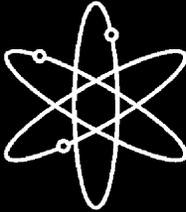
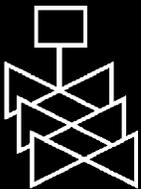


# Summary and Categorization of Public Comments on Controlling the Disposition of Solid Materials



**ICF Consulting, Inc.**



**U.S. Nuclear Regulatory Commission  
Office of Nuclear Material Safety and Safeguards  
Washington, DC 20555-0001**



# Summary and Categorization of Public Comments on Controlling the Disposition of Solid Materials

---

---

Manuscript Completed: January 2004

Date Published: March 2004

Prepared by

D. Hammer, N. Sullivan, M. Zatz, H. Woods, M. Arcaya

ICF Consulting, Inc.

9300 Lee Highway

Fairfax, VA 22031-1207

P. Sobel, NRC Project Manager

**Prepared for**

**Office of Nuclear Material Safety and Safeguards**

**U.S. Nuclear Regulatory Commission**

**Washington, DC 20555-0001**

**NRC Job Code J5303**





## ABSTRACT

---

The NRC is conducting an enhanced participatory process to evaluate alternative courses of action at NRC-licensed facilities for controlling the disposition of solid materials that have very low amounts of, or no, radioactivity. In 1999 NRC sought early input on the major issues associated with this effort by publishing an Issues Paper that described issues and alternatives related to the release of solid materials. The NRC invited public comment on the Issues Paper and, to provide further opportunity for public input, NRC held a series of public meetings during fall 1999. Over 900 public comment letters and emails were received on the Issues Paper, in addition to the discussion at the four public meetings. The comments were summarized and published as NUREG/CR-6682, "Summary and Categorization of Public Comments on the Control of Solid Materials" in September 2000.

As part of its continuing efforts to solicit stakeholder involvement, on February 28, 2003, NRC published a Request for Comments on the scope of a proposed rulemaking in the Federal Register (68 FR 9595). In this Federal Register Notice, NRC sought stakeholder participation and involvement in identifying alternatives and their environmental impacts that should be considered as part of a rulemaking. The NRC also announced in this Federal Register Notice its intent to conduct a workshop to solicit new input, with a focus on the feasibility of alternatives that would limit where solid materials could go. The workshop was held at NRC Headquarters in Rockville, MD on May 21-22, 2003. This report has been prepared to provide a digest of the public comments received from individuals and organizations. Over 2,600 public comment letters and emails were received in addition to comments summarized from the workshop transcripts. The comments reflect a broad spectrum of viewpoints on the issues related to controlling the disposition of solid materials. This report makes the information submitted by the public accessible. These public comments and other documents related to this rulemaking are found on the NRC's website (<http://www.nrc.gov/materials.html>).



## TABLE OF CONTENTS

---

ABSTRACT .....	iii
ACRONYMS .....	viii
1. INTRODUCTION .....	1
1.1 Early Information Collection .....	1
1.2 Follow-on Information Collection .....	1
1.3 Overview of Follow-on Comments .....	1
2. NO ACTION ALTERNATIVE .....	5
2.1 Oppose the No Action Alternative .....	5
2.1.1 Impacts on Industry .....	6
2.1.2 Concerns about Public and Worker Health and Safety .....	6
2.2 Support the No Action Alternative .....	7
2.2.1 Suggestions for Improvement of the No Action Alternative .....	8
3. DOSE-BASED REGULATION .....	9
3.1 Oppose the Unrestricted Releases of Materials Using a Dose-based Standard .....	9
3.1.1 Concerns with Impacts on Industry .....	10
3.1.2 Concerns with Public Health and Safety .....	11
3.1.3 Concerns with Dose-based Standards and Dose Modeling .....	12
3.1.4 Concerns with Conflict of Interest .....	13
3.2 Support the Unrestricted Releases of Materials Using a Dose-based Standard .....	13
3.2.1 Establishing Appropriate Release Criteria .....	15
3.2.2 Additional Considerations for Dose-based Standards .....	16
4. DOSE-BASED REGULATION ON CONDITIONAL USE .....	19
4.1 Oppose the Adoption of a Dose-based Regulation on Conditional Use .....	19
4.1.1 Concerns Over Long-term Control .....	19
4.1.2 Concerns with Public Health & Safety .....	21
4.1.3 Concerns About Impacts on Industry .....	22
4.1.4 Restricting Reuse to the Nuclear Industry .....	22
4.1.5 Flexibility Is Needed .....	23
4.2 Support Dose-based Regulation on Conditional Use .....	23
4.2.1 Uses for Material .....	24
4.2.2 Dose Limits .....	25
4.2.3 Dedicated Scrap Processing .....	25
5. EPA-REGULATED LANDFILL DISPOSAL .....	27
5.1 Opposition to Disposal in EPA-Regulated Landfills .....	27
5.1.1 Concerns over Long-term Control .....	28
5.1.2 Impacts on Landfill Owners and Operators .....	28
5.1.3 Public Health and Safety .....	28
5.1.4 Public Awareness and Concern .....	29
5.1.5 Landfill Effectiveness .....	30

5.1.6	Landfill Capacity and Siting Issues	30
5.1.7	Inconsistency in Regulations	31
5.1.8	Landfill Operations and Regulation	31
5.1.9	Costs of Management and Disposal of Materials and Wastes	33
5.1.10	Responsibility for Managing Potentially Radioactive Materials and Wastes	33
5.1.11	Incineration of Radioactive Materials and Wastes	34
5.2	EPA Regulated Landfill Disposal	35
5.2.1	Public Health and Safety	37
5.2.2	Public Awareness and Concern	38
5.2.3	Landfill Effectiveness	38
5.2.4	Impacts on Industry	39
5.2.5	Comments on Implementation of the EPA-regulated Landfill Alternative	39
6.	NRC/AGREEMENT STATES LICENSED LLW FACILITY DISPOSAL	41
6.1	Support for LLW Facility Disposal	41
6.1.1	Suggestions for Improvement of LLW Facility Disposal	41
6.1.2	Need to Isolate Radioactive Wastes	41
6.1.3	Performance of LLW Facility Disposal	42
6.1.4	Cost of Disposal	42
6.1.5	Suggested Changes	42
6.2	LLW Facility Capacity Issues	43
7.	PROHIBITION	45
7.1	Support for Prohibition of Release	45
7.1.1	Isolation of Radioactive Materials	45
7.1.2	Maintaining Control	46
7.1.3	Public Exposure	47
7.1.4	Impacts on Industry	48
7.1.5	Need to Reduce the Generation of Radioactive Materials	48
7.2	Opposition to the Prohibition Alternative	48
8.	NEW ALTERNATIVES	49
8.1	Addition of ANSI Language	49
8.2	No Release Above Background	49
8.3	Recovery of Materials	49
8.4	Case-by-Case Determinations	50
8.5	Improve Storage and Isolation Programs	50
8.6	Terminate Licenses	51
8.7	Other Suggestions and Concerns	51
9.	NEPA PROCESS	53
9.1	Workshops and Public Involvement	53
9.2	Prior Regulatory Efforts	54
9.3	Questions	55
9.4	Issues to be Reviewed and Range of Alternatives	55

10.	PURPOSE AND NEED .....	57
10.1	Need for the Rulemaking .....	57
10.2	Purpose of the Rulemaking .....	58
11.	HUMAN HEALTH IMPACTS .....	61
11.1	Exposure to Low Levels of Radiation .....	61
11.2	Worker Safety .....	62
11.3	Sensitive Groups .....	63
11.4	Public Exposure .....	63
11.5	Cumulative Health Impacts .....	65
11.6	Soil .....	66
11.7	Dose Modeling and Risk .....	66
11.8	Questions .....	69
12	RULEMAKING AND NRC POLICY .....	71
12.1	General Rulemaking Advice .....	71
12.2	Alternative Proposals for Action .....	71
12.3	Technical Issues .....	72
12.4	Implementation and Enforcement .....	73
12.5	Need for Cooperation .....	74
12.6	NRC Mission .....	75
12.7	Tracking and Collection of Previously Released Radioactive Materials .....	76
12.8	NRC Rulemaking Intentions .....	77
12.9	Conflict of Interest .....	77
12.10	Questions .....	78
13.	COST IMPACTS .....	79
13.1	Consumer Perception .....	79
13.2	RCRA Landfills .....	79
13.3	Human Health Impacts .....	79
13.4	Industry Impacts .....	80
13.5	Other Elements to Include in Economic Analysis .....	81
14.	SURVEY TECHNOLOGY AND TECHNIQUES .....	83
14.1	Linkage Between Release Criteria and Survey Techniques .....	83
14.2	Evaluate Survey Techniques .....	83
14.3	Limitations of Survey Technologies .....	84
	APPENDIX A: CROSS REFERENCE OF COMMENTERS BY COMMENTER NAME .....	85
	APPENDIX B: CROSS REFERENCE OF COMMENTERS BY COMMENTER NUMBER .....	91
	APPENDIX C: LIST OF COMMENTERS SUBMITTING FORM LETTERS .....	163

## ACRONYMS

---

ALARA	As Low As Reasonably Achievable
ANSI	American National Standards Institute
BRC	Below Regulatory Concern
COI	Conflict of Interest
DNA	Deoxyribonucleic Acid
DOE	Department of Energy
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
FRN	Federal Register Notice
HPS	Health Physics Society
IAEA	International Atomic Energy Agency
ICRP	International Commission on Radiological Protection
LLRW	Low Level Radioactive Waste
LLW	Low Level Waste
NARM	Naturally Occurring or Accelerator Produced Radioactive Materials
NAS	National Academy of Sciences
NCRP	National Council on Radiation Protection and Measurements
NEPA	National Environmental Policy Act
NORM	Naturally Occurring Radioactive Material
NRC	Nuclear Regulatory Commission
RCRA	Resource Conservation and Recovery Act
SAIC	Science Applications International Corporation
TENORM	Technologically Enhanced Naturally Occurring Radioactive Material



## **1. INTRODUCTION**

### **1.1 Early Information Collection**

The NRC is conducting an enhanced participatory process to evaluate alternative courses of action at NRC-licensed facilities for controlling the disposition of solid materials that have very low amounts of, or no, radioactivity. As part of NRC's examination of its approach for controlling the disposition of solid materials, NRC sought early input on the major issues associated with this effort. To aid in this process, NRC prepared an Issues Paper that described issues and alternatives related to the release of solid materials.

The Issues Paper was published in the Federal Register (FR) on June 30, 1999. The Federal Register Notice (FRN) invited public comment on the Issues Paper and, to provide further opportunity for public input, NRC held a series of public meetings during fall 1999. Over 900 public comment letters and emails were received on the Issues Paper in addition to the discussion at the four public meetings. The comments and input received on the Issues Paper were summarized and published as NUREG/CR-6682, "Summary and Categorization of Public Comments on the Control of Solid Materials" in September 2000.

### **1.2 Follow-on Information Collection**

As part of its continuing efforts to solicit stakeholder involvement, NRC published on February 28, 2003, a Request for Comments on the scope of a proposed rulemaking and notice of workshop in the Federal Register (68 FR 9595). In this FRN, NRC sought stakeholder participation and involvement in identifying alternatives and their environmental impacts that should be considered as part of a rulemaking. The NRC also announced in this FRN its intent to conduct a workshop to solicit new input with a focus on the feasibility of alternatives that would limit where solid materials could go. The workshop was held at NRC Headquarters in Rockville, MD on May 21-22, 2003. The transcript and a summary of the results of this workshop were placed on NRC's website. The following link provides access to a full copy of this summary document:

*[http://ruleforum.llnl.gov/cgi-bin/library?source=html&library=SM\\_RFC\\_info&file=news&st=ipcr](http://ruleforum.llnl.gov/cgi-bin/library?source=html&library=SM_RFC_info&file=news&st=ipcr)*

### **1.3 Overview of Follow-on Comments**

Over 2,600 public comment letters and emails were received in addition to the discussion at the workshop. The comments are found on NRC's website. The following link provides access to the comments:

*<http://ruleforum.llnl.gov/>*

This document summarizes the comments received as a result of NRC's request for comment and the workshop discussion.

Comments were received from virtually every stakeholder group, including environmental and citizen's groups, members of the general public, scrap and recycling companies, steel and cement manufacturers, hazardous and solid waste management facilities, the U.S. Department

of Energy (DOE), State agencies, Tribal Governments, scientific organizations, international organizations, and NRC licensees and licensee organizations.

The comments were extensive and wide-ranging, focusing on specific alternatives and technical issues that should be considered as part of NRC's rulemaking. In addition, there were numerous comments related to potential impacts on public health and safety as well as on various industries.

Many commenters stated that there should be no release of solid materials from licensed facilities even if the calculated dose or health risks are low. In particular, potential recipients of solid material, such as scrap, metals, and cement industry representatives, objected to the release of solid materials. These commenters noted that there could be significant negative economic impacts on their industries if consumers had concerns over the presence of radioactivity in products. A large number of citizen groups and members of the public also expressed concern about the health effects of the potential presence of released material in consumer products and recommended that NRC prohibit the release of this material to isolate it from the public. Some of these commenters further suggested that NRC should implement a program to identify and recover all materials previously released under the current regulation.

A number of commenters indicated that there is a significant need to establish a national standard for the release of solid materials, citing a lack of consistency in criteria and problems with implementation under the current system. Others however, believe that the current system is both protective and easily implementable. These groups cite reports by national and international standards setting bodies that indicate that health risks at dose levels being considered are negligible or trivial. Several commenters suggested that NRC adopt the American National Standards Institute (ANSI) standard N13.12-1999, Surface and Volume Radioactivity Standards for Clearance.

Commenters also described concerns with a restricted use alternative, citing possible oversight and enforceability issues. A number of commenters discussed the alternatives of disposal in either EPA-regulated landfills or NRC/Agreement State-licensed disposal facilities. While there was some support for a general disposal alternative, the majority of commenters believe that disposal in an NRC/Agreement State-licensed disposal facility is the most appropriate option.

A number of commenters provided input on the National Environmental Policy Act (NEPA) process which governs the development of the Generic Environmental Impact Statement. Still more commenters weighed in on NRC's rulemaking process.

The public comment letters and emails and workshop transcripts received by the NRC staff were collected and organized in a database to facilitate NRC review of the public comments. This report provides a detailed summary of the public comments and workshop, as well as major trends in the comments. The report covers letters received from February 28, 2003 to July 7, 2003. A listing of commenters is found in Appendix A. The comments were organized into issues and sub-issues for each comment based on the discussion in the February 28, 2003 FRN.

Comment summaries are found in Chapters 2 through 14 and include a unique commenter number listed in parentheses. Some individuals chose to submit duplicate copies or excerpts of

form letters. Only the original comment letter (i.e., the first letter received) has been included in the summary. A list of the commenters submitting form letters is contained in Appendix C.

Readers can identify the commenter numbers applicable to an individual or organization by referencing Appendix A. Alternatively, the reader may identify the individual or organization name applicable to a comment number by referencing Appendix B. Appendix A also identifies the subsections in Chapters 2 through 14 for issues addressed by that commenter.



## 2. NO ACTION ALTERNATIVE

### 2.1 Oppose the No Action Alternative

*A number of commenters expressed dissatisfaction with the No Action alternative, which would maintain the current "case-by-case" approach for unrestricted release using the measurement-based guidelines contained in Regulatory Guide 1.86.*

- Generally oppose the No Action alternative (89) (102) (1902) (2451) (2502) (2536) (2539) (2568) (2586) (2587) (2588) (T1-4) (T2-13) (T1-20)
- NRC should retain full regulatory control for radioactively contaminated materials, not allow the release of these materials and wastes for use in consumer goods or elsewhere in the environment. (1902) (2451)
- This alternative is a variant of the old "Below Regulatory Concern" policy, and it permits nuclear waste generators to reduce or eliminate the costs of truly protective waste disposition in an NRC-licensed facility, and to disperse waste into a completely unregulated environment. (102) (T1-20) (2588)
- This alternative exposes the public to radiation without their knowledge or consent, and puts them at risk from the effects of multiple, additive and cumulative exposures and their synergistic effects with non-radioactive hazards. (102)
- The current policy allows some materials contaminated with transuranic isotopes to be deregulated or released and cleared into everyday commerce. (1902)
- NRC's categorization of the advantages and disadvantages of the No Action alternative appears to match those of the regulated licensees and others with vested interests but differs markedly from those of many in the public realm. (2451)
- NRC's current approach utilizing outmoded and insufficiently protective dose standards is not "sufficiently protective"; it is not workable in the public's interests; and the Commission must not evaluate other issues as "higher priority" than its task of protecting human health. The lack of a risk-based approach or of consistency with international regulations or licensees' problems or regulatory "finality" are not seen as disadvantages by the public, in comparison with the protection of public health by minimizing radiation exposures through strict maintenance of control over contaminated materials and wastes. (2451)
- Releasing materials into commercial use would result in a loss of radioactive pedigree, and would eventually allow higher levels of radiation into consumer goods. (2539)
- The implementation of a release and/or recycling policy would result in the avoidance, or "de-selection" of products made from recycled materials. Far from being just another wonderful application of a "clean and green" recycling ethic, the current situation at NRC-licensed facilities, and the proposed rule, make a mockery of the very concept of recycling, and would jeopardize the enormous environmental gains made by the

recycling industry thus far. Any alternative that would allow radioactive materials to be recycled would be harmful to the public and would put the recycling industry itself at risk. (2588)

- The existing case-by-case approach does work; however, it does not provide for consistent decision-making or assessment of cumulative impacts and has led to some degree of ambiguity and confusion. (2577)
- NRC has failed to establish criteria for release. The survey can be as thorough as the licensee wants - no minimal detectable activity limit has been established. (89)

### **2.1.1 Impacts on Industry**

*A few commenters expressed concerns about affects on their particular industries*

- No scrap metal from impacted or restricted areas at NRC-licensed facilities should be released into commerce. Metal companies are concerned that the products they manufacture will be perceived as unsafe because of radioactive contamination. The public perception is that any level or type of unnecessary additional exposure to radioactivity is unsafe. (2587)
- Radioactive isotopes present on or in scrap metal may partition to the metal, slag, or emission control dust. Even small concentrations may build up over time, especially in the emission control baghouse, potentially leading to health risks to workers or to expensive disposal requirements. By releasing scrap metal with residual radioactivity into the economy, regardless of whether this is done on a case-by-case basis under Regulatory Guide 1.86 or pursuant to a dose-based standard to be established later, NRC is increasing the risk of metals company property contamination. (2587)

### **2.1.2 Concerns about Public and Worker Health and Safety**

*Commenters described their concerns about the affects of this alternative on public and worker health and safety*

- NRC must consider the accumulation of radioactive materials on equipment and in metals industry by-product and waste streams, and exposure of workers and members of the public to this contamination. Contamination of waste streams may generate mixed wastes, for which disposition is prohibitively expensive. (2587)
- NRC has not adequately explored the impact of processing radioactively contaminated scrap metals on personnel or equipment in metals production facilities and at scrap processing operations. (2587)
- The metals industry is concerned about liability in civil lawsuits, including punitive damages and cleanup costs. NRC must consider and study all potential risks to metals companies, downstream producers, and firms engaged in handling the by-products and wastes, as well as the employees of these companies and other individuals who may be exposed to increased levels of radioactivity resulting from the current policy. (2587)

- The current system is protective of public health. However, the current system could be improved by using a dose-based system, which would be more logical and consistent. (2580)

## 2.2 Support the No Action Alternative

*A few commenters expressed support for the No Action alternative.*

- Generally support the No Action alternative. (T1-3) (T1-18) (2488) (2644)
- Current practices under Regulatory Guide 1.86, as implemented by the NRC, are effective to protect the public health and safety. In fact, some companies current practices provide more stringent protections for public health and safety than the dose-based criteria being considered. (1773)
- Risks associated with materials only exhibiting surface contamination do not merit a new rulemaking, and the current approach is adequate with respect to these materials. (2487)
- The current surface contamination release limits for materials from source material processing sites is adequately protective of public health, safety and the environment. (2487) (2488) (2565) (2580) (2644) Not only are these limits protective in and of themselves but they are applied in conjunction with the As Low As Reasonably Achievable (ALARA) principle. (2487) (2488) (2565) When an object is decontaminated by appropriate means prior to release for unrestricted use, which could include pressure washing, cleaning with acid-based cleaners, washing in a washing machine draining to a contaminated liquids tank (in the case of clothing) or other means, the object is then tested for residual contamination. Since monitoring of the object occurs after cleaning, every attempt is made to clean the object as thoroughly as possible so that the object does not have to be recleaned and remonitored if it fails to clear monitoring on the first attempt. As a result, items are cleaned to an ALARA level that is usually well below (often by an order of magnitude or more) existing release limits for surface contamination. Thus, under the current standards, solid materials are not leaving facilities that are "just below the limit" but rather "well below the limit" meaning that the current standards are more than adequately protective of public health and safety. (2487) (2488) (2565)
- In addition to being protective, the current standards for surface contamination are easily implementable. (2487) (2488) (2565) (2577)
- There is little or no evidence, as has been stated previously, of problems resulting from releases pursuant to Regulatory Guide 1.86. (2487)

## 2.2.1 Suggestions for Improvement of the No Action Alternative

*Some commenters had specific questions or suggestions for making improvements to the current approach, the No Action alternative.*

- Explain the detection level required for release. Are detection instrumentation and guidance other than the outdated 1974 Regulatory Guide 1.86 used to determine "protective level" and permissible releases? (2451)
- Are all releases decided on a case-by-case basis? How is an individual object handled in a case-by-case review? (2451)
- How does the NRC justify releases now if future, presumably more sensitive, detection equipment becomes available? What, if any, conservatism to allow for future more sensitive detection capability is built in to NRC's current case-by-case decisions? How will NRC address this issue? (2451)
- What precisely is a "justified practice"? What is included in a single "justified practice"? What volume and total activity could be included in a single justified practice? How many justified practices does the NRC recognize? (2451)
- Does the NRC apply any other terminology to its case-by-case decision process for releases? (2451)
- NRC should improve its communications with the public with respect to the protectiveness of the current approach. (2644)
- The inconsistencies that exist in the current system are not fixed simply by changing the application of the current guidance. (T1-101)
- The current guidance contains surface contamination criteria but no volumetric criteria. This inconsistency can only be addressed by proceeding with a rulemaking. (T1-101)
- NRC should make public all records on previous releases conducted under the current regulatory scheme. (2451) (2502) (2568)
- Are general licenses treated in the same manner as specific licenses with respect to releases? (2451)
- Regulatory Guide 1.86 should be updated to include best achievable detection technologies and a requirement to measure concentrations and provide information on isotopic content and length of hazardous life. (2451)
- If a rule is not issued, Regulatory Guide 1.86 should be reviewed to assess whether the surface contamination criteria in it adequately protect public health and safety and the environment. Those criteria that cannot be justified on a health and safety basis should be revised. (2577)

### 3. DOSE-BASED REGULATION

#### 3.1 Oppose the Unrestricted Releases of Materials Using a Dose-based Standard

*A number of commenters expressed dissatisfaction with a dose-based standard for unrestricted release.*

- Neither dose- or risk-based or concentration-based criteria should be adopted as a bright line cut-off for control. Dose-based standards rely on generalizations, estimates, averages, and modeling that does not represent reality of the material or of the one exposed, plus unstated assumptions, any or all of which will contribute to inaccuracy. (2451)
- Generally oppose the development of a dose-based standard for unrestricted releases. (2502) (2535) (2564) (2565) (2568) (2586) (T1-20) (416) (2588)
- No dose-based standard above zero is acceptable. (2502) (2539) (2614)
- NRC should retain full regulatory control for radioactively contaminated materials, not allow the release of these materials and wastes for use in consumer goods or elsewhere in the environment. (1902) (2451)
- NRC should not consider this alternative, given the repeated opposition to the health, safety, environmental and economic burdens it would cause. (2451)
- A dose-based criterion would in essence declare an object non-radioactive even if detection equipment reveals that it is "slightly radioactive." (2451)
- Risk or dose-based standards will not be any clearer than the current standards. (T1-4)
- This alternative is not readily verifiable and could open the door to more nuclear waste being introduced into commerce. (1902) (2502) (2568) (2613)
- To designate waste materials as radioactive in a controlled location and then change their designation to non-radioactive and allow them to leave the site without restrictions, is irresponsible. (102)
- The wording of the NAS recommendation that 1 mrem/yr is a "good starting point" underscores the concern that the NRC may plan to raise the permissible limit as high as indicated for BRC in 1989-90: viz. 100 mrem/yr. (2451)
- NRC is not required to adopt this type of technical standard and this fact should not unduly influence NRC's decision. (2451)
- There is presently no comprehensive record keeping regarding the actual amounts of materials being released. Tracking and reporting have not been adequately addressed under any of the options. (1092) (1902) (2536) (2539)

- Some nearby communities will receive large exposure doses over and over while the more distant communities will receive smaller and fewer doses. (2502)
- Releasing materials into commercial use would result in a loss of radioactive pedigree, and would eventually allow higher levels of radiation into consumer goods. (2539)
- The implementation of a release and/or recycling policy would result in the avoidance, or "de-selection" of products made from recycled materials. Far from being just another wonderful application of a "clean and green" recycling ethic, the current situation at NRC-licensed facilities, and the proposed rule, make a mockery of the very concept of recycling, and would jeopardize the enormous environmental gains made by the recycling industry thus far. Any alternative that would allow radioactive materials to be recycled would be harmful to the public and would put the recycling industry itself at risk. (2588)

### **3.1.1 Concerns with Impacts on Industry**

*Several commenters expressed concerns about the impacts of this alternative on industry.*

- The possibility that products made with recycled metals may contain materials that were released from nuclear facilities would place an overwhelming burden on the steel industry and its related industries. (2564)
- The clearance of contaminated scrap metal would undermine the ability of metal companies to comply with environmental laws and put them at greater risk of liability in civil suits. (2564) (2587)
- The mere threat of contaminated steel in the recycling stream would drive consumers to demand goods produced from mined virgin ores, which would run contrary to the goals of a recycling program. It would also encourage them to substitute alternative materials for steel, putting the steel industry at a competitive disadvantage. (2564)
- The rulemaking should prohibit the release of solid radioactive material on a generic basis for recycling. (2566)
- Disposition alternatives ideally should ensure that radioactively contaminated scrap metal is isolated from the public while not shifting the burden of the nuclear industry's waste problem onto the metals industries. (2586)
- NRC summary of comments related to public health and safety failed to point out simply that people who would receive the doses do not want to be exposed. There was no mention of the threat that putting nuclear waste into recycling supplies poses to the whole concept of recycling and conservation. (2568)
- No scrap metal from impacted or restricted areas at NRC-licensed facilities should be released into commerce. Metal companies are concerned that the products they manufacture will be perceived as unsafe because of radioactive contamination. The

public perception is that any level or type of unnecessary additional exposure to radioactivity is unsafe. (2587)

- Radioactive isotopes present on or in scrap metal may partition to the metal, slag, or emission control dust. Even small concentrations may build up over time, especially in the emission control baghouse, potentially leading to health risks to workers or to expensive disposal requirements. By releasing scrap metal with residual radioactivity into the economy, regardless of whether this is done on a case-by-case basis under Regulatory Guide 1.86 or pursuant to a dose-based standard to be established later, NRC is increasing the risk of metals company property contamination. (2587)

### 3.1.2 Concerns with Public Health and Safety

*A number of commenters provided their perspective on the impacts to public health and safety associated with this alternative.*

- Any dose of radiation poses health risks to humans. (102) (145) (2451) (2502) (2614)
- There is no clear indication as to what specifically a 1 mrem/yr dose limit would apply - to an individual recipient, to a specific object, to the total of all objects at a facility, to all of the objects from multiple sites, or to some other undefined population. (2451)
- In the event releases were to become even more common, the more likely it would be that individuals could experience multiple exposures from radioactive waste released from NRC-licensed facilities. These multiple exposures from the release/recycling practices would not or could not be accurately measured or tracked, and the exposures would be, of course, involuntary. They are avoidable however, by the rejection of this alternative. (102) (2611)
- Our knowledge of the effects of low-level radiation is in flux, but indications are that damage to human health and other biota can occur even at very low levels. (2451)
- The use of the term "negligible risk" as defined by NRCP and ICRP is not convincing because it does not recognize all sensitive categories of exposed populations. (2451)
- Foundry workers, metal recyclers, machinists, mechanics, pipefitters, manufacturers, and merchants would likely incur higher cancer rates and it is unlikely that these occupations are equipped to adequately protect themselves from this additional hazard. (2502)
- Radioactive steel has the potential to be recycled and reused in other applications that would not be safe to the public not to mention the manufacturing plants themselves. Allowing radioactive scrap metal into the stream of commerce simply would not isolate the public from contamination. (2564)
-

- NRC summary of comments related to public health and safety failed to point out simply that people who would receive the doses do not want to be exposed. There was no mention of the lack of credibility of the ICRP, upon whose risk estimates the doses and projected risks are based. (2568)
- NRC must consider the accumulation of radioactive materials on equipment and in metals industry by-product and waste streams, and exposure of workers and members of the public to this contamination. Contamination of waste streams may generate mixed wastes, for which disposition is prohibitively expensive. (2587)
- NRC has not adequately explored the impact of processing radioactively contaminated scrap metals on personnel or equipment in metals production facilities and at scrap processing operations. (2587)
- The metals industry is concerned about liability in civil lawsuits, including punitive damages and cleanup costs. NRC must consider and study all potential risks to metals companies, downstream producers, and firms engaged in handling the by-products and wastes, as well as the employees of these companies and other individuals who may be exposed to increased levels of radioactivity resulting from the current policy. (2587)
- The current system is protective of public health. However, the current system could be improved by using a dose-based system, which would be more logical and consistent. (2580)

### **3.1.3 Concerns with Dose-based Standards and Dose Modeling**

*Commenters indicated concerns with the validity of dose modeling in developing release criteria.*

- There are numerous problems associated with dose modeling and their accompanying exposure scenarios. Computer models can be manipulated such that the predicted dose from a given release or recycling practice falls within "acceptable" limits. In any case, numerous nuclear experts independent of the nuclear industry dispute such dose models as unsound science. (102)
- In order to perform a dose-based release, the licensee must know all potential exposure pathways and in addition to measurement, perform a dose calculation based on the measured activity, and the nature and potential uses of the object, which is burdensome at best. (2488) (2565)
- Dose-based standards are not acceptable because there are too many variables based on the individual source, level of activity, time, distance, how many people are involved, and sizes - there are just too many variables. That could lead to recalculating the results with other variations to get new results when the first are not acceptable. (2539)
- Dose-based standards apply ICRP risk numbers to determine the amount of potential biological damage that will result from a specific release. The ICRP has been criticized for underestimating risk in their models. (2568)

- Dose and risk-based standards are not measurable, verifiable, or enforceable. (T1-4) (2568)
- Dose-based models open the door to "justification creep" as licensees manipulate dose based releases of materials based on the variables and assumptions that are loaded into risk assessments. (416)
- Consideration must be given to individual sensitivity issues. (T2-26)
- NRC should include landfilling of low activity solid material in its risk assessment process. The risk assessment must demonstrate that the addition of solid materials from licensed facilities will not create unacceptable cumulative levels of radioactivity at the landfill at established thresholds of radioactivity. (2531)
- Using dose-based standards, the concentrations at the point of release could change as the licensee makes determinations about the risks. (1902)

### **3.1.4 Concerns with Conflict of Interest**

*Some commenters have concerns with COI and license competency in determining if materials meet release criteria.*

- It is always in the licensee's or their contractor's best financial interest to release materials. (102) (T1-20) (2588)

### **3.2 Support the Unrestricted Releases of Materials Using a Dose-based Standard**

*A number of commenters expressed support for the development of a dose-based standard for unrestricted release.*

- Generally support a dose-based standard. (2500) (2562) (2577) (2583) (2644) (T1-11) (T1-3) (T1-18) (T1-21) (T1-23) (30) (89) (T2-11) (2644)
- The dose assessments and cumulative impacts assessments may be more complex than those required to support release for restricted use; however, clearance criteria based on unrestricted use would be universal and more efficient. (2577)
- Tracking issues related to restricted use would be overly burdensome, and susceptible to failure. While release limits will need to be lower for unrestricted use as opposed to restricted use, the rule will be more useful and simple to apply if the assumption is that the material could be put to any use. (2577)
- National consensus on a dose-based approach will legitimize much work already being done and provide needed tools and guidance for consistency. (2577)
- This system would be more logical and consistent than the current case-by-case approach. (2580)

- Although the current approach is protective of public health, NRC is encouraged to adopt a risk-informed, performance-based philosophy for the disposition of solid materials, which is well suited for developing uniform radiation protection standards. (203)
- Unrestricted release of materials may be warranted if an appropriate and justifiable limit is used. (215)
- The comprehensive screening value specified in ANSI/HPS N13.12 satisfies the need for a "bright line." A predictable "bright line" avoids unnecessary regulatory burden while maintaining public confidence. (2531)
- Use of the NRC's risk-informed performance based philosophy to establish radiological criteria and the associated survey methods required for implementation is well suited for implementing this proposed rule. (2532) (2562) Promulgating uniform, dose-based standards, in lieu of radiological criteria specified in the referenced regulatory policy directives, will enhance public confidence with respect to NRC fulfilling its responsibilities for protecting public health and safety from sources of ionizing radiation. (2532)
- This is the preferred alternative because: (1) it could provide a consistent regulatory approach nationwide to clearance of solid materials (depending on the compatibility requirements for Agreement States); (2) regulations could save time and resources now spent on case-by-case determinations; and (3) the rulemaking process would provide for public participation and compliance with NEPA. (2577)
- Under Reg Guide 1.86, radioactivity is measured based on alpha, beta, and gamma, and groupings of radionuclides are made in an effort to provide a workable standard. However, it was done without an appreciation of the different dose or risk associated with individual radionuclides. The newer ANSI standard and attempts by NRC to develop dose based standards are an attempt to remedy that. It is not stepping backwards into what concentration differences by individual radionuclides may exist, really is looking at a consistent level of risk associated across the radionuclides. (T2-14)
- Dose-based concentration criteria for solid materials should be added to the current system. (2577) (2580). The surface criteria in Regulatory Guide 1.86 may not be protective, depending on the geometry of items. For example, ten sheets of sheet metal could just meet Regulatory Guide 1.86 limits and so could one metal sphere of the same mass. If both were melted down into respective ingots, one ingot would contain significantly higher concentrations of radioactive material than the other because of the surface-area-to-mass ratios peculiar to the original geometries. A dose-based limit would eliminate this inconsistency when evaluating different geometries and even different radionuclides. (2577)
- One specific operating plant generates on the order of several hundred cubic meters of dry active wastes in a year (unprocessed). It is difficult to state the percentage of that amount that may be handled differently should amended rules be promulgated. Certainly, a substantial percentage of the amount of dry active waste generated contains very small amounts of activity, and its handling may be subject to change under amended rules. It is also possible that operating events and/or decommissioning of some equipment and

facilities may result in a substantially higher volume of activity that may be very slightly contaminated. Estimation of such volumes is difficult. There have been events in the industry where volumes of material on the order of thousands of cubic meters have been generated, with very low levels of activity within that generated volume. Given the burden of current processing and disposal methodologies, substantial benefits may result to electricity consumers and other involved stakeholders should amended rules protective of public health and safety be promulgated. (2562)

- A criterion for unrestricted release, based on 1 mrem/yr, would result in the disposal of large volumes of material as low level waste, when it is far less radioactive than many consumer products. (2519)
- If a release criterion of 1 mrem/yr, NRC should clearly state that it is their position that this standard is protective of public health and safety. (2519)

### 3.2.1 Establishing Appropriate Release Criteria

*A number of commenters provided specific information on what they deem as acceptable release criteria under this alternative.*

- A release criteria of 1 mrem/yr is protective. (1773) (2532) (2562) (2585)
- There is no risk associated with a 1 mrem/yr dose. Even higher doses would be acceptable. (T1-27)
- Supports a risk-based method for the conditional or unrestricted release of slightly contaminated material, specifically, the American National Standards Institute/Health Physics Standard (ANSI/HPS) N13.12-1999 screening levels based on 1 mrem/year. (1640) (1773) (203) (2500) (2531) (2532) (2566) (2580) (2583) (2585) (2590) (2612) (2644) (T1-18) (T1-14) (89)
- The following are acceptable criteria for control of material if applied as follows:

Each waste generator limited to the annualized ANSI screening levels; i.e., Becquerel/gram (Bq/g)/year

Compliance based on evaluating,  $A = \sum_i (C_i / \text{Screening Level}_i) \leq 1.0$  where,

A = the annual cumulative ratio

$C_i$  = annual cumulative concentration, in Bq/g, for waste nuclide (i)

Screening Level i = ANSI screening level, in Bq/g, for nuclide (i)

Generators maintain disposition inventories and verify compliance with the yearly limit prior to disposition.

This method will ensure that the annual waste from each generator does not exceed 1 mrem/year to a member of the public. In addition, it will ensure that it is highly unlikely that the total impact to a member of the public from all generators

does not exceed the National Council on Radiation Protection limit of 100 mrem/year or the Environmental Protection Agency Code of Federal Regulation (40 CFR 190) limit of 25 mrem/year. (1640)

- The rule would be more efficient if it contained concentrations (similar to the tables in Part 20) derived from that dose limit, rather than requiring a dose assessment each time material is to be released. (2577)
- All radioactive material (including NARM) should be controlled within a 1 mrem/yr standard. (2570)
- Given the fact that other exposure standards contained in 10 CFR Part 20 exceed the 1 mrem/yr standard being considered, it is unclear how NRC could not release materials if the dose exceeds 1 mrem/yr without tacitly announcing that these other standards are not protective of public health and safety. NRC should clearly state that a 1 mrem/yr dose limit is protective of public health and safety and end discussion of this topic in the rulemaking. (2519)
- A provision should be included for consideration, on a case-by-case basis, of a dose limit of 100 mrem/yr taking into account that members of a critical group could be exposed to multiple sources. (2500)
- A cap on the dose limit of 100 mrem/yr would be consistent with the dose allowed to a member of the public from licensed activities such as power plant operations. (2562)

### **3.2.2 Additional Considerations for Dose-based Standards**

*Some commenters had specific comments or suggestions for making improvements or changes to this alternative.*

- NRC should adopt the following instrument performance standards: Gamma sensitive detectors commonly in use today to release individual items should be capable of detecting radioactivity in a bag of potatoes, packages of dried apricots, or containers of wheat germ. Beta sensitive detectors commonly in use today to release individual items should be capable of detecting radioactivity in a handful of "no salt." These performance standards should be equated to clearly defined detection limits for commercially available assayed sources of radioactivity. (2531)
- NRC should supplement the screening values in ANSI/HPS/ N13.12 by establishing instrument performance standards that readily demonstrate safety. (2531)
- It is essential that NRC include analyses of a variety of circumstances under which recycling could occur to assess fully how ALARA applies. NRC's ALARA analysis should not be limited to a global assessment, but include focused analyses of particular releases under specific conditions. (2536)

- Either a dose-based or a derived concentration-based criterion could be established to define a threshold below which the materials would no longer be considered "licensed material." (Such a criterion would need to be able to address items in or on which multiple nuclides may have been detected at very low levels.) Analyses can be performed to establish reasonable alternative dispositions to those now required, such as alternative disposal or continued use in an unrestricted manner. (2562)
- The rulemaking should not displace specific approvals for disposition of solid materials that have been deemed safe and approved by the NRC or Agreement States. (2566) (2612)
- Clearance for unrestricted use is the more conservative approach, and does not rely on any future controls or regulation. (2577)
- The rule should recognize that there might be some restricted uses that could be authorized at a higher limit on a case-by-case basis if properly justified. (2577)
- The dose limit established should be consistent with the international community, should avoid conflict with EPA, must have minimal impact on industries that are sensitive to radiation, and must be acceptable to the public. (2577)
- In the EIS, NRC should specifically reference the comparison of dose between Regulatory Guide 1.86 and each alternative proposed. (2577)
- The accidental melting of sealed sources in metal recycling facilities is not addressed by any of the proposed alternatives and has altogether different causes and solutions. Sealed sources were a matter of debate at the meeting but they present different problems and should be addressed separately. (2577)
- Naturally-occurring materials present a unique problem when it comes to releasing equipment and sites for unrestricted use. (T1-3)
- The disposition of materials released for unrestricted use is a business decision. (T2-22)
- NRC needs to consider the maximum Cs137 level in Baghouse (KO-61) dust and establish an acceptable level. Surely there is a limit higher than 2 pCi/gm that can be considered for the dust. That would make recycling more palatable to the industry. (2583)
- These are standards for detectability and they are implemented as a less than value. That is, if you have your instrument calibrated for the derived concentrations that equal 1 millirem, and it has no response, then you can make a green tag decision that it's good to go. The fact that your instrument now has a less than reading gives you even more confidence that you're making the right decision. (T2-14)
- NRC should identify and adequately summarize the views of those who are in favor of unrestricted use in order to avoid biased results. (2451)



#### **4. DOSE-BASED REGULATION ON CONDITIONAL USE**

##### **4.1 Oppose the Adoption of a Dose-based Regulation on Conditional Use**

*Many commenters provided reasons why this alternative is not acceptable.*

- NRC should not adopt this alternative. (2451) (2586) (T2-3)
- This alternative would be prohibitively expensive and may not be viable. (2584) (89) (T1-24)
- Supports the concept of "conditional use" of solid materials provided that consideration of this alternative within the scope of the rulemaking does not include a prohibition against the unrestricted use of inherently safe sources. However, developing generic radiological criteria to support "Conditional Use" alternatives may be problematic. (2532)
- Why should the U.S. taxpayer pay for solving industry's waste problem? (145)
- Minimal exposures that are within the lower range of variations in natural background should be regarded as natural exposures and do not mandate a very expensive and completely restrictive standard for the control and release of solid materials and/or equipment. (2487)
- Radioactively contaminated scrap metal cannot be released, even on a "conditional" basis, into the stream of commerce. (2564) (2586)
- There is not enough inventory to justify a dedicated facility whether commercial or government operated. (2568)
- Representatives of the smelting industry have clearly stated that they cannot afford to dedicate a smelter for the purpose of melting slightly contaminated materials. They stated plainly that there would not be sufficient annual amounts to dedicate a smelter full-time, and, once even slightly contaminated, it would be unusable for other purposes. Therefore, this alternative is not feasible. (2451)
- The ANSI standard said that, "Conditional clearance is not covered in this standard because of the existence of conditions that imply the definition and imposition of future controls on materials being conditionally cleared." (T2-14)

##### **4.1.1 Concerns Over Long-term Control**

*Commenters suggested that control over the materials would be problematic.*

- Control of materials, once outside licensed programs, will likely be impractical. Military or other government entities may be the only practical areas for such conditional reuse. (2498)

