REGULATORY AND QUASI-REGULATORY ACTIVITY WITHOUT OMB AND COST-BENEFIT REVIEW

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Whenever a federal agency proposes a significant regulatory action, that action must be reviewed by the Office of Information and Regulatory Affairs in the White House Office of Management and Budget (OMB).¹ OMB review is designed to ensure that the action is consistent with presidential priorities and is coordinated with the related actions of other federal agencies.² In addition, the federal agency must provide a rationale for the action and an assessment of its potential benefits and costs.³ OMB clears the regulatory action if there is a reasoned determination that its benefits justify its costs.⁴ This review, coupled with the cost-benefit requirement, is designed to ensure that federal agencies have carefully considered all the consequences of the regulations they propose.⁵

Although OMB and cost-benefit review are required for significant regulatory actions, a substantial amount of regulatory activity occurs without any OMB or cost-benefit review. Some of this activity is clearly regulatory in nature, in the sense that it creates binding legal obligations on regulated entities, while other activity might best be described as "quasi-regulatory," because

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^{1.} See Exec. Order No. 12,866, 58 Fed. Reg. 5911 (Jan. 22, 1993), reprinted as amended in 5 U.S.C. § 601 (2012).

^{2.} Id.

^{3.} Id.

^{4.} Id.

^{5.} Id.

the actions shape the regulatory environment and impact regulated entities but are not necessarily or directly binding.

This Article illustrates four types of regulatory and quasiregulatory activities that operate outside OMB and cost-benefit review: (1) agency issuance of quasi-regulatory documents such as memoranda, policy statements, and guidance documents; (2) agency approval of state regulatory policies under federal laws that authorize selective waiver of federal preemption of state regulation; (3) federal agency issuance of hazard determinations related to technologies, substances, and practices that impact the litigation and regulatory environment; and (4) federal agency decisions to enter into binding agreements with pro-regulation certain regulatory outcomes, litigants favoring where settlements create nondiscretionary agency duties to initiate new rulemakings. This Article illustrates how these four types of regulatory and quasi-regulatory activities have had a profound effect on important areas of the economy such as coal mining, automobile production, and housing construction, and suggests that Congress should consider subjecting all or some of these regulatory activities to routine OMB and cost-benefit review.

I. ISSUING INFORMAL QUASI-REGULATORY DOCUMENTS

Federal regulators often issue informal, quasi-regulatory documents such as memoranda of understanding, policy statements, and guidance documents. These quasi-regulatory documents can create major policy shifts that impose significant burdens on industries or compel those industries to engage in costly litigation if they intend to protect their rights under administrative law.

A vivid illustration of this phenomenon is the recent use of quasi-regulatory documents to institute dramatic policy changes in the granting of permits for surface coal mining operations in Appalachia. In the mid-1900s, the most prevalent form of coal mining in Appalachia was underground mining.⁶ But over the past twenty years, the coal industry increasingly has engaged in surface mining in Appalachia, even at the tops

^{6.} E.g., Emily S. Bernhardt et al., *How Many Mountains Can We Mine? Assessing the Regional Degradation of Central Appalachian Rivers by Surface Coal Mining*, 46 ENVTL. SCI. & TECH. 8115, 8115 (2012).

of mountains, a practice called "mountaintop mining."⁷ Today, surface mining accounts for about thirty-seven percent of the coal mined in Appalachia.⁸

Proponents of surface and mountaintop mining argue that it is safer and more efficient (on a cost-per-ton basis) than underground mining.⁹ Mountaintop mining avoids the subsidence issues that periodically have caused environmental harm to communities located above abandoned underground mines.¹⁰ In addition, it is a valuable source of economic activity in Appalachia. Mountaintop mining has created about 14,000 mining jobs with salaries that are high for rural Appalachia, and an additional 60,000 jobs that are related to the mining industry.¹¹ Those jobs also bring revenues to state and local governments. In West Virginia, for example, almost nine percent of the state's tax revenue is linked to mountaintop mining.¹²

Critics of mountaintop mining object to its adverse effects on the environment.¹³ Mountaintop mining levels the tops of mountains, and the excess dirt and rock are disposed of in the valley fills on the mountainsides.¹⁴ Entire streams are sometimes buried.¹⁵ Although mines should be reclaimed and the impact on streams should be mitigated under the Surface Mining Control and Reclamation Act, reclamation and mitigation efforts are not always effective.¹⁶ Recent evidence

12. Id.

14. Id. at 8115.

15. Id.

^{7.} E.g., James Wickham et al., The Overlooked Terrestrial Impacts of Mountaintop Mining, 63 BIOSCIENCE 335, 335 (2013).

^{8.} U.S. Coal Production by State, Region and Method of Mining, NAT'L MINING ASS'N (2011), http://www.nma.org/pdf/c_production_method.pdf, [http://perma.cc/X8FY-SR6M].

^{9.} E.g., Neela Banerjee, *Taking on a Coal Mining Practice as a Matter of Faith*, N.Y. TIMES, Oct. 28, 2006, http://www.nytimes.com/2006/10/28/us/28mountains.html?, [http://perma.cc/0xCq1JmDffb].

^{10.} NAT'L MINING ASS'N, MOUNTAINTOP MINING FACT BOOK 2 (2009), http://www.nma.org/pdf/fact_sheets/mtm.pdf, [http://perma.cc/MCV4-QZ92].

^{11.} Id.

^{13.} *See, e.g.,* Bernhardt, *supra* note 6.

