EPA Response to Public Comments on the Louisiana Department of Natural Resources' Class VI Primacy Application

Docket ID: EPA-HQ-OW-2023-0073

Section 1422 of the Safe Drinking Water Act (SDWA) directs the U.S. Environmental Protection Agency to establish requirements that states, territories, and federally recognized Tribes must meet to be granted primary enforcement responsibility or "primacy" for implementing an Underground Injection Control (UIC) program, including a Class VI program. An applicant seeking primacy under SDWA Section 1422 for a Class VI program must demonstrate to the EPA that the applicant's Class VI program meets Federal requirements, including jurisdiction over underground injection and provisions for the necessary civil and criminal enforcement remedies, so that the proposed program is protective of underground sources of drinking water (USDWs).

On May 4, 2023, the EPA published a proposed rule in the Federal Register (88 FR 28450) to approve the state of Louisiana's application to implement a UIC program for Class VI injection wells within the state. The proposal established a 60-day public comment period that closed on July 3, 2023. The EPA held a three-day in-person public hearing on June 21-23, 2023, in Baton Rouge, Louisiana and one virtual public hearing on June 30, 2023. The EPA received 41,622 public comments from individual citizens, energy and industry groups, potential Class VI permittees, environmental and civil rights non-government organizations, local governments, members of the State Legislature, academia, and others. The majority of the written comments the EPA received on the proposal were in the form of several "mass mailing" letter campaigns, including comments from stakeholders supporting approval of Class VI primacy and those opposing Class VI primacy (their specific comments are summarized below).

The EPA subsequently published a Notice of Availability in the Federal Register (88 FR 55610; August 16, 2023) and requested comments on a supplement to Louisiana's Class VI primacy application to include Act No. 378 (HB 571), which revised portions of Louisiana's law relevant to Louisiana Department of Nature Resource's (LDNR) application during the comment period for the May 4, 2023, proposal. During a 30-day public comment period that ended on September 15, 2023, the EPA received 6,997 comments on the Notice of Availability, most of which were "mass mailing" letters supporting Class VI primacy approval.

The EPA read and considered each unique oral and written comment, including attached reports and papers before finalizing its decision to approve Louisiana's Class VI primacy application. Copies of unique comments are available as part of the public record and can be accessed through the EPA's docket (EPA-HQ-OW-2023-0073 at www.regulations.gov). In addition, the materials referenced in this responsiveness document are also available in the docket.

This responsiveness document summarizes the public comments received on the proposed rule and the Notice of Availability and provides the EPA's responses. It is organized into several topic-specific sections that reflect commenters' arguments supporting and opposing primacy approval as follows:

- *Comments about the Program Description* including comments about LDNR's past enforcement of UIC program requirements, its procedures for public reporting of violations, and timeliness of enforcement; LDNR's technical capabilities and capacity to oversee Class VI projects; LDNR's

financial resources to oversee a Class VI program; and recommended enhancements to Louisiana's Class VI program.

- *Comments about the Class VI Memorandum of Agreement (MOA) addendum* including requests for public engagement throughout the life of a Class VI project; the need for MOAs with other state agencies; and distribution of benefits and burdens of Class VI projects.
- *Comments about Louisiana's UIC Class VI Regulations* and whether the state's Class VI regulations are as stringent as the Federal Class VI requirements, including requirements for transitioning from Class II to Class VI injection wells.
- *Comments about Long-Term Liability* related to the provisions of Act No. 378 (HB 571) for transfer of long-term liability from the operator to the state.
- *Comments about the Primacy Approval Process* related to the effect of Act No. 378 (HB 571) on LDNR's primacy application; opportunities for public input on the EPA's proposed approval; and LDNR's application development process.
- *Comments about Environmental Justice, Community Engagement, and Risk Mitigation* including concerns about environmental burdens on underserved communities in Louisiana; Environmental Justice (EJ) reviews as part of Class VI permitting decisions; public engagement in the permitting process; and LDNR's commitment to EJ.
- *General comments* about the safety of geologic sequestration (GS), Class II injection and oil and gas regulations; Act No. 378 (HB 571); other Louisiana regulatory programs; and general concerns about delegating primacy to states.

Comments about the Program Description

Commenters supporting approval of Class VI primacy for Louisiana assert that the state's application meets all requirements at 40 Code of Federal Regulations (CFR) Parts 124, 144, 145 and 146, SDWA Section 1422, and that LDNR has demonstrated the ability and authority required for Class VI primacy approval. They assert that LDNR is experienced with UIC permitting in Louisiana's geology, has a robust Section 1422 UIC permitting program, has effectively regulated UIC deep injection wells since 1982, and is familiar with injection of carbon dioxide based on LDNR's current permitting of Class II enhanced oil recovery (EOR) wells. They assert that LDNR has the financial resources and capacity to ensure thorough Class VI permit application reviews. They assert LDNR staff have in-house staff trained in the technical disciplines needed to review Class VI permit applications and oversee operators, with support from hiring or use of contractual support.

EPA response: The EPA agrees with commenters that LDNR's proposed Class VI program has met the requirements at 40 CFR Parts 124, 144, 145, and 146, and that approving Louisiana's Class VI primacy application under SDWA section 1422 is appropriate. The EPA worked closely with LDNR as the agency developed its regulations and Class VI primacy application. The final primacy application reflects the EPA's recommendations during the pre-application process. The EPA conducted a comprehensive technical and legal evaluation of Louisiana's final Class VI primacy application to assess and confirm that the state's proposed UIC Class VI program meets Federal regulatory requirements. Additionally, the EPA evaluated the effectiveness of LDNR's proposed Class VI program. For instance, the EPA reviewed how LDNR intends to oversee Class VI permit applicants and well owners or operators, including by reviewing permit applications, monitoring compliance with permits, and taking enforcement actions when appropriate. As part of its evaluation of LDNR's primacy application, the EPA reviewed LDNR's

description of the state agency staff who will carry out the Class VI program, including number, occupations, and general duties, as well as LDNR's Program Description to ensure that Louisiana has demonstrated that the state's Class VI program will have adequate in-house staff or access to contractor support for technical areas including site characterization, modeling, well construction, testing and monitoring, financial responsibility, regulatory and risk analysis expertise. The EPA determined that LDNR has adequate staff capacity and financial resources to implement the Class VI program and enforce its Class VI UIC regulations (see Program Description, pg 2-4).

Commenters opposing Class VI primacy approval expressed concerns related to: LDNR's proposed approach to Class VI inspections, LDNR's proposed approach to ensuring timely enforcement of its Class VI program, whether LDNR's authorized fine amounts are sufficient to deter noncompliance, and LDNR's existing procedures for public violation reporting. They also assert that LDNR's UIC enforcement procedures prevent immediate and effective enforcement activity which, they assert, could impact public health and the environment. These commenters also allege that LDNR has a poor record of enforcing its Class I-V program requirements and provided examples of environmental incidents associated with projects under LDNR's existing UIC program. Commenters also requested that the EPA evaluate LDNR's performance in the first 5 years of primacy.

EPA response: The EPA agrees with commenters that inspections and enforcement actions are key components of a UIC program, and essential to ensuring compliance with UIC requirements. The EPA has determined that the proposed LDNR's Class VI program meets the EPA regulatory requirements for compliance evaluation (40 CFR 145.12) and enforcement (40 CFR 145.13). As LDNR describes in its Class VI MOA addendum with the EPA, LDNR will conduct periodic inspections of permittees to assess compliance with Class VI permits, to verify the accuracy of information submitted by operators in reporting forms and monitoring data, and to verify the adequacy of sampling, monitoring, and other methods to provide the information (MOA, Part III.D; see also 40 CFR 145.12(b)(2)). LDNR intends to devote 15 percent of its Class VI budget to inspections and enforcement activities (Program Description, pg. 4), with first- and second-year budget estimates of $345,000 and $1.135 million respectively (Program Description, pg. 3). The EPA considers this to be appropriate and adequate to ensure that Class VI well owners or operators in Louisiana comply with the UIC requirements and their permits.

The EPA agrees with commenters that timely enforcement is important in protecting USDWs. However, the EPA disagrees with commenters who assert that Louisiana's regulations and permit requirements allow operators to remain out of compliance for extended periods of time. Louisiana's regulations meet the Federal UIC requirements for enforcement authority, which include the ability to immediately and effectively restrain any person from engaging in any authorized activity which is endangering or causing damage to public health or the environment. (40 CFR 145.13). Additionally, LDNR has committed to operating a timely and effective compliance monitoring system, to timely and substantive review of compliance reports, and to taking timely and appropriate enforcement action against any owner or operator who violates permit conditions, compliance schedules, or other Class VI program requirements (MOA addendum, Part IV.A). In the event of discovery of a violation, LDNR may work with the operator to bring them into compliance. However, LDNR may also elect to take an enforcement action, or terminate the Class VI permit for noncompliance with any condition of the permit among other reasons(LAC 43:XVII.3613.E.1.a). Failure by LDNR to inspect and monitor permittee activities or failure to act on violations of permits or other program requirements are grounds for program withdrawal (40 CFR 145.33(a)(3)).

One commenter expressed concern that the due process in LDNR's enforcement steps that the commenter describes (i.e., issuing a compliance order followed by a compliance order with a civil penalty if a violator does not comply with the initial order) take time. However, LDNR has authority to issue a compliance order for immediate relief, or commence a civil action for appropriate relief, including a temporary or permanent injunction (La. Stat. Ann. § 30:1106B). Further, the EPA clarifies that USDW protection is afforded by immediate requirements if there is evidence of endangerment. For example, in the event of a mechanical integrity failure or evidence that the plume and pressure front is endangering a USDW the operator is required to immediately cease injection, notify LDNR within 24 hours, and take appropriate steps to address the issue (LAC 43:XVII.3621.A.7.b; LAC 43:XVII.3623.A.2).

The EPA also disagrees that LDNR's fine amounts would encourage operators to violate their Class VI permits. The EPA first notes that the fine amounts that LDNR must have the authority to assess in order to receive Class VI primacy are set out by the EPA regulation (40 CFR 145.13), and the EPA has determined that LDNR has the requisite authority. Additionally, the Class VI MOA addendum (Part IV.D) requires LDNR to assess civil penalties in amounts appropriate to the violation. Furthermore, failure by LDNR to seek adequate enforcement penalties is grounds for program withdrawal (40 CFR 145.33(a)(3)).

The EPA clarifies that it will oversee LDNR's administration of the UIC Class VI program. The EPA conducts UIC program oversight to help ensure that states which have been granted primacy continue to implement their programs in a manner consistent with the SDWA, the EPA regulations, state regulations, and their MOAs with the EPA. See Class VI MOA addendum, section V, *EPA Oversight*. As part of the EPA's oversight responsibility, the EPA will conduct, at least annually, performance evaluations of Louisiana's Class VI program using program reports and other requested information to determine state Class VI program consistency with the LDNR's approved program, SDWA, and applicable regulations. Class VI MOA addendum, section V.J. This includes a review of financial expenditures, progress on program implementation, and any departures from the Program Description and Class VI MOA addendum. *Id.* Any deficiencies the EPA finds in Louisiana's Class VI program performance will be shared with the state along with recommendations for improving state operations. *Id.* In addition, the EPA's Region 6 Regional Administrator may select Class VI activities and facilities within the state for the EPA to inspect jointly with the state. Class VI MOA addendum, section V.I. Further, in states with UIC primacy, the EPA maintains its independent authority to enforce violations of applicable UIC program requirements under SDWA 1423(a)(1), and its authority to act to address imminent and substantial endangerment under SDWA 1431.

Furthermore, LDNR will notify the EPA of Class VI enforcement actions taken by LDNR, and if LDNR were to fail to initiate appropriate enforcement action, the EPA has the authority under Section 1423 of the SDWA to intercede and take appropriate enforcement actions to ensure that USDWs and human health are protected (MOA addendum, Part IV.C).

