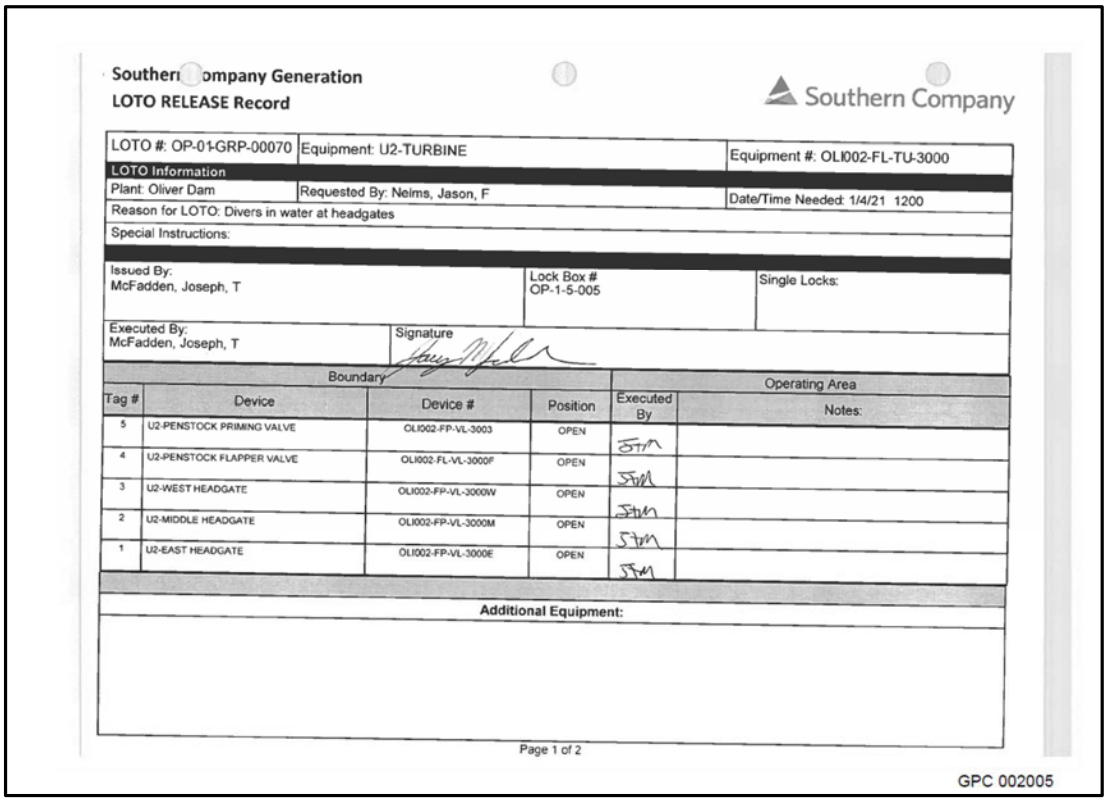
12. The citation to Glenn Industrial were as follows:

Citation 1 Item 1 Type of Violation: **Serious**
29 CFR 1910.269(d)(6)(vii):Before starting work on machines or equipment that had been locked out or tagged out, the authorized employee did not verify that isolation and deenergizing of the machine or equipment had been accomplished. ·
a) Lake Oliver Dam: On or about 10/27/2020, ·and at times prior, the employer exposed employees to caught-in hazards, in that the isolated condition of lock out devices were not verified prior to diving operations

Citation 1 Item 2 Type of Violation: **Serious**
29 CFR 1910.42l(d)(2):Planning of a diving operation did not include an assessment of the safety and health aspects of surface and underwater conditions:
a) Lake Oliver Dam: On or about 10/27/2020, and at times prior, the employer exposed employees to caught-in hazards in that the hazards of underwater conditions such as but not limited to differential pressures and specific hazard locations were not assessed

13. Glenn Industrial Challenged their citations with the reasons laid out in Mr. Glenn's declaration claiming that Glenn Industrial was unaware of the penstock priming valve and that they took appropriate steps to check for pressure differentials.

