

Major EPA Actions Troubling Texas

Coal-fired Power Plants

Clean Air Act

In the last two years, the EPA has proposed or finalized multiple rules affecting the power generation industry and coal-fired power plants in particular. Although the Cross State Air Pollution Rule (CSAPR) was overturned by the DC Circuit, EPA's promulgation of this rule displayed fundamental philosophical flaws in EPA's interpretation of the Clean Air Act (CAA).

The Mercury and Air Toxics Standards (MATS) will require significant investment of control technology while benefits are questionable at best. The EPA substantially overestimated the installed capacity and the reserve margin in the Electric Reliability Council of Texas (ERCOT) region during the MATS rulemaking, despite comments from both the Texas Commission on Environmental Quality (TCEQ) and the Public Utility Commission (PUC) of Texas informing EPA of the errors. The EPA failed to adequately address or consider reliability effects that would result from both of these rules.

Additionally, in the Carbon Pollution Standard, EPA's recent reproposal would require new coal-fired power plants to install carbon capture and storage in order to meet the carbon dioxide emission standard. The EPA claims that carbon capture and storage technology is feasible for coal-fired power plants to achieve this standard, yet the technology has never been commercially demonstrated full-scale on a power plant. In addition to EPA's reproposal of their Carbon Pollution Standard for new power plants, EPA is starting to develop carbon standards for existing power plants under President Obama's Climate Change Plan announced in June 2013. When taken individually, the regulations are challenging and detrimental to existing power plants, as well as the possibility of future new coal-fired generation. In combination, the effects will make the possibility of any growth of capacity in the coal-fired generation sector highly unlikely.

Clean Water Act

On June 7, 2013, EPA proposed new wastewater effluent limits for toxic metals discharged from power plants. Of particular concern, the proposed limits include "anti-circumvention" provisions that would significantly impact reuse/recycling of waste streams internally within the plant resulting in likely increased use of raw water sources.

EPA Greenhouse Gas (GHG) Regulations

EPA adopted a number of regulations addressing greenhouse gas, including the Endangerment Finding, Timing Rule, Tailpipe Rule, Tailoring Rule, GHG State Implementation Plan (SIP) Call, and EPA's partial Texas SIP disapproval and issuance of a GHG Federal Implementation Plan (FIP)) that gives EPA power to issue permits to GHG sources in Texas. The main suite of rules - Endangerment Finding, Tailpipe, Timing and Tailoring Rules - embody the most burdensome, costly, far-reaching program ever adopted by a U.S. regulatory agency - a point the EPA has never contested.

The State of Texas, other states, and industry groups submitted petitions for review challenging each of these actions in federal court. While Texas' legal arguments against EPA's regulation vary depending on the specific rulemaking, a general basis for the challenge is that the EPA's GHG rulemakings exceeded the authority established by Congress, and were arbitrary and capricious and contrary to the CAA.

A 3-judge panel of the U.S. Court of Appeals for the District of Columbia issued its opinion on June 26, 2012. The 3-judge panel unanimously concluded (1) the Endangerment Finding and Tailpipe Rule are neither arbitrary nor capricious; (2) EPA's interpretation of the governing CAA provisions is unambiguously correct; and (3) no petitioner has standing to challenge the Timing and Tailoring Rules, thus those petitions are dismissed for lack of jurisdiction, and the remainder of the petitions are denied. Texas and other state and industry petitioners filed petitions for rehearing en banc soon thereafter. On December 20, 2012, the full Court denied Texas' request for rehearing en banc, though there were two dissenting opinions. On April 19, 2013, States, including Texas, and industry groups filed petitions for Writ of Certiorari with the Supreme Court. On 10/15/2013, The US Supreme Court granted review of six of nine petitions, including Texas'; limited to one question: whether EPA's regulation of motor vehicle emissions triggers new permitting requirements for stationary sources as well. The Court will not consider the Endangerment Finding or Tailpipe Rule. Petitioners' briefs are due 12/9/13, respondents' briefs are due 1/21/14, and reply briefs are due 2/17/14. Oral argument is set for 2/24/14, with a decision no earlier than summer 2014.