The EPA disagrees with commenters who assert that LDNR does not provide adequate procedures to report violations. Consideration of information submitted by the public about violations is a required element of 40 CFR 145.12(b)(3) and (b)(4). LDNR's Class VI primacy application indicates that LDNR has these programs in place at MOA Addendum 1, Sec. III.E. (p. 5) and Program Description, Sec. 5 (pp. 8-9). The EPA has determined that, per 40 CFR 145.12 (b)(3) and (b)(4), Louisiana has a program in place for investigating violation information, that it encourages public efforts to report violations, and that it has made information on reporting procedures available to the public. While some commenters assert that

the reporting form on LDNR's web site is difficult to use, the EPA clarifies that other options are available for public reporting of violations to LDNR. The public can report environmental emergencies associated with Class VI injection wells to LDNR's Office of Conservation via a 24-hour hotline at (225) 342-5515. The public may also report violations by mail or fax and citizens can anonymously report violations. In response to these commenters' concerns, the EPA tested the online violation reporting form to confirm that it operates accurately.

The EPA also disagrees with commenters who assert that LDNR's recommendation for the public to call the state police to report suspected violations or events that may lead to immediate threat to human health or the environment discourages the public from reporting such violations. The EPA clarifies that this is reporting is in addition to, not a replacement for, the other elements of LDNR's program for public reporting of violations (e.g., website, hotline, etc.). Further, the EPA clarifies that LDNR's procedure to call the state police refers to emergency situations so that the appropriate response personnel will be deployed. The state police will notify LDNR to coordinate response efforts, but LDNR also encourages the public to utilize the 24-hotline to contact LDNR after contacting the state police.

The EPA encourages residents to report Class VI violations to the state. LDNR has committed to ensuring proper consideration of public reporting of violations (MOA addendum, Sec. III.E) and the EPA expects LDNR to take appropriate actions to assure compliance in response to such reports. However, residents who are concerned that LDNR is not taking enforcement action against a violation of the UIC requirements may report a violation on the EPA's web site at www.epa.gov (click on "Report a Violation"), contact the EPA via the Safe Drinking Water Act Hotline at (800) 426-4791, or email EPA at safewater@epa.gov.

The EPA disagrees with commenters who assert that LDNR has a poor record of enforcing its Class I-V program requirements. All Louisiana UIC enforcement and compliance records are publicly accessible on Louisiana's SONRIS Data Portal link at the top of the page at https://www.sonris.com/ or onsite at the Injection and Mining Division of LDNR. Based on data it reports annually to the EPA, LDNR has, over the past several years, taken an average of over 500 UIC enforcement actions annually. The EPA finds that LDNR's record of enforcement for its existing UIC program supports EPA's determination that LDNR's Class VI program meets the EPA requirements for UIC enforcement authority (40 CFR 145.13).

Some commenters referenced environmental incidents (including at Willow Springs, United Petroleum Company, and Bayou Corne) to argue that LDNR will not protect USDWs and human health if the agency has oversight of the Class VI program. The EPA first notes that the incident at Willow Springs occurred before the enactment of the SDWA and the establishment of the UIC program. The EPA adds that the United Petroleum Company and Bayou Corne incidents permitted under LDNR involved Class II wells and LDNR fined both permittees and ensured they both returned to compliance. These incidents do not change the EPA's determination that LDNR's proposed Class VI program meets federal regulatory requirements for approval. The EPA has determined that Louisiana's stringent technical criteria and standards for Class VI wells meet federal requirements (e.g., 40 CFR 146.81-95) and are designed to prevent environmental incidents similar to those referenced by some commenters. The Class VI requirements include multiple safeguards that work together to address the unique nature of injecting large volumes of carbon dioxide for GS into a variety of geological formations to ensure that USDWs are not endangered. The protective elements in these requirements include authorizing injection only into a geologic system that is suitable to receive and confine the injected carbon dioxide, well

casing/construction requirements that are tailored to the potentially corrosive nature of carbon dioxide-water mixtures, and extensive monitoring requirements to provide early warning of USDW endangerment.

Other commenters expressed concern that LDNR lacks expertise in modeling, risk analysis, financial security, and monitoring, and that it has insufficient staff capacity to oversee and issue permits for Class VI projects in Louisiana. These commenters believe that LDNR's stated plan to hire seven additional staff to help implement its Class VI program will be insufficient to meet the demands of the anticipated number of new Class VI projects. Commenters also raised concerns about LDNR's plan to contract out certain work, citing the potential for operator-contractor-agency conflicts of interest.

EPA response: The EPA disagrees that LDNR staff lack the necessary expertise to oversee a Class VI program. The UIC team at LDNR is comprised of staff with significant institutional knowledge and expertise in the variety of technical specialties needed to issue and oversee Class VI permits, including site characterization, modeling, well construction and testing, and finance. LDNR's staff competency is demonstrated via annual reviews with the EPA, minimum qualifications for education and professional experience, and requirements to be a licensed professional engineer (P.E.) or geoscientist (or work under one) in good standing with either the Louisiana Professional Engineering and Land Surveying Board or Louisiana Board of Professional Geoscientists. The EPA regularly evaluates LDNR on a number of performance factors, including the levels of technical knowledge and staffing required to oversee the highly technical UIC program.

The EPA has determined that LDNR's proposed Class VI program will have the capacity to perform inspections as appropriate of all Class VI facilities and activities subject to LDNR's oversight to identify persons who have failed to comply with program requirements (40 CFR 145.12(b)). LDNR staff have the skills and in-house experience for onsite inspections, compliance monitoring, and overseeing Class VI UIC projects throughout their life span. For example, the EPA reviewed inspection data reported by Louisiana between 2007 and 2022 on the 7520-3 reporting form and found that LDNR staff have performed an annual average of nearly 3,000 UIC-related inspections and witnessed an average of over 1,300 mechanical integrity tests. Through past oversight of other injection well classes, LDNR staff have developed the necessary expertise for evaluating Class VI UIC permit applications, permitting procedures, compliance monitoring, and enforcement.

The EPA also disagrees that LDNR lacks the capacity to issue Class VI permits. In addition to the Class VI staff LDNR plans to hire, LDNR's existing UIC Class I-V program is fully staffed and prepared to shift staff workload to accommodate review of Class VI permit applications. LDNR expects to do most Class VI permit application reviews in-house and, when needed, plans to utilize contractual support to supplement gaps in expertise. LDNR can access contract expertise in all the technical areas necessary to determine site suitability and evaluate the protectiveness of a potential project to USDWs. Where contractor support is anticipated, LDNR has in-house staff with the expertise needed to oversee these activities (Program Description, pg. 2-3).

In addition, as with all approved UIC primacy programs, the EPA has provided and will continue to provide support to Louisiana as requested. For example, prior to approval of primacy, the EPA's Region 6 and LDNR have worked cooperatively on the EPA's review of Class VI permit applications for proposed projects in Louisiana over the months leading to this Class VI primacy approval decision, to help prepare LDNR in the event that the EPA ultimately decided to approve LDNR for Class VI primacy. The EPA stands

ready to provide additional support as needed, including technical support, site specific analysis, and access to the experience and knowledge of the many the EPA staff in the regions, headquarters, and the Office of Research and Development.

The EPA disagrees with commenters who assert that LDNR's plan to rely, in part and as needed, on contract support presents a conflict of interest (COI) in the review of Class VI permit applications. The EPA clarifies that states and the EPA routinely utilize contract support in permit application reviews. These contractors are often experts in the field with relevant knowledge in geology, well engineering, modeling, and other disciplines via industry experience. With proper protocols in place by LDNR, a contractor's past work for a regulated industry does not rule out the contractors' ability to apply this expertise for LDNR without a COI, and states and the EPA routinely have protocols in place requiring contractors to disclose COI and recuse themselves from any matter with a real or apparent COI. All final permitting decisions will be made by LDNR, not contractors. All contracts entered into by LDNR are covered under the Louisiana Code of Governmental Ethics (La. R.S. 42:1101, et seq.), which generally prohibits contractors from participating in any matter before LDNR in which they have a financial or familial conflict of interest. In addition to including a provision noting the applicability of the Code of Governmental Ethics to such contracts, all LDNR contracts for the Class VI program include a conflicts of interest provision that requires disclosure of any conflicts of interest to LDNR.

Commenters expressed concern that LDNR has insufficient financial resources to oversee Class VI wells in the state and claim that the state is unwilling to invest the necessary resources, asserting that the state's UIC program has historically been underfunded. These commenters assert that funds will not be available in the state's Carbon Dioxide Geologic Sequestration Trust Fund (GSF) in time to fund early oversight activities. Commenters also expressed concern that the Legislature has not provided LDNR the funds it needs to implement Act No. 378 (HB 571), and they assert this will affect LDNR's capacity to implement its Class VI program.

EPA response: The EPA reviewed LDNR's proposed budget and disagrees that LDNR has insufficient financial resources to run an effective and protective Class VI program. In their Program Description (pg. 4), LDNR describes multiple funding sources to ensure that resources are available to fund an effective Class VI program, including permit application fees and the Louisiana GSF. Early activities after LDNR Class VI UIC primacy program approval will primarily involve permit application reviews, which will be funded by application fees, per HB 572, which passed in 2021 and enables LDNR to charge the applicant a permit fee for the cost of the permit review.

The EPA disagrees with commenters that Louisiana appears unwilling to invest the resources necessary to implement its Class VI program. Members of both chambers of Louisiana's legislature submitted comments supporting primacy approval, and both chambers passed resolutions encouraging the EPA to approve LDNR's Class VI primacy application. As noted above, the state's commitment is reflected in Louisiana's GSF. As the Class VI program begins to move towards overseeing Class VI projects, LDNR expects the Class VI program to be self-sufficient and for its activities to be funded through a variety of sources, including annual regulatory fees, application fees, grants, and compliance fines (Program Description, pg. 4).

The EPA adds that Louisiana has submitted a letter of intent to apply for additional funding through the EPA's new UIC Class VI Grant Program (authorized by the Bipartisan Infrastructure Law) for states and

tribes seeking to establish or implement UIC Class VI primacy programs. On November 2, 2023, the EPA announced over $48 million in UIC grant funding allocating $1,930,000 to the state of Louisiana.

Commenters recommended enhancements to Louisiana's Class VI program, including: more community engagement and public education, providing longer comment periods for permitting decisions, and making permit applications available online. Commenters also assert that the Program Description (and Class VI MOA addendum) are deficient because they do not include effective EJ components inclusive public participation, or mitigation measures for EJ harms.

EPA response: The EPA agrees with commenters that community engagement and public education are important parts of an effective Class VI program. Community engagement and public education can help stakeholders understand the potential risks and benefits of a proposed Class VI injection project. These important activities also contribute to EJ and equity goals by giving people a voice in the decision-making process. For this reason, the EPA encourages enhanced community engagement in the Class VI permitting process in its "Environmental Justice Guidance for Class VI Permitting and Primacy." See below for the EPA's additional responses to comments on Environmental Justice (EJ), Community Engagement, and Risk Mitigation.

The EPA acknowledges the desire of some commenters for longer public comment periods for draft Class VI permits but notes that the public participation and public comment period requirements in the Louisiana's regulations at LAC 43:XVII.3611.E.2.a meet the Federal regulatory requirements at 40 CFR 145.11(a)(26)-(31) and 40 CFR 124.10(b). LDNR and other states with, or seeking, Class VI primacy are encouraged to lengthen comment periods for draft permits, when appropriate, as part of enhanced community engagement and public education efforts in the EPA's "Environmental Justice Guidance for Class VI Permitting and Primacy."

LDNR's Class VI MOA addendum and Program Description both echo the EPA's commitment to attaining EJ goals and describing a robust and inclusive public participation process. The EPA finds that LDNR's Class VI Program Description meets all the required elements at 40 CFR 145.23. While discussions of EJ and community engagement are not specific requirements, a Program Description is required to describe applicable state procedures, including permitting procedures (40 CFR 145.23(a)&(c)). The EPA finds LDNR's description of its proposed approach to EJ as part of its permitting procedures to be sufficient.

The EPA agrees with commenters that having permit applications available online informs and facilitates public review and clarifies that LDNR is required under its UIC regulations to post online a notice of permit applications. As LDNR's regulations state, "all persons identified [for notification] shall be mailed or emailed a copy of the fact sheet, the draft permit, and a notice that the permit application will be available online" (LAC 43:XVII.3611.D.3). The EPA recommends that states post Class VI applications online in its "Environmental Justice Guidance for Class VI Permitting and Primacy."

