

No. 25A1381

IN THE
SUPREME COURT OF THE UNITED STATES

GREG LOVELACE, COMMISSIONER, ALABAMA DEPARTMENT OF CORRECTIONS,
AND TERRY RAYBON, WARDEN, HOLMAN CORRECTIONAL FACILITY,

APPLICANTS,

v.

JEFFERY LEE,

RESPONDENT.

TO THE HONORABLE CLARENCE THOMAS, ASSOCIATE JUSTICE OF THE SUPREME COURT
OF THE UNITED STATES AND CIRCUIT JUSTICE FOR THE ELEVENTH CIRCUIT

**EXECUTION SCHEDULED FOR JUNE 11, 2026 AT 12 A.M. CDT
TO JUNE 12, 2026 AT 6 A.M. CDT**

**OPPOSITION TO EMERGENCY APPLICATION FOR A STAY OR VACATUR
OF THE INJUNCTION ISSUED BY THE U.S. DISTRICT COURT
FOR THE MIDDLE DISTRICT OF ALABAMA**

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- Exhibit C: Memorandum Opinion and Order of the District Court for the Middle District of Alabama, *Lee v. Lovelace*, No. 2:25-cv-680-ECM, DE 187 (M.D. Ala. June 9, 2026)
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- Exhibit E: Order of the District Court for the Middle District of Alabama, *Lee v. Lovelace*, No. 2:25-cv-680-ECM, DE 194 (M.D. Ala. June 10, 2026)
- Exhibit F: Trial Transcript in the District Court for the Middle District of Alabama, *Lee v. Lovelace*, No. 2:25-cv-680-ECM, DE 146 (M.D. Ala. Apr. 27, 2026)
- Exhibit G: Trial Transcript in the District Court for the Middle District of Alabama, *Lee v. Lovelace*, No. 2:25-cv-680-ECM, DE 147 (M.D. Ala. Apr. 28, 2026)
- Exhibit H: Trial Transcript in the District Court for the Middle District of Alabama, *Lee v. Lovelace*, No. 2:25-cv-680-ECM, DE 149 (M.D. Ala. Apr. 29, 2026)

This case arrives before the Court in a procedural posture unlike every previous method of execution challenge that this Court has considered. Unlike the preliminary injunction appeals and emergency stays that have dominated cases of this type, this case comes to the Court following a full three-day bench trial on the merits—the first such trial anywhere on the constitutionality of nitrogen asphyxiation. The parties presented eleven witnesses, including four experts, as well as hundreds of exhibits totaling thousands of pages. On that complete and well-developed factual record, the district court entered a final judgment and permanent injunction—not just temporary relief—for Respondent Jeffery Lee (“Mr. Lee”).

After a careful and thorough review of the trial record, the district court on remand concluded that Alabama’s nitrogen asphyxiation protocol (“Protocol”) violates the Eighth Amendment, and the Eleventh Circuit, in denying a motion to stay, agreed that it likely does. Upon reviewing the district court’s factual findings, the Eleventh Circuit held that the Protocol violates the first prong of *Glossip v. Gross*, 576 U.S. 863, 877 (2015), because it “presents a substantial risk of serious harm—severe pain over and above death itself.” Op. at 4, *Lee v. Comm’r*, No. 26-11864 (11th Cir. June 8, 2026) (Doc. 41-1) (**Exhibit B**) (quoting *Nance v. Ward*, 597 U.S. 159, 164 (2022)) (quotation marks omitted) (hereinafter, “Doc. 41-1”).¹ Then, on remand, the district court found that Mr. Lee had satisfied the second prong of *Glossip* as well: his proposed alternative method of execution by firing squad is feasible, is readily implemented, and significantly reduces the substantial risk of serious harm caused by the Protocol. Mem. Op. & Order at 2, *Lee v. Lovelace*, No. 2:25-cv-680-ECM (June 9, 2026) (DE 187) (**Exhibit C**). With both prongs of

¹ References to docket entries in the district court are designated as “DE.” References to docket entries in the Eleventh Circuit (No. 26-11864) are designated as “First Appeal Doc.” to the extent they are not provided separately as exhibits. References to docket entries in the Eleventh Circuit (No. 26-12027) are designated as “Second Appeal Doc.” to the extent they are not provided separately as exhibits.

Glossip met, the district court entered a permanent injunction and final judgment for Mr. Lee. *Id.* The Eleventh Circuit reviewed that decision on Defendants’ motion for an emergency stay of the injunction, denied the motion, and found that execution by nitrogen asphyxiation is “a likely-unconstitutional method.” Order at 20, *Lee v. Comm’r*, No. 26-12027 (11th Cir. June 10, 2026) (Doc. 17-1) (**Exhibit A**) (hereinafter, “Doc. 17-1”).²

Mr. Lee does not challenge his death sentence or Alabama’s authority to carry it out. He challenges only the method that Alabama intends to employ. Yet Defendants ask this Court to set the district court’s permanent injunction aside on an emergency basis—to intervene, at the eleventh hour, to allow an execution that has been found unconstitutional to proceed. To be clear, Defendants’ request is not for interim relief: although styled as a stay request, the relief it seeks, if obtained, would be permanent. The State would moot the case by carrying out an execution using an unconstitutional and permanently enjoined method. Defendants have not cited *a single case* in which this Court has intervened in a capital case in such an extraordinary way.

The claimed emergency is one of Defendants’ own making, as the district court found. DE 194 at 3 (**Exhibit D**). Mr. Lee filed this action in August 2025—nearly six months before the State moved to set his execution date—expressly to avoid being denied relief on timeliness grounds. DE 1 ¶ 3. The State moved to set the execution *while litigation was pending*, forcing the district court onto an expedited schedule. DE 194 at 3 (**Exhibit D**). Accordingly, as the Eleventh Circuit stated, “[a]ny delay in obtaining relief after the State moved to set the execution date is not attributable to Mr. Lee.” Doc. 17-1 at 18 (**Exhibit A**). Having created the time pressure that they

² Defendants are Greg Lovelace, in his capacity as Commissioner of the Alabama Department of Corrections (“ADOC”), and Terry Raybon, Warden of Holman Correctional Facility (“Holman”). Through the time of trial, the Commissioner of ADOC was John Hamm, who subsequently retired and was replaced by Mr. Lovelace, who was substituted as a defendant in this case. At all relevant times, the Warden of Holman has been Mr. Raybon.

now invoke, Defendants cannot credibly claim that the equities favor emergency relief from this Court.

The equities instead cut decisively against Defendants. Mr. Lee has prevailed on the merits after full litigation. The district court's permanent injunction can and should be reviewed through the ordinary appellate process. What cannot be corrected—what no subsequent ruling can undo—is an execution by unconstitutional means, carried out before the appellate process concludes. The irreversible nature of death weighs heavily in the equitable calculus. Defendants' application should be denied.

This brief proceeds as follows. The Background and Procedural History sets out the factual and procedural record, including the trial evidence, the ultimate findings on both prongs of *Glossip*, and the Eleventh Circuit's rulings affirming those findings and denying Defendants' motion to stay the judgment. The Argument demonstrates that Defendants cannot satisfy any stay factor. They cannot show likelihood of success on the merits, because their challenge asks this Court to second-guess factual findings made after a full bench trial and reviewable only for clear error—findings that (1) the Protocol causes an inmate to suffer one to three minutes of severe, conscious air hunger akin to feelings of suffocation or drowning, and (2) execution by firing squad produces a quick and painless death. Nor do the remaining equitable factors favor a stay: Defendants face no irreparable harm from delay; Mr. Lee faces irreversible harm if executed by an unconstitutional method before appellate review concludes; and the public interest lies in ensuring that executions comply with the Constitution.

BACKGROUND AND PROCEDURAL HISTORY

I. FACTUAL BACKGROUND

A. The Alabama Legislature’s Authorization of Nitrogen Asphyxiation as a Method of Execution

In 2018, the Alabama Legislature authorized a new method of execution that it termed “nitrogen hypoxia.”³ Ala. Code § 15-18-82.1(b)(2). Beginning June 1, 2018, inmates already on death row were given 30 days to elect this execution method or remain subject to execution by lethal injection. *Id.* Mr. Lee chose nitrogen hypoxia in light of Alabama’s history of botched lethal injections and when the prevailing message from the State was that the method would cause “instantaneous unconsciousness and, in a moment or so, death.” DE 40 ¶ 38 (quoting Alabama Sen. Trip Pittman, a sponsor of the legislation). But “[i]n 2018, when Mr. Lee had to elect nitrogen hypoxia as the method of execution, the State had not yet come up with a protocol. And it would not be until 2023 when that protocol was completed.” Doc. 17-1 at 20 (**Exhibit A**).

In August 2023, ADOC released a redacted version of the Protocol for execution by nitrogen asphyxiation. *See* 4/27/2026 Tr. at 246:8–10 (**Exhibit F**). Lawyers in the Office of the Attorney General with no medical or scientific background drafted that Protocol. *See id.* at 217:6–8. They did not consult with medical professionals, scientists, or engineers in the drafting process. *See id.* at 218:3–23, 246:14–17.

ADOC has never taken steps—before or after inmates started to challenge nitrogen asphyxiation—to confirm whether the method causes pain, suffering, terror, or psychological trauma. *See id.* at 218:24–219:10 (no steps taken before approving the Protocol); *id.* at 219:11–18

³ “Hypoxia” is a term for low oxygen levels. *See* 4/27/2026 Tr. at 8:21 (**Exhibit F**). Experts on both sides agreed that doctors would describe ADOC’s execution method as “asphyxiation.” *Id.* at 27:11–17; 4/29/2026 Tr. at 13:15–18 (**Exhibit H**). This brief uses the phrase “nitrogen asphyxiation” as a more accurate term than “nitrogen hypoxia.”

(no investigation after plaintiffs raised challenges). The Protocol, accordingly, does not include the administration of sedatives or analgesics that could reduce or eliminate suffering. *See* DE 173-7. Nor was ADOC's testing of the nitrogen delivery system intended to answer whether nitrogen asphyxiation causes pain or suffering. None of the tests involved volunteers inhaling nitrogen gas (as opposed to breathing air). *See* 4/28/2026 Tr. at 138:22–25, 152:21–24, 155:17–19 (**Exhibit G**). None sought to determine when an inmate would lose consciousness. *Id.* at 152:25–153:6. And none assessed whether the inmate would suffer air hunger or pain. *Id.* at 154:15–155:16, 156:14–16.