^{16.} See U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-10-206, SURFACE COAL MINING: FINANCIAL ASSURANCES FOR, AND LONG-TERM OVERSIGHT OF, MINES WITH VALLEY FILLS IN FOUR APPALACHIAN STATES 3–5, 22 (2010), http://www.gao.gov/assets/310/300079.pdf, [http://perma.cc/P7CS-RRLT].

suggests that some reclaimed areas have become significant sources of surface water contamination, and the extent of contamination has been proportional to the amount of mountaintop mining in the area.¹⁷ Even with the best of reclamation efforts, mountaintop mining creates ecological disturbances, at least temporarily.¹⁸

Under the Clean Water Act, the Army Corps of Engineers has the authority to issue five-year permits for mountaintop mining activities.¹⁹ In 1982, the Corps issued Nationwide Permit 21, which was most recently renewed in 2007, authorizing all mountaintop mining activities that will have a minimal impact on the aquatic environment after reclamation and mitigation.²⁰ Historically, the determination of whether a mountaintop mining project is authorized by Nationwide Permit 21 occurred through a project-by-project analysis performed at the state level under the guidance of federal officials.²¹ From 2000 to 2008, about 511 mining reclamation projects were approved in West Virginia alone under the procedures Nationwide Permit 21 spelled out.²²

In June 2009, the Environmental Protection Agency (EPA) issued a press release titled "Obama Administration Takes Unprecedented Steps to Reduce Environmental Impacts of Mountaintop Coal Mining, Announces Interagency Action Plan to Implement Reforms."²³ The press release was accompanied

21. U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-10-21, SURFACE COAL MINING: CHARACTERISTICS OF MINING IN MOUNTAINOUS AREAS OF KENTUCKY AND WEST VIRGINIA 7 (2009), http://www.gao.gov/assets/300/299226.pdf, [http://perma.cc/P6MY-PAXK].

22. Id. at 58.

^{17.} See T. Ty Lindberg et al., Cumulative impacts of mountaintop mining on an Appalachian watershed, 108 PROC. NAT'L ACAD. SCI. 20,929, 20,929–30 (2011). 18. See id.

^{19.} See Claudia Copeland, Cong. Research Serv., 97-223, The Army Corps of Engineers' Nationwide Permits Program: Issues and Regulatory Developments 1 (2012).

^{20.} Reissuance of Nationwide Permits, 72 Fed. Reg. 11,092, 11,117 (Mar. 12, 2007).

^{23.} Press Release, EPA, Obama Administration Takes Unprecedented Steps to Reduce Environmental Impacts of Mountaintop Coal Mining, Announces Interagency Action Plan to Implement Reforms: Federal agencies take coordinated action to strengthen oversight and regulation, minimize adverse environmental consequences of mountaintop coal mining (June 11, 2009), *available at* http://yosemite.epa.gov/opa/admpress.nsf/3881d73f4d4aaa0b85257359003f5348/e7d3 e5608bba2651852575d200590f23!OpenDocument, [http://perma.cc/0uEP1xyN5eL].

by a memorandum of understanding signed by the EPA, the Army Corps of Engineers, and the Department of the Interior, which oversees the Office of Surface Mining Reclamation and Enforcement.²⁴ The memo affected a significant shift in regulatory policy toward greater restrictions on mountaintop mining by allowing the EPA, in addition to the States, to make project-by-project determinations about water-quality issues.²⁵ In effect, it suspended the existing procedures set forth in Nationwide Permit 21, a policy shift that occurred without any public comment, OMB review, or cost-benefit analysis. Although the Corps eventually proposed a formal suspension of Nationwide Permit 21 in July 2009,²⁶ that action was not finalized until June 2010, months after regulators had already changed their approach to issuing permits.²⁷

The mining industry complained that the EPA's criteria for project-by-project determinations were not clear, and that mining developers did not know what was expected of them.²⁸ After months of uncertainty, on April 1, 2010, the EPA issued a thirty-one page guidance document.²⁹ This document stated that the EPA did not intend to bring a complete halt to mountaintop mining, but that it was forcing the mining industry to adopt a practice of minimal or zero filling of valleys with mining debris.³⁰ In addition, it set strict limits on water conductivity levels that would take effect immediately.³¹ Again, no public comments were solicited, and no cost-benefit analysis

^{24.} Memorandum of Understanding Among the U.S. Dep't of the Army, U.S. Dep't of the Interior, and U.S. Envtl. Prot. Agency Implementing the Interagency Action Plan on Appalachian Surface Coal Mining (June 11, 2009), *available at* http://water.epa.gov/lawsregs/guidance/wetlands/upload/2009_06_10_wetlands_pdf_Final_MTM_MOU_6-11-09.pdf, [http://perma.cc/KC69-58LZ]; *see also* CLAUDIA COPELAND, CONG. RESEARCH SERV., RS21421, MOUNTAINTOP MINING: BACKGROUND ON CURRENT CONTROVERSIES 8 (2013).

^{25.} See COPELAND, supra note 24, at 8-9.

^{26.} Proposed Suspension and Modification of Nationwide Permit 21, 74 Fed. Reg. 34,311 (July 15, 2009).

^{27.} Suspension of Nationwide Permit 21, 75 Fed. Reg. 34,711 (June 18, 2010).

^{28.} See David A. Fahrenthold, *EPA at center of coal controversy*, WASH. POST, Jan. 28, 2010, http://articles.washingtonpost.com/2010-01-28/business/36905912_1_epa-officials-coal-industry-epa-statement, [http://perma.cc/0zZxjDWTgVT].

^{29.} See COPELAND, supra note 24, at 11.

^{30.} Id.

^{31.} Id. at 12.

was conducted.³² The mining industry responded that the EPA's new, unprecedented regulatory approach was an arbitrary and unlawful expansion of power beyond its statutory authority.³³ The guidance document is now the subject of lawsuits brought by Kentucky and West Virginia, which argue that it attempts to write new rules unlawfully by not following the notice-and-comment procedure of the Administrative Procedure Act.³⁴ The mining industry won a federal district court case against the EPA when the EPA decided to revoke an existing permit, but the EPA won on appeal, and the entire matter has been returned to the federal district court to address other issues raised by the industry that were not resolved in the original case.³⁵

Our point is not that the Obama administration is not entitled to initiate changes in federal policy toward mountaintop mining. Indeed, both John McCain and Barack Obama indicated during the 2008 presidential campaign that they were opposed to mountaintop removal mining.³⁶ Rather, if a president or agency seeks to change regulatory policy, there are some basic administrative procedures that should be followed.

