



May 1, 2015

Chairman Ron Johnson,
Homeland Security and Government Affairs Committee
U.S. Senate

Ranking Member Tom Carper,
Homeland Security and Government Affairs Committee
U.S. Senate

Dear Chairman Johnson, Ranking Member Carper, and Members of the Senate Homeland Security and Government Affairs Committee,

The Natural Resources Defense Council (NRDC) is pleased to comment on the impact, state and role of federal regulation and rulemaking. Since 1970, NRDC has participated in the legal and regulatory processes to promote public health and the environment. Our organization brings decades of expertise in regulations that protect the public and those that do not. We hope that you find our comments helpful in your efforts to evaluate the regulatory system.

Americans rely on regulations to protect human health, the environment and quality of life. These rules correct market failures that make it more likely for an actor to shift the costs of its actions onto the general public. For instance, without regulations it might make economic sense for some actors to dump their pollution into waterways, freely vent chemicals into the air, or deposit harmful contaminants into the surroundings. The public pays a high price when these activities go unchecked. By contrast, it has consistently been shown that benefits of regulations greatly exceed the costs.

Despite this, public benefits are often a footnote in today's "regulatory reform" discussion. Too often, the debate is confined to compliance cost without equal consideration of human health, human lives, and environmental sustainability. NRDC understands that regulations may bring abatement costs and we do not trivialize this. However, it is also appropriate to discuss why regulations are necessary, what is at stake, and the sizeable analytic tasks that are already applied to federal rulemaking. Finally, it is important to stress that efforts to slow or stop the regulatory process will produce very real dangers and harms to Americans and the environment.

Our comments discuss each of these issues. They begin by noting several of the analytic requirements that agencies must already adhere to as part of the rulemaking process. Next, they examine examples of severely delayed and dysfunctional rulemakings that have endangered the public by denying Americans the health and safety benefits guaranteed by congressional enactments and conferring insufficient or grossly delayed benefits. Finally, they examine several examples of well-designed regulations that have benefitted the public immensely.

NATURAL RESOURCES DEFENSE COUNCIL

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I. The existing regulatory process already requires resource intensive cost benefit analysis and extensive stakeholder participation.

Over the last several decades, policymakers have applied layers of overlapping analytic and public engagement requirements onto the regulatory system. To be clear, NRDC does not oppose public engagement and regularly participates in the public comment process. But it is important to recognize that carrying out these requirements demands substantial time and resources. It is equally important to acknowledge that Congress has inadequately funded agencies to meet statutory requirements adopted by lawmakers. Increasing the existing resource burden will prevent agencies from effectively carrying out their obligations even more; further endangering Americans and thwarting statutory safeguards and protections.

Below, we note several laws and executive orders that already govern the rulemaking process beyond the Administrative Procedure Act. We provide these examples to illustrate two points. First, there is already an overlapping patchwork of complicated tasks embedded in many agency actions. Second, these examples show how many of the regulatory reform bills that have been recently introduced, such as the Regulatory Accountability Act, would simply add redundancy to the existing requirements, squander agency resources, perpetuate inefficiency and red tape, and obstruct health protections that Congress has instructed federal agencies to enforce.

