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179.	The EPA is also taking comment on whether the compliance date should begin earlier, including as early as 2030.	460
180.	In section XI.C, the EPA proposes an approach for units covered in this rulemaking and in section XI.D, the EPA summarizes the key topics for which we are soliciting comment relative to existing combustion turbines.	461
181.	The EPA is proposing emission guidelines for units with a capacity factor greater than 50 percent and a capacity of greater than 300 MW, but is also taking comment on whether that capacity factor threshold or capacity threshold should be lower (for instance 40 percent for the capacity factor and 200 MW or 100 MW for the capacity).	464
182.	The EPA is taking comment on whether HRI [heat rate improvements] should be considered BSER (or a component of BSER) for combined cycle units with a capacity factor of greater than 50 percent and a capacity of less than 300 MW as part of this initial rulemaking.	466
183.	The EPA is soliciting comment on what additional costs would be required to ensure that combustion turbines are able to co-fire between 30 to 96 percent low-GHG hydrogen and if there are efficiency impacts from co-firing hydrogen.	475
184.	To the extent it is appropriate to account for additional costs associated with a hydrogen co-firing BSER for existing combustion turbines, the EPA is soliciting comment on whether capital and fixed costs should be increased by 9 percent, consistent with the NETL estimated retrofit costs of CCS relative to new combustion turbines.	475-476
185.	Similar to new base load combined cycle turbines, the EPA is also taking comment on an alternative approach in which the BSER for these units would be based on CCS with 90 percent capture, for the reasons discussed next, but units could follow a pathway that would enable them to achieve the same reductions using low-GHG hydrogen.	478
186.	While the EPA believes that it is possible that the industry could install that amount of CCS on this timeline, the EPA believes it is important to gather more information on the question of how quickly CCS can be deployed and is therefore taking comment on, but not proposing, a lower capacity threshold of 200 MW or 100 MW, and taking comment on whether it would be feasible to install CCS and or co-fire hydrogen for the 85 GW or 134 GW of units it projects would be covered under those thresholds and a capacity factor of greater than 50 percent.	481
187.	The EPA seeks comment on the feasibility of setting a threshold of 100 or 200 MW and a 40 percent capacity factor in light of these examples and other relevant considerations.	482

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188.	The EPA seeks comment on the feasibility of setting a threshold for inclusion in the existing combustion turbine segment to be addressed by the emission guidelines proposed here of 100 or 200 MW and a 40 percent capacity factor in light of the examples of other historic deployment of pollution controls and other relevant considerations.	488
189.	The EPA is seeking comment on four general areas related to selecting the BSER for existing combustion turbines. First, the EPA is soliciting comment on general assumptions about potential future utilization of combustion turbines. Second, the EPA is soliciting comment on assumptions about the appropriate group of existing combustion turbine units to be addressed in this rulemaking. Third, the EPA is requesting comment on the appropriate BSER for those turbines. Fourth, the EPA is requesting comment on the timing of BSER requirements for existing combustion turbines.	490
190.	The EPA is seeking comment on a number of issues related to how its consideration of projected future utilization of combined cycles informed its consideration of a potential BSER for existing combustion turbines. First, the EPA is taking comment on its projections of how combustion turbines will operate in the future and the key factors that influence those changes in operations	490
191.	The EPA is taking comment on all aspects of these assumptions including: the speed at which new low-emitting generation will come on-line and the impact that it has on likely capacity factors for combined cycle units (in particular the projection that capacity factors will grow in the 2028/30 timeframe but decrease in later years).	491
192.	With regard to the size and definition of the category to be covered in a first rulemaking covering only part of the existing turbine category, the EPA is also taking comment on how its assumptions about the potential operation of combustion turbines in future years coupled with considerations about the availability of infrastructure should inform which units should be covered in a first rulemaking.	491
193.	More specifically, the EPA is requesting comment on how to consider the rate of CCS (and potentially hydrogen) infrastructure development in determining a BSER that could potentially impact hundreds of sources.	491
194.	[For existing CTs] EPA is also taking comment on a lower capacity factor threshold (e.g., 40 percent) and a lower capacity threshold (200 MW or 100 MW, and capacities between 100 and 300 MW).	492
195.	[For existing CTs] with regards to units with a capacity factor of greater than 50 percent that are under 300 MW and units with a capacity factor of 50 percent or less the EPA is taking comment on the appropriateness of CCS and/or hydrogen as a BSER.	492