- A conditional release system would entail undue regulatory burdens since future downstream uses could be uncertain and virtually impossible to control. (1773)
- The burdens associated with attempting to track the uses and control of recycled materials and wastes would constitute an added heavy financial burden for both regulator and licensee. (2451)
- Even if the control can be exercised during the first reuse, there remains the loss of control subsequently for secondary and other reuses after license termination of the initial facility. The scheme is unworkable in the real world. (2451) (T2-7)
- A scrap/manufacturing/distribution process not licensed by the NRC would have no statutory or legal requirement to abide by NRC regulations once the material had been released by NRC from its regulatory control for other uses. (2451)
- Conditional use may force a vast expansion of the Commission's mission, as it may have to then regulate materials released under various terms of conditional use. (2488) (2565) (89)
- From the state perspective, it would be virtually impossible to regulate and administrate. (T2-8)
- It would be very difficult to track materials and enforce the restrictions under this alternative. (1773)
- These materials would need to be tracked for all time. Deregulating, releasing, and not tracking these materials would violate NRC's guiding principles 1 and 2. (145) (2568) (T1-20)
- It is not the statutory responsibility of other federal agencies to regulate these radioactive materials and wastes. It is highly improbable that any of them would willingly take on that role. (2451) (2568)
- The "conditional use" option plays on deception by holding out hope that there are some uses for radioactive wastes and materials (no longer regulated by NRC) that someone else will somehow regulate at a lower cost than NRC regulation. (2568) (T2-17)
- Contaminated materials must not be released for conditional use, no matter how lightly contaminated. There are no products or uses for radioactively contaminated materials in the open marketplace and environment. (2568) (T2-4)
- Why would we trust a tracking system set up by NRC when the previous tracking of admittedly hazardous or admittedly radioactive materials of concern, such as sealed sources, has been so bad? (T1-4)
- NRC is supposedly suggesting shifting the burden, cost, liability, and responsibility of shepherding nuclear waste through the marketplace to another agency. (2568)

- Although some initially considered this to be an attractive option, it is highly improbable that conditional - semi-restricted - release can accomplish the societal goal of continuing control over these low-activity materials and wastes for their full hazardous life. (2451) (2611)
- Conditional re-use opens the door for subsequent (secondary, tertiary) re-use. (416)
- There is no assurance that the material would be limited to its authorized use. (145) (2451) (2498) (2539) (2568)
- Who is ultimately liable to assure that the released materials are only used for their authorized use? (2488) (2565) (2568)

#### **4.1.2 Concerns with Public Health & Safety**

*Some commenters expressed concerns about public health and safety.*

- Workers at processing facilities would receive an additional dose. Worker complaints might constitute a regulatory burden. (2451) (2568)
- Radiation exposures to certain occupations will be unduly increased, for example foundry workers, steel workers, cement workers, transportation workers, road builders, and building industry workers. (2502)
- The public could get significant exposures from so-called restricted uses. (2568)
- Permitted uses under this alternative could include bridges, roads, and sewer pipes, which raise obvious concern about the potential health effects of long-term public exposure to this kind of infrastructure. The radioactivity will last longer than the project or edifice so it will be present when the material is used next, in a completely unrestricted way, posing a continuing risk to future generations. (1902) (2451)
- Reuse of solid materials in what NRC terms "low dose environments" might limit public doses but increase occupational exposures. (2451)
- Conditional (restricted) reuse is not an acceptable alternative to full regulatory control. It is a half-way station to free release and doses to the public that does not provide any assurance of adequate protection of public health and safety beyond, possibly, a few initial reuse years. (2451)
- The impacts from such uses would be too hard to predict based on computer models. (102) (2588)
- Any so called conditional use is environmentally ruinous and is to be condemned and forbidden. (2526)

- Once slightly contaminated material has left the regulated facility, it may undergo many reuses, changing form but still radioactive. A person who handles or otherwise is in contact with it during its second and third and infinite reuse will have no chance to know about the dose he receives, or how many of those small exposures are adding up, damaging his health. NRC should reject this option as unsafe and unworkable. (2611)
- NRC should consider the worker aspects of reuse within the nuclear industry without notification that the material is slightly contaminated. (T2-4)
- Under the "conditional release" alternative, scrap metal is recycled many times over and radioactively contaminated scrap metal, originally used in manufacturing certain authorized products (e.g., sewage piping), could eventually re-enter the recycling stream. The radioactive steel has the potential to be recycled and reused in other applications that would not be safe to the public not to mention the manufacturing plants themselves. (2564)
- For the "Conditional Use" alternative, an evaluation on a case-by-case basis, in lieu of generic rulemaking, may be more effective at fostering public confidence in the regulatory process. (2532) (2562) (2580)
- A case-by-case approach could be similar to the existing regulations for alternative disposal found in 10 CFR 20.2002. (2585)

#### **4.1.3 Concerns About Impacts on Industry**

*Commenters provided insights into potential impacts on industry.*

- Recycling should be excluded, as a conditional use, at least for material that goes to scrap/steel businesses or into consumer products. (215) (2564) (2586) (T1-24)
- The mere threat of contaminated steel in the recycling stream would drive consumers to demand goods produced from mined virgin ores, which would run contrary to the goals of a recycling program. (2564) (2588)
- There is no interest in receiving or processing such material, and the public certainly has no interest for this material to enter the stream of commerce. The recycling of scrap metal should be taken off the table in terms of this conditional use option. (T2-24)
- Resistance has already been encountered from the recycled metals industry, based on fears of loss of sales resulting from concerns about radioactivity of their product. (24)

#### **4.1.4 Restricting Reuse to the Nuclear Industry**

*Commenters suggested restricting the use of solid materials to uses within the nuclear industry, although some stated that this could also be problematic.*

- It would be unacceptable to use radioactive waste materials for any non-nuclear uses beyond the perimeter of the restricted areas of a nuclear facility. (102) (2588) (T1-20)

- The only release program that would be acceptable would be to put the materials back into the radioactive industry with strict control over use either for nuclear weapons or the power plant industry. (416) (2539) (T1-18) (T1-1)
- Conditional use should be restricted to long term controlled or licensed programs but in any case should result in deed restrictions for a period of time deemed adequate for decay. (2498)
- Recycling into an already-licensed facility may be an appropriate conditional use that could be authorized. However, since this can already occur as a transfer from one licensee to another it may not need to be addressed by this rule. (215)
- It would be necessary to closely track (manifest), monitor, and restrict the materials such that they would remain within the nuclear industry for the entire hazardous lifetime of the particular radioisotopes. (102)
- Regulating the materials in this manner would likely be expensive, so it is highly questionable if such a practice would be feasible or preferable compared to waste disposal in licensed disposal sites. (102) (2588)
- A first reuse within the nuclear industry may be under control, but the facility will ultimately be closed, decommissioned, and released for future brownfield reuses. The licensee could then apply to NRC for case-by-case release when the useful life of the reused object is at an end. No consideration is given to the secondary and tertiary reuses that may allow the contaminated object entry into the biosystem. (2451)
- A dedicated mill would not be financially viable. (T1-24)

#### **4.1.5 Flexibility Is Needed**

*Commenters recognized the need for flexibility to authorize conditional use on a case-by-case basis.*

- The final rule should be written to "not exclude" conditional use. The rule should not define conditional uses in detail (specific types), but should require a thorough review and approval process, including an EIS if the state deems necessary. However, States should not be "required" (by the level of compatibility) to approve conditional use. (215) (T2-18) (T2-23)

#### **4.2 Support Dose-based Regulation on Conditional Use**

*Some commenters expressed support for a dose-based regulation on conditional use.*

- Rules developed from this alternative can be effective, responsive to the need for public confidence in the process, and practicably implementable. (2562)

- A dose-based standard should be established that permits reuse and disposal on an unrestricted basis, but the standard should not allow the unrestricted direct recycle of materials. (2590)
- The conditional clearance levels have their value. They can eliminate certain exposure pathways by specifying an end-use, and this could result in relaxed clearance level values compared with unrestricted release. (T1-15)
- Regulators need to properly consider the long term aspect studies, and what happens after the prescribed use is over. (T1-15)
- ANSI N13.12 provides specific activity guidance for conditional use, with materials at higher concentrations directed to the controlled reuse, assuming such reuse is practical. (2498)

#### **4.2.1 Uses for Material**

*Other commenters suggested uses for conditionally released solid material.*

- Reinforcing bars, wire rods, small shapes and angles, grinding balls, flashings and forgings stamped from sheet or billet steels, concrete reinforcement and mine bolts, aircraft parts, oil drilling rigs, oil tubular casings. The lifetime of these uses would be about 40 years. (2583)
- The material could be recycled into containers for high level wastes or other potential uses that would stay within the NRC facility. (T1-24)
- Contaminated scrap steel for making casks to store spent nuclear fuel; contaminated lead for reactor shielding blocks; and contaminated stainless steel for making nuclear waste/mixed waste storage drums. (416)
- Labeling is needed for restricted end uses to protect workers who may be exposed to radiation through machining, welding, grinding, or surface monitoring, etc. (416)
- The material should be labeled and manifested in a way that the downstream consumer knows the source of the material. (T2-24)
- The proposed reuses of concrete for roadbed or other public-use construction would not prevent the release of contaminated rubble in ways that may affect human health. For example, the continual wear and tear from highway traffic and of severe weather may result in release of particulates which then become airborne, becoming an inhalation dose. (2451)
- The application of contaminated soils and sewage sludge to agricultural lands requires much more research to learn about the extent of uptake into food stuffs and also as inhalation doses. (2451)

#### **4.2.2 Dose Limits**

*A commenter suggested that NRC develop dose limits for each type of reuse.*

- Doses, and derived limits, must be derived for each conditional reuse application. ANSI N13.12 provides reasonably conservative guidance for unconditional reuse (limits equate to 1 mrem/year, maximum), and can be used as a threshold above which materials are either conditionally released or disposed as LLRW. (2498)

#### **4.2.3 Dedicated Scrap Processing**

*Commenters questioned the feasibility of a dedicated scrap processing facility for solid materials.*

- NRC would have to provide oversight for the mills willing to recycle the materials and must assure that the materials are only used for those restricted uses. (2583)
- The facility must be retrofitted for collection of dust and waste products, and monitored very closely. Normal steel mills do not have that ability. (2583)
- Initial processors of scrap metals should remain licensees of NRC or Agreement States in order to ensure proper disposition of the volatile and "skimmed" radioactive materials separated from scrap. Starting the process under an operational radiation protection program will permit higher levels of radioactivity to be safely processed. Subsequent release of ingots or fabricated products could then be managed under existing standards, such as ANSI N13.12. (2498)



## 5. EPA-REGULATED LANDFILL DISPOSAL

### 5.1 Opposition to Disposal in EPA-Regulated Landfills

*Many commenters expressed a general opposition to disposal at EPA-regulated landfills.*

- Due to the uniquely dangerous qualities of radioactive waste, much tighter controls must be kept. (102) (2588) (T1-20)
- NRC should not allow these radioactive wastes to be dumped in landfills or other facilities that are not designed to contain them. (1902) (2451) (2502) (2526) (2536) (2539) (2560) (2568) (2568) (T1-4)
- Since RCRA does not address radioactive material (or waste) that is under NRC jurisdiction, it seems evident that RCRA sites should not receive such materials and wastes. (2451)
- A RCRA Subtitle D landfill would likely be even less retentive of radioactive materials and wastes placed there and should not be considered a viable option by the NRC for the disposal of radioactive materials. (2451) (2568)
- Although hazardous waste landfills have more rigorous liner requirements than Subtitle D landfills, such as double liner/leachate collection systems, those incremental enhancements suffer from the same infirmity as the single composite liners in Subtitle D landfills. Eventually, they will deteriorate and fail, too. It will just take longer. (2560)
- Stop burying long-lasting radioactive wastes in the ground and pretending they are "disposed." Licensed control is essential but with the goal of preventing, not permitting public exposures at any level. (2568)
- It is true that keeping the waste in a facility intended for waste is an improvement over dispensing of waste through consumer goods, buildings and roads, but the requirements for "disposal" are not commensurate with the characteristics of the waste. (2568)
- The only solid material that should leave an NRC-licensed facility for landfill disposal is that for which there is proof that the material has no contamination from the licensed activity at the site at which it was generated. Since no residual radioactivity is acceptable, it is unnecessary to provide different regulatory schemes for RCRA D landfill disposal. (2568)

### **5.1.1 Concerns over Long-term Control**

*Several commenters felt that landfill disposal is not appropriate because the period of control and regulation is too short.*

- RCRA sites have a shorter period of institutional control than NRC- and AS-regulated disposal facilities. It appears that they are not suitable. They ought not to be used. (2451)
- EPA regulates Subtitle C landfills for only 30 years. Even if regulations continue for a longer time, these radioactive materials and wastes may have a hazardous life that is far longer. (2451) (2541) (2568)
- The same problems remain with landfill disposal as have plagued the NRC and industry - and the public - for many years. Among these are the fact that the period of institutional control is uncertain and insufficient and it is unknown what entity will bear responsibility for long-term oversight and for remediation in the event of failure. (2451) (2539)

### **5.1.2 Impacts on Landfill Owners and Operators**

*Several commenters noted that landfills would close if forced to accept radioactive material.*

- Broad Top Township of Defiance, Pennsylvania allowed a municipal waste landfill to be sited in the township with the express understanding that no materials which had been regulated by the NRC as of January 1, 1990 would ever be disposed in it. If the NRC allows disposal of radioactively contaminated materials in municipal landfills the town supervisors would be forced to close the landfill, which would probably raise the cost of municipal waste disposal for residents of several local counties. (2539) (95) (T2-32)
- A one percent loss of business because people decided to switch material, or deselect could cause a landfill operator to lose as much as \$500 million per year in business. (T1-9)

### **5.1.3 Public Health and Safety**

*Some commenters believed that landfill disposal would add more contamination to the environment, thereby compromising public health and safety.*

- The proposed and ongoing releases of nuclear waste from licensed control will add more contaminants to the immediate and general environment, making it more difficult to monitor and protect health. (1902) (2502)
- A RCRA Subtitle C (hazardous waste) landfill would not protect the public from contact with these materials for their full hazardous life. (2451) (2560) (2568)
- By recycling radioactive wastes into consumer products, they will end up in massive amounts in landfills, leading to increased cancer risk. (2614)

- We have got an especially blatant and obvious problem with synergistic health effects if we are putting radioactive material into hazardous waste landfills deliberately. (T1-4)
- Because of the chemical mix and what happens in landfills, it's going to be very hard to predict doses coming from a landfill. (T2-32)
- Radioactive wastes have been dumped in the Pottstown Landfill since at least 1983, contaminating the entire mass of waste and escaping into the community air and water. Around the Pottstown Landfill there is an almost double leukemia rate compared to the entire state of PA. Since leukemia has been linked with low-level radiation, we believe this is a major factor. (2614)

#### **5.1.4 Public Awareness and Concern**

*A number of commenters believed that public confidence would be eroded by allowing landfill disposal.*

- Even with knowledge of the radioactivity level, in the absence of a generally accepted no-risk or negligible risk standard, community concern or opposition may seriously impede a landfill's ability to continue even routine waste stream operations. This may also result in the demand by communities and regulators for additional and expensive monitoring of the landfill operation. (2527)
- Public confidence is reduced by efforts to sneak the radioactive materials out of regulatory control. Sending them to landfills that already have public confidence problems hurts the landfill owners and operators, the communities in which they are located, the states in which they are located, and NRC's credibility. (2568)
- The reason the BRC policy was revoked in 1992 was largely due to public opposition to nuclear wastes being sent to RCRA C and D facilities. (2568)
- Public assurance will decrease for both the RCRA C site and the radioactive waste generators and regulators. (2568)
- In general, municipal waste landfills have been used for the management of Naturally Occurring Radioactive Materials (NORM). Solid materials that have been released from NRC licensed facilities after the required surveys required by 10 CFR Part 20 also may have been disposed into these landfills. Acceptance of the latter materials, sometimes unknowingly, by a landfill operator may cause state regulatory or local community concern (2527)
- The NRC needs a strategy to gain public acceptance for the consumers, the generators, and the operators of these landfills, so that you can put wastes where you authorize them to go. (T2-30)

### 5.1.5 Landfill Effectiveness

*Commenters noted that landfills are not fully effective in isolating materials from the public.*

- Not only are such facilities likely to leak radioactive material, they also have much shorter institutional control periods, thus allowing radiation to leak soon after the required oversight of the facility is eliminated. (102) (2560) (2588) (T1-20) (T1-7) (T1-4)
- The same problems remain with landfill disposal as have plagued the NRC and industry - and the public- for many years. Among these problems is the fact that landfills leak. (2451) (2539)
- RCRA Subtitle C impoundments lack a number of features required of uranium mill tailings (11(e).2) byproduct material impoundments, including effectiveness for 1,000 years or a minimum of at least 200 years. (2488) (2565)
- The landfills potentially could leak radioactive leachate which would contaminate surface water resources. (2502) (2526) (2560) (2568)
- EPA regulated landfills are not designed to contain radioactive gases generated from radioactive solid wastes. The radioactive gases could contaminate nearby populations. (2502) (2560) (2568)
- One cannot put radioactive waste/materials in an area of high rainfall or wet conditions. (2526)
- EPA-regulated RCRA Subtitle C and D landfills and NRC/Agreement State-licensed landfill burial have proven to be a failure. (2568)
- Things continue to happen at landfills so that materials are disturbed, so when you put something in a landfill, it may well come out again, have workers involved with it, and even be recycled in the future. (T2-32)

### 5.1.6 Landfill Capacity and Siting Issues

*Several commenters offered differing views of the capacity of landfills to accept radioactive wastes.*

- Existing low level radioactive waste disposal sites can handle the relatively small amount of such waste produced in this country. (95) (T2-32)
- The de facto alternative is that everything must go to disposal, and that's not a practical alternative, because there just isn't capacity for a lot of disposal. (T2-3)
- Adding the potential for radioactive materials before the public has been convinced that low levels of radioactive materials are safe, will make it even harder to site landfills. (T2-32)

- Flooding regulated landfills and licensed disposal sites with clean materials would not only add unnecessary financial burdens to business and the economy, but would also consume a precious natural resource - land - which could be (and is) utilized for more beneficial purposes. (1773)

### **5.1.7 Inconsistency in Regulations**

*A number of commenters identified potential inconsistencies among regulations as a concern.*

- Alternative 4 conflicts with the requirements of 10 CFR Part 40 Appendix A and conceivably allows the placement of 11(e)(2) byproduct material in RCRA landfills creating regulatory conundrums. For example, if Alternative 4 is selected, does that mean that byproduct material may be placed in RCRA landfills, or as an alternative that 11(e).2 byproduct material impoundments (tailings impoundments) need only be constructed and reclaimed to meet RCRA standards? (2488) (2565)
- One important factor to consider in developing the rule is that many States have a specific exclusion regarding the disposal of all radioactive waste other than some naturally occurring material or household products. The impact of the NRC allowing volumetric contamination in small amounts could cause problems at the facility and with State regulators if the material were taken to a Subtitle D disposal facility. (2577)

### **5.1.8 Landfill Operations and Regulation**

*Commenters presented the problems associated with landfill disposal.*

- This option would mix radioactively contaminated materials and wastes with hazardous ones, creating mixed wastes, which neither NRC nor EPA wants to retain authority over. (2451) (2568) (T1-4)
- Radioactive waste materials placed in a disposal site should not be disposed such that they could become commingled with hazardous chemicals. Licensees do not want to become responsible for other wastes in the event of a disposal site failure. (2500) (T1-2)
- If a mixed waste is being disposed of in a Subtitle C facility, it would have to meet the restrictions that RCRA has for hazardous waste treatment. (T2-34)
- It is not appropriate for NRC to license and regulate a RCRA landfill. To the best of our knowledge, that is not even within NRC's statutory authority. Also to our knowledge, NRC's general licenses are extremely lax and would be entirely unsuitable for the exercise of control over either an EPA-, NRC-, or AS- regulated facility. (2451)
- The standards set by the EPA for the design, operation and closure of municipal solid waste landfills under RCRA are demonstrably inadequate to protect public health or the environment from any hazardous material, such as low level radioactive waste. (2560)

- Even if the leachate collection systems do not clog up or break down in the near term, the landfill owner is not required to keep the system operating after the end of the post-closure period, 30 years following closure. (2560)
- Whether RCRA landfill operators accept nuclear waste probably depends on how lax the proposed 10 CFR 61 "lite" regulations being contemplated would be. How willing RCRA operators will be will depend on how much the nuclear waste generators are willing to pay and who has liability. (2568)
- In Massachusetts there are state laws prohibiting any land burial of radioactive materials. (T2-17)
- When an NRC licensee releases solid materials into commerce based on a survey, however, the landfill operator may or may not know the origin of the waste or its radioactivity levels, and thus may accept wastes that he would otherwise be inclined to refuse. The detection limits for any individual landfill's radioactivity detectors may be insufficient to screen all released solid materials. (2527)
- NRC must properly balance security issues with the landfill operator's right-to-know his customers and their waste streams. It is imperative that a landfill operator knows the sources of any of his accepted waste if he is to be fairly held responsible for the protection of the environment. (2527)
- RCRA requires a minimum 30 year post closure care period for a Subtitle C facility, and so there's no real experience of having a site released from control. (T2-34)
- It is not likely that control would end after 30 years because this is just a guideline. Regulators are likely going to impose extended or some form of perpetual post closure care periods. (T2-34) (T2-33)
- It's not likely that a Subtitle C landfill will ever be in a revitalization program for the foreseeable future. (T2-33)
- There is a well documented history of land revitalization of Subtitle D landfills. (T2-33)
- The "Subtitle D," or so-called "dry tomb," rules promulgated in 1991 were intended to keep the landfill dry in order to stabilize the waste load, thereby preventing uncontrolled discharges of toxics-laden leachate into surface or groundwater. (2560)
- There is a special waste request process used with the Department of Energy whereby slightly radioactive materials can be placed in Subtitle D facilities. These are materials that probably without the recycling, are released more fully and could be put out in commerce. (T2-19)

### **5.1.9 Costs of Management and Disposal of Materials and Wastes**

*A number of commenters addressed impacts on the cost of disposal.*

- Because the primary economic gain from recycling scrap metal and other radioactively contaminated materials derives from avoiding [LLW facility] disposal costs, from an economic perspective there is little difference between limiting standards to restricted releases, including disposal [in an EPA-regulated landfill], versus permitting unrestricted recycling of such materials. (2536)
- It will be less costly to sequester radioactive materials and waste as best we can now than to try to retrieve and bring it back under control in the future. (2451)
- "Landfill disposal" would require the establishment and licensing of EPA landfills for this material, which could exceed even the cost of low-level burial with no added protection. (89)
- One landfill is implementing a radioactive materials monitoring program for incoming waste to help keep out radioactively contaminated materials. If the NRC allows more of such materials to effectively become unregulated the landfill's task and expense will increase. (95) (T2-32)
- If radioactive materials are known to be going into landfills, there's going to be a significant added cost for monitoring various effluents. Monitoring is one of the landfill's largest costs because you have to monitor for so many different things. (T2-32)
- The cost of management and "disposal" of radioactive materials and wastes is a necessary and legitimate cost of doing business. It should be borne in whole by generators only. Wastes have no intrinsic value; they are a burden upon some party, and that party would properly be the one that gains the benefits of their production: the generators. (2451)
- There is no reason to dilute radioactive waste by mixing it with municipal waste and thereby force the rest of society to help pay the costs of radioactive waste disposal indirectly. (95) (T2-32)

### **5.1.10 Responsibility for Managing Potentially Radioactive Materials and Wastes**

*Some commenters believed that allowing landfill disposal is a method for NRC to give up responsibility for radioactive waste material.*

- The NRC should not anticipate or depend on EPA's acceptance of materials that have been released from an NRC-licensed facility. If the NRC has issued a license for production of contaminated materials, or has failed its inspection duties such that materials have unnecessarily become contaminated, this agency is still responsible for them, and foremost for protecting public health and safety and the environment. It cannot shirk that responsibility. (2451)

- This alternative would allow the NRC to avoid responsibility by treating radioactive wastes as non-radioactive wastes. (2502) (2568)
- The NRC will have no regulatory authority about what happens with a landfill. (T2-32)
- Materials released for EPA-regulated disposal may not be under the control of the NRC or of the state equivalent departments, but certainly the solid waste departments and the landfills themselves are still controlling the emissions or other media mixes that may emanate from the landfill. (T2-33)
- The operation and siting, and construction and regulation of Subtitle D facilities is really left up to the states and the local regulators, so EPA really does not go out to those facilities and have any kind of continuing oversight of them. (T2-34)
- The authorization, as you know, is the state and local government. They have the jurisdiction, the authority, the responsibility, and the permits -- permits to ban or to accept these materials. (T2-30)
- Thresholds of radioactivity defining when regulation as a radioactive waste is warranted must be enforced at the point of generation of the solid materials, as the generator must remain ultimately responsible for the proper disposition of his solid materials. (2527)
- In terms of regulatory control, the regulation should remain focused on the licensees releasing the materials, not on the landfill operators. There should be a single regulatory agency that oversees this process. (2498)
- In Texas, the State agency would have to incorporate within their rules a provision for disposal of radioactive material in landfills. (T2-31)
- In Pennsylvania, there was proposed a requirement for radiation monitoring and cooperation between the two parts of the DEP there. (T2-32)

*A commenter posed a question to the NRC.*

- Once material is no longer regulated by the NRC, how do you know it's going to go to a particular place? Why does NRC think it can direct waste just to landfills once they deregulate it? (T2-4)

#### **5.1.11 Incineration of Radioactive Materials and Wastes**

*Several commenters discussed issues relating to the incineration of materials and wastes.*

- Generally oppose incineration. (T2-4)
- The type of material that's generally going to incineration is largely concerned with the destruction or reduction of the organic material. Since most of the material we're talking about coming out of decommissioned facilities is not organic material, it's unlikely that anybody would pay the cost of going to incineration. (T2-33)

- Incineration is not a likely avenue if it isn't fully specified. But it can still be specified in any regulatory apparatus that NRC puts together. (T2-33)
- Once material is deregulated, why couldn't it legally be contracted if the material were appropriate for incineration to be sent to an incinerator? (T2-4)
- Solid materials that may come from facilities include glass, plastic, paper, or routine trash. If there is an option that it goes to a municipal incinerator, you have to understand that almost 100 percent of the metal that comes out of municipal scrap is recycled into steel. (T2-22)

## 5.2 EPA Regulated Landfill Disposal

*A number of commenters expressed their support for EPA-regulated landfill disposal of released materials.*

- Generally support the EPA regulated landfill disposal alternative for the disposal of solid materials with small amounts of radioactivity. (1892) (2584) (2585)
- This initiative would be consistent with previous decisions to exempt unimportant quantities of source material generated at licensed facilities from the requirement for disposal at low-level radioactive disposal facilities only. RCRA Subtitle C facilities with appropriate performance assessment, radiation safety programs, environmental monitoring and related practices offer adequate protection for such wastes. (24)
- Early consultation and coordination may be effective in developing a suitable regulatory framework for proceeding with conditional use alternatives involving land disposal at sites regulated by EPA. (203) (2566)
- If an NRC and EPA rulemaking were established defining an appropriate threshold of radioactivity for materials to be released into landfills, and disclosure of the origin of wastes were allowed, Waste Management would consider receipt of released solid material on a case-by-case and site-by-site basis, taking foremost into account State requirements and community interests. (2527)
- Rules developed from this alternative can be effective, responsive to the need for public confidence in the process, and practicably implementable. (2562)
- Disposal in appropriate RCRA landfills and NRC or Agreement State licensed LLW disposal sites are both desirable solutions. (2564)
- There is support for disposal at RCRA Subtitle C sites since these sites are built for hazardous waste and are appropriately monitored. Monitoring may need to be slightly altered to ensure that radioactivity is contained. (2580)
- Regulations or policy measures should require disposal of radioactively contaminated scrap metal at appropriate disposal facilities, including landfills, in lieu of releasing this metal into the stream of commerce. (2586) (T2-35)

- RCRA creates a cradle-to-grave management system for hazardous waste to ensure proper treatment, storage, and disposal in a manner protective of human health and the environment. This management system would be appropriate for radioactively contaminated scrap metal, even if it is not a RCRA hazardous waste. (2586)
- Support the development of criteria for the disposal of solid materials that are not releasable for unrestricted use in regulated landfills other than those regulated by NRC. (2644)
- Experience over the last 20 years or more with case-by-case alternate disposal applications should give the agency confidence to move to a generic dose-based release standard for the disposal of these types of materials in EPA regulated landfills. (T1-11)
- It is not necessary that material that would otherwise pass a reasonable health based dose level should go to a LLRW facility. It should be able to go to an EPA regulated landfill. (T1-24)
- The only viable solution is restricted disposal, and probably the most acceptable of the restricted disposal options is in a RCRA Subtitle C landfill. (T1-6)
- It is true that keeping the waste in a facility intended for waste is an improvement over deliberate dispensing of nuclear waste to the public through consumer goods, buildings and roads. But the requirements for "disposal" must be commensurate with the characteristics of the waste and they are not for radioactive waste in EPA or NRC landfills. (2568)

*Commenters offered a variety of suggestions for how the rulemaking should be conducted and what its analyses should address.*

- Any responsible analysis must consider that most of the radioactive isotopes that are volatile or semi-volatile must be expected to be released uncontrolled into the atmosphere. (2560)
- From a technical viewpoint, disposal of solid materials that have been released for unrestricted use should be acceptable at municipal solid waste landfills meeting 40 CFR 258 criteria. However, close coordination will be needed because some States and localities have prohibitions against such disposal. (2577)
- Care should be taken in proposing blanket approval for disposal in industrial solid waste facilities since not all industrial solid waste facilities meet 40 CFR 258 standards. EPA has issued guidelines for industrial non-hazardous waste management, but they will not be mandatory. (2577)

- For a rule allowing releases to landfills to be accepted, the NRC must demonstrate that no adverse impacts will result. This analysis must take into account the normal operation and closure of solid waste management facilities. In short, both the regulators and the operators of these facilities must be shown that acceptance of these released solid wastes will not change the operation and closure requirements of the facility. (2577)
- The release criterion level should be set low enough that the acceptance of the radioactive material will not require any special monitoring or treatment of leachate, groundwater, or landfill gases. The acceptance of this waste must not change the RCRA D landfill into something other than a RCRA D landfill. (2577) (T2-25)
- There are differences between Subtitle D landfills that will be worth looking into during the rulemaking, such as the lined and unlined sites, the ones that have citations and the ones that do not, and some other differences. (T2-30)
- The rule would need to consider landfill closure requirements. Any analysis of the disposal of radioactive materials should not assume that the landfill would be maintained longer than the required 30 year period. (2577)
- The potential for leachate to become a radioactive waste has to be examined in the EIS so that it's understood that at this level, it is not expected to affect the operation of the landfill. (T2-25)
- NRC could make a strong case through research and field trials, and testing and monitoring, that landfills are appropriate in some cases for these materials. (T2-30)
- This rulemaking can be a real benefit to the states if a level can be established at which point the radioactive material label could be taken off waste. (T2-30)
- One millirem as a limit for sending waste to a landfill is more conservative than the 15 millirem per year regulation of the EPA. (T2-8)
- As an additional alternative the scoping should look at what the NRC has authorized today, and should propose to add the additional radionuclides by dose and risk for RCRA Subtitle C. (T2-29)

### **5.2.1 Public Health and Safety**

*Commenters believed that landfill disposal would help to ensure public health and safety.*

- Allowing the disposal of very low levels of radioactive waste in RCRA Subtitle D landfills, and very low levels of radioactive waste containing hazardous materials in RCRA Subtitle C landfills would assure the protection of public health and safety while decreasing the regulatory burden for NRC and Agreement State licensees. (1892)

- Use of a RCRA C landfill to contain materials to be disposed should provide adequate isolation of the material from the public (with authorization by generic rule), and use of a RCRA D landfill might also provide adequate isolation after case-by-case evaluation of a specific application. (2562) (2566)
- Isolating radioactively contaminated scrap metal is the only sensible option. (2564) (2586) (T2-35)
- The radiation exposure from slightly contaminated materials to a member of the public would be very small, most likely limited to a very few workers at the disposal facility and well within the limits for public radiation exposure. Any radiation exposure to workers at such a disposal facility would be dwarfed by the exposure to natural background sources. (2585)
- Existing processes permit naturally occurring radioactive material (NORM) to be shipped to certain Subtitle C facilities. This NORM material likely contributes larger, yet acceptably safe, levels of radiation exposure to disposal site workers than would the additional material that would be disposed of in the facility. (2585)
- Radioactively contaminated scrap metal meeting protective dose-based standards and disposed of in RCRA Subtitle D landfills could be isolated from the public and not pose a threat to human health or the environment. Additional safeguards still may be required, however. (2586) (T2-35)
- Commend the NRC for this statement of the intent of the landfill disposal alternative - to isolate wastes from the public without diversion either in transit or post-disposal. (2451)

### **5.2.2 Public Awareness and Concern**

*A commenter believed that landfill disposal will increase public confidence that wastes are being handled properly.*

- The use of a regulated landfill will also contribute to public confidence, by way of informing the public that the risks from extremely low levels of radioactive materials can be adequately controlled and the materials can be safely disposed of in this manner. The current approach serves to elevate public concerns over radiation risks and contributes to public misperception or misunderstanding of the actual associated risks. (1892)

### **5.2.3 Landfill Effectiveness**

*Commenters indicated that landfills can be effective in isolating materials from the public.*

- Placing material in Subtitle C sites would effectively isolate the material from the public because short half-life materials could be buried after a specified time. (2583)
- In many ways, including the requirement of engineer barriers and verification of waste, RCRA Subtitle C is more stringent than Part 61. (T1-6)

- The many protections in Subtitle C landfills gets around a lot of the problems associated with LLRW disposal facilities. (T2-35)
- The only major difference between landfilling radioactive waste in Subtitle C vs. Subtitle D landfills is that, in Subtitle C facilities, there may be radioactive isotopes with sufficiently short half-lives to no longer be of concern by the time the more redundant barriers ultimately fail further in the future. (2560)
- Requirements applicable to Subtitle C landfills that provide control include: leachate control, storm water control, prohibition on liquids, collapse prevention, security, inspections, training, location standards, construction quality assurance, closure standards, post-closure standards, financial assurance, and deed restrictions. (2586)
- Requirements applicable to Subtitle D landfills that provide control include: leachate control, run-on/run-off control, groundwater monitoring, security, inspections, training, cover material, location standards, recordkeeping, closure standards, post-closure standards, and financial assurance. (2586)

#### **5.2.4 Impacts on Industry**

*One commenter provided their perspective on the impacts of this alternative on industry.*

- Implementation of this alternative would be of enormous significance to the research-based pharmaceutical industry, as the ability to utilize regulated landfills would allow for much needed flexibility, and significantly lower costs, in the management and disposal of very LLRW at drug research facilities. (1892) (T1-6)
- Implementation of this alternative would be of enormous significance to the research-based pharmaceutical industry, as the ability to utilize regulated landfills would allow for much needed flexibility, and significantly lower costs, in the management and disposal of very LLRW at drug research facilities. (1892)

#### **5.2.5 Comments on Implementation of the EPA-regulated Landfill Alternative**

*Several commenters suggested specifically how this alternative might be implemented.*

- The method of implementation of this alternative should be simple and straightforward. For example, the NRC should develop specific radionuclide concentrations and total radionuclide activity limits per drum or container that can safely be disposed of in a Subtitle D and Subtitle C landfill. These radionuclide limits should be based upon realistic pathway analysis such that potential maximum doses to which members of the public and landfill operators are exposed are below acceptable limits. (1892)
- NRC and Federal/state governments need to determine an appropriate threshold of radioactivity for released materials under which the public can be assured of negligible risk, and for which regulation as a radioactive waste is not warranted. The NRC and other agencies must be prepared to defend that standard whenever and wherever it is challenged. It cannot be left to the operator, who is unschooled in the physics or risk sciences associated with radioactivity, to respond to public concerns. (2527)

- The different design and operating standards for hazardous vs. municipal waste landfills are of a degree that they do not warrant setting different dose levels for different disposal regimes. NRC need not be involved in permitting, licensing, or otherwise overseeing disposal facilities that accept released solid materials that meet this dose level, as state environmental regulators can handle this responsibility. (2527)
- The term "sanitary waste landfill" should be excluded from consideration because it would have the connotation of being a landfill for sanitary waste, which term is often used synonymously with domestic sewage. (2577)
- The disposal of slightly contaminated materials at RCRA Subtitle C facilities could be evaluated in a generic impact analysis and therefore lends itself to a generic rulemaking. Subtitle C landfill disposal could easily be implemented using a multiple of the criteria adopted for unconditional release. (2585)
- Because there are different levels of acceptable risk and corresponding control, NRC should put a rule out that provides different limits for that which can be put into general commerce, that which can be landfilled into Subtitle C, and that which is appropriate for a low level waste disposal site. (T2-29)
- The risk criteria for Subtitle C should be set at 1 millirem, which is extremely conservative. (T2-29)
- Some states have permitted their Subtitle C facilities to accept certain types of radioactive material. A facility in California, a facility in Idaho and some others have specific permit conditions that deal with taking certain types of radioactive material. (T2-34)
- Over the last five years, NRC has authorized RCRA Subtitle C to dispose of low activity, exempt radioactive materials. (T2-29)
- The alternative can be improved upon, but as it stands now, it is the best current alternative. (T1-20)

## **6. NRC/AGREEMENT STATES LICENSED LLW FACILITY DISPOSAL**

### **6.1 Support for LLW Facility Disposal**

*Some commenters felt disposal in an NRC/AS LLW disposal site is an appropriate method of disposal and expressed support for this alternative.*

- This alternative remains the most appropriate method for disposing of radioactive waste materials. (102) (2539) (2588) (145)
- NRC should continue with the present policy of disposing of all radioactive material solely in those radioactive disposal sites that are licensed by the NRC or an Agreement State. (1611) (2557) (2564)
- Despite the dismal technical and regulatory history of low-level radioactive waste disposal sites, this option is currently the only appropriate alternative presented by the NRC in this scoping process. (2536)
- Support any regulations or policy measures that would require disposal of radioactively contaminated scrap metal at appropriate disposal facilities, including landfills, in lieu of releasing metal into the stream of commerce. (2586) (2564)
- The disposal of solid materials in NRC/Agreement State LLW disposal sites is the best of the alternatives that are listed in the scoping. (T1-20) (416)

#### **6.1.1 Suggestions for Improvement of LLW Facility Disposal**

*A commenter proposed that approval of disposal in an NRC/AS licensed facility be given on a case-by-case basis.*

- It may be appropriate to dispose of contaminated waste at RCRA subtitle D sites (often called dumps), but this should be with the approval of the NRC on a case-by-case or situation-by-situation basis. (2580)

#### **6.1.2 Need to Isolate Radioactive Wastes**

*Commenters felt that it is necessary to isolate radioactive materials.*

- This is the only alternative that would prevent (and stop the current) dispersal of radioactive waste into commerce and unregulated facilities. (102) (2588)
- The overarching goal should be to isolate materials that are contaminated with radioactivity to prevent human exposure. (1611) (2557)
- Radioactive waste should be stored, managed and isolated from the environment for as long as it is hazardous at facilities specifically licensed for that purpose for radioactive waste. (2568)

### **6.1.3 Performance of LLW Facility Disposal**

*Commenters felt there is improvement needed in the operation of NRC/AS LLW disposal sites.*

- Such sites are widely known to leak and thus cannot fully and completely isolate the waste from the environment and the public. Much improvement is not only possible in this area, but quite necessary. (102) (1902) (2502) (2568) (2588)
- It will require tightening the 10 CFR Part 61 regulations to forbid shallow land burial, to assure above grade facilities, adequate monitoring and leachate collection systems, retrievability, institutional control over the entire period of hazardous life, and a finite limitation on the total quantity and radioactivity that a site is required to accept. (2541) (2502) (2568)
- The current goal of these facilities is not to isolate waste from the environment but to allow leakage at an acceptable leak rate (25 millirems per year by NRC regulations and more stringent by some states). Part of this rulemaking should explore ways to better isolate nuclear wastes at licensed facilities. (2568)
- The same problems remain with landfill disposal as have plagued the NRC and industry - and the public- for many years. Prime among these are (a) landfills leak; (b) the record of LLRW landfills is that they have leaked and do leak; (c) the waste stream appears to be endless; (d) the period of institutional control is uncertain and insufficient; and (e) it is unknown what entity will bear responsibility for long-term oversight and for remediation in the event of failure to control. Long-term funding is problematic. (2541) (2568)

### **6.1.4 Cost of Disposal**

*Several commenters offered opinions of who should bear the cost of disposal.*

- The costs of disposing of radioactive waste materials at NRC/AS LLW disposal facilities should be completely internalized to the nuclear industry itself. Externalizing these costs to the public (health impacts and associated costs) and to the recycling industries is entirely unacceptable. (102) (2588)
- Funds for safe disposal of low level decommissioning wastes have been collected from the ratepayers of nuclear electricity. If funding is not adequate, fees should be increased. (2502)

### **6.1.5 Suggested Changes**

*Two commenters believed that NRC must consider regulating recycling byproduct materials.*

- Where radionuclides partition into recycling byproduct materials, such as metal slag produced during smelting, NRC must evaluate requiring proper disposal of such materials at regulated facilities under ALARA. (2536)

## 6.2 LLW Facility Capacity Issues

*Commenters felt that disposal in RCRA Subtitle C sites was preferred as it would save room in LLW disposal facilities for more highly contaminated materials.*

- Use of Subtitle C sites for slightly radioactive material would save valuable room at NRC licensed disposal sites for higher levels of radioactive contaminated materials. (2580)
- We should avail ourselves of safe disposal options that leave the bulk of LLRW disposal facilities available for materials contaminated at higher levels. (2585)
- Few licensed LLRW waste facilities exist throughout the country; only two are currently accepting waste from out-of-compact facilities. The Barnwell, SC LLRW landfill is reducing its accepted volumes of out-of compact waste so that in the very near future only one 10 CFR Part 61 NRC licensed facility will be available for radioactive waste disposal from out-of-compact generators. (1892) (2585)
- In Chapter 3 of its report the National Academy of Sciences notes that between 2006 and 2030 as much as 15,612,500 metric tons of non-metallic slightly radioactive solid material is projected to be generated. Unless the material is excluded from the requirement to be disposed as radioactive waste, disposal options are very limited. Authorizing disposal of SRSM in RCRA facilities is in accord with one of the key findings of the NAS that "...the NRC should move ahead without delay and start the process of evaluating alternatives to the current system and its shortcomings". (24)
- Flooding regulated landfills and licensed disposal sites with clean materials would not only add unnecessary financial burdens to business and the economy, but would also consume a precious natural resource - land - which could be (and is) utilized for more beneficial purposes. (1773)
- Restricting release of any and all solid materials or equipment that have been involved with any radioactive materials of any kind would just exacerbate the shortage of disposal capacity problem even further. (2487)
- The de facto alternative there is that everything must go to disposal, and that's not a practical alternative either, because there just isn't capacity for a lot of disposals. (T2-3)
- So long as a Host Community must accept a low-level waste disposal facility that allows a stream of radioactive wastes and materials without end, it is reasonable to conclude that LLRW siting approval will remain extremely difficult if not impossible. (2451) (2451)
- Despite the expenditure of over \$450 million by various compacts and individual states trying to identify sites for a low-level waste facility, and 23 years later, not a single license has been issued or low-level waste disposal facility constructed. Disposal in a 10 C.F.R. licensed facility is not a viable long term option. (2535)

- Siting those dumps was rejected almost everywhere. The objections are still valid. And perhaps the most important of these objections was that there was no finite limit to the amount of dangerous wastes that a site would be forced to accept. (2611)
- Creation of additional quantities of wastes and the problems related to the disposal of that waste will impede the decommissioning of many licensed sites throughout the United States by dramatically increasing costs and by preventing decommissioning through sheer lack of disposal capacity. (2487)
- Low level radioactive waste is the responsibility of the waste generator. This alternative is unacceptable as it eliminates the waste generator's responsibility. (2502)

*Commenters suggested that LLW facility disposal is not the only landfill disposal option that might be appropriate.*

- Disposal in appropriate RCRA landfills and NRC or Agreement State licensed LLW disposal sites are both desirable solutions. (2564)
- It is not necessary that material that would otherwise pass a reasonable health based dose level should go to a LLRW facility. It should be able to go to an EPA regulated landfill. (T1-24)