Oral arguments for the lawsuits on EPA's GHG SIP Call and partial Texas SIP disapproval and issuance of a GHG FIP were held on May 7, 2013 in the D.C. Circuit. On 7/26/13, the Court dismissed all petitions for review. Requests for rehearing are due 9/9/13; cert petitions are due 10/24/13. On 8/21/13, petitioners filed unopposed motion to extend deadline for rehearing and to stay issuance of mandate pending resolution of the substantive GHG cases.

Under the GHG FIP, EPA implemented a GHG permitting program for major sources. As of December 5, 2013, EPA has received 77 GHG PSD permit applications. Twenty-four permits have been issued with EPA's processing timeframes ranging from 242 days to 655 days, with an average of 430 days. Fifty-five applications remain pending with EPA.

House Bill 788 (83rd Legislature) directed TCEQ to initiate rulemaking to lay the groundwork for Texas to begin permitting of GHG emissions, to the extent required by federal law. Once the rules are completed and approved by EPA, this would allow TCEQ, instead of EPA, to be the issuing authority for GHG permits in Texas. The rules were proposed on October 23, 2013 and are expected to be adopted on March 26, 2014.

Toxicity Factors

EPA is proposing to significantly revise toxicity factors for arsenic, dioxin, and hexavalent chromium. In terms of impact, this means remediation of soil where these compounds are present must be accomplished to a lower, more stringent level. TCEQ and others in the scientific community disagree with the EPA's proposed levels based on a lack of scientific defensibility. EPA has ignored scientific advice from the National Academies of Science and other well-respected scientists.

Once finalized, the more stringent toxicity factor for arsenic could result in soil surface clean up values less than background concentrations. In other words, soil surface clean up would have to make the soil "cleaner" than it would be under natural, uncontaminated conditions. This is highly significant because most, if not all, of the groundwater in Texas would have naturally-occurring arsenic levels EPA would deem unacceptable. The result would be a dramatic increase in the cost of treating groundwater for arsenic contamination. The amount of arsenic waste produced from the treatment of water would also increase, which would further increase the cost of the already expensive disposal of arsenic waste.

EPA's proposed toxicity values for dioxin may result in the reassessment and possible reopening of five federal superfund sites. For chromium, costly speciation analyses may be necessary to distinguish between chromium VI and other forms when the health data do not support this unnecessary expense. For all compounds, the newer, significantly lower cleanup values would

potentially call into question the adequacy of historically addressed sites. These values would also increase the cost of cleanup of these sites and cause needless worry among citizens if sites were reopened.

National Ambient Air Quality Standards

With regard to National Ambient Air Quality Standards (NAAQS), the EPA is obligated to establish a protective level of exposure for six pollutants that are considered hazardous to public health and the environment. In establishing the NAAQS for ozone and particulate matter, EPA relies primarily on ecological epidemiology studies and reports observations that support the policy goal of lowering the NAAQS, while disregarding contradictory evidence.

Epidemiological studies are not designed to determine causal effects, and can only report associations. **These studies should not be used quantitatively, and they are certainly not rigorous enough to set environmental policy.** For particulate matter health effects, EPA relies primarily on two studies when quantifying premature mortality due to fine particle matter (PM_{2.5}) exposure. There are other equally well-conducted studies that do not report such associations. If EPA used any of these other studies or adequately incorporated uncertainty, the resulting analysis would not support a more stringent NAAQS.

Coal Combustion Residuals (CCR)

EPA published a proposal in 2010 to regulate CCR management. CCRs are presently considered nonhazardous industrial solid wastes by EPA under the “Bevill Exclusion.” In line with this, CCRs are not considered to be hazardous waste under Texas regulations and TCEQ does not require a permit for on-site disposal of CCRs.

EPA’s proposal provided two options: Option I (Subtitle C option) proposed to regulate CCRs as hazardous waste and subject CCR surface impoundments and landfills to the hazardous waste regulations under RCRA Subtitle C regulations. Option II (Subtitle D option) proposed to regulate CCRs as nonhazardous waste retaining the current “Bevill Exclusion” and regulate CCR landfills and surface impoundments by establishing national criteria in accordance with the RCRA Subtitle D regulations. Both options are an expansion of regulatory requirements that are unnecessary to protect human health and the environment.