B. ADOC's Seven Executions by Nitrogen Asphyxiation

To date, ADOC has carried out nitrogen asphyxiation executions on seven inmates: Kenneth Smith, Alan Miller, Carey Grayson, Demetrius Frazier, Gregory Hunt, Geoffrey West, and Anthony Boyd. Each execution followed the same pattern. Within seconds of the nitrogen beginning to flow, the inmates exhibited visible signs of conscious distress—raising their heads and legs off the gurney, straining against restraints, clenching their fists, gasping, and shuddering—for periods ranging from three to several minutes.⁴ In the Boyd execution, the

⁴ *See, e.g.,* Kim Chandler, *What Happened at The Nation's First Nitrogen Gas Execution: An AP Eyewitness Account*, Assoc. Press (Jan. 27, 2024), <https://perma.cc/2YB7-SEX8>; Marty Roney, *Nitrogen Gas Execution: Kenneth Smith Convulses for Four Minutes in Alabama Death Chamber*, Montgomery Advertiser (Jan. 25, 2024), <https://perma.cc/TWN8-UH4W>; Gladys Bautista, *Witnessing Alan Miller's Execution: A Firsthand Account from Alabama's Death Chamber*, WVTM 13 (Sept. 29, 2024), <https://perma.cc/Y7ZU-QRCL>; Marty Roney, *Alabama Executes Alan Eugene Miller with Nitrogen Gas*, Montgomery Advertiser (Sept. 26, 2024), <https://perma.cc/4C7S-P6X3>; Kim Chandler, *Alabama Puts Man Convicted of Killing 3 to Death in the Country's Second Nitrogen Gas Execution*, Assoc. Press (Sept. 26, 2024), <https://perma.cc/CQP9-ZX3A>; Kent Faulk, *Alabama Executes Carey Dale Grayson by Nitrogen Gas for 1994 Murder*, Advance Local (Nov. 21, 2024), <https://perma.cc/Z3VX-E2YX> (DE 173-130); Marty Roney, *Alabama Executes Carey Dale Grayson by Nitrogen Gas for Brutal 1999 Murder*, Montgomery Advertiser (Nov. 21, 2024), <https://perma.cc/KM8E-YSKC>; Kim Chandler, *Alabama Carries Out Nation's Third Nitrogen Gas Execution on a Man for a Hitchhiker's Killing*, Assoc. Press (Nov. 22, 2024), <https://perma.cc/N9Q4-SWD8>; Kim Chandler, *Alabama Puts Man*

(Footnote Cont'd on Following Page)

longest to date, these movements continued nearly twenty minutes after the Warden gave the code to start the nitrogen gas.⁵ These observations came not only from media witnesses but also from ADOC's own personnel⁶ and, in the Grayson execution, from a medical doctor.⁷

II. PROCEDURAL HISTORY

A. Mr. Lee's Conviction and Appeals

On April 12, 2000, Mr. Lee was convicted on three counts of murder and one count of attempted murder. *See Lee v. State*, 898 So. 2d 790, 807 (Ala. Crim. App. 2001). The jury

to Death for 1991 Murder in the Nation's Fourth Execution Using Nitrogen Gas, Assoc. Press (Feb. 6, 2025), <https://perma.cc/D78F-R4X9>; Sarah Clifton, *Alabama Executes Demetrius Frazier by Nitrogen Gas for 1991 Murder*, Montgomery Advertiser (Feb. 6, 2025), <https://perma.cc/UJX6-E4L7>; Kim Chandler, *Alabama Executes a Man by Nitrogen Gas for the Beating Death of a Woman in 1988*, Assoc. Press (June 10, 2025), <https://perma.cc/QAW6-Z9D8>; Kim Chandler, *Alabama Executes Man with Nitrogen Gas for 1997 Shooting Death of Store Clerk*, Assoc. Press (Sept. 25, 2025), <https://perma.cc/7KXS-VP5D>; Sarah Clifton, *Alabama Executes Geoffrey Todd West by Nitrogen Gas for 1997 Murder*, Montgomery Advertiser (Sept. 25, 2025), <https://perma.cc/58A4-5Z9Q> (DE 173-56); Kim Chandler, *Alabama Executes Man with Nitrogen Gas for 1993 Murder Over \$200 Drug Debt*, Assoc. Press (Oct. 23, 2025), <https://perma.cc/2EKM-8RQJ>; Sarah Clifton, *Alabama Executes Anthony Todd Boyd by Nitrogen Gas for 1993 Murder and Kidnapping*, Montgomery Advertiser (Oct. 23, 2025), <https://perma.cc/8C9S-FSF4> (DE 173-32).

⁵ Kim Chandler, *Alabama Executes Man with Nitrogen Gas for 1993 Murder Over \$200 Drug Debt*, Assoc. Press (Oct. 23, 2025), <https://perma.cc/2EKM-8RQJ>; Sarah Clifton, *Alabama Executes Anthony Todd Boyd by Nitrogen Gas for 1993 Murder and Kidnapping*, Montgomery Advertiser (Oct. 23, 2025), <https://perma.cc/8C9S-FSF4> (DE 173-32).

⁶ *See, e.g.*, 4/27/2026 Tr. at 223:12–224:19, 225:11–16, 226:18–227:1, 227:5–18, 227:22–228:2, 228:5–7, 228:11–16, 250:23–251:3, 253:16–254:8 (**Exhibit F**); 4/28/2026 Tr. at 184:5–10, 184:23–185:2, 185:9–10, 196:11–16, 198:17–198:21, 200:2–8, 201:20–202:17, 202:20–205:13, 205:17–22, 217:18–218:3, 219:18–21, 220:3 (**Exhibit G**).

⁷ Dr. Brian McAlary, an anesthesiologist, observed the Grayson execution. The parties agreed to admit into evidence Dr. McAlary's prior testimony in the preliminary injunction hearing in the *Boyd* case. DE 128 at 2; *see also Boyd v. Hamm*, 2025 WL 2884410, at *7 (M.D. Ala. Oct. 9, 2025), *aff'd sub nom.*, *Boyd v. Comm'r, Ala. Dep't of Corr.*, 2025 WL 2970017 (11th Cir. Oct. 20, 2025), *cert. denied sub nom.*, *Boyd v. Hamm*, 146 S. Ct. 40 (2025).

recommended, by a 7-5 vote, to sentence Mr. Lee to life without the possibility of parole—but the judge overrode the recommendation and sentenced Mr. Lee to death. *Id.* at 807–08. His sentence was affirmed on direct appeal. *Id.* at 874; *Lee v. Alabama*, 543 U.S. 924 (2004) (mem.). Mr. Lee has exhausted all of his conventional appeals. *Lee v. State*, 44 So. 3d 1145 (Ala. Crim. App. 2009); *Lee v. Thomas*, 572 U.S. 1015 (2014) (mem.).

B. The Present Action

After the Legislature authorized executions by “nitrogen hypoxia,” but before any implementing protocol was made available, Mr. Lee elected that method on June 26, 2018. *See* DE 46 ¶ 56. On August 22, 2025, the year after ADOC actually began executing inmates, Mr. Lee filed this lawsuit challenging the method as violating the Eighth Amendment. *See* DE 1. Although no death warrant had been issued and the statute of limitations had not yet run, Mr. Lee filed his lawsuit “to avoid being denied relief on his constitutional claims on timeliness grounds.” *Id.* ¶ 3. Several other inmates filed separate challenges to ADOC’s Protocol, and the cases were consolidated for pretrial purposes. *See generally In re Ala. Nitrogen Hypoxia Protocol Litig.*, No. 2:24-cv-00111-ECM (M.D. Ala.). On February 2, 2026, Mr. Lee amended his complaint to propose firing squad as an alternative method of execution. *See* DE 40 ¶¶ 70–72.

On January 14, 2026, Defendants represented for the first time their intent to move for Mr. Lee’s execution date. *See* DE 176 at 8 (**Exhibit E**). Defendants nonetheless objected to an expedited trial. The district court disagreed, de-consolidated Mr. Lee’s case, and set a trial for April 27, 2026. *See* DE 36. That trial went forward from April 27 to 29, 2026. In the meantime, on April 15, 2026, the Governor of Alabama set Mr. Lee’s execution for June 11, 2026. *See* DE 127-1.

C. Evidence Related to the Effects of Nitrogen Asphyxiation

Multiple experts testified at trial about the effects that severe oxygen deprivation—the goal of execution by nitrogen asphyxiation—has on the body.

1. Testimony of Dr. Richard M. Schwartzstein

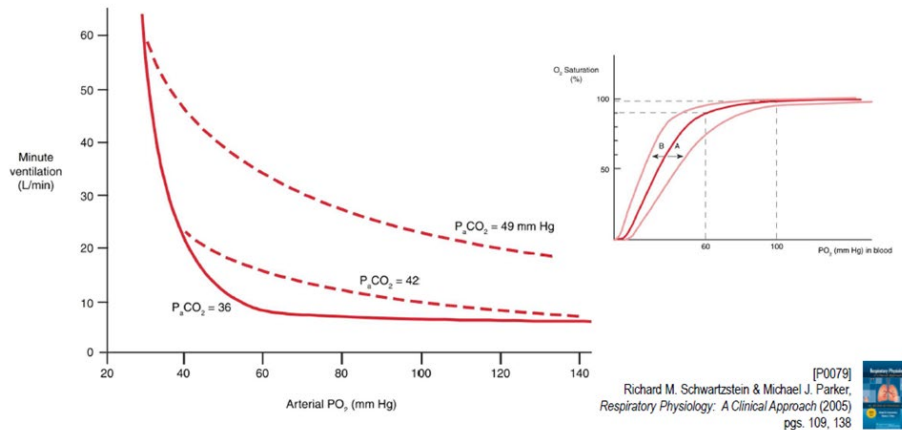
Dr. Schwartzstein is a pulmonologist and critical care doctor at Beth Israel Deaconess Hospital and professor at Harvard Medical School. *See* 4/27/2026 Tr. at 7:11–22 (**Exhibit F**). He is one of the world’s experts on dyspnea and air hunger, having studied these issues for the last forty years and having treated more than 15,000 dyspneic patients. *See id.* at 7:23–8:9, 8:15–18, 9:12–19, 21:4–11, 23:5–24:9, 24:12–13, 29:18–31:21. Dyspnea is “a sensation of difficulty with your breathing,” which can range from “minor to very severe.” *Id.* at 8:12–14, 11:10–12. The most severe form of dyspnea, known as “air hunger,” is a primal sensation of “not getting enough air” that “evoke[s] anxiety, panic, frustration, and fear.” *Id.* at 12:4–11.