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196.	[For existing CTs] with regards to hydrogen, the EPA is taking comment on the appropriate level of and timing for hydrogen co-firing.	492
197.	More generally, [for existing CTs] EPA is requesting comment on any feasibility issues related to broader CCS deployment should those thresholds be adjusted such that more coal capacity is affected, and how such issues could be addressed.	492
198.	With regards to the BSER itself, the EPA is soliciting comment on the applicability of CCS retrofits to existing combustion turbines and its focus on base load turbines (e.g., those with a capacity factor of greater than 50 percent).	492
199.	This solicitation includes comment on whether particular plants would be unable to retrofit CCS, including details of the circumstances that might make retrofitting with CCS unreasonable or infeasible.	492
200.	The EPA is also taking comment on the role of low-GHG hydrogen as part of BSER. More specifically, the EPA is requesting comment on the appropriateness of low-GHG hydrogen as a BSER for combustion turbines larger than 300 MW with capacity factors of greater than 50 percent.	492
201.	The EPA is interested in the question of whether, in this case, it would be likely that a combined cycle turbine burning low-GHG hydrogen would operate near base load, and whether it be prudent to have an alternative BSER or an alternative compliance pathway for units combusting low-GHG hydrogen and solicits comments on these questions.	492-493
202.	Similar to the NSPS for base load combustion turbines, the EPA is also taking comment on whether to finalize both the proposed low-GHG hydrogen BSER and the proposed CCS with 90 percent capture BSER, or finalize a BSER with a single pathway, such as based on application of CCS with 90 percent capture, which could also be met by co-firing with low-GHG hydrogen.	493
203.	With regard to the timing for BSER, the EPA is taking comment on a 2035 CCS based BSER standard and whether that standard could reasonably be applied earlier.	493
204.	Similarly, the EPA is taking comment on the timing of a low-GHG hydrogen based BSER and whether a 30 percent low-GHG hydrogen standard could be implemented earlier than 2032, or if low-GHG hydrogen supply infrastructure development suggests it should be later.	493
205.	The EPA is taking comment on the same questions with regard to a 96 percent low-GHG hydrogen co-firing BSER in 2038.	493
206.	As noted above, the EPA is taking comment on what units should be part of whatever action the EPA finalizes as a result of the proposal.	494
207.	For intermediate turbines, the EPA is taking comment on a BSER similar to that for new turbines.	494

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208.	In particular, the EPA is interested in comment about an appropriate pathway and timing for a BSER that would ultimately require 96 percent low-GHG hydrogen by volume.	494
209.	Finally, for peaking turbines, the EPA is interested in comment about whether a clean hydrogen BSER would be appropriate, what the timing of such a requirement should be and whether there should be any phasing.	494
210.	The EPA is also interested in any comments related to: potential changes in operational patterns for turbines, particularly as more renewables and storage enter the grid. For instance, the EPA is interested in comments as to whether improvements in energy storage will reduce reliance on intermediate and peaking turbines.	494
211.	The EPA is also interested in comments on any potential technology developments that could impact its determination of BSER. For instance, the EPA is aware that in addition to electrolyzer based hydrogen and natural gas based hydrogen, there are other means of hydrogen production receiving significant attention such as naturally occurring hydrogen, and solicits comments on whether any of these potential technology developments should impact the EPA's consideration of the appropriate BSER for the remaining turbines.	494-495
212.	In sections X and XI of this preamble, the EPA is soliciting comment on ranges for dates and values for defining subcategories, BSER, and degrees of emission limitation; those solicitations for comment extend to the proposed values and dates discussed in this section of the preamble.	496
213.	EPA is soliciting comment on compliance dates defined by the date of approval of the state plan or January 1, 2030, whichever is earlier, for imminent-term coal-fired steam generating units, near-term coal-fired steam generating units, and the different subcategories of natural gas- and oil-fired steam generating units.	497-498
214.	The EPA requests comment on whether using a period of 3.5 years after state plan submission is appropriate for establishing a compliance deadline for these emission guidelines.	501
215.	The EPA is also requesting comment on potential compliance dates between 1.5 and 5.5 years after state plan submission (i.e., January 1, 2028, to January 1, 2032), including on the feasibility of completing all the steps to implement natural gas co-firing and CCS within a shorter or longer timeframe. To the extent that commenters believe more or less time after state plan submission is more appropriate than the proposed 3.5 years, the EPA requests that commenters provide information supporting the provision of a different compliance date.	501