## **7. PROHIBITION**

### **7.1 Support for Prohibition of Release**

*Many commenters believed that release for any purpose should be prohibited.*

- The nuclear industry and any agency that deals with nuclear waste should not release and/or "recycle" any quantity of radioactive waste materials into the environment. (102) (2614)
- The NRC should prohibit release of radioactive wastes and materials into the marketplace. (145) (1610) (2451) (2509) (2526) (2535) (2560) (2567) (T1-24)
- Opposes the release of materials from NRC regulated facilities for use in ready mixed concrete and other like products. (1610)
- A substantial part of the scoping relates to what is a safe dose of radioactivity. The burden of calculating dose and determining where each waste goes is greatly reduced if the waste is simply treated as nuclear waste and not released at all. (1611)
- Radioactive materials must not be allowed to enter into the recycling supply. (1902) (168)
- Prohibitions on releases into commerce must be imposed on Agreement State programs. (416)
- No free release into unrestricted commerce for any radiologically contaminated materials. Tools can be reused in NRC/AS facilities only, and can be removed for re-use after 100 percent decontamination. (416)
- Recycling and disposal in public landfills are not acceptable options for these materials if they possess any level of detectable radioactivity. (850)

#### **7.1.1 Isolation of Radioactive Materials**

*Some commenters supporting prohibition of releases indicated that potentially radioactive materials should be isolated.*

- The NRC should focus the rulemaking on better isolating potentially radioactive materials from the public and the environment rather than allowing it to be dispersed deliberately. (145) (1635) (1902) (2509)
- As an obligation of the NRC's statutory mandate to protect public health and safety - especially in a situation in which the old radiation myths and beliefs are no longer valid - it is imperative that radioactive and radioactively contaminated materials and wastes be kept out of the biosystem. (2451)

- The NRC has not incorporated recent scientific findings into its public radiation standards, nor has it revised its standards to account for the full range of diseases, illnesses and other distress that are attributable in part to low-level radiation exposures or to the synergistic relationships between and among irradiation and the many environmental contaminants to which individuals are variably exposed. These factors augment the argument favoring abandonment of the process and emphasis instead on improving all waste isolation. (2451)
- Radioactive waste must be isolated from all life as far as humanly possible. (2526) (850)
- Radioactively contaminated materials should be isolated from the public in order to protect the public's health and safety. (2535) (2567)
- Regulatory agencies dealing with radioactivity from nuclear processes should have strict and unambiguous policies to isolate and contain such radioactivity to prevent human exposures. (2588)
- The scope must be altered to focus on more effective and efficient methods of isolating the radioactive materials and wastes already produced. (2451) (2568) (2588) (2611) (T1-4)

### **7.1.2 Maintaining Control**

*Several commenters believed prohibition of releases was necessary to allow NRC to maintain control of potentially radioactive materials.*

- NRC should maintain full regulatory control of all radioactive material. (1902) (T2-7)
- Radioactive materials and wastes should be controlled. Redefining what is and is not "radioactive" for the principal purpose of allowing releases must not be permitted to occur. (2451)
- The burden of proof that waste is not radioactive lies with the generator, as must liability. (2450)
- The NRC and other agencies now wish to renege on controlling radioactive wastes, and instead want to release them without concern for the total additional doses that will be received by individual members of the public, and by the collective population, both now and in the future. This is an appalling and immoral abdication of clear governmental responsibility. (2450)
- It is the responsibility of the NRC to protect the public, not expose it to additional radiation and the resultant risks to health. (850)

### 7.1.3 Public Exposure

*Commenters believed that workers and the general public should not be exposed to potentially radioactive materials.*

- Citizens should not have the many risks from exposure to radioactivity forced upon them via policies that allow nuclear waste to be released from facilities, dumped in unlicensed landfills, sold or donated to unwitting recipients, incinerated, and even "recycled" into a wide array of industrial materials and everyday consumer products. (102) (2588)
- NRC should prevent additional radiation exposures rather than "justifying" them with computer codes and dose modeling. (145)
- Workers in the recycling industries, road construction, sewer workers, or others who would be exposed in your theoretical destinations for restricted radioactive waste do not deserve any level of radioactive contamination from nuclear power and weapons fuel chain activities. (145)
- Oppose further increasing the public's exposure to potentially radioactive materials. (145) (1902) (T1-10)
- If this rulemaking proceeds recycled materials could contain radioactive material. Frying pans, belt buckles, zippers, toys, furniture, dental braces, hip-replacement joints, tableware, clothing, jewelry, cars, walls, basements, driveways and roads, tools and equipment, boxes, newspapers, cans and bottles -- there is no limit on where recycled materials could be used. (1902)
- The fact is, once radioactive materials are released in any manner, restricted, conditional or otherwise, they become part of a cycle that continues forever. (2526)
- Scientific evidence has concluded that there is no safe threshold for ionizing radiation. (1902) (2567)

*Two commenters believe the risks associated with releasing radioactive materials are too great.*

- Risks associated with these solid materials are unavoidable and involuntary; long term and cumulative impacts cannot be accurately modeled; there is a potential for exposures to multiple products; any dose increases cancer risk; even a small risk when spread over the U.S. population is too high; there is no justification for adding more dose to what we receive from background; releases would not be accurately measured and tracked; licensees and the government cannot be trusted to assure that any releases would be carefully monitored. (145)
- Increased release of radioactive materials will add to background radiation levels until there is no human life possible on earth. (T1-10)

#### **7.1.4 Impacts on Industry**

*Several commenters indicated that the impacts on certain industries would be significant due to public perception.*

- Release of potentially radioactive waste materials should be prohibited because of negative perception by our end use customers and other intermediaries, regardless if the material was never exposed to radiation and even if testing demonstrates there is no activity level above background. (1610) (T1-24)
- The regulatory and economic effects of this proposed rule if implemented would be devastating to the ready mixed concrete industry. (1610)
- Individuals will not wish to live or work in a building containing recycled material recovered from a nuclear facility even if it is certified to have activity level below a level of concern. (1610)

#### **7.1.5 Need to Reduce the Generation of Radioactive Materials**

*Some commenters believe resources should be focused on reducing the generation of nuclear materials and wastes.*

- The NRC's exhaustible financial resources can and should be put to better use in developing more effective means of reducing and ending the generation of radioactive materials and wastes. (2451)
- Do not use deception by redefining wastes both to cut nuclear industry cleanup costs and to open the way for more radioactive wastes from new nuclear power reactors and new nuclear weapons. (2614)

#### **7.2 Opposition to the Prohibition Alternative**

- Releasing radiological facilities for unrestricted uses would continue to be based on dose and risk criteria, while releasing solid materials would not. (1773)

## **8. NEW ALTERNATIVES**

### **8.1 Addition of ANSI Language**

*Commenters support a disposal alternative that is based on dose-based standards for unconditional use, modified to include the language from Section 3.1 of the American National Standards Institute (ANSI) Standard, ANSI/HPS N13.12-1999, "Surface and Volume Radioactivity Standards for Clearance."*

- This alternative provides for a dose and risk-based standard with flexibility for special circumstances, and it is endorsed by international scientific entities IAEA, ICRP, NCRP, ANSI, and NAS. (1773)

### **8.2 No Release Above Background**

*Some commenters believe releases should not exceed background levels.*

- A "zero release" alternative regulation that would allow release of materials that do not exceed the naturally-occurring background radioactivity levels is appropriate. (2450)

### **8.3 Recovery of Materials**

*Some commenters believe NRC should focus on recovery of lost or stolen radioactive materials*

- NRC should consider another option that would involve seeking, identifying, recapturing, and properly disposing of radioactive materials and wastes that have previously been released, lost, stolen, orphaned, never regulated, or are otherwise at large in the environment. (2451) (2526) (2568) (850) (T2-13)
- The materials retrieved should include those released from weapons facilities by State and Federal regulators. (2535) (850) The materials retrieved should also include hazardous concentrations of NORM, NARM, and TENORM. (2450)
- The impacts of lost or stolen radioactive materials on the public should be assessed and the information should be released. (2535) (2568) The information should be used to develop future guidance about how to protect health and safety of the public. (2535) The NRC should work with the States and make an effort to lessen the potential negative impacts upon the public. (2451)
- There should not be a recovery of every item released from licensed facilities. (2585)
- Programs should be implemented to track and collect materials that have been deregulated and released thus far - materials that the general public could well be in contact with today. (2588)

## 8.4 Case-by-Case Determinations

*A number of commenters advocated case-by-case determinations.*

- Commenters support a disposal alternative that allows for a case-by-case approval of specific requests for the direct recycle of slightly contaminated materials, provided that regulatory oversight provides specified conditions and reasonable assurance of protection of human health and safety. (2562) (2566) (T1-11)
- NRC should provide transparent information through a public notice and allow for stakeholder input. (2566) (2590) (T1-11)
- NRC should produce a multi-agency guidance based on risk/dose considerations, which will allow decision makers to make case-by-case determinations. (2577)
- A case-by-case method will allow the licensee to understand the material and its physical, chemical, and radiological characteristics. (T1-11)
- A case-by-case method will also allow for flexibility, rather than one approach for all materials. (T2-11)
- A possible compromise is to allow equipment/objects to be released for reuse (as that same object) from contaminated areas if they meet the dose-based criterion. However, these materials could not normally be released with the intention of being sent to a recycler. An exception would be when the licensee applied to and received approval from the NRC to specifically send such materials to a recycler. (2580)

## 8.5 Improve Storage and Isolation Programs

*Several commenters recommend improvements in storage and isolation programs.*

- NRC could improve its storage and disposal methods to prevent leakage and release. (2568-58) In addition to preventing leakage and release NRC should do the following:
  - Recognize and adopt more than one disposal method depending upon the conditions specific to a situation. (2451) (2450)
  - Require complete isolation of all radioactive wastes. (2557) (2568)
  - Work with EPA to create a joint licensed radioactive and mixed waste disposal site. (2526)
  - Construct interim, retrievable facilities for storing low level waste. (2502)

## 8.6 Terminate Licenses

*Some commenters want NRC to terminate licenses.*

- NRC should terminate both general and specific licenses, and not issue new ones or extend or relax existing ones. (2450) (2451)

## 8.7 Other Suggestions and Concerns

*Several commenters provided other suggestions and concerns.*

- Support for a program for the "middle" category of waste that yields too high a dose for unrestricted release, but still yields less than a specified dose in a landfill scenario; furthermore, NRC should use waste manifests that would provide the needed controls to ensure materials are not misdirected for inappropriate use. (2519)
- The large amount of radioactive slag that is used as a "steelmaking additive" in steel exports should be stopped. (2526)
- Any industry-generated radioactive contamination should be classified as licensed waste. The burden of proof should be on the generator (to prove absence of contamination), not the public (to prove there is contamination). (2568)
- Rigorous inspection and enforcement and greater redundancy of safeguards should be emphasized. (2450)
- NRC should allow States to set radiation protection standards, regulations, and practices as long as they are at least as stringent as Federal requirements. (2450)
- NRC is dismissive of those opposed to any form of release and "recycling." (2588)
- Support for recycling within the confines of NRC licensees, with appropriate protection of health and safety. (2562)
- As the steel industry stated, slag is a safe product, that it readily sells now, and for which there is no apparent perception problem; another possible compromise may be to set special limits for recycled metals to dose rates typical of the dose rates a member of the public could receive from slag. (2580)



## 9. NEPA PROCESS

### 9.1 Workshops and Public Involvement

*Several commenters provided input on the scoping process. A number of commenters expressed concern over the public involvement process and expressed disappointment in the manner in which scoping was conducted.*

- The scoping process for this rulemaking has not lived up to the recommendations of the National Academies report of March 2002 to include the maximum number of stakeholders in the process, and to seriously address the concerns of those opposed to unrestricted release and recycling. (102) (2588)
- The Commission has chosen to shorten the process by skipping the Advanced Notice of Proposed Rulemaking stage which could alert the potentially interested public that a rulemaking is underway. (2568)
- Considering the far-reaching impacts and enormous public concern, it is entirely inadequate to conduct one Beltway workshop on the issue. The Commission must schedule and publicize public meetings to be held nationwide. People are the major affected stakeholders, not licensees. (102) (2451) (2539) (2568) (2588)
- If you don't subscribe to the Federal Register and follow this issue very closely, you don't know what's going on here, and the general public doesn't really know, and I think they're concerned about it. (T2-20)
- It appears NRC's primary interest is in hearing the opinions of State regulatory agencies, health physics-related organizations, Tribal entities, and organizations purporting to represent the public. Licensees who will be regulated as a result of the rulemaking had little representation. (2521)
- This is a very important rulemaking and NRC deserves support in its efforts to carefully evaluate options for managing these materials. The workshop provided a useful and constructive exchange of information and built upon previous efforts. (2571)
- A commenter expressed concern over the discussions at the scoping workshop and stated that a lot of time was wasted on irrelevant topics. (2521)
- There was no mention of NRC's already-substantial commitment to a 1 mrem/yr dose limit, although several NRC representatives have expressed in other meetings that this limit is essentially "carved in stone". I work for a company with several licensed facilities, and understand that industry believes there is no point in commenting on the 1 mrem/yr limit, because that is no longer negotiable to NRC. If NRC is committed to the 1 mrem/yr limit, this should have been stated. (2521)

- The Commission should reopen the public comment period for a minimum of 90 additional days following announcement and the conduct of additional public meetings throughout the nation. No undue hardship will result to the Commission or the generators and owners of the subject materials and wastes from an extension and expansion of comment opportunity for the affected public. (2451) (2539) (2568) (T2-13)
- To informed members of the public, likening the materials and wastes at issue to "trash" is belittling of potential hazards to people and their health. (2451)
- This dismissive, or misleading, attitude of the regulators is further shown in their description of nuclear power reactors and fuel cycle facilities as those that merely "handle radioactivity as part of the generation of electricity." (2451)
- Chairman Meserve remarked last October that, "In approaching stakeholders on this issue, the Staff should reiterate the Commission's continuing support for the release of solid material." So therein, when it comes to public confidence, people look at what the NRC and associated health physicists are saying and they acknowledge that anything above zero poses a risk to me. And they acknowledge that recycling is going to, or has the potential to result in more actual contact with me. But at the same time, it looks like the NRC is pretty up front at this point with their support for a policy that would allow this material to come in contact with me. (T2-20) (T2-4)
- NRC is attempting to give itself credit for gathering feedback from the public during prior regulatory efforts starting in 1998, but is ignoring the written feedback received in the majority of comments demanding a complete prohibition on releasing nuclear materials from regulatory control. (2568)

## 9.2 Prior Regulatory Efforts

*Some commenters felt NRC should address previous efforts related to this rulemaking.*

- NRC must include in future public documents on this topic full descriptions of its prior regulatory efforts from the late 1970s onward and include Congressional, State, and public responses in opposition. NRC should make public and add to the Internet, all records relating to its prior efforts to adopt a rule to release, recycle, and reuse solid materials. (2451)
- NRC is attempting to place the onus on commenters to obtain and thoroughly review the entire NRC files on this topic. Those would take us back into the 1970s, or earlier, and are not all available on the internet or anywhere else other than NRC's PDR or in its archival storage. Public interest commenters cannot therefore be held accountable to have exhausted all sources of information that is not reasonably readily accessible. (2451)
- In prior NRC-proposed rulemaking efforts, particularly in 1999-2000, many public-interest organizations refused to participate in the process for varied reasons having to do in large part with the NRC's limitations on topics allowed to be addressed. NRC has not gained the trust of these organizations. (2451) (2568) (T2-4)

- NRC has an obligation of full disclosure of those prior proposals and analysis of the reasons for their failures. (2451)

### 9.3 Questions

*A commenter posed the following questions to NRC (2451):*

- What volumes of materials eligible for release are at each site?
- What and how much will be released?
- How much would be allowed to remain under "Clearance" rules?
- In what forms are the materials/wastes destined for release and recycle?
- What isotopes do they contain? At what concentrations? How long are their hazardous lives?
- If "cleaned," how "clean" are they? Ascertained by what equipment?
- How old are the detection instruments?
- What was the disposition of the contamination that was "cleaned" from the materials?
- Are mixed hazardous and radioactive materials and wastes included?
- How are they measured to determine the nature and extent of hazard?
- How does 10 CFR 20.1003 define "undue risks" for these purposes?
- For an "impacted area," what are the "natural background and fallout levels" used in MARSSIM?
- On what research and modeling are these levels based?
- Who are the contractors? For whom have they worked?
- How is an "appreciable level of radioactivity" defined for these purposes?

### 9.4 Issues to be Reviewed and Range of Alternatives

*Commenters noted that there must be no exclusion of issues relating to the environmental impacts of this proposal.*

- NRC must review issues even if it is staff members' "judgment" that an issue is "insignificant, or peripheral, or covered in prior review." All are relevant for a GEIS. (2451)
- The staff must incorporate into their analyses all of the other agency proposals to exempt and deregulate and release from control their contaminated materials and wastes, or to abandon them onsite. (2451)
- NRC has ignored alternatives that have been suggested by members of the public during the years of NRC's repetitive efforts to promulgate a rule for deregulation and recycling. NRC is violating NEPA by failing to fairly explore all options and is simply not evaluating "no release" at a par with release. (2451) (2568)

- NRC is required to consider any direct and indirect impacts of additional radiation in the scrap supply, whether the impact is a primary or secondary one. It is also required to consider cumulative impacts, including the prospect that DOE will lift the current suspension of its free release policy. The amount of materials to be released from DOE facilities over the next several decades far exceeds that to be released by NRC-licensed facilities. (2587) (2587) (T1-21)
- There has never been an environmental justice analysis in any original cost benefit analysis. (T1-10)
- Having only NRC's five options to evaluate, it is difficult for commenters to know what other options NRC has examined or what additional ones exist. (2451)

## 10. PURPOSE AND NEED

### 10.1 Need for the Rulemaking

*Commenters outlined the need for a rulemaking on controlling the disposition of solid materials.*

- The National Academy of Science reported that the current regulatory approach is incomplete and inconsistent, and that the NRC's approach should be risk-based. (1892) (2566)
- The successful acceptance of the proposed rule would allow for much needed flexibility in the management and disposal of very low-level radioactive waste (LLRW) at drug research facilities. (1892)
- There was a resolution unanimously accepted by all 50 state program directors last year at the annual Conference of Radiation Control Program Directors, urging NRC to enter into a rulemaking to establish clearance guidelines. (T2-17)
- A rulemaking that will continue to protect public health and safety while improving the flexibility of process implementation will be of benefit to the various stakeholders of the electric power industry. A clear and consistent approach to the release of potentially contaminated materials should be established. The standard should be practical and measurable. It also needs to be verifiable by the regulator and the public. Consistency with international standards is also desirable. (2562) (2566) (2570) (T1-25)
- The existing case-by-case approach does work; however, it does not provide for consistent decision-making or assessment of cumulative impacts and has led to some degree of ambiguity and confusion. (2577)
- The Sacramento Municipal Utility district has been actively decommissioning the Rancho Seco Nuclear Plant since 1997. This work is done in accordance with current I.E. Circular No. 81-07 and I.E. Information Notice No. 85-92. Any additional options for disposition of very low activity waste would enhance our ability to complete this decommissioning. However, if those options were at the loss of our current clearance program, it would severely impact our completion cost and schedule. (2584)
- What the nuclear power industry and states need is a "bright line" that defines what is radioactive and what is not, for both surface contamination and for volumetric contamination. (2585) (T2-17) (T2-11) (T2-14) (T2-18)
- Releasing radiological facilities for unrestricted uses would continue to be based on dose and risk criteria, while releasing solid materials would not. (1773)

*Other commenters suggested different courses of action for NRC and disputed the NAS finding that the current approach is protective of public health.*

- A wiser course for the agency is to abandon this endeavor and devote greater attention to reducing the quantities of radioactive materials and wastes that are produced. (2451) (T1-13)
- It appears that any change in the status quo is going to be less protective of the public. I would caution the NRC not to consider that all states hold the position of wanting a clearance level. Although I know CRCPD has a policy, there are people from states, state legislatures and so forth that have taken positions that are against having a deregulation. (T2-4)
- The current approach is very protective of public health, safety and the environment for materials from source material processing sites. There is no need for a rulemaking on control of solid materials. (2488)

## **10.2 Purpose of the Rulemaking**

*Commenters outlined the approach that NRC should be taking to the rulemaking.*

- NRC should proceed without delay with rulemaking to:
  - Establish a dose-based standard for the re-use or disposal of licensed solid radioactive material that clearly defines a level at which protection of public health and safety is assured without the need for continued regulatory oversight or action;
  - Require that proposals for direct recycling be considered on a case-specific basis to assure due consideration of the specific technical details and potential socio-economic aspects involved; and
  - Enable a broader range of alternatives for disposition of licensed solid radioactive material that maintain reasonable assurance that public health and safety will be protected. (2566) (2590) (T1-11)
- States, industry, and professional organizations need a rulemaking that provides:
  - A dose-based approach to reflect risk and risk-informed regulation;
  - A dose limit low enough to ensure protection of public health and safety yet not so low as to be unworkable with common field instruments;
  - Dose-based consistency between surface contamination and volumetric contamination;
  - Consistency between the approach and the proposals being adopted by the international community;
  - Consistency with the License Termination Rule such that material removed from a site where a license was terminated would not be otherwise declared radioactive;

- No interference with the detection of orphaned sources at recycle facilities and landfills; and
- Consistency between all states to avoid difficulties with interstate commerce.

This may require verbatim compatibility between the NRC regulations and the regulations adopted by Agreement States. (2585)

- As a policy issue, anyone who generates radioactive materials, such as power plant generators, should have to pay the cost of dealing with their byproduct. The NRC needs to serve the interests of the public instead of the nuclear industry. (2535)
- What is the NRC's real purpose here? Is it public safety and control of these products? Or, is it to allow companies to expand business and continue as usual? The American Iron and Steel Institute does not want radioactive products in its members' plants. (2539)



## 11. HUMAN HEALTH IMPACTS

### 11.1 Exposure to Low Levels of Radiation

*Commenters offered conflicting views on the dangers of exposure to low levels of radiation.*

- Recent medical studies have shown that continual exposure to low levels of radiation are much riskier than previously assumed. Unbiased science indicates there is no dose low enough to avoid DNA damage. We ask NRC to review and consider studies that indicate that exposure to low amounts of radiation are harmful to humans. (168) (2509) (2568)
- Making limits based on a critical group ignores the growing knowledge that low doses are sometimes more harmful per unit dose than high doses, and that some people are more susceptible than others. (2568) (T1-4)
- The Commission's prudent regulatory approach should be to acknowledge that the nuclear industry has, from its inception, failed to recognize adverse health impacts at a microbiological level from low-level irradiation. The Commission should now give far more attention to low-level radiation impacts, should now accept that low-dose and low dose-rate exposures do pose individually unacceptable risks to human health, because an individual cannot assess the doses received, even with best achievable equipment. The NRC must incorporate health effects associated with irradiation other than lifetime risk of fatal cancer, leukemia, and gross genetic effects. Among now-associated disorders are intensified infectious diseases of childhood, respiratory, gastrointestinal, and endocrine disorders, asthma and allergies, heart disease, mental retardation, chronic fatigue, and failure to thrive. They may be found to be more common in association with repetitive low-level exposures, internal emitters, and synergy with other pollutants. (2451)
- Since 1990, the National Academy of Science and National Research Council, on whom the NRC chooses to rely in other matters, have concluded that "...the new data do not contradict the hypothesis, at least with respect to cancer induction and hereditary genetic effects, that the frequency of such effects increases with low-level radiation as a linear, nonthreshold function of the dose." It is long overdue for the NRC to take this advisement into account and abide by its implications. (2451)
- NRC has ignored the scientific findings of researchers in the fields of biology, medicine, epidemiology, ecology, and microbiology. The ways low-level irradiation can alter cells, causing them to reproduce defectively, has now been more than abundantly confirmed. The relationship of radiation to heart disease and to mental retardation and to infectious diseases of childhood has also been shown. (2611)
- Members of the public may be exposed to minuscule amounts of radiation while conducting everyday activities. The Commission has determined that these minuscule exposures, though avoidable and involuntary, do not present a threat to public health and safety. The same logic should hold true for potential exposures to released materials. (14)

- Any radiation dose increases cancer risk. This may be true in theory, but there is insufficient evidence to conclusively state that it is true in fact. Some studies indicate that there is a clear threshold below which there is no increased risk at all. The Commission would be ill-advised to take a position based on the false assumption that there is no safe level of radiation. (14)
- The recycle of metals contaminated to very low levels carries minimal risks to public health. (2585)
- NRC acknowledges that any increase in radiation dose, no matter how small, results in an incremental increase in risk, the LNT model. And this is accepted by NRC, and it is on the NRC website as the model for estimating radiation risk. (T2-20)
- It is an unnecessary and unjustified regulatory burden on the public to have to prove negative health effects at low doses in order to convince the NRC to continue regulating waste with small amounts of licensee-generated radioactive contamination. (2568)
- Most persuasive among many reasons for rejection of this proposed rulemaking and NRC's five options is the role of ionizing radiation, at any dose level, in posing risks of injury that is detrimental to human health - an exercise of the Precautionary Principle. (2451)

## 11.2 Worker Safety

*Commenters highlighted the importance of worker safety.*

- While materials from NRC regulated facilities may be deemed safe and cleared for use in all applications, workers and the unions that represent some workers may take great exception to such a claim. The materials may be an issue for labor negotiations where workers are likely to request portal monitoring, personal dosimetry, and medical monitoring. (1610)
- Release of such material could expose workers processing contaminated materials at scrap mills or other processing plants to potentially significant levels of radiation. (2536) (2568) (T2-20)
- Steelworkers' members are one group who would be maximally exposed in the recycling of the radioactive materials. The U.S. Department of Energy, Department of Defense and the Nuclear Regulatory Commission need to maintain control of these products and not allow them into the steel plants. Steelworkers are an unprotected workforce, from this hazard and are not routinely monitored for radioactive dose contamination and do not receive the hazardous duty pay, or costly long term medical monitoring like nuclear workers. (2539)
- Radioisotopes and activated materials present on or in scrap metal may partition to the metal, slag, or emission control dust. Even small concentrations may build up over time, especially in emission control baghouses at metals producing facilities, potentially leading to health risks to workers and expensive disposal requirements. In addition,

metals facilities may also be required to comply with more stringent regulatory requirements governing worker exposure. (2586)

- In a nuclear facility there are controls on what comes in. The activity levels or the radiation levels are known, and nothing will be allowed that is going to increase above specified limits in an unrestricted area, even in a nuclear facility. So as far as letting the workers know, that is all part of being a licensed facility, and being and working in the nuclear industry. (T2-2)

### **11.3 Sensitive Groups**

*Commenters highlighted the importance of considering potential impacts to sensitive population groups.*

- NRC must also be particularly mindful of matters regarding children, the elderly, and people with compromised immune systems. Standard risk assessments used by government agencies generally do not consider compromised individuals who may be more susceptible to harm from lower levels of radiation. (1610) (2450) (T1-13)
- NRC must abandon "Standard Man" - the healthy young male working voluntarily in the nuclear industry. All human health-related regulation should be based on the most sensitive members of the population: ovum, embryo, fetus, rapidly growing young child, pregnant woman, the elderly, and those with impaired health, weakened immune systems and other disabilities. (2451) (T1-4)

### **11.4 Public Exposure**

*Commenters highlighted issues and concerns related to public exposure from released materials.*

- The basic tenant of radiation protection is that the individual recipient of a radiation exposure should receive a benefit greater than or equal to the additive risk that is incurred, and that individual should have the opportunity to reject an additive dose. The Environmental Impact Statement must no longer ignore the risk (injury or damage) to the single individual from an unwanted radiation exposure in favor of an alleged but unproven benefit to "society." (T1-13) (2451)
- In Commissioner Merrifield's remarks from September 5th, 2002, he compared gaseous and liquid releases with releases of solid material and said, "Recycled solid material is different in that there is a potential that the radioactive component may be concentrated in the recycling process or that material will be recycled in a form resulting in more actual contact with the general public." (T2-20)
- All five options presented in the scoping for the proposed rule are troublesome because they do not adequately prevent public exposure to radioactive materials in the public marketplace and the environment. (1902) (2536)

- There is no safe dose of ionizing radiation, and the public should not have to accept a dose above naturally occurring background. Any dose increases cancer risk and even a small risk when spread over the U.S. population is too high. (2535)
- The risks to human health associated with these solid materials would be unavoidable and involuntary. The public will have no way of knowing what products contain recycled radioactive materials. The individual recipient would be unable to measure the additive dose, or to know how many additive doses that individual experiences in the course of a year. (2535) (T2-13)
- In a situation that could lead to so many unexpected outcomes and untraceable impacts upon public health and the environment generally, a thorough going application of the precautionary principle is certainly in order. (2588) (T2-20)
- The consequence of the one millirem per year exposure standard that NRC now proposes to adopt could be responsible for more than 28,000 cancer fatalities per year - clearly an unacceptable risk for the public. (2451)
- NRC's numbers based on UNSEAR and BEIR V indicate that one in every 28,600 people exposed to a millirem a year will get fatal cancer. That number doesn't include nonfatal cancers, birth defects beyond the first two generations, reduced immunity and greater susceptibility to other diseases and health problems and other non-cancer health effects of radiation. (2568)
- NRC must finally consider - decades after the facts were known - the genetic damage/component of radiation exposure, and therefore lower so-called "allowable" doses to the reproductive organs completely. (2526)
- Health/medical costs are rising and a large percentage of Americans do not have health insurance or access to adequate health care to deal with the consequences of additional unnecessary exposures permitted by this rulemaking. (2568)
- Refabrication of products made from released materials could lead to a potentially higher dose in future. (T1-4)
- All you need is the perception of the public that there is a health risk. (T1-10)
- In Safety Series 89, the basis for the decision on the one millirem dose found that the annual risk of death was 10 to the minus 6, or 10 to the minus 7 per year, and no concern to an individual. Therefore, it is possible to set, on that basis, a trivial level of radiation dose in the range of 1 to 10 millirems per year. (T1-15)
- Conduct an assessment of the effect on the public's health of those materials that have already been released and disclose this information to the public. (2535) (2568)
- Several years ago (1989 or 1990), the NRC developed a below regulatory concern policy statement. Some diagrams were made available that described the proposed exemption policy for a justified practice, and the first of the diagrams in 1989 showed the exemptible levels and they show 1 millirem. They showed 10 millirem as an exemptible level. And a

hundred-thousand person rem collective dose. But in the possibly exemptible category, we find 100 millirem. A year later in a public meeting, the NRC described policy dose criteria, and they indicated that they would begin with an exemptible level of 1 millirem, but that it would rise after a few test years to 10 millirem. And again possibly exemptible is shown as up to 100 millirem, but as for the collective dose, it has an era that just extends into infinity. Now, with due regard to the Agency, this is an aspect that needs far greater consideration. (T1-13)

- NRC should take a strong position regarding safe exposure levels. (2519)

## 11.5 Cumulative Health Impacts

*Some commenters described the potential cumulative health impacts associated with the alternatives.*

- NRC's proposed rules could have a devastating effect on many communities in New Mexico. The environment in numerous New Mexico communities is already contaminated with radioactive waste from New Mexico's two National Laboratories and countless unremediated uranium mining sites. Those citizens are already exposed to elevated levels of radiation. (1635)
- The wastes that are candidates for release and recycle and for dumping in unlicensed dumps are probably from the "low-level" category and probably from Class A, the less concentrated class. Materials which could be released could have plutonium, cesium, strontium, iodine or any other radionuclide contamination. Intentional introduction of radioactive sources, whether diffuse or concentrated, can act synergistically with toxins being released from other sources, magnifying the health effects. (1902)
- Not only wastes and materials released by NRC but also those similarly deregulated by the other agencies (and other nations) will be additive, but uncounted, components of those "small" additional radiation doses that NRC claims will be received by the public, both in the near and distant future. These other sources of dose components must be factored into the calculations. (2451)
- The dose recipient is unable to calculate total additive doses that may be received from recycled products and other uses of released materials and wastes. Additional public exposure to so-called "low-dose" recycled materials will substantially increase cancer risk. There would be multiple exposures that an individual recipient would receive from numerous slightly radioactive materials in consumer products if indeed the NRC allows such release and recycle. Additive doses from those small releases do exactly that. They add up. (2451) (2509) (T1-13) (T2-4)
- In the Federal Register Notice under "Items for Discussion, (A) Human Health and Environmental Impacts", no consideration is given to the health impacts of multiple exposures to different products made from radioactive materials. In addition, no mention is made at all of examining the extra burden to immune systems of exposure to radioactive materials. A whole array of toxins are already present in the environment, including those released from MSW landfills, and some consideration should be given to

how adding products contaminated with radioactive isotopes will compound the threat to human health and the environment. (2535) (2560)

- There has been no consideration of the impacts of additive quantities of radioactive materials, even of small amounts, small levels, upon other living organisms in the biosystem. (T1-13)
- NRC or NCRP should make a realistic assessment of the probability for multiple exposure sources to a critical group. In our industry experience it appears that the number of multiple sources that can expose a critical group to doses comparable with the public dose limit are typically one and very rarely two (i.e. not the four to six commonly assumed by NRC and NCRP to justify limits of 25 to 15 mrem/year for a single practice or pathway). (2500)
- Although NRC does not regulate some nuclear weapons facilities, some waste from those sites is being released through NRC- and Agreement State-licensed facilities and thus must be considered in policies and regulations NRC makes on this issue. It is essential that NRC evaluate the DOE and DOD inventories when considering this rulemaking. (2568) (T1-4)

## 11.6 Soil

*Two commenters described potential impacts to soils.*

- Radioactive soil could end up in agricultural settings, playgrounds, gardens, or potting soil in homes. If the radionuclides emit gamma radiation, a continuous dose could be given to those in the vicinity. (1902)
- In the case of radioactive scrap metals, the strontium and the plutonium fraction that partitions to the waste products and is used as soil amendment in this country, would get into our agricultural products and contaminate portions of our population, depending on where it was applied. (T1-10)

## 11.7 Dose Modeling and Risk

*A number of commenters expressed concerns with dose modeling (modeling of biological damage to radiation exposure).*

- Despite the resources NRC is expending to justify releasing and "recycling" radioactive waste, NRC cannot guarantee that its release will result in a given dose or risk and no more. The dose cannot even be measured. It must be calculated based on assumptions and is highly variable depending on those assumptions and the choice of computer model used. (2568)
- Even if you could determine what the correct dose is, you still have a major problem translating that into risk. (T2-26)

- NRC should take into consideration and use, the "2003 Recommendations of the European Committee on Radiation Risk" done at the behest of the European Parliament's Scientific and Technological Options Assessment Unit. Particularly noteworthy are the findings that ICRP Models do not differentiate enough between radiation delivered internally and externally, as well as things like ICRPs awful use of "averaging". The document published in January of this year has compiled a convincing array of solid scientific evidence that low level radiation carries with it a health risk that is more than 100 times greater than that predicted by currently accepted radiation limits. In addition, NRC should consider the impacts from both internal and external exposures which could be different than if it were delivered externally only. (2526) (2568) (2641) (T1-4) (850)
- DOE and NRC funded Argonne National Labs to develop one of the now-most commonly used computer codes to justify release of radioactive materials, wastes, sites, into the recycling, unrestricted uses, and landfills. The RESRAD family of codes includes several different models - for allowing contaminated buildings to be used for unrestricted uses, for recycling contaminated metals or concrete, for projected doses from contamination in the environment, and others. One of several weaknesses in this and other codes is that they rely on radiation risk estimates that have not been proven to be valid. The only validation study for RESRAD relies on EPA's Federal Radiation Guidance documents, FRG 11 and 12 for its pathways analysis to estimate dose and impact but both of those documents have a clear disclaimer right in the front that indicates that no one is liable or responsible for the use of the information inside. So not only are they not verifiable or enforceable, they are not reliable. Modeling falls short of predicting what radiation goes where and relies on health effects information that is controversial. (2568)
- Effects of all daughter products - the entire decay chains - must be taken into account. (2526)
- The varying characteristics of radionuclides mean that different radionuclides present substantially different risks to workers and the public and present different challenges from a regulatory perspective. For example, radionuclides that partition exclusively into the slag that is generated during recycling are less likely to pose a significant threat to the public through commercial products, but pose potentially significant risks to workers. Establishing an across-the-board rule under these circumstances raises the potential for substantial regulatory problems and could undermine safe implementation of a standard. Factors that differentiate radionuclides from a standard setting perspective include uncertainties in estimates underlying risk assessments, types of risks, likelihood of improper releases (violations), and level of public concern. More uncertain risks should lead to more conservative standards or rejection of a standard altogether. (2536) (T1-26)
- For radionuclides that partition into the recycled material, NRC must be particularly vigilant in ascertaining the potential uses and risks posed by the residual radioactive contaminants. Where these risks cannot be reliably calculated, the scrap materials should not be recycled. (2536)
- NRC must evaluate the potential impacts from improper releases and ensure that there are regulatory mechanisms to protect the public against them. (2536)

- There are fundamental and continuing concerns about the uncertainties in the estimates of the risks of recycling radioactively contaminated materials to workers and the public. It is essential that NRC clearly explain how it plans to estimate, in a scientifically sound manner, the total quantity of radioactively contaminated materials that the public could be exposed to, particularly because some radioactive contaminants remain hazardous for many thousands of years. (2536)
- NRC has claimed that the risks from contaminated metals are limited because contaminated scrap metals will make up less than a percent of the scrap metal being processed in any given year. However, this estimate does not take into account scrap mills that may receive a disproportionate amount of radioactively contaminated metal. At these facilities, recycled metal could be released without being mixed with any clean metal. Under these circumstances, any claim of significant dilution is hypothetical. The risks from contaminated materials must be evaluated assuming no dilution. (2536)
- As to the environmental analysis, the key will be to perform an honest upper bound assessment of the potential cumulative dose to the population. Uncertainty bars should be added, at each stage of the calculation (uncertainty about dose from inhaling certain particulates, the effect of different chemical forms, uncertainty about dose from releases from unlicensed landfills, dumping in agricultural fields, etc.) with a total upper bound figure given for the maximum total number of deaths NRC is considering imposing on the American population on behalf of the nuclear industry, to reduce its waste disposal costs by transferring them to the public in terms of cancers, deaths, and other health and human impacts. (2557)
- Nothing has been put forward to establish what is the worst case volume of radioactive material that will be discarded at each landfill near nuclear and medical facilities, whatever dilution effects are claimed, and pathways into the environment are set forth. Since the abatement systems in municipal solid waste (MSW) landfills are flawed, until that exposure analysis has been done, there is no way to assert that the public health and safety can be protected by changing the rules to permit more hazardous wastes in MSW landfills never intended for that purpose. (2560)
- NRC, EPA, DOE, and international and national nuclear societies and associations have all made efforts to project where radioactivity will go once released into the steel industry but they still can't accurately predict, guarantee or prove what the exposures and risks will be especially to the general public. (2568)
- Concentration of radioactivity in secondary waste streams has to be addressed in the environmental impact statement. That includes incinerator ash and steel mill slag. (T2-36)
- While NRC has amassed a great many reports extolling the virtues of risk-based analysis of equipment and other aspects of operating an NRC-licensed facility, including about radioactive waste practices, I believe that efforts to quantify risk have often lead to arbitrary, inconsistent and potentially dangerous decisions. (2613)
- In the case of a landfill, the maximally exposed individual might be a resident farmer that might live on top of the landfill, 100 to 100,000 years from now. (T2-19)

*One commenter described the use of the dose factors in NUREG-1640.*

- NRC Technical Basis 1640, flawed or not, uses an approach, and many Europeans do as well, of doing pathway analysis that would derive a concentration that might be equivalent to that [dose]. It looks at the pathway and uses the isotope specific dose factors that would take into consideration decay and any controls imposed, and do all the science, and come up with yet another concentration. So you could have a consistent bright line dose, and have different concentrations for different pathways. (T2-11)

## **11.8 Questions**

*Commenters posed questions related to potential human health impacts.*

- Will there be any worker/labor requirements for special protective equipment and medical monitoring? (1610)
- Who will be responsible for informing the public and proving assurance that they will not be harmed by the introduction of these materials into general commerce? (1610)
- While federal standards may be able to dictate the permissible levels of contaminants allowed to be present in materials released for public use, nobody would be able to guarantee to a consumer that a particular baby crib or dinette set contains "only" that permissible amount. Uniform blending of the contaminants in the scrap metal or concrete is not possible; hot spots will inevitably occur. How could anyone assert or prove that the contaminants could be evenly distributed at foundries, steel mills, or plants where consumer goods are manufactured? How could anyone estimate accurately the radiation dose from exposure to any specific end product? While measurements of surficial and volumetric radioactivity in bulk waste could be averaged on paper, once the contaminated materials are released for industrial or commercial use, such averaging would not work. An individual fabricated item could contain radioactivity in concentrations many times higher than the calculated average; hot spots would be inevitable and unpredictable. (2613)
- Would responsible employers be willing to expose their employees to these life-threatening, long lived radioactive materials? (2613)
- Have IAEA or the ICRP completed and made available for utilization in this process a study of potential impacts to both the fetus and the ova, both of which presumably would be among the more sensitive organisms? (T1-13)



## **12 RULEMAKING AND NRC POLICY**

### **12.1 General Rulemaking Advice**

*Commenters offered a range of advice to NRC concerning the rulemaking. Some commenters favored a proposed rule (Sections 3.2, 4.2, 5.2, and 6.1).*

- NRC should base its policy on science, not public perception or anecdotal information. (2519)
- Twenty years ago, EPA proposed a rule to regulate waste containing Radium 226 and Radium 228, but this rule was never promulgated. So it would appear by EPA's action and over 20 years of failure to issue a rule, that EPA considers materials with this amount of radioactivity to be releasable without control. (T2-28)
- NRC should make clear that the primary reasons for proceeding with rulemaking arise from the opportunity to enhance efficiency, cost-effectiveness and practicality in the regulation, and not from health and safety concerns. (2566)
- Waste minimization should be a goal. NRC's policy should encourage licensees to reduce the level of contamination of solid materials to safe levels so those materials can be beneficially re-used. (2519)
- NRC needs to differentiate between bulk and surface contaminated objects, short and long-lived radioactive material, uniformly and heterogeneously contaminated objects, and fixed and removable contamination when defining standards. (2500)

### **12.2 Alternative Proposals for Action**

*Other commenters opposed the development of a proposed rule and offered alternative suggestions for NRC action.*

- Withdraw the entire proposed rulemaking and potential rule, and permanently cancel any plans for renewing this misguided, unpopular effort. NRC has tried repeatedly for more than twenty years to promulgate this or similar rules. It has met with successful public, industry, and Congressional opposition every time. There is no public-interest justification for trying yet again. (2450) (2451) (2535) (2568) (2611) (T1-4)
- NRC should replace risk- and dose-based standards-setting that is unacceptably imprecise and subject to wrongful manipulations. NRC's focus should instead be directed to ways to detect the isotopic content, concentration levels and hazardous life of the subject materials and wastes, and to improved methods of isolation. NRC should continue and expand its efforts to develop more protective standards. (2451)
- If this rulemaking continues, the Commission must clearly inform the public that the materials (and wastes) at issue are or may be radioactive, even if at low activity and low dose levels. The NRC has a duty also to warn the public that low doses are not safe,

that there is considered to be no "safe" threshold of exposure to ionizing radiation, and that all exposures carry a risk of biologic damage to the recipient. (2451)