Existing TCEQ requirements are effective and encourage CCR recycling. These materials are currently recycled in a variety of applications, including the manufacturing of cement and cement products, masonry, roofing materials, road base/sub-grade materials, and waste stabilization/solidification materials. The majority of all industrial solid waste generated in Texas in the past decade has been made up of CCRs. The recycling of CCRs preserves landfill space, minimizes the environmental impact associated with disposal, reduces waste management/disposal costs and enhances the economic growth associated with the beneficial use of CCRs. The TCEQ believes that subjecting CCRs to the hazardous waste regulations would negatively impact the legitimate reuse and recycling of these materials.

While it would appear to be more expedient for EPA to make a final determination about the regulation of CCR in the actual CCR proposal, states may attempt to anticipate the outcome of that rulemaking through EPA’s other proposals. In April, 2013, EPA proposed amendments to the effluent limitations guidelines and standards for the Steam Electric Power Generating category (40 CFR Part 423). As part of their rulemaking proposal, EPA is proposing best management practices applicable to surface impoundments that contain CCR. The proposal provides two additional years to comply for regulated entities that opt to dewater, close, and cap all CCR surface impoundments at electric generating facilities. These best management practices seem to indicate that EPA may be leaning toward adopting Option II (Subtitle D).

Jurisdiction under the Clean Water Act (CWA)

Following the U.S. Supreme Court decision in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* (SWANCC), 2001 and *United States v. Rapanos*, 2006; there have been different views about jurisdiction under the CWA. In response, the EPA in cooperation with the United States Army Corps of Engineers (Corps) prepared a draft guidance document, *Draft Guidance on Identifying Waters Protected by the Clean Water Act*, which outlined how EPA and Corps will interpret *SWANCC* and *Rapanos*, focusing on the coverage of intermittent streams and isolated wetlands. EPA and the Corps received significant comments (including comments from TCEQ) on their attempt to expand jurisdiction through guidance.

As a result, the EPA and USACE have developed a proposed rule to re-define the phrase "waters of the United States" for purposes of determining jurisdiction under the CWA. The EPA and the Corps sent the draft proposal to the White House Office of Management and Budget for interagency review. A copy of that rule was leaked the week of 11/22/13. The draft rule would significantly expand the EPA's jurisdiction, asserting CWA jurisdiction over all natural and artificial tributary streams, lakes, ponds and wetlands in floodplains and riparian areas that affect the chemical, physical and biological integrity of larger, downstream navigable waters. The proposed rule also would allow the agencies, on a case-by-case basis, to determine whether geographically isolated wetlands and certain other waters in the uplands have a significant nexus to the chemical, physical and biological integrity of downstream waters and should be considered under CWA jurisdiction.

EPA is also waiting on results of a connectivity study, the stated purpose of which is to inform this rulemaking. The public comment period on that study concluded in November 2013 and the study will go to EPA's Science Advisory Board for review next, then OMB. A proposed rule is expected as soon as the completed study results are incorporated into a draft rule and OMB's review is complete. There is much public criticism over the timing of the rule being completed and sent to OMB in advance of EPA completing the connectivity study that is supposed to inform that rule.

The guidance and the rule both seek to expand the federal government's jurisdiction under the CWA. The TCEQ believes the only appropriate avenue to refine and clarify CWA jurisdiction is through Congressional action.

Corps Reservoir Return Flows

TCEQ submitted comments to the Corps on February 14, 2013 regarding an anticipated Corps rulemaking that would have addressed return flows into Corps reservoirs. TCEQ's comments emphasized that return flows are state water. To date, the Corps has not proposed a rule. However, the senate version of the Water Resources Development Act (WRDA) (S. 601, Section 2014) potentially allows the Corps to adjust reservoir operations in a manner that would impact water rights in Texas. TCEQ's position is that states have absolute jurisdiction over water rights.

