An Advocacy Coalition Framework Approach: Revealing PCB Policy Actors and Core Beliefs

by

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EXECUTIVE SUMMARY

Polychlorinated biphenyls (PCBs) were first commercially produced in the 1920's, became popular for their valuable heat transferring properties and were mostly utilized as an additive in oil filled electrical equipment to reduce fire risk. After peak production was reached in the 1950's and PCBs became a valuable additive in paints, adhesives, plastics, caulking and more, health and environmental concerns arose when PCBs were found widespread in the environment. The first PCB regulations emerged from the Food and Drug Administration after food sources were found to contain PCBs. Congress then moved to ban PCBs in 1976, and charged the Environmental Protection Agency (EPA) to develop regulations implementing the ban on the already widely distributed chemical.

The U.S. PCB policy debate now spans 31 years starting with EPA's first promulgation of PCB regulations in 1979. Since then 31 rulemakings have altered the regulatory framework with 679 commenters participating in the policy debate via written comments submitted to EPA. As recently as 2010 EPA announced plans to again revise significant portions of PCB regulations found in 40 CFR 761. In 2015, both EPA and Congress announced separate plans to take action impacting PCB policy. EPA announced, the June 2015 Integrated Risk Information System public science meeting will focus on the noncancer effects of PCBs, and Senators Vitter (R-LA) and Udall (D-NM) introduced the Toxic Substances Control Act (TSCA) Modernization Act of 2015 designed to implement a more precautionary approach to chemicals, including PCBs, in the U.S. This complex policy subsystem presents a problem. How can 31 years of policy debate be simplified into a framework that allows for a clear understanding of influential participants and what is driving their policy interests?

Paul Sabatier and Neil Pelkey presented the Advocacy Coalition Framework (ACF) as a lens to simplify complex policy debates spanning a decade or more. The ACF proposed that a policy arena, or subsystem, can be characterized by participants with shared beliefs, and that deep core and policy core beliefs can assimilate policy actors into advocacy coalitions. Understanding these advocacy coalitions and their deep core beliefs, those that don't change and policy core beliefs, those that can change to support the deep core, will identify potential collaborators or areas of potential conflict.

This gateway project is the first ACF application to the PCB policy subsystem in the U.S. and uses 31 years of original data from 679 public commenters, in the form of letters and e-mails, submitted to EPA from 1979 -2014 to determine regular policy actors. Comments submitted by regular policy actors were coded for trends in statements that reveal beliefs. Longitudinal and cross sectional analysis was then employed to determine deep core beliefs, and policy core beliefs. Finally, recommendations were presented to enable more effective and efficient PCB policy.

Project results revealed a salient PCB policy subsystem with only 91 regular participants dominated by an energy industry coalition with shared deep core and supporting policy core beliefs, as predicted by the ACF. Furthermore, the project revealed increasing salience and convergence of energy coalition and general industry coalition deep core and policy core beliefs.

Recommendations for improved PCB policy were driven by a need to, improve access to public comments for policy analysis, identify latent subsystem actors that may not know how to

submit comments, understand the impacts of exogenous environmental events, and increased awareness of ACF value.

First, expand the project to include more forms of subsystem participation. This will determine if other subsystem participants are utilizing avenues of policy influence other than the formal written comment submittal avenue analyzed here.

Second, Improve transparency in regulatory development process. This project was limited by the availability of public comments that were originally indicated as available via docket indices, but ultimately not provided.

Third, Acknowledge dynamic events external to the subsystem. Exogenous events can engage latent policy actors with beliefs that should be considered even if they are not regular policy actors.

Fourth, understand that these events change policy core beliefs, but not deep core beliefs. Here a general understanding of the ACF and belief hierarchies will enable a more transparent policy debate.

Last, expand the project to include policy learning and impacts of significant environmental events. Over the 31 year policy debate new environmental and human health risk research has emerged, and advocacy coalitions have collected more data to support policy core beliefs. This learning aspect of the subsystem should be explored via the ACF to further clarify the subsystem.

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INTRODUCTION

This project provides utility managers and policy makers a framework for simplifying the complicated 31-year U.S. PCB policy debate. PCB policy and resulting regulatory requirements can significantly impact utility operations and compliance management programs for utility executives. Likewise, a complicated PCB policy debate without a means to simplify and digest large numbers of policy participants and conflicting policy positions can complicate and slow policy making for regulatory agencies. This project presents a clear illustration of PCB policy actors, their core beliefs and policy core beliefs. As a result all PCB policy arena participants are better equipped to develop and implement effective and efficient PCB policy. When utility executives and policymakers share a common understanding of the policy process, and the roles that actors played, critical collaborative efforts to improve PCB policies will be realized. Furthermore, a historical perspective can improve future collaboration and thus pave the way for better policy.

The objectives of this project were, (1) *Determine the policy actors shaping U.S. PCB policy and regulation over the past three decades, (2) Delineate policy actor hierarchical belief systems including deep core beliefs and policy core beliefs,* (3) *Develop a general model of competing advocacy coalitions within the policy subsystems,* and (4) *Present recommendations to policy actors that facilitate more effective and efficient PCB policy and regulation.*

PCBs were first produced commercially in the 1920s; in the 1950's the industrial application of PCBs increased significantly (Kimbrough, 1995). PCBs were widely used as fire retardants in dielectric insulating oil for electrical equipment including capacitors and transformers. PCBs were also commonly used in hydraulic fluids, inks, metal coatings, pesticide extenders, sealants, rubber, and plastics. According to the North American Space Agency, PCBs were also an unintentional by-product of some chemical manufacturing processes used to develop adhesives for the Space Shuttle (L. Thomason, NASA, personal communication, July 2, 1979).

Several incidents of accidental food contamination were reported in 1971, making PCBs a national concern, and prompting various early regulatory actions (Cordle, Locke, & Springer,

1982). Monsanto Chemical Company, the sole U.S. producer of PCBs, cooperated with early regulatory agency actions and ceased the production of the most chlorinated, or toxic, Aroclor[1] mixtures 1248, 1254, and 1260, but continued to manufacture and distribute less chlorinated Aroclor mixtures 1016, and 1242 (Kimbrough, 1995). During this same time Monsanto voluntarily stopped the open-ended uses of PCBs limiting the use of the chemical to enclosed systems such as electrical transformers, capacitors and heat transformers (Cordle et al., 1982 and Kimbrough, 1995). Three decades after Monsanto's voluntary elimination of open-ended uses of PCBs and the 1976 congressional PCB ban, EPA has promulgated 31 regulatory actions to further regulate PCBs.

A general search of academic databases reveals that recent PCB research has focused primarily on the toxicological effects of PCBs and overall regulatory structure of the Toxic Substances Control Act (TSCA). TSCA research focused on the feasibility of implementing a precautionary approach to chemical regulation in the U.S., similar to the EU's Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) regulation. No policy analysis research was found specifically regarding the PCB provisions of TSCA.

Recent toxicological research (Park, Hye-Youn, Hertz-Picciotto, Irva, Kocan, & Beata, Tomas 2010, and Meeker & Hauser, 2010), international pressure to adopt more stringent PCB regulations (75 Federal Register 17646), and plans for TSCA reform (S. 697, 2015) presents an opportunity for policy research. By applying an established policy framework to the events of the past three decades we can determine what policy forces are working in conjunction with science, international policy and congressional efforts in the U.S., and the associated impacts on PCB policy.

PCB HISTORY

PCBs are a lipid biphenyl molecule that contain between 2 and 10 chlorine atoms with differing positions of chlorine atoms in the biphenyl structure, resulting in 209 possible congeners (Meeker, 2010). The particular kind of Aroclor is identified by a four-digit number,

[1] Eight PCB mixtures manufactured in the U.S. were sold under the trade name Aroclor, these mixtures usually contain between 27 and 77 congeners that resulted from variances in manufacturing processes (Shifrin, 1998).

e.g., Aroclor 1248. The first two digits represent the number of carbon atoms that make up the biphenyl and the second two digits represent the approximate content, in weight percentage, of chlorine in the mixture (Cordle, 1982). According to this numbering system, Aroclor 1248 is comprised of 12 carbon atoms and approximately 48% chlorine.

PCBs' fire resistant chemical properties drove quick and widespread use around the world. PCBs were first documented in 1880 chemical literature and first produced by the Swanson Chemical Company, Anniston, AL in 1929 (Erickson, 2010). PCBs quickly became widely used as a fire resistant additive in fire prone mineral oil filled electrical equipment. By the 1930's PCBs were commonly used in electrical transformers located in areas where fires posed great risk to persons or property (Erickson, 2010). Electrical transformers located in high-rise buildings, densely populated urban areas and underground installations were often filled with PCB mineral oil to help prevent damaging fires. In 1935 the Swanson Chemical Company was purchased by St. Louis based Monsanto Company (Erickson, 2010). Monsanto's marketing power and PCBs valuable chemical properties, coupled with the dispersed nature of the electrical distribution system accelerated wide spread PCB installations around the world. A new chapter in the PCB story quickly developed.

Concerns about PCBs health effects and uncertain environmental fate started to challenge the wisdom of their widespread use. In December 1966 the British science news publication *New Scientist* published accounts of widespread PCBs in the environment for the first time. Between 1966 and 1976 almost 2000 scientific articles addressing the wide variety of potential toxicological and health effects of PCBs were published (Shifrin, 1998). Just two years later, the first US accounts of PCBs in birds appeared in *Nature's*, December 1968 publication. Then the "Yusho[2]" incident in Western Japan focused the world's attention on PCBs.

This outbreak of a strange disease in Japan brought new attention to the PCB debate. The first patient reported acne-like eruptions to Kyushu University outpatient clinic in June 1968 (Yoshimura, 2003). 13 patients reported similar symptoms by the end of August and 325

[2] "Yusho" is a Japanese word meaning "oil disease", it is not the location of the incident as often reported (Erickson 2010).

cases were documented by January 1969 (Yoshimura, 2003). Observations of these initial cases revealed similar exposures to commercial cooking oil from K Company and suggested that the exposure caused these symptoms. However, initial testing of K Company oil revealed no contaminants.

After reports to local health clinics and coverage in local news, the Fukuoka prefecture (providence) established the Study Group for Yusho at Kyushu University to clarify causal factors (Yoshimura, 2003). Extensive study showed a strong relationship between those study participants that consumed K Company rice-bran oil produced between February 5-6, 1968 and those that showed acne like symptoms. However, there was no link to contaminants in oil produced during the same time.

Further research by professor Inagami, Faculty of Agriculture, Food Production Engineering revealed releases of PCB from heat transfer equipment during production on February 5-6, 1968. Sampling confirmed the presence of PCBs in product manufactured during the same timeframe. In 1969 the Yusho Study Group concluded that the symptoms were caused by exposure to PCB contaminated rice-bran oil from K Company. Further study suggested that the poisoning can be contributed to polychlorinated dibenzofurans generated from thermal degradation of PCBs, and not PCBs themselves. This incident catapulted PCBs to the forefront of US environmental policy discourse (Erickson, 2010). However, the health effects of PCBs remained unclear.

The Yusho incident added confusion to the PCB debate. The thermally degraded PCB dibenzofurans involved in the incident were chemically different than PCBs found in the environment. Typically PCBs found in the environment have not thermally degraded, and the chemical structure is different. The health and environmental risks associated with this type of PCB is less clear.

A US interagency task force was formed in 1971 to discuss the “entire range of current and potential health problems associated with the widespread use and dispersion of PCBs” (Shifrin, 1998). The task force revealed several findings, most notably that the Yusho incident was confounded by dibenzofurans and should not be used to prove the toxicity of PCBs in

general, and that many data gaps remained in PCB studies. The taskforce also pointed out that Americans had an average PCB concentration of 1 part per million (ppm) in fat tissues, and that there was no real understanding of what health effects this posed (Shifrin, 1998). Regulations were soon to follow.

The US food and Drug Administration (FDA) made the first attempt to regulate PCBs on July 6, 1973. The agency established tolerance levels for PCBs in commercial food products and food packaging. Unavoidable contamination limits were set at 5ppm PCB for edible portions of fish and shell fish, and 10ppm PCB for food packaging (Shifrin, 1998). The Clean Air Act and Clean Water Act followed shortly with limited PCB regulations. In 1976 EPA found that existing evidence was sufficient to list PCBs as a likely human carcinogen and Congress passed the first chemical specific laws governing PCBs in July of 1976. The Toxic Substances Control Act (TSCA) banned the production and distribution of PCBs in commerce and restricted their use to "totally enclosed" processes, and provided EPA with "cradle-to-grave" regulatory authority over PCBs (Shifrin, 1998).

36 years after Congress banned the use and distribution of PCBs, many remain in use around the U.S. According to the 1976 ban, *No person may, manufacture, process or distribute in commerce or use any polychlorinated biphenyl in any manner other than in a totally enclosed manner* (44 Federal Register 31514). As early as 1976 EPA estimated that 75% of the approximately 750 million lbs. of PCBs in the U.S. were used in electrical or industrial equipment (75 Federal Register 17646). Shortly after the 1978 ban, EPA promulgated regulations on May 31, 1979 that excluded from the ban, materials containing <50 ppm of PCBs, and defined certain PCB-containing electrical equipment as "totally enclosed", precluding them from the ban. The regulatory definition of "totally enclosed" and other Use Authorizations developed since 1979 continue to allow the use of PCBs across the U.S.

Despite this Congressional ban and broad regulatory authority granted to EPA, over thirty years later PCBs remain in the environment and the subject of extensive environmental remediation (Shifrin, 1998). Since 1976 EPA has published 31 Final Rules regulating PCBs in the

Federal Register (EPA, 2013). Each Final Rule has added to the already complex PCB policy debate.

THE ADVOCACY COALITION FRAMEWORK

Paul Sabatier and Neil Pelkey introduced the Advocacy Coalition Framework (ACF) in their seminal publication, "Incorporating Multiple Actors and Guidance Instruments Into Models of Regulatory Policymaking, An Advocacy Coalition Framework" (1987). Their Advocacy Coalition Framework incorporated new dimensions previously missing from policymaking models. They proposed that previous models focused too narrowly on single institutional actors – interest groups, legislature, and agencies – rather than to include all actors in a policy arena. Second, previous models ignored the wider socioeconomic environment. Lastly, other models ignored some legal and political mechanisms used by external actors to influence agency decisions (Sabatier and Pelkey, 1987). The ACF was subsequently refined by Sabatier and others and became a proven public policy framework suited for dealing with intense public policy problems, with worldwide application. (Weible and Sabatier, 2006; and Sabatier and McQueen, 2009).

The framework has three basic premises applicable to this project. First, understanding the policy change process requires a perspective of a decade or more. The ACF posits that, a focus on short-term decision-making will underestimate the influence of policy analysis, and that it is the cumulative effect of decision-making over time which has the greatest influence on policy (Sabatier, 1988). Furthermore, a reasonably accurate portrait of program performance requires at least one formulation/implementation/reformulation cycle (Sabatier, 1988).

Second, 'policy subsystems' represent groups of like interested policy actors. The ACF defines policy subsystems as, "those actors from a variety of public and private organizations who are actively concerned with a policy problem…" rather than policy subsystems defined by governmental institutions or 'iron triangles' of administrative agencies, or interest groups at a single level of government (Sabatier, 1988). Traditional notions of "iron triangles" are limited to a single level of government and include interest groups, administrative agencies, or legislative committees. The ACF utilizes the more expansive policy subsystem which may include

journalists, analysts, researchers, and others who play important roles in the generation, dissemination and evaluation of policy ideas (Sabatier, 1987).

Third, public policies incorporate theories about how to achieve objectives and can be conceptualized similar to belief systems (Sabatier, 1988). Similarly policy actors can be arranged into "advocacy coalitions", or those that share a particular belief system, "a set of basic values casual assumptions, and problem perceptions" (Sabatier, 1987). Placing policy actors into advocacy coalitions of shared beliefs serves to simplify complex policy arenas with a wide range of actors over long periods of time. The ACF further draws a distinction between deep core and policy core beliefs.