Some commenters recommended that LDNR's Class VI program be improved by funding additional monitoring of public water systems.

EPA response: The EPA clarifies that funding additional monitoring of public water systems is beyond the monitoring requirements for Class VI primacy (see 40 CFR 146.90). However, all Class VI well owners or operators must develop and implement a Testing and Monitoring Plan that must be approved the

permitting authority and that is directly enforceable; this plan must include monitoring of water quality above the confining zone (LAC 43:XVII.3625.A.4, see also 40 CFR 146.90(d)). This monitoring will provide early warning of potential migration of carbon dioxide and/or native fluids from the injection zone or other water quality changes that may lead to endangerment of USDWs, including aquifers that supply water systems. The EPA adds that the goal of the Federal Class VI regulations and Louisiana's Class VI regulations is to protect all USDWs, including those that serve public water systems and private wells, through targeted requirements for siting, well construction, project operation, and monitoring that address the unique nature of carbon dioxide injection for GS.

Commenters expressed concern that Louisiana's planned 4-year timeline for identifying Class II wells that need to be transitioned to Class VI wells, as described in its Program Description, does not meet the minimum requirements at 40 CFR 145.23(f)(1).

EPA response: The EPA regulations at 40 CFR 145.23(f)(1) require that a UIC program description include a "schedule for issuing permits within five years after program approval to all injection wells within the state which are required to have permits," and, for Class VI programs, "a schedule for issuing permits within two years after program approval." They also require (40 CFR 145.23(f)(4)) Class VI programs to notify certain Class I and Class V permittees within one year of Class VI program approval of the need to apply for a Class VI permit. The EPA first notes that 40 CFR 145.23(f)(1) does not impose a requirement to issue Class VI permits within two years, but to describe a schedule for issuing Class VI permits. LDNR's Program Description includes this schedule. There is no similar regulatory requirement to identify a schedule for transitioning Class II wells to Class VI wells upon receiving primacy, and the decision to require transition is made on a case-by-case basis when the Director has determined there to be an increased risk to USDWs (40 CFR 144.19). LDNR's Program Description provides that LDNR "will evaluate information about Class II enhanced oil recovery wells … and identify whether any projects are approaching risk thresholds within four years of receiving Class VI primacy in accordance with 40 CFR 145.23(f)." The EPA regulations at 40 CFR 145.23(f) do not require LDNR, as a condition of Class VI primacy, to review all of its Class II permitted wells within four years to determine if they are approaching the thresholds for transitioning to a Class VI permit. However, the EPA supports this effort by LDNR to do so.

Comments about the Memorandum of Agreement (MOA)

Commenters supporting approval of Class VI primacy assert that the Class VI MOA addendum complies with the requirements of 40 CFR 145.25 and addresses all applicable statutes and executive orders. They assert that the Class VI MOA addendum will ensure that EJ will be considered in permitting and enforcement and cite positive EJ effects of a high prevailing wage for construction jobs associated with Class VI projects.

EPA response: The EPA conducted a thorough review of Louisiana's Class VI MOA addendum and agrees with commenters that it meets the requirements of 40 CFR Part 145. Furthermore, the Class VI MOA addendum addresses incorporating EJ and civil rights considerations in permit review processes, inclusive public participation, enforcing regulatory protections, and incorporating other mitigation measures to protect overburdened communities (MOA, Part II.H). The EPA agrees with commenters that LDNR committed to considering, within its legal authority, EJ in its Class VI permitting and enforcement. See below for the EPA's additional responses to public comments on EJ, Community Engagement, and Risk Mitigation.

Commenters opposing primacy request that the Class VI MOA addendum address engagement with public water utilities, private well owners, and the public throughout the life of a Class VI project. A commenter expressed concern that LDNR does not have a MOA with the Louisiana Department of Health, which regulates the Drinking Water Act in Louisiana or the Louisiana Department of Environmental Quality. Commenters also request that the Class VI MOA addendum address equitable distribution of benefits and burdens associated with a Class VI project. These commenters also addressed the Class VI MOA addendum provisions related to EJ, public participation, and risk mitigation.

EPA response: The EPA agrees with commenters about the importance of inclusive public participation. LDNR committed in its Class VI MOA addendum to robust and ongoing public participation that is tailored to specific community needs and interests, especially for lower-income people, communities of color, and those experiencing a disproportionate burden of pollution and environmental hazards (MOA, Part II.H).

The EPA clarifies that a MOA with the Louisiana Department of Health or Louisiana Department of Environmental Quality is not required for Class VI primacy. However, to ensure adequate consideration by relevant agencies that oversee the protection of drinking water, LAC 43:XVII.3611.E.3.a.iii requires public notice of Class VI permits to federal and state agencies including the Director of the Public Water Supply Supervision program in the state, the Department of Natural Resources, and other appropriate government authorities, including any unit of local government having jurisdiction over the area where the facility is proposed to be located, and any affected states or Indian Tribes.

The EPA clarifies that an analysis of the distribution of the overall benefits and burdens of a proposed Class VI well is not a requirement for a Class VI UIC program. However, in Part II.H of the Class VI MOA addendum, LDNR commits to implementing an inclusive public participation process. This could include encouraging enhanced outreach to utilities, private well owners, and the public and community benefits agreements. Per with the MOA, LDNR will evaluate whether the siting of a Class VI project will create any new risks or exacerbate any existing impacts on overburdened communities.

Comments about Louisiana's UIC Class VI regulations

Commenters who supported approval of Class VI primacy said that the state's Class VI regulations are more stringent than the Federal Class VI requirements, providing examples of surface casing requirements, additional logging and testing, additional public participation requirements, and requirements that applications must be signed by licensed professional geoscientists and engineers.

EPA response: The EPA agrees with commenters that Louisiana's proposed Class VI program meets the EPA regulatory requirements, that approving Class VI primacy for LDNR is appropriate, and that the state will develop and implement a Class VI program protective of USDWs. The EPA conducted a thorough line-by-line review of Louisiana's Class VI regulations and has determined that they meet the requirements of the federal Class VI regulations.

Commenters opposing Class VI primacy approval assert that the state's UIC regulations are less stringent than the Federal Class VI Rule in several regards. They assert that the state's regulations do not adequately consider the potential effects of pressure increases on faults and fracture networks. Commenters also expressed concern that limiting the tabulation of wells in the AoR to publicly available information may result in insufficient corrective action.

EPA response: The EPA disagrees that LDNR's Class VI regulations fail to meet the federal Class VI regulations. The EPA conducted a thorough, line-by-line, review of Louisiana's regulations and has determined that they are as stringent as the federal Class VI regulations and, in some places, are more stringent. LDNR's Class VI regulations, like the Federal Class VI regulations, are tailored to the unique nature of injecting large volumes of carbon dioxide into geologic formations for long-term storage to ensure protection of USDWs.

The EPA disagrees that Louisiana's Class VI regulations do not adequately address the potential effects of pressure increases on faults and fractures in the AoR. The site characterization requirements at LAC 43:XVII.3619.A.1. and AoR delineation requirements at LAC 43:XVII.3615.B are equivalent to the federal requirements at 40 CFR 146.82 and 146.84, respectively. The EPA acknowledges that Louisiana, like every state, has unique geology and there are areas of the state where Class VI injection would not be appropriate, as discussed in a report by Alexander S. Kolker and attached to several comments. However, the EPA disagrees with the report and commenters asserting that Louisiana's regulations will not prevent injection into areas of the state with unsuitable geology. The EPA's Class VI regulations, which LDNR's regulations mirror, were crafted to ensure protection of USDWs from endangerment through proper siting, well construction, operation, monitoring, and PISC at all sites selected for GS (75 FR 77256). Permit applicants must submit information to demonstrate that a proposed site is suitable to receive and confine the volume of carbon dioxide to be injected. The EPA acknowledges commenters' concerns about the potential effect of faulting on carbon dioxide confinement. For this reason, LDNR requires applicants to provide information on the location, orientation, and properties of known or suspected faults and fractures that may transect the confining zone in the AoR and demonstrate that they would not interfere with containment (LAC 43:XVII.3607.C.1.b.iii). Applicants must also demonstrate the presence of a confining zone that is free of transmissive faults or fractures (i.e., free of faults or fractures that would allow fluids to move through the formation) and of sufficient areal extent and integrity to contain the injected carbon dioxide without initiating or propagating fractures in the confining zone (LAC 43:XVII.3615.A.2). LDNR will evaluate information about faults and fractures in the context of the AoR delineation modeling required at LAC 43:XVII.3615.B.3.a, and proposed operating procedures (for example, per LAC 43:XVII.3621.A.1, injection pressure may not exceed 90 percent of the fracture pressure of the injection zone). LDNR staff, who are familiar with state geology, will conduct a thorough evaluation of each application to ensure site-suitability. Per LAC 43:XVII.3603.H.4, the Commissioner of Conservation has the ability to impose additional application requirements to demonstrate that the project will be protective of USDWs.

The EPA also clarifies that the Louisiana requirement to tabulate wells of public record refers to the map showing the area of the injection wells at LAC 43:XVII.3607.C.1.a.i-v, which is similar to and as stringent as the federal requirement at 40 CFR 146.82(a)(2), which also requires only information of public record to be included on the map. To ensure that adequate corrective action is performed on all wells within the AoR of a Class VI project, LAC 43:XVII.3615.B.3.b requires an applicant to identify all penetrations, including active and abandoned wells and underground mines, in the AoR that penetrate the confining and injection zone(s). Each of these wells must be evaluated, and corrective action performed if necessary (LAC 43:XVII.3615.C.1).

Many commenters asserted that the LDNR's requirements for transitioning Class II wells that inject carbon dioxide from Class II to Class VI permits are inadequate and could endanger USDWs by allowing operators to operate long-term carbon dioxide storage wells as Class II wells. Commenters requested

that the EPA finalize its draft "UIC Program Guidance on Transitioning Class II Wells to Class VI Wells" before approving Louisiana for Class VI primacy and require states with Class VI primacy to have effective requirements for transition.

EPA response: The EPA disagrees that Louisiana's Class VI regulations allow improper use of Class II wells for injection of carbon dioxide for long-term storage. Louisiana's requirements for transitioning from a Class II to a Class VI well at LAC 43:XVII.3603.G are as stringent as those in the federal Class VI regulations at 40 CFR 144.19. Louisiana requires that operators of wells used to inject carbon dioxide into an oil or gas reservoir for the primary purpose of long-term storage apply for and obtain a Class VI permit when there is an increased risk to USDWs compared to Class II operations. LDNR's regulations identify a set of technical factors for the Director to evaluate in making this determination that are identical to those in the federal Class VI regulations. The EPA finds that this approach provides sufficient USDW protection by requiring a transition in any situation where there is an increased risk to USDWs as compared to traditional Class II operations. The EPA also notes that Class II wells injecting carbon dioxide as part of traditional Class II operations are designed and constructed to withstand exposure to carbon dioxide.

The EPA reviewed the paper by Keri N. Powell and disagrees that a potential "loophole" exists in either the federal Class VI regulations or Louisiana's regulations that would allow improper or endangering carbon dioxide injection for long-term storage into Class II wells. The EPA acknowledges that determining the transitioning point between Class II injection for oil and gas production and Class VI injection for long-term storage is complex and site-specific, and for this reason the EPA developed the criteria at 40 CFR 40 CFR 144.19; Louisiana's regulations contain the same considerations at 43:XVII.3603.G.1. In its Program Description, LDNR agreed to evaluate information about Class II enhanced oil recovery wells to identify whether any projects are approaching the risk thresholds that may warrant re-permitting as Class VI wells (Program Description, pg. 11). Because it oversees both classes of injection wells, LDNR has the information needed to make the determination. LDNR has also committed to making information related to Class VI permitting available to the public. The EPA clarifies that specific comments on the federal Class VI regulations are out of scope of this primacy decision. The EPA clarifies that its Draft UIC Program Guidance on Transitioning Class II Wells to Class VI Wells is outside the scope of this action.