A change in regulatory policy accomplished through a memorandum of understanding, policy statement, or guidance document can have the same costly (or beneficial) impacts, at least in the short run, as an official rulemaking under the Administrative Procedure Act. When agencies use such quasiregulatory documents to make major shifts in regulatory policy, these shifts should be subjected to routine OMB review and a cost-benefit analysis that is informed by a public comment process. In other words, what is currently required for informal rulemakings should also apply to policy shifts initiated through memoranda of understanding, policy statements, and guidance documents.

^{32.} Id. at 13.

^{33.} Id.

^{34.} Id.

^{35.} Mingo Logan Coal Co. v. EPA, 714 F.3d 608 (D.C. Cir. 2013).

^{36.} Ken Ward, Jr., *McCain, Obama both oppose mountaintop removal mining,* MOUNTAIN EAGLE, (Oct. 1, 2008), http://www.themountaineagle.com/news/2008-10-01/News/057.html, [http://perma.cc/0L21bi8in6m].

II. FEDERAL AGENCY COLLABORATION WITH STATE AGENCIES IN THE PROMULGATION OF STATE REGULATIONS USING A WAIVER OF PREEMPTION

Under the principle of federalism, there is often a strong case for allowing each state to develop its own public policies. Local conditions in the States will vary, the preferences of their citizens may vary, and state policy is seen as a source of innovation and learning that is lost with uniform federal action. Even if the federal government develops policy on an issue, allowing each state to consider policy innovations that go beyond the federal policy may make sense, assuming federal policy is not contradicted or frustrated.

An exception to the preference for states' rights may occur in settings where regulated businesses produce products in one state but sell them in many other states. If businesses engaged in interstate commerce face a proliferation of different state regulations, their costs of operation may rise significantly.³⁷ Moreover, if a significant number of states join together, they can issue a regulation that impacts an entire industry or the national economy, possibly placing U.S. businesses at a competitive disadvantage relative to businesses in other countries. In recognition of these concerns, Congress sometimes preempts state and local regulatory action, or at least requires federal approval of state and local regulatory initiatives in arenas where federal regulatory authority has been established.³⁸

Our concern is that federal regulators are collaborating with state agencies to promulgate regulations with a national economic impact that are not subject to OMB review or costbenefit analysis under OMB guidelines. Of particular concern are arbitrary inconsistencies in state regulations that have a nationwide impact on key industries and the national economy. In some cases, federal agencies give states official permission to enact inconsistent state regulations without any OMB or costbenefit review of the federal decision to grant such permission.

^{37.} See, e.g., Joseph R. Mason et al., *The Economic Impact of Eliminating Preemption of State Consumer Protection Laws*, 12 U. PA. J. BUS. L. 781, 782–83, 788 (discussing efficiency gains from preemption in banking industry).

^{38.} *Id.* at 784 (discussing the National Bank Act and Office of the Comptroller of the Currency preemption of state law).

A sobering example of this phenomenon is the recent decision of federal officials to allow California³⁹ to require that automakers produce an increasing number of zero-emission vehicles (ZEV) from 2018 to 2025.⁴⁰ Before enacting such a requirement, California needed explicit permission from the federal government.⁴¹

Under the Clean Air Act, the EPA's emission standards for new motor vehicles preempt all state and local standards.⁴² California, however, has special regulatory privileges and applied for a waiver of preemption from the EPA.⁴³ Other states must choose between following the federal emission standards or enacting their own standards that are identical to California's standards.⁴⁴ In 2005, California proposed emission standards requiring that, by 2025, each major automaker doing business in California sell enough ZEVs to comprise at least fifteen percent of its new-vehicle sales in California.⁴⁵ The regulation's original purpose was to control smog, but the rationale has shifted to include the control of greenhouse gases linked to global climate change.⁴⁶

The EPA is authorized to grant a waiver under section 209(b)(1) of the Clean Air Act unless it finds that California's health and welfare rationale is arbitrary and capricious, California does not need its own standards to meet compelling and extraordinary conditions, or California standards (and accompanying

^{39.} Fourteen states have chosen to align with California's standards, but we simplify the presentation by referring to compliance in California.

^{40.} As a practical matter, a ZEV under California criteria is likely to be a plug-in vehicle that is powered entirely or partly by electricity, though some hydrogen-powered vehicles also qualify.

^{41.} *See* California State Motor Vehicle Pollution Control Standards; Notice of Decision Granting a Waiver of Clean Air Act Preemption for California's 2009 and Subsequent Model Year Greenhouse Gas Emission Standards for New Motor Vehicles, 74 Fed. Reg. 32,744 (July 8, 2009) (granting waiver of Clean Air Act) [hereinafter California 2009 Waiver].

^{42.} Id. at 32,745.

^{43.} Id.

^{44.} Id. at 32,781.

^{45.} AIR RES. BD., CAL. ENVTL. PROT. AGENCY, STAFF REPORT: INITIAL STATEMENT OF REASONS: ADVANCED CLEAN CARS: 2012 PROPOSED AMENDMENTS TO THE CALIFORNIA ZERO EMISSION VEHICLE PROGRAM REGULATIONS ES-2 (2011), http://www.arb.ca.gov/regact/2012/zev2012/zevisor.pdf, [http://perma.cc/7TH4-64RT]. 46. *Id.* at ES-1.

enforcement procedures) are not consistent with section 202(a) of the Act.⁴⁷ The third criterion encompasses consideration of the cost of the California standards, the lead time afforded the industry, and the certification issues that arise when the same vehicle cannot meet both California and national standards.⁴⁸

California's ZEV program has a weak environmentaleffectiveness rationale, yet it may impose significant costs on the auto industry and the national economy. First, the program would not slow climate change by any meaningful degree, because global climate change is caused by worldwide concentrations of greenhouse gases and cannot be solved by small regional policies.⁴⁹ Second, the Obama administration, through a joint rulemaking of the EPA and the Department of Transportation (DOT), is already mandating a sharp reduction in greenhouse gases from new cars and light trucks for model years 2017 to 2025 through a performance standard, a numeric standard based on carbon emissions that allows automakers to undertake some averaging of low-emitting and high-emitting vehicles.⁵⁰ Third, the joint EPA-DOT rule already provides generous compliance incentives to manufacturers who offer ZEVs. For example, a ZEV's "upstream" emissions at the electric power plant are ignored, and each ZEV may be counted more than once in the compliance process.⁵¹ The federal government is also offering up to a \$7,500 income tax credit to purchasers of qualified plug-in vehicles.⁵² Fourth, the California ZEV program may not accomplish additional greenhouse gas control beyond that achieved by the EPA-DOT rule because any extra ZEVs produced and sold due to California's rule may be offset by extra sales of more high-emitting vehicles in other states. This

^{47.} California 2009 Waiver, supra note 41, at 32,745.