Deep core beliefs reflect a personal philosophy and are very difficult to change, for this reason deep core beliefs do not change across policy areas or time. However, policy core beliefs reflect fundamental policy positions and are developed to help achieve and support deep core beliefs. Policy core beliefs change across policy areas and may change over time to support deep core beliefs. Figure 1 outlines the aspects of deep core and policy core beliefs. Sabatier explains it this way, "Assuming that people get involved in politics at least in part to translate their beliefs into public policy, this ability to map beliefs and policies on the same 'canvas' provides a vehicle for assessing the influence of various actors on public policy over time" (1988).

Figure 1. Characteristics of Deep Core and Policy Core beliefs. Adapted from Sabatier, P.A. (1988). An Advocacy Coalition Framework of Policy Change and the Role of Policy-Oriented Learning Therein. Policy Sciences, 21, 129-168.

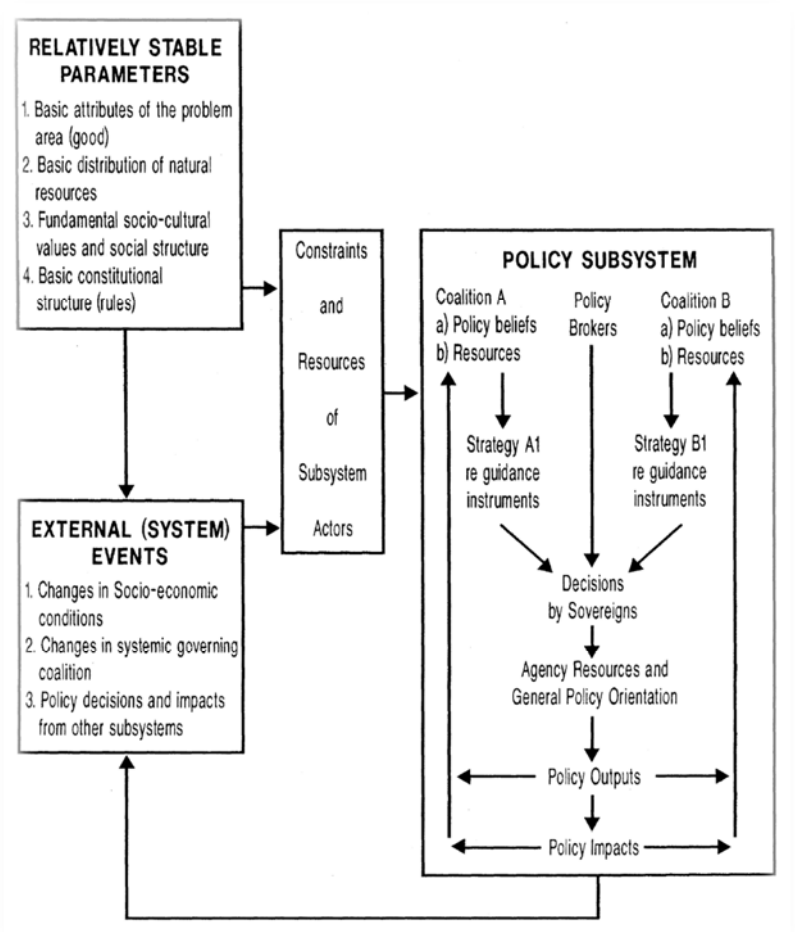
	Deep Core	**Policy Core**
Defining characteristics	Fundamental normative and ontological axioms.	Fundamental policy positions concerning the basic strategies for achieving normative axioms of deep core.
Scope	Part of basic personal philosophy. Applies to all policy areas.	Applies to policy area of interest (and perhaps a few more).
Susceptibility to change	Very difficult; akin to a religious conversion.	Difficult, but can occur if experience reveals serious anomalies.

Figure 2 shows the entire ACF as presented by Sabatier (1987). Exogenous variables, or real world realities, are represented by "Relatively Stable System Parameters" and "External

(System) Events" on the left. On the right the "Policy Subsystem" aggregates actors into advocacy coalitions, "people from various organizations who share a set of normative and causal beliefs and often act together" (Sabatier, 1987). Policy brokers mediate conflicting strategies between coalitions to reduce conflict. The output at the bottom of the subsystem is a governmental program or policy that impacts the targeted problem (Sabatier, 1988).

The framework's feedback loop incorporates policy learning. Sabatier (1987) explained policy oriented learning as, "relatively enduring alterations of thought or behavioral intentions which result from experience and which are concerned with the attainment or revision of policy objectives", and that this "policy oriented learning should be distinguished from that aiming at purely personal or organizational objectives."

Figure 2. General Model of Policy Focusing on Competing Advocacy Coalitions within Policy Subsystems. Reprinted from Sabatier, P. A., (1987). Knowledge, Policy-Oriented Learning, and Policy Change. Knowledge: Creation, Diffusion, Utilization. 8 (4), 649-692.



Sabatier sums it up the entire ACF, “In its simplest terms, the framework argues that policy change is best seen as fluctuations in the dominant belief systems within a given policy area/subsystem over time” (Sabatier, 1987).

The ACF theory of the policy process is well suited for this analysis of the PCB subsystem for three reasons. First, it’s “inherent complexity requires a conceptual simplification to guide research agendas, to enable communication and to develop effective decision making strategies” (Weible, 2009). Second, the ACF integrates arguments that, “policy analysis is often used in an advocacy fashion to justify organizational positions and interests, and It’s effects are usually seen via the long term, diffuse effects on policymakers’ perceptions of causal relationships and states of the world (i.e., their belief systems)” (Sabatier, 1987). The 31- year “long term” PCB policy subsystem and availability of reliable data easily lend themselves to an ACF perspective on policymaker beliefs. Third, “longitudinal studies of elite beliefs over time that use intersubjectively reliable data are quite rare,” (Sabatier and Jenkins-Smith, 1993). This gateway study is the first ACF application to the PCB policy subsystem in the U.S. and is intended to bring some simplification to the complexities of this 31 year debate which will aid policy makers and subsystem participants.

MATERIALS AND METHODS

This project used 31 years of original data from public comments, in the form of letters and e-mails, submitted to EPA from 1978 -2014 available in rulemaking dockets. The Federal rulemaking process is the basic tool used to implement public policy. The Administrative Procedure Act (APA) of 1946 defined a rule or regulation as, “the whole or part of an agency statement of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy”. EPA’s process to develop, amend, or appeal PCB rules is called “rulemaking”.

Citizen participation in the rulemaking process is governed by the Federal Register Act of 1935 (44 U.S.C. Chapter 15). The act established a uniform rulemaking system requiring “(1) the filing of documents with the Office of the Federal Register, (2) the placement of documents on

public inspection, (3) publication of the documents in the *Federal Register,* and (4) codification of rules in the *Code of Federal Regulations*" (Congressional Research Service, 2013). The *Federal Register* is published every business day and available electronically since 2002.

In some rulemakings EPA uses simplified "notice and comment" procedures and publishes a notice of proposed rulemaking (NPRM) or advanced notice of proposed rulemaking (ANPRM) in the *Federal Register* (Congressional Research Service, 2013). The notice contains (1) a statement of the time, place, and description of public rulemaking proceedings; (2) citation of legal authority under which the rule is proposed; and (3) either the terms or substance of the proposed rule or a description of the subject and issues involved (Congressional Research Service 2013). EPA must give the public an opportunity to comment and after considering their comments, may then publish the final rule. All comments submitted to EPA are available for public inspection and maintained in dockets. These dockets are the source of public comments for this study.

Dockets subject to the study were identified through a three step process, (1) a list of EPA rulemakings in the PCB policy arena was collected from EPA's *PCB Laws and Regulations* website[3]; (2) Federal Register citations were collected for rulemakings subject to ANPRM and NPRM process; (3) *Federal Register* publications were searched to identify rulemaking docket numbers[4]. Docket numbers were provided to the Congressional Reading Room along with a request for docket indices'. The project scope was then narrowed by Congressional Reading Room response. *Federal Register* citations, docket identification numbers and Congressional Reading Room response are provided in Appendix A.

Written comments submitted to EPA were requested from the Congressional Reading Room for the selected comment periods. Some microfiche were degraded and unable to be reproduced. Therefore, not all requested comments were available due to factors outside the control of the project. This further defined project scope.

[3] http://www.epa.gov/solidwaste/hazard/tsd/pcbs/pubs/laws.htm
[4] Rulemakings with published docket numbers remained in the study and those without were eliminated.

DATA ANALYSES AND RESULTS

The data analyses consisted of two parts. First, I *determined the policy actors shaping U.S. PCB policy and regulation over the past three decades*. To determine policy subsystem actors, indices' were coded and policy subsystem participation tabulated. "One-shot" participants (n=588), were eliminated from the study, regular policy subsystem participants with more than one instance of participation were retained (n=91). Next, policy actors were categorized by industry type to form coalitions. For example, energy utilities were consolidated into the energy coalition, chemical manufacturers and oil production companies formed the petroleum coalition and other heavy industry and manufacturing companies formed the general industry coalition. Participants were excluded if coalition placement was not obvious after brief internet research. This laid the foundation for identification of core and policy core beliefs which were the second and third parts of the analyses.

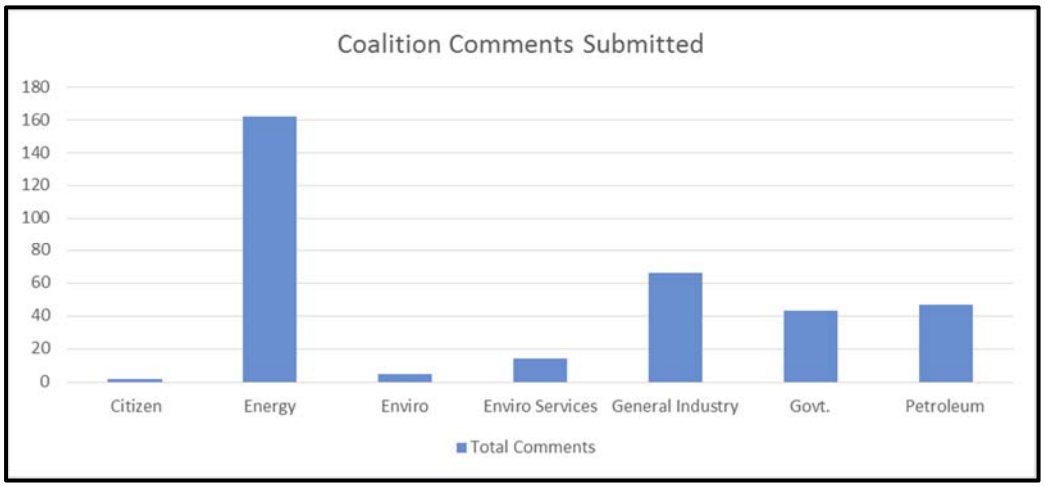
Second, I *delineated policy actor hierarchical belief systems including deep core beliefs and policy core beliefs* by coding written comments submitted to EPA. Only policy actors that participated at least once each decade, were selected for this analysis. An initial review of all data established blocks of text to be coded and potential themes winnowed to those important to the project. Some comments contained large volumes of data sets in attachments, PowerPoint presentations, Human Health Risk Assessments or government publications. These attachments were not included in coded texts. However, a commenter's evaluation of this data was included when found in cover letters or detailed comments. A coding framework was created for each coalition as established in step one above.

The coding framework followed qualitative research methods (Ryand and Bernard, 2003; and Krippendorff, 2013) and peer reviewed by a coding professional with previous experience manually coding text. Manual coding determined patterns of similar key points or ideas, known as nodes that revealed core and policy beliefs. This project utilized counts of coded, and categorized textual elements rather than more elementary counts of mentions. Counts of codes ensure the larger contexts are captured and easily linked to research objectives (Krippendorff, 2013). Coding data was analyzed to determine interrelated themes and commenters.

Step two was finished by conducting a cross sectional analysis of beliefs over the past decade. This method of analysis was employed to determine if deep core beliefs or policy core beliefs aligned with industry coalitions. These results were used to detect competing advocacy coalitions.

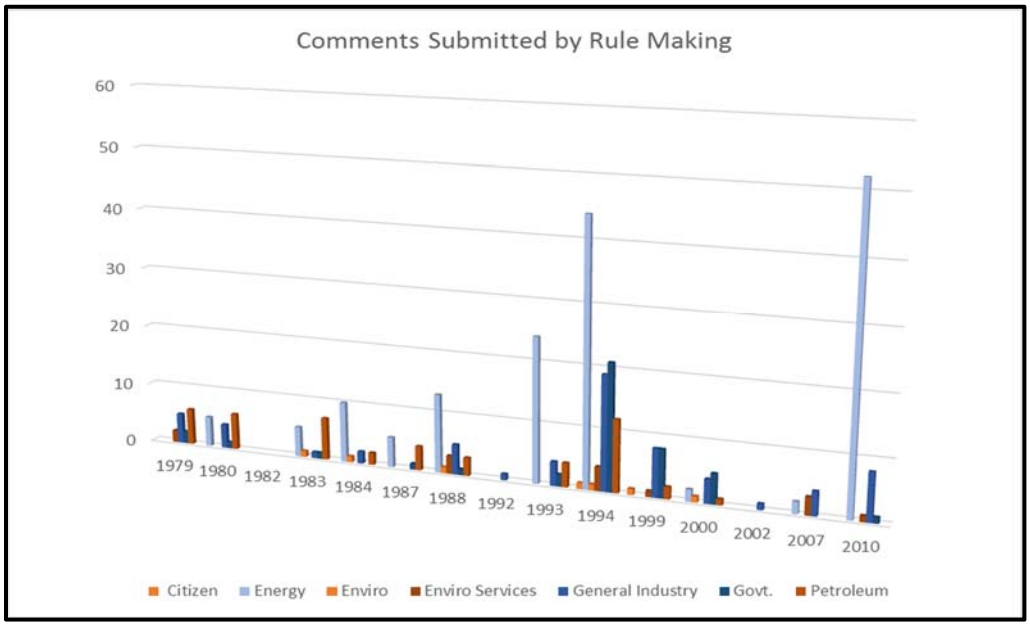
Here I present the results of the project. First, the project revealed a PCB policy subsystem dominated by the energy coalition. Figure 3 illustrates subsystem participation by coalition. Detailed data tables are provided in Appendix B.

Figure 3. Comments Submitted by Regular Participants.



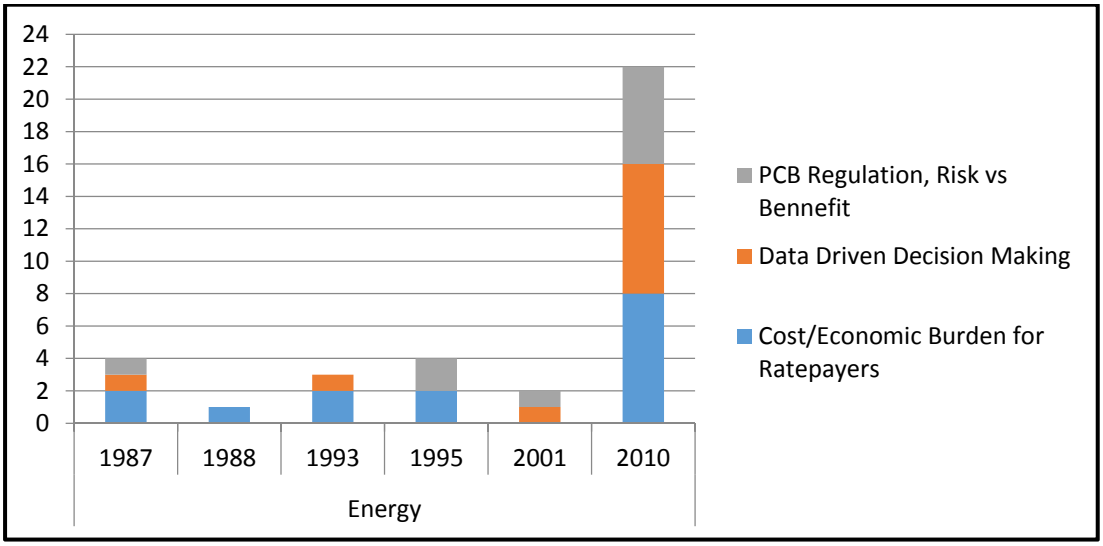
Participation was then subdivided into decades to facilitate longitudinal analysis. This analysis showed increasing subsystem salience and participation by the energy coalition. Figure 4 illustrates policy subsystem participation over time.