14. Sometime after the incident and prior to January 2021 Georgia Power changed the LOTO procedure for the U2 Turbine to encompass all sources of differential pressure. The previous procedure, which had been provided to Glenn Industrial, only listed 4 items, The penstock priming valve and the 3 head gates. The new procedure correctly lists 5 items, the penstock priming valve, the penstock flapper valve, and the 3 head gates. The updated LOTO procedure is shown below in figure 3.



Southern Company Generation

LOTO RELEASE Record

Southern Company

LOTO #: OP-01-GRP-00070	Equipment: U2-TURBINE	Equipment #: OLI002-FL-TU-3000
LOTO Information		
Plant: Oliver Dam	Requested By: Nelms, Jason, F	Date/Time Needed: 1/4/21 1200
Reason for LOTO: Divers in water at headgates		
Special Instructions:		
Issued By: McFadden, Joseph, T	Lock Box # OP-1-5-005	Single Locks:
Executed By: McFadden, Joseph, T	Signature	

Boundary				Operating Area	
Tag #	Device	Device #	Position	Executed By	Notes:
5	U2-PENSTOCK PRIMING VALVE	OLI002-FP-VL-3003	OPEN		
4	U2-PENSTOCK FLAPPER VALVE	OLI002-FL-VL-3000F	OPEN		
3	U2-WEST HEADGATE	OLI002-FP-VL-3000W	OPEN		
2	U2-MIDDLE HEADGATE	OLI002-FP-VL-3000M	OPEN		
1	U2-EAST HEADGATE	OLI002-FP-VL-3000E	OPEN		

Additional Equipment:

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GPC 002005

Figure 3, updated LOTO procedure for U2 turbine

VI. Description of Dam and Relevant Hazards

15. The Oliver dam is utilized as a hydroelectric dam to generate electricity. Electricity is generated in any hydroelectric dam by water flowing through a turbine which turns a generator generating electricity. When generating electricity, water flows from the higher elevation reservoir, though head gates, through a penstock, through the turbine(s) and out a discharge near the bottom of the dam. When not generating electricity, water is held back by the headgates and the penstock can be drained of water. A drained penstock results in there being a pressure differential between the water in the reservoir and the empty penstock. The size of the pressure differential will depend on the depth of the water at the point of the differential. The further below the surface of the lake, the higher the pressure differential between the water and the empty penstock. Penstocks are "primed" meaning water is let into the penstock from other sources. In the case of the Oliver dam there was a flapper valve, mounted on a head gate, for priming and an additional penstock priming system involving a valve and a 10" diameter pipe to feed water to the penstock. A side view of the dam which shows the penstock, turbine, penstock priming valve and pipe, is shown in figure 2 below. Dams must have a means of priming or filling the penstock before opening the headgates. Not all dams have an additional penstock priming valve like the additional penstock priming valve at Oliver dam. According to Jeff Bradley (Bradley 33:6-13) the other dam he was superintendent of at the time, North Highlands, only had a sliding gate valve on the gates.

Figure 4 side view of dam

16. For a diver, differential pressures present a hazard as differential pressures can create forces that entrap and or injure divers as happened in this case. When the penstock is empty there is a differential pressure between the water in the reservoir and the empty penstock, any opening between the reservoir and the penstock presents a hazard to a diver. For any dive to be safe all potential openings between the reservoir and the penstock would need to be closed. The potential openings in this location are the 3 head gates, the flapper priming valve, and the penstock priming valve for a total of 5 potential sources of differential pressure that would need to be secured prior to a dive. The penstock priming valve and its associated 10" diameter pipe was reportedly approximately 25 feet below the surface of the water on the day of the incident. At that depth the pressure differential for 50°F water would have been approximately 10.8 psi; this pressure

differential would have created a force of 850 lbs. on anything obstructing the 10" diameter pipe creating a significant hazard.

VII. Standards and Literature

OSHA 3120 Control of Hazardous Energy Lockout/Tagout

17. From page 16. "If an outside contractor services or maintains machinery, the onsite employer and the contractor must inform each other of their respective lockout or tagout procedures. The onsite employer also must ensure that employees understand and comply with all requirements of the contractor's energy-control program(s)."