Texas Pollutant Discharge Elimination System Program

The Texas Pollutant Discharge Elimination System (TPDES) program administered by TCEQ has come under significant increased oversight and critique by EPA Region 6.

- *TPDES Permits*: EPA has objected to many draft permits, based on loose interpretation of federal and state laws and regulations. Many of EPA's objections directly contradict their own guidance and historical practice in developing NPDES permits. Regulated entities are experiencing significant delays in getting permits issued that prevent new projects from moving forward. As of December 2013, EPA objections are delaying the issuance of 101 TPDES permits.

- *Texas Surface Water Quality Standards (TSWQS)*: EPA has approved and disapproved portions of the 2010 TSWQS. The TSWQS establish explicit goals for the quality of streams, rivers, lakes, and bays throughout the state. The most significant disapprovals are related to nutrient criteria and mercury criterion.
- *Implementation Procedures (IPs)*: EPA denied approval of the 2010 IPs document in a letter dated December 2, 2010, due to concerns regarding reasonable potential determinations for Whole Effluent Toxicity (WET) limits. The IPs outline how TCEQ will implement the TSWQS in TPDES permits.
 - *WET Issues*: Whole Effluent Toxicity (WET) refers to a method to measure wastewater's toxic effects to aquatic organisms for all pollutants contained in the wastewater. WET tests are intended to implement the Clean Water Act's prohibition of the discharge of toxic pollutants in toxic amounts. Beginning in 2007, EPA Region 6 began objecting to TCEQ's evaluation of WET in wastewater permits. EPA directed TCEQ to conduct reasonable potential (RP) determinations using a modified version of the statistical approach outlined within EPA's 1991 Technical Support Document (TSD). TCEQ disagrees with the TSD approach - a single failed test could result in inclusion of a WET permit limit, subjecting permittees to unnecessary monitoring, controls, or potential enforcement actions. TCEQ has worked with Texas stakeholders to propose revisions to WET requirements within the IPs to address EPA's concerns regarding implementation of TCEQ's WET program as stated above. The TCEQ continues to engage in negotiations with EPA to resolve these issues and has sought EPA input as to what would be approvable as stand-alone WET procedures.

Oil and Gas New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Review

On August 16, 2012, EPA issued the new NSPS and NESHAP final rule that sets standards for a greater number of oil and gas sources than previously regulated. The new regulations establish requirements for gas well completions, sweetening units, pneumatic controllers, natural gas processing plants, centrifugal and reciprocating compressors, and storage vessels. There are three issues with implementation:

- TCEQ has historically not regulated drilling and well completions.
- The regulations establish new requirements without regard to practical timeframes for industry compliance, making implementation by TCEQ problematic.
- The provisions relating to affirmative defense do not match exactly with TCEQ's current rules and the federal regulations do not contain flexibility for equivalent methods creating issues for enforcement.

On October 15, 2012, the TCEQ and Texas Railroad Commission (RRC) filed a joint Petition for Reconsideration and Administrative Stay with the EPA on the following basis: EPA failed to adequately address Texas' comments on the rule; certain technical issues in the rule cannot be implemented and are not practicable; certain technical issues will require more time to be implemented than the rule allows; EPA underestimated the number of affected facilities and the available resources necessary to meet the requirements; and EPA's approach to responding to industry concerns is flawed and circumvents the rulemaking process. Additionally, on October 15, 2012, the State of Texas, RRC, and TCEQ filed a Petition for Review of the final rule in the District of Columbia Circuit Court. That Petition was withdrawn on January 17, 2013, in favor of filing an amicus brief with the court at the appropriate time.

EPA granted the Petition for Reconsideration and proposed new requirements for storage vessel affected facilities on April 12, 2013, acknowledging their underestimation of the number of

affected facilities and lack of availability of controls necessary to comply with the rules. The proposal includes revised definitions, recordkeeping and reporting requirements, and applicability requirements, some of which are inherently flawed. EPA solicited comments on sixteen issues within the proposal. Furthermore, EPA indicates in the proposal that additional revisions to the rule are forth-coming. TCEQ submitted comments on the April 12, 2013 proposal. The final rule was signed by EPA on August 2, 2013, and published in the *Federal Register* on September 23, 2013.