Other commenters expressed concern that the state's UIC regulations do not have adequately robust monitoring mechanisms to identify risk to USDWs if Class VI wells are not sited, permitted, and maintained properly*. One commenter expressed concerns about the effects of seismic testing on local facilities. Commenters also asserted that the state's Class VI regulations do not address emergency scenarios (i.e., evacuations and notification). Commenters also requested that the state's UIC regulations clarify what would happen if an operator's financial means for remediation change.*

EPA response: The EPA disagrees that the monitoring requirements in LDNR's Class VI regulations fail to adequately address the risks associated with carbon dioxide injection for GS. The EPA finds that the monitoring requirements in LDNR's Class VI regulations are as stringent as the EPA's Class VI regulatory requirements. For example, LAC 43: XVII.3625.A requires Class VI well owners or operators to develop, submit for LDNR approval, and then comply with an enforceable Testing and Monitoring Plan to verify that the Class VI project is operating as permitted and is not endangering USDWs. The state's regulations, like the EPA's, require that these testing and monitoring plans be appropriately tailored to

site-specific operational conditions and the geologic setting. The monitoring requirements of LDNR's Class VI regulations are equivalent to those at 40 CFR 146.90 and ensure early warning of exceedances of operating conditions, damage to the injection well, changes in water quality, or unanticipated behavior of the carbon dioxide plume and pressure front that could endanger USDWs. Further, Louisiana regulations at LAC 43: XVII.3627 regarding monitoring for mechanical integrity are equivalent to the EPA regulations on the same subject at 40 CFR § 146.89; and LAC 43: XVII.3633 regarding post injection monitoring is equivalent to 40 CFR § 146.93. The EPA concludes that this is a protective approach for addressing the unique potential risks at each Class VI project.

The EPA acknowledges the concerns of a commenter about the impact of seismic testing on the commenter's scientific facility, which may be uniquely impacted by ground vibration. However, the potential effects of specific testing methods at individual projects (e.g., creation of seismic waves for seismic surveys) is out of the scope of this primacy application decision. Both the EPA Class VI regulations and LDNR Class VI regulations allow seismic surveys as one potential indirect method of tracking the carbon dioxide plume and related pressure front, but neither set of regulations require it. LAC 43: XVII.3625.A.7.b; 40 CFR § 146.90(g)(2). The MOA encourages community engagement as part of the Class VI permitting process (MOA, Part II.H); this would provide this commenter an opportunity to coordinate with LDNR and the permit applicant to avoid interference with the commenter's facility operations.

The EPA clarifies that procedures for community notification and evacuations in emergency situations beyond endangerment to USDWs are outside of the scope of the UIC Class VI requirements for primacy. The EPA's Class VI regulations regarding emergency and remedial response and LDNR's related requirements concern emergency and remedial actions concern actions "to address movement of the injection or formation fluids that may cause an endangerment to a USDW" (40 CFR 146.94), not broader emergency situations. LDNR's Class VI requirements for emergency and remedial response at LAC 43: XVII.3623.A.1, are as stringent as the EPA's related requirements at 40 CFR 146.94 and are protective of USDWs. LDNR's regulations require Class VI well owners or operators to develop, submit for LDNR approval, and comply with an enforceable site-specific Emergency and Remedial Response Plan with remedial actions to be taken in the event of an emergency in order to expeditiously mitigate any emergency situations and protect USDWs from endangerment. As stated in the EPA's 2018 UIC program Class VI Implementation Manual, the Emergency and Remedial Response Plan should consider the site operation, geology, local infrastructure, and the community's needs. While the Federal Class VI regulations do not specify the specific content of the Emergency and Remedial Response Plan, the EPA encourages permittees in its 2012 UIC Class VI Well Project Plan Development Guidance to identify first responders (e.g., police, fire) in the plan and include a section on how the owner or operator would communicate with first responders and the public about an emergency event. Additionally, the EPA encourages owners or operators to conduct outreach while developing plans such as the Emergency and Remedial Response Plans to better understand community concerns and needs as outlined in the EPA's "Environmental Justice Guidance for UIC Class VI Permitting and Primacy." The guidance encourages Class VI applicants to work with community representatives as they develop their Emergency and Remedial Response plan, e.g., by training local responders to respond to emergencies at the facility and developing community-appropriate procedures for notifying the public of emergency situations.

In response to the request for clarification on what would happen if an operator's financial means for remediation changes, LAC 43:XVII.3609.C.4.g.ii requires the Director to approve any change to the

financial instrument similar to 40 CFR 146.85(b)(2)(ii). LDNR regulations require the permittee to provide any updated information related to its financial responsibility instrument(s) on an annual basis and if there are any changes, LDNR must evaluate the financial responsibility demonstration to confirm that the instrument(s) used remain adequate. LAC 43:XVII.3609.C.4.d.ii. LDNR regulations also require the permittee to notify LDNR of adverse financial conditions such as bankruptcy that may affect the ability to carry out injection well plugging and post-injection site care and site closure. LAC 43:XVII.3609.C.4.i.

Commenters assert that LAC 43:XVII.3603(1), which says the commissioner shall administer the provisions of Act 517, is no longer current.

One commenter asserted that LAC 43:XVII.3603 must be amended to reference Act No. 378 (HB 571). Currently, that regulation provides that LDNR "shall administer the provisions of Act 517 and these regulations promulgated there under for geologic sequestration of carbon dioxide." Act 517 of 2009 is the Louisiana law that, among other things, authorized LDNR to implement a Class VI program (upon approval by the EPA for primacy). See LA R.S. 30:1106. The statutory text enacted by Act 517 remains largely unchanged (including the text authorizing LDNR to implement a Class VI program), although Act No. 378 (HB 571) made some revisions, including to LA R.S. 30:1109, the provision regarding the transfer of long-term liability. Nonetheless, the EPA finds that the reference to Act 517 in LDNR's Class VI regulations does not present a stringency issue. LDNR must implement its Class VI program consistent with Louisiana statutes -- which includes LA R.S. 30:1109 as amended by Act No. 378 (HB 571) -- notwithstanding that the reference in LDNR's regulations to Act 517 does not explicitly reflect that the statutory text enacted by Act 517 has since been amended. Subsequent to this approval action, the EPA encourages LDNR to update the regulatory references to Act 517.

Commenters assert that the passage of Act No. 378 (HB 571) affects the stringency of Louisiana's reporting and recordkeeping, and deed recordation requirements, and 43 LAC XVII, Chapter 6 must be amended.

The EPA clarifies that all Class VI well owners or operators must meet the provisions of 40 CFR 146.93(g)/LAC 43: XVII.3633.A.7 to record a notation on the deed that the land was used to store carbon dioxide and related information. Further, the EPA has determined that the provisions of LA R.S. 30:1112 are not in conflict to these requirements and provide additional, not alternative, recordation requirements. The EPA clarifies that these requirements are in lieu of requirements of Civil Code Article 3338, not the UIC Class VI requirements at LAC 43: XVII.3633.A.7. The EPA disagrees with commenters that SDWA and the UIC regulatory requirements for recordkeeping and deed recordation requirements prohibit long term liability transfer provisions. The EPA and LDNR worked together to address any such concerns by specifying in the Class VI MOA addendum that LDNR would not issue a certificate of completion pursuant to LA R.S. 30:1109 until the owner or operator submits a site closure report pursuant to 40 CFR 146.93(f) and otherwise fully complies with the site closure requirements in 40 CFR 146.93, which include deed recordation and record retention requirements. Additionally, LA R.S. 30: 1109.A(1), as amended by Act No. 378 (HB 571), prohibits LDNR from issuing a certification until the storage facility has been closed in accordance with *all* applicable regulations related to site closure, which the EPA interprets to include site closure regulations concerning deed recordation and record retention. Further, LA R.S. 30: 1109.A(3) provides that even after the former permittee has received a certificate of completion, it may still be held liable for previous regulatory noncompliance, such as violation of recordkeeping requirements. That statute also provides that LDNR shall implement the

section in a manner consistent with the purposes and requirements of the SDWA, which the EPA interprets to include ensuring that permittees comply with UIC deed recordation and record retention requirements.

Several commenters assert that the passage of Act No. 378 (HB 571) affects the stringency or effectiveness of Louisiana's Class VI regulations or raised concerns about the effect of Act No. 378 (HB 571) on Class VI operations. They cited specific requirements including public notice, environmental review, permit application content, post-injection site care, and requirements for reporting and site closure.

EPA response: The EPA disagrees with commenters that passage of Act No. 378 (HB 571) or LDNR's related supplemental application materials cause Louisiana's Class VI primacy application to not meet federal regulatory requirements for Class VI primacy. The EPA disagrees that Louisiana needs to update its Class VI regulations in order to meet federal regulatory requirements for Class VI primacy. While Act No. 378 (HB 571) revised portions of Louisiana law relevant to LDNR's Class VI primacy application, it does not reduce the stringency of Louisiana's Class VI regulations. Rather, whenever the Act addressed topics relevant to the EPA's regulatory requirements for Class VI programs, it either codified existing LDNR regulatory requirements or actually imposed more stringent requirements on Class VI well owners or operators than are in the federal Class VI regulations. Additionally, Act No. 378 (HB 571) specifically requires the commissioner to "implement this Section in a manner consistent with and as he deems necessary to carry out the purposes and requirements of the federal Safe Drinking Water Act, as amended, relating to the state's participation in the underground injection control program established under that act with respect to the storage and sequestration of carbon dioxide, including but not limited to the state's authority to restrain any person from engaging in any unauthorized activity which is endangering or causing damage to public health or the environment." (LA R.S. 30:1109.G).

The EPA disagrees that Act No. 378 (HB 571) causes LDNR's proposed Class VI program to not meet federal regulatory requirements for public notice of for Class VI permit applications. Based on the EPA's line-by-line evaluation of Louisiana's Class VI regulations, the public participation and public comment period requirements in the state's regulations at LAC 43:XVII.3611.E.2.a are as stringent as required by 40 CFR 145.11(a) and 40 CFR 124.10. While Act No. 378 (HB 571) codified a parish notification requirement for permit applications for Class VI wells (and Class V wells related to GS of carbon dioxide), this provision does not eliminate notification to parties that must be notified per 40 CFR 124.10(c), and therefore represents an additional notification requirement that, if anything, enhances the stringency of LDNR's public notice requirements.

The EPA disagrees that the environmental review required under Act No. 378 (HB 571) somehow causes LDNR's proposed Class VI program to somehow fail to meet federal Class VI requirements. Louisiana's permit application requirements at LAC 43:XVII.3607.A and site suitability requirements at LAC 43:XVII.3615.A meet the requirements at 40 CFR 146.82 and 146.83, respectively. The additional requirements in Act No. 378 (HB 571) for an environmental review are in addition to Louisiana's permit application requirements at LAC 43:XVII.3607.A, which are as stringent as 40 CFR 146.82(a).

Additionally, LA R.S. 30:1107.1.A as amended by Act 378 requires owners or operators to submit quarterly reports on injection operations to LDNR (e.g., on changes to the carbon dioxide stream; injection pressures, rates, and volumes; and mass of the carbon dioxide stream injected). This is more stringent than the semi-annual reporting required at 40 CFR 146.91. Additionally, LA R.S. 30:1107.1.B as

amended requires owners or operators to notify LDNR, *at a minimum*, of evidence of endangerment and non-compliance with permit conditions within 24 hours; because this may provide for additional 24-hour notification, it is more stringent than 40 CFR 146.91(c).

The EPA determined that Act No. 378 (HB 571) does not negatively impact Louisiana's Class VI primacy application or reduce the stringency of Louisiana's UIC Class VI regulations.