CFR 29 1910.269

18.The following are excerpts from 29 CFR 1910.269.[1] These excerpts show that these regulations apply and that the host employer (Georgia Power) was required to inform contractors such as Glenn industrial about hazards such as the penstock priming system.

1910.269(a)(1)
Application.
1910.269(a)(1)(i)
This section covers the operation and maintenance of electric power generation, control, transformation, transmission, and distribution lines and equipment. These provisions apply to:

1910.269(a)(1)(i)(B)(2)
Water and steam installations, such as penstocks, pipelines, and tanks, providing a source of energy for electric generators, and

1910.269(a)(3)
Information transfer.
1910.269(a)(3)(i)
Before work begins, the host employer shall inform contract employers of:
1910.269(a)(3)(i)(A)
The characteristics of the host employer's installation that are related to the safety of the work to be performed and are listed in paragraphs (a)(4)(i) through (a)(4)(v) of this section;

[1] Here and elsewhere in this report, the cited regulations are important for several reasons, one of which is that they inform, confirm, or codify industry standards, industry practices, and reasonability in the specific context addressed.

NOTE TO PARAGRAGH (a)(3)(i)(A): This paragraph requires the host employer to obtain information listed in paragraphs (a)(4)(i) through (a)(4)(v) of this section if it does not have this information in existing records.

1910.269(a)(3)(i)(B)

Conditions that are related to the safety of the work to be performed, that are listed in paragraphs (a)(4)(vi) through (a)(4)(viii) of this section, and that are known to the host employer;

NOTE TO PARAGRAPH (a)(3)(i)(B): For the purposes of this paragraph, the host employer need only provide information to contract employers that the host employer can obtain from its existing records through the exercise of reasonable diligence. This paragraph does not require the host employer to make inspections of worksite conditions to obtain this information.

1910.269(a)(3)(i)(C)

Information about the design and operation of the host employer's installation that the contract employer needs to make the assessments required by this section; and

NOTE TO PARAGRAPH (a)(3)(i)(C): This paragraph requires the host employer to obtain information about the design and operation of its installation that contract employers need to make required assessments if it does not have this information in existing records.

1910.269(a)(3)(i)(D)

Any other information about the design and operation of the host employer's installation that is known by the host employer, that the contract employer requests, and that is related to the protection of the contract employer's employees.

NOTE TO PARAGRAPH (a)(3)(i)(D): For the purposes of this paragraph, the host employer need only provide information to contract employers that the host employer can obtain from its existing records through the exercise of reasonable diligence. This paragraph does not require the host employer to make inspections of worksite conditions to obtain this information.

1910.269(a)(4)(viii)

Environmental conditions relating to safety.

1910.269(d)(1)

Application. The provisions of paragraph (d) of this section apply to the use of lockout/tagout procedures for the control of energy sources in installations for the purpose of electric power generation, including related equipment for communication or metering. Locking and tagging procedures for the deenergizing of electric energy sources which are used exclusively for purposes of transmission and distribution are addressed by paragraph (m) of this section.

Note to paragraph (d)(1): Installations in electric power generation facilities that are not an integral part of, or inextricably commingled with, power generation processes or equipment are covered under § 1910.147 and Subpart S of this part.

1910.269(d)(2)

General.

1910.269(d)(2)(i)

The employer shall establish a program consisting of energy control procedures, employee training, and periodic inspections to ensure that, before any employee performs any servicing or maintenance on a machine or equipment where the unexpected energizing, start up, or release of stored energy could occur and cause injury, the machine or equipment is isolated from the energy source and rendered inoperative.

1910.269(d)(6)(i)
Before an authorized or affected employee turns off a machine or equipment, the authorized employee shall have knowledge of the type and magnitude of the energy, the hazards of the energy to be controlled, and the method or means to control the energy.

1910.269(d)(6)(iii)
All energy isolating devices that are needed to control the energy to the machine or equipment shall be physically located and operated in such a manner as to isolate the machine or equipment from energy sources.