Figure 4. Policy Subsystem Participation by Coalition.



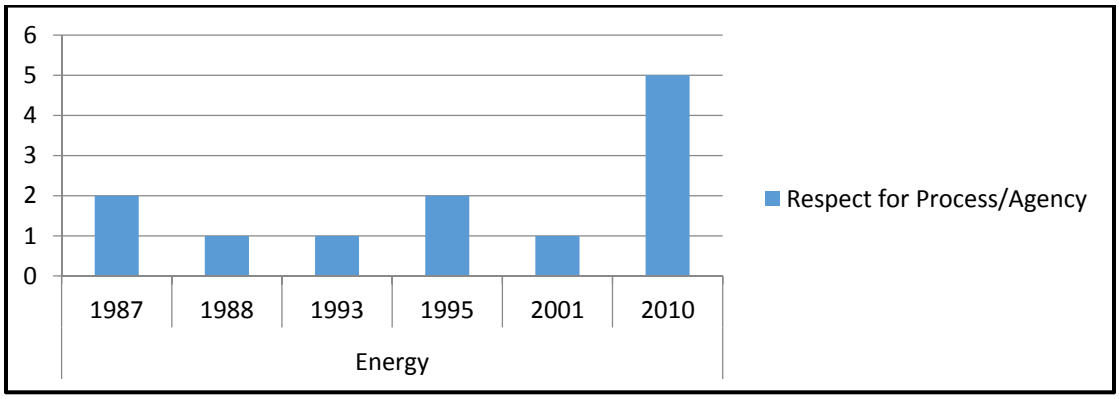
Second, only General Industry and Energy Coalitions produced sufficient data for longitudinal analysis of deep core beliefs. Beliefs revealed within the energy coalition were long standing and deeply held positions that PCB policy must appropriately consider the environmental and health risk of PCBs vs the potential benefit of regulations. Policy must be based on facts and data driven, and all costs associated with increased PCB regulations will ultimately be passed to utility customers through cost recovery rates resulting in economic burden to most ratepayers in the U.S. Figures 5 illustrate these Energy Coalition deep core beliefs. Complete coding data tables are provided in Appendix C.

Figure 5. Energy Coalition Deep Core Beliefs.



Energy coalition analysis also revealed a strong, lasting respect for the agencies involved in the policy arena, and the rulemaking process as shown in Figure 6. This was unique to the energy coalition and was not revealed in coding of general industry comments.

Figure 6. Energy Coalition Deep Core Belief - Respect.



Energy coalition analysis for policy core beliefs revealed two emerging beliefs that supported deep core beliefs. Both voluntary compliance efforts and concerns about increased risks to workers posed by new PCB regulations supported the energy coalition's deep core

belief that increased costs of PCB policy are an economic burden to all utility rate payers as shown in Figure 7.

Figure 7. Energy Coalition Policy Core Beliefs.

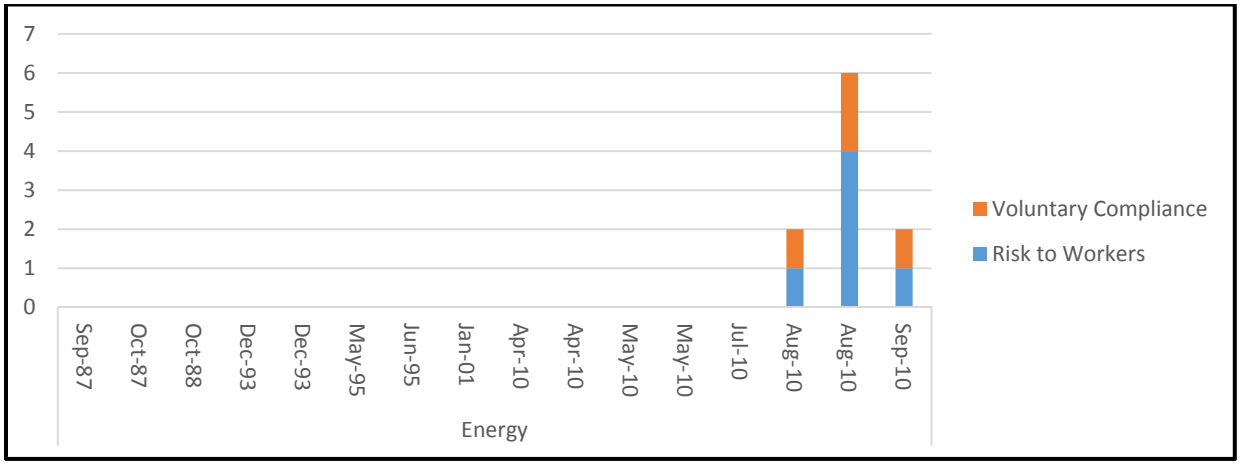


Figure 8 indicates deep core beliefs within the general industry coalition since 1987. General industry revealed a reoccurring belief that PCB policy must be clear, specific and consistent for ease of implementation and reduced business impact.

Figure 8. General Industry Deep Core Beliefs

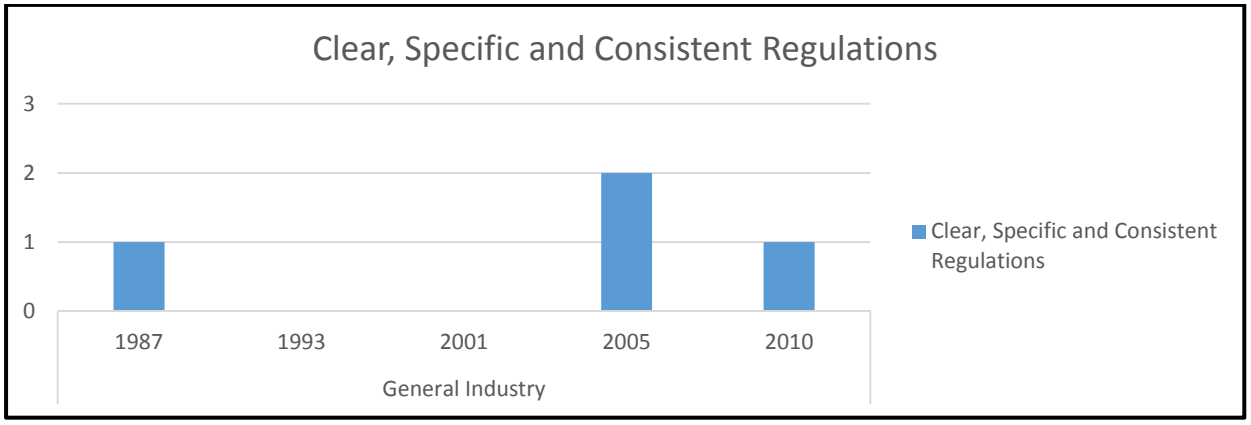
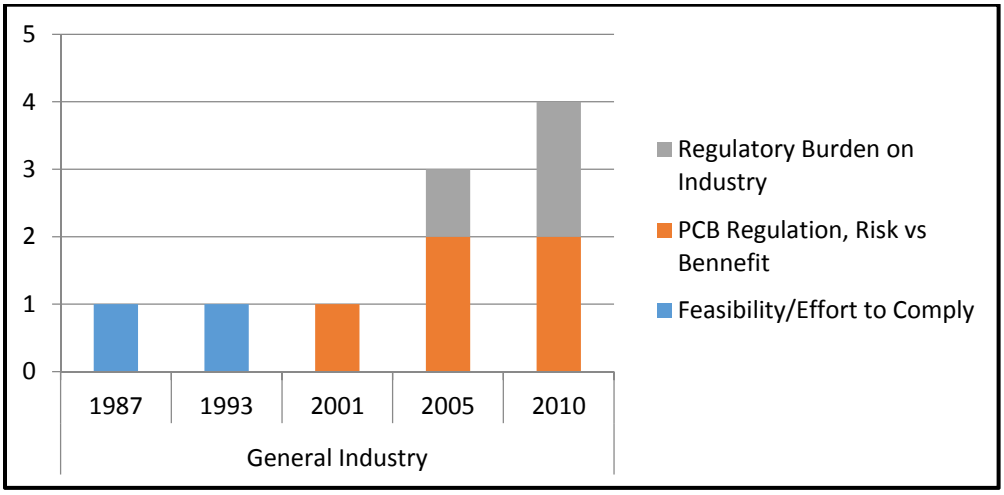


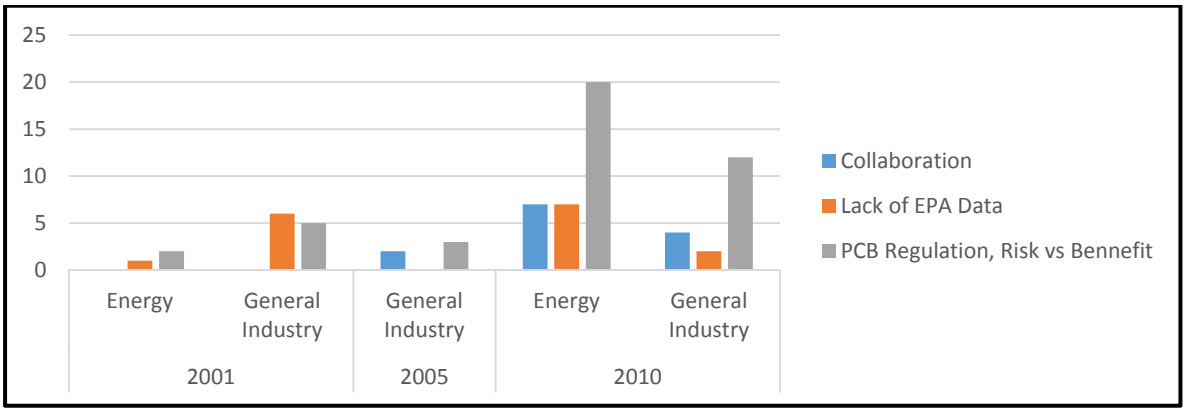
Figure 9 shows policy core beliefs that either faded or developed over time to support deep core beliefs. The development of beliefs since 2001 showed general industry concern for increased regulatory burden, similar to energy coalition results, and policy core beliefs trended towards questioning the risk of PCBs vs the benefit of new PCB regulation.

Figure 9. General Industry Policy Core Beliefs



Within the energy and general industry coalition a convergence of deep core beliefs evolved. Both coalitions developed signs of collaboration. This was evident from cross references between coalition's comments, mutually supporting the other coalition's comments. Analysis also showed shared beliefs questioning EPAs PCB risk data and the risk of PCBs vs the benefit of increased regulation. Values with presence in each coalition over the three rulemaking periods within the past decade are presented in Figure 10.

Figure 10. Cross Sectional Deep Core Values



The final objective of this project was to develop a general model of competing advocacy coalitions within the policy subsystems, and present recommendations to policy actors that facilitate more effective and efficient PCB policy and regulation. This project did not reveal competing advocacy coalitions. The energy and general industry coalitions dominated

this policy subsystem with regular participation and aligned policy core beliefs. Recommendations for policy actors follow in the Discussion section.

DISCUSSION

The results of the project and implications of findings can now be discussed and related to objectives and founding assumptions of the ACF. In sum, the PCB Policy Subsystem is dominated by a few highly collaborative coalitions, closely aligned policy core values and increasing collaboration between coalitions over time. This salient subsystem has perennial coalitions and no signs of new regular participants entering the subsystem. Here I review the results of the project in relation to each objective.

Objective one, Determine the policy actors shaping U.S. PCB policy and regulation over the past three decades.

The study reveals 679 PCB policy subsystem participants since 1978 of which 91 were regular, more than "one-shot", participants. The 91 regular participants were dominated by the energy and general industry coalitions. During the 31 years of PCB policy subsystem regular participants submitted 338 comments the energy coalition submitted 162 comments and general industry 66.

Objective two, Delineate policy actor hierarchical belief systems including deep core beliefs and policy core beliefs.

Energy coalition deep core beliefs were found throughout the 31 year history of the PCB policy subsystem. Rate payer burden, risk of PCBs versus the benefit of regulation and data driven decision making are deep core beliefs in each comment period from 1987 – 2010. Notably, only the energy coalition comments revealed a deep core value of respect. Comments regularly explicitly mentioned, "we respectfully submit", and "Thank you for the opportunity to comment", among other generally accepted signs of respect for the rulemaking process.

The ACF predicts, secondary policy core beliefs arise later to support deep core beliefs. The results of this study support this proposition. 'Voluntary compliance' and 'risk to workers' beliefs developed later in energy coalition comments. These secondary policy core beliefs may support deeper and long held core beliefs, and therefore ACF claims, in that 'risk to workers'

posed during the assessment of electrical equipment for PCBs or the removal of “enclosed” PCBs does not outweigh the risk of PCBs to the environment and therefore is a ‘Cost/Economic Burden for Ratepayers’ or deep core belief.

The general industry coalition revealed a deep core belief for ‘clear, specific and consistent regulations’. This makes sense if you accept the commonly held position that business prefers a certain over an uncertain socioeconomic operating environment. Also, consider this deep core belief in conjunction with secondary policy core beliefs. The data show that general industry policy core beliefs changed from concerns about ‘regulatory feasibility’ and ‘effort to comply’ in early subsystem participation to more focus on ‘regulatory burden’ and ‘PCB risk vs regulatory benefit’ in later years. ‘regulatory feasibility’ and ‘regulatory burden’ both support deep core beliefs for certain socioeconomic environment or ‘clear, specific and consistent regulations’, but they appear to be fundamental policy positions that change over time as is expected of policy core beliefs.

Lastly, cross sectional analysis revealed energy coalition and general industry shared beliefs over the last decade. Again PCB regulation risk vs benefit came to the surface. However, through this data analysis emerged signs of collaboration and a common questioning of EPAs PCB risk data to support further regulation and therefore drew into question the risk of PCBs vs the benefit of regulation.

Objective three, develop a general model of competing advocacy coalitions within the policy subsystems.

This project revealed a salient subsystem dominated by the energy coalition with no signs of competing advocacy coalitions. In fact, convergence of policy core beliefs around the risk of PCBs vs the benefits of regulation and clear efforts to collaboration across coalitions developed in recent years.

Objective four, present recommendations to policy actors that facilitate more effective and efficient PCB policy and regulation.

Expand the project to Include additional forms of subsystem participation. This project included only written comments submitted to EPA through established rulemaking processes

and was limited by the responsiveness of the Congressional Reading Room. Future projects should include other means of subsystem participation, transcripts from public hearings, and interviews with environmental advocacy groups.

Improve transparency in regulatory development process. Unfortunately, this project was limited by the availability of public comments. Efforts should be made to retain and improve access to these valuable documents that become more valuable over time to reveal important changes in public policy and beliefs. Improvements may be possible through increased oversight of agency contractors.

Acknowledge dynamic events external to the subsystem. PCB policy rulemakings should not be considered isolated events, rather they should be viewed as an action in the context of the wider 31 year PCB policy debate. This view will highlight policy learning opportunities over time and where additional outreach efforts are needed to diversify subsystem participation.

Understand that dynamic external events may change policy core beliefs, but not deep core beliefs. Policy negotiations can benefit if deep core and policy core beliefs are acknowledged proactively. This reduces negotiation time and effectiveness by focusing efforts on policy core beliefs that can be aligned to more quickly reach policy goals.