- NRC should, but never has to our understanding, required as a pre-condition of license issuance that the full long-term costs of waste disposition must be in the hands of a licensee with absolute financial liability for the total short- and long-term costs of waste control and disposition as a license condition for producing their radioactive materials and wastes. (2451)
- The GEIS must not prevent later citizen challenges to licensee and/or NRC actions at specific sites or to collective societal impacts of regulatory actions and those of specific licensees. (2451)
- NRC has got to take a stand and pass a rule stating that there will be no further licensing of any nuclear reactors, no new generation of reactors (which are nothing more than regurgitated failed designs anyway), and no more license amendments allowing old reactors to keep operating. (2526)
- It is important to reiterate that it appears NRC is not being fully straightforward in use of the terms "controlling" when the purpose is not to control but rather to release, and "solid materials" when the materials and wastes are radioactive, if low in activity. (2451) (2568)
- Many times we have revisited the issue of changing the current status quo, and many times it has remained unchanged. This is because we don't have any proof that materials being released conditionally under guidelines have caused problems. If we want a change, if we want even a fraction of a change above and beyond the current status quo, then industry, the private sectors and the regulated industries are going to have to turn to the NRC and say, you know what, put the ball in our court. (T2-16)

### **12.3 Technical Issues**

*Commenters described their vision of the scope of a proposed rule and provided opinions on several technical aspects.*

- It is very important for the NRC to consider exclusion of hard to detect radionuclides, and that can be done by setting a level below which they are not of concern. (T2-27)
- It needs to be very clear that the NRC has no authority to regulate materials that don't contain licensed material. (T2-11)
- The promulgation of release criteria based on 1 mrem/yr will certainly impact licensees. The criteria should not be made excessively restrictive to avoid any impact to metal recyclers, particularly if the alternative would be far greater impact to licensees. (2519)
- NRC should preserve the flexibility for special circumstances currently codified at 10 CFR 20, subpart K (waste disposal), section 20.2002, which states that a licensee may apply to the Commission for approval of proposed disposal procedures not otherwise authorized in the regulation. (1773)

- The scope of this rulemaking addresses only material that is normally "free released" from current licensed facilities. It does not address the disposal of materials from prior licensed facilities, after the facility has been released for unrestricted use, by meeting the 25 mrem/yr requirement of 10 CFR 20 Subpart E. This limited scope of the rulemaking is problematic for two reasons. First, it results in an apparent inconsistency between the 25 mrem/yr license termination rule and the proposed 1 mrem/yr limit for released material. Second, current pending legislation in California is calling for Alternative 5 for the disposal of material from already-released, prior radiological facilities. (1773)
- It may make sense for NRC to contemplate a dose-based release criterion for materials that are volumetrically contaminated. However, this would have little applicability for uranium recovery facilities because in the rare case where materials are volumetrically contaminated, such materials are by definition 11e.(2) byproduct material and can be placed in uranium mill tailings impoundments for disposal. In fact, even though the proposal contemplates that some solid materials could be disposed of in an EPA-regulated landfill, these 11e.(2) byproduct materials would not be eligible for such disposal. 11e.(2) byproduct material generally must be disposed of in a uranium mill tailings pile. See 10 CFR 40, Appendix A. NRC needs to clarify this potential conflict as well as the applicability of this rulemaking to uranium recovery facilities generally. (2487)
- NRC should not exempt any materials from non-restricted or non-impacted areas from careful surveys that would identify any possible contamination; all should be checked. (2451) (2568)
- Contamination control guidelines are usually based on the assumption that infinite surface or volumes of material are contaminated at the limit. There needs to be recognition in the guidelines that contamination is not normally infinite but in well-controlled operations it is usually very limited in extent. (2500)
- It is unacceptable to use levels of NORM as a justification for setting a floor to regulate anthropogenic radioactive materials and sources. It is also unacceptable to use background levels or already-permitted legal releases as a justification for adding to background. (2568)
- If we know that material comes from a licensed facility, we'll take it. As part of this rulemaking, it would be preferable to know more clearly where this material comes from. (T2-22)

#### **12.4 Implementation and Enforcement**

*Commenters offered opinions on implementation and enforcement of a proposed rule.*

- Any new standard employed by NRC to control release or disposal of solid material should utilize methodology already in place to ensure practical application and reasonable, measurable performance expectations to facilitate demonstration of compliance. (2500)

- There is no real enforceable limit on the amount of radioactivity that NRC proposes to "control" by releasing from control. By setting a legal dose or risk, NRC is essentially opening the floodgates to unlimited amounts of radioactivity being released. (2568)
- We are in an era of substantial fiscal problem, and the agencies are increasingly being pressed, unable to do important things like enforcing their own rules. (T2-13)

## 12.5 Need for Cooperation

*Commenters highlighted the importance of consultation with federal, state, and local agencies and consideration of international standards.*

- NRC should coordinate with Agreement State and Non-Agreement State radiological protection agencies and organizations to assure reasonable and practical compatibility between the proposed rule and other related radiation safety standards. (2566) (2500)
- NRC should consult and coordinate with appropriate international agencies and organizations to assure reasonable and practical compatibility between the proposed rule and the related radiation safety regulations of other countries to assure that the proposed rule will not unnecessarily restrict transboundary trade and commerce. (2566) (2612) (T1-15)
- NRC should consult with the EPA and appropriate State agencies to coordinate development of a suitable regulatory framework for the safe disposal of licensed solid radioactive material at solid waste facilities permitted under RCRA. (2590) (2566)
- DOE's goal is to maintain standards that are consistent with standards that apply to the commercial sector, so your process is of great interest to DOE. (2571)
- Agencies and departments of the Federal government must act in unison and agree on all the provisions of these regulations and guidance. (2577) (T2-27)
- Nothing in these regulations should be preemptive of the right of other levels of government to make independent decisions regarding more stringent standards, nor should any guidance be framed in such a way as to effectively preempt the ability to implement more stringent standards. (2577)
- Supports implementation consistent with the IAEA protocol in Europe. (2570)
- NRC should evaluate and consider processes and criteria used by the European Community to successfully develop and implement criteria to control the disposition of solid materials. (2644)
- NRC should ensure that amended rules for disposition of solid materials are applicable across the nation. Nation-wide applicability is also desirable to avoid unnecessary burdens on international trade. (2562)

- NRC argument for accommodating "trade [in] materials released under other nations' regulations [arriving] as imports in the U.S." must not be used to permit increases in doses to the American people from this proposed rule. (2451)
- Because DOE facilities do not have the same safeguards and practices in place to ensure that radioactively contaminated scrap metal is not inadvertently released, NRC must take into account the potential impact (volumes, activity levels, etc.) that will follow if DOE adopts an NRC recommended dose-based release standard. (2587)
- NRC summary of comments related to public health and safety failed to point out simply that people who would receive the doses do not want to be exposed. There was no mention of the lack of credibility of the ICRP, upon whose risk estimates the doses and projected risks are based. There was no mention of the threat that putting nuclear waste into recycling supplies poses to the whole concept of recycling and conservation. (2568)
- The NRC should consult and coordinate this effort with other appropriate agencies to enable safe disposal options, ensure compatibility with related safety standards, and not unnecessarily restrict transboundary trade and commerce. (2566)
- DOE is participating and providing support wherever possible to the Commission, in terms of data and information, and the NRC will be looking at DOE's efforts. (T1-23)
- The NAS report recommended that the NRC make use of an advisory board consisting of all the major stakeholder groups. (T1-21)

## 12.6 NRC Mission

*Commenters alleged that NRC is failing in its stated mission and is wasting resources on the rulemaking.*

- NRC has a responsibility to inform the public, not just collect input from the public. NRC should develop scientifically defensible, easily understandable material presenting facts on the risk and health impact from various materials and activities, and explaining the concept that there is a societally justifiable level of risk. (2519)
- NRC's role is to determine what level of risk is acceptable in light of the benefit society derives from the use of radioactive material. (2519)
- While the NRC claims that its "primary mission is to protect public health and safety, and the environment from the effects of radiation from nuclear reactors, materials, and waste facilities," it has become increasingly clear that the NRC is willing to compromise this mission when the industry it allegedly regulates states a preference for a more lax approach to radiation protection. (102) (145) (2451) (2588)
- Reducing industry's regulatory burden is not what NRC is meant to be doing, NRC is meant to be protecting the public health. (2526) (2568) (2588)

- Those wishing to be relieved of regulatory burdens must prove that the doses are harmless before imposing them on the unwilling, unsuspecting public. (2568)
- The second goal cites increasing public confidence in NRC's regulatory process. This will never happen so long as NRC's actions belie any serious intent to meet that goal: e.g., failure to allow public meetings nationwide on this FRN. Public confidence cannot increase unless the NRC regulates first and foremost in the public's interests. (2451)
- The public will not only bear the burden of the public health consequences of this rulemaking, it will also bear the overwhelming economic burden. (1635) (2451) (T2-4)
- It is unfortunate that the Commission is again expending its scarce resources on this unwarranted and unwanted endeavor, rather than pursuing the kinds of initiatives that might better protect human health and safety and the natural environment from incremental additions of low-level radiation. (2450)
- Dramatic steps must be taken to reform NRC so that it has a chance at the public confidence necessary to even consider free release of radioactive material. The NAS strongly stated that NRC is so conflicted, so widely perceived as captured by the industry it regulates, that no such steps should be contemplated until and unless dramatic reforms at NRC have been successfully undertaken and there is public confidence in its commitment to protecting public health and the environment, something sorely lacking now. (2557)
- NRC has the opportunity to enhance public confidence in the regulatory process by promulgating amended rules which are clearer and are able to be more consistently applied. (2566)

## **12.7 Tracking and Collection of Previously Released Radioactive Materials**

*Commenters called for the tracking and collection of radioactive materials that have previously been released.*

- Regulatory agencies dealing with radioactivity from nuclear processes should not only have strict and unambiguous policies to isolate and contain such radioactivity to prevent human exposures, programs should also be implemented to track and collect materials that have been deregulated and released thus far - materials that the general public could well be in contact with today. (102) (2588)
- At the May workshop, some participants requested that the NRC require documentation of all materials released from licensed facilities and furthermore, that the NRC demand documentation for all materials previously released. (2585)

## 12.8 NRC Rulemaking Intentions

*Commenters expressed concern over NRC's rulemaking intentions.*

- The inclusion of the NAS statement that an individual dose standard of 1 mrem per year (10 [ $\mu$ ] Sv/yr) provides a "reasonable starting point" raises the specter of future allowable dose increases up to 100 mrem/yr individual dose per justified practice. This level is shown as "possibly exemptable" [sic] in NRC's 1989 and 1990 graph presentations of the "Below Regulatory Concern" version of the current proposal. The public is concerned that NRC may arbitrarily raise permissible dose limits in the future. (2451) (T1-13)

## 12.9 Conflict of Interest

*Commenters questioned the affiliation of members of scientific organizations that have made recommendations cited by the NRC.*

- For members of the public who have not had an opportunity to examine the affiliations of members of the scientific organizations cited by the NRC, it is useful, and appropriate, to note that some members of those committees do have or have had associations with and/or financial support from the nuclear industry, its regulators, or its proponents. It may be suggested that NRC therefore must not ethically rely heavily upon their recommendations that will primarily benefit the nuclear industry. (2451) (2568)
- The Commission absolutely must not again hire consultants with preconceived conclusions, or with conflicts of interest due to prior contracts with either any entities involved with the production or utilization of nuclear or hazardous materials and wastes or with the agencies that regulate them. From the FRN at VI.(6), it is evident that NRC has already violated these recommended restrictions on contracts and contractors. We strongly urge the Commission to ask staff to bring in consultants from the public-interest realm; and medical, genetics, and biological scientists whose findings may contradict the conventional radiation beliefs; and environmentalists and ecologists. (2451)
- NRC should fully disclose all contracts and contractors supporting this rulemaking -those that have been, are being and will be used in this rulemaking, their histories and reporting of all work related to the issues in this rulemaking. (2568)
- NUREG 1640 should not be used because it was developed by SAIC Inc. While doing that work for NRC, SAIC was contracted to assist with the release and recycling of the nation's largest radioactive metal recycling contract in history. NRC had to dismiss them from the contract because of the blatant conflict of interest. (2568)
- Reliance on NUREG 1640, written by SAIC, is misguided because of SAIC's real conflict of interest in its concurrent DOE contracts. Since mid-1996, SAIC has been the teaming partner of British Nuclear Fuels, Ltd. (BNFL), under a quarter billion dollar DOE contract for recycling unprecedented amounts of contaminated radioactive metallic waste from the Oak Ridge, TN uranium enrichment building. This situation calls into question the legality of the entire NRC process. (1611) (2535) (416)

## 12.10 Questions

*Commenters posed a number of questions for the NRC.*

- Will material from NRC licensed facilities require segregation from other new or recycled materials? (1610)
- Will portal monitoring be required to accept materials from NRC licensed facilities and is the ready mixed concrete producer responsible for the purchase, installation and maintenance of the screening equipment? (1610)
- Will the material require tracking similar to that required by the Resource Conservation and Recovery Act once placed into commerce? (1610)
- How much liquid may be present in what's called a "solid material"? (2451)
- Is Part 61 averaging over a given volume of waste allowed? (2451)
- Exactly how does NRC expect to monitor a licensee's decisions to release its waste materials? What enforcement provisions are to be included in the proposed rule? (2451)
- Clarification is needed as to whether liquids and sludges are also being considered for release or deregulation under this "control of solids" rulemaking. (2568)
- Who would be liable if an order of pots and pans or intrauterine devices were manufactured using metals with radiation levels above federal standards? (2613)
- How can NRC possibly assure and convince us that this material would not be used by terrorists as a dirty bomb. (T1-10)
- How would these regulations affect exempt materials under 10 CFR Part 30? (T2-27)

## **13. COST IMPACTS**

### **13.1 Consumer Perception**

*Several commenters described potential problems with consumer perceptions.*

- There is concern that the materials industries (e.g., metals, concrete) and the recycling industry would experience a negative economic impact because consumers would avoid purchasing potentially radioactive products and would insist upon products made with virgin, uncontaminated raw materials. (2568) (T1-24) (T1-16) (2535) (2587) (T1-24)
- When constructing new buildings, companies might reject products containing the recycled materials, particularly in the case of environmental-friendly buildings created under the Leadership in Energy and Environmental Design (LEED) Green Building Rating Systems. (1610) (T1-12)

### **13.2 RCRA Landfills**

*Commenters expressed a number of concerns about disposing low level radioactive waste in a RCRA landfill.*

- Affected members of the public could incur the costs, particularly if the duration of required institutional control at a RCRA landfill is shorter than that for a low level radioactive waste disposal facility. (2535)
- The cost of monitoring and testing equipment and the training of employees at a RCRA landfill need to be taken into consideration. (2583)
- A RCRA landfill might accept material that was surveyed and released from an NRC-licensed facility; and if so, the controls at a RCRA landfill might not be adequate to isolate the materials from the public. (2583)
- Although the disposal costs would be lower at a RCRA landfill, public safety would be threatened. (2613)
- The cost savings of using RCRA landfills would benefit the public through lower operating costs of licensees, which would result in lower product costs. (1892) (T2-21)

### **13.3 Human Health Impacts**

*A few commenters are concerned with the cost impacts related to public health.*

- The cost-benefit analysis should evaluate the impacts to the public to determine if the risk of exposure is acceptable. (2451) (T1-20) (T2-11)
- The health impacts of those living near the landfill should be considered. (2560)

## 13.4 Industry Impacts

*Several commenters described potential impacts to industry*

- NRC regulations could require the materials industries (e.g., metal, concrete) to purchase detection equipment that can detect low levels of radioactive material that would cause concern. (1902) (T1-3) Also, a business interruption would occur when radioactive material was detected. (T1-16)
- There will not be negative economic effects to materials industries, as long as the industries embrace the idea with enthusiasm, while also not advertising the information to the public. (14) Alternatively, failure to disclose the information would cause "great fiscal harm to the entire (concrete) industry." (1610)
- NRC has not and will not identify the economic or health impacts to the parties that are negatively affected, such as the public or materials industries. (1610) (2451)
- The generators should be the ones incurring the cost of management and disposal of radioactive materials and wastes because it is a necessary and legitimate cost of conducting business that should not be shifted elsewhere (other industries, consumers, the environment). (2451) (2535) (2557) (2568)
- Recycling is supported because of the significant economic benefit to the waste generators. (14) (T1-1)
- Industries that manufacture products using the recycled materials could incur significant liability and lose large sums of money in lawsuits. (1610) (2586)
- Government should indemnify industries using these materials. (1610)
- Additional and costly regulatory requirements might be placed upon the industries using the recycled materials, potentially causing small businesses to close. (1610) (T1-100)
- If industry is responsible for educating the public about the use of the material, this would be another costly requirement. (1610)
- Due to the negative economic consequences to the materials industries, recycling is not a feasible option. (T1-6)
- The amount of material over the next 30 years that will potentially be available for either reuse or disposal is about 9 million metric tons of scrap metal and approximately 50 to 100 times that amount of concrete. For scrap metal, about 70 percent of it is clean, 10 to 20 percent has surface contamination, and the remaining 10 to 20 percent has volume contamination due to activation products primarily. So we are dealing here with a fairly substantial amount of material that if appropriately characterized and separated, could be recycled without an issue of risk. (T2-21)

### 13.5 Other Elements to Include in Economic Analysis

*Commenters suggested that NRC include the following in the economic analysis.*

- Future (long-term, life cycle) and external (non-market) costs. (2560)
- The cost of decontaminating the materials to acceptable radiation limits. (2583)
- The cost of storage and disposal. (T1-21) Specifically, realistic, safe, and reasonable disposal methods from the perspective of the generator. (T2-11)
- Transportation costs. (T2-27)
- The cost required "to compensate local, state, and federal emergency response and customs agencies for the increased expense in security" due to the addition of radioactive materials into commerce. (2568)
- Implementation of NUREG 1761 (regarding survey technologies) would "significantly increase every licensee's operating costs, with no benefit to the health and safety of the public." (2644)
- NRC's EIS must include an assessment of the impact of an inadvertent melting of a sealed source by metals companies. NRC must determine the increase in probability that a sealed source will escape detection at a metals company's portal monitors, under a dose-based standard. NRC must then determine the environmental and economic impacts of that additional risk, because even a one percent increase could result in an accidental smelting, and such an accident could have a severe impact on the environment and on the viability of the company that melted the source. (2587)
- There is concern about the consequences of inadvertently melting a source, and the consequences of finding radioactively contaminated materials coming into our facilities and setting off those detectors and creating other problems. (T1-24)



## **14. SURVEY TECHNOLOGY AND TECHNIQUES**

### **14.1 Linkage Between Release Criteria and Survey Techniques**

*A few commenters provide insights into the linkage between the release criteria and the survey techniques.*

- The radiological criteria should be considered jointly with the survey methods that will be necessary to implement the rulemaking. (2532) (2536) (T1-4)
- The criteria should be set below levels capable of being detected by the large volume plastic scintillators. (2583)
- Commenters asked if there would be monitoring requirements for delivery and process equipment. (1610)
- It is not clear that the radiation survey under this alternative would require the best achievable detection equipment. (2451)

### **14.2 Evaluate Survey Techniques**

*Several commenters want to ensure that NRC adequately evaluates Alternative Survey Technologies*

- NRC is encouraged to evaluate the effectiveness of survey methods used by the Executive Committee to support the disposition of solid materials. (2532)
- NRC should build upon the foundation of the current practices used at nuclear power plants when defining the regulatory guidance for separation techniques. (2562)
- All of the available survey technologies must be considered in the scope of the EIS. (2644)
- Overly prescriptive survey methodologies are not as favorable as a choice between alternative technologies. (2644) (T2-8)
- There is concern that no matter what the dose criterion is, they will still have the same survey technology equipment. (T1-4)
- The large volume plastic simulators and large volume detectors of other detection media are incredibly sensitive, much more so than hand held detectors. (T1-22)
- Instruments that detect radioactivity in food are reasonable and readily understandable, and provide gamma and beta sensitive detectors. (2531)

### 14.3 Limitations of Survey Technologies

*Commenters expressed concern about the following survey technology limitations.*

- Significant errors occur if the contaminant is not uniform or if the geometry of a contaminated piece is complicated. (2536)
- The accuracy of measurements is limited by the presence of unavoidable background radiation or NORM. (2536) (T1-27)
- It is unclear whether the detection equipment available can protect the public against false negatives. (2536)
- NRC has not demonstrated that surveys can be conducted adequately for large quantities of material. (2536)
- A study indicated that 70% of the fix-installed gamma monitoring systems conducting *in-toto* surveys did not fulfill the requirements of the testing protocol. (2583)
- Newer systems detect in microrems per hour (or minute) and not in terms of microrems. (T1-22)
- Scrap yard detectors do not detect alpha and beta contamination, which could lead to a false sense of security. (T1-27)
- Radioactive releases cannot be accurately measured, monitored, or tracked. (2535)
- Allowing radioactive materials into consumer products will make it more difficult to monitor, detect, and measure the presence of the materials - particularly with respect to customs and emergency response agencies. (2568)
- Even under the best conditions and with the most independent and objective field managers to survey and designate which materials may be released and which materials must remain contained, field conditions do not fit into tidy computer models. "Hot spots" in an enormous pile of scrap metal can be missed, for instance, and equipment can malfunction, or a need to survey materials quickly could lead to radioactive waste materials being released. In addition to errors that can occur under the best case scenario, there are also competency issues that should be considered. (102) (T1-20) (2588)
- When you get down to 10 microsievert per year, you're at a level where you're very hard-pressed to even detect about 25 percent of the nuclides that would be of concern. There are roughly 45 to 50 radionuclides that are the main issue in terms of recycling of scrap metal from nuclear facilities. And you're really at the limit of detectability on about a fourth of those. The others can be detected with sensitive equipment. And with very sensitive equipment, you can detect all of them. One millirem is a reasonable limit to shoot for based on information that we have from laboratory studies, and from deliberation by very prestigious and well qualified bodies, like ICRP and NCRP. (T2-21)

**APPENDIX A**  
**CROSS REFERENCE OF COMMENTERS BY COMMENTER NAME**

Appendix A contains a list of commenters whose comments are referenced in the text of this document. It provides the unique commenter number and a listing of which sections of the document contain references to the issues addressed by each commenter. Only commenters who submitted substantive comments that are relevant to the proposed rulemaking are included in Appendix A. Commenter numbers beginning with "T" were derived from the transcripts of the public meetings held at NRC Headquarters on May 21-22, 2003.

<b>Commenter</b>	<b>Commenter Number</b>	<b>Sections</b>
American Iron and Steel Institute	2564	3.1, 3.1.2, 4.1, 4.1.3, 5.2, 5.2.1, 6.1
American Iron and Steel Institute	T1-9	5.1.2
American Nuclear Society	30	3.2
Association of State and Territorial Solid Waste Management Officials	2577	2.1, 2.2, 2.2.1, 3.1.1, 3.2, 3.2.1, 3.2.2, 5.1.3, 5.1.8, 5.2.6, 8.4, 10.1, 12.5
Association of State and Territorial Solid Waste Management Officials	T2-19	5.1.9, 11.7
Blockey-O'Brien, Pamela	2526	4.1.2, 5.1, 5.1.6, 7.1, 7.1.1, 7.1.3, 8.3, 8.5, 8.7, 11.4, 11.7, 12.2, 12.6
Bradtec Decon Technologies, Ltd.	TI-1	4.1.4, 13.4
Broad Top Township	95	5.1.2, 5.1.7, 5.1.10
Broad Top Township, Pennsylvania	T2-32	5.1.2, 5.1.4, 5.1.6, 5.1.7, 5.1.10, 5.1.11
Cancer Awareness Coalition	2509	7.1, 7.1.1, 11.1, 11.5
Christina Parascandolas, Metal Industry Recycling Coalition	T2-35	5.2, 5.2.1, 5.2.3
Collier Shannon Scott, PLLC	2587	2.1, 2.1.1, 2.1.2, 3.1.1, 9.5, 12.5, 13.1, 13.5
Collier Shannon Scott, PLLC	2586	2.1, 3.1, 3.1.1, 4.1, 4.1.3, 5.2, 5.2.1, 5.2.3, 6.1, 11.2, 13.4
Committee to Bridge the Gap	2557	6.1, 6.1.3, 8.5, 11.7, 12.6, 13.4
Conference of Radiation Control Program Directors, Inc.	2583	3.2, 4.2.1, 4.2.3, 5.2.3, 13.2, 13.5, 14.1, 14.3
Conservation Council of North Carolina	1611	6.1, 6.1.3, 7.1, 9.3
Consumer Federation of America	1902	2.1, 3.1, 3.1.3, 4.1.2, 5.1, 5.1.4, 6.1.4, 7.1, 7.1.1, 7.1.2, 7.1.3, 11.4, 11.5, 11.6, 13.4
Council on Radionuclides and Radionuclides and Radiopharm.	2500	3.2, 3.2.1, 5.1.9, 11.5, 12.1, 12.3, 12.4, 12.5
David Joseph Company	T2-22	3.2.2, 5.1.12, 12.3
David Joseph Company	T1-22	14.2, 14.3
Denison, Eric	14	11.1, 13.4
Department of Energy	T2-28	12.1
Dray, Kay	2613	3.1, 11.7, 11.8, 12.10, 13.2
Duratek, Inc.	2498	4.1.1, 4.1.4, 4.2.2, 4.2.3, 5.1.11
Envirocare of Utah, Inc.	2570	3.2.1, 10.1, 12.5
Environmental Coalition on Nuclear Power	2450	7.1.2, 8.2, 8.3, 8.5, 8.6, 8.7, 11.3, 12.2, 12.6
EPA Office of Radiation and Indoor Air	T2-34	5.1.9, 5.1.11
Farley, Linda and Gene	1092	3.1

Commenter	Commenter Number	Sections
Florida Chapter of the Sierra Club	2502	2.1, 2.2.1, 3.1, 3.1.2, 4.1.2, 5.1, 5.1.4, 5.1.6, 5.1.11, 6.1.4, 6.1.5, 6.1.7, 8.5
Framatome ANP, Inc.	2580	2.2, 2.2.1, 3.2, 3.2.1, 4.1.5, 5.2, 5.2.4, 6.1.2, 8.4, 8.7
Fuel Cycle Facilities Forum	T1-3	13.4
Fuel Cycle Facilities Forum	T2-3	4.1, 5.1.7, 6.1.6
Government Accountability Project	416	3.1, 3.1.3, 4.1.1, 4.1.4, 4.2.1, 6.1, 7.1, 9.3
Grassroots Recycling Network	2560	5.1, 5.1.3, 5.1.4, 5.1.6, 5.1.9, 5.2.3, 7.1, 11.5, 11.7, 13.3, 13.5
Health Physics Society	203	3.2, 3.2.1, 5.2
Health Physics Society	T2-14	3.2, 3.2.2, 4.2.3, 10.1
Health Physics Society	T1-14	3.2.1
IC Consulting	T2-26	3.1.3, 11.7
IC Consulting	T1-26	11.7
Institute of Scrap Recycling Industries	T1-16	13.1, 13.4
Institute of Scrap Recycling Industries	T2-16	12.2
International Atomic Energy Agency	T1-15	4.2, 11.4, 12.5
International Depleted Uranium Study Team	850	7.1, 7.1.1, 7.1.2, 8.3, 11.7
Kennecott Uranium Company	2488	2.2, 3.1.3, 4.1.1, 5.1.6, 5.1.8
Lombard, Debra	102	5.1.6, 6.1, 6.1.3, 6.1.4, 6.1.5, 7.1, 7.1.3, 9.1, 12.6, 12.7, 14.3
Lux, Jeff	2521	9.1
Lux, Jeff	2519	3.2.1, 8.7, 11.4, 12.1, 12.3
Massachusetts Department of Public Health	T2-17	4.1.1, 5.1.9, 10.1
Metal Industry Recycling Coalition	T2-24	4.1.3, 4.2.1
Metal Industry Recycling Coalition	T1-24	4.1, 4.1.3, 4.1.4, 4.2.1, 5.2, 7.1, 7.1.5, 13.1, 13.5
N.Y. State Department of Environmental Conservation	T1-25	10.1
National Council on Radiation Protection and Measurements	T1-21	3.2, 9.5, 12.5, 13.5
National Council on Radiation Protection and Measurements	T2-21	11.7, 13.2, 13.4
National Mining Association	2487	2.2, 4.1, 6.1.6, 12.3
National Ready Mixed Concrete Association	T1-12	13.1
National Ready Mixed Concrete Association	1610	7.1, 7.1.5, 11.2, 11.3, 11.8, 12.10, 13.1, 13.4, 14.1
Natural Resources Defense Council, Inc	2536	2.1, 3.1, 3.2.2, 5.1, 5.1.10, 6.1, 6.1.8, 11.2, 11.4, 11.7, 14.1, 14.3
New England Coalition, Inc.	2611	3.1.2, 4.1.1, 4.1.2, 6.1.6, 7.1.1, 11.1, 12.2
New Mexico Environment Department	T2-8	4.1.1, 5.1.3, 14.2

Commenter	Commenter Number	Sections
New Mexico Environmental Law Center	1635	7.1.1, 11.5, 12.6
New York State Department of Environmental Conservation	T2-25	5.1.3
Next Step Environmental	T1-27	3.1.2, 14.3
Next Step Environmental	T2-27	12.3, 12.5, 12.10, 13.5
North American Water Office	T1-10	7.1.3, 7.1.4, 9.5, 11.4, 11.6, 12.10
Nuclear Energy Institute	T1-100	13.4
Nuclear Energy Institute	2566	3.1.1, 10.1, 10.2, 12.1, 12.5, 12.6
Nuclear Energy Institute	T2-11	3.2, 10.1, 10.7
Nuclear Energy Institute	T1-11	3.2, 5.2, 8.4, 10.2
Nuclear Fuel Services, Inc.	2532	3.2, 3.2.1, 4.1, 4.1.5, 14.1, 14.2
Nuclear Information and Resource Service	T2-4	4.1.1, 4.1.2, 5.1.12, 5.1.13, 9.1, 9.2, 10.1.1, 11.5, 12.6
Nuclear Information and Resource Service	T1-4	2.1, 3.1, 3.1.3, 4.1.1, 5.1, 5.1.4, 5.1.6, 5.1.9, 7.1.1, 11.1, 11.3, 11.4, 11.5, 11.7, 12.2, 14.1, 14.2
Nuclear Information and Resource Service	2568	2.1, 2.2.1, 3.1, 3.1.1, 3.1.2, 3.1.3, 4.1, 4.1.1, 4.1.2, 5.1, 5.1.1, 5.1.4, 5.1.5, 5.1.6, 5.1.9, 5.1.11, 5.2, 6.1.3, 6.1.4, 7.1.1, 8.3, 8.5, 8.7, 9.1, 9.2, 11.1, 11.2, 11.4, 11.5, 11.7, 12.2, 12.3, 12.4, 12.5, 12.6, 12.9, 12.10, 13.1, 13.4, 13.5, 14.3
Ottley, Davis	89	2.1, 3.2, 3.2.1, 4.1, 4.1.1, 5.1.10
Pennsylvania Department of Environmental Protection	T2-36	11.7
Pharmaceutical Research and Manufacturers of America	1892	5.2, 5.2.1, 5.2.2, 5.2.4, 5.2.5, 5.2.6, 10.1, 13.2
Power Reactor Section of the Health Physics Society	2531	3.1.3, 3.2, 3.2.1, 3.2.2, 14.2
PPL Susquehanna, LLC	2562	3.2, 3.2.1, 3.2.2, 4.1.5, 4.2, 5.2, 5.2.1, 8.4, 8.7, 10.1, 12.5, 14.2
Preister, Don, Senator, Nebraska District 5	2535	3.1, 6.1.6, 7.1, 7.1.1, 8.3, 9.3, 10.2, 11.4, 11.5, 12.2, 13.1, 13.2, 13.4, 14.3
Public Citizen	T1-20	2.1, 3.1, 3.1.4, 4.1.1, 4.1.4, 5.1, 5.1.6, 6.1, 6.1.1, 13.3, 14.3
Public Citizen	T2-20	9.1, 11.1, 11.2, 11.4
Public Citizen	2567	7.1, 7.1.1, 7.1.3
Public Citizen's Critical Mass Energy and Environment Program	2588	2.1, 3.1, 3.1.4, 4.1.2, 4.1.3, 4.1.4, 5.1, 5.1.6, 6.1, 6.1.3, 6.1.4, 6.1.5, 7.1.1, 7.1.3, 8.3, 8.7, 9.1, 11.4, 12.6, 12.7, 14.3
Ralph, Neil	168	7.1, 11.1
Robinson, Stan	2541	5.1.1, 6.1.3, 6.1.4
Sacramento Municipal Utility District	2584	4.1, 5.2, 10.1
Shaw, Sally	145	4.1, 4.1.1, 6.1, 7.1, 7.1.1, 7.1.3, 7.1.4, 12.6
Sierra Club	T1-13	10.1.1, 11.3, 11.4, 11.5, 11.8
Sierra Club	T2-13	2.1, 8.3, 9.1, 11.4, 12.4

<b>Commenter</b>	<b>Commenter Number</b>	<b>Sections</b>
Sierra Club	2451	2.1, 2.2.1, 3.1, 3.1.2, 4.1, 4.1.1, 4.1.2, 4.1.4, 4.2.1, 5.1, 5.1.1, 5.1.4, 5.1.6, 5.1.9, 5.1.10, 5.1.11, 6.1.6, 7.1, 7.1.1, 7.1.2, 7.1.6, 8.3, 8.5, 8.6, 9.1, 9.2, 9.4, 9.5, 10.1.1, 11.1, 11.3, 11.4, 11.5, 12.2, 12.3, 12.5, 12.6, 12.8, 12.9, 12.10, 13.3, 13.4, 14.1
Solid Waste Management Association of America	T2-30	5.1.3, 5.1.5, 5.1.11
Southeast Compact Commission	2612	3.2.1, 3.2.2, 12.5
Southern California Edison	2585	3.2.1, 4.1.5, 5.2, 5.2.1, 5.2.4, 5.2.6, 8.3, 10.1, 10.2, 11.1, 12.7
State of Texas Department of Health	T2-31	5.1.11
Strategic Teaming and Resource Sharing (STARS)	2590	3.2.1, 4.2, 8.4, 10.2, 12.5
Tennessee Valley Authority	1640	3.2.1
The Boeing Company	1773	2.2, 3.2.1, 4.1.1, 5.1.7, 5.1.8, 6.1.6, 8.1, 10.1, 12.3
Tyco Healthcare/Mallinckrodt	T1-2	5.1.9
Tyco Healthcare/Mallinckrodt	T2-2	11.2
U.S. Department of Energy	T2-23	4.1.5
U.S. Department of Energy	T1-23	3.2, 12.5
U.S. Department of Energy	2571	9.1, 12.5
United Steel Workers of America	T2-7	4.1.1
United Steel Workers of America	T1-7	5.1.6
United Steelworkers of America	2439	2.1, 3.1, 3.1.3, 4.1.1, 4.1.4, 5.1, 5.1.1, 5.1.2, 5.1.6, 6.1, 9.1, 10.2, 11.2
US Ecology	24	4.1.3, 5.2, 5.2.4
Washington State Department of Health	T1-18	2.2, 3.2, 3.2.1, 4.1.4
Washington State Department of Health	T2-18	4.1.5, 10.1
Washington State Department of Health/Division of Radiation Protection	215	3.2, 4.1.3, 4.1.4, 4.1.5
Waste Control Specialists	T1-6	5.1.10, 5.2, 5.2.3
Waste Control Specialists	T2-29	5.1.3, 5.1.9, 5.2.6
Waste Management	T2-33	5.1.9, 5.1.11, 5.1.12
Waste Management, Inc.	2527	5.1.5, 5.1.9, 5.1.11, 5.2, 5.2.6
Westinghouse	T1-101	2.2.1
Wyoming Mining Association	2565	2.2, 3.1, 3.1.3, 4.1.1, 5.1.6, 5.1.8