Comments about Long-term Liability

Commenters supporting primacy approval assert that Louisiana's regulations and statutes, including the provisions of Act No. 378 (HB 571) *related to transfer of long-term liability from the operator to the state are consistent with the post-injection site care requirements at 40 CFR 146.93. Many commenters strongly supported Louisiana's passage of* Act No. 378 (HB 571)*, stating that it strengthens the state's Class VI program because it prevents the issuance of certificates until "Fifty years after cessation of injection into a storage facility," or "any other time frame established on a site-specific basis by application of the rules regarding the time frame for a storage operator's post-injection site care and site closure plan," which matches the post injection site care timeframes in the EPA regulations at 40 CFR 146.93(b).*

EPA response: The EPA agrees with commenters that the statutory revisions of Act No. 378 (HB 571) to the long-term liability provisions resolve the potential concern that transfer of liability could occur before a site is closed, the non-endangerment standard is met at 40 CFR 146.93(b)(3), and the permittee has complied with all post-closure regulatory requirements of 40 CFR 146.93 and LAC 43: XVII.3633. Act No. 378 (HB 571) requires that before a certificate may be issued, it must be demonstrated that the owner or operator "has complied with all applicable [UIC] regulations related to post-injection monitoring," the "facility has been closed in accordance with all [UIC] regulations related to site closure," and the "storage facility does not pose an endangerment to underground sources of drinking water, or the health and safety of the public." Based on a line-by-line comparison of Louisiana's regulations against the federal Class VI regulations, the EPA determined that post-injection site care, site closure, and non-endangerment demonstration provisions at LAC 43: XVII.3633 meet the federal requirements at 40 CFR 146.93. Nothing in Louisiana's UIC statutes, as amended by Act No. 378 (HB 571), or regulations allow site closure (i.e., for post-injection site care to cease) prior to a non-endangerment demonstration, which is a key element of the protectiveness of the Class VI requirements under SDWA authority.

Commenters opposing primacy argued that SDWA prohibits transfer of liability. Some commenters assert that the provisions of Act No. 378 (HB 571) *related to the transfer of long-term liability from the operator to the state are inappropriate and inconsistent with the federal regulations for post-injection site care at 40 CFR 146.93. Additional commenters asserted that while* Act No. 378 (HB 571) *narrowed the scope of operator liability exemptions that were adopted in 2009, the state still does not have equivalent enforcement authority required by section 40 CFR 145.13(a). These commentors state that the liability release prevents owners and/or operators from being held liable for tort and other remedies once a well has been closed. One commenter asserts that transfer of long-term liability presents a potential conflict of interest in that LDNR would act as both an operator (performing long-term monitoring) and regulator. Commenters also raised concerns that* Act No. 378 (HB 571) *caps the liability at $5 million per site/$10 million per operator and questioned whether the GS Trust Fund (GSF) will be sufficient to allow the operator liability release.*

EPA response: The EPA disagrees with commenters that long-term liability provisions are always incompatible with the SDWA and the EPA's UIC regulatory requirements. When promulgating its Class VI Rule (75 FR. 77272 Dec. 10, 2010), the EPA considered a range of comments regarding liability following site closure. Some commenters during that rulemaking urged that, "after a GS site is closed, liability should be transferred to the state or federal government or to a publicly- or industry-funded entity," while others disagreed "that a public entity should bear liability following site closure." Ultimately, the EPA decided not to include regulatory provisions addressing long-term liability after site closure in the Class VI Rule. The EPA explained this decision in part by noting that the SDWA does not grant the EPA the authority "to transfer liability from one entity (i.e., owner or operator) to another." The EPA clarifies that, in making this statement, the EPA was not interpreting its UIC regulatory requirements as prohibiting primacy states from allowing liability transfer after site closure, but merely noting that, when the EPA acts as the Class VI permitting authority, it cannot do so. In short, the EPA did not conclude in the 2010 Class VI Rule that states that authorize liability transfer after site closure cannot receive UIC Class VI primacy. However, such state liability transfer provisions must be appropriately crafted so that the State's Class VI program meets UIC regulatory requirements. Certain provisions could result in stringency issues. For example, such issues may arise if a state law authorizes liability transfer before the permittee has fulfilled all of its UIC regulatory obligations, including all site closure requirements identified at 40 CFR 146.93. Further, as noted in the 2010 Class VI Rule preamble, even after the former permittee has fulfilled all of its UIC regulatory obligations, it may still be held liable for previous regulatory noncompliance. Thus, there may be stringency issues if a state law authorizes the permitting agency to release a former permittee from liability for earlier UIC violations. Additionally, as noted in the 2010 Class VI Rule preamble, a former permittee may always be subject to an order the Administrator deems necessary to protect public health if there is fluid migration that causes or threatens imminent and substantial endangerment to a USDW. The EPA's UIC regulations require that state UIC programs possess similar emergency authority (40 CFR 144.12(e)). Stringency issues will likely arise if state liability transfer provisions prohibit the EPA or the state UIC authority from subjecting a former permittee to such an emergency order. In conclusion, The EPA disagrees with commenters that SDWA and the UIC regulatory requirements prohibit state long term liability transfer provisions; however, when such provisions exist, they must be crafted so that the state Class VI program meets federal UIC regulatory requirements.

The EPA also disagrees with commenters that the long-term liability provisions of LA R.S. 30:1109 as amended by Act No. 378 (HB 571) are inconsistent with the post-injection site care requirements of 40 CFR 146.93. The EPA conducted a line-by-line comparison of the site closure and non-endangerment demonstration provisions at 40 CFR 146.93(b)(3) and LAC 43: XVII.3633.A.2.c and determined that the federal requirements are met. Further, nothing in Louisiana's UIC regulations or Act No. 378 (HB 571) allows site closure (i.e., for post-injection site care to cease) prior to a non-endangerment demonstration, which is a key element of the protectiveness of the Class VI requirements under SDWA authority. Rather, transfer of liability under LA R.S. 30:1109 as amended by Act No. 378 (HB 571) may occur only after a non-endangerment demonstration that the carbon dioxide plume and pressure front no longer pose an endangerment risk to USDWs. The EPA clarifies that the scope of a Class VI UIC program is limited to the construction, operation, and post injection phases of a project, which end when there is a determination that there is no further risk to USDWs, and all other regulatory requirements related to proper site closure are met. LDNR will not issue a certificate of completion pursuant to LA R.S. 30:1109 until the owner or operator fully complies with all site closure requirements

in 40 CFR 146.93 and LAC 43: XVII.3633.A including submitting a non-endangerment demonstration and site closure report (MOA, Part II.C). The EPA's role in reviewing a state's application for a Class VI program is to determine that the state's program meets federal regulatory requirements , and the EPA has determined that Louisiana's long term liability provision does not cause Louisiana's proposed Class VI program to fail to meet any federal regulatory requirement for Class VI primacy, in part because the transfer of liability to Louisiana would occur after a non-endangerment demonstration and all other site closure regulatory requirements.

A Class VI well operator maintains UIC liability and is subject to all UIC requirements during the PISC phase, including the monitoring required at 40 CFR 146.93(b)/LAC 43: XVII.3633.A.2. Before site closure may be approved at the end of the PISC phase, the owner or operator must submit for LDNR's approval a demonstration that no additional monitoring is needed to ensure that the GS project does not pose a threat to USDWs. If such a demonstration cannot be made, the operator must continue to perform PISC monitoring (LAC 43.XVII.3633.A.2.d). During the PISC phase, the operator will still hold UIC liability for the GS project and must continue to maintain financial responsibility that is sufficient to cover the costs of monitoring, site closure, and emergency and remedial response (LAC 43.XVII.3609.C.4.a.i).

The EPA also disagrees that the state of Louisiana lacks the enforcement authority required by 40 CFR 145.13(a). The EPA carefully reviewed Louisiana's statutes and regulations related to enforcement of its Class VI program and has determined that it meets federal requirements. Overall, section 145.13(a) requires a state agency to possess the ability to enforce "violations of state program requirements." Once an owner or operator has met all regulatory requirements and all site closure requirements have been met, the owner or operator will generally no longer be subject to enforcement for noncompliance with UIC regulatory requirements. A certificate of completion issued pursuant to LA R.S. 30:1109 cannot release a former operator from any liabilities that arise from noncompliance with UIC regulatory requirements prior to issuance of the certificate (LA R.S. 30: 1109.A(3)). Section 145.13(a)(1) requires that the state agency possess the ability to restrain any "unauthorized activity which is endangering or causing damage to public health or environment." LDNR possesses this ability with respect to Class VI wells notwithstanding LA R.S. 30:1109. First, as explained above, LDNR may issue the certificate only after the operator complies with all UIC regulatory requirements, so any subsequent activity that might endanger USDWs would not be "unauthorized" at that point. Further, LDNR continues to possess authority to take emergency action to restrain any person, including a former operator of a Class VI well, from engaging in any activity which is endangering or causing damage to public health or the environment (LAC 43: XVII.103.D.4). Indeed, statutory language added in Act No. 378 (HB 571) explicitly requires that LDNR "shall implement [LA R.S. 30:1109] in a manner consistent with and as he deems necessary to carry out the purposes and requirements of the federal Safe Drinking Water Act … including but not limited to the state's authority to restrain any person from engaging in any unauthorized activity which is endangering or causing damage to public health or the environment." (LA R.S. 30: 1109.G as amended by Act No. 378 (HB 571)).

The EPA reviewed all of the comments on long-term liability submitted during both comment periods, including all attached materials, such as the analysis of the EPA's UIC program and primacy requirements under the SDWA by Keri N. Powell and disagrees that that the long-term liability provisions of Act No. 378 (HB 571) reduce the post-injection site care/protective requirements on Class VI well owners or operators in Louisiana.

The EPA also disagrees with comments that transfer of long-term liability presents a COI. The EPA clarifies that all post-injection monitoring under a Class VI permit must be performed by the owner or operator pursuant to their Class VI permit (40 CFR 146.193 (b)/LAC 43: XVII.3633.A.2), the site must be properly closed, and all other site closure regulatory requirements are met (40 CFR 146.193 (b)(3)/LAC 43: XVII.3633.A.2.c) before Louisiana would assume liability.

To comments questioning whether the GSF has sufficient resources to allow the operator liability release, the EPA clarifies that the activities the GSF would support (i.e., those associated with assuming long-term liability) would occur after a non-endangerment demonstration is made and all actions related to site closure have occurred pursuant to 40 CFR 146.193 (b)(3)/LAC 43: XVII.3633.A.2.c. Therefore, the extent of the resources available in GSF do not cause Louisiana's proposed Class VI program to fall short of any federal regulatory requirement for Class VI programs. At the conclusion of the PISC phase and following issuance of the certificate of completion, the funds in the GSF for that site will be held in perpetuity and may be used for the actions detailed at LA R.S. 30: 1110.E. The EPA also clarifies that the $750,000 cap on the GSF was removed with the Louisiana Legislature's passage of HB 572 in the 2021 Regular Session. Additionally, any release will not apply if the GSF has inadequate funds to cover the liability or if an owner or operator intentionally misrepresented material facts about the wells (LA R.S. 30: 1109.A(4), as amended by Act 378).

The EPA clarifies that the liability cap of $5 million per site/$10 million per operator, like all other aspects of LA R.S. 30:1109, applies after a non-endangerment demonstration is made and all required regulatory actions related to site closure have occurred and therefore, as noted above, the caps do not cause Louisiana's proposed Class VI program to fall short of any federal regulatory requirement for Class VI programs. Owners or operators must demonstrate and maintain adequate financial responsibility in amounts that reflect actual estimated costs for site-specific emergency and remedial response needs throughout the Class VI permit term. To the commenter who asked about the relationship of the Mineral and Energy Operation Fund and the GSF, the EPA clarifies that the monies in the Mineral and Energy Operation Fund are appropriated by the legislature to LDNR to be used solely for the administration and regulation of minerals, ground water, and related energy activities (LA R.S. 30:136.3). The sources of funding for LDNR's Class VI Program include: the GSF, UIC grants from the EPA, and the Louisiana General Fund (Program Description, pg. 3). Nothing in Act No. 378 (HB 571) reduces the available funds needed to oversee permitting and enforcement activities during the time period that a Class VI project has the potential to endanger USDWs. As described in its responses to comments on the Program Description, the EPA has determined that Louisiana has sufficient financial capacity to oversee an effective Class VI program.