Expand the project to include policy learning and impacts of significant environmental events. Over the 31 year policy debate it is likely that significant environmental events altered subsystem participation and policy core beliefs of participants. These alterations should be studied to better understand forces external to the PCB policy subsystem that can alter policy core beliefs and present a window of opportunity for collaboration and rapid policy development.

The project results are important because they support some ACF propositions. Similar studies by Sabatier suggest that in well-developed, quiescent subsystems there will emerge only a single coalition, or in most cases 2-4 important coalitions (1987). This project revealed the dominance of the energy coalition. Furthermore, this seminal study used original data collected from the PCB policy subsystem for a first of its kind study to identify deep core and

policy core beliefs. These findings should be used as EPA and Congress announce new efforts to further reform PCB regulation and TSCA (75 Federal Register 17646, and S. 697).

Limitations to this project must be considered with the results. There are many avenues for policy discourse, this study only considered written comments submitted to EPA through formal rulemaking processes and only those comments provided by the Congressional Reading Room were included in the study population. Furthermore, manual coding was required because of the wide variety of formats used for submitting comments over the 31 year period. Manual coding alone is not a limitation, using only one coder is. Future studies should utilize multiple coders and validate inter-coder reliability and consider exogenous environmental events and latent policy subsystem participants.

The ACF provides a useful lens for viewing the complicated history of PCB policy in the U.S. Deep core and policy core beliefs are closely aligned within the salient policy subsystem and becoming more closely aligned over time. All policy subsystem participants should view their beliefs in the wider context of the PCB policy subsystem and consider the beliefs of those participating via alternative avenues. This wider view may reveal unlikely collaborators, emerging collaborators drawn to the debate by external events or opportunities to identify competing coalitions with negotiable policy core beliefs that can be moved from foe to friend.

REFERENCES

Congressional Research Service. (2013). The Federal Rulemaking Process: An Overview (CRS Publication No. RL32240). Washington, DC.

Cordle, F., Locke, R. & Springer, J. (1982) Risk Assessment in a Federal Regulatory Agency: An Assessment of Risk Associated with the Human Consumption of Some Species of Fish Contaminated with Polychlorinated Biphenyls (PCBs). *Environmental Health Perspectives,* 45, 171-182.

Erickson, M. D. & Kaley, R. G. (2010). Applications of polychlorinated biphenyls. *Environmental Science Pollution Research*. 23 August.

Kimbrough, R. D. (1995). Polychlorinated Biphenyls (PCBs) and Human Health: An Update. Critical Reviews in Toxicology, 25 (2), 133-163.

Krippendorff, K. (2013). *Content Analysis, Third Edition, An Introduction to Its Methodology.*

Meeker, J. D., Hauser, R. (2010) Exposure to Polychlorinated Biphenyls (PCBs) and Male Reproduction. *Systems Biology in Reproductive Medicine,* 56, 122-131.

Park, H.Y, Hertz-Picciotto, I., Sovcikova, E., Kocan, A., Drobna, B., & Trnovec, T. (2010). Neurodevelomental toxicity of prenatal polychlorinated biphenyls (PCBs) by chemical structure and activity: a birth cohort study. *Environmental Health*, 9(51), 1-13.

"Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions, Final Rule." Federal Register 44:106 (31 May 1979) p. 31514–31558.

"Polychlorinated Biphenyls (PCBs); Reassessment of Use Authorizations, Advanced notice of proposed rulemaking." Federal Register 75:66 (7 April 2010) p. 17645-17667.

Ryan, G. & Bernard, R. (2003). Techniques to Identify Themes. *Field Methods*, 15 (1), 85-109.

Sabatier, P. A., & Pelkey, N., (1987). Incorporating Multiple Actors and Guidance Instruments Into Models of Regulatory Policymaking, An Advocacy Coalition Framework. *Administration & Policy*. 19, 236-263.

Sabatier, P. A., (1987). Knowledge, Policy-Oriented Learning, and Policy Change. *Knowledge: Creation, Diffusion, Utilization*. 8 (4), 649-692.

Sabatier, P.A. (1988). An Advocacy Coalition Framework of Policy Change and the Role of Policy-Oriented Learning Therein. *Policy Sciences*, 21, 129-168.

Sabatier, P. & Jenkins-Smith, H. (1993). *Policy Change and Learning, An Advocacy Coalition Approach*.

Shifrin, N. S., & Toole, A. P. (1998). "Historical Perspective on PCBs." *Environmental Engineering Science* 15 (3): 247-257.

Weible, C., Sabatier, P., & McQueen, K., (2009). Themes and Variations: Taking Stock of the Advocacy Coalition Framework. *Policy Studies Journal*. 37 (1).

Weible, C. & Sabatier, P.A., (2006). *Handbook of Public Policy Analysis, Theory, Politics, and Methods.*

Yoshimura, T. (2003). Yusho in Japan. *Industrial health* 41, 139-148.

Appendix A

ANPRM and NPRM Rulemakings Subject to Study

DATE	TYPE	CITATION	DOCKET NUMBER	DOCKET INDEX PROVIDED	NAME OF RULE MAKING
APRIL-10	ANPRM	75 FR 17645	EPA–HQ–OPPT–2009–0757	Y	Polychlorinated Biphenyls (PCBs); Reassessment of Use Authorizations
APRIL-07	NPRM	72 FR 21190	OPPT–2005–0034	Y	Polychlorinated Biphenyls; Notice of Public Meeting
SEPTEMBER-02	NPRM	67 FR 58567	OPPT–2002–0013	Y	Polychlorinated Biphenyls; Manufacturing (Import) Exemptions
NOVEMBER-00	NPRM	65 FR 65654	OPPTS–66020	Y	Polychlorinated Biphenyls (PCB's); Return of PCB Waste from U.S. Territories Outside the Customs Territory of the United States
APRIL-00	NPRM	65 FR 18018	OPPTS–66009G	Y	Use Authorization for, and Distribution in Commerce of, Non-liquid Polychlorinated Biphenyls, Notice of Availability; Partial Reopening of Comment Period; Extension of Comment Period
DECEMBER-99	NPRM	64 FR 69358	OPPTS–66009F	Y	Use Authorization for, and Distribution in Commerce of, Non-liquid Polychlorinated Biphenyls, Notice of Availability; Partial Reopening of Comment Period; Extension of Comment Period
DECEMBER-94	NPRM	59 FR 62788	OPPTS-66009A	Y	Disposal of Polychlorinated Biphenyls
NOVEMBER-93	NPRM	58 FR 60970	OPPTS-66015	Y	Polychlorinated Biphenyls; Reclassification of PCB and PCB Contaminated Transformers

DATE	TYPE	CITATION	DOCKET NUMBER	DOCKET INDEX PROVIDED	NAME OF RULE MAKING
JANUARY-93	NPRM	58 FR 6184	OPPTS--62122	Y	Polychlorinated Biphenyls; Storage for Disposal of PCBs
MARCH-92	NPRM	57 FR 7349	OPPTS-66011	Y	Polychlorinated Biphenyls; Manufacturing, Processing, and Distribution In Commerce Exemptions and Use Authorization
JUNE-91	ANPRM	56 FR 26738	OPTS-66009	N	Disposal of Polychlorinated Biphenyls
NOVEMBER-90	NPRM	55 FR 46790	OPTS-66008K	Y	Polychlorinated Biphenyls: Manufacturing, Processing, and Distribution In Commerce, Partial Rescission of Exemption Rule
SEPTEMBER-88	NPRM	53 FR 37436	OPTS 62059	Y	Polychlorinated Biphenyls; Notification and Manifesting for PCB Waste Activities
AUGUST-87	NPRM	52 FR 31738	OPTS-62035F	Y	Polychlorinated Biphenyls in Electrical Transformers
JULY-87	NPRM	52 FR 25838	OPTS-62053	N	Polychlorinated Biphenyls; Exclusions, Exemptions and Use Authorizations
OCTOBER-84	NPRM	49 FR 39966	OPTS-62035	Y	Polychlorinated Biphenyls; Manufacture, Processing, Distribution In Commerce and Use Prohibitions; Use In Electrical Transformers
JULY-84	NPRM	49 FR 29625	OPTS-62039	Y	Polychlorinated Biphenyls; Modification of Definition of Totally Enclosed Manner for PCB Activities
MARCH-84	ANPRM	49 FR 11070	OPTS-62035	Y	Polychlorinated Biphenyls; Manufacture, Processing, Distribution In Commerce and Use Prohibitions; Use In Electrical Transformers

DATE	TYPE	CITATION	DOCKET NUMBER	DOCKET INDEX PROVIDED	NAME OF RULE MAKING
DECEMBER-83	NPRM	48 FR 55076	OPTS-62032	Y	Polychlorinated Biphenyls; Exclusions, Exemptions and Use Authorizations
DECEMBER-82	NPRM	47 FR 51769	WH-FRL 2212-8	N	Ocean Dumping; Proposed Designation of At-Sea Incineration Site
JULY-82	NPRM	47 FR 24976	OPTS 62017A	N	Polychlorinated Biphenyls; Manufacture, Processing, Distribution and Use In Closed and Controlled Waste Manufacturing Processes
JULY-82	NPRM	47 FR 22123	OPTS-62024	Y	Polychlorinated Biphenyls; Incorporations by Reference Revisions
JULY-82	NPRM	47 FR 19526	OPTS 62015B	N	Polychlorinated Biphenyls; Use In Electrical Equipment
MAY-81	ANPRM	46 FR 27617	OPTS-62013	N	Polychlorinated Biphenyls; Manufacture of PCBs in Concentrations Below Fifty Parts Per Million; Possible Exclusion From Manufacturing Prohibition
MAY-81	ANPRM	46 FR 27619	OPTS-62014	N	Polychlorinated Biphenyls; Manufacturing, Processing, Distribution In Commerce and Use Prohibitions; PCBs In Concentrations Below Fifty Parts Per Million
MARCH-81	ANPRM	46 FR 16095	OPTS-62015	N	Polychlorinated Biphenyls; Use In Electrical Equipment
MAY-80	NPRM	45 FR 30989	OTS-62003 (PCB/RR-3)	Y	Polychlorinated Biphenyls; Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions; Proposed Restrictions on Use at Agricultural Pesticide and Fertilizer Facilities

DATE	TYPE	CITATION	DOCKET NUMBER	DOCKET INDEX PROVIDED	NAME OF RULE MAKING
MAY-79	NPRM	44 FR 31567	OTS-066000 (PCB/RR)	N	Polychlorinated Biphenyls; Amendment to Criteria for Chemical Waste Landfills
MAY-79	NPRM	44 FR 31564	OTS-066001 (PCB/ME)	Y	Polychlorinated Biphenyls; Proposed Rulemaking for PCB Manufacturing Exceptions
JUNE-78	NPRM	43 FR 24802	FRL 886-6	N	Polychlorinated Biphenyls; Manufacturing, Processing, Distribution in Commerce, and Use Bans
MAY-77	NPRM	42 FR 26564	FRL 722-3	N	Polychlorinated Biphenyls; Toxic Substance Control

Appendix B

Policy Subsystem Regular Participants

Coalition	Organization	1979	1980	1982	1983	1984	1987	1988	1992	1993	1994	1999	2000	2002	2007	2010	Total Comments	Count of Comment Period Participation
Citizen	Private Citizen										1	1					2	2
	Citizen										1	1					2	2
Energy	Utility Solid Waste Activities Group					1				3	1		1		1	5	12	6
Energy	USWAG EEI APPA NREC				1	1	2	1									5	4
Energy	City Public Service		1			1				1	1						4	4
Energy	Montana-Dakota Util Co.						0			1	1					1	3	4
Energy	INGAA							1			2					8	11	3
Energy	American Gas Assn							1			2					4	7	3
Energy	Public Utility District No 1						1	1			3						5	3
Energy	Texas Eastern Corp.				1			1			3						5	3
Energy	Arizona Public Service Company					2				1						2	5	3
Energy	Baltimore Gas & Electric				1					3	1						5	3
Energy	American Electric Power Service Corporation									1	1					3	5	3
Energy	Chugach Electric Association, Inc.										2		1			1	4	3
Energy	Sierra Pacific Power Co.							1		1	1						3	3
Energy	Pacific Gas and Electric Company					1					1					1	3	3
Energy	Northern States Power Company		1			1					1						3	3
Energy	National Rural Electric Cooperative Association										1					4	5	2
Energy	Dayton Power & Light							1								3	4	2
Energy	Rural Electric Cooperative, Inc.									2	2						4	2

Coalition	Organization	1979	1980	1982	1983	1984	1987	1988	1992	1993	1994	1999	2000	2002	2007	2010	Total Comments	Count of Comment Period Participation
Energy	Central Maine Power Company (CMP)										1					3	4	2
Energy	Santee Cooper							1								2	3	2
Energy	T&R Service Company										2					1	3	2
Energy	Public Service Electric and Gas Company (PSEG)										1					2	3	2
Energy	Northwest Public Power Association									1						2	3	2
Energy	Constellation Energy														1	2	3	2
Energy	Brooklyn Union Gas Co.							1			1						2	2
Energy	AZ Public Service Co						1	1									2	2
Energy	Los Angeles Dept Water & Power							1		1							2	2
Energy	Idaho Power Co.		1					1									2	2
Energy	JCP&L					1	1										2	2
Energy	Salt River Project						0									2	2	2
Energy	Department of Water and Power					1					1						2	2
Energy	Jersey Central Power & Light Company					1					1						2	2
Energy	VEPCO		1		1												2	2
Energy	Consumers Powers Co.		1								1						2	2
Energy	Otter Tail Power Company										1					1	2	2
Energy	Central Vermont Public service Corporation									1	1						2	2
Energy	City of Anaheim, California Public Utilities Department									1	1						2	2
Energy	Kansas Electric Cooperatives, Inc.									1	1						2	2

Coalition	Organization	1979	1980	1982	1983	1984	1987	1988	1992	1993	1994	1999	2000	2002	2007	2010	Total Comments	Count of Comment Period Participation
Energy	Lincoln Electric System (LES)									1	1						2	2
Energy	Matanuska Electric Association Inc.										1					1	2	2
Energy	Florida Power & Light Company (FPL)										1					1	2	2
Energy	Bangor Hydro-Electric Company										1					1	2	2
Energy	Tennessee Valley Authority (TVA)										1					1	2	2
Energy	Duke Power Company									1	1						2	2
Energy	Detroit Edison									1	1						2	2
Energy	IOWA- Illinois Gas and Electric Company									1	1						2	2
Energy	City Water, Light & Power									1						1	2	2
Energy	Wolverine Power									1	1						2	2
Energy	James River Corp						0	1									1	2
Energy	NEMA				1		0										1	2
	Energy		5		5	10	5	13		24	44		2		2	52	162	121
Enviro	NRDC				1	1		1									3	3
Enviro	Sierra Club										1		1				2	2
	Enviro				1	1		1			1		1				5	5
Enviro Svcs.	Regulatory Compliance Services							1			1					1	3	3
Enviro Svcs.	Waste Mngt Inc							2							2		4	2
Enviro Svcs.	Chemical Waste Management Limited	1									2						3	2
Enviro Svcs.	Environmental Management Solution Inc.										1	1					2	2

Coalition	Organization	1979	1980	1982	1983	1984	1987	1988	1992	1993	1994	1999	2000	2002	2007	2010	Total Comments	Count of Comment Period Participation
Enviro Svcs.	National Solid Waste Management Assn.	1													1		2	2
	Enviro Services	2						3			4	1			3	1	14	11
General Ind.	General Electric Company	2					0	1	1	1	7	3	2			7	24	9
General Ind.	Alcoa Inc.	1			1			1			1		1				5	5
General Ind.	Environmental Technology Council										1		1	1	1		4	4
General Ind.	Ford Motor Co.		1				0	1			1						3	4
General Ind.	General Motor Corporation					1				1					2		4	3
General Ind.	Steel Manufacturers Association									1	2					1	4	3
General Ind.	North American Insulation Manufacturers Association										2	3					5	2
General Ind.	TW Services										2	2					4	2
General Ind.	Union Carbide Corp.		1					2									3	2
General Ind.	American Cyanamid Co.	1	1														2	2
General Ind.	E.I. Dupont de Nemours Co., Inc.	1													1		2	2
General Ind.	Dan River Inc.									1	1						2	2
General Ind.	Eli Lilly and Co.		1								1						2	2
General Ind.	Norfolk Southern Corp.					1	0				1						2	3
	General Industry	5	4		1	2		5	1	4	19	8	4	1	4	8	66	45
Govt.	Department of Energy									2	10	4	1			1	18	5
Govt.	U.S. Department of the NAVY	2									4	1					7	3
Govt.	Connecticut Department of Environmental Protection										4	1	1				6	3
Govt.	Congress of the United States House of Representatives										2	1	2				5	3