**APPENDIX B**  
**CROSS REFERENCE OF COMMENTERS BY COMMENTER NUMBER**

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
1	Shively, Lisa	Private Citizen
2	Wilkerson, L.	Private Citizen
3	Grainey, Karen	Private Citizen
4	Katzman, David	Private Citizen
5	Farmer, W. Gene	Private Citizen
6	Ring, Marian	Private Citizen
7	Watt, Katherine	Private Citizen
8	Mitchell, Colleen	Private Citizen
9	Mueller, Peter	Private Citizen
10	Sheff, Christian	Private Citizen
11	Villanova University	Private Citizen
12	Fowler, Jeff	Private Citizen
13	Storms, Peter J.	Private Citizen
14	Denison, Eric	Private Citizen
15	Farina, Maria	Private Citizen
16	Cremons, Joe	Private Citizen
17	Czamanske, John	Private Citizen
18	Caselli-Smith, Dowell	Private Citizen
19	Barrios, Thomas	Private Citizen
20	St. Mary/St. Peter Human Concerns Committee	Other Organization
21	Lewis, Marvin	Private Citizen
22	Carter, Ruth A.	Private Citizen
23	Farina, Maria	Private Citizen
24	US Ecology	Industry
25	Fahouris, Fotine	Private Citizen
26	Sullivan, William John	Private Citizen
27	Brister, Bob	Private Citizen
28	King, Joan O.	Private Citizen
29	Giese, Mark M.	Private Citizen
30	American Nuclear Society	Other Organization
31	Imlay, Robert	Private Citizen
32	Johnston, Mary E.	Private Citizen
33	Goodman, Sidney J.	Private Citizen
34	Walen, Tommy	Private Citizen
35	Stole, Lori	Private Citizen
36	Wyss, Cassie	Private Citizen
37	Papandrea, John	Private Citizen
38	Sparnicht Testtestjkl, Chris	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
39	Warrender, Craig	Private Citizen
40	Hoff, Marilyn	Private Citizen
41	Ogren, Lorrie	Private Citizen
42	Arkwright, Jr., Bruce	Private Citizen
43	Funderburk, Thomas	Private Citizen
44	Davis, Frank D.	Private Citizen
45	Novak, Karl J.	Private Citizen
46	Taylor, Marcus	Private Citizen
47	Pratt, Kim	Private Citizen
48	Garlappi, Camillo	Private Citizen
49	Gonzalez, Julian	Private Citizen
50	Karpen, Leah R.	Private Citizen
51	Haan, Wendy	Private Citizen
52	Stan, Evan	Private Citizen
53	Klein, Daniel	Private Citizen
54	Allgood, Clarice	Private Citizen
55	Bevard, Linda S.	Private Citizen
56	Wen, Frederick	Private Citizen
57	O'Connell, Thomas F.	Private Citizen
58	Wu, David	Private Citizen
59	Stoudemire, Anna	Private Citizen
60	Morganstein, Emily	Private Citizen
61	Larkin, Amanda	Private Citizen
62	Johnson, Karen	Private Citizen
63	Nelson, Brett	Private Citizen
64	Frontz, Jeffri	Private Citizen
65	Larson, Erik	Private Citizen
66	Berns, Carolyn	Private Citizen
67	von Ranson, Jonathan	Private Citizen
68	Barnes, Brent T.	Private Citizen
69	Koen, David	Private Citizen
70	Dalton, Gerald J.	Private Citizen
71	Hasenus, Kenneth	Private Citizen
72	Pratt, Jonathan	Private Citizen
73	Uransky, Gayna	Private Citizen
74	Naiman, Ruth	Private Citizen
75	Leppin, Pam	Private Citizen
76	Reilly, Peter C.	Private Citizen
77	Robinson, Elizabeth	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
78	Salgado, Liane	Private Citizen
79	Shuttler, Archie	Private Citizen
80	Arkwright Jr., Bruce	Private Citizen
81	Williams	Private Citizen
82	Spring, Barbara	Private Citizen
83	McGilligan, Mary	Private Citizen
84	Adams, Virginia	Private Citizen
85	Overby, Stuart	Private Citizen
86	Martellaro, Karen L.	Private Citizen
87	Ozkan, dogan	Private Citizen
88	Alford, Jess	Private Citizen
89	Ottley, Davis	Private Citizen
90	Kirsch, Fred	Private Citizen
91	Rolfes, Kevin	Private Citizen
92	Weishaar, Jennifer	Private Citizen
93	Bachman, Jason	Private Citizen
94	Milt Cunningham Literary Concepts	Other Organization
95	Broad Top Township	Government
96	Cunningham, Kathleen	Private Citizen
97	Forest, Kristal	Private Citizen
98	Collins, Stefanie	Private Citizen
99	McFarland, Hannah	Private Citizen
100	Umeda, Stephanie	Private Citizen
101	Bennett, William C.	Private Citizen
102	Lombard, Debra	Private Citizen
103	Laudon, Elisabeth	Private Citizen
104	Robinson, Elizabeth	Private Citizen
105	McGilligan, Mary E.	Private Citizen
106	Finsen, Susan M.	Private Citizen
107	Matthews, Kevin	Private Citizen
108	Orkin, Jenna	Private Citizen
109	Klouppe, Ilona	Private Citizen
110	Charman, Karen	Private Citizen
111	O'Brien, Pat	Private Citizen
112	Miner-Nordstrom, Dan	Private Citizen
113	Davis, Laurel	Private Citizen
114	Gilbert, Toni	Private Citizen
115	Zeichner, Walter I.	Private Citizen
116	Helmstetter, Chris	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
117	Lee, Lita	Private Citizen
118	Kelton, Steve	Private Citizen
119	Cox, Kevin	Private Citizen
120	Aggen, Tim	Private Citizen
121	Blurton, Anna	Private Citizen
122	Durocher, Suzanne	Private Citizen
123	Peek, Linda	Private Citizen
124	Manire-Gatti, Eleanor	Private Citizen
125	Kauffman, Josh	Private Citizen
126	Kent, Stephen D.	Private Citizen
127	Davenport, Stirling	Private Citizen
128	Bovarnick, Ellen	Private Citizen
129	Crouch, Edward D.	Private Citizen
130	Hanson, Art	Private Citizen
131	Watson, Claire	Private Citizen
132	Jansson, Lars	Private Citizen
133	Mickey, Katie	Private Citizen
134	Muldrew, Cecil	Private Citizen
135	Fraser, Genevieve C.	Private Citizen
136	Howe, Robert L.	Private Citizen
137	Channon, Dave	Private Citizen
138	Howe, Ollie	Private Citizen
139	Oskins, Clyde J.	Private Citizen
140	Bowman, Mitzi	Private Citizen
141	Zaino, Liza	Private Citizen
142	Cameron, Daniel	Private Citizen
143	Aloo, Veronica	Private Citizen
144	White, Ely	Private Citizen
145	Shaw, Sally	Private Citizen
146	Black-Ferguson, Jeanne Marie	Private Citizen
147	Morris, Rachel	Private Citizen
148	Laxon, Barbara	Private Citizen
149	Schrank, Esther Frances	Private Citizen
150	Carter, Ellen	Private Citizen
151	Perez, Susan M.	Private Citizen
152	Graham, Holly G.	Private Citizen
153	Gause, Phoebe	Private Citizen
154	Freeman, Nora	Private Citizen
155	Lepreau, Renee	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
156	Brown, Monya	Private Citizen
157	Oregon Peace Works	Other Organization
158	Lee-Cunningham, Bonda	Private Citizen
159	Gaccione, Cathy	Private Citizen
160	Reith, Kimi	Private Citizen
161	Stanley, Chris	Private Citizen
162	Guerriero, Marcella	Private Citizen
163	Cross, Joan	Private Citizen
164	Woz, Greg	Private Citizen
165	Praderas, Daal	Private Citizen
166	Cumbie, Ty	Private Citizen
167	Tussing, Katherine	Private Citizen
168	Ralph, Neil	Private Citizen
169	HOME:Healing Ourselves and Mother Earth	Environmental Group
170	Munroe, Gretel	Private Citizen
171	Amador, Ed	Private Citizen
172	McGrath, Joyce	Private Citizen
173	Rainey, John	Private Citizen
174	Nadle, Jonathan	Private Citizen
175	Young, Faith	Private Citizen
176	Victor, Anne	Private Citizen
177	Ahmadi, Kate S.	Private Citizen
178	Mclver, Dorothy	Private Citizen
179	Goad, Rachel	Private Citizen
180	Swan, Alison	Private Citizen
181	Zeman, Terri	Private Citizen
182	Mullins, Susan C.	Private Citizen
183	Southern California Ecumenical Council	Other Organization
184	Adams, Dani	Private Citizen
185	Gamburd, Geraldine	Private Citizen
186	Kenschaft, Patricia Clark	Private Citizen
187	Hatz, Diane	Private Citizen
188	Sheble, Anne	Private Citizen
189	O'Herin, Buck	Private Citizen
190	Smith, Adelaide	Private Citizen
191	Hall, Gretchen	Private Citizen
192	DiPalma, Austen A.	Private Citizen
193	El, Kai A.	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
194	Walen El, Tommy	Private Citizen
195	Serene, Anastasia	Private Citizen
196	Mankiewicz, Dr. Julie	Private Citizen
197	Name Not Provided	Private Citizen
198	Jordan, Debora	Private Citizen
199	Watson, Claire	Private Citizen
200	Fonda, Joe	Private Citizen
201	Hanson, Kim	Private Citizen
202	Hurt, Susan M.	Private Citizen
203	Health Physics Society	Other Organization
204	Zamonas, Cathy	Private Citizen
205	Lockridge, Ross	Private Citizen
206	Higginbotham, Alexis	Private Citizen
207	Albert, Kathy	Private Citizen
208	Cunningham, Prudence	Private Citizen
209	Eichelberger, Don	Private Citizen
210	Cone, Nelson B.	Private Citizen
211	Adams, Robert M.	Private Citizen
212	Mullins, Susan C.	Private Citizen
213	Khalsa, Mha Atma S.	Private Citizen
214	Action for a Clean Environment	Environmental Group
215	Washington State Department of Health/Division of Radiation Protection	Government
216	Hart, Vicki	Private Citizen
217	Judge, Kathy	Private Citizen
218	Immel, Scott M.	Private Citizen
219	Jebousek, Nyla L.	Private Citizen
220	Warner, Darryl	Private Citizen
221	Owens, Laura	Private Citizen
222	Licht, Suzanne	Private Citizen
223	Platsis, Zach	Private Citizen
224	Petrie, Noel	Private Citizen
225	Kiebler, Kurt	Private Citizen
226	Stivers, Craig	Private Citizen
227	Swanson, Michael	Private Citizen
228	Humphrey, Martha	Private Citizen
229	Whitefield, Anne	Private Citizen
230	Sierra Club	Environmental Group
231	Fairhurst, Michael	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
232	Shubert, Richard	Private Citizen
233	Stuckman, Scott	Private Citizen
234	Faubion, David	Private Citizen
235	Lyne, George	Private Citizen
236	Bonney, James	Private Citizen
237	Reese, Matthias	Private Citizen
238	Berger, Eric	Private Citizen
239	Kaplan, Phil and Susie	Private Citizen
240	Marsh, Robert	Private Citizen
241	Roux, Donald and Connie	Private Citizen
242	Walker, Kay	Private Citizen
243	Sanders, Ginger	Private Citizen
244	Frderickson, Marie	Private Citizen
245	Vaughn, Gail	Private Citizen
246	Gerlach, Jim	Private Citizen
247	Newton, Joan	Private Citizen
248	Ellis, Donna	Private Citizen
249	Miller, Lene	Private Citizen
250	McGillivray, Michael	Private Citizen
251	Garcia, Christine	Private Citizen
252	O'Leary, Georgene	Private Citizen
253	Eldon, Jim	Private Citizen
254	Miller, Daniel	Private Citizen
255	Batey, Sandra	Private Citizen
256	Hutto, Janet	Private Citizen
257	Davis, Robert	Private Citizen
258	Goldstein, Sidney	Private Citizen
259	Kane, Coleman	Private Citizen
260	Brunick, Eric	Private Citizen
261	Feldman, Mark	Private Citizen
262	Simber, Tina	Private Citizen
263	Vertrees, Gerald	Private Citizen
264	Thompson, Ian	Private Citizen
265	Beckman, Nathaniel	Private Citizen
266	Lebert, Mary	Private Citizen
267	Hughes, David	Private Citizen
268	Maxwell, Audrey	Private Citizen
269	Bailey, John	Private Citizen
270	Daniels, Jason	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
271	Stein, Kathy	Private Citizen
272	Harr, Jennifer	Private Citizen
273	Thurston Timmerman, Don and Roberta	Private Citizen
274	Miranda, Tina	Private Citizen
275	Gerlach, Amelia	Private Citizen
276	Renfro, Stan	Private Citizen
277	Jabs, Sharon	Private Citizen
278	O'Leary, Patricia	Private Citizen
279	Cantwell, James	Private Citizen
280	Milliner, Susan Emge	Private Citizen
281	Fredericks, Misha	Private Citizen
282	Lally, Joachim	Private Citizen
283	Connor, Thomas V.	Private Citizen
284	Cayford, Laura	Private Citizen
285	Kitman, Lorraine	Private Citizen
286	Galligan, Kathy	Private Citizen
287	Durkin, Chris	Private Citizen
288	Zehr, Karl	Private Citizen
289	Peppard, Jeanne	Private Citizen
290	Giglio, Sharon	Private Citizen
291	Kimball, Heber	Private Citizen
292	Reback, Mark	Private Citizen
293	Tiffany, Peter	Private Citizen
294	Mitchell, Nancy	Private Citizen
295	Portolese, Joseph	Private Citizen
296	Bowling, Michael	Private Citizen
297	Gehret, William	Private Citizen
298	Mirabile, Joe	Private Citizen
299	Demar, Ben	Private Citizen
300	Manos, John	Private Citizen
301	Dallaire, Paul	Private Citizen
302	Otto, Michael	Private Citizen
303	Valenty, Allene	Private Citizen
304	Whitnah, Claudia	Private Citizen
305	Roux, Dorothy A.	Private Citizen
306	Williamson, Norma	Private Citizen
307	Doyle, Eugene	Private Citizen
308	Koonce, Coralie	Private Citizen
309	Brown, Amy	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
310	Beckner, Azel	Private Citizen
311	Hart-vonKeller, Gretchen	Private Citizen
312	Farnworth, Anita	Private Citizen
313	Cole, Lester	Private Citizen
314	Reinke, Jadwiga	Private Citizen
315	Mays, James	Private Citizen
316	Lassiter, Robert	Private Citizen
317	Derzon, Jim	Private Citizen
318	Brader, Jason	Private Citizen
319	Peterson, Ron	Private Citizen
320	Juozunas, Laura	Private Citizen
321	Mahnke, Ker	Private Citizen
322	Mays, Marion	Private Citizen
323	Thomas, Ellen	Private Citizen
324	Anderson, Ryan	Private Citizen
325	Rejeske, Jennifer	Private Citizen
326	Scanion, Kelley	Private Citizen
327	Lesko, Robert	Private Citizen
328	Downs, David	Private Citizen
329	Harig, Laure	Private Citizen
330	Zehner, Kristen	Private Citizen
331	Suggs, Charles	Private Citizen
332	Anelli, Darla	Private Citizen
333	Nuppula, Kara	Private Citizen
334	McClintic, Bruce	Private Citizen
335	Greene, Alan	Private Citizen
336	Calder, Virginia	Private Citizen
337	Gallimore, Paul	Private Citizen
338	Regan, Deborah	Private Citizen
339	Carlson, Elan	Private Citizen
340	Brehm, Joseph	Private Citizen
341	Darnall, Lyn	Private Citizen
342	Hovanesian, Armineh	Private Citizen
343	Laird, Michael	Private Citizen
344	Chinn, Evangeline	Private Citizen
345	Burns, Deborah	Private Citizen
346	Bassett, William	Private Citizen
347	Pecora, Jerry	Private Citizen
348	Alvarez, Charles	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
349	Leddy, Jane	Private Citizen
350	Walker, Todd	Private Citizen
351	Parker, C. Nevil	Private Citizen
352	Cooley, Devlon	Private Citizen
353	Bussard, James	Private Citizen
354	Muller, Henry	Private Citizen
355	Scianna, Paolo	Private Citizen
356	Natsoulas, Andrianna	Private Citizen
357	Corbo, Anthony	Private Citizen
358	Hardy, Ann	Private Citizen
359	Wen, Frederick	Private Citizen
360	Neuhauser, Andrew	Private Citizen
361	La Croix, Eula	Private Citizen
362	van Davis, Jeffrey	Private Citizen
363	van Davis, Barbara	Government
364	Shirey, Keith	Private Citizen
365	Muehlenkamp, Angela D.	Private Citizen
366	Shaw, Barbara A.	Private Citizen
367	Witherspoon, Ann	Private Citizen
368	Carter-White, Kathy	Private Citizen
369	Foster, Ran	Private Citizen
370	Oslin, Sanda	Private Citizen
371	Stebler, Timothy	Private Citizen
372	Woods, Mara	Private Citizen
373	Quinn IV, Frederick	Private Citizen
374	Bertuglia, Andrew	Private Citizen
375	Coleman, Judy	Private Citizen
376	Riddell, Michele	Private Citizen
377	Samuel, Michelle	Private Citizen
378	Kozlowski, Thaddeus	Private Citizen
379	Stone, Robert	Private Citizen
380	Jay, Patty	Private Citizen
381	Pridgeon, Carol	Private Citizen
382	Turner, Kathleen Kaeding	Private Citizen
383	Whitley, Kathleen	Private Citizen
384	Payne, John	Private Citizen
385	Ewing, Barbara E.	Private Citizen
386	Tindall, Tavia	Private Citizen
387	Carey, Brian	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
388	Malkind, Stephanie	Private Citizen
389	Johnston, Timothy	Private Citizen
390	Arkwright, Jr., Bruce	Private Citizen
391	Kelly, Cate	Private Citizen
392	Cousins, Vera	Private Citizen
393	Carella, Len	Private Citizen
394	Hodnett, Dean K.	Private Citizen
395	Moss, Mikasa	Private Citizen
396	Little, Rosa Cole	Private Citizen
397	Farrar, Katie	Private Citizen
398	Vinson, John	Private Citizen
399	Stern, Bill	Private Citizen
400	Lamberson, Jason	Private Citizen
401	Herder, Jon Den	Private Citizen
402	Luppino, Virginia	Private Citizen
403	Sunshine, Jane	Private Citizen
404	Johnson, Karen	Private Citizen
405	Jolley, Arleen	Private Citizen
406	Kirby, Laurence	Private Citizen
407	Sansone, Rik	Private Citizen
408	Roy, Dennis	Private Citizen
409	Gilbert, Jr., Claude	Private Citizen
410	Braverman, Christian	Private Citizen
411	Bjorklund, Kaijah	Private Citizen
412	Loveless, Laura	Private Citizen
413	Higgins, Barrie	Private Citizen
414	Leddy, Jane	Private Citizen
415	Bryant, Greg	Private Citizen
416	Government Accountability Project	Other Organization
417	Tyson, Joan	Private Citizen
418	Carlisle, Marilyn	Private Citizen
419	Dunn, Yvonne	Private Citizen
420	Reid, Glen A.	Private Citizen
421	Rosenberger, Paul W.	Private Citizen
422	Hardwick, Barbara	Private Citizen
423	Lewi, MD, Jack E.	Private Citizen
424	Tunick, Janet	Private Citizen
425	Earles, Jennifer	Private Citizen
426	Gutman, Carl	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
427	Hall, Gimone	Private Citizen
428	Mihopoulos, Barbara	Private Citizen
429	Crosby, Lorna	Private Citizen
430	Henderson, Cydney	Private Citizen
431	Grinnell, Joseph	Private Citizen
432	Wallace, Gerald	Private Citizen
433	Kresha, Matthew	Private Citizen
434	Roche, Justin	Private Citizen
435	Hornberger, Sarah	Private Citizen
436	Meissner, Peter	Private Citizen
437	Eckel, Nancy M.	Private Citizen
438	Courter, Matthe R.	Private Citizen
439	Bowling, Jaclynn	Private Citizen
440	Cinelli, Donna	Private Citizen
441	Tifford, Paul	Private Citizen
442	Horvath, David	Private Citizen
443	Osterberg, Eli	Private Citizen
444	Wylie-Sears, Dan S.	Private Citizen
445	Hannon, Than	Private Citizen
446	Bard, Imre	Private Citizen
447	Goodin, Robert	Private Citizen
448	Franklin, Hilary	Private Citizen
449	Mock, Erin Lee	Private Citizen
450	Burton, Chaz	Private Citizen
451	Action for a Clean Environment	Environmental Group
452	Stevens, Denise	Private Citizen
453	Kirby, Carolyn	Private Citizen
454	Loveless, Laura	Private Citizen
455	Frank, Merrill	Private Citizen
456	Powell, Catherine	Private Citizen
457	Simpson, Robin	Private Citizen
458	Bouchet, Mike	Private Citizen
459	Wagner, James	Private Citizen
460	Lynch, Frances	Private Citizen
461	Hartsfield, Beverly	Private Citizen
462	Greenhough-Gibson, Carol	Private Citizen
463	Perry, Ben	Private Citizen
464	Shiller, Robert	Private Citizen
465	Engebretson, Russell	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
466	Biskovich, Amy	Private Citizen
467	Landa, Hazel	Private Citizen
468	Sterling, Suzanna	Private Citizen
469	Berghofer, Richard	Private Citizen
470	Metcalfe, Brian	Private Citizen
471	Tromm, Curtis	Private Citizen
472	Lawson, Pippa	Private Citizen
473	Jordan, Patti	Private Citizen
474	Stulman, Michael	Private Citizen
475	Newhouse, C.	Private Citizen
476	Lowe, Patsy	Private Citizen
477	Everton, Clyde	Private Citizen
478	Brown, Myrna	Private Citizen
479	Hingorani, Micky	Private Citizen
480	Isaacson, Joel	Private Citizen
481	Wechsler, Curt	Private Citizen
482	Jacobi, Veronica	Private Citizen
483	Day, Elena	Private Citizen
484	Geary, B.	Private Citizen
485	Seff, Leslie	Private Citizen
486	Cox, Lesley	Private Citizen
487	Williams, et al., Rose M.	Private Citizen
488	Gianini, Gary	Private Citizen
489	Scurrah, James	Private Citizen
490	Turnbull, Clay	Private Citizen
491	Spres, Tina	Private Citizen
492	Shiller, Robert	Private Citizen
493	Muller, Henry	Private Citizen
494	Galston, Mamie	Private Citizen
495	Park, Colin	Private Citizen
496	Davidson, Shannon	Private Citizen
497	Lehmann, Hilde	Private Citizen
498	Eisenberg, Nicol M.	Private Citizen
499	Khalsa, Siri Ved K.	Private Citizen
500	Dewey, Susan	Private Citizen
501	Griffin, Paul	Private Citizen
502	Kirby, Laurence	Private Citizen
503	Beckner, Azel	Private Citizen
504	Cohen, Jennifer	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
505	West, James L.	Private Citizen
506	Kiebler, Kurt	Private Citizen
507	Hart-vonKeller, Gretchen	Private Citizen
508	Phillips, Tomi	Private Citizen
509	Borje, Christine	Private Citizen
510	Hansen, M. J.	Private Citizen
511	Corbin, Luella	Private Citizen
512	Hughes, Eve	Private Citizen
513	Shiller, Robert	Private Citizen
514	Starr, Julie	Private Citizen
515	Gallaher, Timothy	Private Citizen
516	Noack, Eunice	Private Citizen
517	Kirkpatrick, Ph.D., Joanna	Private Citizen
518	Chigas, Dia	Private Citizen
519	O'Connor, Darren	Private Citizen
520	Dodge, Katharine	Private Citizen
521	Horvtath, Anne	Private Citizen
522	Tompkins, Aiken	Private Citizen
523	Canpbell, Robert	Private Citizen
524	Stukas, Deborah	Private Citizen
525	Skoglund, Chris	Private Citizen
526	Rolfes, Kevin	Private Citizen
527	Rolfes, Kay	Private Citizen
528	Demmer, Dian	Private Citizen
529	Barolet, Lynne Rigney	Private Citizen
530	Kramer, Cathay	Private Citizen
531	Copeland, Marissa	Private Citizen
532	Schliessman, Peter	Private Citizen
533	Beer, Ernest	Private Citizen
534	Moore, Connie	Private Citizen
535	Chapman, Rose-Marie	Private Citizen
536	Colgate, Marlene	Private Citizen
537	McMullin, William	Private Citizen
538	Hinderliter, Donna	Private Citizen
539	Wood, Steve	Private Citizen
540	Stevenson, Timothy	Private Citizen
541	Beckett, Carter	Private Citizen
542	Paul, Edward	Private Citizen
543	Bott, Monica	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
544	Groobert, Lawrence	Private Citizen
545	Stires, Anne	Private Citizen
546	Burrow, Jack Robert	Private Citizen
547	Bohn, David	Private Citizen
548	Mack, Earl	Private Citizen
549	Cohen, Lisa	Private Citizen
550	Brown, Tristan	Private Citizen
551	Annd, Betsi	Private Citizen
552	Foss, Janice M.	Private Citizen
553	Austin, Christopher	Private Citizen
554	Hirsch, Fred	Private Citizen
555	Companero	Private Citizen
556	Mikelsons, Nancy	Private Citizen
557	Goldberg, Eve	Private Citizen
558	Manousos, Anthony	Private Citizen
559	Heatlie, Jody	Private Citizen
560	Zuckerman, Cory	Private Citizen
561	Jopp, Ken	Private Citizen
562	Keltner, Jeanie	Private Citizen
563	Scanlan, Dan	Private Citizen
564	Gaither, Larvester	Private Citizen
565	PooOoop	Private Citizen
566	Goggin, Cynthia	Private Citizen
567	Carlson, Keith	Private Citizen
568	Hannon, Nathaniel	Private Citizen
569	Hurst, Charlice	Private Citizen
570	Saksewwski, Shannon Lee	Private Citizen
571	Victoria	Private Citizen
572	Franson, John	Private Citizen
573	Tifford, Paul	Private Citizen
574	Pfeffer, Carla Ann	Private Citizen
575	Plath, Joyce	Private Citizen
576	Watson, Lisa	Private Citizen
577	Scarr, Carolyn	Private Citizen
578	Rusheed, Patricia A.	Private Citizen
579	Eiserman, Julie M.	Private Citizen
580	Welford, Jane	Private Citizen
581	Brown, Geoff	Private Citizen
582	Berg, Lori	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
583	Murphy, Emmett J.	Private Citizen
584	Smith, Quinda	Private Citizen
585	Brown, Frank W.	Private Citizen
586	Justice, Lincoln B.	Private Citizen
587	Beeler, Meg	Private Citizen
588	Leeper, Donald	Private Citizen
589	MacIntyre, Joan M.	Private Citizen
590	MacIntryre, Stuart	Private Citizen
591	Brown, Patria	Private Citizen
592	Horvath, David	Private Citizen
593	Franciso, Camilo	Private Citizen
594	Carroll, Char	Private Citizen
595	Espinosa, Carlos	Private Citizen
596	Vid, Da	Private Citizen
597	Scott, Mika	Private Citizen
598	Christi	Private Citizen
599	Erwin, Zoe	Private Citizen
600	Cook, Micaela	Private Citizen
601	Senders, Virginia L.	Private Citizen
602	Lennard, Spencer	Private Citizen
603	Markwig, Eva	Private Citizen
604	Laird, Gayle	Private Citizen
605	Pober, Michal	Private Citizen
606	Dodge, Shannon	Private Citizen
607	Breen, John	Private Citizen
608	Newnham, Randy	Private Citizen
609	Bard, Imre	Private Citizen
610	Ferguson, Dona	Private Citizen
611	Gundling, Daniela	Private Citizen
612	Gifford, Mike	Private Citizen
613	Pratt, James	Private Citizen
614	Pratt, Don B.	Private Citizen
615	McIntire, Peggy	Private Citizen
616	Sweeney, Margaret	Private Citizen
617	Kauffman, Ryan	Private Citizen
618	Barber, Kathleen	Private Citizen
619	Dubuque, Ray	Private Citizen
620	Falk, Nina	Private Citizen
621	DiLuglio, MS, RD, CNSD, Beth Ellen	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
622	Everett, Chris J.	Private Citizen
623	Donnelly, Seth	Private Citizen
624	Reality News Network	Other Organization
625	Peck, Sally	Private Citizen
626	Boswell, Amy	Private Citizen
627	Levine, Joan M.	Private Citizen
628	Jenvey, Paul	Private Citizen
629	Willemin, Chris	Private Citizen
630	Kogel, Nancy	Private Citizen
631	Porter, Shawn	Private Citizen
632	Chameides, Michael	Private Citizen
633	Trotta, Kristina	Private Citizen
634	Escobar, Amalio	Private Citizen
635	Levine, Dave	Private Citizen
636	Ortiz, Jessie	Private Citizen
637	Sordill, Pat	Private Citizen
638	Slagter, Dr. Janet	Private Citizen
639	O'Neal, John and Cassandra	Private Citizen
640	Madden, Thomas R.	Private Citizen
641	Bechman, Stuart	Private Citizen
642	Reynolds, IV, Edwin S.	Private Citizen
643	Moore, Danielle	Private Citizen
644	Beth, Alicia D.	Private Citizen
645	Severns, Laurel	Private Citizen
646	McKenna, Andrew	Private Citizen
647	Bteh, Bradley G.	Private Citizen
648	WorldPeace, John	Private Citizen
649	Victor, Arisa	Private Citizen
650	Liles, John Bruce	Private Citizen
651	Olshewsky, Steven J.	Private Citizen
652	Lorintzen, Robin	Private Citizen
653	Muth, Heather	Private Citizen
654	Clark, Craig	Private Citizen
655	Lombardo, Stephanie Alise	Private Citizen
656	Dean, Mary M.	Private Citizen
657	Blank, Joani	Private Citizen
658	de la Cruz, Aries	Private Citizen
659	Meredith, Phyllis	Private Citizen
660	Shields, Alice	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
661	Nigh, Greg	Private Citizen
662	Dunkley, Michael J.	Private Citizen
663	Haines, Beth Moore	Private Citizen
664	Alford, Raymond	Private Citizen
665	Lehman, Victoria	Private Citizen
666	Snyder, Erykaa	Private Citizen
667	Takarabe, Clara	Private Citizen
668	Sheldon, James	Private Citizen
669	Hall, Meghan	Private Citizen
670	Bobby, Susan	Private Citizen
671	Moren, Mike	Private Citizen
672	Higgins, Marcia	Private Citizen
673	Ferguson, Roger	Private Citizen
674	Peters, Michael	Private Citizen
675	Williams, Amy S.	Private Citizen
676	Hall, Cheryl	Private Citizen
677	Tollafeld, Jeff	Private Citizen
678	Hoffman, Erik	Private Citizen
679	Rivera, Jessica	Private Citizen
680	Hogarth, Connie	Private Citizen
681	Rabinowitz, Adam	Private Citizen
682	Donaldson, Michael De Sha	Private Citizen
683	Craven, Terry	Private Citizen
684	Frances, Summer	Private Citizen
685	Blandino, Phyllis	Private Citizen
686	Clay, OD, Andrew	Private Citizen
687	Richardson, III, Carlos A.	Private Citizen
688	Hodges, IV, Jerome	Private Citizen
689	Sirna, Tony	Private Citizen
690	Sonne, Gina	Private Citizen
691	Grimm, A. Jim	Private Citizen
692	Prasad, Monica	Private Citizen
693	Thompson, Eric	Private Citizen
694	Valley, Penn	Private Citizen
695	Hervas, Isabel	Private Citizen
696	Fortin, Kim	Private Citizen
697	Billecke, Stephanie	Private Citizen
698	Maxand, Jeremy M.	Private Citizen
699	Sudak, Linda	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
700	Devlin, Joyce	Private Citizen
701	Cook, Micaela	Private Citizen
702	Minasian, Donald	Private Citizen
703	The Catholic Worker	Other Organization
704	Perrault, Claire	Private Citizen
705	Welber, Arnold J.	Private Citizen
706	Polifronio, John	Private Citizen
707	Sweetson, James C.	Private Citizen
708	Grimes-Bruczka, Thaddeus	Private Citizen
709	Bush, Sandra	Private Citizen
710	May, Judith A.	Private Citizen
711	Hegeman, Elizabeth	Private Citizen
712	Wilkins, Ann Thomas	Private Citizen
713	Isaacs, Cheryl S.	Private Citizen
714	Murphy, Joanne G.	Private Citizen
715	Calouro, Janis M.	Private Citizen
716	Bates, Christine	Private Citizen
717	Shwedo, R.	Private Citizen
718	Rybandt, Joseph P.	Private Citizen
719	Stec, Michael	Private Citizen
720	Fogg, Patrica A.	Private Citizen
721	Brandon, Jennis	Private Citizen
722	Plants, Ken	Private Citizen
723	Galligan, Kathy	Private Citizen
724	O'Grady, Thomas E.	Private Citizen
725	Manis, Laurie	Private Citizen
726	Richards, Margaret	Private Citizen
727	Levy, Mark	Private Citizen
728	Hollenbeck, Beth	Private Citizen
729	Metzger, Chris	Private Citizen
730	Plank, David	Private Citizen
731	Mesmer, Eva	Private Citizen
732	Rath, John	Private Citizen
733	Mittenzwei, Robert	Private Citizen
734	Wilson, Debra	Private Citizen
735	Lehman, Susan	Private Citizen
736	Lappen, Paul	Private Citizen
737	Scoble, Bill and Judy	Private Citizen
738	Forst, Lauren	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
739	Reynolds, III, James H.	Private Citizen
740	Stewart, Carole	Private Citizen
741	Osborne, Benjamin T.	Private Citizen
742	Rolfes, Kevin	Private Citizen
743	Sparks, Darla Reynolds	Private Citizen
744	Kinstle, A.M.	Private Citizen
745	Babler, Sepp	Private Citizen
746	Reilly, Peter C. and Flannery, Maureen A.	Private Citizen
747	Smith, Kevin	Private Citizen
748	Brinkman, Lee	Private Citizen
749	Evans, Bill	Private Citizen
750	Sheak, Bob	Private Citizen
751	Bellinson, Bob	Private Citizen
752	Green, Jonathan	Private Citizen
753	Javellana, Peggy	Private Citizen
754	Richardson, Ronald J.	Private Citizen
755	Kenyon, Meredith L.	Private Citizen
756	Lensing, Dennis	Private Citizen
757	Leavitt, Thomas	Private Citizen
758	Thomsen, Allen V.	Private Citizen
759	Webber, Deborah A.	Private Citizen
760	Gibson, Lee	Private Citizen
761	Brill, Marque	Private Citizen
762	Harrison, Daria	Private Citizen
763	Cutler, Barry	Private Citizen
764	Taylor, Timothy D.	Private Citizen
765	Davis, Margie	Private Citizen
766	Way, David	Private Citizen
767	Roman, Christopher	Private Citizen
768	Walters, Danny	Private Citizen
769	Jiraneck, Pamela S.	Private Citizen
770	Shapero, Sarah	Private Citizen
771	Busch, Ruth C. and Charles D.	Private Citizen
772	Rosen, Frederick M.	Private Citizen
773	Morris, Sue and John	Private Citizen
774	Denevan, Mary	Private Citizen
775	Talley, James	Private Citizen
776	Bayhouse, Kevin M.	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
777	Ernst, Theodore A.	Private Citizen
778	Peltz, William I.	Private Citizen
779	Gallagher, John	Private Citizen
780	Thompson, Dean	Private Citizen
781	Ross, Jodi	Private Citizen
782	Sheridan, Paul	Private Citizen
783	Furchtenicht, Alan	Private Citizen
784	Cottrell, Willard	Private Citizen
785	Salo, Dorothea	Private Citizen
786	Polazzo, Free	Private Citizen
787	Verdier, Bill	Private Citizen
788	Ripton, Charmaine	Private Citizen
789	Boudart, Jan	Private Citizen
790	Arias, Diane	Private Citizen
791	Kane, Maureen	Private Citizen
792	Deerfield, Laura	Private Citizen
793	Lyndes, Cathy J.	Private Citizen
794	Lindorff, Dave	Private Citizen
795	Roth, David	Private Citizen
796	Cooper, Ian	Private Citizen
797	Peterson, Grace	Private Citizen
798	McCaffrey, Mary	Private Citizen
799	Bottesch, Marla	Private Citizen
800	Diop, Binta	Private Citizen
801	Tenney, Gerry	Private Citizen
802	Ferrell, Sally	Private Citizen
803	Paterson, Geoffrey	Private Citizen
804	DeLu, Dirk J.	Private Citizen
805	Widmalm, Marianne U.	Private Citizen
806	Pollitt, Katha	Private Citizen
807	Liu, Carol	Private Citizen
808	Ratcliff, Mary	Private Citizen
809	Tomashevsky, Bob	Private Citizen
810	McElvy, Pope	Private Citizen
811	Champney, Brenda	Private Citizen
812	Robinson, Ian	Private Citizen
813	Civiletti, Tom	Private Citizen
814	Tanner, Stuart M.	Private Citizen
815	Patterson, Jean	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
816	Gleim, Bradford	Private Citizen
817	Patterson, Jean	Private Citizen
818	Connor, Thomas V.	Private Citizen
819	LeBon, Jr., F.J.	Private Citizen
820	Ballantine, Linda A.	Private Citizen
821	Michaels, Christopher	Private Citizen
822	McElvy, Cassandra	Private Citizen
823	Johnson, Gregory	Private Citizen
824	Bolen, Debby	Private Citizen
825	Totonchi, Sara J.	Private Citizen
826	Pellett, Howard A.	Private Citizen
827	Marion, Jeanne	Private Citizen
828	Creed, John H.	Private Citizen
829	Norell, Aire Celeste	Private Citizen
830	Name Not Provided	Private Citizen
831	Bassett, Larry	Private Citizen
832	Lubofsky, Nicholas	Private Citizen
833	Phillips, Nickie	Private Citizen
834	Frye, L. James	Private Citizen
835	Herman, Mark	Private Citizen
836	Levey, Jim	Private Citizen
837	Smith, Charles D.	Private Citizen
838	Shows, Laurie R.	Private Citizen
839	Steele, Joanne	Private Citizen
840	Hart, Kerry	Private Citizen
841	Gerughty, Ron	Private Citizen
842	Bryant-Berg, Jeremy D.	Private Citizen
843	Holt, Jr., Wythe W.	Private Citizen
844	June, Christine	Private Citizen
845	Holland, Richard B.	Private Citizen
846	Williams, Kiva L.	Private Citizen
847	Greenberg, Stephen	Private Citizen
848	Runyan, Bob	Private Citizen
849	Rademacher, Lisa J.	Private Citizen
850	Bishop, Dan, International Depleted Uranium Study Team	Environmental Group
851	West, James L.	Private Citizen
852	Wishart, Stephen	Private Citizen
853	Bouwmeester, James P.	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
854	Johnson, Dedra	Private Citizen
855	Malmuth, Sonja	Private Citizen
856	Kolasky, Ellen	Private Citizen
857	Schoen, Martin J.	Private Citizen
858	Thompson, Bryan	Private Citizen
859	Colasurdo, Garth	Private Citizen
860	Deeb, Lara	Private Citizen
861	Graves, Rhiana L.	Private Citizen
862	Schaeffer, Paul	Private Citizen
863	Carey, Donald E.	Private Citizen
864	Pontoeiero, Fernando	Private Citizen
865	Thompson, Mark Iktomi	Private Citizen
866	Padilla, Irene	Private Citizen
867	Stanton, Brad and Jennifer	Private Citizen
868	Hays, Herb	Private Citizen
869	Guida, Louis B.	Private Citizen
870	Beckner, Azel Hill	Private Citizen
871	Flowers, Margaret	Private Citizen
872	Yarbrough, David Wesley	Private Citizen
873	Rodgers, Kenny	Private Citizen
874	Cook, Joanna	Private Citizen
875	Foss, Gwen	Private Citizen
876	Lupiani, Brian and Michaela	Private Citizen
877	Hobbs, Ellen	Private Citizen
878	Rowell, Jay	Private Citizen
879	Martin, James D.	Private Citizen
880	Kolkey, Zora L.	Private Citizen
881	Ruby, Elizabeth	Private Citizen
882	Sears, Jeanne	Private Citizen
883	Schwendimann, Reverend	Private Citizen
884	Friedman, Michael	Private Citizen
885	Stevens, Russell	Private Citizen
886	Ranelli, Theodora	Private Citizen
887	Capps, III, William C	Private Citizen
888	Clary, Rachel	Private Citizen
889	Nieves, Danika	Private Citizen
890	Spidel, Kevin R.	Private Citizen
891	Dunckley, Jennifer	Private Citizen
892	Barger, Elizabeth	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
893	Greiss, Terry	Private Citizen
894	Evans, Benjamin	Private Citizen
895	Valanti, Lisa	Private Citizen
896	Ogbar, Jeffrey O.G.	Private Citizen
897	Koch, Andy	Private Citizen
898	Stanek, Michael	Private Citizen
899	Bauman, Mark	Private Citizen
900	Reams, Laine	Private Citizen
901	Skoglund, Christopher	Private Citizen
902	Gilmore, Virginia	Private Citizen
903	Zemek, Matthew J.	Private Citizen
904	Metcalfe, Thomas	Private Citizen
905	Spitzley, David A.	Private Citizen
906	Haas, Frances	Private Citizen
907	Wedworth, Albert E.	Private Citizen
908	Ragghianti, Lynn	Private Citizen
909	Hogan, Nina R.	Private Citizen
910	Spector, Ann Mari	Private Citizen
911	Eventyr, Kirstin and Jens	Private Citizen
912	Hooper, Jim	Private Citizen
913	McLaughlin, Betty J.	Private Citizen
914	Little, Chris	Private Citizen
915	Anderson, Glen	Private Citizen
916	Keiser, A.	Private Citizen
917	Smith, Mark H.	Private Citizen
918	Daniel, Marc	Private Citizen
919	Griffiths, L.	Private Citizen
920	Dorsey, Alice	Private Citizen
921	Duimstra, David L.	Private Citizen
922	Swennerfelt, Ruah	Private Citizen
923	Teall-Fleming, Dennis R.M.	Private Citizen
924	Sanderson, Bruce	Private Citizen
925	Durbin, Vincent H	Private Citizen
926	Williamson, Joan K.	Private Citizen
927	Feiler, Todd	Private Citizen
928	Kennedy, Susan	Private Citizen
929	Freeman, Yolanda	Private Citizen
930	Alvarez, Charles	Private Citizen
931	Graves, Byron and Mary	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
932	Cornette, J. Simon	Private Citizen
933	Goodman, Bob	Private Citizen
934	Glennon, Marie	Private Citizen
935	Labig-Duquette, Tami	Private Citizen
936	Kuntz, Jason	Private Citizen
937	Hamlett, Laura	Private Citizen
938	Reback, Mark	Private Citizen
939	Steffens, Susan	Private Citizen
940	Miller, Larry	Private Citizen
941	Egan, Richard A.	Private Citizen
942	Chambers, Louise	Private Citizen
943	Standefer, Michael L.	Private Citizen
944	Larson, Lucas	Private Citizen
945	Halbeisen, Johanna	Private Citizen
946	Cato, Kristin	Private Citizen
947	Feldman, Michael	Private Citizen
948	Anania, Dale	Private Citizen
949	Mayner, Jeffrey W.	Private Citizen
950	Elders, Jan W.	Private Citizen
951	Strange, Jr., William B.	Private Citizen
952	Connors, Geraldine	Private Citizen
953	Stavis, Kathleen M.	Private Citizen
954	Brakken, Morgan	Private Citizen
955	Drummer, Jason	Private Citizen
956	Coerver, Melanie	Private Citizen
957	Katz, Rachel	Private Citizen
958	Reilly, Sheila	Private Citizen
959	Neumaier, John J. and Luther, Sara F.	Private Citizen
960	Daniels, Netty	Private Citizen
961	Bethune, Jacqueline	Private Citizen
962	Gazurian, John	Private Citizen
963	Oden, Amy	Private Citizen
964	Ehrlich, Karen	Private Citizen
965	Weiss, Meredith	Private Citizen
966	Luz Arostegui, Consuelo	Private Citizen
967	Loges, Kimberly	Private Citizen
968	Cottrell, Willard	Private Citizen
969	Hart, Joyce	Private Citizen
970	Herrera, Kathleen and Roy	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
971	Cestero, Georgina	Private Citizen
972	Newton, Heather	Private Citizen
973	Tuggle, Melissa	Private Citizen
974	Mau, Gregg	Private Citizen
975	Sarakula, Vik	Private Citizen
976	Hohensee, Steven D.	Private Citizen
977	Hess, CaroleSue	Private Citizen
978	Himmelberger, Jason	Private Citizen
979	Reycraft, Anna	Private Citizen
980	Collins, Stefanie	Private Citizen
981	Bragdon, Keith	Private Citizen
982	Christopherson, Diane	Private Citizen
983	Dunn, Curt and Debbie	Private Citizen
984	Campbell, Donna Waugh	Private Citizen
985	Thompson, Sandra	Private Citizen
986	Zorn, Glen	Private Citizen
987	Merlin, Donald	Private Citizen
988	Jakobcic, Fred	Private Citizen
989	Hansen, Marcus C.	Private Citizen
990	Yoder, Maegan Gasa	Private Citizen
991	Anderson, Noah	Private Citizen
992	Hatch-Winecka, Amy	Private Citizen
993	Hatch-Winecka, Amy	Private Citizen
994	Whitehead, Corinne	Private Citizen
995	Wright-Kaiser, Carol A.	Private Citizen
996	Vonderplanitz, Aajonus	Private Citizen
997	Saccato, JoAnn	Private Citizen
998	Poppe, Melissa	Private Citizen
999	Liebers, M.D.	Private Citizen
1000	Fleenor, Fitz J.	Private Citizen
1001	Roberts, Dennis	Private Citizen
1002	Blackiston, Robert	Private Citizen
1003	Covey, John W.	Private Citizen
1004	Hultman, Ruth	Private Citizen
1005	Koss, Ben	Private Citizen
1006	Burris, Chad	Private Citizen
1007	Haustermanns, Josine	Private Citizen
1008	Zoubeck, Suzanne J.	Private Citizen
1009	Skinner, David E.	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
1010	Augustine, Ruth	Private Citizen
1011	Masaoka, Mark	Private Citizen
1012	Apotheker, Steve	Private Citizen
1013	Berg, Roberta	Private Citizen
1014	Harris, Laverne	Private Citizen
1015	Cohen, David S.	Private Citizen
1016	Zimmerman, Milton	Private Citizen
1017	Lane, IV, Victor Hugo	Private Citizen
1018	Martinez, Orlando	Private Citizen
1019	Clauset, Ethan	Private Citizen
1020	O'Nan, Kathleen	Private Citizen
1021	Cumbee, Judy	Private Citizen
1022	Hopkins, Susan D.	Private Citizen
1023	Hoskins, Warren	Private Citizen
1024	Liveoak, Valarie	Private Citizen
1025	Name Not Provided	Private Citizen
1026	Minshall, Janet	Private Citizen
1027	Mattison, Mark M.	Private Citizen
1028	Welford, Gabrielle	Private Citizen
1029	Ryan, C.	Private Citizen
1030	Jones, Patricia	Private Citizen
1031	Statton, Anne E.	Private Citizen
1032	Conn, Eric E.	Private Citizen
1033	Vargas, Kathryn	Private Citizen
1034	Sarahchild, D'Cady	Private Citizen
1035	Enslin, Mark	Private Citizen
1036	Jebousek, Nyla	Private Citizen
1037	Edain, Mariane	Private Citizen
1038	Wingard, Greg	Private Citizen
1039	Dolan, P.	Private Citizen
1040	Middleton, Terri	Private Citizen
1041	Hampson, Mandy	Private Citizen
1042	Name Not Provided	Private Citizen
1043	Morearty, John	Private Citizen
1044	Gore, Jean	Private Citizen
1045	Justice, Rachel	Private Citizen
1046	Swift, Alice C.	Private Citizen
1047	Ruski, Eileen	Private Citizen
1048	Wilham, Kathryn	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
1049	Bearden, Jim	Private Citizen
1050	Stock, Jay and Sharon	Private Citizen
1051	Lord, Rebecca	Private Citizen
1052	DeValcourt, John	Private Citizen
1053	Kubo, Keiko	Private Citizen
1054	Shannon, Susan G.	Private Citizen
1055	Falbo, Marie	Private Citizen
1056	Schatz, Bernie	Private Citizen
1057	Perlman, Joseph	Private Citizen
1058	Macphail, Sandra	Private Citizen
1059	Bahr, Stephanie	Private Citizen
1060	Name Not Provided	Private Citizen
1061	Winsberg, Julie	Private Citizen
1062	Hayes, Ken	Private Citizen
1063	Rashkin, Peter	Private Citizen
1064	Meier, Nicholas	Private Citizen
1065	Battista, John R.	Private Citizen
1066	White, Jane	Private Citizen
1067	Adams, M.S.	Private Citizen
1068	Turoff, Bermice	Private Citizen
1069	Snider, Stewart	Private Citizen
1070	Byrne, Dorothy	Private Citizen
1071	Beilsmith, Christy	Private Citizen
1072	Frelander, Iris	Private Citizen
1073	Ploski, Cynthia	Private Citizen
1074	Burton, Chaz	Private Citizen
1075	Rain, Patricia H.	Private Citizen
1076	Salas, Vidal R.	Private Citizen
1077	Weisberg, Karen Poster	Private Citizen
1078	Koch, Ted V.	Private Citizen
1079	Paddock, Brian	Private Citizen
1080	Simons, Stephen	Private Citizen
1081	Ponzetti, III, P.	Private Citizen
1082	Crowe, Frances	Private Citizen
1083	Holmes, Kathryn Stern	Private Citizen
1084	Jarstger, Bruce S	Private Citizen
1085	Covici, Joan	Private Citizen
1086	Lord, Charlie	Private Citizen
1087	Garmon, Meredith	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
1088	Benham, Melissa K.	Private Citizen
1089	Liechty, Jeanne	Private Citizen
1090	Peterson, Don	Private Citizen
1091	Butler, Pierce R.	Private Citizen
1092	Farley, Linda and Gene	Private Citizen
1093	White, Randall F.	Private Citizen
1094	Maloney, Philip J.	Private Citizen
1095	Chuse, Ellen	Private Citizen
1096	Pinkel, Georgia Lee	Private Citizen
1097	Zauscher, Melanie	Private Citizen
1098	Mosely, Carol	Private Citizen
1099	Penzenstadler Gress, Joan and Archie	Private Citizen
1100	Joseph, Martine A.	Private Citizen
1101	Brownstein, Erick	Private Citizen
1102	McCartney, Kerry Duncan	Private Citizen
1103	Quesnell, Donna	Private Citizen
1104	Patriot, Joe	Private Citizen
1105	Shwedo, Robin	Private Citizen
1106	Anderjaska, Vassiliki	Private Citizen
1107	Smith, Anne	Private Citizen
1108	Mokma, Deborah	Private Citizen
1109	Bechdol, Barbara L.	Private Citizen
1110	Whitworth, Ariel	Private Citizen
1111	Norberg, Janice	Private Citizen
1112	Smith, Peter	Private Citizen
1113	Purchase, Margaret	Private Citizen
1114	Houston, Lynn	Private Citizen
1115	Johnston, Timothy	Private Citizen
1116	Conn, M.V.	Private Citizen
1117	Brunner, Linda	Private Citizen
1118	Bessonnet, Veronique	Private Citizen
1119	Hawley, Richard L.	Private Citizen
1120	Kessenich, Lawrence J.	Private Citizen
1121	Eakins, Patricia	Private Citizen
1122	Israel, James	Private Citizen
1123	Lightstone, Judy	Private Citizen
1124	Schachet, Richard	Private Citizen
1125	Stokesberry, Mele	Private Citizen
1126	Stade, Kirsten Eva	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
1127	Carrillo, Gabriel	Private Citizen
1128	Falton, Edward B.	Private Citizen
1129	Mark, Brian P.	Private Citizen
1130	DiModica, John	Private Citizen
1131	Frank, Erica	Private Citizen
1132	Luoto, Krista	Private Citizen
1133	Greenwood, Ralph and Ellen	Private Citizen
1134	McNaughton, Bruce	Private Citizen
1135	St. Pierre, Leslie	Private Citizen
1136	Jochum, Janice C.	Private Citizen
1137	Stoner, Amy	Private Citizen
1138	Dermody, T. Joseph	Private Citizen
1139	Savage, Michael P.	Private Citizen
1140	Turner, Kathleen Kaeding	Private Citizen
1141	Zolbrod, Lisa	Private Citizen
1142	Guyenn, Matthew R.	Private Citizen
1143	Wilkerson, Carolyn	Private Citizen
1144	Champion, Stacey	Private Citizen
1145	Walsh, M Tereda	Private Citizen
1146	Shesgreen, Mary	Private Citizen
1147	Basinger, Jean	Private Citizen
1148	Kain, Philip J.	Private Citizen
1149	Arteaga, John	Private Citizen
1150	Dicken, Jeremy	Private Citizen
1151	Ozanich, James R.	Private Citizen
1152	Windberg, Thomas J.	Private Citizen
1153	Ruane, Aine I.	Private Citizen
1154	Heimghaus, Jr., Robert W.	Private Citizen
1155	Nunez, Mercedes	Private Citizen
1156	Nordlund, James M.	Private Citizen
1157	Collins, Barbara	Private Citizen
1158	Kurtz, Nancy W.	Private Citizen
1159	Young, Alan	Private Citizen
1160	LeBlanc, David J.	Private Citizen
1161	Ruberti, Alessandra	Private Citizen
1162	Meyer, Jennifer	Private Citizen
1163	Rice, Jay	Private Citizen
1164	Ho, Esther M.	Private Citizen
1165	Liddle, Becky	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
1166	Jezik, Beth	Private Citizen
1167	Bendat, Rachel A.H.	Private Citizen
1168	Henderson, Zorika	Private Citizen
1169	Maloney, Greg	Private Citizen
1170	Larson, Christine M.	Private Citizen
1171	Kaufman, Matt	Private Citizen
1172	Clark, Carolyn	Private Citizen
1173	Harper, L.	Private Citizen
1174	Shanklin, Elizabeth	Private Citizen
1175	Melby, Helen	Private Citizen
1176	Dunn, Jim	Private Citizen
1177	Schoonover, Shannon	Private Citizen
1178	Murphy, Ean	Private Citizen
1179	Brunken, Carrie	Private Citizen
1180	Bazur, Herb	Private Citizen
1181	Kurtz, Christian	Private Citizen
1182	Donnelly, Katherine	Private Citizen
1183	Casey, Shawn	Private Citizen
1184	Bryant-Berg, Kristy A.	Private Citizen
1185	Mackin, Richard J.	Private Citizen
1186	Zavaleta, Irma	Private Citizen
1187	Fulmer, Marjorie C.	Private Citizen
1188	Moore, Patti	Private Citizen
1189	Rosen, Kay	Private Citizen
1190	Smith-Remick, Donna	Private Citizen
1191	Sunshine, Jane	Private Citizen
1192	Lerman-Collins, Caryn	Private Citizen
1193	Moss, Heather	Private Citizen
1194	O'Neil, Susan R.	Private Citizen
1195	Lafter, Timothy	Private Citizen
1196	Lipton, Nicki	Private Citizen
1197	Welch, Casey	Private Citizen
1198	St. Onge, Erin C.	Private Citizen
1199	Russum, Barbara T.	Private Citizen
1200	Ziccardy, Marcia	Private Citizen
1201	Shelly, Norman	Private Citizen
1202	Kalisns, David T.	Private Citizen
1203	Grace, Marien	Private Citizen
1204	Boretz, Adam	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
1205	Johnson, Raymond N.	Private Citizen
1206	Noel, III, John V	Private Citizen
1207	Isaacson, Joel	Private Citizen
1208	Usher, Craig	Private Citizen
1209	Seeger, Peggy	Private Citizen
1210	Mumford, Timothy	Private Citizen
1211	Leberon, Pat	Private Citizen
1212	Berry, James T.	Private Citizen
1213	Thayer, Deborah	Private Citizen
1214	Fishman, Israel David	Private Citizen
1215	Estrin, Linda	Private Citizen
1216	Carr, Carolyn	Private Citizen
1217	Benedict, Kelly A. and Daniel	Private Citizen
1218	Kalven, Janet	Private Citizen
1219	Auerbacher, Ron	Private Citizen
1220	Willey, Nicole	Private Citizen
1221	Welte, Patricia S.	Private Citizen
1222	Norris, Jesse	Private Citizen
1223	Kukla, Peter	Private Citizen
1224	Campbell, Heather	Private Citizen
1225	Seifert, Father Michael	Private Citizen
1226	Faupel, Alison	Private Citizen
1227	Madden, Lisa Marie	Private Citizen
1228	Sanford, Gail L.	Private Citizen
1229	Kapke, Barry	Private Citizen
1230	Sheridan, Shannon	Private Citizen
1231	Clark, Bonnie D.	Private Citizen
1232	Newton, Elbert W.	Private Citizen
1233	McLellan, Jane M.	Private Citizen
1234	Santos, Enrique	Private Citizen
1235	Mathern-Jacobson, Scott	Private Citizen
1236	Staples, Jeff	Private Citizen
1237	Lipow, Gar	Private Citizen
1238	Spottswood, Robert	Private Citizen
1239	Rodan, Eileen	Private Citizen
1240	Knigge, Alcia	Private Citizen
1241	Sommers, Stephanie	Private Citizen
1242	Barfoot, R.	Private Citizen
1243	Ferraro, Nancy H.	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
1244	Jobe, Alan	Private Citizen
1245	Tomczyszyn, Michael J.	Private Citizen
1246	Armstrong, Lynn	Private Citizen
1247	Lanzman, Sarah	Private Citizen
1248	Pytlewski, Genee	Private Citizen
1249	Carey, Catherine	Private Citizen
1250	Bass, Carol	Private Citizen
1251	Turek, Gabriella	Private Citizen
1252	Forsberg, Larry	Private Citizen
1253	Caruso, Dorian	Private Citizen
1254	St. John, John H.	Private Citizen
1255	Schneider, Ginny	Private Citizen
1256	Hughes, Bonita	Private Citizen
1257	Scaff, Beverly	Private Citizen
1258	Humphries, Constance	Private Citizen
1259	Cecil, Eleanor	Private Citizen
1260	Guarisco, Vincent L.	Private Citizen
1261	Twocats, Mona	Private Citizen
1262	Schwartz, Eric	Private Citizen
1263	Cooper, Justine	Private Citizen
1264	McAuley, Karen	Private Citizen
1265	Lampert, Mary	Private Citizen
1266	Olsen, Lev	Private Citizen
1267	Roth, Richard H.	Private Citizen
1268	Hibbard, Anne	Private Citizen
1269	Howell, Michael	Private Citizen
1270	Blackburn, Donna	Private Citizen
1271	O'Connor, Judith	Private Citizen
1272	Niesen, Jim	Private Citizen
1273	Waxman, Edward R.	Private Citizen
1274	Coverstone, Alan H.	Private Citizen
1275	Harrison, William	Private Citizen
1276	Nightingale, Peter	Private Citizen
1277	Moritz, David	Private Citizen
1278	Hanneman, Carl F.	Private Citizen
1279	Beak, Bryan	Private Citizen
1280	Kelly, Myra	Private Citizen
1281	Dado, Deborah	Private Citizen
1282	Diehl, Josh	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
1283	Klein, Rachel	Private Citizen
1284	Ormondroyd, Joan and Edward	Private Citizen
1285	Manigione, Jr., Raymond	Private Citizen
1286	Gibson, Mary	Private Citizen
1287	Shulman, Joseph	Private Citizen
1288	McLean, Jr., Charles M.	Private Citizen
1289	de Wolff, M.	Private Citizen
1290	Dennis, Kelly	Private Citizen
1291	Kimber, Greg	Private Citizen
1292	Frank, Joshua A.	Private Citizen
1293	Klieforth, Jim	Private Citizen
1294	Peters, Gary	Private Citizen
1295	Arons, Klaus	Private Citizen
1296	Wellen, Russ	Private Citizen
1297	Masciarelli, William R	Private Citizen
1298	Graham, Patrick	Private Citizen
1299	Bender, Rebecca S.	Private Citizen
1300	Aronoff, Guy Alain	Private Citizen
1301	Ulman, Erik	Private Citizen
1302	Sheldon, Sue	Private Citizen
1303	Danielson, Steve	Private Citizen
1304	Owen, Michelle	Private Citizen
1305	Powers, Cynthia	Private Citizen
1306	Spitzer, Mandy	Private Citizen
1307	King, Rose	Private Citizen
1308	Blevins, Vivian	Private Citizen
1309	Hart, Regina	Private Citizen
1310	Werda, Patrick	Private Citizen
1311	Browne, Deborah E.	Private Citizen
1312	Riches, Debbie	Private Citizen
1313	Guevara, Carlos	Private Citizen
1314	Trasatto, Carol	Private Citizen
1315	Finn, Lisa	Private Citizen
1316	Bernard, Kate	Private Citizen
1317	Hoglate, Robert	Private Citizen
1318	Raymond, Allan	Private Citizen
1319	Wells, Lisa	Private Citizen
1320	Lewis, Corrina	Private Citizen
1321	Carey, Edward	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
1322	Swindler, Margie	Private Citizen
1323	Crickenberger, Ray S.	Private Citizen
1324	Lakind, Leslie	Private Citizen
1325	Mackinney, Lisa	Private Citizen
1326	Zehner, Kristen	Private Citizen
1327	Martin, Bruce	Private Citizen
1328	Brown, Alexandria and Susan	Private Citizen
1329	Warth, Diane M.	Private Citizen
1330	Buie, Cameron M.	Private Citizen
1331	Feltner, Jr., Trevor B.	Private Citizen
1332	Allee, Pam	Private Citizen
1333	Stephens, Dick	Private Citizen
1334	Rifkin, Deborah	Private Citizen
1335	Hathorn, Mel	Private Citizen
1336	Spice, Ken	Private Citizen
1337	Grobe, Karin	Private Citizen
1338	Witt, Elizabeth	Private Citizen
1339	Dennis, Eileen	Private Citizen
1340	Conn, Kevin E.	Private Citizen
1341	Salkowski, Virginia	Private Citizen
1342	Mark, Jonathan	Private Citizen
1343	Zunes, John and Helen	Private Citizen
1344	Bennett, L. Wayne	Private Citizen
1345	Pregger, Rachel	Private Citizen
1346	Kretzmann, Steve	Private Citizen
1347	Guevara-Stone, Laurie	Private Citizen
1348	Miller, Dianne	Private Citizen
1349	Jacus, Anna	Private Citizen
1350	Grish, Michael	Private Citizen
1351	Stone, Terry	Private Citizen
1352	DeShaw, Rose	Private Citizen
1353	Feinberg, Joseph Grim	Private Citizen
1354	Gainok, Richard P.	Private Citizen
1355	Kimme, Duane R.	Private Citizen
1356	Rabbitt, Matthew	Private Citizen
1357	Izant, Phyllis J.	Private Citizen
1358	Hughes, Robert K.	Private Citizen
1359	Eager, C David	Private Citizen
1360	Smith, Liberty	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
1361	Ktaja, Eva	Private Citizen
1362	Torre-Bueno, Ava	Private Citizen
1363	Day, Charlie	Private Citizen
1364	Dunlap, Anne D.	Private Citizen
1365	Begley, Gretchen	Private Citizen
1366	Shelp, Jr., Richard G.	Private Citizen
1367	McDonough, Heather A.	Private Citizen
1368	Windfall, Florence	Private Citizen
1369	McCaffrey, Terry	Private Citizen
1370	Borelli, Rula	Private Citizen
1371	Dinger, Marilyn	Private Citizen
1372	Zimmer, Anne	Private Citizen
1373	Staniford, Tamsen	Private Citizen
1374	Balkwill, John	Private Citizen
1375	Williams, Martin C.	Private Citizen
1376	Gibbs, Rodney	Private Citizen
1377	Large, Cynthia	Private Citizen
1378	Denton, Phil	Private Citizen
1379	White, Lois	Private Citizen
1380	Lyles, Jeff	Private Citizen
1381	Worrall, Patrick	Private Citizen
1382	Hayes, Marilyn	Private Citizen
1383	Nichols, Bob	Private Citizen
1384	Vincent, Thomas	Private Citizen
1385	Betor, Malakay	Private Citizen
1386	Dick, David	Private Citizen
1387	Smith, Trudee	Private Citizen
1388	Evans, James	Private Citizen
1389	Gielow, Caryn	Private Citizen
1390	Lisle, David	Private Citizen
1391	Ammarell, Gene	Private Citizen
1392	King, Novella R.	Private Citizen
1393	Halbig, James A.	Private Citizen
1394	Debbie, Pablo	Private Citizen
1395	Buchanan, Katherine F.	Private Citizen
1396	Miller, Jennifer Brooks	Private Citizen
1397	So, Samrong	Private Citizen
1398	Tyszka, Marilyn	Private Citizen
1399	Mereski, E. Victor	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
1400	Langness, Linda	Private Citizen
1401	Holder, Joseph	Private Citizen
1402	Sinclair, Clara M.	Private Citizen
1403	Holley, Jr., William	Private Citizen
1404	Bishop, Jared	Private Citizen
1405	Clark, Barbara	Private Citizen
1406	Hammond, John A.	Private Citizen
1407	Rauer, Suzanne	Private Citizen
1408	Lupo, Bob	Private Citizen
1409	Meyer, Virginia	Private Citizen
1410	Segal, Rebecca	Private Citizen
1411	Clemens, Sydney Gurewitz	Private Citizen
1412	Roberts, Esther	Private Citizen
1413	Draeger-Mueke, Reinhild	Private Citizen
1414	Arie-Donch, Robin	Private Citizen
1415	Winderbaum, Buff	Private Citizen
1416	Kellner, Roger	Private Citizen
1417	Scholl, Janice	Private Citizen
1418	Hutto, Tom	Private Citizen
1419	Glucksberg, Sam	Private Citizen
1420	Cohen, Mina	Private Citizen
1421	Dempsey, Isa	Private Citizen
1422	Rosenfeld, Shoshana	Private Citizen
1423	Beardsley, Janet M.	Private Citizen
1424	Wallach, Leah	Private Citizen
1425	Pearson, Senanu	Private Citizen
1426	Burke, Mary	Private Citizen
1427	Vasquez, Susan Boon	Private Citizen
1428	Saus, Steven	Private Citizen
1429	Perricelli, Claire S.	Private Citizen
1430	Williams, Shannon	Private Citizen
1431	Pew, Stephen	Private Citizen
1432	Fissel, David	Private Citizen
1433	Perrault, Sarah Michele	Private Citizen
1434	Beth, Alicia D.	Private Citizen
1435	El-Moslimany, Samia	Private Citizen
1436	Burns, Tom	Private Citizen
1437	De Lu, Darien	Private Citizen
1438	Fontenot, Margaret	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
1439	Portelance, Leon J.	Private Citizen
1440	Anelli, Darla	Private Citizen
1441	Finger, Alan B.	Private Citizen
1442	Romito, Richard	Private Citizen
1443	Thompson, Patricia	Private Citizen
1444	Robinson, M. Kate	Private Citizen
1445	Lucey, Susan	Private Citizen
1446	Kolod, Elizabeth	Private Citizen
1447	Hurrell, Syd	Private Citizen
1448	Krouskop, Jan	Private Citizen
1449	Wilson, Jeffrey J.	Private Citizen
1450	Buss, Autumn	Private Citizen
1451	Grannis, Margaret and Lou	Private Citizen
1452	Murphy, Stuart Francis	Private Citizen
1453	Gale, David	Private Citizen
1454	Farrar, Katie Z.	Private Citizen
1455	Zillah, Alice	Private Citizen
1456	Young, Cathy	Private Citizen
1457	Perry, Doug	Private Citizen
1458	Braden, Nicholas	Private Citizen
1459	Oldmixon, Seth	Private Citizen
1460	Szekeres, Andy	Private Citizen
1461	Markell, Elizabeth	Private Citizen
1462	Lloyd	Private Citizen
1463	Friedland, Joan	Private Citizen
1464	Valenzano, Joyce	Private Citizen
1465	Brown, Gail	Private Citizen
1466	Oslin, Sanda S.	Private Citizen
1467	Terzian, Patrica N.	Private Citizen
1468	Esslinger, Candace	Private Citizen
1469	Schwartzman, Alan	Private Citizen
1470	Hodgson, Hugh	Private Citizen
1471	Houghton, Nico	Private Citizen
1472	Crook, Elizabeth	Private Citizen
1473	Underwood, Jerry	Private Citizen
1474	Steitz, Jim	Private Citizen
1475	Krummel, Jens M.	Private Citizen
1476	Lieban, Suzanne	Private Citizen
1477	Anderson, Janice M.	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
1478	Taylor, Jenel	Private Citizen
1479	Hallock, Judith	Private Citizen
1480	Rathod, Soum	Private Citizen
1481	Maynard, Robert	Private Citizen
1482	Easy	Private Citizen
1483	Philpott, Louis	Private Citizen
1484	Ashburn, III, James E.	Private Citizen
1485	Sullivan, Charles	Private Citizen
1486	Farrell, Jefferey T.S.	Private Citizen
1487	Moen, Darrell	Private Citizen
1488	Mitchell, Julie	Private Citizen
1489	Harding, Gary A.	Private Citizen
1490	Folsom-Minthorn, Jennifer	Private Citizen
1491	Sullivan, Ian	Private Citizen
1492	Condo, M.A.	Private Citizen
1493	Yaguda-Kinsey, Sandra	Private Citizen
1494	Belt, Leslie	Private Citizen
1495	Puechner, Nicole	Private Citizen
1496	Dasgupta, Ashoke	Private Citizen
1497	Sluyter, Aidea	Private Citizen
1498	Ribet, Beth	Private Citizen
1499	Northern CA RAWA Supporters	Other Organization
1500	Albers, Catherine	Private Citizen
1501	Hooten, Patricia D.	Private Citizen
1502	Bauer-Maheia, Shirlene	Private Citizen
1503	Green, Nomi	Private Citizen
1504	McCogg, Vincent	Private Citizen
1505	Lewis, Ted	Private Citizen
1506	Crawford, James R.	Private Citizen
1507	Edwards, Kristin	Private Citizen
1508	Sturm, Jeffrey	Private Citizen
1509	Skipper, Ned	Private Citizen
1510	Champion, William	Private Citizen
1511	Stewart, Mickie	Private Citizen
1512	Duigan, M. Lane	Private Citizen
1513	Levy, Donna	Private Citizen
1514	Anapol, Sherry	Private Citizen
1515	Paul, Lynda	Private Citizen
1516	Minard, C.S.L.	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
1517	Savage, David	Private Citizen
1518	Brady, Matthew	Private Citizen
1519	Winn, A.E.	Private Citizen
1520	Serinus, Jason	Private Citizen
1521	Quinones, Diana	Private Citizen
1522	Dickson, Bruce	Private Citizen
1523	Heine, Jozlyn	Private Citizen
1524	Walls, W. Tom	Private Citizen
1525	Kanamoto, Susan	Private Citizen
1526	Pollack, Sasha	Private Citizen
1527	Ellsworth, William P	Private Citizen
1528	Dakak, Alan	Private Citizen
1529	Wolman, Adam	Private Citizen
1530	Lee, Daniel A.	Private Citizen
1531	Kamber, Sibel	Private Citizen
1532	Hoag, Ethan D.	Private Citizen
1533	Kamps, Paula	Private Citizen
1534	Lotto, Peter B.	Private Citizen
1535	Sutton, Sheila M.	Private Citizen
1536	Berman, Lynn	Private Citizen
1537	Milstein, Philip S. and Karen K.	Private Citizen
1538	Tur, Mario	Private Citizen
1539	Brenner, Barbara	Private Citizen
1540	Freude, Kathryn A.	Private Citizen
1541	Rees, Jenifer	Private Citizen
1542	Osmond, Jonathan	Private Citizen
1543	Powers, Michele	Private Citizen
1544	Wickham, Matthew	Private Citizen
1545	Aldrich, Louise	Private Citizen
1546	Johnson, Erik	Private Citizen
1547	Clement, Joe	Private Citizen
1548	Smith, Kelley	Private Citizen
1549	Human, Margaret	Private Citizen
1550	Holeman, Heidi	Private Citizen
1551	Garcia, Debra	Private Citizen
1552	Mertz, Peter	Private Citizen
1553	Zimmerman, Nancy	Private Citizen
1554	McVarish, Linda	Private Citizen
1555	Devon, Bo Satyagraha	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
1556	Hobbs, Joel	Private Citizen
1557	Stanton, Blaine	Private Citizen
1558	Human, Margaret Lewis	Private Citizen
1559	Soulier, Rosa K.	Private Citizen
1560	Jones, Elizabeth	Private Citizen
1561	Krain, Kimberly	Private Citizen
1562	Davis, Leigh	Private Citizen
1563	Botkin, James	Private Citizen
1564	Denneen, Bill	Private Citizen
1565	Lavee, Annima	Private Citizen
1566	Holtrop, Elizabeth Bouma	Private Citizen
1567	Middleton, Terri	Private Citizen
1568	Mayhew, Paul	Private Citizen
1569	Leete, Constance	Private Citizen
1570	Kunkel, Christopher R.	Private Citizen
1571	Goodman, Linda	Private Citizen
1572	Dunnbier, Chris	Private Citizen
1573	Leighton, Andrew	Private Citizen
1574	Khalsa, Santokh Sing and Suraj Kaur	Private Citizen
1575	Foster, David	Private Citizen
1576	Sohn, Ruth H.	Private Citizen
1577	Grant, Michael J.	Private Citizen
1578	Oaklander, Martha	Private Citizen
1579	Open Minds Open Doors	Other Organization
1580	Rose, Zelda	Private Citizen
1581	Wolf, Sylvia and Leo	Private Citizen
1582	Mangano, Joan	Private Citizen
1583	Wightman, Jean	Private Citizen
1584	Dexter, Suzan and Burik, Ted	Private Citizen
1585	Eaton, Martha B.	Private Citizen
1586	Corbin, Richard K.	Private Citizen
1587	DeCarlo, George	Private Citizen
1588	Linn, Susan Allison	Private Citizen
1589	Kivette, Charles T.	Private Citizen
1590	McLean, Christina	Private Citizen
1591	Wolf, Maxine Diane	Private Citizen
1592	Bagnarol, Carolina	Private Citizen
1593	See, Nancy Chen	Private Citizen
1594	Waters, Shaun	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
1595	Peterson, Arlo L.	Private Citizen
1596	Khalsa, Shanti Shanti Kaur	Private Citizen
1597	Compinski, Dorothy	Private Citizen
1598	Landon-Lane, Elizabeth	Private Citizen
1599	Johnstone, Hoyt	Private Citizen
1600	Phoenix, Lena	Private Citizen
1601	Berman, Claudia	Private Citizen
1602	Cramer, Craig S.	Private Citizen
1603	Strachan, Don	Private Citizen
1604	Freidman Schumacher, David and Joan	Private Citizen
1605	Remington, Margaret	Private Citizen
1606	Altman, Harold	Private Citizen
1607	Brunner, Neil and Linda	Private Citizen
1608	Crolius, Phyllis J.	Private Citizen
1609	Carpenter, Ann B.	Private Citizen
1610	National Ready Mixed Concrete Association	Industry
1611	Conservation Council of North Carolina	Environmental Group
1612	Rabuse, John	Private Citizen
1613	Stanton, Nicholas T.	Private Citizen
1614	Cain, Vicky	Private Citizen
1615	Moore, Belle	Private Citizen
1616	Estes, Douglas C.	Private Citizen
1617	Davis, Bert	Private Citizen
1618	Alderete, Janine	Private Citizen
1619	Oaklander, Violet	Private Citizen
1620	Mohamed, Kaamila	Private Citizen
1621	Smithwick, Mary P.	Private Citizen
1622	Irvin, Nicole	Private Citizen
1623	Taylor, Lisa	Private Citizen
1624	Mee, Diana	Private Citizen
1625	Scob, Dudley B.	Private Citizen
1626	Stauffer, Wendie	Private Citizen
1627	Brown, Heidi	Private Citizen
1628	Miller, Catherine	Private Citizen
1629	Boisselle, Marie-France	Private Citizen
1630	Schwartz, Steven J.	Private Citizen
1631	Ellis, Blaine	Private Citizen
1632	Lazarus, Lory	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
1633	Hafling, Marilyn	Private Citizen
1634	Skeel, Marjorie	Private Citizen
1635	New Mexico Environmental Law Center	Environmental Group
1636	Green, Nomi	Private Citizen
1637	Wilkins, Evelyn S.	Private Citizen
1638	Moran, Sharon	Private Citizen
1639	Mehlman, Carole	Private Citizen
1640	Tennessee Valley Authority	Industry
1641	McMahon, Jean	Private Citizen
1642	Dobelbower, Cecile	Private Citizen
1643	Connelly, Mike	Private Citizen
1644	Siegel, Howard	Private Citizen
1645	Wachter, Billie	Private Citizen
1646	Hamil, Brett	Private Citizen
1647	Hoel, Ed	Private Citizen
1648	Sullivan, Barbara G.	Private Citizen
1649	Women's International League for Peace and Freedom	Other Organization
1650	Raupe, Ruth	Private Citizen
1651	Galli, Robert J.	Private Citizen
1652	Whitten, Christopher	Private Citizen
1653	Lanzman, Sarah	Private Citizen
1654	Schneider, Lous G.	Private Citizen
1655	vonWether, Karl	Private Citizen
1656	Triplett, Tia	Private Citizen
1657	Patterson, Mark	Private Citizen
1658	St. Onge, Patricia	Private Citizen
1659	Miller, Janet	Private Citizen
1660	Michtom, Bill	Private Citizen
1661	Harmon, Sue	Private Citizen
1662	Name Not Provided	Private Citizen
1663	Binford, Martha R.	Private Citizen
1664	Pepperhead, Ima	Private Citizen
1665	Rutledge, Phil	Private Citizen
1666	Huisman, Mark	Private Citizen
1667	Texas Radiation Online	Other Organization
1668	Coalition on Nuclear Justice	Other Organization
1669	Gregoriades, Athanasia	Private Citizen
1670	Helmstetter, Chris	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
1671	Colon, Stephen	Private Citizen
1672	Herman, Tom	Private Citizen
1673	Diekman, Shelley	Private Citizen
1674	Wills, Elizabeth	Private Citizen
1675	Schwartz, Valarie	Private Citizen
1676	Ruiz, Osiel E.	Private Citizen
1677	Bobosky, Patrick	Private Citizen
1678	Day, Jackson H.	Private Citizen
1679	Hultman, Ruth	Private Citizen
1680	Bossert, Patti	Private Citizen
1681	Weser, Ben	Private Citizen
1682	Mondello, Corey Paul	Private Citizen
1683	Kesich, Paul M.	Private Citizen
1684	Name Not Provided	Private Citizen
1685	Harrell, Sandi	Private Citizen
1686	Rodin, Nick	Private Citizen
1687	Kassell, Rebekah D.	Private Citizen
1688	Coyne, Kevin J.	Private Citizen
1689	Perry, Diana	Private Citizen
1690	Seeley, J. Browning	Private Citizen
1691	Cady, Bruce E.	Private Citizen
1692	Clarke, Richard	Private Citizen
1693	Morris, Wilma "Billie"	Private Citizen
1694	Jorgensen, Kathleen	Private Citizen
1695	Rosenbloom, Oscar	Private Citizen
1696	Maser, Mark Allen	Private Citizen
1697	Herz, Lillian	Private Citizen
1698	Hicks, John and Darlene	Private Citizen
1699	Hiatt, Eleanor H.	Private Citizen
1700	Fedje, Leif A.	Private Citizen
1701	Hart, Linus	Private Citizen
1702	Brant, Sally	Private Citizen
1703	Koster, Frederick J.	Private Citizen
1704	Bender, Emily	Private Citizen
1705	Vincent, Larry D.	Private Citizen
1706	de la Mar, Sophia	Private Citizen
1707	Green, Clarence	Private Citizen
1708	Vann, James E.	Private Citizen
1709	Klaver, Ellen Holly	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
1710	Shoul, Rohna	Private Citizen
1711	Bader, Eleanor	Private Citizen
1712	WindRiver, Winifred	Private Citizen
1713	Subira, Eos Mandisa	Private Citizen
1714	Keller, Joyce	Private Citizen
1715	Ali, Perveen	Private Citizen
1716	Hertz, Lawrence A.	Private Citizen
1717	Craft, Karen	Private Citizen
1718	Harvey, Elise B.	Private Citizen
1719	Beechert, Edward	Private Citizen
1720	Taylor-Roth, Steven	Private Citizen
1721	Luterman, Alison	Private Citizen
1722	Stevens, Kate	Private Citizen
1723	Swope, William	Private Citizen
1724	Baldino, Thomas	Private Citizen
1725	Doerr, Bob	Private Citizen
1726	Marty, Joe	Private Citizen
1727	Angel, Michele	Private Citizen
1728	Mitchell, Jennifer	Private Citizen
1729	GRACE Public Fund	Other Organization
1730	Bromert, Jean M.	Private Citizen
1731	Wilkins, Joan	Private Citizen
1732	Adams, Kip	Private Citizen
1733	Johnson, Rose	Private Citizen
1734	Honicker, Jeannine	Private Citizen
1735	Bauer, Gary H.	Private Citizen
1736	Goodman, Sidney	Private Citizen
1737	Tidwell, Tawni Lynn	Private Citizen
1738	Name Not Provided	Private Citizen
1739	McClatchey, Jr., Walter P.	Private Citizen
1740	Landsberg, Karin	Private Citizen
1741	Howenstein, David	Private Citizen
1742	Zubow, Deborah	Private Citizen
1743	Nemtow, Naomi	Private Citizen
1744	Silverstein, Barbara and Grant	Private Citizen
1745	Harrison, Norma J.	Private Citizen
1746	Bouey, Kelly	Private Citizen
1747	Zaltzberg, Ellen	Private Citizen
1748	Cronin, Colleen	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
1749	Doringo, Richard	Private Citizen
1750	Malinda, Ray	Private Citizen
1751	Renken, Norah	Private Citizen
1752	Fields, Barbara Tolson	Private Citizen
1753	Lind, Karen	Private Citizen
1754	Devine, Bonnie	Private Citizen
1755	Nicholoff, Blake	Private Citizen
1756	Schubert, Marjorie A.	Private Citizen
1757	McNeil, Douglas	Private Citizen
1758	Murphy, Frank	Private Citizen
1759	Baker, Victoria	Private Citizen
1760	Sky, Kate	Private Citizen
1761	Wood, Nancy Howell	Private Citizen
1762	Salomon, Lori	Private Citizen
1763	Chubb, Calvin L.	Private Citizen
1764	Crenshaw, Shirley	Private Citizen
1765	Disselhorst, Timothy	Private Citizen
1766	Hollinshead, Crispin B.	Private Citizen
1767	Baege, Chantal	Private Citizen
1768	Gillis, William J.	Private Citizen
1769	Seppi, Suzanne	Private Citizen
1770	Cowan, Jr., William T.	Private Citizen
1771	Heil, Cynthia A.	Private Citizen
1772	Rothfusz, Marvin	Private Citizen
1773	The Boeing Company	Industry
1774	Magill, Frank B.	Private Citizen
1775	Fox, Hal	Private Citizen
1776	Sunday News	Private Citizen
1777	White, Marilyn	Private Citizen
1778	Friedman, Sheila	Private Citizen
1779	Disselhorst, Timothy	Private Citizen
1780	MacDonald, Robert	Private Citizen
1781	Litman, Laurie	Private Citizen
1782	Buell, Brent	Private Citizen
1783	Shanholtzer, Craig and Charis	Private Citizen
1784	Smith, E.A.	Private Citizen
1785	Heindel, Christoffer	Private Citizen
1786	Lubell, Marilyn Z.	Private Citizen
1787	Fehrs, Glenn	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
1788	Hadnott, Roxanne	Private Citizen
1789	Smit, Elsje	Private Citizen
1790	Galletta, Karina	Private Citizen
1791	Shapiro, Vita C.	Private Citizen
1792	Spikes, Linda	Private Citizen
1793	Cauble, Don	Private Citizen
1794	Nowak, Bill	Private Citizen
1795	Duvoisin, Nick	Private Citizen
1796	Easterly, Ann	Private Citizen
1797	Dimondstein, Geraldine	Private Citizen
1798	Schwartz, Ellen	Private Citizen
1800	Goitein, Ernie	Private Citizen
1801	Reichart, Richard B.	Private Citizen
1802	Crawford, B.J.	Private Citizen
1803	Rosen, R.S.	Private Citizen
1804	Underwood, Deborah Gayle	Private Citizen
1805	Hicks, Matt	Private Citizen
1806	Needham, Laurie A.	Private Citizen
1807	Burns, Heather	Private Citizen
1808	Millstein, Henry	Private Citizen
1809	Wesiburd, Stana	Private Citizen
1810	Duell, Ellen N.	Private Citizen
1811	Schaeffer, Dominic	Private Citizen
1812	Chapman, Myron	Private Citizen
1813	Ponnet, Fr. Chris	Private Citizen
1814	Manon, Peter	Private Citizen
1815	Ustuner, Kutay	Private Citizen
1816	Jaffe, Roy	Private Citizen
1817	Sterrett, Janny	Private Citizen
1818	Geovanis, Carla	Private Citizen
1819	Perz, Stephen G.	Private Citizen
1820	Cherie, Morrisa	Private Citizen
1821	Maxfield, Pamela	Private Citizen
1822	Bellwether, Dana	Private Citizen
1823	DeLollis, Ann Lincoln	Private Citizen
1824	Sabourin, C.F.	Private Citizen
1825	White, K.	Private Citizen
1826	Hardack, Richard	Private Citizen
1827	Prothero, Toni L.	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
1828	Taylor, Zachary	Private Citizen
1829	Musser, Vern	Private Citizen
1830	Ali, Uzair	Private Citizen
1831	Smith, Lika	Private Citizen
1832	Teraoka, Isabelle and Nobuya	Private Citizen
1833	Lewellyn, Kelly	Private Citizen
1834	Craner, Annette M.	Private Citizen
1835	Lloyd, George	Private Citizen
1836	Godwin, Nicki	Private Citizen
1837	Azbel, Lyuba	Private Citizen
1838	Craig, Rosemay	Private Citizen
1839	Iltzsche, William	Private Citizen
1840	Anderson, Ray	Private Citizen
1841	Schilling, Cherry	Private Citizen
1842	Gaibor, Lorena	Private Citizen
1843	Greenleaf, Marta	Private Citizen
1844	Sterrett, Frank S.	Private Citizen
1845	Collins, Stefanie	Private Citizen
1846	Dichter, Jean	Private Citizen
1847	Bara, Heidi C.	Private Citizen
1848	Gilbert, Tavia Lin	Private Citizen
1849	Lutenegger, Brian J.	Private Citizen
1850	Granade, Mary	Private Citizen
1851	Pandian, Murugan	Private Citizen
1852	Peluce, Ilse	Private Citizen
1853	Schultz, Robert W.	Private Citizen
1854	Withnall, Elizabeth	Private Citizen
1855	Bong, Laura	Private Citizen
1856	Goldstein, Sabrina	Private Citizen
1857	Simmons, Jayne	Private Citizen
1858	TD and JB	Private Citizen
1859	Coljohn, K	Private Citizen
1860	Howell, Dean	Private Citizen
1861	Howell, Trisha	Private Citizen
1862	Culberson, Eleanor	Private Citizen
1863	Adelsman, Heidi	Private Citizen
1864	The Minneapolis Foundation	Other Organization
1865	Fracke, Sue	Private Citizen
1866	Clark, Terrence P.	Private Citizen