^{48.} EPA, EPA-420-F-12-083, EPA DECISION TO GRANT CALIFORNIA'S REQUEST FOR WAIVER OF PREEMPTION FOR ITS ADVANCED CLEAN CAR PROGRAM 2 (2012).

^{49.} *See, e.g.,* Michael Hoel, *Global Environmental Problems: The Effects of Unilateral Actions Taken by One Country,* 20 J. ENVTL. ECON. & MGMT. 55, 55 (1991) ("In global environmental problems, each country's own contribution to worldwide emissions is small, so there is little a country can do by itself.").

^{50. 2017} and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards, 76 Fed. Reg. 74,854 (proposed Dec. 1, 2011) (to be codified at 40 C.F.R. pt. 600).

^{51.} Id. at 75,012.

^{52. 26} U.S.C.A. § 30D(b) (West 2013).

outcome is a form of "leakage" that has already been demonstrated in the context of other California vehicle regulations.⁵³ Fifth, by forcing automakers to sell more expensive vehicles that are cheaper to operate on a per-mile basis, the California ZEV program may actually exacerbate greenhouse gas emissions due to two perverse behavioral responses: some consumers will hold on to their old, high-emitting vehicles longer than they would have otherwise,⁵⁴ and those consumers who do purchase an expensive ZEV will drive it more miles each year because electricity is much cheaper than gasoline.⁵⁵

Even if these policy arguments are untrue or overstated and the ZEV program is necessary and appropriate for greenhouse gas reduction or smog control in California, it is highly unlikely that the program would receive a favorable cost-benefit analysis under the official technical guidance in OMB Circular A-4, which governs regulatory analysis in the federal government.⁵⁶ In December 2011, the staff of the California Air Resources Board (CARB) released a rudimentary analysis seeking to justify the tighter ZEV requirements for model years 2018 to 2025. The basic result of CARB's analysis was that the energy savings provided by a ZEV over the vehicle's lifetime are about equal to the additional \$10,000 cost of producing a ZEV.⁵⁷

The OMB did not review CARB's analysis. Upon examination, we found that the CARB analysis is based on several analytical assumptions that would be unlikely to survive a careful review under OMB Circular A-4.

^{53.} Lawrence H. Goulder et al., Unintended Consequences from Nested State & Federal Regulations: The Case of the Pavley Greenhouse-Gas-per-Mile Limits (Nat'l Bureau of Econ. Research, Working Paper No. 15337, 2009), available at http://www.nber.org/papers/w15337, [http://perma.cc/0Pcrujx8Z2e].

^{54.} Howard Gruenspecht, Zero Emissions Vehicles: A Dirty Little Secret, RESOURCES, Winter 2001, at 8.

^{55.} See Carl Bialik, To Gauge Oil Savings, Economists Road Test the 'Rebound Effect,' WALL ST. J., May 27, 2009, http://online.wsj.com/article/SB124338431100556717.html, [http://perma.cc/0HTxBvy968e]; John Tierney, When Energy Efficiency Sullies the Environment, N.Y. TIMES, Mar. 7, 2011, http://www.nytimes.com/2011/03/08/science/08tier.html?_r=0, [http://perma.cc/0oXZVT9ccZU].

^{56.} OFFICE OF MGMT. & BUDGET, CIRCULAR A-4, REGULATORY ANALYSIS (2003), *available at* http://www.whitehouse.gov/omb/circulars_a004_a-4, [http://perma.cc/HY8D-9DEB].

^{57.} AIR RES. BD., CAL. ENVTL. PROT. AGENCY, supra note 45, at 65.

First, CARB assumes that the cost of producing ZEVs will decline by about forty percent between now and 2025 due to learning-by-doing and economies of scale in the manufacturing process.⁵⁸ The forty percent figure, however, is at the top of the range of estimates in the literature.⁵⁹ Furthermore, the battery advances necessary to satisfy consumer demand for a greater driving range are not meeting cost objectives and may cause the cost of future ZEVs to increase, not decline.⁶⁰ The CARB analysis also ignores the possibility of an increase in the prices of rare earth elements and lithium that may result from Chinese actions once the U.S. transport sector becomes significantly dependent on ZEVs. Rare earths and lithium currently account for a small percentage of the cost of producing a ZEV, but that percentage could rise significantly in ways that are difficult for the United States to control.⁶¹ Most recently, the Obama administration has joined with the E.U. and Japan in a World Trade Organization action against China to end China's rare earth export

^{58.} Id. at 30–32.

^{59.} DAVID A. BESANKO & RONALD R. BRAEUTIGAM, MICROECONOMICS: AN INTEGRATED APPROACH 334–37 (2002).

^{60.} NAT'L RESEARCH COUNCIL, REVIEW OF THE RESEARCH PROGRAM OF THE U.S. DRIVE PARTNERSHIP: FOURTH REPORT 90–97 (2013) (reviewing limited progress in lithium ion battery technology and concluding that cost targets have not been met and need to be reset in light of technical realities and the need for further innovation).