Near-Road Monitoring

On January 22, 2010, EPA strengthened the health-based NAAQS for nitrogen dioxide (NO₂) to include a new one-hour standard. In addition to the standard, EPA established new ambient air monitoring and reporting requirements for major roads in urban areas with a population of over 500,000 people because peak NO₂ concentrations are expected near roadways. Data from these monitors are expected to be used for determining attainment.

Issues with this rule are fourfold. First, this rule could potentially force states to develop a State Implementation Plan (SIP) for roadway segments for which the only likely source is vehicle exhaust—a source that states are federally precluded from regulating. Second, although the NAAQS are intended to protect public health, public exposure is not one of the major criteria for siting the monitors, nor does the monitoring data represent likely public exposure, particularly for the time periods for which the standards were developed. Third, EPA has not adequately planned funding for the deployment and maintenance of these monitors. EPA has currently only provided funding for the deployment of the first of three phases of monitors. Funding for the second phase has been sequestered, though the deployment deadline has not been delayed. EPA also expects that states continue this extra monitoring beyond the first year with no additional federal funding. The total ongoing annual cost for the near-road monitors is estimated to be between \$146,000 (if operated by TCEQ staff) to \$236,000 (if contracted). Finally, EPA is planning on expanding the near-road monitoring requirements beyond NO₂.

On August 12, 2011, and December 14, 2012, respectively, EPA finalized requirements for near-road carbon monoxide (CO) and PM_{2.5} monitoring in areas with a population of greater than 1 million people. In addition, they are strongly encouraging states to measure and track black carbon, meteorology, air toxics, particulate matter (ultrafine, PM_{2.5}, PM coarse), traffic counters (if not available nearby), carbon dioxide, organic and elemental carbon, and ozone. The resulting effect of this monitoring could be to require additional regulation at the expense of states and stationary sources to address a potential problem that may not impact the general public while attempting to solve a problem that only EPA can legally address.

Clean Air Status and Trends Network (CASTNET) Monitoring

CASTNET is a network of 90 rural monitoring sites managed and operated by EPA's Clean Air Markets Division, the National Parks Service (NPS), and their federal, state, and local partners. The network was established between 1987 and 1991 as a research network to assess trends in acid deposition and site design was intended to identify contributions of nitrogen and sulfur oxides to sensitive ecosystems. The sites also measure ozone to evaluate concentrations in sensitive ecosystems and help define natural background levels where urban influences are minimal. Data from this network are loaded and certified by EPA and NPS. Statements made in an unrelated rulemaking indicate that by 2006, EPA was upgrading sites in order to comply with regulatory siting and data handling requirements so that the data could be used for regulatory purposes.

Texas has three CASTNET monitors: Bravo Big Bend (Big Bend National Park), Palo Duro (Palo Duro Canyon State Park), and Alabama-Coushatta (near Livingston). The ozone monitors are federal equivalent methods and the quality assurance/quality control information available indicates the data are comparable to TCEQ's instrumentation and data handling methods. Annual

average concentrations from the past two years indicate a design value could be in the 70-75 ppb range, depending on 2013 concentrations.

There are two central issues with EPA's conversion of CASTNET ozone monitors to regulatory monitors. First, TCEQ will be placed in the position of expending its resources for indirect activities associated with monitoring at these sites. These activities can include research and evaluation of sources and trends and development of exceptional event demonstrations and SIP revisions. These analyses are complicated by EPA not involving state agencies in the original siting of these monitors. Second, EPA did not adequately notify state agencies of the change. EPA made passing statements about the change from the research to regulatory data usage in eight rulemakings unrelated to CASTNET from 1997-2013. EPA also gave presentations to the National Association of Clean Air Agencies, but did not engage non-member states. EPA did not formally seek public comment and the changes were not a part of their own rulemaking.