Comments about the Primacy Approval Process

Commenters supporting primacy approval assert that Louisiana's Class VI primacy application meets all the requirements of 40 CFR Part 145 and satisfies all applicable statutory and regulatory standards for approval. They stated that the passage of Act No. 378 (HB 571) *does not make material changes that warrant any delay or change in the proposed decision to approve primacy and state that it will strengthen LDNR's Class VI program by providing more public involvement and awareness, increasing funding, requiring a more stringent environmental analysis, and linking site closure to existing Class VI regulations. These comments assert that the Act incorporates existing law for public notice, environmental assessment, and certificates of completion of injection.*

EPA response: The EPA agrees with these commenters that approving Louisiana's Class VI primacy remains appropriate. The EPA conducted a thorough review of Louisiana's Class VI primacy application and determined that it meets the requirements of 40 CFR parts 124, 144, 145 and 146. Based on its review of the initial application and the supplemental information that Louisiana submitted on June 30, 2023, the EPA has determined that Louisiana has developed effective and sufficiently stringent requirements for Class VI wells and LDNR has the capacity to implement an effective and protective Class VI program. The EPA agrees with commenters that the finalization of Act No. 378 (HB 571) does not materially change Louisiana's Class VI primacy application or alter the EPA's conclusion at proposal that approving Louisiana's Class VI primacy is appropriate.

Several commenters opposing primacy approval claimed that the passage of Act No. 378 (HB 571) materially changed Louisiana's Class VI primacy application. These commenters assert that the *EPA must restart the statutory review period, which begins after a completeness determination. These commenters also assert that 40 CFR 145.32(b)(1) requires Louisiana to modify various elements of their Class VI primacy application. Specifically, they assert that LDNR should update their Program Description to differentiate the authorities related to EJ reviews; update the Attorney General's statement to refer to Act No. 378 (HB 571); renegotiate the Class VI MOA addendum between LDNR and the EPA; and revise certain parts of their Class VI regulations. One commenter asserts that the passage of Act No. 378 (HB 571) adds conflicting provisions that create confusion about what laws and regulations the EPA is proposing to adopt.*

EPA response: The EPA acknowledges that commenters have concerns about the passage of legislation during the comment period relevant to a pending Class VI primacy application. On June 14, 2023, Louisiana State Act No. 378 (HB 571) was signed into law and went into effect during the public comment period for the EPA's proposed approval of Louisiana's Class VI primacy application. LDNR thereafter supplemented its Class VI primacy application to incorporate the new Act and stated that it found that Act 378 had no substantive impact on its pending Class VI primacy application.

However, the EPA disagrees with commenters that the passage of Act No. 378 (HB 571) changed Louisiana's Class VI primacy application in any manner that would cause Louisiana's proposed Class VI program to fall short of any federal regulatory requirement. The EPA reviewed Act No. 378 (HB 571) and LDNR's supplemental application materials on the components of the Act that are potentially within the Class VI program scope and therefore could potentially affect the stringency of the Class VI requirements. For instance, Act No. 378 (HB 571) codified a parish notification requirement for permit applications for Class VI wells (and Class V wells related to GS of carbon dioxide). The Act also codified Class VI quarterly and twenty-four-hour reporting requirements and revised Louisiana's long-term liability provision in LA R.S. 30:1109. The EPA determined that Act No. 378 (HB 571) does not materially change Louisiana's Class VI primacy application or affect implementation of or reduce the stringency of Louisiana's UIC Class VI regulations. Louisiana's Class VI primacy application continues to meet all applicable requirements for approval under SDWA 1422, and the EPA's initial determination that approving Louisiana's Class VI primacy application remains appropriate.

The EPA disagrees with commenters who said that LDNR failed to comply with 40 CFR 145.32(b)(1). First, the EPA notes that this regulatory provision provides the EPA with considerable discretion in deciding what the Agency needs in order to act on a proposed program revision. The regulatory provision identifies a list of documents ("modified program description, Attorney General's statement,

Memorandum of Agreement") for states to submit "*or* such other documents as the EPA determines to be necessary under the circumstances." 40 CFR 145.32(b)(1) (emphasis added). The use of "or" signifies that these are examples of documents that the EPA may require states to submit, depending on the nature of proposed program revision. Nonetheless, given the substantial nature of a program revision to implement a Class VI program, the EPA did require LDNR to submit a Class VI program description; a Class VI attorney general statement; and Class VI MOA addendum; not to mention Louisiana's Class VI-related UIC statutes and regulations; documents describing Louisiana's public participation process when adopting its proposed Class VI program; and a letter from the Governor of Louisiana requesting Class VI primacy. After the enactment of Act No. 378 (HB 571), LDNR supplemented its existing application to reflect the enactment. While this supplement added to the documents submitted to the EPA pursuant to 40 CFR 145.32(b)(1), nothing in 40 CFR 145.32(b)(1) then required LDNR to submit a new program description, AG statement, or MOA. The EPA determines that the application materials submitted by LDNR are fully sufficient for the EPA to act on LDRN's requested program revision for Class VI primacy.

The EPA disagrees that LDNR must update their Program Description to differentiate the authorities related to EJ reviews. As noted in other responses, the EPA agrees with commenters about the importance of incorporating EJ into Class VI permitting decisions and encourages EJ reviews as part of permit applications as described in its "Environmental Justice Guidance for UIC Class VI Permitting and Primacy," and echoed in Louisiana's Class VI MOA addendum (MOA, Part II.H). However, as noted in other responses, such EJ reviews, while encouraged by the EPA, are not required by the EPA regulations for Class VI primacy and are therefore outside the scope of the Class VI primacy approval. See the EPA's additional responses below in comments about EJ, Community Engagement, and Risk Mitigation.

The EPA also disagrees that LDNR and the EPA need to renegotiate the Class VI MOA addendum. The Class VI MOA addendum does not refer to Act No. 378 (HB 571). LDNR can comply with both the Class VI MOA addendum and LA R.S. 30:1109 as amended by Act No. 378 (HB 571); they are not incompatible. The EPA determined that the Class VI primacy application is not substantially changed by the passage of the Act and no provision in the Class VI MOA addendum between the EPA and LDNR needs to be amended to ensure that LDNR's Class VI program meets federal regulatory requirements.

The EPA disagrees that the passage of Act No. 378 (HB 571) introduces confusion or inconsistency with the UIC regulations. The EPA clarifies that the Class VI regulations at 43 LAC XVII, Chapter 6 are effective and final as of January 20, 2021. Act No. 378 (HB 571) is final as amended on June 14, 2023; Louisiana will codify the Act in 2024. All operators of Class VI wells in Louisiana must comply with all applicable and effective state regulations and statutes. As noted above, the EPA evaluated each provision of Act No. 378 (HB 571) and determined that none of the Act's requirements conflict with or undercut any elements of the state's Class VI regulations. To the extent that Act No. 378 (HB 571) creates additional requirements for Class VI projects, those requirements must be complied with regardless of whether they are reflected in LDNR regulations.

Commenters opposing primacy approval assert that the EPA gave insufficient opportunity for public input by having in-person hearings only in Baton Rouge which, they assert, limited opportunities to comment. These commenters also assert that the EPA should have held a public hearing after the Notice of Availability (NOA). Commenters also requested that the EPA extend the comment period for the

proposed rule. Some commenters assert that the EPA's issuance of the NOA implied that it had no intention of considering additional comments.

EPA response: The EPA disagrees that the public was not provided adequate opportunity to provide input on Louisiana's Class VI primacy application. The EPA provided an extended comment period of 60 days for the public to comment on the EPA's proposal to approve Louisiana's Class VI primacy application to accommodate what the EPA expected was significant public interest; this is twice as long as the 30-day requirement for public notice of a substantial program revision at 40 CFR 145.32(b)(2) (as well as the 30-day requirement for a primacy application required at 40 CFR 145.31(c)(2)). The EPA then provided an additional 30-day public comment period for the NOA. Oral and written comments are given equal weight. Any person who was not able to attend the in-person hearing in Baton Rouge or the virtual hearing could have submitted written comments.

The EPA also took oral comments from 156 people at a three-day in-person public hearing on June 21-23, 2023 in Baton Rouge. Additionally, to provide an opportunity for people outside of Baton Rouge to comment, the EPA held a virtual public hearing on June 30, 2023, at which 23 people provided comment. The EPA gave the same consideration to comments submitted orally and in writing. The EPA's responses to comments made at the hearings are included within this responsiveness document.

The EPA also disagrees that an additional public hearing following the NOA is required. The three-day in-person and one day virtual public hearings on the initial application were all held after Act No. 378 (HB 571) was signed into law and many commenters mentioned the Act at that time.

To commenters who assert that the NOA implied that the EPA had no intention of considering additional comments, the EPA clarifies that, in both the May 4, 2023 and August 16, 2023 *Federal Register* notices, the Agency sought public comment on its proposed approval of Louisiana's Class VI primacy application. The EPA considered each unique comment received, both from its proposed rule and the NOA for the supplemental application material.

Some commenters who oppose primacy assert that LDNR did not adequately address their concerns or comments during the state's public notice process. One commenter asserted that the primacy application process is flawed because LDNR, as the applicant for Class VI primacy, cannot independently evaluate public comments on its application.

EPA response: The EPA disagrees that approving Louisiana's application for Class VI primacy is not appropriate. The present action is the EPA's approval of a revision to Louisiana's existing UIC program, and public comment by LDNR is not a required component for the EPA approval (40 CFR 145.32). Nonetheless, because of the substantial nature of a program revision to adopt a Class VI program, the EPA encouraged LDNR to follow the public notice requirements for primacy approval at 40 CFR Part 145.31, which LDNR did, and solicited and responded to public comments regarding its intent to adopt a Class VI program and seek the EPA approval. Louisiana provided the EPA copies of all the comments it received and its responses, which the EPA reviewed. As LDNR developed the Class VI regulations and its primacy package, it worked closely with the EPA, conducted extensive stakeholder engagement, and held a public hearing at the LDNR Office in Baton Rouge on July 6, 2021 to gain input from the public.

The EPA also disagrees with commenters that Louisiana, as the Class VI primacy applicant, cannot independently evaluate public comments on its proposed Class VI program.

Comments about Environmental Justice, Community Engagement, and Risk Mitigation

Commenters supporting approval of primacy assert that Louisiana's Class VI primacy application demonstrates that EJ will be considered in LDNR's permitting and enforcement of Class VI wells. They commend the inclusion of an EJ review as part of the Class VI permit application process and note that the passage of Act No. 378 (HB 571) *will strengthen LDNR's Class VI program by providing more public involvement and awareness. These commenters cite positive EJ effects of a high prevailing wage for construction jobs.*

EPA response: The EPA agrees with commenters that the inclusion of EJ should be an important component to a Class VI program, even though it is not a UIC regulatory requirement to obtain Class VI primacy. In his December 9, 2022, letter to governors, the EPA Administrator encouraged states seeking primacy to incorporate EJ and equity considerations into proposed UIC Class VI programs. The Administrator's letter outlined a variety of approaches related to implementing an inclusive public participation process, consideration of EJ impacts on communities, enforcing Class VI regulatory requirements, and incorporating additional mitigation measures.

The EPA also agrees with commenters that EJ will be considered in LDNR's Class VI program. As part of developing this final rule, the EPA worked with the state of Louisiana to adopt the EJ approaches encouraged in the Administrator's letter, which Louisiana has incorporated into its primacy application. The EPA reviewed Louisiana's EJ approach as described in the state's Program Description and MOA addendum and compared it to the EJ elements discussed in the Administrator's letter. Louisiana has committed in its Class VI MOA addendum (MOA Part II.H) to adopt all of the EJ elements described in the letter, and in particular noted that inclusive public participation processes and incorporation of EJ and civil rights considerations in permit review will be achieved through the methods set forth in the Program Description (pg. 4-6). For example, Louisiana committed in the Class VI MOA addendum to examine the potential risks of each proposed Class VI well to minority and low-income populations. The EPA supports these commitments. Furthermore, Louisiana's Program Description specifies that LDNR will require well owners or operators to conduct an EJ review as part of the Class VI application process. The Program Description also provides that LDNR intends to evaluate project sites using the EPA's EJ Screen and to utilize qualified third-party reviewers to conduct additional evaluation of the Class VI application when communities with EJ concerns and/or other increased risk factors are identified. The results of the review will be used by LDNR to determine if an enhanced public comment period should occur. Lastly, LDNR's Program Description provides that LDNR will require applicants to assess alternatives to the proposed site location and propose mitigating measures to ensure adverse environmental effects are minimized.

In the Program Description, LDNR explained that it is required by state law to address five "Louisiana Constitutional Considerations" to show the agency's balanced review of environmental, social, economic, and other factors. In Appendix II to the Program Description, LDNR provided the Louisiana Constitutional Considerations:

1. Have the potential and real adverse environmental effects of the proposed project been avoided to the maximum extent possible?