<b>Committer Number</b>	<b>Committer</b>	<b>Organization Type</b>
1867	California Alliance in Defense of Residence Envrionments	Environmental Group
1868	Stuckman, Scott	Private Citizen
1869	Van Zeeland, Michel	Private Citizen
1870	HOME-Healing Ourselves and Mother Earth	Environmental Group
1871	Hiemenz, Jessica	Private Citizen
1872	Hutchinson, George B.	Private Citizen
1873	Alexander, Melissa	Private Citizen
1874	Harris, Virginia	Private Citizen
1875	Wasserman, Harvey	Private Citizen
1876	Liu, C.	Private Citizen
1877	Root, Sharon	Private Citizen
1878	Root, Sharon	Private Citizen
1879	Liu, C.	Private Citizen
1880	Van Zeeland, Michel	Private Citizen
1881	McGilligan, Mary E.	Private Citizen
1882	Pederson, Jill M.	Private Citizen
1883	Melrose, Brian	Private Citizen
1884	Bruno, Ann	Private Citizen
1885	Bruno, James	Private Citizen
1886	Bruno, Julie	Private Citizen
1887	Shoosmith, Amy	Private Citizen
1888	Desmoulin, Francis and Debbie	Private Citizen
1889	Litman, Laurie	Private Citizen
1890	Kastner, Ruth	Private Citizen
1891	Zehr, Karl	Private Citizen
1892	Pharmaceutical Research and Manufacturers of America	Other Organization
1893	Hummel, Mike	Private Citizen
1894	Clift, Loren	Private Citizen
1895	Anders, Alison Daniel	Private Citizen
1896	Knights, Kim	Private Citizen
1897	Coole, Maria	Private Citizen
1898	Schmitz, Gladys	Private Citizen
1899	Wagner, Jim and Virginia	Private Citizen
1900	Rustino, Adele	Private Citizen
1901	Katers, Rebecca	Private Citizen
1902	Weintraub, Rachel	Private Citizen
1902	Consumer Federation of America	Other Organization