1910.269(d)(6)(iv)
Lockout or tagout devices shall be affixed to each energy isolating device by authorized employees.

910.269(d)(6)(iv)(A)
Lockout devices shall be attached in a manner that will hold the energy isolating devices in a "safe" or "off" position.
1910.269(d)(6)(iv)(B)
Tagout devices shall be affixed in such a manner as will clearly indicate that the operation or movement of energy isolating devices from the "safe" or "off" position is prohibited.

1910.269(d)(6)(v)
Following the application of lockout or tagout devices to energy isolating devices, all potentially hazardous stored or residual energy shall be relieved, disconnected, restrained, or otherwise rendered
s f

1910.269(d)(6)(vii)
Before starting work on machines or equipment that have been locked out or tagged out, the authorized employee shall verify that isolation and deenergizing of the machine or equipment have been accomplished. If normally energized parts will be exposed to contact by an employee while the machine or equipment is deenergized, a test shall be performed to ensure that these parts are deenergized.

1910.269(d)(7)
Release from lockout/tagout. Before lockout or tagout devices are removed and energy is restored to the machine or equipment, procedures shall be followed and actions taken by the authorized employees to ensure the following:
1910.269(d)(7)(iii)
After lockout or tagout devices have been removed and before a machine or equipment is started, affected employees shall be notified that the lockout or tagout devices have been removed.
1910.269(d)(7)(iv)
Each lockout or tagout device shall be removed from each energy isolating device by the authorized employee who applied the lockout or tagout device. However, if that employee is not available to remove it, the device may be removed under the direction of the employer, provided that specific procedures and training for such removal have been developed, documented, and incorporated into the employer's energy control program. The employer shall demonstrate that the specific procedure provides a degree of safety equivalent to that provided by the removal of the device by the authorized employee who applied it. The specific procedure shall include at least the following elements:
1910.269(d)(7)(iv)(A)

Verification by the employer that the authorized employee who applied the device is not at the facility;
1910.269(d)(7)(iv)(B)
Making all reasonable efforts to contact the authorized employee to inform him or her that his or her lockout or tagout device has been removed; and
1910.269(d)(7)(iv)(C)
Ensuring that the authorized employee has this knowledge before he or she resumes work at that facility.

1910.269(d)(8)(iv)
Whenever outside servicing personnel are to be engaged in activities covered by paragraph (d) of this section, the on-site employer and the outside employer shall inform each other of their respective lockout or tagout procedures, and each employer shall ensure that his or her personnel understand and comply with restrictions and prohibitions of the energy control procedures being used.

19. The following excerpts are the specific regulations that Georgia Power was cited for:

1910.269(d)(6)(ii)
The machine or equipment shall be turned off or shut down using the procedures established for the machine or equipment. An orderly shutdown shall be used to avoid any additional or increased hazards to employees as a result of the equipment stoppage.
1910.269(d)(6)(iii)
All energy isolating devices that are needed to control the energy to the machine or equipment shall be physically located and operated in such a manner as to isolate the machine or equipment from energy sources.
1910.269(d)(6)(iv)
Lockout or tagout devices shall be affixed to each energy isolating device by authorized employees.
1910.269(d)(6)(vii)
Before starting work on machines or equipment that have been locked out or tagged out, the authorized employee shall verify that isolation and deenergizing of the machine or equipment have been accomplished. If normally energized parts will be exposed to contact by an employee while the machine or equipment is deenergized, a test shall be performed to ensure that these parts are deenergized.

VIII. Analysis

20. The control of hazardous energy (LOTO) regulations from OSHA, whether the power generation standards CFR 29 1910.269 or the more general standards CFR 1910.147, show that an employer is required to protect employees from hazardous energy. The regulations spell out that the employers are required to have a program that includes training, documentation, and testing to ensure that all sources of energy are accounted for when servicing or maintenance is performed on equipment or machine that has the potential to do harm to an employee from hazardous energy. Hazardous energy includes all forms of energy that can cause harm such as:

electrical, pneumatic, gravity, differential pressure, stored energy, etc. The regulations require that each source of hazardous energy be accounted for and isolated to protect workers.