Coalition	Organization	1979	1980	1982	1983	1984	1987	1988	1992	1993	1994	1999	2000	2002	2007	2010	Total Comments	Count of Comment Period Participation
Govt.	Department of Defense										1	1	1				3	3
Govt.	USDHHS PHS CDC NIOSH		1		1		1										3	3
Govt.	USDOE						0	1									1	2
	Government	2	1		1		1	1		2	21	8	5			1	43	22
Petroleum	Dow Chemical Co.	2	2		2		0	1		1	1						9	7
Petroleum	Chemical Manufacturers Association(CMA)				1		2	1		1	7	2					14	6
Petroleum	API (Paper)				2	1	1										4	3
Petroleum	Eastman Chemical Company										3		1				4	2
Petroleum	Dupont Co.							1			1						2	2
Petroleum	Texaco Inc.					1	1										2	2
Petroleum	Phillips Petroleum Co.	1			1												2	2
Petroleum	Rohm & Haas Co.		1		1												2	2
Petroleum	Hercules Inc.	1	1														2	2
Petroleum	PPG Industries, Inc.	1	1														2	2
Petroleum	Shell Oil Co.		1							1							2	2
Petroleum	Dow Corning	1								1							2	2
	Petroleum	6	6		7	2	4	3		4	12	2	1				47	34
	Grand Total	15	16	0	14	14	10	25	1	34	101	20	12	1	9	62	334	235

Appendix C

Coding Data Tables

Energy

Coalition	Source	Date	Docket Number	Node	Value
Energy	Arizona Public Service Company	9/22	OPTS-62035F	Data Driven Decision Making	
Energy	Arizona Public Service Company	9/22	OPTS-62035F	Clear Specific and Consistent Regulations	
Energy	Arizona Public Service Company	9/22	OPTS-62035F	Collaboration Among Commenters	
Energy	Arizona Public Service Company	9/22	OPTS-62035F	Oppose Mandatory Deadlines	
Energy	Arizona Public Service Company	9/22	OPTS-62035F	Lack of EPA Data	
Energy	Arizona Public Service Company	9/22	OPTS-62035F	PCB Risk v Regulation Benefit	
Energy	Arizona Public Service Company	9/22	OPTS-62035F	Protection of Human Health and Environment	
Energy	Arizona Public Service Company	9/22	OPTS-62035F	Regulatory Consistency	
Energy	Arizona Public Service Company	9/22	OPTS-62035F	Feasibility/Effort to Comply	1
Energy	Arizona Public Service Company	9/22	OPTS-62035F	Propose Language/Concepts	
Energy	Arizona Public Service Company	9/22	OPTS-62035F	Voluntary Compliance	
Energy	Arizona Public Service Company	9/22	OPTS-62035F	Existing Regs Work as Intended	
Energy	Arizona Public Service Company	9/22	OPTS-62035F	International Policy	
Energy	Arizona Public Service Company	9/22	OPTS-62035F	National Security	
Energy	Arizona Public Service Company	9/22	OPTS-62035F	Risk to Workers	
Energy	Arizona Public Service Company	9/22	OPTS-62035F	Climate Change	
Energy	Arizona Public Service Company	9/22	OPTS-62035F	Legal Authority	
Energy	Arizona Public Service Company	9/22	OPTS-62035F	Cost/Economic Burden for Ratepayers	1
Energy	Arizona Public Service Company	9/22	OPTS-62035F	Regulatory Burden on Industry	
Energy	Arizona Public Service Company	9/22	OPTS-62035F	Energy Security	
Energy	Arizona Public Service Company	9/22	OPTS-62035F	Request for Comment Period Extension	
Energy	Arizona Public Service Company	9/22	OPTS-62035F	EPA Legal Burden	

Energy	Arizona Public Service Company	9/22	OPTS-62035F	Magnitude of Service Area/Population Served/type of utility	1
Energy	Arizona Public Service Company	9/22	OPTS-62035F	Respect for Process/Agency	1
Energy	Utility Solid Waste Activities Group	10/5	OPTS-62035F	Data Driven Decision Making	2
Energy	Utility Solid Waste Activities Group	10/5	OPTS-62035F	Clear Specific and Consistent Regulations	6
Energy	Utility Solid Waste Activities Group	10/5	OPTS-62035F	Collaboration Among Commenters	4
Energy	Utility Solid Waste Activities Group	10/5	OPTS-62035F	Oppose Mandatory Deadlines	2
Energy	Utility Solid Waste Activities Group	10/5	OPTS-62035F	Lack of EPA Data	3
Energy	Utility Solid Waste Activities Group	10/5	OPTS-62035F	PCB Risk v Regulation Benefit	2
Energy	Utility Solid Waste Activities Group	10/5	OPTS-62035F	Protection of Human Health and Environment	
Energy	Utility Solid Waste Activities Group	10/5	OPTS-62035F	Regulatory Consistency	
Energy	Utility Solid Waste Activities Group	10/5	OPTS-62035F	Feasibility/Effort to Comply	2
Energy	Utility Solid Waste Activities Group	10/5	OPTS-62035F	Propose Language/Concepts	
Energy	Utility Solid Waste Activities Group	10/5	OPTS-62035F	Voluntary Compliance	
Energy	Utility Solid Waste Activities Group	10/5	OPTS-62035F	Existing Regs Work as Intended	
Energy	Utility Solid Waste Activities Group	10/5	OPTS-62035F	International Policy	
Energy	Utility Solid Waste Activities Group	10/5	OPTS-62035F	National Security	
Energy	Utility Solid Waste Activities Group	10/5	OPTS-62035F	Risk to Workers	
Energy	Utility Solid Waste Activities Group	10/5	OPTS-62035F	Climate Change	
Energy	Utility Solid Waste Activities Group	10/5	OPTS-62035F	Legal Authority	
Energy	Utility Solid Waste Activities Group	10/5	OPTS-62035F	Cost/Economic Burden for Ratepayers	1
Energy	Utility Solid Waste Activities Group	10/5	OPTS-62035F	Regulatory Burden on Industry	
Energy	Utility Solid Waste Activities Group	10/5	OPTS-62035F	Energy Security	
Energy	Utility Solid Waste Activities Group	10/5	OPTS-62035F	Request for Comment Period Extension	
Energy	Utility Solid Waste Activities Group	10/5	OPTS-62035F	EPA Legal Burden	
Energy	Utility Solid Waste Activities Group	10/5	OPTS-62035F	Magnitude of Service Area/Population Served/type of utility	1

Energy	Utility Solid Waste Activities Group	10/5	OPTS-62035F	Respect for Process/Agency	1
Energy	American Gas Association	10/26	OPTS-62059	Data Driven Decision Making	
Energy	American Gas Association	10/26	OPTS-62059	Clear Specific and Consistent Regulations	1
Energy	American Gas Association	10/26	OPTS-62059	Collaboration Among Commenters	1
Energy	American Gas Association	10/26	OPTS-62059	Oppose Mandatory Deadlines	
Energy	American Gas Association	10/26	OPTS-62059	Lack of EPA Data	
Energy	American Gas Association	10/26	OPTS-62059	PCB Risk v Regulation Benefit	
Energy	American Gas Association	10/26	OPTS-62059	Protection of Human Health and Environment	
Energy	American Gas Association	10/26	OPTS-62059	Regulatory Consistency	
Energy	American Gas Association	10/26	OPTS-62059	Feasibility/Effort to Comply	
Energy	American Gas Association	10/26	OPTS-62059	Propose Language/Concepts	
Energy	American Gas Association	10/26	OPTS-62059	Voluntary Compliance	
Energy	American Gas Association	10/26	OPTS-62059	Existing Regs Work as Intended	
Energy	American Gas Association	10/26	OPTS-62059	International Policy	
Energy	American Gas Association	10/26	OPTS-62059	National Security	
Energy	American Gas Association	10/26	OPTS-62059	Risk to Workers	
Energy	American Gas Association	10/26	OPTS-62059	Climate Change	
Energy	American Gas Association	10/26	OPTS-62059	Legal Authority	
Energy	American Gas Association	10/26	OPTS-62059	Cost/Economic Burden for Ratepayers	1
Energy	American Gas Association	10/26	OPTS-62059	Regulatory Burden on Industry	
Energy	American Gas Association	10/26	OPTS-62059	Energy Security	
Energy	American Gas Association	10/26	OPTS-62059	Request for Comment Period Extension	1
Energy	American Gas Association	10/26	OPTS-62059	EPA Legal Burden	
Energy	American Gas Association	10/27	OPTS-62035F	Magnitude of Service Area/Population Served/type of utility	1
Energy	American Gas Association	10/28	OPTS-62035F	Respect for Process/Agency	1
Energy	Montana-Dakota Utilities Co.	12/21	OPPTS-66015	Data Driven Decision Making	2
Energy	Montana-Dakota Utilities Co.	12/21	OPPTS-66015	Clear Specific and Consistent Regulations	2
Energy	Montana-Dakota Utilities Co.	12/21	OPPTS-66015	Collaboration Among Commenters	
Energy	Montana-Dakota Utilities Co.	12/21	OPPTS-66015	Oppose Mandatory Deadlines	
Energy	Montana-Dakota Utilities Co.	12/21	OPPTS-66015	Lack of EPA Data	
Energy	Montana-Dakota Utilities Co.	12/21	OPPTS-66015	PCB Risk v Regulation Benefit	
Energy	Montana-Dakota Utilities Co.	12/21	OPPTS-66015	Protection of Human Health and Environment	1
Energy	Montana-Dakota Utilities Co.	12/21	OPPTS-66015	Regulatory Consistency	

Energy	Montana-Dakota Utilities Co.	12/21	OPPTS-66015	Feasibility/Effort to Comply	
Energy	Montana-Dakota Utilities Co.	12/21	OPPTS-66015	Propose Language/Concepts	
Energy	Montana-Dakota Utilities Co.	12/21	OPPTS-66015	Voluntary Compliance	
Energy	Montana-Dakota Utilities Co.	12/21	OPPTS-66015	Existing Regs Work as Intended	
Energy	Montana-Dakota Utilities Co.	12/21	OPPTS-66015	International Policy	
Energy	Montana-Dakota Utilities Co.	12/21	OPPTS-66015	National Security	
Energy	Montana-Dakota Utilities Co.	12/21	OPPTS-66015	Risk to Workers	
Energy	Montana-Dakota Utilities Co.	12/21	OPPTS-66015	Climate Change	
Energy	Montana-Dakota Utilities Co.	12/21	OPPTS-66015	Legal Authority	
Energy	Montana-Dakota Utilities Co.	12/21	OPPTS-66015	Cost/Economic Burden for Ratepayers	2
Energy	Montana-Dakota Utilities Co.	12/21	OPPTS-66015	Regulatory Burden on Industry	
Energy	Montana-Dakota Utilities Co.	12/21	OPPTS-66015	Energy Security	
Energy	Montana-Dakota Utilities Co.	12/21	OPPTS-66015	Request for Comment Period Extension	
Energy	Montana-Dakota Utilities Co.	12/21	OPPTS-66015	EPA Legal Burden	
Energy	Montana-Dakota Utilities Co.	12/22	OPPTS-66015	Magnitude of Service Area/Population Served/type of utility	1
Energy	Montana-Dakota Utilities Co.	12/23	OPPTS-66015	Respect for Process/Agency	1
Energy	Arizona Public Service Company	12/22	OPPTS-66015	Data Driven Decision Making	
Energy	Arizona Public Service Company	12/22	OPPTS-66015	Clear Specific and Consistent Regulations	1
Energy	Arizona Public Service Company	12/22	OPPTS-66015	Collaboration Among Commenters	
Energy	Arizona Public Service Company	12/22	OPPTS-66015	Oppose Mandatory Deadlines	1
Energy	Arizona Public Service Company	12/22	OPPTS-66015	Lack of EPA Data	
Energy	Arizona Public Service Company	12/22	OPPTS-66015	PCB Risk v Regulation Benefit	
Energy	Arizona Public Service Company	12/22	OPPTS-66015	Protection of Human Health and Environment	
Energy	Arizona Public Service Company	12/22	OPPTS-66015	Regulatory Consistency	
Energy	Arizona Public Service Company	12/22	OPPTS-66015	Feasibility/Effort to Comply	

Energy	Arizona Public Service Company	12/22	OPPTS-66015	Propose Language/Concepts	
Energy	Arizona Public Service Company	12/22	OPPTS-66015	Voluntary Compliance	
Energy	Arizona Public Service Company	12/22	OPPTS-66015	Existing Regs Work as Intended	
Energy	Arizona Public Service Company	12/22	OPPTS-66015	International Policy	
Energy	Arizona Public Service Company	12/22	OPPTS-66015	National Security	
Energy	Arizona Public Service Company	12/22	OPPTS-66015	Risk to Workers	
Energy	Arizona Public Service Company	12/22	OPPTS-66015	Climate Change	
Energy	Arizona Public Service Company	12/22	OPPTS-66015	Legal Authority	
Energy	Arizona Public Service Company	12/22	OPPTS-66015	Cost/Economic Burden for Ratepayers	1
Energy	Arizona Public Service Company	12/22	OPPTS-66015	Regulatory Burden on Industry	
Energy	Arizona Public Service Company	12/22	OPPTS-66015	Energy Security	
Energy	Arizona Public Service Company	12/22	OPPTS-66015	Request for Comment Period Extension	
Energy	Arizona Public Service Company	12/22	OPPTS-66015	EPA Legal Burden	
Energy	Arizona Public Service Company	12/22	OPPTS-66015	Magnitude of Service Area/Population Served/type of utility	1
Energy	Arizona Public Service Company	12/22	OPPTS-66015	Respect for Process/Agency	
Energy	American Gas Association	5/5	OPTS-66009A	Data Driven Decision Making	
Energy	American Gas Association	5/5	OPTS-66009A	Clear Specific and Consistent Regulations	4
Energy	American Gas Association	5/5	OPTS-66009A	Collaboration Among Commenters	
Energy	American Gas Association	5/5	OPTS-66009A	Oppose Mandatory Deadlines	
Energy	American Gas Association	5/5	OPTS-66009A	Lack of EPA Data	
Energy	American Gas Association	5/5	OPTS-66009A	PCB Risk v Regulation Benefit	1
Energy	American Gas Association	5/5	OPTS-66009A	Protection of Human Health and Environment	
Energy	American Gas Association	5/5	OPTS-66009A	Regulatory Consistency	
Energy	American Gas Association	5/5	OPTS-66009A	Feasibility/Effort to Comply	
Energy	American Gas Association	5/5	OPTS-66009A	Propose Language/Concepts	
Energy	American Gas Association	5/5	OPTS-66009A	Voluntary Compliance	
Energy	American Gas Association	5/5	OPTS-66009A	Existing Regs Work as Intended	
Energy	American Gas Association	5/5	OPTS-66009A	International Policy	
Energy	American Gas Association	5/5	OPTS-66009A	National Security	
Energy	American Gas Association	5/5	OPTS-66009A	Risk to Workers	
Energy	American Gas Association	5/5	OPTS-66009A	Climate Change	