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216.	The EPA requests comment on its proposed compliance deadline for combustion turbine EGUs in the CCS subcategory, including on whether an earlier or later compliance date would be more reasonable given the time needed to analyze, design, and construct carbon capture and CO ₂ transport and storage systems and the overlapping timeframes for installation of CCS on EGUs under the proposed CAA section 111(b) standards of performance for new combustion turbines and on existing coal-fired steam generating units under these proposed emission guidelines.	503-504
217.	The EPA requests comment on this assessment [that sufficient low-GHG hydrogen will be available for both new and affected existing CTs], as well as on whether compliance dates other than January 1, 2032, and January 1, 2038, would be more reasonable for the first and second phases of the standards for affected units in the hydrogen co-fired subcategory, and why.	505
218.	The EPA is soliciting comment on the proposed baseline-setting approach and specifically on the applicability of such an approach for each of the different subcategories. The EPA is proposing a continuous 8-quarter period to better average out operating variability but solicits comment on whether a different time period would be more appropriate for assessing baseline emission performance, as well as on the 5-year window from which the period for baseline emission performance is chosen.	513
219.	The EPA also solicits comment on the use of total mass CO ₂ emissions and total electric generation over a consecutive 8-quarter time period as representative and on whether the EPA's proposed approach is appropriate.	513
220.	In section X of this preamble, for the long-term coal-fired subcategory, the EPA is soliciting comment on a capture rate of 90 to 95 percent and a degree of emission limitation defined by a reduction in emission rate on a gross basis from 75 to 90 percent.	515-516
221.	The EPA solicits comments on this proposed methodology for calculating presumptively approvable standards of performance for long-term coal-fired steam generating units.	516
222.	In section X of this preamble, for the medium-term coal-fired subcategory, the EPA is soliciting comment on a natural gas co-firing level of 30 to 50 percent and a degree of emission limitation from 12 to 20 percent.	517
223.	The EPA believes this approach is a more straightforward mathematical adjustment than adjusting the baseline to appropriately reflect a preexisting level of co-firing. However, the EPA solicits comment on whether the adjustment of a standard of performance based on preexisting levels of natural gas co-firing should be done through the baseline.	518

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224.	The EPA is not proposing this methodology, because parsing the attributable emissions and electric generation associated with natural gas cofiring from the attributable emissions and electric generation associated with coal-fired generation requires manipulation of the emissions and electric generation data. However, the EPA solicits comment on whether baseline adjustment is more appropriate and also why that may be so.	518
225.	The EPA solicits comment on the proposed methodology for calculating presumptively approvable standards of performance for medium-term coal-fired steam generating units, including on the proposed approach for adjusting a presumptively approvable standard of performance to accommodate preexisting natural gas co-firing.	519
226.	Although the EPA believes that the baseline performance level adequately accounts for variability in annual emission rate, the EPA is also soliciting comment on a methodology for a presumptive standard above the baseline emission performance. For the imminent-term coalfired subcategory, the EPA is soliciting comment on a presumptive standard that is defined by 0 to 2 standard deviations in annual emission rate (using the 5-year period of data) above the baseline emission performance, or that is 0 to 10 percent above the baseline emission performance.	520
227.	Because the EPA is soliciting comment on a potential BSER for this subcategory based on low levels of natural gas co-firing, as described in section X.D.3.b.ii, comment is also being solicited on the presumptively approvable standards for that potential BSER.	520
228.	The EPA is soliciting comment on the baseline natural gas co-firing level being determined from the 5 years of data preceding the publication of the final rule, or based on engineering limitations (i.e., extent of startup guns or size of pipeline to unit).	521
229.	Alternatively, the EPA is soliciting comment on a degree of emission limitation on a fuel heat input basis. For a potential BSER of low levels of natural gas co-firing, the EPA is therefore also soliciting comment on a presumptively approvable standard defined on a heat input basis.	521
230.	The EPA solicits comment on the proposed methodology for establishing presumptively approvable standards of performance for imminent-term coal-fired steam generating units.	522
231.	For the near-term coal-fired subcategory, the EPA is soliciting comment on a presumptive standard that is defined by 0 to 2 standard deviations in annual emission rate (using the 5-year period of data) above the baseline emission performance, or that is 0 to 10 percent above the baseline emission performance.	522-523