- **The Regulatory Flexibility Act (RFA):** Passed in 1980, the RFA requires agencies to perform an Initial Regulatory Flexibility Analysis (IRFA) and a Final Regulatory Flexibility Analysis (RFA) for regulations that will significantly impact small businesses. The IRFA must contain the reasons for the agency action, its legal basis, its reporting requirements, the number of small businesses affected and an identification of any federal rules that the action duplicates. The IRFA must also include a description of significant alternatives to the proposal that would accomplish the regulatory objectives with less cost. The final RFA must include a summary of issues raised during public input, an estimate of the number of small business the rule would apply to, responses to any comments raised by the Small Business Administration, the rule's record keeping requirements, a description of the steps taken to minimize small business impacts, and a justification for the agency action over other significant alternatives.
- **Executive Order 12866:** Executive Order 12866 sets out the guidelines that agencies must follow during regulatory promulgation. It was signed by President Clinton in 1993. E.O. 12866 requires agencies to conduct cost benefit analysis when possible. It also requires identification and cost benefit analyses of all reasonable alternatives including the option of not regulating. Under E.O. 12866, agencies must design their regulations to maximize cost effectiveness. The order requires agencies to provide the public with meaningful participation in the regulatory process and to consult with state, local and tribal governments when feasible.
- **The Unfunded Mandates Reform Act (UMFRA):** UMFRA was enacted in 1995. For applicable rules, it requires federal agencies to provide written assessments of their regulations that identify the rule's authorizing law, include qualitative and quantitative cost benefit analysis, and provide estimates of the rule's national economic impacts. Assessments under UMFRA must also include the cost share borne by the federal government and any disproportionate effects on regional, state, local, or tribal governments, or specific segments of the private sector. The act

requires federal agencies to consult with state, local, and tribal governments. UMFRA requires agencies to evaluate a reasonable number of alternatives and select the least costly, most effective or least burdensome alternative.

- **Executive Order 13563:** Adopted in 2011, E.O. 13563 requires meaningful opportunities for all stakeholders to comment on proposed agency action. To the extent feasible, it requires all docket information to be made available and searchable online, including all relevant scientific information. E.O. 13563 allows stakeholders the opportunity to comment on a proposed rule online and requires agencies to solicit the views of affected stakeholders before issuing a Notice of Proposed Rulemaking. The order asks agencies to simplify and harmonize regulations that may overlap or contradict other regulations. It tasks the Office of Information and Regulatory Affairs (OIRA) with creating a plan for retrospective regulatory review.

Despite the time and resource intensive requirements already on the books, bills introduced in this Congress would exacerbate, rather than alleviate, existing problems and illegal delays resulting from missed statutory deadlines. These legislative proposals typically require redundant analyses, needlessly increase the scope and granularity of existing analyses, apply impossible analytic thresholds or impose legal and political uncertainties on the rulemaking process.

NRDC is deeply concerned with legislative proposals that replicate delay and inefficiency across the regulatory spectrum. Bills that hold back rules of urgent public importance and diminish agency resources set dangerous policy. Below, we provide several examples of when poor regulatory design or slow promulgation allowed risks to go unchecked.

II. Slow or unworkable regulatory processes subject Americans to greater risk.

The United States is a nation of innovation and rapid technological development. It is the job of regulators to ensure that public protections remain relevant amid changing conditions. They can only do this when the regulatory system is nimble enough to keep pace with emerging risks. The Toxic Substances Control Act, the BP oil disaster, the decades of delay in Clean Air Act rulemakings, and the sharp growth of crude shipments by rail all illustrate the harmful effects of regulatory lag.

A. Unworkable rulemaking requirements prevent the Toxic Substances Control Act from protecting Americans against widely recognized health risks.

The Toxic Substances Control Act (TSCA) is widely considered to be the greatest failure of any of the environmental laws of the 1970s. The main reason that EPA has historically failed to regulate chemicals under TSCA is the provision requiring the agency to select the regulatory alternative that is the “least burdensome” on industry. In 1989, after spending ten years and millions of dollars, to develop a 45,000 page record, EPA proposed to ban most uses of asbestos in the United States. Roughly 10,000 people die in the U.S. every year as a result of asbestos exposure. Yet in 1991, a federal court overturned EPA’s ban on existing uses of asbestos. The court held that EPA did not meet the “least burdensome” test by conducting a thorough cost benefit analysis of each of the potential regulatory options at the agency’s disposal and demonstrating that the one it chose was the least costly effective approach. As a result, products containing asbestos are still used in this country despite asbestos bans in 55 other countries. In

the 20 years since the court's decision in the asbestos case, EPA has not proposed to regulate another toxic chemical.