^{61.} See Jeff Johnson, Ames Lab to Be Rare-Earth Hub, 91 CHEMICAL & ENGINEERING NEWS 28 (2013) (noting that Department of Energy studies project critical shortages of five rare-earth metals, which may slow the commercialization of electric vehicles, and that the Department has allocated \$120 million over five years to Iowa's Ames Laboratory to search for possible solutions); Mark Rechtin, Material costs threaten affordable green cars, AUTOWEEK, June 15, 2010, http://www.autoweek.com/article/20100615/green/100619925, [http://perma.cc/0iuUSZz6JX3] (citing studies predicting that demand for rareearth elements will outstrip supply within four years, causing the cost of producing electric drivetrains to rise significantly). See generally Keith Bradsher, Supplies Squeezed, Rare Earth Prices Surge, N.Y. TIMES, May 2, 2011, at B1, B7, available at http://www.nytimes.com/2011/05/03/business/03rare.html, [http://perma.cc/WDA-8DUH] ("China, which controls more than 95 percent of the market, has further restricted exports so as to conserve supplies for its own high-tech and green energy industries."); Clifford Krauss, The Lithium Chase, N.Y. TIMES, Mar. 9, 2010, at B1, available at http://www.nytimes.com/ 2010/03/10/business/energy-environment/10lithium.html?_r=0, [http://perma.cc/ 6TS8-MRNZ] (reporting that lithium demand will dramatically rise).

restrictions, alleging that the restrictions have artificially increased prices and pressured businesses to move to China.⁶²

Second, CARB assumes that ZEVs will last for an average of fourteen years and be driven for 186,000 miles.⁶³ These figures are on the high end of the range of estimates for average lightduty vehicle lifetime and mileage.⁶⁴

Third, CARB assumes that a five percent real discount rate is applied to future fuel savings to express them in present value.⁶⁵ A seven percent discount rate, however, is typically applied to future fuel savings under OMB guidance.⁶⁶ Changing this assumption alone is likely to reverse the conclusion of CARB's analysis.⁶⁷

Overall, based on the implausibility of CARB's multiple, optimistic assumptions, it is unlikely that a ZEV mandate would pass a cost-benefit analysis, at least not for ZEVs produced in the pre-2025 period. Consumers may be further disinclined to purchase ZEVs if federal and state tax incentives are reduced. California has already reduced its ZEV rebate from \$5,000 to \$2,500,⁶⁸ and Congress has reduced the tax credit for the costs of installing a charging system in one's home.⁶⁹

65. AIR RES. BD., CAL. ENVTL. PROT. AGENCY, supra note 45, at 65.

66. OFFICE OF MGMT. & BUDGET, CIRCULAR A-94, GUIDELINES AND DISCOUNT RATES FOR BENEFIT-COST ANALYSIS OF FEDERAL PROGRAMS 9 (1992), http://www.whitehouse.gov/omb/circulars_a094, [http://perma.cc/0baJnNjhLy8].

67. For example, a savings of \$100,000 in 2025 dollars would be approximately \$58,500 in 2014 dollars at a 5% discount rate and \$47,500 at a 7% discount rate, using the formula $PV = FV \div (1+r)^n$.

68. Nikki Gordon-Bloomfield, *California Running Out of Money for Electric Car Rebates*, FOX NEWS, June 8, 2011, http://www.foxnews.com/leisure/2011/06/08/californiarunning-out-money-for-electric-car-rebates/, [http://perma.cc/0SwmDCjqwZJ]; Press Release, Cal. Envtl. Prot. Agency, Clean Vehicle Rebates Prove Popular with California Consumers (June 7, 2011), http://www.arb.ca.gov/newsrel/newsrelease.php?id=217, [http://perma.cc/CQE6-PX4W].

69. Jim Motavalli, E.V.'s Are Here, but Expect Wait for Charging Stations, N.Y. TIMES WHEELS BLOG (Dec. 20, 2010), http://wheels.blogs.nytimes.com/2010/12/20/

^{62.} Don Lee & Christi Parsons, *U.S. opens trade case against China over rare earth export limits*, L.A. TIMES, Mar. 14, 2012, http://articles.latimes.com/2012/mar/14/ business/la-fi-obama-china-20120314, [http://perma.cc/Y2UT-5DL4].

^{63.} AIR RES. BD., CAL. ENVTL. PROT. AGENCY, supra note 45, at 65.

^{64.} The National Highway Traffic Safety Administration estimates that the average passenger car has a lifetime mileage of 152,137 miles. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., DOT HS 809 952, VEHICLE SURVIVABILITY AND TRAVEL MILEAGE SCHEDULES (2006), *available at* http://www.nrd.nhtsa.dot.gov/Pubs/809952.pdf, [http://perma.cc/0ogxqKWbwPe].

If ZEVs prove to be losers in the eyes of consumers, automakers and dealers will have a difficult time selling them. The early commercial experiences with the Nissan Leaf and the Chevrolet Volt suggest that the commercialization of ZEVs will not be easy.⁷⁰ Moreover, surveys of consumers indicate that they are not willing to pay a large premium to obtain the advantages of a plug-in vehicle.71 Automakers are now slashing the list prices of plug-in vehicles in an effort to overcome consumer resistance, but progress is limited.⁷² Under these circumstances, either the ZEV mandate will have to be relaxed, as has occurred in the past, or automakers and dealers will have to cut ZEV prices, thereby incurring substantial losses on each ZEV that is sold, and then raise prices on non-ZEV products to cover the losses. In effect, the ZEV mandate would become a price increase on all new vehicles sold in the United States, a troubling scenario that is acknowledged but not fully analyzed in the CARB document.73

If this perverse outcome occurs, the result could be fewer new vehicle sales throughout the United States, fewer jobs at plants where non-ZEV vehicles are produced, and fewer jobs at plants that supply materials and parts for non-ZEV vehicles. The job losses from the ZEV mandate are unlikely to occur in California because very few automotive suppliers and vehicle assembly plants are located there.⁷⁴ The mandate could, however, adversely impact plants throughout North America.

e-v-s-are-here-but-expect-wait-for-charging-stations/,

[[]http://perma.cc/0dCD487xHSw].

^{70.} See Paul A. Eisenstein, Chevrolet Volt Unplugged: GM Slashes Prices to Spur Sales, THE DETROIT BUREAU, June 11, 2013, http://www.thedetroitbureau.com/ 2013/06/chevrolet-volt-unplugged-gm-slashes-prices-to-spur-sales/, [http://perma.cc/SBT8-ECZX].