21. The relevant regulations show that Georgia Power was required to contract employees such as Alex Paxton. In addition to the duties that they were cited for breaching by OSHA, they were also required to inform Glenn Industrial employees about the hazard presented by the penstock priming system. When asked for information about the dam before the operation proper drawings or some other documentation should have been sent to Glenn Industrial about the penstock priming system.

22. On the day of the incident Georgia Power should have covered all potential hazards to be locked out, including the penstock priming system. Even if some of the dive crew was the same that had been there in May, 5 months had passed and there were no assurances that even contractors that had been there in May would have remembered the penstock priming valve and its location for 5 months. Without having current knowledge as to the penstock priming system and the location of the valve, no Glenn employee would have known to do a walk down off of the area that they were diving from as all other LOTO verification could have been done without leaving the dive area. If Jeff Bradley, the dam superintendent, had walked down the Glenn employees on that day, taken them to the penstock priming valve, and explained what the penstock priming valve did and how that was relevant to Alex Paxton's dive (as would have been appropriate), then more likely than not that someone, either Mr. Bradley himself, or a Glenn employee would have seen the valve was not locked out and would have corrected it and this incident would not have occurred.

23. Prior to the work being performed by Glenn Industrial, proper drawings or other documentation should have been sent to Glenn Industrial, as they requested. Without being given

proper information beforehand Glenn employees would not know ahead of time to check the valve for the penstock priming system. Also, without proper information ahead of time they would not know about the 10" pipe or its location. Without that knowledge they would not know to use a flow meter to check for flow at that location.

24. The LOTO documentation LOTO 27, given to Glenn Industrial was incomplete, LOTO 27, only listed 4 sources of differential pressure, the 3 head gates and the penstock priming valve. Georgia power later developed a more accurate procedure that listed the 3 head gates, the penstock priming valve, and the flapper valve. Since both the flapper valve and the penstock priming valve serve the same purpose, the fill the penstock, it would be relatively easy for a person to think that the penstock priming valve referred to the flapper valve. Georgia power should have provided a LOTO procedure that listed all 5 sources of differential pressure to the Glenn employees prior to their dive.

25. The LOTO 27 record was the only written documentation given to the Glenn employees that listed what Georgia Power stated where the sources of hazardous energy. As stated above, that documentation should have included all sources of hazardous energy. Jeff Bradley, in his deposition testified that he was unaware of any Georgia Power requirement that all isolation points be listed in the record (Bradley 287:21-288:5).

26. All of the reasons and further basis for my opinions are based upon my review of that information, documentation, and materials contained in the "Materials Reviewed" section which follows, my research as described in this report, my understanding of the facts of the incident as set forth in this report, and my education, training, and experience as set forth in my attached Curriculum Vitae.

27. I expressly reserve the right to supplement this report in view of any additional documents, interrogatory responses, contentions, expert reports, or deposition testimony that may be provided. If called upon I will revise my opinion to account for such new information.

28. My work on this matter continues and will continue through trial. My opinions, therefore, may be supplemented at a later date. At trial, I may use enlargements of text, drawings, figures, photographs, video-recordings, screen shots or charts related to the subject matter of this report, along with any of the materials provided to me as a basis for my opinions and/or other material allowing me to explain my opinions.

Dated April 13, 2023

/s/ John H. Hamilton

IX. Materials Reviewed and Relied Upon

- OSHA 3120 Control of Hazardous energy Lockout/Tagout
- 29 CFR 1910.269
- Redacted OSHA case file for inspection no. 1500643 (Georgia Power Company)
- Redacted OSHA case file for inspection no. 1500131 (Glenn Industrial Group)
- Declaration of Eric Herbert
- Declaration of Ryan Glenn
- Declaration of Jeff Bradley
- Depositions (including all exhibits):
    - Jason Nelms
    - Robert Devero
    - Jeff Bradley
    - Jacob Kehl
    - Rolando Garcia
    - Chris Keene
    - Daniel Smith
- Depositions (and exhibits) from prior OSHA litigation involving Glenn Industrial, including:
    - Jesse Lewis
    - Terry Woodward
    - Richard Glenn
- Bates numbered docs as follows:
    - DOL000001-371
    - DOL000656-1098
    - GI00018
    - GI00066-72
    - GI00158-164
    - GI00165-166
    - GI00173
    - GI00233-237
    - GI00242
    - GI00249
    - GI00266
    - GI00267
    - GI00276
    - GI00611-631
    - GI00636-663
    - GI01046-1048
    - GI01049
    - GI01050-1419
    - GI01420-1422
    - GI01423-2433
    - GI02435-2534
    - GI02540-2612