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232.	Because the EPA is soliciting comment on a potential BSER for this subcategory based on low levels of natural gas co-firing, as described in section X.D.3.b.ii, comment is also being solicited on the presumptively approvable standards for that potential BSER.	523
233.	The EPA is soliciting comment on the baseline natural gas co-firing level being determined from the 5 years of data preceding the publication of the final rule, or based on engineering limitations (i.e., extent of startup guns or size of pipeline to unit).	523
234.	Alternatively, the EPA is soliciting comment on a degree of emission limitation on a fuel heat input basis. For a potential BSER of low levels of natural gas co-firing, the EPA is therefore also soliciting comment on a presumptively approvable standard defined on a heat input basis.	523
235.	The EPA solicits comment on the proposed methodology for establishing presumptively approvable standards of performance for near-term coal-fired steam generating units.	524
236.	However, as noted above, the EPA is soliciting comment on determining a BSER of uniform fuels for these units.	524
237.	In addition, the EPA is soliciting comment on a presumptive standard of performance for these units based on heat input. Specifically, the EPA is soliciting comment on a range of presumptive standards of performance from 120 to 130 lb CO ₂ /MMBtu for low load natural gas-fired steam generating units, and from 160 to 170 lb CO ₂ /MMBtu for low load oil-fired steam generating units.	524
238.	The EPA is also taking comment on a range of presumptive standards of performance for natural gas- and oil-fired steam generating units. Specifically, the EPA is soliciting comment on standards between (1) 1,400 and 1,600 lb CO ₂ /MWh-gross for intermediate load natural gas-fired units, (2) 1,250 and 1,400 lb CO ₂ /MWh-gross for base load natural gas-fired units, (3) 1,400 and 2,000 lb CO ₂ /MWh-gross for intermediate load oil-fired units, and (4) 1,250 and 1,800 lb CO ₂ /MWh-gross for base load oil-fired units.	526
239.	For the intermediate and base load non-continental oil-fired subcategory, the EPA is soliciting comment on a presumptive standard that is defined by 0 to 2 standard deviations in annual emission rate (using the 5-year period of data) above the baseline emission performance, or that is 0 to 10 percent above the baseline emission performance.	527
240.	The EPA solicits comment on the proposed methodology for establishing presumptively approvable standards of performance for non-continental oil-fired steam generating units in the intermediate and base load subcategories	527

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241.	Given this practical reality [that if there is a chance that an EGU will operate over a 50% capacity factor it will plan to meet the standard], the EPA is taking comment on whether it should require that once an affected existing combustion turbine EGU has exceeded the 50 percent annual capacity factor threshold and triggered application of its standard of performance for a given compliance period, that EGU must continue to meet its standard in subsequent compliance periods.	529
242.	The EPA solicits comments on this proposed methodology for calculating presumptively approvable standards of performance for existing combustion turbines in the CCS subcategory.	531
243.	The EPA solicits comment on the proposed methodology for calculating presumptively approvable standards of performance for existing combustion turbine EGUs in the hydrogen cofired subcategory.	533
244.	While the EPA is not taking comment on the proposed provisions of subpart Ba themselves, the EPA is requesting comment on how each of the RULOF provisions that the EPA proposed in December 2022 would be implemented in the context of these particular emission guidelines.	535
245.	The EPA solicits comment on the application of the RULOF provisions of proposed subpart Ba, both in sum and as individual, segregable pieces, to these emission guidelines. In particular, the EPA requests comment on factual circumstances in which it may or may not be appropriate for states to invoke RULOF for affected EGUs, given the proposed BSER determinations and presumptive standards of performance, and the EPA's proposed "fundamental difference" standard in the subpart Ba rulemaking.	544
246.	For the consideration of cost, the EPA requests comment on whether it should provide further guidance or requirements for determining when the costs of a control technology for a particular source are "fundamentally different" from the Agency's BSER determination and thus a basis for invoking RULOF.	544
247.	EPA additionally seeks comment on any source category-specific considerations for invoking RULOF for affected EGUs, including any additional or different requirements that might be necessary to ensure that use of RULOF does not undermine the presumptive stringency of these emission guidelines	545
248.	However, the EPA is also requesting comment on whether to provide lists of controls to be evaluated in a source-specific BSER analysis as a presumptively approvable approach, as opposed to requirements.	546
249.	The EPA requests comment on the proposed requirement to consider certain control technologies as part of source-specific BSER determinations, and specifically on whether the Agency should require this approach as proposed or, in the alternative, provide it as a presumptively approvable approach to conducting a source-specific BSER analysis.	548