^{71.} See Charles Child & David Sedgwick, *Conti joins EV battery makers, aims to be among top 3*, AUTOMOTIVE NEWS, Jan. 23, 2012, http://www.autonews.com/article/20120123/OEM02/301239990, [http://perma.cc/0ZKxdtxeJBn]; Joseph B. White, *Is Chevy's Cruze Dulling the Spark of its Volt?*, WALL ST. J., Feb. 9, 2012, http://online.wsj.com/article/SB10001424052970204136404577208961537456068.html, [http://perma.cc/0G8BRDs7Sy2]; Chris Woodyard, *Are electric cars losing their spark?*, USA TODAY, Dec. 20, 2011, http://usatoday30.usatoday.com/money/autos/story/2011-12-20/electric-cars-problems/52131810/1, [http://perma.cc/04JnHRmv3v4].

^{72.} Jeff Bennett, *Volt Falls to Electric-Car Price War*, WALL ST. J., Aug. 6, 2013, at B1, *available at* http://online.wsj.com/news/articles/SB1000142412788732465300 4578649951845301298, [http://perma.cc/0QKm3ynhC3H].

^{73.} *See* AIR RES. BD., CAL. ENVTL. PROT. AGENCY, *supra* note 45, at 55, 65. 74. *See id.* at 55.

Here are the busiest North American plants that assemble non-ZEV vehicles, measured by 2011 production levels, that may be adversely impacted by the mandate:⁷⁵

Production Facility	Production
VW: Puebla, Mexico	514,910
Ford: Kansas City, Missouri	460,338
Nissan: Aguascalientes, Mexico	410,693
GM: Oshawa, Ontario	380,149
Ford: Dearborn, Michigan	343,888
Hyundai: Montgomery, Alabama	342,162
Nissan: Smyrna, Tennessee	333,392
Ford: Hermosillo, Mexico	328,599
Toyota: Georgetown, Kentucky	315,889
Ford: Louisville, Kentucky	310,270

The CARB analysis does not make employment forecasts outside California with and without the ZEV regulation.⁷⁶ CARB does, however, forecast positive job impacts in California because many of the companies currently making recharging equipment for electric vehicles are located there.⁷⁷ If the employment analysis of the California ZEV mandate had been conducted under OMB review, however, it would have looked at other regions of the United States. California's ZEV program might have failed a costbenefit analysis that considered the program's nationwide impact, rather than its impact on California alone.

In summary, the EPA, through its power to grant waivers under the Clean Air Act, has enabled California to promulgate

^{75. 10} busiest North American assembly plants, AUTOMOTIVE NEWS, Jan. 12, 2012, http://www.autonews.com/article/20120102/OEM01/120109999/10-busiest-north-american-assembly-plants#axzz2l82pZcV5, [http://perma.cc/0YGhv966vYe].

^{76.} See AIR RES. BD., CAL. ENVTL. PROT. AGENCY, supra note 45, at 55–71 (discussing impacts on consumers, manufacturing costs, business creation, and agency costs).

^{77.} Id. at 68-69.

a costly ZEV mandate that may do little or nothing to prevent climate change. At the same time, the economic impacts of the California program are likely to be national in scope. A comprehensive cost-benefit analysis of the ZEV program has not been performed, yet the program is already on a clear path toward implementation.

Congress has the power to solve this problem in the future. When a federal agency allows state regulators to issue rules with national economic ramifications, the agency should be required to justify the decision with a cost-benefit analysis under OMB Circular A-4, and the waiver decision should be covered by routine OMB review procedures.

III. ISSUING HAZARD DETERMINATIONS WITHOUT SUFFICIENT SCIENTIFIC EVIDENCE

A federal agency determination that a chemical is hazardous can result in significant economic consequences for many industries and should only be made on the basis of adequate scientific evidence. Yet federal regulators often issue hazard determinations that are in tension with the scientific findings reported by committees of the U.S. National Research Council (NRC) of the National Academy of Sciences. Because hazard determinations are quasi-regulatory actions that trigger litigation, state regulation, and market distortions, a case can be made that they should be subject to OMB review. The review would ensure that basic sound-science and administrative procedures have been followed, but it would not be as extensive as a cost-benefit analysis.

The federal government's recent handling of a formaldehyde safety issue illustrates this problem: The EPA and the National Toxicology Program are moving forward with a declaration that formaldehyde causes leukemia, even though the scientific rationale for this position has been sharply criticized by the NRC. Formaldehyde is an industrial chemical that is widely used in activities ranging from housing construction to health care services.⁷⁸ Each year, sales of formaldehyde are worth about

^{78.} Formaldehyde, OCCUPATIONAL SAFETY & HAZARD ADMIN. (Mar. 23, 2012), http://www.osha.gov/SLTC/formaldehyde/, [http://perma.cc/0XtTJFnSQCz].

\$1.5 billion, and products that use formaldehyde are linked to about four million jobs and \$145 billion in economic activity.⁷⁹ It is estimated that if formaldehyde had to be substituted in the U.S. economy, consumers would incur additional costs of about \$17 billion per year.⁸⁰

Multiple federal agencies already heavily regulate human formaldehyde exposure because high doses of formaldehyde are known to cause irritation of the respiratory system and a rare form of nasal cancer.⁸¹ In 2010, spurred by a provocative report from an international organization in Lyon, France,⁸² the EPA—through the Integrated Risk Information System (IRIS) made a preliminary determination that formaldehyde exposure is known to cause leukemia as well as nasal cancer.⁸³

An official determination that formaldehyde exposure causes leukemia could result in a variety of adverse effects on industry, such as lawsuits and voluntary product withdrawals, even before any new federal regulation is adopted. State regulations and market distortions also result from the hazard determination.⁸⁴ Furthermore, the stigma of a hazard determination, once imposed, is difficult to erase, even if the technology or substance is completely exonerated through additional scientific research.⁸⁵

83. EPA, TOXICOLOGICAL REVIEW OF FORMALDEHYDE—INHALATION Assessment: IN Support of Summary Information on the Integrated Risk Information System (IRIS) 6-45 to 6-46 (2010).