NRDC is deeply concerned with any legislative attempt to apply TSCA's unworkable standard to other public protections. TSCA's inability to protect the American population against a known carcinogen shows why applying this or other unworkable processes across the regulatory system runs deeply counter to public interest.

B. Slow regulatory adaptation contributed significantly to BP's Deepwater Horizon disaster.

On April 20, 2010 a catastrophic explosion aboard BP's Deepwater Horizon killed 11 people and resulted in one of the worst environmental disasters in national history. It took 87 days to plug the well which ultimately leaked over 170 million gallons of oil into the Gulf of Mexico. An additional 1.8 million gallons of toxic chemical dispersants were used in the response effort. The oil that rose to the surface covered approximately 68,000 cumulative square miles, nearly the area of Oklahoma.ⁱ Understanding the long term impacts on the region's diverse wildlife will require years. However, nearly 1 million coastal and offshore seabirds are estimated to have died as a result of the spill.ⁱⁱ Marine mammal deaths could be as high as 5,000.ⁱⁱⁱ It is also possible that the spill has influenced a dramatic increase in endangered sea turtle strandings since 2010.^{iv}

The spill's impacts extend far beyond the environment. In addition of loss of human life, the economic impacts include fishery closures, real estate devaluations and tourism revenue losses. The spill's financial damages can be partially estimated through damage claims that BP has paid to date. As of December 2014, BP had paid over \$13 billion in damages. This includes \$1.4 billion to governments for economic damages and \$11.6 billion in economic damages and medical claims to individuals and businesses.^v Lost tourism and "brand damage" have been estimated to cost the Gulf coastal economy up to \$22.7 billion through 2013.^{vi}

The Deepwater Horizon disaster clearly illustrates why lawmakers must avoid slowing down the rulemaking process with new obstacles. For years, regulatory protections fell behind rapid changes in offshore oil and gas production. In 1989, deep water wells produced about four percent of all Gulf production. Over the next ten years, deep water production grew to forty-five percent. By 2004, it accounted for sixty-five percent of Gulf production. By the time of the Macondo disaster, deep water wells supplied eighty percent Gulf of Mexico production.^{vii} With greater depth comes greater risk created by technical complexity and harsh undersea conditions. When accidents occur, regaining control is challenging, demonstrated by numerous failed attempts to plug the Macondo well over an 87 day period.

Despite these dramatic industry changes, regulatory protections stagnated. For instance, safety regulations were never updated to reflect the proliferation of specialized service contractors. These entities perform many critical well safety functions yet were not directly overseen by regulators. And as deep water production became increasingly frequent and complex, the Minerals Management Service (MMS) never updated its antiquated regulations to ensure that oil drillers fully assessed and managed the risks of these highly challenging projects. Regulations were also never updated to require better reporting of uncontrolled hydrocarbon releases or near accidents, which could have provided critical trend data and useful information for the public.^{viii} The result was an obsolete regulatory framework configured towards a bygone era of oil and gas production. The National Commission on the BP Deepwater Horizon Oil

Spill and Offshore Drilling lists these regulatory failures as contributors to the spill. It is true that many factors, including industry opposition, contributed to slow regulatory development. However, the disaster clearly shows why the regulatory system must be responsive enough to match present conditions. Blocking the rulemaking process with new obstacles will prevent badly needed adaptation and increase risks to the public.

C. Decades of Delayed Clean Air Act Standards Have Meant Thousands of Lives Lost.

The Clean Air Act's 40-year history has been characterized by incredible success in protecting the public while also growing the economy. But years of delay and missed statutory deadlines have meant that tens of thousands of lives were needlessly lost to air pollution-related harms simply because the congressionally-established statutory deadlines in the Act were not met. To name only a few of the most egregious examples, both EPA's Mercury and Air Toxics standards for power plants, air toxics regulations for industrial boilers and cement kilns, and national health standards for smog pollution were delayed by over a decade each. These standards collectively are estimated to save thousands of lives each year once fully implemented. Decades of delay from just these standards alone has meant tens of thousands of lives lost. Similarly, the Clean Air Act requires that EPA review National Ambient Air Quality Standards (NAAQS) for a number of pollutants every five years. The Agency regularly misses these statutory deadlines, and NAAQS reviews have been delayed by years as well.