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
1903	Dayfield, Lee	Private Citizen
1904	Hanson, Art	Private Citizen
1905	Salazar, Javier	Private Citizen
1906	IEER	Other Organization
1907	VanHandel, Jason	Private Citizen
1908	Greenberg, Zev	Private Citizen
1909	Plevin-Foust, Mimi	Private Citizen
1910	Freeman, Nancy G.	Private Citizen
1911	Battersby, Julian	Private Citizen
1912	Denevan, Patrick A.	Private Citizen
1913	Agnew, Stephanie G.	Private Citizen
1914	LaDeur, Penny	Private Citizen
1915	Garrett, Gregory W.	Private Citizen
1916	St. George, Beth	Private Citizen
1917	Hatcher, Christi	Private Citizen
1918	Brudick, Bruce	Private Citizen
1919	Erickson, Signe B.	Private Citizen
1920	Davis, Lindsey	Private Citizen
1921	Wyatt, Maria	Private Citizen
1922	Shaw, R.	Private Citizen
1923	Kaneko, Sylvia Y.	Private Citizen
1924	Klein, Tim	Private Citizen
1925	Gaspar, Richelle S,	Private Citizen
1926	Gaspar, Orman	Private Citizen
1927	Haustermanns, Josine	Private Citizen
1928	Mytels, Debbie	Private Citizen
1929	Sinclair, Melanie	Private Citizen
1930	Jones, Peter	Private Citizen
1931	Edguer, Marjorie N.	Private Citizen
1932	Ehrlich, Anthony	Private Citizen
1933	Oliveras, Brian Pedro	Private Citizen
1934	Friedman, LeeAnn	Private Citizen
1935	Pantoga, Julia	Private Citizen
1936	Gibbs, Barbara	Private Citizen
1937	Mayo, Michael John	Private Citizen
1938	Ellet, M.H.	Private Citizen
1939	Murphy, Luci	Private Citizen
1940	DeRouen, Brian	Private Citizen
1941	Freeman, Gordon	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
1942	Trasoff, Stephanie	Private Citizen
1943	Mathern, Nick	Private Citizen
1944	Sawaya, Marie	Private Citizen
1945	Howley, Rosemary E.	Private Citizen
1946	Tobin, Frances T.	Private Citizen
1947	Heaton, Marsha Carson	Private Citizen
1948	Ginsberg, Terri	Private Citizen
1949	Bayley, Ray	Private Citizen
1950	Certis-Milby, Casey	Private Citizen
1951	Spicer, Gary L.	Private Citizen
1952	Warrick, III, W.H.	Private Citizen
1953	Golding, Bert H.	Private Citizen
1954	Bergtold, Susanna	Private Citizen
1955	Stone, Dwight	Private Citizen
1956	Nolde, Frances Dean	Private Citizen
1957	Austin, Neal	Private Citizen
1958	Rankin, Starlene	Private Citizen
1959	Beliaeff, Victoria J.	Private Citizen
1960	Campbell, Suzy	Private Citizen
1961	McCaughey, Laura	Private Citizen
1962	Bonner, Scott	Private Citizen
1963	Howard, Barb	Private Citizen
1964	Mason, Marcia	Private Citizen
1965	Mays, Ed	Private Citizen
1966	Cleveland, Miriam	Private Citizen
1967	Rose, Carol H.	Private Citizen
1968	Greenwood, Julie	Private Citizen
1969	Erickson, Carole January	Private Citizen
1970	Dennis, Dash Austin	Private Citizen
1971	Donnelly, Mary L.	Private Citizen
1972	Abshire, Dianne	Private Citizen
1973	Tereba, Susan	Private Citizen
1974	Thomas, Ben	Private Citizen
1975	Johari, Nand Lal	Private Citizen
1976	Taylor, Mason	Private Citizen
1977	McCormick, Janis	Private Citizen
1978	Stietzel, Eric R.	Private Citizen
1979	Cody, Christine	Private Citizen
1980	Horowitz, Maureen	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
1981	Kulick, Mariane	Private Citizen
1982	Curcio, Dale D.	Private Citizen
1983	Reid, Barbara	Private Citizen
1984	Hupf, Robert	Private Citizen
1985	Runyan, Kathryn	Private Citizen
1986	Verna, Ray	Private Citizen
1987	Burdige, Davie	Private Citizen
1988	Gallup, Alison	Private Citizen
1989	Kong, Bill	Private Citizen
1990	Olsen, Taimi	Private Citizen
1991	DeAngelis, Chris	Private Citizen
1992	Mott, Tracy	Private Citizen
1993	Harriman, Alice	Private Citizen
1994	Visher, Marjorie	Private Citizen
1995	Dorenkott, Jim	Private Citizen
1996	Schwebke, Mark	Private Citizen
1997	Fouts, Vickie M.	Private Citizen
1998	Simbeck, Greg	Private Citizen
1999	Dutt, Anita	Private Citizen
2000	Biven, Amy Beth	Private Citizen
2001	Booher, John M.	Private Citizen
2002	Wolters, Fred	Private Citizen
2003	Hammett, Stephanie	Private Citizen
2004	Shahian, Linda Marie	Private Citizen
2005	Cuppy, A.C.	Private Citizen
2006	Bell, Valerie	Private Citizen
2007	Ellingson, Miriam	Private Citizen
2008	Gray, Brayton	Private Citizen
2009	Stanfield, Pablo	Private Citizen
2010	Marks, Jan	Private Citizen
2011	Bernard, John	Private Citizen
2012	Wahl, Richard	Private Citizen
2013	Toms, Michael	Private Citizen
2014	Barnes, Steven	Private Citizen
2015	McPheron, C.A.	Private Citizen
2016	Adkins, Judy	Private Citizen
2017	Jensen, Laurel	Private Citizen
2018	W., Adam	Private Citizen
2019	Saxton, Jan	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
2020	Sweberg, Dean	Private Citizen
2021	Harrison, Lisa	Private Citizen
2022	Crispell, Whitney	Private Citizen
2023	Titterington, Patrice	Private Citizen
2024	McLaughlin, Blaine	Private Citizen
2025	Moore, James	Private Citizen
2026	Weiler, Brenda	Private Citizen
2027	Brewster, Linda	Private Citizen
2028	Hood, Surya-Patricia Lane	Private Citizen
2029	Brokaw, Colleen	Private Citizen
2030	McLaine, Pat and Al	Private Citizen
2031	Frumkiin, Alan J.	Private Citizen
2032	Stranahan, Lorene A.	Private Citizen
2033	Carpenter, Jerome A.	Private Citizen
2034	Dellinger, Kay	Private Citizen
2035	Johnson, Susan	Private Citizen
2036	Provasoli, Robert and Judith	Private Citizen
2037	Clemente, Trina	Private Citizen
2038	Sheldon, Erin	Private Citizen
2039	Bogolub, Rita	Private Citizen
2040	Vaughn, Pamela	Private Citizen
2041	Pendle, Hina	Private Citizen
2042	Cureses, Ruben	Private Citizen
2043	San Miguel County Commissioner	Government
2044	Mann, Claudia	Private Citizen
2045	Kranz, Louis	Private Citizen
2046	Conway, Beverly	Private Citizen
2047	Lederman, Sheila M.	Private Citizen
2048	Manderscheid, Barbara A.	Private Citizen
2049	Diehl, Scott P.	Private Citizen
2050	Walker, Joseph J.	Private Citizen
2051	Weiss, Melissa	Private Citizen
2052	Engel, Robert	Private Citizen
2053	Ruck, Denise	Private Citizen
2054	Rodgers, Cory	Private Citizen
2055	Walters, Ben	Private Citizen
2056	Waite, Alden S.	Private Citizen
2057	Grut, Chantal	Private Citizen
2058	Jones, Adora Jean	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
2059	Burkett, Carolee	Private Citizen
2060	Crotty, Vicky L.	Private Citizen
2061	Collins, Rosemary	Private Citizen
2062	Ravitz, Evan	Private Citizen
2063	DiPalma, Carolyn	Private Citizen
2064	License, June E.	Private Citizen
2065	Klingerberg, Detlev	Private Citizen
2066	Burrell, Gina	Private Citizen
2067	Halbert, Kathleen	Private Citizen
2068	Neely, Katherin L. Patterson	Private Citizen
2069	Kurtz, Lorna	Private Citizen
2070	Gleason, Ann N.	Private Citizen
2071	Redaelli, Adriana	Private Citizen
2072	Brown, Murray	Private Citizen
2073	Kollerer, Doret	Private Citizen
2074	Holzinger, Thomas	Private Citizen
2075	Burton, Paul	Private Citizen
2076	Hawkins, Bill	Private Citizen
2077	Blayton, Oscar H.	Private Citizen
2078	Mullally, Carolyn R.	Private Citizen
2079	Bock, Ariana	Private Citizen
2080	McMahon, Tom	Private Citizen
2081	Adams, Deborah	Private Citizen
2082	Kroll, Janet B.	Private Citizen
2083	Mulherin, Jim	Private Citizen
2084	Tutu, Nontombi Naomi	Private Citizen
2085	Eno, Ann F.	Private Citizen
2086	Markwig, Hannah	Private Citizen
2087	Martos, Joe	Private Citizen
2088	Lantsberg, Alex	Private Citizen
2089	Batt, Cara Stevens	Private Citizen
2090	Pattengale, Jamie	Private Citizen
2091	Waxman, Jonas	Private Citizen
2092	Johnson, Angeline	Private Citizen
2093	Sagebiel, Marcia	Private Citizen
2094	Payne, Jr., Jack H.	Private Citizen
2095	Palmer, Paula	Private Citizen
2096	Robin, Lois	Private Citizen
2097	Kight, Gerri	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
2098	Katz, David	Private Citizen
2099	Goldsmith, Dave	Private Citizen
2100	Dugan, Martha A.	Private Citizen
2101	Glass, Jennifer	Private Citizen
2102	Lambda Wellness Center	Other Organization
2103	Campbell, Sally	Private Citizen
2104	Ehrman, Howard	Private Citizen
2105	Chamberlain, Anne	Private Citizen
2106	Hood, Cheryl L.	Private Citizen
2107	Bruce-Lee, Carla	Private Citizen
2108	Terry, Beverly	Private Citizen
2109	Schein, Katey	Private Citizen
2110	Edwards, Susan C.	Private Citizen
2111	LaCivita, Leah	Private Citizen
2112	Nordhof, Pamel	Private Citizen
2113	Perelman, Jodi	Private Citizen
2114	Betz-Zall, Jonathan	Private Citizen
2115	Lanfranchi, Marcello Aurelio	Private Citizen
2116	Kerlick, David	Private Citizen
2117	Granger, Ivan	Private Citizen
2118	McLeester, Dick	Private Citizen
2119	Cheatum, Lynn	Private Citizen
2120	Tiffany, Ann A.	Private Citizen
2121	Cornell, Lila E.	Private Citizen
2122	O'Brien, Tom	Private Citizen
2123	Mueller, Mary	Private Citizen
2124	Harrison, Cheryl	Private Citizen
2125	Forrest, Peter L.	Private Citizen
2126	Russell, Barbara	Private Citizen
2127	Taggart, Lynn M.	Private Citizen
2128	Jaye, Lauren	Private Citizen
2129	Woolner, Cate N.	Private Citizen
2130	Mardigian, Sandra	Private Citizen
2131	Broderick, Barbara	Private Citizen
2132	Jonakin, Jon	Private Citizen
2133	Koons, Charlotte P.	Private Citizen
2134	McDermott, Eileen	Private Citizen
2135	Neufeld, Josh	Private Citizen
2136	Andrews, Priscilla	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
2137	Banner, David K.	Private Citizen
2138	Carol, Shawna	Private Citizen
2139	Williams, Susan F.	Private Citizen
2140	Fuson, Nelson	Private Citizen
2141	Nixon, Hal	Private Citizen
2142	Waters, Barbara	Private Citizen
2143	Shandler, Jalien	Private Citizen
2144	Keady, Jim	Private Citizen
2145	Carson, Kathy S.	Private Citizen
2146	Lubin, Heidi Sarah	Private Citizen
2147	Nicholas, Darini	Private Citizen
2148	Levey, Lynn	Private Citizen
2149	Cleveland, Evelyn Y.	Private Citizen
2150	Balaban, Sanda	Private Citizen
2151	Woolery, Phillip C.	Private Citizen
2152	Anthony, Elizabeth	Private Citizen
2153	Hillyard, Frances	Private Citizen
2154	Levine, Catherine	Private Citizen
2155	Stenger, Jason	Private Citizen
2156	Bator, Paul	Private Citizen
2157	Uebelacker, Genie	Private Citizen
2158	Younce, John William	Private Citizen
2159	St. John, Kate	Private Citizen
2160	Anderson, Janet	Private Citizen
2161	Hepler, John	Private Citizen
2162	Meier, Christopher	Private Citizen
2163	Rogers, William F.	Private Citizen
2164	Diehl, Scott	Private Citizen
2165	Sellman, Jonathan	Private Citizen
2166	Holt, Kathryn A.	Private Citizen
2167	Tsindle, Clove	Private Citizen
2168	Greiner, Mark F.	Private Citizen
2169	Soergel, David	Private Citizen
2170	Smith, Susan	Private Citizen
2171	Miller, Sandra P.	Private Citizen
2172	Cole, Ralph	Private Citizen
2173	Cole, Jennifer	Private Citizen
2174	Edel, Stephan	Private Citizen
2175	Anderson, Debbie	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
2176	Anderson, Nancy	Private Citizen
2177	Castillo, Elizabeth C.	Private Citizen
2178	Daneau, Dennis	Private Citizen
2179	Faust, Ronald L.	Private Citizen
2180	Hohensee, Bill	Private Citizen
2181	O'Connell, William	Private Citizen
2182	Chianese, Erin	Private Citizen
2183	Chappel, Tina	Private Citizen
2184	Warner, Thomas A.	Private Citizen
2185	Papscun, Alan	Private Citizen
2186	Around, Dolores J.	Private Citizen
2187	Higgins, Francis X.	Private Citizen
2188	Crowe, Lydia M.	Private Citizen
2189	Clobridge, Kathy	Private Citizen
2190	Nakashima, Janice	Private Citizen
2191	Brusca, Anne R.	Private Citizen
2192	Comer, Suzanne	Private Citizen
2193	Stein, Jonathan	Private Citizen
2194	Leicester, Margaret	Private Citizen
2195	Doll, Bradley B.	Private Citizen
2196	Bird, Stonewall J.	Private Citizen
2197	Bell, Beverly A.	Private Citizen
2198	Sauer, Rick	Private Citizen
2199	Salud, Pamela	Private Citizen
2200	Reynolds, Nancy	Private Citizen
2201	Steward, Beth	Private Citizen
2202	Malek, Emiliana	Private Citizen
2203	O'Reilly, Mary E.	Private Citizen
2204	Fellman, Gordon	Private Citizen
2205	Stauffer, Diana	Private Citizen
2206	Nordlander, Robert E.	Private Citizen
2207	Pollard, IV, David O.	Private Citizen
2208	Boone, Sharon	Private Citizen
2209	Clarendon, James	Private Citizen
2210	Azmi, Tariq	Private Citizen
2211	Higbie, Brian	Private Citizen
2212	Willis, Jennifer	Private Citizen
2213	Studer, Megan	Private Citizen
2214	Hannon, Roseann	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
2215	Fly, Mary	Private Citizen
2216	Drees, Becky	Private Citizen
2217	Dowling, David	Private Citizen
2218	Pumroy, Marsha	Private Citizen
2219	Carp, Cheryl	Private Citizen
2220	Dohner, V. Alton	Private Citizen
2221	Backus, Frank I.	Private Citizen
2222	Smith, Joanna Oltman	Private Citizen
2223	Blanton, Marian and Gerry	Private Citizen
2224	Freeman, Nora	Private Citizen
2225	Rodnova, Nadia	Private Citizen
2226	Hunter, Mary Anne	Private Citizen
2227	Lopez, Christine	Private Citizen
2228	White, Allison B.	Private Citizen
2229	Kesler, Paul	Private Citizen
2230	McCornish, Robert J.	Private Citizen
2231	Head, Jr., Jim H.	Private Citizen
2232	Boyd, Jack W.	Private Citizen
2233	Ward, Donald E.	Private Citizen
2234	Wyche, Will	Private Citizen
2235	Vigne, Jan B.	Private Citizen
2236	Gorman, Judith	Private Citizen
2237	Landers, Karen	Private Citizen
2238	Ellis, Stephen	Private Citizen
2239	Woods, Nancy	Private Citizen
2240	Weiss, Patricia Sharp	Private Citizen
2241	Day, S.R.	Private Citizen
2242	Craig, Jennifer M.	Private Citizen
2243	Santanello, Mary	Private Citizen
2244	Cibulskis, Ann M.	Private Citizen
2245	Huot, David C.	Private Citizen
2246	Horton, J. Russell	Private Citizen
2247	Star, Suzy E.	Private Citizen
2248	Grady, Lydia	Private Citizen
2249	Youngson, Patricia	Private Citizen
2250	Cherrington, Deidre	Private Citizen
2251	Porter, Mary Marvin	Private Citizen
2252	Tinapple, Hillary	Private Citizen
2253	Stoll, Jeremy	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
2254	Shears, Marjorie B.	Private Citizen
2255	Grant, Betty	Private Citizen
2256	Cerier, Leslie	Private Citizen
2257	Smith, Cheryl C.	Private Citizen
2258	Walsh, Katie	Private Citizen
2259	Kargbo, Abdul	Private Citizen
2260	Kendler, Helene	Private Citizen
2261	Ayers, Michael D.	Private Citizen
2262	Greenwald, Judy	Private Citizen
2263	Kellman, Steven G.	Private Citizen
2264	Eckstein, Yvonne	Private Citizen
2265	Giles, Kate	Private Citizen
2266	Zervos, Maria	Private Citizen
2267	Brayshaw, Julia	Private Citizen
2268	Pearson, Cliff	Private Citizen
2269	Laris, Marcia B.	Private Citizen
2270	Lee, David N.B.	Private Citizen
2271	Fox, Carrie A.	Private Citizen
2272	Joseph, Claudia and Dan	Private Citizen
2273	Marxer, Sarah	Private Citizen
2274	Willse, Matthew	Private Citizen
2275	Park, Tressa	Private Citizen
2276	Mermin, Sarah	Private Citizen
2277	Battersby, Lucy	Private Citizen
2278	Frattaroli, Shannon	Private Citizen
2279	Jackson, Florence	Private Citizen
2280	Ward, Annette	Private Citizen
2281	Pitcher, Patricia	Private Citizen
2282	Rockwell, Paul	Private Citizen
2283	Cheatum, Kristine	Private Citizen
2284	Talbot, Medicine Story	Private Citizen
2285	Dorney-O'Connell, Maureen	Private Citizen
2286	Heath, Barry	Private Citizen
2287	Brack, Roberta L.	Private Citizen
2288	Lawrence, Robert S.	Private Citizen
2289	Taub, Jerome	Private Citizen
2290	Leamon, David	Private Citizen
2291	Gladstone, Harold	Private Citizen
2292	Grooms, Lynda Jentsch	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
2293	Lippman, Roger	Private Citizen
2294	Bigness, Linda	Private Citizen
2295	Bowen, Mary Ellen	Private Citizen
2296	Weiss, Rebecca	Private Citizen
2297	Loper, Paul	Private Citizen
2298	Willis, April A.	Private Citizen
2299	Farrell, Susan	Private Citizen
2300	Martin, Jenna	Private Citizen
2301	Kane, Sherman	Private Citizen
2302	Grier, Laurie Bunker	Private Citizen
2303	Jacobus, Julie	Private Citizen
2304	Modarressi, Anne	Private Citizen
2305	Magdalene, Carole	Private Citizen
2306	Landsbergis, Paul	Private Citizen
2307	Schaeffer, Kathy	Private Citizen
2308	Stockley, A.M.	Private Citizen
2309	Workman, Jeremy	Private Citizen
2310	Domsic, Brian	Private Citizen
2311	Churchill, Beverly	Private Citizen
2312	Pierce, Scott	Private Citizen
2313	Powers, Kathleen Rice	Private Citizen
2314	Tripp, Benjamin	Private Citizen
2315	Mitchell, Sasha	Private Citizen
2316	Wolfe, Shirley A.	Private Citizen
2317	Medill, Jacqueline	Private Citizen
2318	Smart, Leslie	Private Citizen
2319	Well, Bob	Private Citizen
2320	Ryder, Vicku Lewin	Private Citizen
2321	Fralix, Cassandra	Private Citizen
2322	Webb, Carol	Private Citizen
2323	McIntosh, Nina	Private Citizen
2324	Goenne, Laura	Private Citizen
2325	Winton-Henry, Cynthia	Private Citizen
2326	Silver, Sandy A.	Private Citizen
2327	Davis, Elizabeth	Private Citizen
2328	Roach, Marti	Private Citizen
2329	Marley, Jon	Private Citizen
2330	Ploss-Campoamor, Erin	Private Citizen
2331	Peteson, Vicky A.	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
2332	Reid, Jim	Private Citizen
2333	Jordan, Jacqueline	Private Citizen
2334	Goodman, Iden	Private Citizen
2335	Rescoe, Linda	Private Citizen
2336	Goldstein, Ken	Private Citizen
2337	deBree, Olivia	Private Citizen
2338	Moran, John	Private Citizen
2339	Schueler, Carla	Private Citizen
2340	Kaplan, Ilene and Marty	Private Citizen
2341	Schmitz, Gladys	Private Citizen
2342	Lesser, Joshua	Private Citizen
2343	Withnall, Emily	Private Citizen
2344	Bonowitz, Abraham J.	Private Citizen
2345	Jones, Brenda	Private Citizen
2346	Jones, Lary	Private Citizen
2347	Philbin, Michael	Private Citizen
2348	Oshea, James	Private Citizen
2349	Gilliland, III, Robert M.	Private Citizen
2350	Cathers, Tama	Private Citizen
2351	Potter, Stephanie	Private Citizen
2352	Perlin, Judith	Private Citizen
2353	Cubillo, Carmen	Private Citizen
2354	Feder, Paul	Private Citizen
2355	Lentz, Janis	Private Citizen
2356	Wilson, Branden P.	Private Citizen
2357	Fulks, Lisa	Private Citizen
2358	Shelley, Kathleen	Private Citizen
2359	Skalski, Anne L.	Private Citizen
2360	Yamamoto, Mary	Private Citizen
2361	Charbeneau, Cherie A.	Private Citizen
2362	Berthiaume, Ray	Private Citizen
2363	Vinograd, Lorraine	Private Citizen
2364	McClellan, Betty	Private Citizen
2365	Rudenick, Joelle	Private Citizen
2366	Mullane, Danny	Private Citizen
2367	Brunell, Vicki	Private Citizen
2368	Erickson, Roger K.	Private Citizen
2369	Wallace, Tristin	Private Citizen
2370	English, R.	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
2371	Floyd, Virginia	Private Citizen
2372	Rothman, Lee	Private Citizen
2373	Dagan, Zoe	Private Citizen
2374	Lofquist, Robin	Private Citizen
2375	McNeel, K. Maverick	Private Citizen
2376	Hoehne, Terri	Private Citizen
2377	DeVaney, Lisa	Private Citizen
2378	Cayford, David	Private Citizen
2379	Barahona, Edward	Private Citizen
2380	Sawyer, Kathy	Private Citizen
2381	Townley, Windflower	Private Citizen
2382	Morgan, Julie Ann	Private Citizen
2383	Sorgen, Michael	Private Citizen
2384	Sorgen, Phobe Anne Thomas	Private Citizen
2385	ShisInday, Alessandra C.	Private Citizen
2386	Bates, Robert M.	Private Citizen
2387	March, Jonathan and Ray, Gerda	Private Citizen
2388	Raphael, Dana	Private Citizen
2389	Boring, Gail	Private Citizen
2390	Kraeszig, Jonathan and Raimondi, Cos	Private Citizen
2391	Enright, Brian	Private Citizen
2392	Larned, Paul	Private Citizen
2393	White, Coree	Private Citizen
2394	LEN Institute	Other Organization
2395	Rosewood, Hecate	Private Citizen
2396	Ludwig, Harriet M.	Private Citizen
2397	Lightner, Barbara	Private Citizen
2398	McConnell, M.	Private Citizen
2399	Reid, Michael Gardos	Private Citizen
2400	Name Not Provided	Private Citizen
2401	Name Not Provided	Private Citizen
2402	Shimsky, MaryJane	Private Citizen
2403	Hibert, Gregory L.	Private Citizen
2404	Shinouda, Marguerite	Private Citizen
2405	Zimmerman, Kit	Private Citizen
2406	Shippen, Nancy	Private Citizen
2407	Neumaier, Linda Allport	Private Citizen
2408	Fishbein, Leah	Private Citizen
2409	Graubert, Jean	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
2410	Delevingne, Lionel	Private Citizen
2411	Dicken, Shawn	Private Citizen
2412	Duncan, Sue L.	Private Citizen
2413	Dasi, Raga	Private Citizen
2414	Wentworth, Max H.	Private Citizen
2415	Popelka, Becky	Private Citizen
2416	Dray, Kay	Private Citizen
2417	Geary, Richard	Private Citizen
2418	Crownfield, Peter	Private Citizen
2419	Jones, Georja Umano	Private Citizen
2420	Hancock, Charles M.	Private Citizen
2421	Summers, Kirstin M.	Private Citizen
2422	Maas, Larry	Private Citizen
2423	Dillon, E.	Private Citizen
2424	Lauterbach, Gwendolyn	Private Citizen
2425	Walsh, Coreen	Private Citizen
2426	Luke, Theresa	Private Citizen
2427	Williams, Patricia M.	Private Citizen
2428	Schlueter, John	Private Citizen
2429	Arnold, G.M.	Private Citizen
2430	Mariana, Alisa	Private Citizen
2431	Findling, Rhonda D.	Private Citizen
2432	Woodyard, Michael T.	Private Citizen
2433	Behrens, Robert	Private Citizen
2434	Honde, Christina	Private Citizen
2435	Aquilino, Christine	Private Citizen
2436	Shores, Jr., Arthur W.	Private Citizen
2437	Flores, Benito	Private Citizen
2438	Hurwitz, Judith	Private Citizen
2439	Plaza, Francisco	Private Citizen
2440	Jones, Glenda M.	Private Citizen
2441	Frager, Cheshire	Private Citizen
2442	Lugo, Chris	Private Citizen
2443	Camarie, Liz	Private Citizen
2444	Brast, David	Private Citizen
2445	Collier, Richard M.	Private Citizen
2446	The Alliance For A Clean Environment	Other Organization
2447	Taylor, Mike	Private Citizen
2448	Trotter, Anne	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
2449	Valerie Niederhoffer	Private Citizen
2450	Environmental Coalition on Nuclear Power	Environmental Group
2451	Sierra Club	Environmental Group
2453	Goldberg, Robert	Private Citizen
2454	Navrot, Teresa	Private Citizen
2455	Martin, Becky	Private Citizen
2456	Karch, Gary	Private Citizen
2457	Lewis, Marvin	Private Citizen
2458	Steele, Carla	Private Citizen
2459	Dodd, David	Private Citizen
2460	Hirt, Alice	Private Citizen
2461	Hirt, Nick	Private Citizen
2462	Johnson, Karen	Private Citizen
2463	Halligan, Mary	Private Citizen
2464	Quintana, David	Private Citizen
2465	Kissam, Sandra	Private Citizen
2466	Witbeck, Carol	Private Citizen
2467	Moore, Chris	Private Citizen
2468	Meistrich, Lawrence	Private Citizen
2469	Honeyman, Hannah	Private Citizen
2470	Muehlenkamp, Angela D.	Private Citizen
2471	Culberson, Eleanor	Private Citizen
2472	Shields, Alice	Private Citizen
2473	Sternberg, Peter	Private Citizen
2474	Thun, Susan	Private Citizen
2475	Oostdam, Ben	Private Citizen
2476	Gaines, Joe	Private Citizen
2477	Silver, Jill	Private Citizen
2478	Scott, Marcia Catherine	Private Citizen
2479	Berger, Eric S.	Private Citizen
2480	Siess, Al	Private Citizen
2481	GRI	Private Citizen
2482	Barnard, Ronald	Private Citizen
2483	Zeitew, Ruth	Private Citizen
2484	Pesa, Michael	Private Citizen
2485	Confer, Traci	Private Citizen
2486	Wienke, Tom	Private Citizen
2487	National Mining Association	Industry

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
2488	Kennecott Uranium Company	Industry
2489	Whealey, David J.	Private Citizen
2490	Coddington, Nicola	Private Citizen
2491	Craig, J and D	Private Citizen
2492	May, Metzger and Zimmerman, LLP	Private Citizen
2493	Cribbin, Ruby A.	Private Citizen
2494	Hower, Judith	Private Citizen
2495	Sandler, Arlene	Private Citizen
2496	Jennings, Sara	Private Citizen
2497	CWWA	Environmental Group
2498	Duratek, Inc.	Industry
2499	Sweeting, Arlene	Private Citizen
2500	Council on Radionuclides and Radionuclides and Radiopharm.	Other Organization
2501	Liu, C.	Private Citizen
2502	Florida Chapter of the Sierra Club	Environmental Group
2503	Daly, Tina	Private Citizen
2504	Khalsa, Jai Hari Singh	Private Citizen
2505	Anapol, Sherry	Private Citizen
2506	Loughlin, Michaelene	Private Citizen
2507	Schroeder, Cynthia	Private Citizen
2508	Quinn, Tanya	Private Citizen
2509	Cancer Awareness Coalition	Other Organization
2510	Ewall, Mike	Private Citizen
2511	Libman, Elliott	Private Citizen
2512	Horn, Stephanie	Private Citizen
2513	Quinlan, Alby	Private Citizen
2514	Zeff, David	Private Citizen
2515	Douglas, Virginia L.	Private Citizen
2516	Lohr, Diane	Private Citizen
2517	Conger, Jean M.	Private Citizen
2518	Korzinski, Diane	Private Citizen
2519	Lux, Jeff	Private Citizen
2520	Sgroi, Phillip	Private Citizen
2521	Lux, Jeff	Private Citizen
2522	Colravy, Bruce	Private Citizen
2523	Harmony, Anne	Private Citizen
2524	Brown, Robert A.	Private Citizen
2525	Geary, Alice	Private Citizen

<b>Committer Number</b>	<b>Committer</b>	<b>Organization Type</b>
2526	Blokey-O'Brien, Pamela	Private Citizen
2527	Waste Management, Inc.	Industry
2528	Bullard, Pascale	Private Citizen
2529	Glasgow, Bonnie	Private Citizen
2530	Sandler, Arlene	Private Citizen
2531	Power Reactor Section of the Health Physics Society	Other Organization
2532	Nuclear Fuel Services, Inc.	Industry
2533	Schieferstein, Jeanne	Private Citizen
2534	Ward, Fred	Private Citizen
2535	Preister, Don, Senator, Nebraska District 5	Government
2536	Natural Resources Defense Council, Inc.	Environmental Group
2537	Ewall, Mike	Private Citizen
2538	Cinquemani, D.K.	Private Citizen
2539	United Steelworkers of America	Industry
2540	Harwell, Marilyn	Private Citizen
2541	Robinson, Stan	Private Citizen
2542	Nesbitt, Dale	Private Citizen
2543	Weishaar, Jennifer	Private Citizen
2544	Harris, Karen	Private Citizen
2545	Dixon, Sheila	Private Citizen
2546	Nadeau, Robin	Private Citizen
2547	Lacki, Isabella	Private Citizen
2548	Dietz, Kerry	Private Citizen
2549	Howe, Linda	Private Citizen
2550	Shulman, Seth	Private Citizen
2551	Smay, Betty	Private Citizen
2552	Andersen, Wendy	Private Citizen
2553	Cordell, Melanie	Private Citizen
2554	Rutkowski, Robert	Private Citizen
2555	Barfield, John	Private Citizen
2556	Elkington, Harriet	Private Citizen
2557	Committee to Bridge the Gap	Other Organization
2558	Rattner, Ron	Private Citizen
2559	Paster, Jeremy B.	Private Citizen
2560	Grassroots Recycling Network	Environmental Group
2561	Pankowicz, Stephen	Private Citizen
2562	PPL Susquehanna, LLC	Industry
2563	Garbacz, Jane	Private Citizen

<b>Committer Number</b>	<b>Committer</b>	<b>Organization Type</b>
2564	American Iron and Steel Institute	Industry
2565	Wyoming Mining Association	Industry
2566	Nuclear Energy Institute	Other Organization
2567	Public Citizen	Other Organization
2568	Nuclear Information and Resource Service	Other Organization
2569	Rupert, Carl	Private Citizen
2570	Envirocare of Utah, Inc.	Industry
2571	U.S. Department of Energy	Government
2572	Solomon, Phyllis	Private Citizen
2573	Cory, Christine	Private Citizen
2574	Halpern, Lynn	Private Citizen
2575	Calhoun, Emily B.	Private Citizen
2576	Sisson, Edith A.	Private Citizen
2577	Association of State and Territorial Solid Waste Management Officials	Other Organization
2578	Materna, Beverly L. and Carl	Private Citizen
2579	Barber, John	Private Citizen
2580	Framatome ANP, Inc.	Industry
2581	Lambert, John	Private Citizen
2582	Dominion Resources Services Inc.	Other Organization
2583	Conference of Radiation Control Program Directors, Inc.	Other Organization
2584	Sacramento Municipal Utility District	Government
2585	Southern California Edison	Industry
2586	Collier Shannon Scott, PLLC	Industry
2587	Collier Shannon Scott, PLLC	Industry
2588	Public Citizen's Critical Mass Energy and Environment Program	Environmental Group
2589	Hiebert, David	Private Citizen
2590	Strategic Teaming and Resource Sharing (STARS)	Other Organization
2591	Lind, Karen	Private Citizen
2592	Knoll Farms	Private Citizen
2593	Gwin, Margot	Private Citizen
2594	Bunnell, Andy and Lease, Karin	Private Citizen
2595	Giese, Mark M.	Private Citizen
2596	Sward, Jean	Private Citizen
2597	Hoaglund, Maria	Private Citizen
2598	Lueth, David	Private Citizen
2599	Schmitz, Gladys	Private Citizen

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
2600	Nelson, Marilyn	Private Citizen
2601	Zook, Pamela	Private Citizen
2602	Mason, Lisette	Private Citizen
2603	Barker, David	Private Citizen
2604	Van Stone, Carolina	Private Citizen
2605	Smith, Gretel	Private Citizen
2606	Heron, Joan	Private Citizen
2607	Kapfer, Linda	Private Citizen
2608	Lachman, Julie	Private Citizen
2609	Roberts, Marlene Z.	Private Citizen
2610	Fowler, Pat	Private Citizen
2611	New England Coalition, Inc.	Other Organization
2612	Southeast Compact Commission	Other Organization
2613	Dray, Kay	Private Citizen
2614	The Alliance For A Clean Environment	Environmental Group
2615	Costley, Kristin	Private Citizen
2616	Siess, Al	Private Citizen
2617	Tanner, Ben	Private Citizen
2618	Castor, Rachel	Private Citizen
2619	Custard, Colin	Private Citizen
2620	Jain, Katherine Da Silva	Private Citizen
2621	Ritter, Jon	Private Citizen
2622	Beers, Suzanne	Private Citizen
2623	Snow, Berk	Private Citizen
2624	Dybdal, Jan	Private Citizen
2625	Takehara, James and Sarah	Private Citizen
2626	Nagelmann, Anthony	Private Citizen
2627	Gutierrez, Pedro	Private Citizen
2628	Myer, Scott	Private Citizen
2629	Albertson, Sharon	Private Citizen
2630	Baron, Katherine	Private Citizen
2631	Uransky, Gayna	Private Citizen
2632	Christensen-Burgess, Kevin and Tracy	Private Citizen
2633	Citizen Action New Mexico	Other Organization
2634	Nathanael, Art	Private Citizen
2635	Sumii, Miya	Private Citizen
2636	Jain, Antone K.	Private Citizen
2637	Connelly, Mike	Private Citizen
2638	Hubbard, Kathleen	Private Citizen

<b>Committer Number</b>	<b>Committer</b>	<b>Organization Type</b>
2639	Gleixner, Tatjana	Private Citizen
2640	Green, Heather and Wilson, Dennis	Private Citizen
2641	Don't Waste Connecticut	Environmental Group
2642	Goepfert, Don and Hooper, Lisa	Private Citizen
2643	Stuart, Kathleen	Private Citizen
2644	Fuel Cycle Facility Forum	Other Organization
2645	Name Not Provided	Private Citizen
2646	Oregon PeaceWorks	Private Citizen
2647	Reith, Kimi	Private Citizen

<b>Committer Number</b>	<b>Committer</b>	<b>Organization Type</b>
T1-1**	Dave Bradbury, Bradtec Decon Technologies, Ltd.	Industry
T1-2	April Chance, Tyco Healthcare/Mallinckrodt	Industry
T1-3	Dave Culberson, Fuel Cycle Facilities Forum	Other Organization
T1 - 4	Diane D'arrigo, Nuclear Information and Resource Service	Environmental Organization
T1 - 5	Scott Doig, Prairie Island Indian Community	Tribal Government
T1-6	Bill Dornsife, Waste Control Specialists	Industry
T1-7	Don Faulkner, United Steel Workers of America	Industry
T1-8	Stanley Fitch, New Mexico Environment Department	Government
T1-9	W.J. "Chip" Foley, American Iron and Steel Institute	Industry
T1-10	Lea Foushee, North American Water Office	Other Organization
T1-11	Paul Genoa, Nuclear Energy Institute	Industry
T1-12	Edward Herbert III, National Ready Mixed Concrete Association	Industry
T1-13	Dr. Judith Johnsrud, Sierra Club	Environmental Group
T1-14	William Kennedy, Health Physics Society	Other Organization
T1-15	Gordon Linsley, International Atomic Energy Agency	International Agency
T1-16	Mike Mattia, Institute of Scrap Recycling Industries	Industry
T1-17	Kathleen Mcallister, Massachusetts Department of Public Health	Government
T1-18	Debra Mcaugh, Washington State Department of Health	Government
T1-19	Dale Rector, Association of State and	Other Organization

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
	Territorial Solid Waste Management Officials	
T1-20	Dave Ritter, Public Citizen	Environmental Group
T1-21	Dr. Thomas Tenforde, National Council on Radiation Protection and Measurements	Other Organization
T1-22	Ray Turner, David Joseph Company	Industry
T1-23	Andy Wallo, U.S. Department of Energy	Government
T1-24	John Wittenborn, Metal Industry Recycling Coalition	Industry
T1-25	Barbara Youngberg, New York State Department of Environmental Conservation	Government
T1-26	Dennis Nelson, IC Consulting	Other Organization
T1-27	Harry Newman, Next Step Environmental	Environmental Organization
T1-31	Pete Meyers, State of Texas Department of Health	Government
T1-100	Felix Kilar, Nuclear Energy Institute	Industry
T1-101	Joe Nardi, Westinghouse	Industry
T2-1***	Dave Bradbury, Bradtec Decon Technologies, Ltd. dbury	Industry
T2-2	April Chance, Tyco Healthcare/Mallinckrodt	Industry
T2-3	Dave Culberson, Fuel Cycle Facilities Forum	Other Organization
T2-4	Diane D'arrigo, Nuclear Information and Resource Service	Environmental Organization
T2-5	Scott Doig, Prairie Island Indian Community	Tribal Government
T2-6	Bill Dornsife, Waste Control Specialists	Industry
T2-7	Don Faulkner, United Steel Workers of America	Industry
T2-8	Stanley Fitch, New Mexico Environment Department	Government
T2-9	W.J. "Chip" Foley, American Iron and Steel Institute	Industry
T2-10	Lea Foushee, North American Water Office	Other Organization
T2-11	Paul Genoa, Nuclear Energy Institute	Industry
T2-12	Edward Herbert III, National Ready Mixed Concrete Association	Industry
T2-13	Dr. Judith Johnsrud, Sierra Club	Environmental Group
T2-14	William Kennedy, Health Physics Society	Other Organization
T2-15	Gordon Linsley, International Atomic Energy Agency	International Agency
T2-16	Mike Mattia, Institute of Scrap Recycling Industries	Industry
T2-17	Kathleen Mcallister, Massachusetts Department of Public Health	Government
T2-18	Debra Mcaugh, Washington State Department of Health	Government
T2-19	Dale Rector, Association of State and Territorial Solid Waste Management Officials	Other Organization

<b>Commenter Number</b>	<b>Commenter</b>	<b>Organization Type</b>
T2-20	Dave Ritter, Public Citizen	Environmental Organization
T2-21	Dr. Thomas Tenforde, National Council on Radiation Protection and Measurements	Other Organization
T2-22	Ray Turner, David Joseph Company	Industry
T2-23	Andy Wallo, U.S. Department of Energy	Government
T2-24	John Wittenborn, Metal Industry Recycling Coalition	Industry
T2-25	Barbara Youngberg, New York State Department of Environmental Conservation	Government
T2-26	Dennis Nelson, IC Consulting	Other Organization
T2-27	Harry Newman, Next Step Environmental	Environmental Group
T2-28	Department of Energy	Government
T2-29	Shawn Mccabe, Waste Control Specialists	Industry
T2-30	Greg Vogt, Solid Waste Management Association of America	Industry
T2-31	Pete Meyers, State of Texas Department of Health	Government
T2-32	Ernest Fuller, Broad Top Township, Pennsylvania	Government
T2-33	Ed Skrinolus, Waste Management	Industry
T2-34	Daniel Schultheisz, EPA Office of Radiation and Indoor Air	Government
T2-35	Christina Parascandolas, Metal Industry Recycling Coalition	Industry
T2-36	Rick Prohl, Pennsylvania Department of Environmental Protection	Government

\* Comment 850 was submitted by a private citizen and comment 2648 was submitted by that citizen's environmental organization. Therefore, the two comments share a single entry in this appendix.

\*\* Comments whose numbers are preceded by "T1-" are from the first day of the public workshop held at NRC Headquarters on May 21, 2003.

\*\*\* Comments whose numbers are preceded by "T2-" are from the second day of the public workshop held at NRC Headquarters on May 22, 2003.

**APPENDIX C**  
**LIST OF COMMENTERS SUBMITTING FORM LETTERS**

NRC received 2,329 form letters.