- GI02613-2670
- GPC000342-346
- GPC000352-357
- GPC000358-383
- GPC000386-394
- GPC000395
- GPC000396-446
- GPC000447-480
- GPC000481
- GPC000486-513
- GPC000514
- GPC000580
- GPC000588-594
- GPC000595-602
- GPC000603-604
- GPC000605-614
- GPC000615-629
- GPC000630-652
- GPC000653-658
- GPC000659-664
- GPC000665-670
- GPC000671-681
- GPC000682-692
- GPC000693-732
- GPC000733-735
- GPC000736
- GPC000737
- GPC000738
- GPC000739-742
- GPC000743-751
- GPC000753-767
- GPC000768-817
- GPC000818-902
- GPC000903-930
- GPC000931
- GPC001134-1136
- GPC001137-1139
- GPC001140-1146
- GPC001147-1172
- GPC001746-1754
- GPC001755-1758
- GPC001936-1990
- GPC001997
- GPC001999-2002
- GPC002003-2040
- GPC003138-3389
- GPC003395
- GPC003422-3441

- GPC003444-3619
- GPC003976
- GPC00
- GPC00
- GPC00
- NCDOL 000001-000131
- OSHA 00001-171

Legal documents provided:

- Complaint
- Amended Complaint
- Answer
- Georgia Power's Answer to Amended Complaint
- Third-Party Complaint and Answer
- Glenn Industrial's Response to Plaintiffs' First Interrogatories
- Glenn Industrial's Response to Plaintiffs' Requests for Admission
- Glenn Industrial's Response to Plaintiffs' Requests for Documents
- Georgia Power's Response to Plaintiffs' First Interrogatories
- Georgia Power's Response to Plaintiffs' First Requests for Admission
- Glenn Industrial's Response to Georgia Power Company's First Interrogatories
- Glenn Industrial's Supplemental Response to Plaintiffs' Georgia Power Company's First Request for Documents
- Georgia Power's Response to Glenn Industrial's First Interrogatories and Requests for Documents

Miscellaneous documents:

- 911 Audio
- Body camera footage
- Dive helmet camera footage (2 files)
- Police report (Columbus PD)
- Coroner's Report
- Death Certificate
- Obituary for Alex Reed Paxton
- List of Bates Numbered Documents Produced by Glenn Industrial
- Index of Bates Numbered Documents from Department of Labor
- Index of Lock Out Tag Out List

X. CV

Since 2002, Instructor in the University of Arkansas at Fayetteville Mechanical Engineering Department. Previously, worked as a full-time consulting engineer assisting professionals in both industry and the legal community. Has worked in industry as a manufacturing and plant engineer and has been responsible for the safety of an industrial plant with over 300 employees. Provides consulting to industries, individuals, and attorneys in a wide range of safety and machine design issues such as machine guarding. Examples include agricultural and industrial machine guarding cases, and agricultural and industrial safety systems.

Education

MSME 1997, University of Arkansas, Fayetteville, Study in Thermal Systems

BSME 1990, University of Arkansas, Fayetteville

Professional Engineer License

Licensed Professional Engineer registered in Arkansas

Previous Work Experience

Senior Engineer, Ryan Engineering, Inc., Siloam Springs, Arkansas, 1998-2002. Duties included industrial consulting and serving as an expert witness on product liability cases involving such things as, safe design of products, industrial safety, and machine guarding.

Instructor, John Brown University, Siloam Springs, Arkansas, 1996-1998. Taught undergraduate Science and Engineering classes.