A prime example of just how pervasively harmful this delay can be is the health toll to Americans caused by the delay of scores of Clean Air Act rules that Congress directed EPA to adopt under just *one section* of the Clean Air Act, in the 1990 Clean Air Act amendments. Congress revised section 112 of the Act in 1990 specifically because rulemaking to limit toxic air pollution was proceeding too slowly under the previous version of the statute. As a result, Congress wrote explicit statutory deadlines into the statutory language in 1990, requiring EPA to issue one-third of MACT standards within three years after 1990, one third three years after that, and all of them by 2000.^{ix} Follow-on provisions of the Act require EPA to review standards after six years, and then every eight years to assess the "residual risk remaining."^x But if one compares these statutory deadlines to the dates that EPA actually adopted rules, in some cases final MACT standards were not adopted until 10 to 15 years after statutory deadlines.^{xi}

We know from the MACT standards ultimately adopted, including the example of EPA's Mercury and Air Toxics standards described above, that they helped or will help avoid thousands of premature deaths, thousands of heart attacks, and hundreds of thousands of asthma attacks.^{xii} And the opposite is also true – the missed statutory deadlines in this section of the Clean Air Act alone resulted in many thousands of avoidable deaths, many thousands of heart attacks, and hundreds of thousands of asthma attacks that could have been avoided over many years had EPA complied with the statutory deadline set by Congress.

It must be recognized that these delays result primarily from two factors: first, the failure by Congress to adequately fund EPA's budget at levels that ensure compliance with and enforcement of federal laws established by Congress itself. It is critical that Congress provide federal agencies with the resources they need to ensure that the statutory obligations written into law by Congress can be enacted by the federal agencies tasked with developing rules.

Second, these unlawful failings and delays were also fueled by various administrations pursuit of non-required rulemakings, some of which were deregulatory and starkly unlawful, rather than

devoting priorities and resources to mandatory statutory deadlines for safeguards that would protect Americans. Indeed, a Federal District Court Judge chided the Bush administration for pursuing such deregulatory ventures at the expense of mandatory statutory duties, at the same time that the Bush EPA tried arguing that it lacked resources to achieve the mandatory statutory responsibilities.

D. Oil shipments by rail have quickly outpaced regulatory protections, posing new risks to public health, public safety and the environment.

Unconventional drilling techniques have rapidly propelled tight oil production from previously inaccessible formations. This growth has also driven an immense uptick in oil shipments by rail. According to the Energy Information Administration, crude rail shipments totaled at just over 20 million barrels for 2010. By 2014, annual shipments had increased to over 373 million barrels.^{xiii} Escalating traffic of toxic and explosive liquids creates obvious risks to public safety, health and the environment. These risks have given way to a series of recent accidents involving crude transport by rail:

- In July 2013, a train carrying 72 carloads of crude oil exploded in Lac-Mégantic, Quebec. The explosion claimed 47 lives and destroyed much of the town center. Approximately 1.6 million gallons of crude oil were spilled.^{xiv}
- In November 2013, a 90 car derailment in Pickens County, Alabama spilled 749,000 gallons of crude. The resulting fire burned for two days.^{xv}
- In December 2013, a train derailment in Casselton, North Dakota released 400,000 gallons of crude. The explosion required evacuation of 2,000 people.^{xvi}
- In April of 2014, a 17 car derailment caught fire and spilled 29,000 gallons of oil in Lynchburg, Virginia, threatening Richmond's water supply.^{xvii}
- In 2013, rail cars spilled more crude oil than nearly the preceding 40 years combined.^{xviii}