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250.	The EPA requests comment on its proposal to supersede the requirements in subpart Ba to set imminent and outermost dates for the consideration of remaining useful life for affected combustion turbine EGUs. If commenters believe such dates would be useful to guide states' consideration of remaining useful life for affected existing combustion turbines, the EPA further requests input on what those dates could be, and why.	550
251.	The EPA seeks comment on implementation of the proposed subpart Ba requirements pertaining to determining a source-specific BSER and calculating a less stringent standard for sources invoking RULOF under these emission guidelines.	552
252.	EPA seeks comment on the proposed requirements that are specific to these emission guidelines, including but not limited to the proposed requirement that states evaluate certain control options for affected coal-fired steam generating units in the long-term and medium-term subcategories and for affected combustion turbine EGUs as part of their source-specific BSER determination, the proposal to not provide outermost or imminent dates to cease operations for the consideration of remaining useful life, and the proposal to require RULOF standards of performance to be in the form of lb CO ₂ /MWh emission limitations.	552
253.	The EPA solicits comments on additional ways in which states might consider potential pollution impacts and benefits of control to communities most affected by and vulnerable to emissions from affected EGUs when determining a less-stringent standard pursuant to RULOF. In particular, the Agency is requesting comment on metrics or information concerning health and environmental impacts from affected EGUs that states can consider in source-specific RULOF determinations.	554
254.	As discussed in section XII.F.1.b, the EPA is also requesting comment on tools and methodologies for identifying communities that are most affected by and vulnerable to emissions from affected EGUs under these emission guidelines.	554
255.	The EPA solicits comment on the types of source-specific and other information that states should be required to provide to support the inclusion of standards of performance based on RULOF in state plans, as well as on any additional sources of information that may be appropriate for states to use in this context.	556
256.	The EPA requests comment on the implementation of the proposed subpart Ba provisions pertaining to more stringent standards of performance in the context of these particular emission guidelines.	558
257.	The EPA solicits comment on this approach [states having the discretion to identify increment of progress deadlines] as well as whether the EPA should instead finalize date-specific deadlines or more	562

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	general timeframes for achieving increments of progress rather than leaving the timing for most increments to state discretion.	
258.	The EPA also seeks comment on the specific deadlines or timeframes that the EPA could assign to each increment under a more prescriptive approach.	562
259.	The EPA also seeks comment on the specific deadlines or timeframes that the EPA could assign to each increment under a more prescriptive approach.	566
260.	The EPA seeks comment on whether the increments contain an appropriate level of specificity to establish clear, verifiable criteria to ensure that states and affected EGUs are taking the steps necessary to reach full compliance. If commenters believe they do not, the EPA requests comment on the appropriate level of specificity for each increment.	566-567
261.	The EPA requests comment on this proposed approach [milestone framework], specifically whether any jurisdictions present unique state circumstances that should be considered when defining milestones and the required reporting elements.	569-570
262.	The EPA requests comment on monitoring and reporting requirements for captured CO2 mass emissions and net electricity output, and on allowable testing methods for stack gas flow rate.	571
263.	The EPA requests comment on the following questions related to additional monitoring and reporting of hourly captured CO2 under 40 CFR part 75: a) should EGUs with carbon capture technologies be required to monitor and report the hourly captured CO2 mass emissions under 40 CFR part 75, b) if EGUs with carbon capture technologies are not required to monitor and report the hourly captured CO2 mass emissions, the calculation procedures for total heat input and NOX rate in appendix F to 40 CFR part 75 may no longer provide accurate results; therefore, what changes might be necessary to accurately determine total heat input and NOX rate, c) to ensure accurate and complete accounting of CO2 mass emissions emitted to the atmosphere and captured for use or sequestration, at what locations should CO2 concentration and stack gas flow be monitored, and should other values also be monitored at those locations, d) are there quality assurance activities outside of those required under 40 CFR part 75 for CO2 concentration monitors and stack gas flow monitors that should be required of the monitors to accurately and reliably measure captured CO2 mass emissions, and e) what monitoring plan, quality assurance, and emissions data should be reported to the EPA to support evaluation and ensure consistent and accurate data as it relates to CO2 emissions capture.	573-574
264.	The EPA requests comment on the following questions related to reporting of net electricity output: a) should EGUs be required to measure and report total net electricity output, including useful thermal	574