2. Does a cost benefit analyses of the environmental impact costs versus the social and economic benefits of the proposed project demonstrate that the latter outweighs the former?
3. Are there alternative projects which would offer more protection to the environment than the proposed project without unduly curtailing non-environmental benefits?
4. Are there alternative sites which would offer more protection to the environment than the proposed site without unduly curtailing non-environmental benefits?
5. Are there mitigating measures which would offer more protection to the environment than the proposed project without unduly curtailing non-environmental benefits?

The EPA supports LDNR's commitments to advancing equity and EJ in its Class VI permitting decisions. Based on its review of LDNR's Class VI MOA addendum and Program Description, the EPA concludes that Louisiana has addressed all EJ elements that were discussed in the Administrator's letter. The EPA supports LDNR's adoption of these approaches to protecting EJ communities even though they are not UIC regulatory requirements to obtain Class VI primacy. Louisiana's Class VI Program, as described in its Class VI primacy application, includes approaches to ensure that equity and EJ will be appropriately considered in permit reviews, and in LDNR's UIC Class VI program as a whole.

Since Louisiana submitted its Class VI primacy application, the EPA's UIC program has taken another step consistent with its commitment to the consideration, as appropriate, of EJ in all Class VI permitting decisions and expanded upon the approaches outlined in the Administrator's letter. As documented in its "Environmental Justice Guidance for UIC Class VI Permitting and Primacy," released August 17, 2023, the EPA strongly encourages states, including Louisiana, to incorporate its EJ components into their Class VI programs.

Additionally, the EPA's recently released grant (as authorized by the Bipartisan Infrastructure Law) for states, tribes and territories seeking Class VI primacy will require applicants to demonstrate how EJ and equity considerations are incorporated in their Class VI primacy programs. Louisiana has submitted a letter of intent to participate in the new grant program.

Many commenters opposing primacy approval, including those participating in mass mailing campaigns, expressed concern about disproportionate pollution burden and associated health impacts, on Black, rural, and underserved communities in Louisiana. They express concern that approving additional injection wells will exacerbate these effects on overburdened communities.

EPA response: The EPA appreciates commenters sharing concerns that already overburdened communities may bear a disproportionate environmental burden associated with GS projects, and the EPA emphasizes its commitment to incorporating EJ considerations, as appropriate, into all permitting decisions. In the Administrator's letters to state governors and Tribal leaders, the Administrator recommended that states seeking Class VI primacy incorporate EJ and equity considerations into proposed UIC Class VI programs, including in permitting. The letter outlined a variety of approaches, including elements related to implementing an inclusive public participation process, consideration of EJ impacts on communities, enforcing Class VI regulatory requirements, and incorporating additional mitigation measures. The EPA elaborated on these approaches in its "Environmental Justice Guidance for UIC Class VI Permitting and Primacy". LDNR has committed to the inclusion of EJ considerations in all Class VI permitting decisions. The EPA notes and appreciates that LDNR made these commitments when they are not UIC regulatory requirements to obtain Class VI primacy. LDNR's Program Description and

Class VI MOA addendum address the EPA's request for states to incorporate EJ into their Class VI program by, among other things, adopting an inclusive public participation process. Louisiana will provide robust and ongoing opportunities for public participation, especially for lower-income people, communities of color, and those experiencing a disproportionate burden of pollution and environmental hazards. In its Class VI MOA addendum, LDNR described specific plans for tailoring notice of proposed Class VI wells to specific community needs and interests. Tailored public participation activities that LDNR may employ include scheduling public meetings at times convenient for residents, offering translation services where needed, enabling face-to-face or written feedback on permit applications early in the review process, convening local stakeholders and community groups for safety planning, and supporting the development of community benefits agreements (MOA addendum, Part II.H). The EPA notes that if LDNR does not honor the commitments in its MOA, the EPA has the ability revoke primacy. 40 CFR 145.33(a)(4).

Other commenters assert that LDNR lacks the statutory or regulatory authority to make the results of an EJ review part of a Class VI permitting decision or the authority to modify or deny a permit based on EJ concerns. A separate commenter asserts that LDNR has authority to modify or reject permits based on EJ analysis under state statues and case law including Louisiana's public trust doctrine but claims that LDNR does not adequately describe this authority in the Class VI MOA addendum or elsewhere. Commenters also oppose the lack of an EJ analysis as part of the environmental analysis required in Act 378.

EPA response: The EPA acknowledges commenters concerns about regulatory decisions made without full consideration of disproportionate environmental impacts on communities. While the EPA strongly encourages states seeking primacy to incorporate EJ into their Class VI program (see Administrator's Dec 9 letter, 2023 Class VI EJ Guidance, Class VI Grant Guidance), this is not a regulatory requirement to obtain primacy and cannot form the basis of the EPA's decision whether or not to grant Class VI primacy. However, the EPA clarifies that Louisiana's Class VI primacy application includes a statement from the State Attorney General that LDNR has authority to implement the Class VI Program as described in the application.

The Class VI requirements (in both the Federal Class VI Rule and Louisiana's equally stringent requirements) are designed to ensure the protection of USDWs through rigorous permitting, siting, construction, operation, injection, and post-injection site care and site closure requirements that are tailored to address the unique nature of GS. These Class VI requirements protect underground drinking water sources for all populations, including on Black, rural, and underserved communities and reduce the potential for adverse health effects based on USDW endangerment. The EPA also notes that the environmental analysis required under LA R.S. 30:1104.1 incorporates consideration of mitigative measures, social and economic benefits, and consideration of alternative sites or activities that are part of the EPA's recommended considerations to promote EJ in permitting decisions.

Some commenters request that LDNR expand the scope of EJ reviews beyond the project AoR and incorporate mitigation measures to address effects on disadvantaged communities. Other commenters expressed concerns about the proximity of projects to disadvantaged communities.

EPA response: Discussion of expanding EJ reviews beyond AoR boundaries is outside the scope of the Class VI regulations and this Class VI primacy decision since the incorporation of EJ considerations is not a regulatory requirement to obtain primacy. Still, the EPA disagrees with commenters assertions that EJ reviews must extend beyond the project AoR in order to be protective. Focusing such reviews (e.g.,

using the EPA's EJScreen tool) on the AoR is generally appropriate because this is the area, based on site-specific data and modeling, where USDWs could be endangered and therefore pose the greatest risk to communities. This is also the area where permit conditions can be tailored to the unique circumstances of each Class VI project to ensure the protection of USDWs serving all people, including disadvantaged communities. The EPA reviewed EJScreen evaluations of several proposed carbon dioxide storage sites attached to comments and acknowledges that some projects may be in proximity to overburdened or disadvantaged communities, but comments about individual projects are outside the scope of this primacy decision (especially regarding whether EJ review should extend beyond the AoR, a topic that is also outside the scope of this decision). As noted above, LDNR committed to evaluate whether the siting of a Class VI project will create any new risks or exacerbate any existing impacts on overburdened communities as part of a permitting decision.

The EPA agrees with commenters about the value of incorporating additional mitigation measures, where appropriate, for Class VI projects to address effects on already overburdened communities from all Class VI activities throughout the lifetime of the project. In its Class VI MOA addendum (Part II.H), Louisiana committed to work within its legal authority to prevent and/or reduce any adverse impacts to USDWs from well construction and operational activities. While the scope of Louisiana's UIC Program (and this primacy decision) is designed to protect USDWs, LDNR stated in its Class VI MOA addendum that it may work within its legal authority under state law to employ a range of mitigation measures to ensure that Class VI projects do not increase environmental impacts and public health risks in already overburdened communities. For example, LDNR's Class VI MOA addendum said such residential protection measures could include carbon dioxide monitoring and release notification networks, installation of enhanced pollution controls, or other measures to offset impacts by improving other environmental amenities for affected communities and providing resources for clean-up of previously degraded public areas.

Commenters also expressed doubts about LDNR's or the state's commitment to EJ, citing a civil rights investigation of Louisiana Department of Environmental Quality (LDEQ) and Louisiana Department of Health (LDH) by the EPA and Louisiana's subsequent lawsuit against the EPA and DOJ related to civil rights requirements.

LDNR and its UIC program were not involved in the now-closed civil rights complaint. LDNR has demonstrated a commitment to EJ as described above, making a commitment to incorporating EJ considerations into its Class VI program, including permitting process, an integral part of its Class VI primacy application.

Commenters requested that the EPA defer granting primacy until pending or promised EJ guidance from the EPA, the White House Council on Environmental Quality (CEQ), and LDNR are published. A commenter asserts that the EPA has not met the intent of Executive Order (EO) 14096, and that it should perform a full Environmental Impact Statement (EIS).

EPA response: The EPA disagrees that deferring primacy until after publication of White House CEQ and LDNR guidances is necessary or appropriate. LDNR's primacy application, particularly the MOA, echoes the EPA's commitment to incorporating EJ into Class VI programs. While the EPA strongly encourages states seeking primacy to incorporate EJ into their Class VI program, this is not a regulatory requirement to obtain primacy and cannot form the basis of the EPA's decision whether or not to grant Class VI primacy.

The EPA clarifies that the Executive Orders apply to federal agencies, and not states. However, the EPA encourages states to incorporate the spirit of EO 14096 which includes, among other things, consideration of "effects (including risks) and hazards related to climate change and cumulative impacts of environmental and other burdens on communities with environmental justice concerns" and the spirit of EO 12898 which directs (federal) agencies, to the greatest extent practicable and permitted by law, to identify and address, as appropriate, disproportionate and adverse human health or environmental impacts on people of color and low-income populations.

The EPA also clarifies that its actions taken under SDWA, including approvals of UIC program revisions, are exempt from the procedural requirements of NEPA, including preparing an EIS. See *Western Nebraska Resources Council* v. *EPA,* 943 F.2d 867, 871-72 (8th Cir. 1991) (finding, in the context of a challenge to an EPA approval of an aquifer exemption, that the EPA actions taken under SDWA are exempt from NEPA under the functional equivalence doctrine); 72 Fed. Reg. 53,642, at 53,654 (Sept. 19, 2007) (preamble to the EPA's NEPA regulations, identifying SDWA as one of the statutes for which courts have found the EPA to be exempt from the procedural requirements of NEPA under the functional equivalence doctrine); 40 CFR 124.9(b)(6) (providing that "all RCRA, UIC and PSD permits are not subject to the environmental impact statement provisions of section 102(2)(C) of the National Environmental Policy Act, 42 U.S.C. 4321"). Under the functional equivalence doctrine, courts have held that "The EPA does not need to comply with the formal requirements of NEPA in performing its environmental protection functions under 'organic legislation [that] mandates specific procedures for considering the environment that are functional equivalents of the impact statement process" (*Western Nebraska Resources Council*, 943 F.2d at 871-72).

General comments

Commenters who supported approving Class VI primacy, including writers of mass mailers, asserted that granting primacy to Louisiana would provide multiple benefits, including expediting Class VI permitting; providing regulatory certainty; and promoting and incentivizing investment in carbon capture and storage (CCS) projects. They assert that Louisiana can meet the needs of implementing CCS projects, including suitable geological storage formations, large industrial sources of carbon dioxide, pipeline infrastructure, and a skilled workforce. They identify benefits of CCS, including mitigating climate change, supporting clean energy innovation, and economic benefits to the state, consistent with the goals of the Infrastructure Investment and Jobs Act and the Inflation Reduction Act. These commenters describe an overall state-level commitment (including the support of both state-level chambers and the governor) to Class VI oversight and advancing CCS. Many of these commenters, including writers of mass mailing letters, also expressed general support for the oil and gas industry and what they consider to be associated economic/quality of life benefits.

EPA response: The EPA agrees with these commenters that approving Louisiana's Class VI primacy application is appropriate. Based on a thorough review of Louisiana's primacy application and its Class VI regulations, the EPA determined that Louisiana's Class VI program meets the requirements of 40 CFR Parts 124, 144, 145 and 146 and will ensure that Class VI projects will be sited, constructed, and operated in a manner that will protect USDWs and public health. The EPA acknowledges that Class VI primacy approval, and GS in general, may offer wide ranging benefits, including mitigating climate change and incentivizing CCS projects, but clarifies that these considerations are outside the regulatory

requirements to obtain primacy and cannot form the basis of the EPA's decision whether or not to grant Class VI primacy.