Energy	American Gas Association	5/5	OPTS-66009A	Legal Authority	
Energy	American Gas Association	5/5	OPTS-66009A	Cost/Economic Burden for Ratepayers	2
Energy	American Gas Association	5/5	OPTS-66009A	Regulatory Burden on Industry	1
Energy	American Gas Association	5/5	OPTS-66009A	Energy Security	
Energy	American Gas Association	5/5	OPTS-66009A	Request for Comment Period Extension	
Energy	American Gas Association	5/5	OPTS-66009A	EPA Legal Burden	
Energy	American Gas Association	5/5	OPTS-66009A	Magnitude of Service Area/Population Served/type of utility	1
Energy	American Gas Association	5/5	OPTS-66009A	Respect for Process/Agency	1
Energy	American Gas Association	6/27	OPTS-66009A	Data Driven Decision Making	
Energy	American Gas Association	6/27	OPTS-66009A	Clear Specific and Consistent Regulations	
Energy	American Gas Association	6/27	OPTS-66009A	Collaboration Among Commenters	
Energy	American Gas Association	6/27	OPTS-66009A	Oppose Mandatory Deadlines	1
Energy	American Gas Association	6/27	OPTS-66009A	Lack of EPA Data	
Energy	American Gas Association	6/27	OPTS-66009A	PCB Risk v Regulation Benefit	1
Energy	American Gas Association	6/27	OPTS-66009A	Protection of Human Health and Environment	
Energy	American Gas Association	6/27	OPTS-66009A	Regulatory Consistency	
Energy	American Gas Association	6/27	OPTS-66009A	Feasibility/Effort to Comply	2
Energy	American Gas Association	6/27	OPTS-66009A	Propose Language/Concepts	1
Energy	American Gas Association	6/27	OPTS-66009A	Voluntary Compliance	
Energy	American Gas Association	6/27	OPTS-66009A	Existing Regs Work as Intended	
Energy	American Gas Association	6/27	OPTS-66009A	International Policy	
Energy	American Gas Association	6/27	OPTS-66009A	National Security	
Energy	American Gas Association	6/27	OPTS-66009A	Risk to Workers	
Energy	American Gas Association	6/27	OPTS-66009A	Climate Change	
Energy	American Gas Association	6/27	OPTS-66009A	Legal Authority	
Energy	American Gas Association	6/27	OPTS-66009A	Cost/Economic Burden for Ratepayers	1
Energy	American Gas Association	6/27	OPTS-66009A	Regulatory Burden on Industry	
Energy	American Gas Association	6/27	OPTS-66009A	Energy Security	
Energy	American Gas Association	6/27	OPTS-66009A	Request for Comment Period Extension	
Energy	American Gas Association	6/27	OPTS-66009A	EPA Legal Burden	
Energy	American Gas Association	6/27	OPTS-66009A	Magnitude of Service Area/Population Served/type of utility	1
Energy	American Gas Association	6/27	OPTS-66009A	Respect for Process/Agency	1
Energy	Utility Solid Waste Activities Group	1/10	OPPTS-66009G	Data Driven Decision Making	4
Energy	Utility Solid Waste Activities Group	1/10	OPPTS-66009G	Clear Specific and Consistent Regulations	

Energy	Utility Solid Waste Activities Group	1/10	OPPTS-66009G	Collaboration Among Commenters	
Energy	Utility Solid Waste Activities Group	1/10	OPPTS-66009G	Oppose Mandatory Deadlines	
Energy	Utility Solid Waste Activities Group	1/10	OPPTS-66009G	Lack of EPA Data	1
Energy	Utility Solid Waste Activities Group	1/10	OPPTS-66009G	PCB Risk v Regulation Benefit	2
Energy	Utility Solid Waste Activities Group	1/10	OPPTS-66009G	Protection of Human Health and Environment	
Energy	Utility Solid Waste Activities Group	1/10	OPPTS-66009G	Regulatory Consistency	
Energy	Utility Solid Waste Activities Group	1/10	OPPTS-66009G	Feasibility/Effort to Comply	
Energy	Utility Solid Waste Activities Group	1/10	OPPTS-66009G	Propose Language/Concepts	
Energy	Utility Solid Waste Activities Group	1/10	OPPTS-66009G	Voluntary Compliance	
Energy	Utility Solid Waste Activities Group	1/10	OPPTS-66009G	Existing Regs Work as Intended	
Energy	Utility Solid Waste Activities Group	1/10	OPPTS-66009G	International Policy	
Energy	Utility Solid Waste Activities Group	1/10	OPPTS-66009G	National Security	
Energy	Utility Solid Waste Activities Group	1/10	OPPTS-66009G	Risk to Workers	
Energy	Utility Solid Waste Activities Group	1/10	OPPTS-66009G	Climate Change	
Energy	Utility Solid Waste Activities Group	1/10	OPPTS-66009G	Legal Authority	
Energy	Utility Solid Waste Activities Group	1/10	OPPTS-66009G	Cost/Economic Burden for Ratepayers	
Energy	Utility Solid Waste Activities Group	1/10	OPPTS-66009G	Regulatory Burden on Industry	
Energy	Utility Solid Waste Activities Group	1/10	OPPTS-66009G	Energy Security	
Energy	Utility Solid Waste Activities Group	1/10	OPPTS-66009G	Request for Comment Period Extension	
Energy	Utility Solid Waste Activities Group	1/10	OPPTS-66009G	EPA Legal Burden	
Energy	Utility Solid Waste Activities Group	1/10	OPPTS-66009G	Magnitude of Service Area/Population Served/type of utility	
Energy	Utility Solid Waste Activities Group	1/10	OPPTS-66009G	Respect for Process/Agency	1
Energy	Montana-Dakota Utilities Co.	8/10	OPPT-2009-0757	Data Driven Decision Making	
Energy	Montana-Dakota Utilities Co.	8/10	OPPT-2009-0757	Clear Specific and Consistent Regulations	
Energy	Montana-Dakota Utilities Co.	8/10	OPPT-2009-0757	Collaboration Among Commenters	

Energy	Montana-Dakota Utilities Co.	8/10	OPPT-2009-0757	Oppose Mandatory Deadlines	
Energy	Montana-Dakota Utilities Co.	8/10	OPPT-2009-0757	Lack of EPA Data	3
Energy	Montana-Dakota Utilities Co.	8/10	OPPT-2009-0757	PCB Risk v Regulation Benefit	4
Energy	Montana-Dakota Utilities Co.	8/10	OPPT-2009-0757	Protection of Human Health and Environment	
Energy	Montana-Dakota Utilities Co.	8/10	OPPT-2009-0757	Regulatory Consistency	
Energy	Montana-Dakota Utilities Co.	8/10	OPPT-2009-0757	Feasibility/Effort to Comply	1
Energy	Montana-Dakota Utilities Co.	8/10	OPPT-2009-0757	Propose Language/Concepts	
Energy	Montana-Dakota Utilities Co.	8/10	OPPT-2009-0757	Voluntary Compliance	3
Energy	Montana-Dakota Utilities Co.	8/10	OPPT-2009-0757	Existing Regs Work as Intended	2
Energy	Montana-Dakota Utilities Co.	8/10	OPPT-2009-0757	International Policy	
Energy	Montana-Dakota Utilities Co.	8/10	OPPT-2009-0757	National Security	
Energy	Montana-Dakota Utilities Co.	8/10	OPPT-2009-0757	Risk to Workers	1
Energy	Montana-Dakota Utilities Co.	8/10	OPPT-2009-0757	Climate Change	
Energy	Montana-Dakota Utilities Co.	8/10	OPPT-2009-0757	Legal Authority	
Energy	Montana-Dakota Utilities Co.	8/10	OPPT-2009-0757	Cost/Economic Burden for Ratepayers	4
Energy	Montana-Dakota Utilities Co.	8/10	OPPT-2009-0757	Regulatory Burden on Industry	
Energy	Montana-Dakota Utilities Co.	8/10	OPPT-2009-0757	Energy Security	
Energy	Montana-Dakota Utilities Co.	8/10	OPPT-2009-0757	Request for Comment Period Extension	
Energy	Montana-Dakota Utilities Co.	8/10	OPPT-2009-0757	EPA Legal Burden	
Energy	Montana-Dakota Utilities Co.	8/10	OPPT-2009-0757	Magnitude of Service Area/Population Served/type of utility	1
Energy	Montana-Dakota Utilities Co.	8/10	OPPT-2009-0757	Respect for Process/Agency	2
Energy	Utility Solid Waste Activities Group	4/15	OPPT-2009-0757	Data Driven Decision Making	2
Energy	Utility Solid Waste Activities Group	4/15	OPPT-2009-0757	Clear Specific and Consistent Regulations	
Energy	Utility Solid Waste Activities Group	4/15	OPPT-2009-0757	Collaboration Among Commenters	
Energy	Utility Solid Waste Activities Group	4/15	OPPT-2009-0757	Oppose Mandatory Deadlines	

Energy	Utility Solid Waste Activities Group	4/15	OPPT-2009-0757	Lack of EPA Data	
Energy	Utility Solid Waste Activities Group	4/15	OPPT-2009-0757	PCB Risk v Regulation Benefit	
Energy	Utility Solid Waste Activities Group	4/15	OPPT-2009-0757	Protection of Human Health and Environment	
Energy	Utility Solid Waste Activities Group	4/15	OPPT-2009-0757	Regulatory Consistency	
Energy	Utility Solid Waste Activities Group	4/15	OPPT-2009-0757	Feasibility/Effort to Comply	
Energy	Utility Solid Waste Activities Group	4/15	OPPT-2009-0757	Propose Language/Concepts	
Energy	Utility Solid Waste Activities Group	4/15	OPPT-2009-0757	Voluntary Compliance	
Energy	Utility Solid Waste Activities Group	4/15	OPPT-2009-0757	Existing Regs Work as Intended	
Energy	Utility Solid Waste Activities Group	4/15	OPPT-2009-0757	International Policy	
Energy	Utility Solid Waste Activities Group	4/15	OPPT-2009-0757	National Security	
Energy	Utility Solid Waste Activities Group	4/15	OPPT-2009-0757	Risk to Workers	
Energy	Utility Solid Waste Activities Group	4/15	OPPT-2009-0757	Climate Change	
Energy	Utility Solid Waste Activities Group	4/15	OPPT-2009-0757	Legal Authority	
Energy	Utility Solid Waste Activities Group	4/15	OPPT-2009-0757	Cost/Economic Burden for Ratepayers	1
Energy	Utility Solid Waste Activities Group	4/15	OPPT-2009-0757	Regulatory Burden on Industry	
Energy	Utility Solid Waste Activities Group	4/15	OPPT-2009-0757	Energy Security	
Energy	Utility Solid Waste Activities Group	4/15	OPPT-2009-0757	Request for Comment Period Extension	1
Energy	Utility Solid Waste Activities Group	4/15	OPPT-2009-0757	EPA Legal Burden	
Energy	Utility Solid Waste Activities Group	4/15	OPPT-2009-0757	Magnitude of Service Area/Population Served/type of utility	1
Energy	Utility Solid Waste Activities Group	4/15	OPPT-2009-0757	Respect for Process/Agency	
Energy	Utility Solid Waste Activities Group	8/20	OPPT-2009-0757	Data Driven Decision Making	6
Energy	Utility Solid Waste Activities Group	8/20	OPPT-2009-0757	Clear Specific and Consistent Regulations	
Energy	Utility Solid Waste Activities Group	8/20	OPPT-2009-0757	Collaboration Among Commenters	
Energy	Utility Solid Waste Activities Group	8/20	OPPT-2009-0757	Oppose Mandatory Deadlines	3
Energy	Utility Solid Waste Activities Group	8/20	OPPT-2009-0757	Lack of EPA Data	

Energy	Utility Solid Waste Activities Group	8/20	OPPT-2009-0757	PCB Risk v Regulation Benefit	9
Energy	Utility Solid Waste Activities Group	8/20	OPPT-2009-0757	Protection of Human Health and Environment	7
Energy	Utility Solid Waste Activities Group	8/20	OPPT-2009-0757	Regulatory Consistency	
Energy	Utility Solid Waste Activities Group	8/20	OPPT-2009-0757	Feasibility/Effort to Comply	2
Energy	Utility Solid Waste Activities Group	8/20	OPPT-2009-0757	Propose Language/Concepts	
Energy	Utility Solid Waste Activities Group	8/20	OPPT-2009-0757	Voluntary Compliance	5
Energy	Utility Solid Waste Activities Group	8/20	OPPT-2009-0757	Existing Regs Work as Intended	3
Energy	Utility Solid Waste Activities Group	8/20	OPPT-2009-0757	International Policy	1
Energy	Utility Solid Waste Activities Group	8/20	OPPT-2009-0757	National Security	1
Energy	Utility Solid Waste Activities Group	8/20	OPPT-2009-0757	Risk to Workers	3
Energy	Utility Solid Waste Activities Group	8/20	OPPT-2009-0757	Climate Change	
Energy	Utility Solid Waste Activities Group	8/20	OPPT-2009-0757	Legal Authority	
Energy	Utility Solid Waste Activities Group	8/20	OPPT-2009-0757	Cost/Economic Burden for Ratepayers	10
Energy	Utility Solid Waste Activities Group	8/20	OPPT-2009-0757	Regulatory Burden on Industry	
Energy	Utility Solid Waste Activities Group	8/20	OPPT-2009-0757	Energy Security	1
Energy	Utility Solid Waste Activities Group	8/20	OPPT-2009-0757	Request for Comment Period Extension	
Energy	Utility Solid Waste Activities Group	8/20	OPPT-2009-0757	EPA Legal Burden	
Energy	Utility Solid Waste Activities Group	8/20	OPPT-2009-0757	Magnitude of Service Area/Population Served/type of utility	2
Energy	Utility Solid Waste Activities Group	8/20	OPPT-2009-0757	Respect for Process/Agency	4
Energy	Interstate Natural Gas Association of America	5/17	OPPT-2009-0757	Data Driven Decision Making	1
Energy	Interstate Natural Gas Association of America	5/17	OPPT-2009-0757	Clear Specific and Consistent Regulations	
Energy	Interstate Natural Gas Association of America	5/17	OPPT-2009-0757	Collaboration Among Commenters	
Energy	Interstate Natural Gas Association of America	5/17	OPPT-2009-0757	Oppose Mandatory Deadlines	
Energy	Interstate Natural Gas Association of America	5/17	OPPT-2009-0757	Lack of EPA Data	
Energy	Interstate Natural Gas Association of America	5/17	OPPT-2009-0757	PCB Risk v Regulation Benefit	

Energy	Interstate Natural Gas Association of America	5/17	OPPT-2009-0757	Protection of Human Health and Environment	
Energy	Interstate Natural Gas Association of America	5/17	OPPT-2009-0757	Regulatory Consistency	
Energy	Interstate Natural Gas Association of America	5/17	OPPT-2009-0757	Feasibility/Effort to Comply	
Energy	Interstate Natural Gas Association of America	5/17	OPPT-2009-0757	Propose Language/Concepts	
Energy	Interstate Natural Gas Association of America	5/17	OPPT-2009-0757	Voluntary Compliance	
Energy	Interstate Natural Gas Association of America	5/17	OPPT-2009-0757	Existing Regs Work as Intended	
Energy	Interstate Natural Gas Association of America	5/17	OPPT-2009-0757	International Policy	
Energy	Interstate Natural Gas Association of America	5/17	OPPT-2009-0757	National Security	
Energy	Interstate Natural Gas Association of America	5/17	OPPT-2009-0757	Risk to Workers	
Energy	Interstate Natural Gas Association of America	5/17	OPPT-2009-0757	Climate Change	
Energy	Interstate Natural Gas Association of America	5/17	OPPT-2009-0757	Legal Authority	
Energy	Interstate Natural Gas Association of America	5/17	OPPT-2009-0757	Cost/Economic Burden for Ratepayers	
Energy	Interstate Natural Gas Association of America	5/17	OPPT-2009-0757	Regulatory Burden on Industry	
Energy	Interstate Natural Gas Association of America	5/17	OPPT-2009-0757	Energy Security	
Energy	Interstate Natural Gas Association of America	5/17	OPPT-2009-0757	Request for Comment Period Extension	1
Energy	Interstate Natural Gas Association of America	5/17	OPPT-2009-0757	EPA Legal Burden	
Energy	Interstate Natural Gas Association of America	5/17	OPPT-2009-0757	Magnitude of Service Area/Population Served/type of utility	
Energy	Interstate Natural Gas Association of America	5/17	OPPT-2009-0757	Respect for Process/Agency	1
Energy	Interstate Natural Gas Association of America	8/20	OPPT-2009-0757	Data Driven Decision Making	1
Energy	Interstate Natural Gas Association of America	8/20	OPPT-2009-0757	Clear Specific and Consistent Regulations	
Energy	Interstate Natural Gas Association of America	8/20	OPPT-2009-0757	Collaboration Among Commenters	
Energy	Interstate Natural Gas Association of America	8/20	OPPT-2009-0757	Oppose Mandatory Deadlines	
Energy	Interstate Natural Gas Association of America	8/20	OPPT-2009-0757	Lack of EPA Data	2
Energy	Interstate Natural Gas Association of America	8/20	OPPT-2009-0757	PCB Risk v Regulation Benefit	2
Energy	Interstate Natural Gas Association of America	8/20	OPPT-2009-0757	Protection of Human Health and Environment	5