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	output, under 40 CFR part 75, b) what guidance should the EPA provide on how to measure and apportion net electricity output, c) should EGUs measure and report net electricity output at the unit or facility level, and d) what monitoring plan, quality assurance, and output data should be reported to the EPA to support evaluation and ensure consistent and accurate data as it relates to total net electricity output.	
265.	The EPA requests comment on the following questions related to the use of EPA Reference Method 2 and its allowable alternatives for stack gas flow monitors under 40 CFR part 75: a) should or under what conditions should EGUs be required to conduct a flow study and choose the appropriate EPA reference method for each stack gas flow monitor based on the results of the study, b) once an EGU selects the use of an EPA reference method for a stack gas flow monitor, regardless of the basis for that selection, should the EGU be required to continue using the same EPA reference method until a flow study or other engineering justification is made to change the EPA reference method, and c) what additional monitoring plan, quality assurance, and emissions data should be reported to the EPA to support evaluation and ensure consistent and accurate data as it relates stack gas flow rate and performance of the stack gas flow monitor.	575
266.	This section discusses considerations related to such compliance flexibilities in the context of this particular rule and set of regulated sources—existing steam generating units and existing combustion turbine EGUs—and solicits comment on whether certain types of averaging and trading maintain the stringency of the EPA’s BSER.	576
267.	Section XII.E.2 of this preamble also discusses program design examples as well as potential design elements and takes comment on whether these or other designs or design elements could ensure that use of emission trading or averaging does not undermine the stringency of the EPA’s BSER.	578
268.	The EPA is proposing to allow state plans to include emission trading programs as a compliance flexibility for affected existing EGUs under these emission guidelines and is taking comment on whether certain types of trading programs could satisfy the requirement to maintain equivalence with source-specific application of standards of performance.	578
269.	The EPA requests comment on these challenges [appropriateness of emissions trading for certain subcategories of EGUs] and on whether, in light of these and other considerations, emission trading should be permitted for certain subcategories and not permitted for others, and on whether emission trading should be limited to within certain subcategories, and why.	583

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270.	In the following sections, the EPA discusses potential rate-based and mass-based emission trading program approaches that could potentially be included in a state plan and solicits comment on applied implementation issues in the context of these proposed emission guidelines and the considerations discussed in this subsection XII.E.2.a of the preamble.	583
271.	The EPA requests comment on whether this or another method of rate-based trading could demonstrate equivalent stringency as would be achieved if each affected EGU was achieving its standard of performance	583
272.	The EPA is seeking comment on whether rate-based emission trading might be appropriate under these emission guidelines, taking into consideration the discussion of the appropriateness of trading for certain subcategories in section XII.E.2.a of this preamble. In particular, the EPA requests comment on whether and how a rate-based emission trading program could be designed to ensure equivalent stringency as would be achieved if each participating affected EGU was achieving its source-specific standard of performance, given the structure of the proposed subcategories and their proposed BSERs.	585
273.	The EPA also requests comment on any other methods of rate-based trading that would preserve the stringency of the BSER.	585
274.	The EPA requests comment on whether this or another method of mass-based trading could ensure equivalent stringency as would be achieved if each participating affected EGU was achieving its source-specific standard of performance.	585
275.	The EPA is seeking comment on whether mass-based emission trading might be appropriate under these emission guidelines, taking into consideration the discussion of the appropriateness of trading for certain subcategories in section XII.E.2.a of this preamble.	585
276.	The EPA requests comment on whether and how a mass-based emission trading program could be designed to ensure equivalent stringency as each participating affected EGU achieving its source-specific standard of performance, given the structure of the proposed subcategories and their proposed BSERs.	588
277.	The EPA is also seeking comment on whether the method of mass-based emission trading using dynamic budgeting, as discussed in this section, might be appropriate under these emission guidelines.	588
278.	The EPA is also seeking comment on other approaches or features that could ensure that emission budgets reflect the stringency that would be achieved through unit-specific application of rate-based standards of performance.	588

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279.	The Agency requests comment on potential ways to address this implementation issue [varying compliance deadlines for EGUs and how trading would work] in the context of a state plan, and whether this issue impacts the utility or feasibility of trading across subcategories.	589
280.	The EPA is also requesting comment on whether and to what extent there would be a desire to capitalize on the EPA's existing reporting and compliance tracking infrastructure to support state implementation of an emission trading program included in a state plan.	589
281.	The EPA requests comment on whether state plans should be allowed to provide for banking of tradable compliance instruments (hereafter referred to as "allowance banking," although it is relevant for both mass-based and rate-based trading programs).	589
282.	In addition to requesting comment on whether the EPA should permit allowance banking, the EPA requests comment on the treatment of banked allowances, specifically whether all or only some portion of an allowance bank could be carried over for use in future control periods or if additional program design elements would be necessary to accommodate allowance banking.	590
283.	The EPA is requesting comment on whether, and under what circumstances or conditions, to allow interstate emission trading under these emission guidelines.	590
284.	Given the increased level of program complexity that would be necessary to accommodate interstate trading and the operational flexibilities already provided by the structure of the proposed subcategories and their proposed BSERs, the EPA requests comment on whether there is utility in providing for it under these emission guidelines. In addition, the EPA requests comment on the information, guidance, and requirements the EPA would need to provide for states to implement successful interstate emission trading programs.	590
285.	The EPA is seeking comment on one potential method, described in this section, as well as other methods that could maintain the required level of emission performance equivalent to each source individually achieving its standard of performance.	591
286.	The EPA is seeking comment on the utility of rate-based averaging as a compliance flexibility, as well as on the illustrative method for developing a composite standard of performance for the purposes of rate-based averaging.	592
287.	The EPA is also seeking comment on any other considerations related to rate-based averaging, including whether the scope of averaging should be limited to a certain level of aggregation (e.g., to facility-level rate-based averaging) or to certain subcategories.	592