The tremendous increase in traffic and accidents warrants a strong regulatory response. But commensurate protections continue to trail far behind industrial transformation. Many toxic substances are shipped in vessels designed to withstand accidents. Yet crude is generally transported in a class of tank car that entered service in 1964 and is generally used for nonflammable liquids.^{xix} This year, the House Transportation and Infrastructure Committee expressed its frustration at the slow pace of regulatory adaptation. The Pipeline and Hazardous Materials Safety Administration (PHMSA) responded by citing many of the obstacles that recent legislative efforts are designed to exacerbate. For instance, PHMSA noted that the rulemaking's comment period has already drawn nearly 30,000 comments which require substantial time and resources to fully consider. In addition, PHMSA also noted its obligation to perform rigorous cost benefit analysis, which is an additional source of resource expenditure and delay.^{xx}

PHMSA's inability to issue sufficient protections demonstrates how existing rulemaking requirements are partially responsible for the absence of urgently needed safety and health measures. Policymakers must not push the system beyond its breaking point as the current process already shows substantial signs of stress and inflexibility.

III. Well-designed regulations save lives and provide substantial economic returns.

Well-designed regulations that protect human lives, save energy and reduce waste also yield substantial net economic returns. Even Bush Administration analysis shows that the monetized benefits of regulation vastly outweigh its costs. In 2008, for instance, the Office of Management and Budget found that the “estimated annual benefits of major Federal regulations reviewed by OMB from October 1, 1997 to September 30, 2007 range from \$122 billion to \$656 billion, while the estimated annual costs range from \$46 billion to \$54 billion.”^{xxi} The balance of this document lists just several examples of well-designed regulations that provide positive economic returns and improve human lives.

A. Upon implementation, Clean Air Act regulations provide massive return on investment, improve health and save lives.

Upon implementation, the Clean Air Act (CAA) is among the nation’s most successful environmental laws, indeed one of the most successful federal laws ever enacted. In its first twenty years, the Clean Air Act reduced total emissions of the six principal air pollutants by more than 41 percent, while the country’s Gross Domestic Product increased by more than 64 percent.^{xxii} This Act’s safeguards limit harmful airborne pollutants across power, industrial, mobile and area sources. By improving air quality, the CAA also reduces chronic respiratory illness, lost work days, hospital admissions, and premature mortality. In 1990 alone, EPA estimated that the Act prevented more than 200,000 premature deaths and avoided almost 700,000 cases of chronic bronchitis.^{xxiii} EPA’s Mercury and Air Toxics Standards for power plants alone are estimated to prevent up to 11,000 premature deaths per year, thousands of heart attacks and bronchitis cases, and tens of thousands of asthma attacks. EPA estimates that these standards each year will save between \$39 billion and \$90 billion annually in avoided health costs when fully implemented.^{xxiv}

When evaluated more broadly, Clean Air Act regulations continue to yield impressive collective returns. A 2011 EPA analysis estimated that by 2020, the Clean Air Act’s direct benefits will outweigh its direct costs by a factor of 30 to 1. Indeed, the cost-benefit margin is so wide that net gains are unlikely to be reversed under any set of reasonable alternative assumptions.^{xxv} What’s more, we should remember that these economic returns flow from lower incidences of mortality and morbidity, representing significant reductions in human suffering.

B. Energy efficiency standards save money, improve air quality, and insulate Americans from price volatility.

Efficiency standards are a proven regulatory success. For decades, efficiency standards across mobile and stationary sectors have saved energy expenditures, reduced pollution, minimized exposure to price volatility, and introduced new technologies into the marketplace. The aggregate savings are substantial:

- Appliance and equipment standards from rules finalized since 2009 will save American consumers and businesses roughly \$480 billion through 2030.^{xxvi}
- According to the Department of Energy, light duty vehicle efficiency standards for model years 2012-2025 will save consumers \$1.7 trillion. By 2025, these standards will also reduce U.S. oil reliance by more than 2 million barrels per day.^{xxvii}