The Association of Air Pollution Control Agencies (AAPCA) sent a letter to EPA on August 14, 2013, expressing concerns over EPA's conversion of the CASTNET monitors into regulatory monitors. EPA provided a response on August 27, 2013, rebutting AAPCA's concerns. The matter was discussed by AAPCA states and EPA at the fall 2013 AAPCA member meeting where states' concerns were reiterated. As a result, EPA agreed to expand their outreach efforts on monitoring activities to specifically include AAPCA. AAPCA also plans to continue discussions with EPA on appropriate addressing states' concerns with data quality assurance/control procedures for these monitors. Since the monitors have been upgraded to meet regulatory monitor requirements, the federal Clean Air Act requires they be used as regulatory monitors (irrespective of EPA's lack of adequate public notice).

Economic Impact and Associated Issues of EPA Regulations

EPA's Suite of Regulations Affecting the Electric Utility Industry

- In the last several years, EPA has proposed or finalized significant rules affecting the power generation industry and coal-fired power plants in particular: Cross State Air Pollution Rule or CSAPR (overturned by the DC Circuit Court but on appeal with the U.S. Supreme Court), Mercury and Air Toxics Standards (in effect but on appeal), CO₂ New Source Performance Standards (NSPS) for new power plants under 111(b) (reproposed on Jan. 8, 2014), Coal Combustion Residuals (expected to be finalized in late 2014), Clean Water Act 316(b) Cooling Water Intake rules (expected to be finalized at any time now), and CO₂ Emission Guidelines for existing power plants under Clean Air Act 111(d) (under development).
- Cross State Air Pollution Rule
 - Although CSAPR was overturned by the DC Circuit Court, EPA's promulgation of the rule displayed fundamental philosophical flaws in EPA's interpretation of the Clean Air Act.¹
 - CSAPR did not properly take into account the contribution of a state's emissions that affected other states' compliance with NAAQS. CSAPR overcontrolled emissions from Texas plants above the amount necessary to be reduced.
 - EPA did not provide adequate notice of the rule. There was no significant linkage by Texas for PM_{2.5} to any monitor at rule proposal. With no indication of any specific linkage at proposal, it was not possible for Texas to provide meaningful comment.
 - EPA did not provide the opportunity for states to submit their own State Implementation Plans before EPA issued a Federal Implementation Plan. If the rule wasn't overturned by the courts, it would have significantly affected existing coal-fired power plants in Texas posing a very real threat to the reliability of ERCOT electric grid.
 - A ruling by the Supreme Court in favor of EPA's appeal would not necessarily mean CSAPR would immediately go into effect as the Supreme Court could remand the case back to the DC Circuit Court for reconsideration. However, if CSAPR is ultimately upheld, the EPA could quickly reinstate CSAPR and require companies to comply. If the Supreme Court rules against the EPA and affirms the DC Circuit Court's decision, the EPA has already begun the process for a replacement rule for CSAPR.

¹ On March 29, 2013, the U.S. Solicitor General petitioned the U.S. Supreme Court to review the DC Circuit Court's decision on the Cross State Air Pollution Rule. On June 24, 2013, the Supreme Court granted EPA's petition for review. A ruling is currently pending.