Instructor, University of Arkansas, Fayetteville, Arkansas, Summer 1996, Summer 1997, Fall 1999. Taught undergraduate Thermodynamics classes.

Graduate Teaching Assistant, University of Arkansas, Fayetteville, Arkansas, 1994-1996. Responsible for helping undergraduate students learn basic engineering principles.

Independent Consultant, Fayetteville, Arkansas, 1994-1998. Various consulting projects included performing energy analysis on infrared space heaters to completing federally required hazardous material emissions reports.

Plant Engineer, FM Corporation, Rogers, Arkansas, Nov 1991-1994, Summer 1997. Responsibilities included facility and equipment upgrades and revisions and plant-wide compliance with safety and environmental regulations.

Manufacturing Engineer, FM Corporation, Rogers, Arkansas, Jan-Nov 1991. Responsibilities included designing and improving manufacturing processes and communicating with customers as needed.

Engineering & Design Experience

Developed process sheets for molding, assembly, and finishing of plastic parts
Designed and oversaw completion of a chilled water system
Upgraded structural foam (injection molding) machines to use PLCs and modern hydraulic technology
Designed guarding for molding and machine tools
Designed mezzanine
Designed stairs
Designed guard rails
Assisted in performing thermal analysis of wood-burning furnace
Developed testing procedure to establish efficiency of infrared heaters
Designed and built machines to rework plastic parts
Designed various jigs and fixtures to aid in production of plastic parts, which included drilling, cutting, welding, inserting, etc.
Implemented OSHA standards in an industrial facility
Designed elutriator for cyclone dust collector

Courses Taught and Academic Experience

Thermodynamics I and II	College Physics I and II
Engineering Design I	Materials Science
Machine Design	Physical Science
Fluid Mechanics	Dynamics
Technology and Society	Mechanical Systems for Buildings
Mechanical Engineering Lab I	Mechanical Engineering Lab II
Mechanical Engineering Lab III	Industrial Waste & Energy Management
Heat Transfer	

Created and teach Design for Safety, a senior level mechanical engineering elective, which covers safety topics such as hazard evaluation and mitigation, warnings design, and machine guarding.

Serves as mentor for senior design projects involving industrial applications.

Researched feasibility of two-phase effervescent fluid atomization of a liquid by means of a liquid chemical reaction for the purpose of hypersonic air travel.

Researched the effect of molecular mass of an atomizing gas in effervescent atomization applications.

Publications

"Two-Phase Effervescent Atomization Via a Liquid-Liquid Chemical Reaction," *University of Arkansas Press*, 1997
"Hazard Analysis," *Plant Engineering*, December 2002
"It Won't Happen to Me: Safe Machine Guarding Practices and Guidelines" *Workplace Safety &HR*, May 2012

Continuing Education

Occupational Safety and Health Administration Guide to Voluntary Compliance
Accident Reconstruction
Manufacturer Training of Programming Various PLCs
Various seminars on Environmental Compliance

Professional Organizations

Member, American Society of Mechanical Engineers (ASME)

Member, American Society for Engineering Education (ASEE)

XI. 4 Year List of Testimony

Chris Pugh v Precision Air Convey Corporation, Commonwealth of Kentucky Jefferson Circuit court, Division seven, Trial testimony August 16, 2018

Dougherty v. Fraker Investment LLC et al., Circuit court of Lawrence County Missouri, Deposition testimony, January 11, 2019.

Snyder v. Ozark electric et al., Circuit court of Benton County Arkansas, Deposition testimony, July 28, 2020.

Tyler Montgomery v. R.G Egan Equipment corporation et al., US Circuit court for the western district of Oklahoma, Deposition testimony, January 15, 2021

Cantone v. Gabler Thermoform GMBH & CO, US District Court, Northern District of Illinois Eastern Division. Deposition Testimony, May 6, 2022.

Martin J. Walsh, Secretary of Labor, United States Department of Labor v. Maxwell Hardwood Flooring inc, OSHRC Docket, October 12, 2022

Camelbak products llc. v. Zac Designs Inc. United States District court for the Western District of Arkansas, Fayetteville Division, Deposition Testimony, October 25, 2022