Energy	Interstate Natural Gas Association of America	8/20	OPPT-2009-0757	Regulatory Consistency	2
Energy	Interstate Natural Gas Association of America	8/20	OPPT-2009-0757	Feasibility/Effort to Comply	5
Energy	Interstate Natural Gas Association of America	8/20	OPPT-2009-0757	Propose Language/Concepts	
Energy	Interstate Natural Gas Association of America	8/20	OPPT-2009-0757	Voluntary Compliance	
Energy	Interstate Natural Gas Association of America	8/20	OPPT-2009-0757	Existing Regs Work as Intended	4
Energy	Interstate Natural Gas Association of America	8/20	OPPT-2009-0757	International Policy	
Energy	Interstate Natural Gas Association of America	8/20	OPPT-2009-0757	National Security	4
Energy	Interstate Natural Gas Association of America	8/20	OPPT-2009-0757	Risk to Workers	1
Energy	Interstate Natural Gas Association of America	8/20	OPPT-2009-0757	Climate Change	5
Energy	Interstate Natural Gas Association of America	8/20	OPPT-2009-0757	Legal Authority	2
Energy	Interstate Natural Gas Association of America	8/20	OPPT-2009-0757	Cost/Economic Burden for Ratepayers	9
Energy	Interstate Natural Gas Association of America	8/20	OPPT-2009-0757	Regulatory Burden on Industry	
Energy	Interstate Natural Gas Association of America	8/20	OPPT-2009-0757	Energy Security	
Energy	Interstate Natural Gas Association of America	8/20	OPPT-2009-0757	Request for Comment Period Extension	
Energy	Interstate Natural Gas Association of America	8/20	OPPT-2009-0757	EPA Legal Burden	
Energy	Interstate Natural Gas Association of America	8/20	OPPT-2009-0757	Magnitude of Service Area/Population Served/type of utility	2
Energy	Interstate Natural Gas Association of America	8/20	OPPT-2009-0757	Respect for Process/Agency	1
Energy	American Gas Association	5/28	OPPT-2009-0757	Data Driven Decision Making	3
Energy	American Gas Association	5/28	OPPT-2009-0757	Clear Specific and Consistent Regulations	
Energy	American Gas Association	5/28	OPPT-2009-0757	Collaboration Among Commenters	1
Energy	American Gas Association	5/28	OPPT-2009-0757	Oppose Mandatory Deadlines	
Energy	American Gas Association	5/28	OPPT-2009-0757	Lack of EPA Data	
Energy	American Gas Association	5/28	OPPT-2009-0757	PCB Risk v Regulation Benefit	
Energy	American Gas Association	5/28	OPPT-2009-0757	Protection of Human Health and Environment	
Energy	American Gas Association	5/28	OPPT-2009-0757	Regulatory Consistency	
Energy	American Gas Association	5/28	OPPT-2009-0757	Feasibility/Effort to Comply	
Energy	American Gas Association	5/28	OPPT-2009-0757	Propose Language/Concepts	
Energy	American Gas Association	5/28	OPPT-2009-0757	Voluntary Compliance	
Energy	American Gas Association	5/28	OPPT-2009-0757	Existing Regs Work as Intended	

Energy	American Gas Association	5/28	OPPT-2009-0757	International Policy	
Energy	American Gas Association	5/28	OPPT-2009-0757	National Security	
Energy	American Gas Association	5/28	OPPT-2009-0757	Risk to Workers	
Energy	American Gas Association	5/28	OPPT-2009-0757	Climate Change	
Energy	American Gas Association	5/28	OPPT-2009-0757	Legal Authority	
Energy	American Gas Association	5/28	OPPT-2009-0757	Cost/Economic Burden for Ratepayers	1
Energy	American Gas Association	5/28	OPPT-2009-0757	Regulatory Burden on Industry	
Energy	American Gas Association	5/28	OPPT-2009-0757	Energy Security	
Energy	American Gas Association	5/28	OPPT-2009-0757	Request for Comment Period Extension	1
Energy	American Gas Association	5/28	OPPT-2009-0757	EPA Legal Burden	
Energy	American Gas Association	5/28	OPPT-2009-0757	Magnitude of Service Area/Population Served/type of utility	1
Energy	American Gas Association	5/28	OPPT-2009-0757	Respect for Process/Agency	
Energy	American Gas Association	7/20	OPPT-2009-0757	Data Driven Decision Making	
Energy	American Gas Association	7/20	OPPT-2009-0757	Clear Specific and Consistent Regulations	
Energy	American Gas Association	7/20	OPPT-2009-0757	Collaboration Among Commenters	1
Energy	American Gas Association	7/20	OPPT-2009-0757	Oppose Mandatory Deadlines	
Energy	American Gas Association	7/20	OPPT-2009-0757	Lack of EPA Data	
Energy	American Gas Association	7/20	OPPT-2009-0757	PCB Risk v Regulation Benefit	
Energy	American Gas Association	7/20	OPPT-2009-0757	Protection of Human Health and Environment	
Energy	American Gas Association	7/20	OPPT-2009-0757	Regulatory Consistency	
Energy	American Gas Association	7/20	OPPT-2009-0757	Feasibility/Effort to Comply	
Energy	American Gas Association	7/20	OPPT-2009-0757	Propose Language/Concepts	
Energy	American Gas Association	7/20	OPPT-2009-0757	Voluntary Compliance	
Energy	American Gas Association	7/20	OPPT-2009-0757	Existing Regs Work as Intended	
Energy	American Gas Association	7/20	OPPT-2009-0757	International Policy	1
Energy	American Gas Association	7/20	OPPT-2009-0757	National Security	
Energy	American Gas Association	7/20	OPPT-2009-0757	Risk to Workers	
Energy	American Gas Association	7/20	OPPT-2009-0757	Climate Change	
Energy	American Gas Association	7/20	OPPT-2009-0757	Legal Authority	
Energy	American Gas Association	7/20	OPPT-2009-0757	Cost/Economic Burden for Ratepayers	
Energy	American Gas Association	7/20	OPPT-2009-0757	Regulatory Burden on Industry	
Energy	American Gas Association	7/20	OPPT-2009-0757	Energy Security	
Energy	American Gas Association	7/20	OPPT-2009-0757	Request for Comment Period Extension	1
Energy	American Gas Association	7/20	OPPT-2009-0757	EPA Legal Burden	
Energy	American Gas Association	7/20	OPPT-2009-0757	Magnitude of Service Area/Population Served/type of utility	
Energy	American Gas Association	7/20	OPPT-2009-0757	Respect for Process/Agency	

Energy	American Gas Association	8/20	OPPT-2009-0757	Data Driven Decision Making	4
Energy	American Gas Association	8/20	OPPT-2009-0757	Clear Specific and Consistent Regulations	1
Energy	American Gas Association	8/20	OPPT-2009-0757	Collaboration Among Commenters	2
Energy	American Gas Association	8/20	OPPT-2009-0757	Oppose Mandatory Deadlines	
Energy	American Gas Association	8/20	OPPT-2009-0757	Lack of EPA Data	2
Energy	American Gas Association	8/20	OPPT-2009-0757	PCB Risk v Regulation Benefit	1
Energy	American Gas Association	8/20	OPPT-2009-0757	Protection of Human Health and Environment	2
Energy	American Gas Association	8/20	OPPT-2009-0757	Regulatory Consistency	
Energy	American Gas Association	8/20	OPPT-2009-0757	Feasibility/Effort to Comply	3
Energy	American Gas Association	8/20	OPPT-2009-0757	Propose Language/Concepts	
Energy	American Gas Association	8/20	OPPT-2009-0757	Voluntary Compliance	
Energy	American Gas Association	8/20	OPPT-2009-0757	Existing Regs Work as Intended	2
Energy	American Gas Association	8/20	OPPT-2009-0757	International Policy	
Energy	American Gas Association	8/20	OPPT-2009-0757	National Security	
Energy	American Gas Association	8/20	OPPT-2009-0757	Risk to Workers	1
Energy	American Gas Association	8/20	OPPT-2009-0757	Climate Change	
Energy	American Gas Association	8/20	OPPT-2009-0757	Legal Authority	2
Energy	American Gas Association	8/20	OPPT-2009-0757	Cost/Economic Burden for Ratepayers	4
Energy	American Gas Association	8/20	OPPT-2009-0757	Regulatory Burden on Industry	
Energy	American Gas Association	8/20	OPPT-2009-0757	Energy Security	
Energy	American Gas Association	8/20	OPPT-2009-0757	Request for Comment Period Extension	
Energy	American Gas Association	8/20	OPPT-2009-0757	EPA Legal Burden	
Energy	American Gas Association	8/20	OPPT-2009-0757	Magnitude of Service Area/Population Served/type of utility	2
Energy	American Gas Association	8/20	OPPT-2009-0757	Respect for Process/Agency	1
Energy	Arizon Public Service Company	8/20	OPPT-2009-0757	Data Driven Decision Making	1
Energy	Arizon Public Service Company	8/20	OPPT-2009-0757	Clear Specific and Consistent Regulations	
Energy	Arizon Public Service Company	8/20	OPPT-2009-0757	Collaboration Among Commenters	1
Energy	Arizon Public Service Company	8/20	OPPT-2009-0757	Oppose Mandatory Deadlines	2
Energy	Arizon Public Service Company	8/20	OPPT-2009-0757	Lack of EPA Data	
Energy	Arizon Public Service Company	8/20	OPPT-2009-0757	PCB Risk v Regulation Benefit	2
Energy	Arizon Public Service Company	8/20	OPPT-2009-0757	Protection of Human Health and Environment	3
Energy	Arizon Public Service Company	8/20	OPPT-2009-0757	Regulatory Consistency	
Energy	Arizon Public Service Company	8/20	OPPT-2009-0757	Feasibility/Effort to Comply	2

Energy	Arizon Public Service Company	8/20	OPPT-2009-0757	Propose Language/Concepts	
Energy	Arizon Public Service Company	8/20	OPPT-2009-0757	Voluntary Compliance	2
Energy	Arizon Public Service Company	8/20	OPPT-2009-0757	Existing Regs Work as Intended	1
Energy	Arizon Public Service Company	8/20	OPPT-2009-0757	International Policy	1
Energy	Arizon Public Service Company	8/20	OPPT-2009-0757	National Security	2
Energy	Arizon Public Service Company	8/20	OPPT-2009-0757	Risk to Workers	3
Energy	Arizon Public Service Company	8/20	OPPT-2009-0757	Climate Change	
Energy	Arizon Public Service Company	8/20	OPPT-2009-0757	Legal Authority	
Energy	Arizon Public Service Company	8/20	OPPT-2009-0757	Cost/Economic Burden for Ratepayers	5
Energy	Arizon Public Service Company	8/20	OPPT-2009-0757	Regulatory Burden on Industry	
Energy	Arizon Public Service Company	8/20	OPPT-2009-0757	Energy Security	
Energy	Arizon Public Service Company	8/20	OPPT-2009-0757	Request for Comment Period Extension	
Energy	Arizon Public Service Company	8/20	OPPT-2009-0757	EPA Legal Burden	
Energy	Arizon Public Service Company	8/20	OPPT-2009-0757	Magnitude of Service Area/Population Served/type of utility	1
Energy	Arizon Public Service Company	8/20	OPPT-2009-0757	Respect for Process/Agency	
Energy	National Rural Electric Cooperative Association	4/16	OPPT-2009-0757	Data Driven Decision Making	1
Energy	National Rural Electric Cooperative Association	4/16	OPPT-2009-0757	Clear Specific and Consistent Regulations	
Energy	National Rural Electric Cooperative Association	4/16	OPPT-2009-0757	Collaboration Among Commenters	
Energy	National Rural Electric Cooperative Association	4/16	OPPT-2009-0757	Oppose Mandatory Deadlines	
Energy	National Rural Electric Cooperative Association	4/16	OPPT-2009-0757	Lack of EPA Data	
Energy	National Rural Electric Cooperative Association	4/16	OPPT-2009-0757	PCB Risk v Regulation Benefit	
Energy	National Rural Electric Cooperative Association	4/16	OPPT-2009-0757	Protection of Human Health and Environment	
Energy	National Rural Electric Cooperative Association	4/16	OPPT-2009-0757	Regulatory Consistency	
Energy	National Rural Electric Cooperative Association	4/16	OPPT-2009-0757	Feasibility/Effort to Comply	
Energy	National Rural Electric Cooperative Association	4/16	OPPT-2009-0757	Propose Language/Concepts	

Energy	National Rural Electric Cooperative Association	4/16	OPPT-2009-0757	Voluntary Compliance	
Energy	National Rural Electric Cooperative Association	4/16	OPPT-2009-0757	Existing Regs Work as Intended	
Energy	National Rural Electric Cooperative Association	4/16	OPPT-2009-0757	International Policy	
Energy	National Rural Electric Cooperative Association	4/16	OPPT-2009-0757	National Security	
Energy	National Rural Electric Cooperative Association	4/16	OPPT-2009-0757	Risk to Workers	
Energy	National Rural Electric Cooperative Association	4/16	OPPT-2009-0757	Climate Change	
Energy	National Rural Electric Cooperative Association	4/16	OPPT-2009-0757	Legal Authority	
Energy	National Rural Electric Cooperative Association	4/16	OPPT-2009-0757	Cost/Economic Burden for Ratepayers	
Energy	National Rural Electric Cooperative Association	4/16	OPPT-2009-0757	Regulatory Burden on Industry	
Energy	National Rural Electric Cooperative Association	4/16	OPPT-2009-0757	Energy Security	
Energy	National Rural Electric Cooperative Association	4/16	OPPT-2009-0757	Request for Comment Period Extension	1
Energy	National Rural Electric Cooperative Association	4/16	OPPT-2009-0757	EPA Legal Burden	
Energy	National Rural Electric Cooperative Association	4/16	OPPT-2009-0757	Magnitude of Service Area/Population Served/type of utility	1
Energy	National Rural Electric Cooperative Association	4/16	OPPT-2009-0757	Respect for Process/Agency	
Energy	National Rural Electric Cooperative Association	9/22	OPPT-2009-0757	Data Driven Decision Making	
Energy	National Rural Electric Cooperative Association	9/22	OPPT-2009-0757	Clear Specific and Consistent Regulations	
Energy	National Rural Electric Cooperative Association	9/22	OPPT-2009-0757	Collaboration Among Commenters	2
Energy	National Rural Electric Cooperative Association	9/22	OPPT-2009-0757	Oppose Mandatory Deadlines	
Energy	National Rural Electric Cooperative Association	9/22	OPPT-2009-0757	Lack of EPA Data	
Energy	National Rural Electric Cooperative Association	9/22	OPPT-2009-0757	PCB Risk v Regulation Benefit	2
Energy	National Rural Electric Cooperative Association	9/22	OPPT-2009-0757	Protection of Human Health and Environment	
Energy	National Rural Electric Cooperative Association	9/22	OPPT-2009-0757	Regulatory Consistency	
Energy	National Rural Electric Cooperative Association	9/22	OPPT-2009-0757	Feasibility/Effort to Comply	1
Energy	National Rural Electric Cooperative Association	9/22	OPPT-2009-0757	Propose Language/Concepts	
Energy	National Rural Electric Cooperative Association	9/22	OPPT-2009-0757	Voluntary Compliance	1