Dr. Schwartzstein opined that it is “highly likely that individuals succumbing to [ADOC’s] protocol will experience severe air hunger. . . . The brain will process that, and they will have that intense suffering, smothering feeling akin to drowning.” *Id.* at 63:1–7; *see also id.* at 52:21–24. He explained that “[d]yspnea has features that are similar to pain, but it is different than pain. Pain is associated with often a particular injury to a portion of the body, whether it’s an internal organ or external limbs.” *Id.* at 11:4–7. Dyspnea, on the other hand, is “a holistic discomfort sensation that you can’t point to and say, this is where my dyspnea or shortness of breath is.” *Id.* at 11:7–9. The medical literature describes dyspnea as being “far worse than pain.” *Id.* at 15:11–16, 19:14–17, 22:19–23:2, 28:2–15, 28:20–29:8, 32:7–33:4.

Several conditions can cause air hunger, including hypoxia (low oxygen levels) and hypercapnia (carbon dioxide buildup). *See id.* at 34:12–23. Studies have shown definitively that severe hypoxia elicits air hunger, even in the absence of hypercapnia. *Id.* at 36:5–8. At trial, Dr.

Schwartzstein explained how severe hypoxia provokes air hunger with the following demonstrative. *See id.* at 38:22–44:23.

Ventilatory Response to Hypoxia



The graph on the left represents the ventilatory response to hypoxia. The y-axis shows minute ventilation, or “how much air is going in and out of your lung[s].” *Id.* at 41:18–20. The x-axis shows the partial pressure of oxygen (“PO₂”), or how much oxygen is on the hemoglobin in the blood. *Id.* at 41:4–17. Humans “live around [a PO₂ of] 100” mmHg and are breathing 5 or 6 liters of air per minute. *Id.* at 41:16–23. Although the curve stays relatively flat between a PO₂ of 100 and 60 mmHg, *id.* at 42:11–16, the ventilatory drive “takes off and becomes almost a vertical line here . . . [from] five or six liters a minute up to 50 to 60 liters a minute” with severe hypoxia, *e.g.*, a PO₂ below 60 mmHg. *Id.* at 43:17–44:6. Because the goal of nitrogen asphyxiation is to take the inmate’s PO₂ to 0 mmHg, this creates “an incredibly strong stimulus” to breathe, *e.g.*, air hunger that becomes more and more severe as the PO₂ approaches 0 mmHg. *Id.* at 44:16–23, 53:18–54:7.⁸

⁸ Dr. Schwartzstein further opined that the brain is likely processing air hunger after the inmate is no longer awake but still minimally conscious. 4/27/2026 Tr. at 51:15–25 (**Exhibit F**).

2. Testimony of Dr. Julie Bastarache

Dr. Julie Bastarache is a pulmonologist and professor of medicine, pathology, microbiology, and immunology at Vanderbilt University Medical Center, and also works in the intensive care unit at the Veterans Affairs hospital in Nashville, Tennessee. *Id.* at 126:23–25, 128:1–14.

Dr. Bastarache provided a timeline—based on ideal physiological circumstances—of loss of consciousness during an execution by nitrogen asphyxiation. First, it will take “about 33 seconds for the mask to fill with mostly nitrogen.” *Id.* at 131:11–25, 132:12–19. Second, because lungs contain residual oxygen at the start of an execution, she estimated that it will take about 45 seconds (or nine to eleven breaths) for the lungs of an older inmate—in his 50s, 60s, or 70s—to completely fill with nitrogen. *See id.* at 132:22–135:8. Third, because oxygen is delivered to the body by blood circulation, Dr. Bastarache estimated that it will take several circulatory cycles—totaling another 60 seconds—for the oxygen in the blood to reach a level where the inmate would lose consciousness. *See id.* at 136:8–137:2.

Putting the three steps together, Dr. Bastarache calculated a “theoretical” floor of 2 minutes and 18 seconds for an inmate to lose consciousness. *See id.* at 138:3–139:9, 151:2–11. That number is theoretical because many factors influence and increase how long it actually takes for an inmate to lose consciousness including, for example, that the oxygen in the mask never reaches 0%. *See id.* at 130:25–131:6, 151:12–17.

Dr. Bastarache explained, however, that determining when an inmate actually loses consciousness depends on a “visual clinical determination”—either a medical professional observing the inmate or reading a report of someone who has observed them. *See id.* at 140:13–23; *see also id.* at 128:20–129:5. Walking through the eyewitness accounts of the prior nitrogen executions, she concluded that the inmates previously executed by nitrogen asphyxiation remained

conscious for three to seven minutes. *See id.* at 145:7–8, 146:16–19, 148:21–23, 150:15–19. Dr. Bastarache also concluded that the inmates showed signs of air hunger. *Id.* at 143:7–19, 145:9–13, 147:1–7, 148:24–149:4, 150:20–151:1. Specifically, she looked for “signs of respiratory distress, dyspnea, or air hunger” like “rapid breathing, trying to take a deep breath, being very fidgety in bed, trying to reposition, struggling, trying to sit up to get more breath, shaking, sweating.” *Id.* at 142:17–143:2.

Dr. Bastarache also reviewed the autopsy reports of four inmates executed by nitrogen asphyxiation, which describe the presence of pulmonary edema, a condition in which fluid builds up in the lungs.⁹ *See id.* at 153:8–21. The presence of pulmonary edema in these autopsies is “an abnormal finding” and likely reflects a sudden, severe rise in blood pressure just prior to death (called “flash pulmonary edema”). *Id.* at 153:8–13, 153:24–155:15. This flash pulmonary edema “can cause significant dyspnea . . . it’s additive to the hypoxia that causes dyspnea.” *Id.* at 156:1–2. Dr. Bastarache opined that the flash pulmonary edemas likely developed early in the executions while the inmates were still conscious. *See id.* at 155:16–156:15.

3. Testimony of Dr. Joseph F. Antognini

Defendants presented a single expert, Dr. Joseph F. Antognini, a retired anesthesiologist and former professor at the University of California, Davis who—for more than a decade—has served as an expert in support of various execution methods for the federal and various state governments. *See* 4/28/2026 Tr. at 227:2–5, 228:4–22 (**Exhibit G**); 4/29/2026 Tr. at 94:22–95:8 (**Exhibit H**).

⁹ Autopsies were not done for Frazier, Hunt, or West.

Dr. Antognini opined, over objection,¹⁰ that ADOC’s Protocol will “cause rapid onset of unconsciousness”—within sixty to seventy seconds after the nitrogen starts flowing. *See* 4/29/2026 Tr. at 3:21–25, 12:24–13:11 (**Exhibit H**). He further opined that the inmate will experience “minimal to no suffering or discomfort or pain” during the execution. *See id.* at 3:21–25. Dr. Antognini based these opinions on: (1) a 1963 study of three healthy volunteers rapidly inhaling nitrogen gas, (2) case reports of suicides using inert gas, (3) an aviation study of hypoxia, and (4) work-incident reports (and a related white paper) of hypoxia deaths. *See id.* at 30:25–32:1, 34:11–35:20, 36:22–38:4, 38:15–44:23, 44:24–52:17, 58:1–59:9.

But Dr. Antognini retreated from these opinions on cross-examination. He acknowledged that the sources on which he relied are different than the execution context. *See id.* at 75:6–76:14, 77:16–22, 78:1–6, 79:6–80:4, 81:14–82:1. And he agreed that dyspnea can “cause[] suffering,” *see id.* at 69:5–6, 69:10–11, 70:7–12; that “dyspnea can be far worse than pain,” *see id.* at 69:14–18; and that “dyspnea ranks among the most distressing experiences that human beings can endure Absolutely,” *see id.* at 70:17–19. Dr. Antognini also agreed that air hunger “can occur with hypoxia,” *id.* at 71:7–13, but—unlike Mr. Lee’s experts—concluded that the duration of the air hunger during a nitrogen asphyxiation execution is “[o]n the order of probably 10 to 20 seconds.” *Id.* at 109:10–20.

Dr. Antognini could not say, to a reasonable degree of medical certainty, when any of the inmates executed by nitrogen asphyxiation lost consciousness, when their movements were no

¹⁰ Pursuant to Federal Rule of Evidence 702 and *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), Mr. Lee challenged Dr. Antognini’s qualifications, *see* DE 103 at 12–13, and the reliability of his opinions on nitrogen asphyxiation, *see id.* at 13–17. Although the district court agreed that Dr. Antognini did “not adequately explain how he extrapolated from the data in those studies to reach his conclusions about nitrogen hypoxia executions,” *see* DE 176 at 44 (**Exhibit E**), the court denied the motion and admitted the testimony, *see* DE 175.

longer voluntary, when their breathing became agonal, or if the inmate felt pain. *See id.* at 87:24–88:3, 89:8–21.

D. Evidence Related to Proposed Alternative Method of Execution by Firing Squad

1. Testimony of Dr. James Williams

Mr. Lee presented the testimony of Dr. James Williams, a board-certified emergency medicine physician who has treated thousands of gunshot wound victims and is a recognized expert in firearms and ballistics. *See* 4/28/2026 Tr. at 5:22–8:13 (**Exhibit G**).

Dr. Williams opined that an execution by firing squad directed at the cardiac bundle—the area of the body that includes the heart and great vessels—will cause immediate disruption of blood flow to the brain, resulting in loss of consciousness within three to five seconds and death following shortly thereafter. *See id.* at 31:18–32:10, 36:15–37:9. He also opined that an inmate shot in the cardiac bundle will not feel pain in those three to five seconds due to two parallel concepts: the temporal lag in the brain’s ability to process novel sensations and the phenomenon of neural stunning. *See id.* at 42:14, 45:3–5, 48:7–8. Specifically, Dr. Williams explained that any stimulus must travel from the sensory receptors—in a series of steps—to the cerebral cortex, where the individual perceives the stimulus as pain (or an alternative sensation such as burning, itching, nausea, etc.). *Id.* at 16:15–17:22. When a stimulus is novel—one the brain has never before synthesized and assigned meaning to such as multiple bullets to the cardiac bundle—the processing lag is substantially longer, potentially “several seconds.” *Id.* at 15:4–21, 18:7–15. Further, when a bullet enters the body, the “massive” energy from the bullet creates a temporary cavity, *id.* at 22:13–23:6, that disrupts the nerve membranes and prevents the transmission of neural impulses of pain, *id.* at 23:19–24:10. The disruption of neural impulses or “stunning” lasts “several hours

if not days.” *Id.* at 24:11–17. As such, an inmate being executed by firing squad will be unconscious and dead long before he can process the pain from the gunshot wounds.