Commenters opposing primacy, including writers of mass mailers, expressed concerns about the safety of GS and the Class VI requirements (including the corrosivity of carbon dioxide related to Class VI injection and other CCS activities, the potential for leakage, induced seismicity); pipeline safety; offshore injection; and the energy usage of CCS projects. Several commenters attached a paper by Alexander S. Kolker about the potential risks associated with GS in Louisiana. Commenters also expressed concern that primacy approval favors the oil and gas industry which, they assert, has a disproportionate influence on the State Legislature and state agencies. Commenters also raised concerns about Class II wells and oil and gas production wells (including a backlog of addressing orphaned/abandoned wells) and expressed concerns about past compliance with environmental rules by prospective Class VI owners or operators. A State Representative raised concerns about the effects of CCS projects on the representative's rural district, saying it lacks the infrastructure and emergency services to support planned CCS projects. Commenters also expressed suspicion about the timing of the primacy application relative to the EPA's Clean Air Act power plant rules.

EPA response: The EPA clarifies that the issues raised by these commenters are outside regulatory requirements to obtain Class VI primacy and cannot form the basis of the EPA's decision on whether or not to grant Class VI primacy. However, given the volume of comments submitted on these topics, the EPA notes the following:

- The EPA clarifies that comments about the safety of GS or the adequacy of the federal Class VI Rule are beyond the scope of this decision to grant primacy to LDNR. Prior to the promulgation of the federal UIC Class VI Rule, the EPA participated in and supported research on the GS of carbon dioxide to inform the rulemaking. This research is described in the preamble to the final Class VI Rule at 75 Fed. Reg. 77230, 77238 (December 10, 2010). As a result, the EPA concluded that Class VI injection of carbon dioxide for GS is safe, and enough information existed to write regulations to implement the program. Louisiana's Class VI requirements reflect the same goals of protecting USDWs and human health. Louisiana's Class VI regulations, which are as stringent as the federal Class VI regulations, will be implemented to protect USDWs via permitting, siting, construction, operation, injection, and post-injection site care and site closure requirements that are tailored to address the unique nature of injecting carbon dioxide for GS.
- The EPA agrees with commenters that orphaned wells are a concern. The EPA clarifies that the corrective action requirements at LAC 43: XVII.3615.C.1 require a thorough search for and evaluation of all artificial penetrations within the AoR of a proposed Class VI project and corrective action must be performed on all identified deficient wells. This requirement, which is as stringent as the federal corrective action requirement at 40 CFR 146.84(d), provides an opportunity to focus orphaned well searches on wells near GS projects, with permit applicants, not the public, incurring corrective action costs.
- One commenter recommended that the EPA require in the Louisiana MOA (and in the MOAs of other coastal states) that, before the state exempts offshore Class VI operations from key aspects of Class VI regulations on the grounds that those offshore wells do not implicate USDWs, the EPA must first ratify the exemption. While such an MOA provision is not a requirement to obtain primacy, the EPA notes that the Class VI MOA addendum between Louisiana and the EPA does allow for the EPA review of specific permits on an as-requested basis, and 40 CFR 145.14(a)

generally requires information obtained by a state UIC program to be available to the EPA upon request without restriction.

The EPA also reviewed papers attached to comments that address specific projects or permits, evaluations of CCS technology, Louisiana's geology, induced seismicity, evaluations of oil and gas programs, hydraulic fracturing, orphaned wells, and environmental effects on media other than USDWs, such as wetlands, surface water, and air. However, these papers do not raise issues that fall within the Class VI regulations and requirements for Class VI primacy and cannot form the basis of the EPA's decision whether or not to grant Class VI primacy.

Some commenters asserted that the 50-year default post-injection site care timeframe in Act No. 378 (HB 571) was inadequate and requested that longer default time frames be considered.

The EPA disagrees that a 50-year default post-injection site care timeframe at LAC 43: XVII.3633.A.2/40 CFR 146.93(b) is insufficient, and clarifies that, if an operator were unable to demonstrate non-endangerment after 50 years, post injection monitoring and site care must continue. Louisiana's rule is similar to the federal Class VI Rule, which is based on extensive research on the GS of carbon dioxide. The EPA further clarifies that the requirements of the federal Class VI Rule itself are outside the scope of this decision to grant Class VI program primacy to Louisiana.

Commenters opposing primacy expressed concerns about the effect of other Louisiana regulations or statutes on Class VI primacy, including: a potential lack of transparency in the CBI provisions of Act 326; the effect of the Louisiana Department of Environmental Quality (LDEQ's) proposed environmental self-audit regulation, which these commenters assert can exempt owners and operators from penalties; a recent Louisiana law that removes state board examination and certification for professional geoscientists; the effects of primacy on property rights/mineral ownership; and the use of eminent domain for CCS projects.

EPA response: The EPA disagrees that the other Louisiana regulations or statutes referenced by these commenters affect the stringency of Louisiana's UIC Class VI regulations, LDNR's authority to write USDW-protective Class VI permits, or Louisiana's ability to implement a Class VI UIC program that meets federal regulatory requirements. The EPA agrees and has determined that Louisiana's Class VI regulations meet the federal requirements to be granted Class VI primacy.

The EPA also disagrees with assertions that the CBI provisions of Act 326 allow applicants to "conceal" CBI during the permitting process. The EPA clarifies that such CBI provisions affect the dissemination of information to the public. However, applicants must provide unredacted versions of all of the information to the permitting authority at a level of detail needed to inform a determination that the permit application requirements at 40 CFR 146.82(a)/LAC 43: XVII.3607.A are met and that the site is suitable for GS pursuant to 40 CFR 146.83/LAC 43: XVII.3615.A. Thus, while certain information may not be available to the public, Act 326 does not preclude a complete review by the permitting authority of a Class VI permit application. The EPA also clarifies that allowing applicants to claim CBI is consistent with the federal Class VI Rule and the EPA's approach to reviewing permit applications with confidential information. The EPA determines that Louisiana meets the federal UIC permitting requirements for confidential information (40 CFR 145.11(a)(1)) and public participation (40 CFR 145.11(a)(26)-(31)).

The EPA disagrees that LDEQ's proposed environmental self-audit regulation can exempt Class VI well owners and operators from penalties. The EPA clarifies that the voluntary environmental self-audits program referenced in HB 72 of the 2021 Regular Session of the Louisiana Legislature apply to an LDEQ program and does not have any bearing on the Injection and Mining Division's administration of SDWA or the Class VI UIC requirements.

The EPA also disagrees that the state board certification requirement in LA R.S. 37:711.12(D)(2) affect LDNR's ability to meet and implement the Federal Class VI program requirements. It provides that LDNR staff must either be certified as licensed professional engineer or licensed professional geoscientist, or work under the supervision of someone who is. However, these licensing requirements are not inconsistent with any federal Class VI UIC requirement.

The EPA clarifies that property rights, mineral ownership, and the use of eminent domain are also out of the scope of this Class VI primacy approval decision. See 40 CFR 144.35(b)&(c) (the issuance of a UIC permit does not convey any property rights of any sort or authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations). The EPA adds that assigning such rights would not affect the suitability of a site for GS.

Some commenters assert that the state's Class VI regulations should require a Public Trust analysis.

The EPA disagrees with commenters that Louisiana's Class VI regulations should—as a prerequisite to obtaining Class VI primacy—reference a Public Trust analysis. The EPA clarifies that this analysis, which according to LDNR is required as a result of *Save Ourselves v. La. Envtl. Control Comm'n*, 452 So. 2d 1152 (La. 1984) and is sometimes referred to as the "SOS/IT Questions," and was later codified for purposes of Class VI injection permits by Act No. 378 (HB 571) (LA R.S. 30:1104.1), is outside of the UIC Class VI scope and constitutes a review that is beyond the permit application requirements at 40 CFR 146 or LAC 43: XVII. However, both the federal Class VI Rule and Louisiana's Class VI rule require an applicant to demonstrate that the injection well will not endanger USDWs.

Commenters opposing primacy assert that LDNR is non-compliant with other environmental programs (e.g., for coastal and wetlands management), and ask the EPA to defer granting primacy until LDNR addresses these deficiencies. These commenters provided examples of environmental incidents.

The EPA researched the ecological incidents cited by commenters and agrees with commenters about the importance of appropriate response to address immediate danger to ground and surface water. However, the incidents described are not under the purview of the UIC Program (e.g., the Satartia pipeline incident and the oil and gas production well drilling incident at Lake Peigneur) and are therefore out of the scope of this action to approve Louisiana's Class VI primacy application. In any event, to the extent that the incidents have any bearing regarding how LDNR might undertake compliance evaluation and enforcement for its UIC Class VI program, they certainly do not outweigh the evidence discussed above why the EPA expects LDNR will adequately implement compliance evaluation and enforcement of its Class VI UIC program. The incidents do not indicate that LDNR fails to meet the UIC regulatory requirements for compliance evaluation and enforcement at 40 CFR 145.12 and 40 CR 145.13. Finally, the EPA notes that fines or financial penalties against these violators were assessed in values ranging from $260,000 to $32 million for violations, failure to comply with orders from the Office of Conservation, and environmental damages.

The EPA also reviewed papers attached to comments that address various audits of LDNR. However, these audits were not specific to UIC, the Class VI regulations, enforcement, or financial services and therefore are not directly relevant to the EPA's decision to grant Class VI UIC Program primacy to LDNR. Allegations of non-compliance with other programs (e.g., oil and gas production well permitting, the orphaned wells program, or wetlands permits) overseen by LDNR are out of scope of this Class VI UIC primacy decision. In any event, to the extent that they have any bearing regarding how LDNR might implement its UIC Class VI program, they do not outweigh the evidence discussed above about why the EPA expects LDNR will adequately implement its Class VI UIC program, and they do not indicate that LDNR's Class VI program fails to meet the EPA regulatory requirements for approval of Class VI primacy.

Other commenters raised general concerns about delegating primacy to states, including concerns that states will "fast-track" approval of Class VI permits and stated objections to granting primacy to North Dakota and Wyoming. One commenter requested that the EPA withdraw Louisiana's 1982 primacy approval.

EPA response: The EPA clarifies that the amount of time taken to review permit applications does not fall within the Class VI regulations governing Class VI primacy approval. However, Louisiana's Class VI regulations identify an extensive list of required permit application elements at LAC 43: XVII.3607.A, which meet the requirements at 40 CFR 146.82(a), and necessitate careful consideration and a thorough review. Louisiana's Program Description describes the detailed process LDNR will take in performing these reviews, along with the extensive enhanced public outreach process that it will perform in order to ensure that EJ goals are met. This extensive review process mirrors the approach that the EPA takes to ensure quality data and support site suitability, including requesting additional information from the applicant to support a science-based permit decision and ensure protection of USDWs. The EPA regulations at 40 CFR 145.33(a)(2)(ii) provides that, if a state repeatedly fails to issue permits that do not conform to Part 145, the EPA is authorized to withdraw program approval.

The EPA clarifies that approval of other states' primacy applications is out of the scope of this rulemaking. As other states apply for Class VI primacy, the EPA will review each state's primacy application on its own merits and against 40 CFR parts 124, 144, 145, 146 and Section 1422 of SDWA. Likewise, revoking approval of Louisiana's Class I–Class V primacy program was not contemplated nor raised by the EPA's proposal and is also out of the scope of this Class VI primacy decision.

Two commenters neither supported nor opposed primacy. The Texas Commission on Environmental Quality expressed its commitment to work with LDNR to ensure appropriate coordination on UIC permit applications for facilities along the Texas-Louisiana border to ensure that the wells do not impact one another. An academic commenter submitted documents as information to stakeholders. The documents provide background information about CCUS and discuss the implications of decarbonization of Louisiana's economy.

EPA response: The EPA acknowledges these comments. Cross-jurisdictional coordination, as required at LAC 43: XVII.3607.C.3 and 40 CFR 146.82(b), will be an important element in ensuring that the potential effects of carbon dioxide injection are appropriately understood and addressed in AoR delineation modeling. The EPA also appreciates the addition of educational research that contributes to public understanding of GS and CCUS.