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288.	The EPA seeks comment on whether there are any elements of the proposed emission guidelines that might interfere with the implementation of state requirements that limit CO2 emissions from EGUs that may be subject to the proposed emission guidelines.	593
289.	The EPA solicits comment on how meaningful engagement should apply to pertinent stakeholders outside a state's borders.	601
290.	The EPA is requesting comment on what assistance states and pertinent stakeholders may need in conducting meaningful engagement with affected communities to ensure that there are adequate opportunities for public input on decisions to implement emissions control technology (including but not limited to CCS or low-GHG hydrogen).	604
291.	The EPA is also requesting comment on any tools or methodologies that states may find helpful for identifying communities that are most affected by and vulnerable to emissions from affected EGUs under these emission guidelines.	604
292.	The EPA is also requesting comment on whether it would be useful for the Agency to promulgate minimum approvability requirements for meaningful engagement that are specific to these emission guidelines and, if so, what those requirements should be.	604
293.	In the context of the proposed CAA section 111(b) rule for new combustion turbines, the EPA is taking comment on what forms of acceptable mechanisms and documentary evidence should be required for EGUs to demonstrate compliance with the obligation to co-fire low-GHG hydrogen, including proof of production pathway, overall emissions calculations or modeling results and input, purchasing agreements, contracts, and attribute certificates.	605
294.	The EPA is also taking comment, in the context of the CAA section 111(b) rule, on whether EGUs should be required to make fully transparent their sources of low-GHG hydrogen and the corresponding quantities procured, as well as on whether the EPA should require EGUs to demonstrate that their hydrogen is exclusively from facilities that produce only low-GHG hydrogen, as a means of reducing burden and opportunities for double counting.	605-606
295.	The EPA therefore requests comment on the proposed approaches for verifying that low-GHG hydrogen is used for complying with an applicable standard of performance discussed in section VII.K.3 of this preamble.	606
296.	Additionally, the EPA requests comment on any unique considerations regarding the implementation of such verification requirements through state plans, including whether any additional or different requirements may be necessary to ensure that affected existing combustion turbine EGUs in the	606

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	hydrogen co-firing subcategory that co-fire hydrogen to meet their standards of performance co-fire with low-GHG hydrogen.	
297.	The EPA is proposing or requesting comment on several requirements designed to help states ensure compliance by affected EGUs with standards of performance, as well as to assist the public in tracking increments of progress toward the final compliance date.	606
298.	The EPA is requesting comment on whether to require that an affected EGU's enforceable commitment to permanently cease operations, when a state relies on that commitment for subcategory applicability (e.g., a state elects to rely on an affected coal-fired steam-generating unit's commitment to permanently cease operations by December 31, 2034, to meet the applicability requirements for the near-term subcategory), must be in the form of an emission limit of 0 lb CO ₂ /MWh that applies on the relevant date.	606-607
299.	The EPA is requesting comment on whether such an emission limit would have any advantages or disadvantages for compliance and enforceability relative to the alternative, which is an enforceable commitment in a state plan to cease operation by a date certain.	607
300.	[Regarding requirements to post information to websites regarding subcategory designations and compliance schedules], the EPA solicits comment on these timeframes for posting and information retention, as well as on any concerns related to confidential business information.	608
301.	The EPA solicits comment on other ways to reduce redundancy and burden while satisfying the objective of making it easier for pertinent stakeholders to access affected EGUs' reporting and recordkeeping information.	609
302.	The EPA requests comment on whether to promulgate requirements in the final emission guidelines pertaining to the demonstrations, analysis, and information the owner or operator of an affected EGU would have to submit to the EPA in order to be considered for an Administrative Compliance Order (ACO).	612
303.	The EPA solicits comment on the 24-month state planning period. The EPA specifically requests comments from owners and operators of affected EGUs regarding the steps, and amount of time needed for each step, that they would have to undertake to determine the applicable subcategories and to plan and implement the associated control strategies for each of their affected EGUs.	615-616
304.	Additionally, the EPA requests comment on the 24-month planning period from states, including on any unique characteristics of the fossil fuel-fired EGU source category that they believe merit planning timeframes longer than 15 months. Through outreach, many states have expressed a need for longer	616