Dr. Williams explained, that for similar reasons, execution by firing squad will not cause any added psychological suffering. While any execution method can cause anxiety in *anticipation* of the execution, an inmate executed by firing squad would not experience fear or anxiety once the bullets strike the heart because the novelty and power of multiple bullets to the cardiac bundle will “overwhelm the conscious thought process of the individual” such that there would be no increase in conscious anxiety. 4/28/2026 Tr. at 44:21–45:6 (**Exhibit G**); compare DE 175 at 13 n.7¹¹

Finally, Dr. Williams opined that execution by firing squad is feasible and can be readily implemented in Alabama. 4/28/2026 Tr. at 55:22–56:3 (**Exhibit G**). Dr. Williams outlined a blueprint for how such an execution could be conducted, relying on Utah’s firing squad protocol, *see id.* at 49:9–12, 50:21–51:7, 51:16–52:2, 59:22–60:3, including to identify the specific (commonly available) materials that could be used to modify the execution chamber. *See id.* at 54:8–55:18. He further opined that the level of marksmanship required to hit the target “virtually a 100 percent” is “well within” Alabama’s “established marksmanship requirements for rifle.” *See id.* at 51:4–51:7, 52:18–21.

2. Testimony of ADOC Officials

Former Commissioner Hamm and Deputy Commissioner Williams confirmed that, if the Legislature approves execution by firing squad, then ADOC can carry it out. *See* 4/27/2026 Tr. at

¹¹ Nor will the inmate feel pain after losing consciousness. An inmate being executed by firing squad will have “complete cessation of blood flow” and will therefore experience a “*profoundly deeper*” level of unconsciousness than occurs with nitrogen asphyxiation. *See* 4/28/2026 Tr. at 41:7–16 (**Exhibit G**); *see also supra* note 8.

229:6–230:13 (**Exhibit F**). Former Commissioner Hamm—who had “100%” authority to approve execution protocols in Alabama, *id.* at 216:12–17—testified that ADOC could procure the physical materials identified by Dr. Williams to modify the execution chamber and could, in fact, modify a space at Holman to carry out execution by firing squad. *Id.* at 229:12–230:13. He confirmed that ADOC maintains an armory with rifles and ammunition, that law enforcement are currently required to undergo training and annual requalification with firearms, and that ADOC would “make sure [execution team members] were properly trained” with “whatever weapon was chosen” if firing squad was adopted as a method of execution. *Id.* at 229:7-11; *see also id.* at 228:21–25 (ADOC has rifles and ammunition); *id.* at 229:4–6 (ADOC could train people to use .30-caliber rifles).

Deputy Commissioner Williams likewise testified that he was “not aware of anything that would make it impossible to train members to use a .30 caliber rifle” and that ADOC could staff an execution team if firing squad was authorized by the legislature. *Id.* at 257:10–13, 257:23–258:1.

III. THE DISTRICT COURT’S ORDER AND JUDGMENT

On May 28, 2026, the district court entered judgment for Defendants, holding that Mr. Lee failed to establish an Eighth Amendment violation. *See generally* DE 176 (**Exhibit E**); DE 177. The court explained that a methods-of-execution challenge requires an inmate to show both that the challenged method presents “a substantial risk of serious harm” and that a “feasible and readily implemented alternative method of execution that would significantly reduce [that] substantial risk.” DE 176 at 24–25 (**Exhibit E**) (citing *Glossip*, 576 U.S. at 877, and *Bucklew v. Precythe*, 587 U.S. 119, 134 (2019)) (quotation marks omitted).

The district court concluded that Mr. Lee had failed to establish the first requirement, notwithstanding the court’s acceptance of much of his evidence concerning nitrogen asphyxiation.

The court found that ADOC's Protocol causes severe air hunger: "[a]n inmate who is executed under the Protocol *experiences severe air hunger* and corresponding emotional distress, anxiety, physiological stress, and physical discomfort." *Id.* at 56 (emphasis added); *see also id.* at 53 ("The Court grants that Lee has shown by a preponderance of the evidence that the ADOC's nitrogen hypoxia execution protocol *causes air hunger* and corresponding anxiety and physiological distress."). The court found that air hunger is extremely distressing, with patients often describing it as "worse than pain," and akin to suffocation and drowning. *See id.* at 54. And the court found that an inmate will "consciously experience[] air hunger and associated distress for . . . one to three minutes." *Id.* at 56.

Despite these findings, the district court concluded that Mr. Lee had not established a substantial risk of serious harm. In the court's view, the anxiety associated with air hunger is an "inescapable consequence of death" and part of the "necessary suffering involved in any method employed to extinguish life humanely." *Id.* at 51–52. Having determined that Mr. Lee failed to satisfy *Glossip*'s first prong, the district court did not address whether execution by firing squad constituted a feasible and readily implemented alternative method of execution that would significantly reduce the substantial risk of harm. *Id.* at 10 n.15, 49.

IV. THE ELEVENTH CIRCUIT'S OPINION

Mr. Lee filed a Notice of Appeal the same day that the district court ruled and sought expedited merits briefing before the Eleventh Circuit. DE 178; First Appeal Doc. 13. Mr. Lee also moved for a stay of execution pending resolution of the appeal. First Appeal Doc. 22.

On June 8, 2026, the Eleventh Circuit issued a *per curiam* opinion reversing the district court's judgment and remanding the case for further findings. *See* Doc. 41-1 (**Exhibit B**). Accepting the district court's factual findings, the Eleventh Circuit held "that Alabama's nitrogen hypoxia protocol presents a substantial risk of serious harm—severe pain over and above death

itself. Mr. Lee therefore satisfied the first prong of the *Glossip* Eighth Amendment standard.” *Id.* at 16 (quotation marks and citation omitted). The Eleventh Circuit explained that, according to the district court, “an inmate executed under the protocol suffers one to three minutes of severe air hunger and corresponding emotional distress, anxiety, physiological stress, and physical discomfort.” *Id.* (quotation marks and citation omitted). This suffering “presents a substantial risk of serious harm over and above death itself. Counting to 60 or 180 seconds is not a quick exercise, and constitutionally speaking, that timeframe is intolerable given the suffering that would likely take place under Alabama’s nitrogen hypoxia protocol.” *Id.* at 17.

The Eleventh Circuit “remand[ed] the case to the district court with instructions to immediately address the second prong of *Glossip*.” *Id.* at 20. The Eleventh Circuit also denied without prejudice Mr. Lee’s motion to stay the execution for the same reason. *Id.* (“[W]e cannot make a determination about likelihood of success on that prong on this record.”).

V. THE DISTRICT COURT’S FINAL JUDGMENT

Mr. Lee immediately moved the district court to enter an order finding for him on the second prong of *Glossip*, to enter judgment for him, and to permanently enjoin Defendants from executing him by nitrogen asphyxiation or any method other than firing squad. DE 185. In the alternative, Mr. Lee moved the district court for a stay of his June 11–12, 2026 execution. *Id.*

The next day, on June 9, 2026, the district court issued a 26-page opinion concluding that Mr. Lee had satisfied the second prong of *Glossip*: “Lee has shown by a preponderance of the evidence that his proposed firing squad alternative is feasible, readily implemented, and significantly reduces the substantial risk of serious harm posed by the Protocol.” DE 187 at 24 (**Exhibit C**). The court also concluded that Defendants had no “legitimate penological reason for refusing to adopt Lee’s proposed alternative.” *Id.*

In finding firing squad to be both feasible and readily implemented, the court credited the Mr. Lee’s “blueprint” for ADOC, which closely tracks Utah’s established firing squad procedure. *Id.* at 8–9. The court did so on the basis of Dr. Williams’ testimony, *id.* at 6, 9, and that of Defendants’ own witnesses, including former Commissioner Hamm and Deputy Commissioner Charles Williams. *Id.* at 11. The court further rejected Defendants’ argument that firing squad is not readily implemented merely because it is not currently authorized under Alabama law. *Id.* at 10.

The district court entered judgment in Mr. Lee’s favor, permanently enjoined Defendants from executing him by nitrogen asphyxiation, and denied as moot his motion to stay his execution. *Id.* at 2, 25. That same day, Defendants moved for a stay of judgment in the district court, which the court denied. DE 194 (**Exhibit D**).

VI. THE ELEVENTH CIRCUIT’S ORDER DENYING A STAY OF JUDGMENT

On June 9, 2026, Defendants filed a Notice of Appeal, and the Eleventh Circuit ordered expedited briefing. On June 10, 2026, Defendants filed a motion to stay the district court’s permanent injunction as well as their opening brief. Mr. Lee filed a response and answering brief hours later. Later that evening, the Eleventh Circuit denied Defendants’ motion to stay. Doc. 17-1 (**Exhibit A**). Judge Luck issued a separate dissent.

Applying *Nken v. Holder*, 556 U.S. 418 (2009), the Eleventh Circuit emphasized that the district court’s judgment rested on factual findings made after a three-day bench trial and reviewed only for clear error. Doc. 17-1 at 4, 7 (**Exhibit A**). The court concluded that Defendants had not made a showing of substantial likelihood of success on the merits. *Id.* at 13–17. Defendants did not show that the district court clearly erred in finding that execution by firing squad is feasible and readily implemented, *see id.* at 16, that it would significantly reduce the risk of severe pain

posed by ADOC’s Protocol, *see id.* at 14–15 & n.4, and that the State lacks a legitimate penological reason to reject that alternative, *id.* at 16–17.

The Eleventh Circuit also concluded that the remaining stay factors “favor[ed] Mr. Lee. And even if they do not favor Mr. Lee, they do not favor the Commissioner.” *Id.* at 20. The court dispensed with Defendants’ arguments concerning Mr. Lee’s purported delay, finding them “not well taken.” *Id.* at 17. “Mr. Lee filed his nitrogen hypoxia challenge within the statute of limitations, and the State chose to set Mr. Lee’s execution date while the parties were in active litigation.” *Id.* at 18. After the late April bench trial, the court issued its findings of fact and conclusions of law on May 28, 2026, and Mr. Lee sought relief from the Eleventh Circuit “immediately.” *Id.* Accordingly, “[a]ny delay in obtaining relief after the State moved to set the execution date is not attributable to Mr. Lee.” *Id.*

The court further explained that Mr. Lee “would suffer irreparable harm if he were executed pursuant to a method that the district court has found unconstitutional.” *Id.* at 17. “Ultimately, it is Mr. Lee who would be executed under a likely-unconstitutional method—one that we held met the first *Glossip* prong and that the district court held unconstitutional under the Eighth Amendment—if we granted the stay.” *Id.* at 20. “[T]he public, the State, and Mr. Lee all have an interest in ensuring that executions are carried out consistently with the Constitution.” *Id.* at 20. Granting Defendants’ request, on the other hand, would “moot this appeal and prevent this Court from reaching the constitutionality of execution by nitrogen hypoxia.” *Id.*¹²

¹² Judge Luck’s dissent was based in part on his view that Dr. Williams’s testimony in a prior case contradicted the district court’s finding that death by firing squad is painless. *See* Doc. 17-1 at 24–26 (**Exhibit A**) (Luck, J., dissenting). But credibility determinations are squarely within the province of the factfinder, *see Anderson v. City of Bessemer City*, 470 U.S. 564, 575 (1985), and the district court—having observed Dr. Williams’s testimony firsthand—expressly found him credible. *See infra* p. 32.