- Just the first round of fuel economy and pollution standards for model year 2014-2018 medium and heavy duty vehicles will save businesses \$50 billion in fuel costs over the lives of the covered vehicles. Additionally, these standards will also avoid 530 million barrels of oil consumption. By reducing air pollution and particulate matter, these standards will also produce estimated health benefits of \$1.3 billion to \$4.2 billion in 2030.^{xxviii}

C. The Food Quality Protection Act has dramatically reduced the amount of harmful chemicals in our food.

The Food Quality Protection Act (FQPA) was passed unanimously by Congress in 1996. It was the nation's first environmental law that established specific protections for the health of children and infants. The bill required EPA to minimize pesticide exposures to children and infants, considering the aggregate exposure to each pesticide from all sources including food, water, residential uses, and other non-occupational uses. It also required EPA to assess the cumulative effects of exposure to all pesticides from the same chemical class.

Under the FQPA, EPA regulations phased out some of the most dangerous pesticide uses. For instance, FQPA is credited with forcing the cancellation or phase-out of 18 of the 49 organophosphate pesticides (OPs) that began the review process under FQPA. It also resulted in the cancellation or phase-out of almost all residential uses of OPs, and many of the agriculture uses on kid's foods like apples and grapes. OPs are a World War II era nerve agent that can cause dizziness, confusion, vomiting, numbness of the limbs and even death in extreme cases. Between 1994 and 2004 there has been a 57% reduction by weight of OP use on the top 10 children's foods. For chlorpyrifos, one of the most toxic OPs, scientific studies of pregnant women have reported that pre-natal exposure is associated with poor birth outcomes and long-term neurobehavioral deficits. The FQPA allowed EPA to phase out all residential uses of chlorpyrifos, resulting in a reduction of over 6 million pounds annually from people's homes. This action has been associated with a 66% reduction in poisonings since 1995.

IV. Conclusions

Well-designed regulations save lives and provide positive returns. Economic analyses by both political parties have consistently shown that regulatory benefits far exceed costs. Yet, the reverse is also true. When our regulations fail to protect, the public pays tremendous costs expressed as premature mortality, avoidable illness, lost productivity, environmental degradation, and economic damages. Despite this, policymakers have spent decades applying numerous overlapping requirements to our regulatory system. One effect has been to weigh down the regulatory process and diminish agency resources.

Given all of this, NRDC is concerned by efforts to solicit ideas to deregulate industrial pollution and devote limited agency resources to deregulatory activities that reduce health safeguards. There is abundant evidence that agencies are failing to discharge statutory responsibilities to protect the public and carry out existing laws. As described above, the 1990 Clean Air Act Amendments alone have dozens of statutory deadlines that EPA has not met, due in no small part to inadequate resources and insufficient congressional budgets. With this current situation, NRDC believes it is irresponsible to continue to cut EPA's budget at the same time that some in Congress contemplate requiring it to devote limited resources to deregulatory ventures. Instead, we urge policymakers to catalogue outstanding statutory deadlines in

current health, food safety, environmental and other federal laws that agencies have not yet implemented. The Congressional Research Service or National Academies could be tasked with this important responsibility to the American people.

All too often, regulatory reform bills focus exclusively on cost without any recognition of the dangers posed by under regulation. As a result, these bills simply double down on existing delays and inefficiencies. History has shown that the public pays heavily when regulatory protections are too slow to evolve and adapt. For these reasons, NRDC urges you to avoid any legislative measures that would further slow or complicate our system of environmental and public health protections.

NRDC thanks you once again for the opportunity to comment on federal regulation and rulemaking. We look forward to working with your committee on this important issue.

ⁱ Rabalais, N., *Assessing Early Looks at Biological Responses to the Macondo Event*, BioScience, Vol 64(9), pp. 757-759., 2014.