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	planning periods and the EPA solicits comment on whether this 24-month planning period accommodates that need.	
305.	The EPA also requests comment from potentially impacted communities and other pertinent stakeholders on any considerations related to providing a longer state plan submission timeframe under these emission guidelines.	616
306.	The EPA is additionally requesting comment on a potential bifurcated approach to state plan submissions for affected steam generating units and affected combustion turbine EGUs.	616
307.	The EPA is therefore requesting comment on an approach in which states would submit two different plans on different timelines: a state plan addressing affected steam-generating units due 24 months after promulgation of these emission guidelines and a second state plan addressing affected combustion turbine EGUs due 36 months after promulgation of these emission guidelines.	617
308.	The EPA solicits comment on this staggered approach and on whether 36 months, or a longer or shorter period, could be an appropriate state plan submission deadline for combustion turbine EGUs, and why.	617
309.	The EPA requests that commenters explain if and how a longer state plan submission timeline for affected combustion turbine EGUs would be consistent with achieving the emission reductions under these emission guidelines as quickly as reasonably practicable, as well as on the potential interactions between the state plan submission time frame and the proposed compliance deadlines for combustion turbine EGUs.	617
310.	The EPA also solicits comment from potentially impacted communities and other pertinent stakeholders on any considerations related to providing a longer state plan submission timeframe for combustion turbine EGUs under these emission guidelines.	617
311.	The EPA requests comment on whether it would be helpful to states to impose a cut-off date for the submission of plan revisions ahead of the January 1, 2030, compliance date for coal-fired steam generating affected EGUs or ahead of the separate compliance dates for achieving the CCS-based or hydrogen co-firing-based standards for existing combustion turbines.	619
312.	As an alternative to a cut-off date for state plan revisions ahead of the compliance date, the EPA requests comment on the dual-path standards of performance approach discussed in section XII.F.4 of this preamble.	619

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313.	The EPA requests comment on whether to set a deadline for states to provide plan revisions within a certain timeframe of knowing that an affected EGU needs to switch subcategories and on what timeframe would be appropriate.	623
314.	The EPA is therefore soliciting comment on the following dual-path approach that may result in an additional flexibility for owners or operators of affected coal-fired steam generating units and affected combustion turbine EGUs that want additional time to commit to a particular subcategory without the need for a state plan revision.	624
315.	The EPA is soliciting comment on an approach that allows coal-fired steam generating units and combustion turbine EGUs to have two different standards of performance submitted to the EPA in a state plan based on potential inclusion in two different subcategories.	624
316.	The EPA is soliciting comment on this approach [regarding EGUs that miss an enforceable increment of progress] to provide flexibility to states and affected coal-fired steam generating units and affected combustion turbine EGUs.	626
317.	The EPA solicits comment on whether this proposed dual-path flexibility would have utility and on whether it could be implemented in a manner that ensures that states and affected coal-fired steam generating units and affected combustion turbine EGUs would be able to comply with applicable requirements in a timely manner.	626
318.	Additionally, the EPA solicits comment on whether notification deadlines of July 1, 2029, for coal-fired steam generating units, and July 1, 2031, for combustion turbine EGUs are the appropriate dates for a final decision between two potential standards of performance and why	626
319.	The EPA requests comment on the use of the timeframes provided in subpart Ba, as the EPA has proposed to revise it, for EPA actions on state plan submissions and for the promulgation of Federal plans for these particular emission guidelines.	628
320.	The EPA solicits comment on whether, and under what circumstances, states might use this mechanism [to include provisions related to the state plan in a source's Title V permit before submitting the plan to EPA and labeling them as "not federally enforceable" until EPA has approved the state plan].	638
321.	The EPA also seeks comment on all aspects of the [RIA benefit-cost] analysis, including modeling assumptions.	640
322.	The EPA solicits comment on its [compliance] cost estimation generally [in the RIA].	643

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323.	The EPA solicits comment on the SAGE analysis [economy-wide impacts of the rules including annualized social costs] presented in the RIA appendix.	645