STANDARD OF REVIEW

To grant a stay pending appeal, courts consider the following factors: (1) whether the stay applicant has made a strong showing of the likelihood of success on the merits; (2) whether the applicant will be irreparably injured absent a stay; (3) whether issuance of the stay will substantially injure the other parties interested in the proceeding; and (4) where the public interest lies. *See Nken*, 556 U.S. at 426. The party seeking the stay bears the burden of establishing each factor, but the first two are “the most critical.” *Id.* at 433–434.¹³ In any event, “[t]he whole idea [of a stay] is to hold the matter under review in abeyance” until the appellate court can render “a definitive merits decision.” *Id.* at 432. Thus, issuance of a stay is “not a matter of right, even if irreparable injury might otherwise result.” *Id.* at 433 (citations and quotations omitted).

An appellate court may not set aside a district court’s findings of fact unless they are clearly erroneous. *Anderson*, 470 U.S. at 573. “In applying the clearly erroneous standard to the findings of a district court sitting without a jury, appellate courts must constantly have in mind that their function is not to decide factual issues *de novo*.” *Id.* (quoting *Zenith Radio Corp. v. Hazeltine Rsch, Inc.*, 395 U.S. 100, 123 (1969)). As this Court has clarified, the clearly erroneous standard “plainly does not entitle a reviewing court to reverse the finding of the trier of fact simply because it is convinced that it would have decided the case differently.” *Id.*; *see also Glossip*, 576 U.S. at 881. Accordingly, a district court’s factual finding that is “plausible in light of the full record—even if another is equally or more so—must govern.” *Cooper v. Harris*, 581 U.S. 285, 293 (2017)

¹³ Defendants are effectively asking this Court to vacate a stay of execution. “The standard under which we consider motions to vacate stays of execution is deferential, and properly so. Only when the lower courts have clearly abused their discretion in granting a stay should we take the extraordinary step of overturning such a decision.” *Dugger v. Johnson*, 485 U.S. 945, 947 (1988) (O’Connor, J., dissenting); *accord Barefoot v. Estelle*, 463 U.S. 880, 896 (1983); *Wainwright v. Spinklink*, 442 U.S. 901, 905 (1979) (Rehnquist, J., dissenting).

(citations and quotations omitted); *see also Anderson*, 470 U.S. at 575 (“[W]hen a trial judge’s finding is based on his decision to credit the testimony of one of two or more witnesses, each of whom has told a coherent and facially plausible story that is not contradicted by extrinsic evidence, that finding, if not internally inconsistent, can virtually never be clear error.”).

A district court’s decision to grant permanent injunctive relief “is an act of equitable discretion . . . reviewable on appeal for abuse of discretion.” *eBay Inc. v. MercExchange, LLC*, 547 U.S. 388, 391 (2006); *see also Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 143 (1997) (“[G]iv[ing] the trial court deference . . . is the hallmark of abuse-of-discretion review.”); *United States v. Frazier*, 387 F.3d 1244, 1259 (11th Cir. 2004) (en banc) (“By definition . . . under the abuse of discretion standard of review there will be occasions in which we affirm the district court even though we would have gone the other way had it been our call.” (citations omitted)). So, too, is a court of appeals’ decision regarding the stay of a district court’s permanent injunction reviewed for abuse of discretion. *See Holtzman v. Schlesinger*, 414 U.S. 1304, 1314–15 (1973) (assigning “great weight” to the circuit court’s order addressing a motion to stay the district court’s permanent injunction, declining to find abuse of discretion “[i]n light of the complexity and importance of the issues posed,” and denying the application to vacate the stay so that an appeal on the merits under “the regular appellate procedures” can occur).

ARGUMENT

Defendants fail to satisfy their high burden. Indeed, two federal courts already have denied similar motions to stay. DE 194 (**Exhibit D**); Doc. 17-1 (**Exhibit A**).

I. DEFENDANTS ARE NOT LIKELY TO SUCCEED ON THE MERITS

To prevail on his Eighth Amendment method-of-execution claim, Mr. Lee was required to prove two elements by a preponderance of the evidence: (1) that Alabama’s nitrogen asphyxiation Protocol presents a substantial risk of serious harm, and (2) that a feasible, readily implemented

alternative method of execution exists that would significantly reduce that risk and that Defendants have refused to adopt without a legitimate penological reason. *See Glossip*, 576 U.S. at 877; *Bucklew*, 587 U.S. at 134.

After a full trial on the merits with live testimony and voluminous documentary proof, the district court issued findings of fact that satisfied each element of that test. When both the district court and the Eleventh Circuit considered Defendants’ request to stay the judgment, they came to the same conclusion. *See, e.g.*, DE 194 at 2 (**Exhibit D**) (noting that the “Court carefully considered [Defendants’] arguments and the entire record but ultimately concluded . . . that Lee met his burden to establish that the Protocol violates the Eighth Amendment”); Doc. 17-1 at 20 (**Exhibit A**) (describing ADOC’s execution method as “likely-unconstitutional”).

1. Mr. Lee Has Satisfied the First Prong of *Glossip*

The Eleventh Circuit found that Mr. Lee satisfied *Glossip*’s first prong based on the district court’s factual findings. Defendants largely accept the district court’s factual findings regarding the nature and severity of air hunger and instead argue that those findings do not amount to a constitutional violation. Doc. 41-1 at 4 (**Exhibit B**).¹⁴ Instead, Defendants appear to challenge the Eleventh Circuit’s conclusion that, based on those findings, Mr. Lee established that execution by nitrogen asphyxiation poses a substantial risk of serious harm. *Id.* They are unlikely to prevail.

The district court issued extensive findings of fact related to the severity, duration, and nature of the suffering caused by the Protocol. The court found that air hunger is “the most severe

¹⁴ Nor could Defendants. In the initial appeal to the Eleventh Circuit, Defendants did not challenge the district court’s factual findings on the substantial risk of serious harm. On remand, the district court concluded that Mr. Lee had also satisfied *Glossip*’s second prong, *see infra* pp. 29–37, and entered final judgment for him. Defendants immediately appealed, but did not challenge any factual findings as to *Glossip*’s first prong. *See Adickes v. S. H. Kress & Co.*, 398 U.S. 144, 147 n.2 (1970) (“Where issues are neither raised before nor considered by the Court of Appeals, this Court will not ordinarily consider them.”).

form of dyspnea” and that many patients describe it as “akin to suffocation or drowning” and “worse than pain.” DE 176 at 15, 54 (**Exhibit E**). The court also found that oxygen deprivation alone can cause air hunger, and “[b]ecause the goal [of the Protocol is] to take the inmate’s [oxygen levels] all the way down to 0 [], the Protocol *will evoke* an ‘incredibly strong stimulus to breathe.’” *Id.* at 55 (emphasis added). The severe air hunger, the court found, will likely last for one to three minutes while the inmate is conscious, and possibly longer. *Id.* at 56. Thus, the district court concluded: “An inmate who is executed under the Protocol experiences severe air hunger and corresponding emotional distress, anxiety, physiological stress, and physical discomfort. An inmate executed under the Protocol consciously experiences air hunger and associated distress for not significantly more than one to three minutes.” *Id.*

The Eleventh Circuit correctly held that, under *Baze*, *Glossip*, and *Bucklew*, “the overall suffering described by the district court, which lasts for one to three minutes, presents a substantial risk of serious harm over and above death itself.” First Appeal Doc. 41-1 at 17. The court explained that, because the Protocol works by depriving the inmate of oxygen, when working “[a]s intended . . . severe air hunger and corresponding emotional distress, anxiety, physiological stress, and physical discomfort . . . will likely take place. There is, in other words, a substantial risk of serious harm. The risk is *not conjectural, speculative, or doubtful.*” *Id.* at 16 (emphasis added).

None of the purported errors that Defendants identify on appeal is likely to result in a reversal.

First, Defendants are wrong to equate air hunger as simply emotional “discomfort.” Applicants’ Br. at 20. In fact, the district court expressly rejected Defendants’ suggestion that the air hunger would only be “mild.” DE 176 at 28–29 (**Exhibit E**). The court instead cited expert testimony that air hunger is “extremely distressing.” *Id.* at 17; *id.* at 26 (describing “air hunger

and corresponding emotional suffering and physiological distress.”); *id.* at 34, 49 (describing the “severe air hunger” that the Protocol causes); *id.* at 49 (describing air hunger as “the most severe form of breathing discomfort”). And the court described patient experiences with air hunger as “the worst thing that could ever happen to you” and “worse than pain.” *Id.* at 15, 31, 50, 51. 54.

Defendants brush off this evidence, but the case that Mr. Lee put on reflects the scientific consensus. *See* Applicants’ Br. at 20 (“At most, Lee has proven that there exist one or two experts who will describe the risks of hypoxia in even more hyperbolic terms than experts in previous cases.”). Since Alabama’s first nitrogen asphyxiation execution in January 2024, at least five articles have been published in the medical literature discussing the method. *See* DE 173-37 [Bailey 2025]; DE 173-48 [Bailey 2025]; DE 173-54 [Bickler 2024]; DE 173-67 [Macefield 2024]; DE 173-77 [Poole 2024]; *see also* DE 173-86 [Singh 2025]. They all conclude that nitrogen asphyxiation executions cause severe suffering. The American Thoracic Society (“ATS”)—the leading medical association for over 30,000 pulmonology and critical care doctors, scientists, and healthcare professionals—has concluded likewise: “[e]xecution by nitrogen hypoxia is an ‘*inhumane* and ultimately flawed practice’ that causes intense suffering.” First Appeal Doc. 28 at 1, 10 (emphasis in original). It is not Mr. Lee’s experts but Dr. Antognini who stands alone in his belief that the air hunger that inmates will suffer under the Protocol will be “mild.”¹⁵

Nor is emotional or psychological harm less worthy of constitutional protection. As this Court explained in *Bucklew*, “a reader at the time of the Eighth Amendment’s adoption would have

¹⁵ Defendants repeatedly harken back to prior challenges to nitrogen asphyxiation executions, arguing that, because those courts did not find a constitutional violation, the same result follows here. *See, e.g.,* Applicants’ Br. at 2–3. None of those cases was a full merits trial, and this case does *not*, as Defendants contend, have “much of the same record as last year’s nitrogen cases.” *Id.* at 2. Mr. Lee presented different scientific articles and different experts, including Dr. Schwartzstein, one the world’s leading experts on dyspnea and air hunger.