ⁱⁱ Haney, J.C., Geiger, H.J., & Short, J.W., *Bird mortality from the Deepwater Horizon oil spill, II, Carcass sampling and exposure probability in the coastal Gulf of Mexico*, Marine Ecology Progress Series, vol. 513, pp. 239-252, 2014.

ⁱⁱⁱ Williams, R., et al., *Underestimating the damage: interpreting cetacean carcass recoveries in the context of the Deepwater Horizon/BP incident*. Conservation Letters, Vol 4:228-233, 2011.

^{iv} NOAA Fisheries Office of Protected Resources, Sea Turtle Strandings in the Gulf of Mexico, NOAA. Lasted viewed December 30, 2014 at: www.nmfs.noaa.gov/pr/species/turtles/gulfofmexico.htm.

^v BP, Gulf of Mexico Oil Spill Claims and Other Payments, Public Report, BP, December 31, 2014.

^{vi} Oxford Economics, Potential Impact of the Gulf Oil Spill on Tourism. Last viewed April 17, 2015 at: https://www.ustravel.org/sites/default/files/page/2009/11/Gulf_Oil_Spill_Analysis_Oxford_Economics_710.pdf.

^{vii} Peter Lehner and Bob Deans, *In Deep Water: The Anatomy of a Disaster, the Fate of the Gulf, and Ending Our Oil Addiction*, Natural Resources Defense Council, 2010.

^{viii} National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, *Deep Water: The Gulf Oil Disaster and the Future of Offshore Drilling*, January 2011.

^{ix} See generally <http://www.epa.gov/air/caa/peg/toxics.html>; 42 U.S.C. §112(e)

^x 42 U.S.C. §112(f)

^{xi} See <http://www.epa.gov/airtoxics/mactfnlalph.html> (listing final MACT standards promulgated)

^{xii} See, e.g., EPA's Mercury and Air Toxics Standards for Power Plants; MACT standards for Portland Cement Kilns; MACT standards for Industrial Boilers.

^{xiii} Energy Information Administration. Last viewed April 16, 2015 at:

http://www.eia.gov/dnav/pet/PET_MOVE_RAILNA_A_EPC0_RAIL_MBBL_A.htm

^{xiv} "Accidents Involving Trains Transporting Crude Oil," The Big Story, Associated Press, January 23, 2014. accidents-involving-trains-transporting-crude-oil.

^{xv} Dianne Bailey, *It Could Happen Here: The Exploding Threat of Crude by Rail in California*, NRDC, 2014.

^{xvi} *Ibid.*

^{xvii} Alex Rohr, "DEQ serves violation notice to CSX for Lynchburg oil spill," The News & Advance, May 23, 2014.

^{xviii} Safe Transport of Crude Oil, February 2014.

^{xix} Clifford Krauss and Jad Mouawad, "Accidents Surge as Oil Industry Takes the Train", New York Times, January 25, 2014.

^{xx} Sean Reilly, "Hearing amounts to venting session over slow pace of rulemakings", Energy and Environmental Daily, April 15, 2015.

^{xxi} Office of Management and Budget, *2008 Report to Congress on the Benefits and Costs of Federal Regulations and Unfunded Mandates on State, Local, and Tribal Entities*, 2008.

^{xxii} <http://www.epa.gov/air/caa/40th.html>

^{xxiii} *Id.*

^{xxiv} <http://www.epa.gov/mats/pdfs/20111221MATSimactsfs.pdf>

^{xxv} Environmental Protection Agency, *The Benefits and Costs of the Clean Air Act from 1990 to 2020*, EPA, March 2011.

^{xxvi}

http://energy.gov/sites/prod/files/2015/02/f19/equipment_standards_factsheet_updated_Feb_11_2015.pdf

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^{xxvii} U.S. Department of Energy. Last viewed April 24, 2015 at: <http://www.fueleconomy.gov/feg/oildep.shtml>.

^{xxviii} White House. Last viewed April 24, 2015 at:

<https://www.whitehouse.gov/sites/default/files/docs/finaltrucksreport.pdf>