- Mercury and Air Toxics Rule
 - MATS is requiring significant investment in control technology while the benefits are questionable at best.
 - EPA's economic analysis misrepresented the actual costs and benefits of the rule. Benefits should be based on direct health benefits associated with reductions of the Hazardous Air Pollutants rather than including co-benefits associated with emission reductions of non-HAP pollutants. More than 90% of the represented health benefits are based on particulate matter benefits and not the HAPs that are the basis of the rule. Particulate matter is not a HAP and is regulated as a criteria pollutant under the EPA National Ambient Air Quality Standards. If EPA confined its cost benefit analysis only to the specific HAPs that pose a hazard to public health, any health benefits would be insubstantial compared to cost of the regulation.
 - On-going legal challenges are not likely to affect companies' decisions regarding compliance with the MATS rule because the rule is currently in effect. Existing units must comply with the MATS rule by April 16, 2015. Companies may request from the state a one-year extension to April 16, 2016.
- CO₂ New Source Performance Standards (NSPS) for New Power Plants under 111(b)
 - The 111(b) rulemaking would require new coal power plants to meet a CO₂ emissions standard that is not achievable without use of carbon capture and storage (CCS). CCS has not been commercially demonstrated on any existing power plant. CCS substantially increases the cost of constructing and operating a power plant. The only coal-fired power plant projects under construction or planned with CCS have received significant federal aid through DOE grants. Additionally, the parasitic load associated with CCS can be as high as 30%; therefore, constructing a new power plant with CCS requires building a larger capacity unit in order to provide the same net power to the grid as a unit without CCS. This results in cost increases beyond just the cost of the CCS equipment itself. Regardless of the price of natural gas, EPA's rulemaking will most likely result in no new coal-fired power plants being constructed in the foreseeable future.
- CO₂ Emission Guidelines for existing power plants under Clean Air Act 111(d)
 - EPA plans to propose rules under Federal Clean Air Act (FCAA) §111(d) for emission guidelines for CO₂ emissions from existing power plants by June 2014. EPA has engaged states and other stakeholders in this process; however, to date, the EPA has not provided any specific details as to the level of CO₂ control that may be required to meet the emission guideline. EPA Administrator McCarthy has publically stated that CCS is not being considered for existing facilities under this regulation. In joint comments submitted to EPA, the TCEQ and Public Utility Commission of Texas emphasized concerns that states need to have maximum flexibility to craft state plans to meet a performance standard to account for the diverse

nature of each state's power generation mix and market structures. Maintaining electric reliability and minimizing consumer costs as a result of the rulemaking is a necessity. EPA must be clear and transparent about the data and assumptions they make regarding effects on reliability and costs to consumers. There should not be tradeoffs between EPA's desire to reduce CO₂ emissions and the progress states have made in reductions of other air pollutants.

- EPA should not penalize states for demographic and geographic factors that complicate the supply of, and demand for, electricity within and between states. Texas' population is growing faster than any other state. Texas is also the nation's leading producer of oil and gas, refined products, and chemicals. These industries are energy dependent and Texas should not be penalized for the energy used by these industries that provide products to the rest of the nation and the world. According to the U.S. Energy Information Administration (EIA), Texas is also the largest lignite producer and the fifth largest coal producer in the nation.
- Texas produces more electricity than any other state, generating almost twice as much as the next largest generating state. Texas is also the largest electricity consuming state. Unlike other regions where large net interstate electricity deliveries are available, the Texas power grid is largely isolated from the interconnected power systems serving the eastern and western United States. The largest portion of the retail electricity sales in Texas is to the residential sector. One-half of the households in the state use electricity as their primary heating fuel. The residential use of electricity is higher in Texas than in other states, in part because of population size, but also because of high demand for air conditioning during the hot summer months and the widespread use of electricity as the primary energy source for home heating during the generally mild winter months.² Any program developed by EPA under 111(d) that does not take factors such as these into account could result in unequal negative impacts on Texas economy relative to other states.

Impacts to Texas

- Coal mining, coal-fired electricity and related industries provide a significant impact to the Texas economy creating over \$6.2 billion in economic activity in Texas annually. This activity supports 23,130 jobs that pay almost \$1.7 billion in salaries, wages, and benefits. State and local taxing jurisdictions receive \$640 million in annual revenues from coal related activities.³ Any EPA regulation, especially the 111(d) rulemaking that results in coal-fired power plant retirements could have a substantial impact on the Texas economy.