84. See Alexander H. Tullo, Chemistry Reduces Unhealthy Vapors From Wood Composites, 91 CHEMICAL AND ENGINEERING NEWS 20 (Aug. 12, 2013) (describing the state regulatory and market forces operating against formaldehyde), available at http://cen.acs.org/articles/91/i32/Chemistry-Reduces-Unhealthy-Vapors-Wood.html, [http://perma.cc/0qooboXFrfF].

85. *See* Robin Gregory et al., *Technological Stigma*, 83 AM. SCIENTIST 220, 220–223 (1995). *See generally* Risk, Media and Stigma: Understanding Public Challenges to Modern Science and Technology (James Flynn et al. eds., 2001).

^{79.} GLOBAL INSIGHT, ECONOMIC PRIMER ON FORMALDEHYDE 3, 5 (2006), http://s3.amazonaws.com/zanran_storage/formaldehyde.nclud.com/ContentPages /2470722899.pdf, [http://perma.cc/0afSUFcjqZt].

^{80.} Id. at 7.

^{81.} Office of Information and Regulatory Affairs: Federal Regulations and Regulatory Reform under the Obama Administration, 112th Cong. 40 (2012) [hereinafter Graham Hearings] (statement of John D. Graham, Dean, Indiana University School of Public and Environmental Affairs).

^{82.} Press Release, Int'l Agency for Research on Cancer, IARC Classifies Formaldehyde as Carcinogenic to Humans (June 15, 2004), http://www.iarc.fr/en/media-centre/pr/2004/pr153.html, [http://perma.cc/0DLVeWRufTg].

In this case, industrial scientists were skeptical of the EPA's preliminary determination because the epidemiological literature on formaldehyde is difficult to interpret with confidence and the biological mechanism for how formaldehyde causes leukemia is not clear.⁸⁶ They persuaded Congress to compel the EPA to subject its scientific evidence and reasoning to independent review by a panel of the NRC, which is an official scientific advisory group to the federal government.⁸⁷ In a critical report, the NRC panel raised serious questions about the EPA's theory that formaldehyde exposure causes leukemia while reaffirming the known link between formaldehyde exposure and respiratory cancer.⁸⁸ The NRC also raised broader questions about the credibility of the EPA's IRIS process methodology, as there is a pattern of deficiencies in the EPA's hazard determinations (for example, in the cases of dioxin and tetrachloroethylene).⁸⁹

Before the EPA could respond to the NRC report, an entirely different federal agency—the Department of Health and Human Services' National Toxicology Program (NTP)—included in its annual report to Congress an addendum on formaldehyde. The addendum made a strong claim about the formaldehyde-leukemia link, similar to the preliminary EPA claim.⁹⁰ The NTP made a limited effort to reconcile its view with the NRC's view, but ultimately acknowledged that it agreed with the NRC's view that it is not known—from a biological mode-of-action perspective—how formaldehyde causes leukemia.⁹¹ Nevertheless, the NTP took the position that

^{86.} See Harvey Checkoway et al., Critical review and synthesis of the epidemiologic evidence on formaldehyde exposure and risk of leukemia and other lymphohematopoietic malignancies, 23 CANCER CAUSES & CONTROL 1747, 1763 (2012) ("Existing epidemiologic evidence does not provide convincing support that formaldehyde causes any of the LHMs, including myeloid leukemia.").

^{87.} Graham Hearings, supra note 81, at 8.

^{88.} NAT'L RESEARCH COUNCIL, REVIEW OF ENVIRONMENTAL PROTECTION AGENCY'S DRAFT IRIS ASSESSMENT OF FORMALDEHYDE 145 (2011); see also Jeremy P. Jacobs, NAS Reviewers Slam EPA's Formaldehyde Assessment, N.Y. TIMES, Apr. 8, 2011, http://www.nytimes.com/gwire/2011/04/08/08greenwire-nas-reviewers-slam-epasformaldehyde-assessmen-83879.html, [http://perma.cc/0YusmQFByNk].

^{89.} See NAT'L RESEARCH COUNCIL, supra note 88, at 24.

^{90.} NAT'L TOXICOLOGY PROGRAM, U.S. DEP'T OF HEALTH & HUMAN SERVS., ADDENDUM TO THE 12TH REPORT ON CARCINOGENS 3 (2011).

^{91.} *Id.* at 5–6.

a substance can be known to cause cancer even if the biological mode of action is unknown.⁹²

This situation raises a key question: Who in the federal government should be in charge of managing and resolving these issues? The actions of the EPA and the NTP may not appear to be "regulations," but they are "science-policy determinations" that can have the same practical economic burdens as regulations by triggering costly litigation.

Before making hazard determinations, agencies should assess whether a significant economic impact may result. The impact determination should not be a cost-benefit analysis, but should be similar to the significance determinations that OMB and federal agencies already make under Executive Order 12,866 to determine whether OMB review is necessary.⁹³ If the impact is likely to be significant, the next step would be independent scientific review by an organization such as the NRC. Federal agency compliance with the NRC panel's findings would be overseen by OMB or the White House Office of Science and Technology Policy (OSTP), in consultation with other interested federal agencies.

Congress should require OMB or OSTP to resolve disputes about hazard determinations, at least in cases where the NRC has made clear determinations. To play this role effectively, OMB and OSTP might need a modest increase in scientific staffing above their current levels. It is important, however, to recognize that the roles of OMB and OSTP are not to redo the agency's hazard determination. Instead, the OMB and OSTP role is limited to deciding whether a hazard determination should be referred to the NRC and, if so, whether the agency has adhered to the NRC's determinations in the agency's final determination. OMB and OSTP should also supervise interagency discussions of these matters, as multiple federal agencies may have an interest. OMB and OSTP already play this role on a wide range of scientific and policy matters.⁹⁴

^{92.} Id. at 2.

^{93.} See Exec. Order No. 12,866, 58 Fed. Reg. 5911 (Jan. 22, 1993), reprinted as amended in 5 U.S.C. § 601 (2012).