Energy	National Rural Electric Cooperative Association	9/22	OPPT-2009-0757	Existing Regs Work as Intended	
Energy	National Rural Electric Cooperative Association	9/22	OPPT-2009-0757	International Policy	
Energy	National Rural Electric Cooperative Association	9/22	OPPT-2009-0757	National Security	
Energy	National Rural Electric Cooperative Association	9/22	OPPT-2009-0757	Risk to Workers	1
Energy	National Rural Electric Cooperative Association	9/22	OPPT-2009-0757	Climate Change	
Energy	National Rural Electric Cooperative Association	9/22	OPPT-2009-0757	Legal Authority	
Energy	National Rural Electric Cooperative Association	9/22	OPPT-2009-0757	Cost/Economic Burden for Ratepayers	1
Energy	National Rural Electric Cooperative Association	9/22	OPPT-2009-0757	Regulatory Burden on Industry	1
Energy	National Rural Electric Cooperative Association	9/22	OPPT-2009-0757	Energy Security	
Energy	National Rural Electric Cooperative Association	9/22	OPPT-2009-0757	Request for Comment Period Extension	
Energy	National Rural Electric Cooperative Association	9/22	OPPT-2009-0757	EPA Legal Burden	
Energy	National Rural Electric Cooperative Association	9/22	OPPT-2009-0757	Magnitude of Service Area/Population Served/type of utility	1
Energy	National Rural Electric Cooperative Association	9/22	OPPT-2009-0757	Respect for Process/Agency	

Environmental Services

Coalition	Source	Date	Docket Number	Node	Value
Environmental Services	Chemical Waste Management Inc.	5/4	OPPTS-66009A	Alignment with RCRA	14
Environmental Services	Chemical Waste Management Inc.	5/4	OPPTS-66009A	International Policy	2
Environmental Services	Chemical Waste Management Inc.	5/4	OPPTS-66009A	Clear Specific and Consistent Regulations	14
Environmental Services	Chemical Waste Management Inc.	5/4	OPPTS-66009A	Feasibility/Effort to Comply	1
Environmental Services	Chemical Waste Management Inc.	5/4	OPPTS-66009A	Lack of EPA Data	2
Environmental Services	Chemical Waste Management Inc.	5/4	OPPTS-66009A	Protection of Human Health and Environment	1
Environmental Services	Chemical Waste Management Inc.	5/4	OPPTS-66009A	Competition/Fair Market	1
Environmental Services	Chemical Waste Management Inc.	5/4	OPPTS-66009A	Import/Export	
Environmental Services	Chemical Waste Management Inc.	5/4	OPPTS-66009A	Collaboration	
Environmental Services	Chemical Waste Management Inc.	5/4	OPPTS-66009A	Magnitude of Industry	
Environmental Services	Chemical Waste Management Inc.	5/4	OPPTS-66009A	Cost/Economic Burden	1
Environmental Services	Chemical Waste Management Inc.	5/4	OPPTS-66009A	Dispute other Coalitions	
Environmental Services	Chemical Waste Management Inc.	6/21	OPPTS-66009A	Alignment with RCRA	
Environmental Services	Chemical Waste Management Inc.	6/21	OPPTS-66009A	International Policy	
Environmental Services	Chemical Waste Management Inc.	6/21	OPPTS-66009A	Clear Specific and Consistent Regulations	
Environmental Services	Chemical Waste Management Inc.	6/21	OPPTS-66009A	Feasibility/Effort to Comply	
Environmental Services	Chemical Waste Management Inc.	6/21	OPPTS-66009A	Lack of EPA Data	
Environmental Services	Chemical Waste Management Inc.	6/21	OPPTS-66009A	Protection of Human Health and Environment	2
Environmental Services	Chemical Waste Management Inc.	6/21	OPPTS-66009A	Competition/Fair Market	
Environmental Services	Chemical Waste Management Inc.	6/21	OPPTS-66009A	Import/Export	3
Environmental Services	Chemical Waste Management Inc.	6/21	OPPTS-66009A	Collaboration	
Environmental Services	Chemical Waste Management Inc.	6/21	OPPTS-66009A	Magnitude of Industry	
Environmental Services	Chemical Waste Management Inc.	6/21	OPPTS-66009A	Cost/Economic Burden	
Environmental Services	Chemical Waste Management Inc.	6/21	OPPTS-66009A	Dispute other Coalitions	

Coalition	Source	Date	Docket Number	Node	Value
Environmental Services	National Solid Waste Management Association	8/15	OPPT-2005-0034	Alignment with RCRA	
Environmental Services	National Solid Waste Management Association	8/15	OPPT-2005-0034	International Policy	
Environmental Services	National Solid Waste Management Association	8/15	OPPT-2005-0034	Clear Specific and Consistent Regulations	
Environmental Services	National Solid Waste Management Association	8/15	OPPT-2005-0034	Feasibility/Effort to Comply	
Environmental Services	National Solid Waste Management Association	8/15	OPPT-2005-0034	Lack of EPA Data	
Environmental Services	National Solid Waste Management Association	8/15	OPPT-2005-0034	Protection of Human Health and Environment	
Environmental Services	National Solid Waste Management Association	8/15	OPPT-2005-0034	Competition/Fair Market	
Environmental Services	National Solid Waste Management Association	8/15	OPPT-2005-0034	Import/Export	
Environmental Services	National Solid Waste Management Association	8/15	OPPT-2005-0034	Collaboration	1
Environmental Services	National Solid Waste Management Association	8/15	OPPT-2005-0034	Magnitude of Industry	1
Environmental Services	National Solid Waste Management Association	8/15	OPPT-2005-0034	Cost/Economic Burden	1
Environmental Services	National Solid Waste Management Association	8/15	OPPT-2005-0034	Dispute other Coalitions	1

General Industry

Coalition	Source	Date	Docket Number	Node	Value
General Industry	General Motors	10/1	OPTS-62035F	Respect for Process/Agency	1
General Industry	General Motors	10/1	OPTS-62035F	Clear Specific and Consistent Regulations	1
General Industry	General Motors	10/1	OPTS-62035F	Feasibility/Effort to Comply	1
General Industry	General Motors	10/1	OPTS-62035F	Lack of EPA Data	
General Industry	General Motors	10/1	OPTS-62035F	PCB Risk v Regulation Benefit	
General Industry	General Motors	10/1	OPTS-62035F	Reference Letters	
General Industry	General Motors	10/1	OPTS-62035F	Consistency	
General Industry	General Motors	10/1	OPTS-62035F	Protection of Human Health and Environment	

General Industry	General Motors	10/1	OPTS-62035F	Existing Regs Work as Intended	
General Industry	General Motors	10/1	OPTS-62035F	Regulatory Burden on Industry	
General Industry	General Motors	10/1	OPTS-62035F	Collaboration Among Commenters	
General Industry	General Motors	12/16	OPPTS-66015	Respect for Process/Agency	1
General Industry	General Motors	12/16	OPPTS-66015	Clear Specific and Consistent Regulations	
General Industry	General Motors	12/16	OPPTS-66015	Feasibility/Effort to Comply	1
General Industry	General Motors	12/16	OPPTS-66015	Lack of EPA Data	
General Industry	General Motors	12/16	OPPTS-66015	PCB Risk v Regulation Benefit	
General Industry	General Motors	12/16	OPPTS-66015	Reference Letters	
General Industry	General Motors	12/16	OPPTS-66015	Consistency	
General Industry	General Motors	12/16	OPPTS-66015	Protection of Human Health and Environment	
General Industry	General Motors	12/16	OPPTS-66015	Existing Regs Work as Intended	
General Industry	General Motors	12/17	OPPTS-66016	Regulatory Burden on Industry	
General Industry	General Motors	12/16	OPPTS-66015	Collaboration Among Commenters	
General Industry	General Motors	12/16	OPPTS-66015	Collaboration	
General Industry	General Electric Company	1/10	OPPTS-66009F	Respect for Process/Agency	
General Industry	General Electric Company	1/10	OPPTS-66009F	Clear Specific and Consistent Regulations	
General Industry	General Electric Company	1/10	OPPTS-66009F	Feasibility/Effort to Comply	
General Industry	General Electric Company	1/10	OPPTS-66009F	Lack of EPA Data	6
General Industry	General Electric Company	1/10	OPPTS-66009F	PCB Risk v Regulation Benefit	5
General Industry	General Electric Company	1/10	OPPTS-66009F	Reference Letters	3
General Industry	General Electric Company	1/10	OPPTS-66009F	Consistency	
General Industry	General Electric Company	1/10	OPPTS-66009F	Protection of Human Health and Environment	1
General Industry	General Electric Company	1/10	OPPTS-66009F	Existing Regs Work as Intended	
General Industry	General Electric Company	1/11	OPPTS-66009F	Regulatory Burden on Industry	

General Industry	General Electric Company	1/10	OPPTS-66009F	Collaboration Among Commenters	
General Industry	General Electric Company	1/10	OPPTS-66009F	Collaboration	
General Industry	General Motors	6/30	OPPT-2005-0034	Respect for Process/Agency	
General Industry	General Motors	6/30	OPPT-2005-0034	Clear Specific and Consistent Regulations	4
General Industry	General Motors	6/30	OPPT-2005-0034	Feasibility/Effort to Comply	
General Industry	General Motors	6/30	OPPT-2005-0034	Lack of EPA Data	
General Industry	General Motors	6/30	OPPT-2005-0034	PCB Risk v Regulation Benefit	2
General Industry	General Motors	6/30	OPPT-2005-0034	Reference Letters	
General Industry	General Motors	6/30	OPPT-2005-0034	Consistency	1
General Industry	General Motors	6/30	OPPT-2005-0034	Protection of Human Health and Environment	
General Industry	General Motors	6/30	OPPT-2005-0034	Existing Regs Work as Intended	
General Industry	General Motors	7/1	OPPT-2005-0035	Regulatory Burden on Industry	3
General Industry	General Motors	6/30	OPPT-2005-0034	Collaboration Among Commenters	
General Industry	General Motors	6/30	OPPT-2005-0034	Collaboration	1
General Industry	General Motors	7/18		Respect for Process/Agency	
General Industry	General Motors	7/18		Clear Specific and Consistent Regulations	1
General Industry	General Motors	7/18		Feasibility/Effort to Comply	
General Industry	General Motors	7/18		Lack of EPA Data	
General Industry	General Motors	7/18		PCB Risk v Regulation Benefit	1
General Industry	General Motors	7/18		Reference Letters	
General Industry	General Motors	7/18		Consistency	
General Industry	General Motors	7/18		Protection of Human Health and Environment	
General Industry	General Motors	7/18		Existing Regs Work as Intended	
General Industry	General Motors	7/18		Regulatory Burden on Industry	
General Industry	General Motors	7/18		Collaboration Among Commenters	

General Industry	General Motors	7/18		Collaboration	1
General Industry	Steel Manufacturers Association	8/20		Respect for Process/Agency	2
General Industry	Steel Manufacturers Association	8/20		Clear Specific and Consistent Regulations	2
General Industry	Steel Manufacturers Association	8/20		Feasibility/Effort to Comply	
General Industry	Steel Manufacturers Association	8/20		Lack of EPA Data	1
General Industry	Steel Manufacturers Association	8/20		PCB Risk v Regulation Benefit	7
General Industry	Steel Manufacturers Association	8/20		Reference Letters	
General Industry	Steel Manufacturers Association	8/20		Consistency	
General Industry	Steel Manufacturers Association	8/20		Protection of Human Health and Environment	2
General Industry	Steel Manufacturers Association	8/20		Existing Regs Work as Intended	2
General Industry	Steel Manufacturers Association	8/20		Regulatory Burden on Industry	1
General Industry	Steel Manufacturers Association	8/20		Collaboration Among Commenters	1
General Industry	Steel Manufacturers Association	8/20		Collaboration	
General Industry	General Electric Company	4/26	OPPT-2009-0757	Respect for Process/Agency	1
General Industry	General Electric Company	4/26	OPPT-2009-0757	Clear Specific and Consistent Regulations	
General Industry	General Electric Company	4/26	OPPT-2009-0757	Feasibility/Effort to Comply	
General Industry	General Electric Company	4/26	OPPT-2009-0757	Lack of EPA Data	1
General Industry	General Electric Company	4/26	OPPT-2009-0757	PCB Risk v Regulation Benefit	
General Industry	General Electric Company	4/26	OPPT-2009-0757	Reference Letters	
General Industry	General Electric Company	4/26	OPPT-2009-0757	Consistency	
General Industry	General Electric Company	4/26	OPPT-2009-0757	Protection of Human Health and Environment	
General Industry	General Electric Company	4/26	OPPT-2009-0757	Existing Regs Work as Intended	
General Industry	General Electric Company	4/26	OPPT-2009-0757	Regulatory Burden on Industry	
General Industry	General Electric Company	4/26	OPPT-2009-0757	Collaboration Among Commenters	
General Industry	General Electric Company	4/26	OPPT-2009-0757	Collaboration	

General Industry	General Electric Company	7/20	OPPT-2009-0757	Respect for Process/Agency	
General Industry	General Electric Company	7/20	OPPT-2009-0757	Clear Specific and Consistent Regulations	
General Industry	General Electric Company	7/20	OPPT-2009-0757	Feasibility/Effort to Comply	
General Industry	General Electric Company	7/20	OPPT-2009-0757	Lack of EPA Data	
General Industry	General Electric Company	7/20	OPPT-2009-0757	PCB Risk v Regulation Benefit	5
General Industry	General Electric Company	7/20	OPPT-2009-0757	Reference Letters	
General Industry	General Electric Company	7/20	OPPT-2009-0757	Consistency	
General Industry	General Electric Company	7/20	OPPT-2009-0757	Protection of Human Health and Environment	
General Industry	General Electric Company	7/20	OPPT-2009-0757	Existing Regs Work as Intended	
General Industry	General Electric Company	7/20	OPPT-2009-0757	Regulatory Burden on Industry	8
General Industry	General Electric Company	7/20	OPPT-2009-0757	Collaboration Among Commenters	
General Industry	General Electric Company	7/20	OPPT-2009-0757	Collaboration	3

Government

Coalition	Source	Date	Docket Number	Node	Value
Government	Department of Energy	12/22	OPPTS-66015	Clear Specific and Consistent Regulations	9
Government	Department of Energy	12/22	OPPTS-66015	Data Driven Decision Making	2
Government	Department of Energy	12/22	OPPTS-66015	Regulatory Burden	1
Government	Department of Energy	12/22	OPPTS-66015	Magnitude	
Government	Department of Energy	12/22	OPPTS-66015	Request to EPA	
Government	Department of Energy	1/3	OPPTS-66015	Existing Regs Work as Intended	1
Government	Department of Energy	1/3	OPPTS-66015	Cost/Economic Burden	1
Government	Department of Energy	1/3	OPPTS-66015	Clear Specific and Consistent Regulations	
Government	Department of Energy	1/3	OPPTS-66015	Data Driven Decision Making	
Government	Department of Energy	1/3	OPPTS-66015	Regulatory Burden	1
Government	Department of Energy	1/3	OPPTS-66015	Magnitude	1
Government	Department of Energy	1/3	OPPTS-66015	Request to EPA	1
Government	Department of Energy	1/3	OPPTS-66015	Existing Regs Work as Intended	1
Government	Department of Energy	1/3	OPPTS-66015	Cost/Economic Burden	1