² <http://www.eia.gov/state/analysis.cfm?sid=TX>

³ Coal Mining and Coal-Fired Power Generation in Texas: Economic and Fiscal Impacts, Terry Clower, Ph.D. and Manuel Reyes, D.E.D., Center for Economic Development and Research, University of North Texas, February 2013

- Fiscal impact of EPA Regulations to TCEQ
 - With the passage of HB 788 by the Texas Legislature in 2013, the TCEQ is now required to establish a permitting program to regulate GHG emissions to the extent that such GHG emissions require authorization under federal law. At the time of passage of the legislation, TCEQ estimated that there could be as many as 1,800 existing sites throughout the state that could trigger the Title V GHG emissions threshold established under EPA's Tailoring Rule and that up to an additional 10 FTEs would be needed by FY 2015 for permitting and compliance monitoring at a cost of about \$900,000. The state will evaluate the need for additional FTEs prior to the 2015 legislative session.
 - If impacts were based on the permitting thresholds in the Clean Air Act rather than EPA's Tailoring Rule, the increase in permit application workload would be enormous. Nationwide, EPA estimated the number of PSD applications would rise from approximately 300 to 40,000 per year, and Title V permit applications would be expected to increase from 15,000 to approximately 6 million. According to the November 2008 report from the Texas Advisory Panel on Federal Environmental Regulations, it was estimated that costs to the TCEQ could run anywhere from \$40 to \$80 million annually.
- Coal Plant Retirements
 - At this time, projections by organizations like the U.S. Department of Energy, Energy Information Administration (EIA) and The Brattle Group do not indicate substantial coal-fired power plant retirements in ERCOT. The EIA 2014 Annual Energy Outlook Early Release Report (released December 2013) indicates approximately 1.7 gigawatts (GW) of coal capacity are expected to retire by 2016 in ERCOT. In a 2012 report, The Brattle Group projected less than 1 GW of coal-capacity would retire by 2016 in ERCOT. However, the final total retirements may not be known until the final compliance dates for the MATS rule (e.g., April 16, 2016) are closer.
 - Factors possibly contributing to Texas having, at present, few announced and projected coal-fired power plant retirements:
 - The Texas coal-fired fleet is relatively young compared to most other states. The average age of the coal-fired power plants in Texas is approximately 30 years. The national average age for coal-fired power plants is approximately 45 years.
 - Regarding retrofits for compliance with the MATS rule for the existing Texas coal-fired fleet:
 - Most, if not all, of the coal-fired power plants in Texas will require controls for mercury under MATS.
 - Some facilities may need to install controls to meet the hydrogen chloride (HCl) emission standard for acid gases under MATS; however, many are expected to already meet the HCl limit or to meet the alternate sulfur dioxide (SO₂)

surrogate limit if the unit is equipped with flue gas desulfurization control.

- Most of the coal-fired units in Texas are expected to already meet the particulate matter alternate emission standard for the metal hazardous air pollutants.
- At this time, there have been announcements of 3 coal-fired power plant unit retirements in Texas.
 - In 2011, City Public Service announced plans to retire both J T Deely Units 1 and 2 in Bexar County by December 31, 2018. While the planned retirement was announced in 2011, City Public Service only recently (October 2013) formally notified ERCOT of the retirement of the Deely units. Note: the J T Deely units are within the ERCOT region.
 - In 2012, American Electric Power announced plans to retire Welsh Unit 2 in Titus County by no later than 2016. This announcement was part of a consent decree agreement associated with the startup of the Turk facility in Arkansas. Note: the Welsh facility is the SPP region, not in the ERCOT region.
- The effects of EPA's 111(d) rulemaking on the existing coal-powered fleet are unknown at this time.
- Electric Reliability
 - While substantial retirements in the Texas coal-fired fleet are not expected at this time, ERCOT is projecting the reserve margin will fall below the target reserve margin, based on the May 2013 Capacity, Demand, and Reserves (CDR) Report. Additional retirements will exacerbate the reserve margin situation in ERCOT.
 - Note: ERCOT is reevaluating its load forecasting approach and considering changes. Previous load projection estimates included growth estimates between 2 and 3 percent per year, while recent actual growth has been 1.1 percent per year. If ERCOT changes the growth projection estimates, it may improve the reserve margin projections. The Winter 2013 CDR Report is still pending from ERCOT.
 - In addition to retirements, overlapping outages for the installation of pollution control equipment may create reliability challenges. For example, NERC projects that 43.5 GW of SO₂ controls and 30.6 GW for mercury controls are planned between 2013 and 2016 nation-wide (NERC 2013 Long-Term Reliability Assessment Report, December 2013).