^{94.} See The Mission and Structure of the Office of Management and Budget, OFFICE OF MGMT. & BUDGET, http://www.whitehouse.gov/omb/organization_mission, [http://perma.cc/0VzAKdNmY1G]; About OSTP, OFFICE OF SCI. & TECH. POLICY,

IV. ENTERING INTO BINDING AGREEMENTS WITH LITIGANTS THAT CALL FOR NEW RULEMAKINGS

Federal regulators, after being sued by pro- or antiregulation activist groups, are entering into binding agreements with litigants that call for new rulemakings within specified deadlines. The rulemaking commitments are being made before any cost-benefit analysis or public comment and without OMB review. Sometimes the deadlines are set in a manner that ensures that cost-benefit analysis and OMB review will be compromised.

One of the co-authors (John D. Graham) experienced the consequences of "regulation by consent decree" on several occasions during his tenure at the OMB (2001-2006). For example, during the Clinton administration, the EPA entered into a litigation settlement that committed the agency to an expensive rulemaking aimed at reducing mercury emissions from coal-fired power plants.⁹⁵ When, during the George W. Bush administration, EPA staff briefed the author on the costbenefit basis for the mercury rule, it became clear that many of the emissions reductions expected from the mercury rule were already to be accomplished by another rule aimed at reducing nitrogen dioxide emissions from coal plants.⁹⁶ According to EPA staff, the residual benefits of reducing elemental mercury were not sufficient to justify the entire cost of the mercury rule. Yet, the agency was legally committed to issuing a rule by a fixed deadline, and expectations for a rule had been established in the environmental advocacy community.⁹⁷

The EPA crafted a different rationale for the mercury rule based on the "co-benefits" resulting from simultaneous control

http://www.whitehouse.gov/administration/eop/ostp/about

[[]http://perma.cc/0Dqrhijkxs6] (last visited Nov. 28, 2013).

^{95.} See Mercury and Air Toxic Standards (MATS) for Power Plants: History, EPA, http://www.epa.gov/airquality/powerplanttoxics/history.html, [http://perma.cc/0aQs4Sm38RF].

^{96.} The EPA found that the same control technology used to reduce nitrogen dioxide also reduced oxidized, nonelemental mercury levels. *See* John D. Graham, *The Evolving Regulatory Role of the U.S. Office of Management and Budget*, 1 REV. ENVTL. ECON. & POL'Y 171, 184 (2007).

^{97.} See Mercury and Air Toxic Standards (MATS) for Power Plants: History, supra note 95.

of a different pollutant, particulate matter.⁹⁸ The obvious counterargument to this position is that direct regulation of particulate matter from many sources (not just coal plants) might be a more cost-effective method of capturing those benefits, and that the EPA was already promulgating a suite of rules to reduce particle emissions from different sources, including electric utility plants. With a judicial deadline forcing its hand, OMB worked with the EPA to issue a mercury rule, but it had a weak cost-benefit justification. The rule was ultimately overturned by the D.C. Circuit for reasons unrelated to the cost-benefit issue.⁹⁹

The lesson from this example is that regulators may be tempted, during settlement negotiations, to commit themselves to rulemakings that have not yet been analyzed from a costbenefit perspective. If policymakers are serious about evidencebased regulatory reform, this practice needs to be restrained. Congress should consider new legislation that constrains agency powers to enter into such settlements without first conducting appropriate analysis to determine whether a rule is necessary and desirable. A public comment process is also needed before the agency makes the commitment. Congress should require that ample time be made available for public comments as well as for routine OMB review of the matter.

V. CONCLUSION

OMB and cost-benefit review of significant regulatory activity by federal agencies began in the Ford, Nixon, and Carter administrations, was buttressed and codified during the Reagan and Bush administrations, and was retained and refined during the Clinton, George W. Bush, and Obama administrations.¹⁰⁰ From a political perspective, Presidents are accountable for the

^{98.} Standards of Performance for New and Existing Stationary Sources: Electric Utility Steam Generating Units, 70 Fed. Reg. 28,606 (May 18, 2005) ("Significant Hg emissions reductions can be obtained as a 'co-benefit' of controlling emissions of SO₂ and NO_x; thus, the coordinated regulation of Hg, SO₂, and NO_x allows Hg reductions to be achieved in a cost-effective manner.").

^{99.} See New Jersey v. EPA, 517 F.3d 574, 577, 582-83 (D.C. Cir. 2008).

^{100.} See Note, OIRA Avoidance, 124 HARV. L. REV. 994 (2011); Office of Information and Regulatory Affairs (OIRA) Q&A's, OFFICE OF MGMT. & BUDGET, http://www.whitehouse.gov/omb/OIRA_QsandAs, [http://perma.cc/3HQH-ADW7].

economy's performance, and thus the White House expects an opportunity to review regulatory proposals that will have a significant impact on vital sectors of the economy or the economy as a whole. It is difficult to envision how a President can have a coherent national economic policy without having control over the federal regulatory system.

In this paper, we have argued that Presidents often have less control than is commonly thought because a substantial amount of regulatory and quasi-regulatory activity occurs outside OMB and cost-benefit review. We have highlighted four types of activities that evade OMB review: (1) agency issuance of informal documents such as memoranda, policy statements, and guidance; (2) agency approval of costly state regulatory policies under federal laws that authorize selective waiver of federal preemption of state regulation; (3) agency issuance of hazard determinations that shape the regulatory environment for technologies, substances, and market practices; and (4) agency decisions to enter into settlement agreements that create duties to regulate.

For each of these types of regulatory and quasi-regulatory activity, federal agencies exert a significant economic impact on key industries (such as energy, housing, and automobiles) and, in some cases, on the national economy. These underappreciated powers allow agencies to act without the discipline of routine OMB review and cost-benefit oversight.

We are not arguing that federal agencies should be prohibited from issuing informal guidance, approving state regulations, issuing hazard determinations, or entering into settlement agreements with pro-regulation groups. Our claim is more modest. We are arguing that when these actions are likely to have a significant economic impact, they should be subject to routine OMB review and cost-benefit requirements. Congress can readily make this happen through targeted language in regulatory reform legislation.