understood those words [cruel and unusual] . . . [to mean] ‘[d]isposed to give pain to others, in body *or mind*.’” 587 U.S. at 130 (citation omitted) (emphasis added).¹⁶ In any event, severe air hunger does involve a physical component. See DE 176 at 56 (**Exhibit E**) (finding that an inmate executed under the Protocol experiences “physiological stress[] and physical discomfort”); *id.* at 52 (describing the “physiological discomfort” as “like an elephant on your chest,” “like a boa constrictor,” “like running in a race when you had to stop suddenly and feel like you are going to collapse,” or “even like suffocation” (quotation marks omitted)); Doc. 41-1 at 18–19 (**Exhibit B**) (explaining that “physiological distress is at least partly physical”). Defendants’ attempt to characterize severe air hunger as merely psychological cannot be reconciled with the district court’s findings.¹⁷

Second, the Eleventh Circuit did not err when it concluded that the execution by nitrogen asphyxiation “adds something ‘over and above the mental distress that typically accompanies the

¹⁶ See also, e.g., *Watts v. Indiana*, 338 U.S. 49, 52 (1949) (in due process context, explaining that “[t]here is torture of mind as well as body; the will is as much affected by fear as by force”); *Apodaca v. Raemisch*, 586 U.S. 931 (2018) (Sotomayor, J., respecting denial of certiorari) (in discussing solitary confinement, “[a] punishment need not leave physical scars to be cruel and unusual” (citing *Trop v. Dulles*, 356 U.S. 86, 101 (1958)); *Hudson v. McMillian*, 503 U.S. 1, 16 (1992) (Blackmun, J., concurring) (“I do not read anything in the Court’s opinion to limit injury cognizable under the Eighth Amendment to physical injury . . . [a]s the Court makes clear, the Eighth Amendment prohibits the unnecessary and wanton infliction of ‘pain’ rather than ‘injury.’ ‘Pain’ in its ordinary meaning surely includes a notion of psychological harm.”).

¹⁷ Defendants suggest that an execution method must be torturous in order to violate the Eighth Amendment. See Applicants’ Br. at 2, 16, 19 & n.13. The requirement under *Baze*, *Glossip*, and *Bucklew* is to establish a substantial risk of serious harm, not torture. Even if that were the standard (and it is not), waterboarding—which induces the same feeling of severe air hunger—is widely regarded as a form of torture. See, e.g., Christopher Worsham et al., *Dyspnea, Acute Respiratory Failure, Psychological Trauma, and Post-ICU Mental Health: A Caution and a Call for Research*, 159 *Chest* 749, 750 (2021) (“This primary sensation [of air hunger] can be so distressing that the emotional response has been exploited in methods of torture.”); see also, e.g., *United States v. Zubaydah*, 595 U.S. 195, 238 (2022) (Gorsuch, J., dissenting) (describing the interrogation techniques, including waterboarding, as “torture at the hands of the CIA”).

knowledge of impending death.” Applicants’ Br. at 22. That conclusion is based on the district court’s recognition of “Dr. Schwartzstein’s testimony that the anxiety caused by the Protocol is evoked by the underlying problem—air hunger—and thus is unique and separate from the baseline anxiety associated with an imminent execution.” DE 176 at 50 (**Exhibit E**); *Boyd v. Hamm*, 146 S. Ct. 40, 43 (2025) (Sotomayor, J., dissenting) (“The claim here, however, is that, on top of that ordinary, anticipatory distress, nitrogen hypoxia will profoundly add to Boyd’s suffering *after* the execution begins and while it is being carried out to completion.”) (emphasis in original).

Third, nothing in *Baze*, *Glossip*, or *Bucklew* required the district court or the Eleventh Circuit to compare nitrogen asphyxiation with electrocution, lethal injection, or hanging, much less conclude that “[t]he risks of nitrogen hypoxia are less.” Applicants’ Br. at 20-21. There was no evidence in the record before the district court related to the pain associated with these other methods of execution or the likelihood that they would be correctly carried out. *Baze*, *Glossip*, and *Bucklew* only require a court to compare the challenged method (nitrogen asphyxiation) to the inmate’s proposed alternative (firing squad). That is exactly what the district court and Eleventh Circuit did.

To the extent the Eighth Amendment requires any such comparison, it certainly does not require—as Defendants suggest—a comparison of the harm from the challenged method when done right and the harm from the other methods when gone wrong. When carried out correctly, electrocution, lethal injection, and hanging involve little to no pain. *See, e.g., Provenzano v. Moore*, 744 So.2d 413, 415 (Fla. 1999) (“[E]xecution by electrocution renders an inmate instantaneously unconscious, thereby making it impossible to feel pain.”), *cert. denied*, 530 U.S. 1256 (2000); *Baze v. Rees*, 553 U.S. 35, 44 (2008) (“The proper administration of the first drug [in a lethal injection] ensures that the prisoner does not experience any pain associated with the

paralysis and cardiac arrest caused by the second and third drugs.”); *Bucklew*, 587 U.S. at 132 (even historically, “hanging wasn’t ‘*intended* to be painful” (emphasis in original)). It is only when these methods go wrong that they produce pain and suffering. See, e.g., *Heness v. DeWine*, 141 S. Ct. 7, 9 (2020) (Sotomayor, J., respecting denial of certiorari) (“[N]owhere did this Court suggest that the pain caused by a *faulty* hanging” in which the inmate dies of suffocation over minutes instead of instantly “creates a constitutional floor for cruel and unusual punishment under the Eighth Amendment.” (quotation marks and citations omitted; emphasis added)).¹⁸

Execution by nitrogen asphyxiation is different. Because the method accomplishes death by oxygen deprivation, it will predictably cause severe air hunger, emotional distress, anxiety, physiological stress, and physical discomfort. DE 176 at 55–56 (**Exhibit E**). In other words, the suffering is not the result of the execution having gone awry, but when the execution works exactly as designed. That distinction matters, because the proper Eighth Amendment inquiry asks whether a State’s chosen method presents “a substantial risk of serious harm.” *Baze*, 553 U.S. at 50; see also *Bucklew*, 587 U.S. at 134 (a method of execution is unconstitutional if it “cruelly superadds pain to the death sentence”). Execution by nitrogen asphyxiation does just that.

Defendants’ passing reference to execution by cyanide gas proves this point. Applicants’ Br. at 21. The method uses hydrogen cyanide to “block[] the transfer of oxygen to the cells.” *Fierro v. Gomez*, 865 F. Supp. 1387, 1396 (N.D. Cal. 1994) (describing the testimony of plaintiff’s experts), *aff’d* 77 F.3d 301 (9th Cir. 1996), *vacated & remanded sub nom.*, *Gomez v. Fierro*, 519 U.S. 918 (1996) (vacating in light of California’s adoption of lethal injection). As a result, an

¹⁸ In the modern era, it has been more than thirty years since execution by hanging has been upheld, and only after a finding that “unconsciousness was likely to be immediate or within a matter of *seconds*,” not minutes, “and that death would follow rapidly thereafter.” *Campbell v. Wood*, 18 F.3d 662, 687 (9th Cir. 1994), *cert. denied*, 511 U.S. 1119 (1994) (emphasis added).

inmate experiences cellular suffocation and the accompanying sensation of air hunger.¹⁹ The Ninth Circuit, in reviewing the evidentiary record developed during an eight-day bench trial, found that “execution by lethal gas . . . is unconstitutionally cruel and unusual.” *Fierro*, 77 F.3d at 309. Although the Fourth and Fifth Circuits concluded otherwise, those holdings were based on a limited evidentiary record in the context of a habeas petition. *See Hunt v. Nuth*, 57 F.3d 1327, 1337–38 (4th Cir. 1995); *Gray v. Lucas*, 710 F.2d 1048, 1060–61 (5th Cir. 1983), *cert. denied*, 463 U.S. 1237 (1983).²⁰

Fourth, the district court did not err when it “assume[d] without deciding that the level of air hunger is the same throughout” the execution. Applicants’ Br. at 23–26.²¹ To be clear, the district court expressly found that the Protocol causes “severe” air hunger—the most distressing form of dyspnea. DE 176 at 54, 56 (**Exhibit E**). The court, moreover, found that air hunger begins early in the execution. *Id.* at 33. Dr. Bastarache explained, and the district court found, that the drive to breathe starts when ambient oxygen falls below approximately 15%, *id.* at 53, 56 (**Exhibit E**), and Dr. Antognini’s testing of the nitrogen delivery system suggests that this occurs approximately 24 seconds after the nitrogen gas begins to flow. *Id.* at 13. The district court also

¹⁹ In *Fierro*, the district court found that inmates subject to the lethal gas protocol “are likely to be conscious from anywhere from fifteen seconds to one minute from the time that the gas strikes their face,” but possibly longer, “up to several minutes.” 865 F. Supp. at 1413. During this time, the inmate is likely to experience “an intense and visceral ‘air hunger’ analogous to strangulation or drowning.” *Id.*

²⁰ *Fierro*, *Hunt*, and *Gray* all pre-date *Baze* and this Court’s discussion of the Eighth Amendment requirements in methods of execution cases.

²¹ Nor can Defendants raise this claimed error for the first time in this Court. They did not raise it with the district court after the Eleventh Circuit’s remand or during the second appeal in this case in the Eleventh Circuit. Defendants, accordingly, have waived any challenge to the district court’s assumption that the level of air hunger is the same throughout the execution. *See Adickes*, 398 U.S. at 147 n.2.

credited the autopsy evidence, showing marked physiological stress responses that occurred early in the execution. DE 176 at 32–33 (**Exhibit E**).

To the extent the air hunger fluctuates during an execution by nitrogen asphyxiation, the evidence actually shows that it increases as oxygen levels continue to fall. As Dr. Schwartzstein explained, the ventilatory drive rises with worsening hypoxia. *See supra* p. 9; 4/27/2026 Tr. at 42:11-44:6 (**Exhibit F**). ADOC’s Protocol intentionally drives blood oxygen levels to zero, meaning that the physiological stimulus to breathe becomes progressively stronger, not weaker. DE 176 at 32 (**Exhibit E**). Thus, whether viewed as constant or increasing, the district court’s findings support the conclusion that Mr. Lee faces a substantial risk of serious harm.

2. Mr. Lee Has Satisfied the Second Prong of *Glossip*

The district court has also found that Mr. Lee has met his burden on the second prong of *Glossip*. That finding is unlikely to be disturbed on appeal.

a. The District Court Correctly Found that Execution By Firing Squad Would Significantly Reduce the Risk of Severe Pain

The district court concluded that execution by firing squad would significantly reduce the substantial risk of severe pain associated with ADOC’s Protocol. That holding is supported by substantial and largely un rebutted evidence, and the court’s findings are reviewed for clear error.

Mr. Lee established that execution by firing squad would result in rapid unconsciousness and death with little or no pain. Dr. James Williams—the only expert on gunshot wounds, ballistics, and firearms to testify at trial—explained that multiple gunshot wounds to the cardiac bundle from high-caliber rifles would render an inmate deeply unconscious in three to five seconds. *See* DE 187 at 4, 12–13 (**Exhibit C**). Dr. Williams based this opinion on the “scientific literature, his clinical experience treating gunshot victims in the emergency room, and his own experience being shot.” *Id.* at 4; *see also* Doc. 17-1 at 15 n.4 (**Exhibit A**) (discussing expert

testimony from Dr. Brian McAlary that “loss of consciousness is nearly instantaneous” with firing squad). Defendants did not provide any admissible expert opinion to counter this point.²²

Dr. Williams further explained that the inmate is not likely to experience pain during these three to five seconds. DE 187 at 13–14 (**Exhibit C**). Because of both a delay in neural processing and the phenomenon of neural stunning, the brain is not able to process pain associated with the gunshot wounds before consciousness is lost. *Id.*; *see also* Doc. 17-1 at 13 (**Exhibit A**) (“[W]e find plausible the factual findings underlying . . . the upper limit of five seconds for the inmate to be ‘rendered unconscious *before* his brain can process any pain’ due to the neural stunning and novel stimuli reaction.” (emphasis in original) (citation omitted)). In other words, the brain—deprived of oxygenated blood within seconds of the shots—simply cannot complete the neural processing required to register pain before consciousness is lost. Defendants made no effort to rebut this opinion.

Contrary to Defendants’ assertion, Applicants’ Br. at 28, the evidence also established that firing squad would significantly reduce—if not eliminate—the psychological suffering that accompanies nitrogen asphyxiation. Dr. Williams testified that while any execution method can cause anxiety in anticipation of the execution, an inmate executed by firing squad would not experience fear or anxiety once the bullets strike the heart. 4/28/2026 Tr. at 44:21–45:6 (**Exhibit G**); *compare* DE 175 at 13 n.7 (excluding Dr. Antognini’s opinion that the “emotions experienced by an inmate during the Protocol are the same emotions that the inmate would experience when

²² Dr. Antognini conceded that he could not provide support for this opinions on time to loss of unconsciousness with execution by firing squad, and the court accordingly “excluded Dr. Antognini’s opinions regarding pain caused by a firing squad execution.” DE 187 at 15 (**Exhibit C**). Reviewing this record, the Eleventh Circuit agreed: “Simply put, Dr. Antognini’s opinion—that ‘for the 8 [to] 10 seconds of consciousness after bullet entry, the injury would be severely painful’ . . . lacks supporting authority.” Doc. 17-1 at 14 (**Exhibit A**).

being executed by any method of execution” (quotation marks and citations omitted)). By contrast, the district court found that nitrogen asphyxiation subjects inmates to severe anxiety, panic, and emotional distress for one to three minutes after the gas flows. DE 176 at 54, 56 (**Exhibit E**).

Defendants do not dispute that—if the district court’s factual findings regarding firing squad are upheld—Mr. Lee has met his burden. Nor do they challenge the court’s finding that an inmate will lose consciousness within three to five seconds after being struck by a bullet, Doc. 17-1 at 15 (**Exhibit A**); DE 187 at 23 (**Exhibit C**), or any of the scientific underpinnings of Dr. Williams’ opinions that an inmate will feel no pain during that time. Instead, they assert that the district court “erred by disregarding [the] long-standing and common-sense understanding” that executions by firing squad may be painful, suggesting that the court *should have* concluded an inmate would feel pain for three to five seconds. Applicants’ Br. 27–28. Not so. The district court grappled with this very issue, recognizing that its finding may not be intuitive. DE 187 at 15 (**Exhibit C**). But the court concluded that Dr. Williams credibly explained—based on his experience and scientific literature, Doc. 17-1 at 14 (**Exhibit A**)—that “an inmate executed under Lee’s firing squad alternative is rendered unconscious before his brain can process any pain.” DE 187 at 23 (**Exhibit C**).

Defendants’ attempt to import the record from other proceedings—cases that were not decided on a full evidentiary record—fares no better. Applicants’ Br. at 27 (citing *Boyd v. Comm’r, Ala. Dep’t of Corr.*, 2025 WL 2970017, at *4 (11th Cir. Oct. 20, 2025) and *Hoffman v. Westcott*, 131 F.4th 332, 336 (5th Cir. 2025)). Whatever the record in those cases, it was not before the district court here.²³ Moreover, as Defendants aptly point out, the district court heard Dr.

²³ To be clear, Dr. Williams did not previously testify in either *Boyd* or *Hoffman* that execution by firing squad is painful. The district court in *Boyd* relied on an inference from Dr. Williams’ report, which in the court’s view supported the conclusion “that the inmate *would* experience physical
(Footnote Cont’d on Following Page)

Williams' prior testimony in the *Boyd* litigation and yet found no apparent tension, repeatedly describing him as credible. DE 187 at 5 n.8 (**Exhibit C**) ("Having personally observed Dr. Williams' testimony, the Court further finds that he was credible."); *id.* at 14 (describing his testimony as "consistent as it was credible"); *id.* at 15 ("Dr. Williams' testimony is credible.").

Even if Defendants were correct that an inmate executed by firing squad could experience some pain during the three-to-five-second period before unconsciousness, the district court still correctly found that firing squad would significantly reduce the risk of severe pain. *Glossip* requires a significant reduction in suffering, not the elimination of all pain. 576 U.S. at 877. Here, the district court found that ADOC's Protocol subjects inmates to one to three minutes of conscious severe air hunger—a sensation likened to drowning and suffocation and described by some patients as "worse than pain." DE 176 at 54, 56 (**Exhibit E**). By contrast, the court found that firing squad would render an inmate unconscious within three to five seconds. DE 187 at 23 (**Exhibit C**). Reducing conscious suffering from one to three minutes of severe air hunger to, at most, a few seconds of pain constitutes a dramatic and constitutionally significant reduction in the risk of severe pain.

The cases Defendants cite to suggest that firing squad "causes pain" establish, at most, that same few seconds of pain. The decision in *Owens v. Stirling*, 904 S.E.2d 580, 600 (S.C. 2024), collects opinions describing firing squad as "comparatively painless." And *Bucklew's* passing

pain during the three to five seconds before he became unconscious." *Boyd*, 2025 WL 2970017, at *4. At trial in this matter, Dr. Williams addressed this directly, testifying that he "failed" to get his "message across properly" because he intended to portray "the loss of consciousness and insensitivity to pain" when executed by firing squad. 4/28/2026 Tr. at 41:24–42:14 (**Exhibit G**). And while the Fifth Circuit in *Hoffman* said that "experts for both parties agreed that firing squad *can* cause pain," 131 F.4th at 336, it did not cite to specific testimony from Dr. Williams supporting that assertion. In fact, Dr. Williams testified in *Hoffman* only that gunshot wounds generally *may* be painful in "certain circumstances." Hr'g Tr. at 122:7–10, *Hoffman v. Westcott*, No. 3:25-cv-169 (M.D. La. Mar. 7, 2025) (ECF No. 86).

historical observation about why States adopted lethal injection, 587 U.S. at 134–35, is not record evidence of anything, much less a basis to find that the district court clearly erred. None of these authorities addresses the question this case presents: whether seconds of pain, at most, significantly reduces minutes of “the worst thing that could ever happen to you.” It plainly does.

Finally, Defendants urge this Court to weigh the *actual* trial-proven risk of severe air hunger from nitrogen asphyxiation with the *hypothetical* risk of pain that could occur if execution by firing squad is botched. Applicants’ Br. at 27–28.²⁴ That would turn the *Glossip* framework on its head. *Glossip* requires Mr. Lee to demonstrate that his proposed alternative “in fact significantly reduces a substantial risk of severe pain.” 576 U.S. at 877. If a State could defeat that showing by pointing to any example of how an execution could go wrong, that would render this requirement meaningless.

In any event, the district court considered the evidence on botched firing squad executions. *See, e.g.*, DE 187 at 5, 14, 19 (**Exhibit C**). The court simply did not find the evidence persuasive, crediting Dr. Williams’ testimony that firing squads “rarely result[] in botched executions” and that there are material differences between the Utah and South Carolina protocols. *Id.* at 19.²⁵

²⁴ Defendants overstate the risk in any case. Defendants assert that there have been four “botched” executions. The evidence presented at trial is that there were two executions that departed significantly and materially from the prescribed procedure, and one “botched” execution which was apparently performed in accordance with the protocol. 4/28/2026 Tr. at 71:7–18 (**Exhibit G**). As Dr. Williams explained, however, that single “botched” execution used the South Carolina protocol, which is not advanced here. *Id.*; *see also id.* at 53:15-23 (explaining that South Carolina’s use of frangible bullets, instead of standard jacketed soft-pointed bullets such as those used in Utah, means that the bullets disintegrate on impact and do not penetrate as deeply or as powerfully).

²⁵ Defendants’ expert Dr. Antognini expressed no opinion about the firing squad protocol of Utah, which Mr. Lee actually proposed as a model. *See* 4/29/2026 Tr. at 101:22–24 (**Exhibit H**). *See also Boyd*, 2025 WL 2884410, at *21 n.44 (finding that the Mahdi execution in South Carolina had “little probative value” when plaintiff advanced the Utah protocol), *aff’d sub nom.*, *Boyd v. Comm’r, Ala. Dep’t of Corr.*, 2025 WL 2970017 (11th Cir. Oct. 20, 2025), *cert. denied sub nom.*, (Footnote Cont’d on Following Page)

Defendants’ disagreement with the weight the district court assigned that evidence does not establish clear error.

b. The District Court Correctly Found that Execution By Firing Squad Is Feasible and Readily Implemented

The district court correctly concluded that execution by firing squad is a feasible and readily implemented alternative method of execution, another conclusion reviewed for clear error.

Mr. Lee proposed a specific, well-established protocol used in another State (Utah) and presented, through Dr. Williams, a blueprint of what would be required to carry that out. Defendants conceded that they could follow this blueprint. ADOC leadership—former Commissioner Hamm and Deputy Commissioner Williams—candidly said as much. The district court credited those witnesses. *Id.* at 10–11.

Defendants articulate only two reasons why firing squad is not feasible and readily implementable: (1) it would take time to implement such a protocol and (2) ADOC would need to find “sufficient volunteers . . . willing and capable of serving in a firing squad.” Applicants’ Br. at 29-30. Both fail. In *Nance v. Ward*, this Court held that an inmate is “not confined to proposing a method authorized by the executing State’s law; he may instead ask for a method used in other States.” 597 U.S. at 162. The Court went on to explain: “To be sure, amending a statute may require some more time and effort [But] Georgia has given us no reason to think that the amendment process would be a substantial impediment. The State has legislated changes to its execution method several times before. Other States have regularly done the same.” *Id.* at 170

Boyd v. Hamm, 146 S. Ct. 40 (2025); *cf. Glossip*, 576 U.S. at 892–93 (rejecting the petitioners’ argument that the alleged problems with an Arizona lethal injection execution demonstrated that Oklahoma’s lethal injection protocol was “sure or very likely to cause serious pain”).

(citations omitted). The same is true here. Alabama has modified its execution statute and trained personnel to accommodate new methods before. It can do so again.

That it may take time and resources to implement such a protocol does not make firing squad infeasible either. “[I]f that were the test, then, *Bucklew’s* statement that an inmate is not limited to choosing among those presently authorized by a particular State’s law . . . would be rendered meaningless.” Doc 17-1 at 16 (**Exhibit A**) (citing 587 U.S. at 140); *see also Boyd*, 2025 WL 2884410, at *22 (rejecting Defendants’ argument that firing squad is not readily implementable “merely because the State is not presently or immediately prepared to carry [it] out”). This is particularly true when, as here, the evidence shows that ADOC could modify existing facilities or construct appropriate space to accommodate firing-squad executions. DE 187 at 17-18 (**Exhibit C**). Former Commissioner Hamm testified:

Q: If firing squad executions became legal in the state of Alabama and a protocol was enacted, do you believe that you could modify space at Holman to carry out firing squad executions?

A: We would certainly have to do our research to see what type of space we would need, *and I’m sure we would be able to come up with an appropriate place.*

Q: So is the answer to my question yes, that if the Legislature approved execution by firing squad and appropriated the funds, ADOC would be able to modify space at Holman to carry out executions by firing squad?

A: *Yes.*

4/27/2026 Tr. at 230:2-13 (**Exhibit F**) (emphases added); *see also id.* at 229:12-22 (ADOC could procure the materials that Dr. Williams opined would be appropriate to retrofit the execution chamber). The district court credited that testimony. DE 187 at 17 (**Exhibit C**).²⁶

²⁶ Nor is Defendants’ conjecture that they may not be able to identify five volunteers supported by the record. There are currently approximately 14,000 sworn officers with firearms training in the state of Alabama. DE 173-40 at 13. A subset of those officers are *already* trained on .30 caliber
(Footnote Cont’d on Following Page)

The district court also addressed Defendants’ staffing concerns, but credited the testimony of Defendants’ *own* witnesses “that if firing squad were an approved method of execution, the ADOC would be able to train and staff an execution team capable of executing an inmate by firing squad.” *Id.* at 17 (citing testimony). Deputy Commissioner Williams testified:

Q: [Y]ou would agree with me that if the State Legislature were to approve execution by firing squad, ADOC would be able to staff an execution team?

A. Yes.

4/27/2026 Tr. at 257:23–258:1 (**Exhibit F**).

Similarly, former Commissioner Hamm testified:

Q. And if the Alabama Legislature approved firing squad as a method of execution, would you be able to ensure that officers are trained appropriately in how to use that weapon?

A. Whatever weapon was chosen, yes, we would make sure they were properly trained.

Id. at 229:7–11.

Because ample record evidence supports the district court's finding that firing squad is feasible and readily implemented, Defendants are unlikely to succeed on appeal.

c. The District Court Correctly Found that Defendants Have No Legitimate Penological Reason to Reject Firing Squad

The district court also correctly found that Defendants have no legitimate penological reason to reject Mr. Lee’s proposed alternative. After considering each of Defendants’ asserted justifications, the court concluded that none justified refusing to adopt execution by firing squad.

Firing squad is not a novel or untested method of execution. A state may have a legitimate reason to decline an inmate's proposed alternative where the alternative is “untried and untested.”

rifles, *see* DE 173-5 at 16, and Defendants have repeatedly admitted that ADOC is capable of training its officers on such rifles.

Bucklew, 587 U.S. at 142 (citations and quotations omitted). But that rationale has no application here. DE 187 at 16 (**Exhibit C**). Firing squad is a “traditionally accepted method[] of execution,” *Bucklew*, 587 U.S. at 134, that has been used for centuries and remains authorized in multiple States today. And as discussed, *supra* p. 36, the district court rejected Defendants’ contention that ADOC could not adequately staff or train an execution team based on, in part, Defendants’ own concessions.²⁷

At bottom, Defendants’ purported penological justifications amount to little more than assertions that implementing firing squad would require planning, training, and facility modifications. *Bucklew* and *Nance* do not permit a State to reject an otherwise feasible alternative merely because it would require administrative effort. The district court correctly found that Defendants have no legitimate penological reason to reject Mr. Lee’s proposed alternative, and Defendants are unlikely to succeed in overturning that determination on appeal.

II. DEFENDANTS DO NOT SATISFY THE OTHER EQUITABLE FACTORS WARRANTING A STAY

Defendants do not satisfy any of the equitable factors needed for a stay of the district court’s judgment.

First, Mr. Lee has not delayed in bringing this lawsuit. When he elected nitrogen hypoxia in 2018, ADOC had not developed the Protocol. Whatever Mr. Lee understood at that time, he could not have known the details of a non-existent Protocol. *See* Doc. 17-1 at 19 (**Exhibit A**). Defendants released the Protocol in August 2023 and executed the first inmate by nitrogen asphyxiation in January 2024, with another six executions following. These executions and attendant autopsies—relied upon by Mr. Lee’s experts in this case—gradually revealed a pattern

²⁷ Defendants’ suggestion that death penalty opponents could pressure ADOC personnel out of volunteering is unsupported speculation. There was no such evidence presented at trial.

of prolonged suffering. The medical literature, too, has developed. In the past two years, five peer-reviewed articles have been published describing the suffering that nitrogen asphyxiation executions cause. *See supra* p. 24. Simply put, “the State’s arguments concerning delay, on this record, are not well taken.” Doc. 17-1 at 17 (**Exhibit A**).

To the extent the Court finds delay, that should be attributed to Defendants, not Mr. Lee. DE 194 at 3 (**Exhibit D**) (“[I]t bears repeating that the State moved to set Lee’s execution during the pendency of this litigation, nearly six months after Lee first challenged the Protocol, thus requiring the Court to set Lee’s case on an ‘expedited schedule.’” (citations omitted)). Mr. Lee filed this Complaint in August 2025 well *before* Defendants announced their intent to seek an execution date for him. *See* DE 176 at 8–9 (**Exhibit E**). In the fall of 2025, Mr. Lee asked Defendants “to schedule a Rule 26(f) conference and submit a joint Rule 26(f) report to the Court.” DE 31 at 3. Defendants refused. *Id.* Once the district court expedited the case, Defendants stalled discovery by repeatedly refusing to produce discoverable information.²⁸ Most notably, Defendants’ belated production of the pulse oximeter data delayed the district court from closing the evidence. DE 176 at 9–10 (**Exhibit E**). As the Eleventh Circuit found, “[a]ny delay in obtaining relief after the State moved to set the execution date is not attributable to Mr. Lee.” Doc. 17-1 at 18 (**Exhibit A**).

Second, Defendants have not shown that they will suffer irreparable harm absent a stay. The Court’s injunction does not disturb Mr. Lee’s conviction, invalidate his death sentence, or affect ADOC’s ability to carry out his death sentence by other means. *See, e.g.*, DE 187 at 24–25

²⁸ *See, e.g.*, DE 57 (order granting, in part, motion to compel initial disclosures); DE 65 (order granting motion to compel production of deposition transcripts); DE 68 (allowing Mr. Lee to depose ADOC’s corporate designee on certain topics); DE 79 (order granting motion to compel inspection and granting, in part, motion to compel written discovery).

(**Exhibit C**); DE 194 at 3 (**Exhibit D**). The district court’s injunction, moreover, is narrow: because Mr. Lee established that “his proposed firing squad alternative significantly reduces a substantial risk of severe pain *as compared to* nitrogen hypoxia[,] [t]he result is that the State of Alabama cannot execute [him] by nitrogen hypoxia, no more, no less.” DE 187 at 25 (**Exhibit C**); Doc. 17-1 at 19 (**Exhibit A**). And Defendants can seek appellate review of that decision, as they have done.

The only injury Defendants identify is the delay in carrying out Mr. Lee’s execution on June 11–12 by nitrogen asphyxiation. *See* Applicants’ Br. at 41. But “June 11 is not a magical date.” Doc. 17-1 at 19 (**Exhibit A**). Although the State and victims have an interest in the timely execution of lawfully imposed death sentences, *see Hill v. McDonough*, 547 U.S. 573, 584 (2006), that interest is not irreparable harm. If Defendants ultimately prevail, the State can seek another execution date with the Alabama Supreme Court and carry out Mr. Lee’s sentence at that time.

Third, a stay will substantially injure Mr. Lee. Defendants failed to address this factor, as “[i]t goes without saying that Mr. Lee [will] suffer irreparable harm if he [is] executed pursuant to a method that the district court has found unconstitutional.” Doc. 17-1 at 17 (**Exhibit A**).

Finally, the public interest weighs against a stay. This case is the first trial—on a full evidentiary record—to address the constitutionality of nitrogen asphyxiation as a method of execution. This Court’s decision will affect not only Mr. Lee’s case, but also multiple pending challenges to Alabama’s use of nitrogen asphyxiation. The public has a strong interest in making sure that Alabama’s method of execution comports with the Constitution. *See G & V Lounge, Inc. v. Mich. Liquor Control Comm’n*, 23 F.3d 1071, 1079 (6th Cir. 1994) (“[I]t is always in the public interest to prevent the violation of a party’s constitutional rights.” (citing *Gannett Co. v. DePasquale*, 443 U.S. 368, 383 (1979))); Doc. 17-1 at 20 (**Exhibit A**) (“[T]he public, the State,

and Mr. Lee all have an interest in ensuring that executions are carried out consistently with the Constitution.”).

The public also has an interest in preserving federal judgments. Defendants had a full and fair opportunity to litigate this case. The district court, having heard the evidence, issued a final judgment for Mr. Lee. Defendants can and have appealed that judgment. But if a stay is granted and Mr. Lee is executed, this appeal will be moot and “prevent [the appellate courts] from reaching the constitutionality of execution by nitrogen hypoxia.” *Id.* at 20; *see, e.g., Nat’l Urb. League v. Ross*, 977 F.3d 698, 701 (9th Cir. 2020) (denying stay because doing so “risks rendering the plaintiff’s challenge . . . effectively moot”). The question here is whether appellate review should proceed in the ordinary course or under the compressed timetable of an emergency application for stay. Given the significance of the constitutional issues presented, the public interest favors ordinary appellate review.

CONCLUSION

For the reasons set forth above, the Court should deny Defendants’ motion for a stay or vacatur of the district court’s injunction.

Dated: June 11, 2026

Respectfully submitted,

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