Commenter Name	Commenter Number
Abshire, Dianne	1972
Adams, Dani	184
Adams, Deborah	2081
Adams, M.S.	1067
Adams, Robert M.	211
Adams, Virginia	84
Adkins, Judy	2016
Aggen, Tim	120
Agnew, Stephanie G.	1913
Ahmadi, Kate S.	177
Albers, Catherine	1500
Albert, Kathy	207
Albertson, Sharon	2629
Aldrich, Louise	1545
Alexander, Melissa	1873
Alford, Jess	88
Alford, Raymond	664
Ali, Perveen	1715
Ali, Uzair	1830
Allee, Pam	1332
Allgood, Clarice	54
Aloo, Veronica	143
Alvarez, Charles	348
Alvarez, Charles	930
Amador, Ed	171
Ammarell, Gene	1391
Anania, Dale	948
Anapol, Sherry	1514
Anapol, Sherry	2505
Anderjaska, Vassiliki	1106
Anders, Alison Daniel	1895
Andersen, Wendy	2552
Anderson, Debbie	2175
Anderson, Glen	915
Anderson, Janice M.	1477
Anderson, Nancy	2176
Anderson, Noah	991
Anderson, Ray	1840
Anderson, Ryan	324
Andrews, Priscilla	2136
Anelli, Darla	332
Anelli, Darla	1440
Annd, Betsi	551
Anthony, Elizabeth	2152
Apotheker, Steve	1012
Aquilino, Christine	2435
Arias, Diane	790

<b>Commenter Name</b>	<b>Commenter Number</b>
Arie-Donch, Robin	1414
Arkwright Jr., Bruce	80
Arkwright, Jr., Bruce	390
Arkwright, Jr., Bruce	42
Armstrong, Lynn	1246
Arnold, G.M.	2429
Aronoff, Guy Alain	1300
Arons, Klaus	1295
Around, Dolores J.	2186
Arteaga, John	1149
Ashburn, III, James E.	1484
Auerbacher, Ron	1219
Augustine, Ruth	1010
Austin, Christopher	553
Austin, Neal	1957
Ayers, Michael D.	2261
Azbel, Lyuba	1837
Azmi, Tariq	2210
Babler, Sepp	745
Bachman, Jason	93
Backus, Frank I.	2221
Bader, Eleanor	1711
Baege, Chantal	1767
Bahr, Stephanie	1059
Bailey, John	269
Baker, Victoria	1759
Balaban, Sanda	2150
Balkwill, John	1374
Ballantine, Linda A.	820
Banner, David K.	2137
Bara, Heidi C.	1847
Barahona, Edward	2379
Barber, Kathleen	618
Bard, Imre	446
Bard, Imre	609
Barfield, John	2555
Barfoot, R.	1242
Barger, Elizabeth	892
Barker, David	2603
Barnard, Ronald	2482
Barnes, Brent T.	68
Barnes, Steven	2014
Barrios, Thomas	19
Basinger, Jean	1147
Bass, Carol	1250
Bassett, Larry	831
Bassett, William	346
Bates, Christine	716
Bates, Robert M.	2386

<b>Commenter Name</b>	<b>Commenter Number</b>
Batey, Sandra	255
Bator, Paul	2156
Batt, Cara Stevens	2089
Battersby, Julian	1911
Battersby, Lucy	2277
Battista, John R.	1065
Bauer-Maheia, Shirlene	1502
Bauman, Mark	899
Bayhouse, Kevin M.	776
Bayley, Ray	1949
Bazur, Herb	1180
Beak, Bryan	1279
Bearden, Jim	1049
Beardsley, Janet M.	1423
Bechdol, Barbara L.	1109
Bechman, Stuart	641
Beckett, Carter	541
Beckman, Nathaniel	265
Beckner, Azel	310
Beckner, Azel	503
Beckner, Azel Hill	870
Beechert, Edward	1719
Beeler, Meg	587
Beer, Ernest	533
Beers, Suzanne	2622
Begley, Gretchen	1365
Behrens, Robert	2433
Beilsmith, Christy	1071
Beliaeff, Victoria J.	1959
Bell, Beverly A.	2197
Bell, Valerie	2006
Bellinson, Bob	751
Bellwether, Dana	1822
Belt, Leslie	1494
Bendat, Rachel A.H.	1167
Bender, Emily	1704
Bender, Rebecca S.	1299
Benedict, Kelly A. and Daniel	1217
Benham, Melissa K.	1088
Bennett, L. Wayne	1344
Bennett, William C.	101
Berg, Lori	582
Berg, Roberta	1013
Berger, Eric	238
Berger, Eric S.	2479
Berghofer, Richard	469
Bergtold, Susanna	1954
Bernard, John	2011
Bernard, Kate	1316

<b>Commenter Name</b>	<b>Commenter Number</b>
Berns, Carolyn	66
Berry, James T.	1212
Berthiaume, Ray	2362
Bertuglia, Andrew	374
Bessonnet, Veronique	1118
Beth, Alicia D.	644
Beth, Alicia D.	1434
Bethune, Jacqueline	961
Betor, Malakay	1385
Betz-Zall, Jonathan	2114
Bevard, Linda S.	55
Bigness, Linda	2294
Billecke, Stephanie	697
Bird, Stonewall J.	2196
Bishop, Jared	1404
Biskovich, Amy	466
Biven, Amy Beth	2000
Bjorklund, Kaijah	411
Blackburn, Donna	1270
Black-Ferguson, Jeanne Marie	146
Blackiston, Robert	1002
Blandino, Phyllis	685
Blank, Joani	657
Blanton, Marian and Gerry	2223
Blayton, Oscar H.	2077
Blevins, Vivian	1308
Blurton, Anna	121
Bobby, Susan	670
Bobosky, Patrick	1677
Bock, Ariana	2079
Bogolub, Rita	2039
Bohn, David	547
Bolen, Debby	824
Bong, Laura	1855
Bonner, Scott	1962
Bonney, James	236
Bonowitz, Abraham J.	2344
Booher, John M.	2001
Boone, Sharon	2208
Borelli, Rula	1370
Boretz, Adam	1204
Boring, Gail	2389
Borje, Christine	509
Bossert, Patti	1680
Boswell, Amy	626
Botkin, James	1563
Bott, Monica	543
Bottesch, Marla	799
Bouchet, Mike	458

<b>Commenter Name</b>	<b>Commenter Number</b>
Boudart, Jan	789
Bouey, Kelly	1746
Bouwmeester, James P.	853
Bovarnick, Ellen	128
Bowen, Mary Ellen	2295
Bowling, Michael	296
Boyd, Jack W.	2232
Brack, Roberta L.	2287
Braden, Nicholas	1458
Brader, Jason	318
Brady, Matthew	1518
Bragdon, Keith	981
Brakken, Morgan	954
Brandon, Jennis	721
Brant, Sally	1702
Brast, David	2444
Braverman, Christian	410
Brayshaw, Julia	2267
Breen, John	607
Brehm, Joseph	340
Brenner, Barbara	1539
Brewster, Linda	2027
Brill, Marque	761
Brinkman, Lee	748
Brister, Bob	27
Broderick, Barbara	2131
Brokaw, Colleen	2029
Brown, Alexandria and Susan	1328
Brown, Amy	309
Brown, Frank W.	585
Brown, Gail	1465
Brown, Geoff	581
Brown, Monya	156
Brown, Murray	2072
Brown, Myrna	478
Brown, Patria	591
Brown, Robert A.	2524
Browne, Deborah E.	1311
Brownstein, Erick	1101
Bruce-Lee, Carla	2107
Brudick, Bruce	1918
Brunell, Vicki	2367
Brunick, Eric	260
Brunken, Carrie	1179
Brunner, Linda	1117
Bruno, Ann	1884
Bruno, James	1885
Bruno, Julie	1886
Brusca, Anne R.	2191

<b>Commenter Name</b>	<b>Commenter Number</b>
Bryant, Greg	415
Bryant-Berg, Jeremy D.	842
Bryant-Berg, Kristy A.	1184
Bteh, Bradley G.	647
Buchanan, Katherine F.	1395
Buell, Brent	1782
Buie, Cameron M.	1330
Bunnell Lease, Andy Karin	2594
Burdige, Davie	1987
Burke, Mary	1426
Burkett, Carolee	2059
Burns, Deborah	345
Burns, Heather	1807
Burns, Tom	1436
Burrell, Gina	2066
Burrow, Jack Robert	546
Burton, Chaz	450
Burton, Chaz	1074
Burton, Paul	2075
Busch, Ruth C. and Charles D.	771
Bush, Sandra	709
Buss, Autumn	1450
Bussard, James	353
Butler, Pierce R.	1091
Byrne, Dorothy	1070
Cady, Bruce E.	1691
Cain, Vicky	1614
Calder, Virginia	336
Calouro, Janis M.	715
Camarie, Liz	2443
Cameron, Daniel	142
Campbell, Donna Waugh	984
Campbell, Heather	1224
Campbell, Sally	2103
Campbell, Suzy	1960
Canpbell, Robert	523
Cantwell, James	279
Capps, III, William C	887
Carella, Len	393
Carey, Brian	387
Carey, Catherine	1249
Carey, Donald E.	863
Carey, Edward	1321
Carlisle, Marilyn	418
Carlson, Elan	339
Carlson, Keith	567
Carol, Shawna	2138
Carole, Magdalene	2305
Carp, Cheryl	2219

<b>Commenter Name</b>	<b>Commenter Number</b>
Carpenter, Jerome A.	2033
Carr, Carolyn	1216
Carrillo, Gabriel	1127
Carroll, Char	594
Carson, Kathy S.	2145
Carter, Ellen	150
Carter, Ruth A.	22
Carter-White, Kathy	368
Caruso, Dorian	1253
Caselli-Smith, Dowell	18
Casey, Shawn	1183
Castillo, Elizabeth C.	2177
Castor, Rachel	2618
Cathers, Tama	2350
Cato, Kristin	946
Cayford, David	2378
Cayford, Laura	284
Cecil, Eleanor	1259
Cerier, Leslie	2256
Certis-Milby, Casey	1950
Cestero, Georgina	971
Chamberlain, Anne	2105
Chambers, Louise	942
Chameides, Michael	632
Champion, Stacey	1144
Champion, William	1510
Champney, Brenda	811
Channon, Dave	137
Chapman, Myron	1812
Chapman, Rose-Marie	535
Chappel, Tina	2183
Charbeneau, Cherie A.	2361
Charman, Karen	110
Cheatum, Kristine	2283
Cheatum, Lynn	2119
Cherie, Morrisa	1820
Cherrington, Deidre	2250
Chianese, Erin	2182
Chigas, Dia	518
Chinn, Evangeline	344
Christensen-Burgess, Kevin and Tracy	2632
Christi (no last name provided)	598
Christopherson, Diane	982
Chubb, Calvin L.	1763
Churchill, Beverly	2311
Chuse, Ellen	1095
Cibulskis, Ann M.	2244
Cinelli, Donna	440
Civiletti, Tom	813

<b>Commenter Name</b>	<b>Commenter Number</b>
Clarendon, James	2209
Clark, Barbara	1405
Clark, Bonnie D.	1231
Clark, Carolyn	1172
Clark, Craig	654
Clarke, Richard	1692
Clary, Rachel	888
Clauset, Ethan	1019
Clay, OD, Andrew	686
Clemens, Sydney Gurewitz	1411
Clement, Joe	1547
Clemente, Trina	2037
Cleveland, Evelyn Y.	2149
Cleveland, Miriam	1966
Clift, Loren	1894
Clobridge, Kathy	2189
Cody, Christine	1979
Coerver, Melanie	956
Cohen, Albert G.	183
Cohen, David S.	1015
Cohen, Jennifer	504
Cohen, Lisa	549
Cohen, Mina	1420
Colasurdo, Garth	859
Cole, Jennifer	2173
Cole, Lester	313
Cole, Ralph	2172
Coleman, Judy	375
Colgate, Marlene	536
Coljohn, K	1859
Collier, Richard M.	2445
Collins, Barbara	1157
Collins, Rosemary	2061
Collins, Stefanie	98
Collins, Stefanie	980
Collins, Stefanie	1845
Colravy, Bruce	2522
Comer, Suzanne	2192
Companero,	555
Condo, M.A.	1492
Cone, Nelson B.	210
Conger, Jean M.	2517
Conn, Eric E.	1032
Conn, Kevin E.	1340
Conn, M.V.	1116
Connor, Thomas V.	283
Connor, Thomas V.	818
Connors, Geraldine	952
Conway, Beverly	2046

<b>Commenter Name</b>	<b>Commenter Number</b>
Cook, Joanna	874
Cook, Micaela	600
Cook, Micaela	701
Cooper, Ian	796
Cooper, Justine	1263
Copeland, Marissa	531
Corbin, Luella	511
Corbo, Anthony	357
Cordell, Melanie	2553
Cornell, Lila E.	2121
Cornell, Tom	703
Cornette, J. Simon	932
Cory, Christine	2573
Cottrell, Willard	784
Cottrell, Willard	968
Courter, Matthe R.	438
Cousins, Vera	392
Coverstone, Alan H.	1274
Covey, John W.	1003
Covici, Joan	1085
Cowan, Jr., William T.	1770
Cox, Kevin	119
Cox, Lesley	486
Coyne, Kevin J.	1688
Craft, Karen	1717
Craig, Jennifer M.	2242
Craig, Rosemay	1838
Craner, Annette M.	1834
Craven, Terry	683
Crawford, B.J.	1802
Crawford, James R.	1506
Creed, John H.	828
Cremons, Joe	16
Crenshaw, Shirley	1764
Cribbin, Ruby A.	2493
Crickenberger, Ray S.	1323
Crispell, Whitney	2022
Cronin, Colleen	1748
Crook, Elizabeth	1472
Crosby, Lorna	429
Cross, Joan	163
Crotty, Vicky L.	2060
Crouch, Edward D.	129
Crowe, Frances	1082
Crowe, Lydia M.	2188
Cubillo, Carmen	2353
Cumbee, Judy	1021
Cumbie, Ty	166
Cunningham, Kathleen	96

<b>Commenter Name</b>	<b>Commenter Number</b>
Cunningham, Milt	94
Cunningham, Prudence	208
Cuppy, A.C.	2005
Curcio, Dale D.	1982
Cureses, Ruben	2042
Custard, Colin	2619
Cutler, Barry	763
Czamanske, John	17
Dado, Deborah	1281
Dagan, Zoe	2373
Dakak, Alan	1528
Dallaire, Paul	301
Dalton, Gerald J.	70
Daneau, Dennis	2178
Daniel, Marc	918
Daniels, Jason	270
Daniels, Netty	960
Danielson, Steve	1303
Darnall, Lyn	341
Dasgupta, Ashoke	1496
Davenport, Stirling	127
Davis, Bert	1617
Davis, Elizabeth	2327
Davis, Laurel	113
Davis, Leigh	1562
Davis, Lindsey	1920
Davis, Margie	765
Davis, Robert	257
Day, Charlie	1363
Day, Elena	483
Day, Jackson H.	1678
Day, S.R.	2241
de la Cruz, Aries	658
de la Mar, Sophia	1706
De Lu, Darien	1437
de Wolff, M.	1289
Dean, Mary M.	656
DeAngelis, Chris	1991
Debbie, Pablo	1394
deBree, Olivia	2337
Deeb, Lara	860
Deerfield, Laura	792
Dellinger, Kay	2034
DeLollis, Ann Lincoln	1823
DeLu, Dirk J.	804
Demar, Ben	299
Demmer, Dian	528
Dempsey, Isa	1421
Denevan, Mary	774

<b>Commenter Name</b>	<b>Commenter Number</b>
Denevan, Patrick A.	1912
Denison, Eric	14
Dennis, Dash Austin	1970
Dennis, Eileen	1339
Dennis, Kelly	1290
Denton, Phil	1378
Dermody, T. Joseph	1138
DeRouen, Brian	1940
Derzon, Jim	317
DeShaw, Rose	1352
DeValcourt, John	1052
DeVaney, Lisa	2377
Devine, Bonnie	1754
Devlin, Joyce	700
Devon, Bo Satyagraha	1555
Dewey, Susan	500
Dichter, Jean	1846
Dick, David	1386
Dicken, Jeremy	1150
Dicken, Shawn	2411
Dickson, Bruce	1522
Diehl, Josh	1282
Diehl, Scott	2164
Diehl, Scott P.	2049
Diekman, Shelley	1673
Dietz, Kerry	2548
Dillon, E.	2423
DiLuglio, MS, RD, CNSD, Beth Ellen	621
DiModica, John	1130
Dimondstein, Geraldine	1797
Dinger, Marilyn	1371
Diop, Binta	800
DiPalma, Carolyn	2063
Disselhorst, Timothy	1765
Disselhorst, Timothy	1779
Dixon, Sheila	2545
Dobelbower, Cecile	1642
Dodd, David	2459
Dodge, Katharine	520
Dodge, Shannon	606
Dohner, V. Alton	2220
Dolan, P.	1039
Doll, Bradley B.	2195
Domsic, Brian	2310
Donaldson, Michael De Sha	682
Donnelly, Katherine	1182
Donnelly, Mary L.	1971
Donnelly, Seth	623
Doran, Daniel C	2102

<b>Commenter Name</b>	<b>Commenter Number</b>
Dorenkott, Jim	1995
Doringo, Richard	1749
Dorney-O'Connell, Maureen	2285
Dorsey, Alice	920
Douglas, Virginia L.	2515
Dowling, David	2217
Downs, David	328
Doyle, Eugene	307
Draeger-Mueke, Reinhild	1413
Drees, Becky	2216
Drummer, Jason	955
Dubuque, Ray	619
Duell, Ellen N.	1810
Dugan, Martha A.	2100
Duigan, M. Lane	1512
Duimstra, David L.	921
Duncan, Sue L.	2412
Dunckley, Jennifer	891
Dunkley, Michael J.	662
Dunlap, Anne D.	1364
Dunn, Curt and Debbie	983
Dunn, Jim	1176
Dunn, Yvonne	419
Durbin, Vincent H	925
Durkin, Chris	287
Durocher, Suzanne	122
Dutt, Anita	1999
Duvoisin, Nick	1795
Dybdal, Jan	2624
Eager, C David	1359
Eakins, Patricia	1121
Earles, Jennifer	425
Easy (no last name provided)	1482
Eckel, Nancy M.	437
Eckstein, Yvonne	2264
Edain, Mariane	1037
Edel, Stephan	2174
Edguer, Marjorie N.	1931
Edwards, Kristin	1507
Edwards, Susan C.	2110
Egan, Richard A.	941
Ehrlich, Anthony	1932
Ehrlich, Karen	964
Ehrman, Howard	2104
Eisenberg, Nicol M.	498
Eiserman, Julie M.	579
Elders, Jan W.	950
Eldon, Jim	253
Elkington, Harriet	2556

<b>Commenter Name</b>	<b>Commenter Number</b>
Ellet, M.H.	1938
Ellingson, Miriam	2007
Ellis, Donna	248
Ellis, Stephen	2238
Ellsworth, William P	1527
El-Moslimany, Samia	1435
Engebretson, Russell	465
Engel, Robert	2052
English, R.	2370
Eno, Ann F.	2085
Enright, Brian	2391
Enslin, Mark	1035
Erickson, Carole January	1969
Erickson, Roger K.	2368
Ernst, Theodore A.	777
Erwin, Zoe	599
Escobar, Amalio	634
Espinosa, Carlos	595
Esslinger, Candace	1468
Estes, Douglas C.	1616
Estrin, Linda	1215
Evans, Benjamin	894
Evans, Bill	749
Evans, James	1388
Eventyr, Kirstin & Jens	911
Everett, Chris J.	622
Everton, Clyde	477
Ewing, Barbara E.	385
Fahouris, Fotine	25
Fairhurst, Michael	231
Falbo, Marie	1055
Falk, Nina	620
Falton, Edward B.	1128
Farina, Maria	15
Farina, Maria	23
Farley, Linda & Gene	1092
Farmer, W. Gene	5
Farnworth, Anita	312
Farrar, Katie	397
Farrar, Katie Z.	1454
Farrell, Jefferey T.S.	1486
Farrell, Susan	2299
Faubion, David	234
Faulkner, Don	2539
Faupel, Alison	1226
Faust, Ronald L.	2179
Feder, Paul	2354
Fedje, Leif A.	1700
Fehrs, Glenn	1787

<b>Commenter Name</b>	<b>Commenter Number</b>
Feiler, Todd	927
Feinberg, Joseph Grim	1353
Feldman, Mark	261
Feldman, Michael	947
Fellman, Gordon	2204
Feltner, Jr., Trevor B.	1331
Ferguson, Dona	610
Ferguson, Roger	673
Ferraro, Nancy H.	1243
Ferrell, Sally	802
Fields, Barbara Tolson	1752
Findling, Rhonda D.	2431
Finger, Alan B.	1441
Finn, Lisa	1315
Finsen, Susan M.	106
Fishbein, Leah	2408
Fishman, Israel David	1214
Fissel, David	1432
Fleenor, Fitz J.	1000
Flores, Benito	2437
Flowers, Margaret	871
Floyd, Virginia	2371
Fly, Mary	2215
Fogg, Patrica A.	720
Folsom-Minthorn, Jennifer	1490
Fonda, Joe	200
Fontenot, Margaret	1438
Forest, Kristal	97
Forrest, Peter L.	2125
Forsberg, Larry	1252
Forst, Lauren	738
Fortin, Kim	696
Foss, Gwen	875
Foss, Janice M.	552
Foster, Ran	369
Fouts, Vickie M.	1997
Fowler, Jeff	12
Fowler, Pat	2610
Fox, Carrie A.	2271
Frager, Cheshire	2441
Fralix, Cassandra	2321
Frances, Summer	684
Franciso, Camilo	593
Frank, Erica	1131
Frank, Joshua A.	1292
Frank, Merill	455
Franklin, Hilary	448
Franson, John	572
Fraser, Genevieve C.	135

<b>Commenter Name</b>	<b>Commenter Number</b>
Frattaroli, Shannon	2278
Frderickson, Marie	244
Fredericks, Misha	281
Freelander, Iris	1072
Freeman, Gordon	1941
Freeman, Nancy G.	1910
Freeman, Nora	154
Freeman, Nora	2224
Freeman, Yolanda	929
Freude, Kathryn A.	1540
Friedland, Joan	1463
Friedman, LeeAnn	1934
Friedman, Michael	884
Frontz, Jeffri	64
Frumkiin, Alan J.	2031
Frye, L. James	834
Fulks, Lisa	2357
Fulmer, Marjorie C.	1187
Funderburk, Thomas	43
Furchtenicht, Alan	783
Fuson, Nelson	2140
Gaccione, Cathy	159
Gaibor, Lorena	1842
Gainok, Richard P.	1354
Gaither, Larvester	564
Gale, David	1453
Gallagher, John	779
Gallaher, Timothy	515
Galletta, Karina	1790
Galli, Robert J.	1651
Galligan, Kathy	286
Galligan, Kathy	723
Gallimore, Paul	337
Gallup, Alison	1988
Galston, Mamie	494
Gamburd, Geraldine	185
Garcia, Christine	251
Garcia, Debra	1551
Garlappi, Camillo	48
Garmon, Meredith	1087
Garrett, Gregory W.	1915
Gaspar, Orman	1926
Gasper, Richelle S,	1925
Gause, Phoebe	153
Gazurian, John	962
Geary, B.	484
Gehret, William	297
Geovanis, Carla	1818
Gerlach, Amelia	275

<b>Commenter Name</b>	<b>Commenter Number</b>
Gerlach, Jim	246
Gerughty, Ron	841
Gianini, Gary	488
Gibbs, Barbara	1936
Gibbs, Rodney	1376
Gibson, Lee	760
Gibson, Mary	1286
Gielow, Caryn	1389
Giese, Mark M.	29
Gifford, Mike	612
Giglio, Sharon	290
Gilbert, Jr., Claude	409
Gilbert, Tavia Lin	1848
Gilbert, Toni	114
Giles, Kate	2265
Gilliland, III, Robert M.	2349
Gillis, William J.	1768
Gilmore, Virginia	902
Ginsberg, Terri	1948
Gladstone, Harold	2291
Glass, Jennifer	2101
Gleason, Ann N.	2070
Gleim, Bradford	816
Gleixner, Tatjana	2639
Glucksberg, Sam	1419
Goad, Rachel	179
Godwin, Nicki	1836
Goenne, Laura	2324
Goepfert, Don and Hooper, Lisa	2642
Goggin, Cynthia	566
Goitein, Ernie	1800
Goldberg, Eve	557
Goldberg, Robert	2452
Golding, Bert H.	1953
Goldsmith, Dave	2099
Goldstein, Ken	2336
Goldstein, Sabrina	1856
Goldstein, Sidney	258
Gonzalez, Julian	49
Goodin, Robert	447
Goodman, Bob	933
Goodman, Iden	2334
Goodtimes, Art	2043
Gore, Jean	1044
Gorman, Judith	2236
Grace, Marien	1203
Grady, Lydia	2248
Graham, Holly G.	152
Graham, Patrick	1298

<b>Commenter Name</b>	<b>Commenter Number</b>
Grainey, Karen	3
Granade, Mary	1850
Granger, Ivan	2117
Grannis, Margaret and Lou	1451
Grant, Betty	2255
Graubert, Jean	2409
Graves, Byron & Mary	931
Graves, Rhiana L.	861
Gray, Brayton	2008
Green, Clarence	1707
Green, Healthier and Wilson, Denis	2640
Green, Jonathan	752
Green, Nomi	1503
Greenberg, Stephen	847
Greenberg, Zev	1908
Greene, Alan	335
Greenhough-Gibson, Carol	462
Greenleaf, Marta	1843
Greenwald, Judy	2262
Greenwood, Julie	1968
Greenwood, Ralph & Ellen	1133
Greiner, Mark F.	2168
Greiss, Terry	893
Grier, Laurie Bunker	2302
Griffiths, L.	919
Grimes-Bruczka, Thaddeus	708
Grimm, A. Jim	691
Grinnell, Joseph	431
Grish, Michael	1350
Grobe, Karin	1337
Groobert, Lawrence	544
Grooms, Lynda Jentsch	2292
Grut, Chantal	2057
Guarisco, Vincent L.	1260
Guerriero, Marcella	162
Guevara, Carlos	1313
Guevara-Stone, Laurie	1347
Guida, Louis B.	869
Gundling, Daniela	611
Gutierrez, Pedro	2627
Gutman, Carl	426
Guyenn, Matthew R.	1142
Gwin, Margot	2593
Haan, Wendy	51
Haas, Frances	906
Hadnott, Roxanne	1788
Hafling, Marilyn	1633
Haines, Beth Moore	663
Halbeisen, Johanna	945

<b>Commenter Name</b>	<b>Commenter Number</b>
Halbert, Kathleen	2067
Halbig, James A.	1393
Hall, Cheryl	676
Hall, Meghan	669
Halligan, Mary	2463
Hallock, Judith	1479
Halpern, Lynn	2574
Hamil, Brett	1646
Hammett, Stephanie	2003
Hammond, John A.	1406
Hampson, Mandy	1041
Hancock, Charles M.	2420
Hanneman, Carl F.	1278
Hannon, Nathaniel	568
Hannon, Roseann	2214
Hannon, Than	445
Hansen, M. J.	510
Hansen, Marcus C.	989
Hanson, Art	130
Hanson, Kim	201
Hardack, Richard	1826
Harding, Gary A.	1489
Hardwick, Barbara	422
Hardy, Ann	358
Harig, Laure	329
Harmony, Anne	2523
Harper, L.	1173
Harr, Jennifer	272
Harrell, Sandi	1685
Harriman, Alice	1993
Harris, Karen	2544
Harris, Laverne	1014
Harrison, Cheryl	2124
Harrison, Daria	762
Harrison, Lisa	2021
Harrison, Norma J.	1745
Harrison, William	1275
Hart, Joyce	969
Hart, Kerry	840
Hart, Linus	1701
Hart, Regina	1309
Hart, Vicki	216
Hartsfield, Beverly	461
Hart-vonKeller, Gretchen	311
Hart-vonKeller, Gretchen	507
Harvey, Elise B.	1718
Harwell, Marilyn	2540
Hasenfus, Kenneth	71
Hatcher, Christi	1917

<b>Commenter Name</b>	<b>Commenter Number</b>
Hathorn, Mel	1335
Haustermanns, Josine	1927
Haustermanns, Josine	1007
Hawkins, Bill	2076
Hawley, Richard L.	1119
Hayes, Ken	1062
Hayes, Marilyn	1382
Hays, Herb	868
Head, Jr., Jim H.	2231
Heath, Barry	2286
Heatlie, Jody	559
Heaton, Marsha Carson	1947
Heck, Wendy	2481
Hegeman, Elizabeth	711
Heimghaus, Jr., Robert W.	1154
Heindel, Christoffer	1785
Heine, Jozlyn	1523
Helmstetter, Chris	116
Henderson, Cydney	430
Henderson, Zorika	1168
Herder, Jon Den	401
Herman, Mark	835
Heron, Joan	2606
Herrera, Kathleen and Roy	970
Hertz, Lawrence A.	1716
Hervas, Isabel	695
Herz, Lillian	1697
Hess, CaroleSue	977
Hiatt, Eleanor H.	1699
Hibbard, Anne	1268
Hibert, Gregory L.	2403
Hicks, John & Darlene	1698
Hicks, Matt	1805
Higbie, Brian	2211
Higginbotham, Alexis	206
Higgins, Francis X.	2187
Higgins, Marcia	672
Hillyard, Frances	2153
Himmelberger, Jason	978
Hingorani, Micky	479
Hirsch, Fred	554
Hirt, Alice	2460
Hirt, Nick	2461
Ho, Esther M.	1164
Hoaglund, Maria	2597
Hobbs, Ellen	877
Hobbs, Joel	1556
Hodges, IV, Jerome	688
Hodgson, Hugh	1470

<b>Commenter Name</b>	<b>Commenter Number</b>
Hodnett, Dean K.	394
Hoehne, Terri	2376
Hoff, Marilyn	40
Hoffman, Erik	678
Hogan, Nina R.	909
Hogarth, Connie	680
Hoglate, Robert	1317
Hohensee, Bill	2180
Hohensee, Steven D.	976
Holder, Joseph	1401
Holeman, Heidi	1550
Holland, Richard B.	845
Hollenbeck, Beth	728
Holley, Jr., William	1403
Holmes, Kathryn Stern	1083
Holt, Jr., Wythe W.	843
Holt, Kathryn A.	2166
Holzinger, Thomas	2074
Honde, Christina	2434
Honeyman, Hannah	2469
Hood, Cheryl L.	2106
Hood, Surya-Patricia Lane	2028
Hooper, Jim	912
Hooten, Patricia D.	1501
Hopkins, Susan D.	1022
Horn, Stephanie	2512
Hornberger, Sarah	435
Horowitz, Maureen	1980
Horton, J. Russell	2246
Horvath, David	442
Horvath, David	592
Horvtath, Anne	521
Hoskins, Warren	1023
Houghton, Nico	1471
Houston, Lynn	1114
Hovanesian, Armineh	342
Howard, Barb	1963
Howe, Linda	2549
Howe, Ollie	138
Howe, Robert L.	136
Howell, Dean	1860
Howell, Michael	1269
Howell, Trisha	1861
Howenstein, David	1741
Hower, Judith	2494
Howley, Rosemary E.	1945
Hubbard, Kathleen	2638
Hughes, Bonita	1256
Hughes, David	267

<b>Commenter Name</b>	<b>Commenter Number</b>
Hughes, Eve	512
Hughes, Robert K.	1358
Hultman, Ruth	1004
Hultman, Ruth	1679
Human, Margaret	1549
Humphrey, Martha	228
Humphries, Constance	1258
Hunter, Mary Anne	2226
Huot, David C.	2245
Hupf, Robert	1984
Hurrell, Syd	1447
Hurst, Charlice	569
Hurt, Susan M.	202
Hurwitz, Judith	2438
Hutto, Janet	256
Hutto, Tom	1418
Iltzsche, William	1839
Immel, Scott M.	218
Isaacs, Cheryl S.	713
Isaacson, Joel	480
Isaacson, Joel	1207
Israel, James	1122
Izant, Phyllis J.	1357
Jabs, Sharon	277
Jackson, Florence	2279
Jacobi, Veronica	482
Jacobus, Julie	2303
Jacus, Anna	1349
Jaffe, Roy	1816
Jain, Antone K.	2636
Jain, Katherine Da Silva	2620
Jakobcic, Fred	988
Jansson, Lars	132
Jarstger, Bruce S	1084
Javellana, Peggy	753
Jay, Patty	380
Jaye, Lauren	2128
Jebousek, Nyla	1036
Jebousek, Nyla L.	219
Jensen, Laurel	2017
Jenvey, Paul	628
Jezik, Beth	1166
Jiraneck, Pamela S.	769
Jobe, Alan	1244
Jochum, Janice C.	1136
Johari, Nand Lal	1975
Johnson, Angeline	2092
Johnson, Dedra	854
Johnson, Erik	1546

<b>Commenter Name</b>	<b>Commenter Number</b>
Johnson, Gregory	823
Johnson, Karen	404
Johnson, Karen	2462
Johnson, Karen	62
Johnson, Raymond N.	1205
Johnson, Susan	2035
Johnsrud, Judith	2451
Johnsrud, Judith H.	2450
Johnston, Timothy	389
Johnston, Timothy	1115
Jolley, Arleen	405
Jonakin, Jon	2132
Jones, Adora Jean	2058
Jones, Brenda	2345
Jones, Elizabeth	1560
Jones, Georja Umano	2419
Jones, Glenda M.	2440
Jones, Lary	2346
Jones, Patricia	1030
Jones, Peter	1930
Jopp, Ken	561
Jordan, Debora	198
Jordan, Jacqueline	2333
Jordan, Patti	473
Jorgensen, Kathleen	1694
Joseph, Claudia and Dan	2272
Joseph, Martine A.	1100
Judge, Kathy	217
June, Christine	844
Juozunas, Laura	320
Justice, Lincoln B.	586
Justice, Rachel	1045
Kain, Philip J.	1148
Kalisms, David T.	1202
Kalven, Janet	1218
Kamber, Sibel	1531
Kamps, Paula	1533
Kanamoto, Susan	1525
Kane, Coleman	259
Kane, Maureen	791
Kane, Sherman	2301
Kapfer, Linda	2607
Kapke, Barry	1229
Kaplan, Ilene and Marty	2340
Kaplan, Phil and Susie	239
Karch, Gary	2456
Kargbo, Abdul	2259
Karpen, Leah R.	50
Kassell, Rebekah D.	1687

<b>Commenter Name</b>	<b>Commenter Number</b>
Katz, David	2098
Katz, Rachel	957
Katzman, David	4
Kauffman, Josh	125
Kauffman, Ryan	617
Kaufman, Matt	1171
Keady, Jim	2144
Keiser, A.	916
Keller, Joyce	1714
Kellman, Steven G.	2263
Kellner, Roger	1416
Kelly, Cate	391
Kelly, Myra	1280
Keltner, Jeanie	562
Kelton, Steve	118
Kendler, Helene	2260
Kennedy, Susan	928
Kenschaft, Patricia Clark	186
Kent, Stephen D.	126
Kenyon, Meredith L.	755
Kerlick, David	2116
Kesich, Paul M.	1683
Kesler, Paul	2229
Kessenich, Lawrence J.	1120
Khalsa, Jai Hari Singh	2504
Khalsa, Mha Atma S.	213
Khalsa, Siri Ved K.	499
Kiebler, Kurt	225
Kiebler, Kurt	506
Kiepe, Andrea	2497
Kight, Gerri	2097
Kimball, Heber	291
Kimber, Greg	1291
Kimme, Duane R.	1355
King, Joan O.	28
King, Novella R.	1392
King, Rose	1307
Kinstle, A.M.	744
Kirby, Carolyn	453
Kirby, Laurence	502
Kirkpatrick, Ph.D., Joanna	517
Kirsch, Fred	90
Kissam, Sandra	2465
Kitman, Lorraine	285
Klaver, Ellen Holly	1709
Klein, Daniel	53
Klein, Rachel	1283
Klieforth, Jim	1293
Klingerberg, Detlev	2065

<b>Commenter Name</b>	<b>Commenter Number</b>
Klouppe, Ilona	109
Knigge, Alcia	1240
Knights, Kim	1896
Knoll, Kristie	2592
Koch, Andy	897
Koch, Ted V.	1078
Koen, David	69
Kogel, Nancy	630
Kolasky, Ellen	856
Kolkey, Zora L.	880
Kollerer, Doret	2073
Kolod, Elizabeth	1446
Kong, Bill	1989
Koonce, Coralie	308
Koons, Charlotte P.	2133
Korzinski, Diane	2518
Koss, Ben	1005
Koster, Frederick J.	1703
Kozlowski, Thaddeus	378
Kraeszig Raimondi, Jonathan Cos	2390
Kramer, Cathay	530
Kranz, Louis	2045
Kresha, Matthew	433
Kretzmann, Steve	1346
Kroll, Janet B.	2082
Krouskop, Jan	1448
Krummel, Jens M.	1475
Ktaja, Eva	1361
Kubo, Keiko	1053
Kukla, Peter	1223
Kulick, Mariane	1981
Kuntz, Jason	936
Kurtz, Christian	1181
Kurtz, Lorna	2069
Kurtz, Nancy W.	1158
Kushner, Adele	214
La Croix, Eula	361
Lachman, Julie	2608
LaCivita, Leah	2111
Lacki, Isabella	2547
LaDeur, Penny	1914
Lafter, Timothy	1195
Laird, Gayle	604
Laird, Michael	343
Lakind, Leslie	1324
Lally, Joachim	282
Lamberson, Jason	400
Lambert, John	2581
Lampert, Mary	1265

<b>Commenter Name</b>	<b>Commenter Number</b>
Landa, Hazel	467
Landers, Karen	2237
Landsberg, Karin	1740
Landsbergis, Paul	2306
Lane, IV, Victor Hugo	1017
Lanfranchi, Marcello Aurelio	2115
Langness, Linda	1400
Lantsberg, Alex	2088
Lanzman, Sarah	1653
Lanzman, Sarah	1247
Lappen, Paul	736
Large, Cynthia	1377
Laris, Marcia B.	2269
Larkin, Amanda	61
Larned, Paul	2392
Larson, Christine M.	1170
Larson, Erik	65
Larson, Lucas	944
Lassiter, Robert	316
Laudon, Elisabeth	103
Lauterbach, Gwendolyn	2424
Lawrence, Robert S.	2288
Lawson, Pippa	472
Laxon, Barbara	148
Leamon, David	2290
Leavitt, Thomas	757
Leberon, Pat	1211
Lebert, Mary	266
LeBlanc, David J.	1160
LeBon, Jr., F.J.	819
Leddy, Jane	414
Leddy, Jane	349
Lederman, Sheila M.	2047
Lee, Daniel A.	1530
Lee, David N.B.	2270
Lee, Lita	117
Lee-Cunningham, Bonda	158
Leeper, Donald	588
Lehman, Susan	735
Lehman, Victoria	665
Lehmann, Hilde	497
Leicester, Margaret	2194
Lennard, Spencer	602
Lensing, Dennis	756
Lentz, Janis	2355
Leppin, Pam	75
Lepreau, Renee	155
Lerman-Collins, Caryn	1192
Lesko, Robert	327

<b>Commenter Name</b>	<b>Commenter Number</b>
Lesser, Joshua	2342
Levey, Jim	836
Levey, Lynn	2148
Levine, Catherine	2154
Levine, Dave	635
Levine, Joan M.	627
Levy, Donna	1513
Levy, Mark	727
Lewellyn, Kelly	1833
Lewi, MD, Jack E.	423
Lewis, Corrina	1320
Lewis, Marvin	21
Lewis, Ted	1505
Libman, Elliott	2511
License, June E.	2064
Liddle, Becky	1165
Lieban, Suzanne	1476
Liebers, M.D.	999
Liechty, Jeanne	1089
Lightner, Barbara	2397
Lightstone, Judy	1123
Liles, John Bruce	650
Lind, Karen	1753
Lind, Karen	2591
Lindorff, Dave	794
Lipow, Gar	1237
Lippman, Roger	2293
Lipton, Nicki	1196
Lisle, David	1390
Little, Chris	914
Little, Rosa Cole	396
Liu, Carol	807
Liveoak, Valarie	1024
Lloyd (no last name provided)	1462
Lloyd, George	1835
Lockridge, Ross	205
Lofquist, Robin	2374
Loges, Kimberly	967
Lohr, Diane	2516
Lombardo, Stephanie Alise	655
Loper, Paul	2297
Lopez, Christine	2227
Lord, Charlie	1086
Lord, Rebecca	1051
Lorintzen, Robin	652
Lotto, Peter B.	1534
Loughlin, Michaelene	2506
Loveless, Laura	412
Loveless, Laura	454

<b>Commenter Name</b>	<b>Commenter Number</b>
Lowe, Patsy	476
Lubell, Marilyn Z.	1786
Lubin, Heidi Sarah	2146
Lubofsky, Nicholas	832
Lucey, Susan	1445
Ludwig, Harriet M.	2396
Lueth, David	2598
Lugo, Chris	2442
Luke, Theresa	2426
Luoto, Krista	1132
Lupiani, Brian and Michaela	876
Lupo, Bob	1408
Luppino, Virginia	402
Lutenegger, Brian J.	1849
Luterman, Alison	1721
Luz Arostegui, Consuelo	966
Lyles, Jeff	1380
Lynch, Frances	460
Lyndes, Cathy J.	793
Lyne, George	235
Maas, Larry	2422
MacDonald, Robert	1780
MacIntryre, Stuart	590
MacIntyre, Joan M.	589
Mack, Earl	548
Mackin, Richard J.	1185
Mackinney, Lisa	1325
Macphail, Sandra	1058
Madden, Lisa Marie	1227
Madden, Thomas R.	640
Mahnke, Ker	321
Malek, Emiliana	2202
Malinda, Ray	1750
Malkind, Stephanie	388
Malmuth, Sonja	855
Maloney, Greg	1169
Maloney, Philip J.	1094
Manderscheid, Barbara A.	2048
Manigione, Jr., Raymond	1285
Manire-Gatti, Eleanor	124
Manis, Laurie	725
Mankiewicz, Dr. Julie	196
Mann, Claudia	2044
Manon, Peter	1814
Manos, John	300
Manousos, Anthony	558
March, Jonathan and Ray, Gerda	2387
Mardigian, Sandra	2130
Mariana, Alisa	2430

<b>Commenter Name</b>	<b>Commenter Number</b>
Marion, Jeanne	827
Mark, Brian P.	1129
Mark, Jonathan	1342
Markell, Elizabeth	1461
Marks, Jan	2010
Markwig, Eva	603
Markwig, Hannah	2086
Marley, Jon	2329
Marsh, Robert	240
Martellaro, Karen L.	86
Martin, Becky	2454
Martin, Bruce	1327
Martin, James D.	879
Martin, Jenna	2300
Martinez, Orlando	1018
Martos, Joe	2087
Marxer, Sarah	2273
Masaoka, Mark	1011
Masciarelli, William R	1297
Maser, Mark Allen	1696
Mason, Lisette	2602
Mason, Marcia	1964
Mathern, Nick	1943
Mathern-Jacobson, Scott	1235
Matthews, Kevin	107
Mattison, Mark M.	1027
Mau, Gregg	974
Maxand, Jeremy M.	698
Maxfield, Pamela	1821
Maxwell, Audrey	268
May, Judith A.	710
Mayner, Jeffrey W.	949
Maynard, Robert	1481
Mayo, Michael John	1937
Mays, Ed	1965
Mays, James	315
Mays, Marion	322
McAuley, Karen	1264
McBaugh, Debra	215
McCaffrey, Mary	798
McCaffrey, Terry	1369
McCartney, Kerry Duncan	1102
McCaughey, Laura	1961
McClatchey, Jr., Walter P.	1739
McClellan, Betty	2364
McClintic, Bruce	334
McCogg, Vincent	1504
McConnell, M.	2398
McCormick, Janis	1977

<b>Commenter Name</b>	<b>Commenter Number</b>
McCornish, Robert J.	2230
McDermott, Eileen	2134
McDonough, Heather A.	1367
McElvy, Cassandra	822
McElvy, Pope	810
McFarland, Hannah	99
McGilligan, Mary	83
McGilligan, Mary E.	1881
McGilligan, Mary E.	105
McGillivray, Michael	250
McGrath, Joyce	172
McIntire, Peggy	615
McIntosh, Nina	2323
McIver, Dorothy	178
McKenna, Andrew	646
McLaine, Pat and Al	2030
McLaughlin, Betty J.	913
McLaughlin, Blaine	2024
McLean, Jr., Charles M.	1288
McLeester, Dick	2118
McLellan, Jane M.	1233
McMahon, Jean	1641
McMahon, Tom	2080
McNaughton, Bruce	1134
McNeel, K. Maverick	2375
McNeil, Douglas	1757
McPheron, C.A.	2015
McVarish, Linda	1554
Medill, Jacqueline	2317
Mehlman, Carole	1639
Meier, Nicholas	1064
Meissner, Peter	436
Meistrich, Lawrence	2468
Melby, Helen	1175
Meredith, Phyllis	659
Mereski, E. Victor	1399
Merlin, Donald	987
Mermin, Sarah	2276
Mertz, Peter	1552
Mesmer, Eva	731
Metcalf, Brian	470
Metcalf, Thomas	904
Metzger, Chris	729
Meyer, Jennifer	1162
Meyer, Virginia	1409
Michaels, Christopher	821
Michtom, Bill	1660
Mickey, Katie	133
Middleton, Terri	1040

<b>Commenter Name</b>	<b>Commenter Number</b>
Mihopulos, Barbara	428
Mikelsons, Nancy	556
Miller, Daniel	254
Miller, Dianne	1348
Miller, Jennifer Brooks	1396
Miller, Larry	940
Miller, Lene	249
Miller, Sandra P.	2171
Milliner, Susan Emge	280
Millstein, Henry	1808
Milstein, Philip S. and Karen K.	1537
Minard, C.S.L.	1516
Minasian, Donald	702
Miner-Nordstrom, Dan	112
Minshall, Janet	1026
Mirabile, Joe	298
Miranda, Tina	274
Mitchell, Colleen	8
Mitchell, Jennifer	1728
Mitchell, Julie	1488
Mitchell, Nancy	294
Mitchell, Sasha	2315
Mittenzwei, Robert	733
Mock, Erin Lee	449
Modarressi, Anne	2304
Moen, Darrell	1487
Mokma, Deborah	1108
Mondello, Corey Paul	1682
Moore, Belle	1615
Moore, Chris	2467
Moore, Connie	534
Moore, Danielle	643
Moore, James	2025
Moore, Patti	1188
Moran, John	2338
Morearty, John	1043
Moren, Mike	671
Morgan, Julie Ann	2382
Morganstein, Emily	60
Moritz, David	1277
Morris, Rachel	147
Morris, Sue and John	773
Morris, Wilma "Billie"	1693
Mosely, Carol	1098
Moss, Heather	1193
Moss, Mikasa	395
Mott, Tracy	1992
Muehlenkamp, Angela D.	365
Muehlenkamp, Angela D.	2470

Commenter Name	Commenter Number
Mueller, Mary	2123
Mueller, Peter	9
Muldrew, Cecil	134
Mulherin, Jim	2083
Mullally, Carolyn R.	2078
Mullane, Danny	2366
Muller, Henry	354
Muller, Henry	493
Mullins, Susan C.	182
Mullins, Susan C.	212
Mumford, Timothy	1210
Munroe, Gretel	170
Murphy, Ean	1178
Murphy, Emmett J.	583
Murphy, Frank	1758
Murphy, Joanne G.	714
Murphy, Luci	1939
Murphy, Stuart Francis	1452
Musser, Vern	1829
Muth, Heather	653
Myer, Scott	2628
Mytels, Debbie	1928
Nadeau, Robin	2546
Nadle, Jonathan	174
Nagelmann, Anthony	2626
Nakashima, Janice	2190
Name Not Provided	1042
Name Not Provided	2400
Name Not Provided	2401
Name Not Provided	197
Name Not Provided	830
Name Not Provided	1060
Name Not Provided	1684
Nathanael, Art	2634
Natsoulas, Andrianna	356
Navrot, Teresa	2453
Needham, Laurie A.	1806
Neely, Katherin L. Patterson	2068
Nelson, Brett	63
Nemtzow, Naomi	1743
Nesbitt, Dale	2542
Neufeld, Josh	2135
Neuhauser, Andrew	360
Neumaier, Linda Allport	2407
Neumaier, Luther, John J. and Sara F.	959
Newhouse, C.	475
Newnham, Randy	608
Newton, Elbert W.	1232
Newton, Heather	972

<b>Commenter Name</b>	<b>Commenter Number</b>
Newton, Joan	247
Nicholas, Darini	2147
Nicholoff, Blake	1755
Nichols, Bob	1383
Niesen, Jim	1272
Nieves, Danika	889
Nigh, Greg	661
Nightingale, Peter	1276
Nixon, Hal	2141
No Name Provided	230
No Name Provided	1025
Noack, Eunice	516
Noel, III, John V	1206
Nolde, Frances Dean	1956
Norberg, Janice	1111
Nordhof, Pamel	2112
Nordlander, Robert E.	2206
Nordlund, James M.	1156
Norell, Aire Celeste	829
Norris, Jesse	1222
Nunez, Mercedes	1155
Nuppula, Kara	333
O'Brien, Pat	111
O'Brien, Tom	2122
O'Connell, Thomas F.	57
O'Connell, William	2181
O'Connor, Darren	519
O'Connor, Judith	1271
Oden, Amy	963
Ogbar, Jeffrey O.G.	896
O'Grady, Thomas E.	724
Ogren, Lorrie	41
O'Herin, Buck	189
Oldmixon, Seth	1459
O'Leary, Georgene	252
O'Leary, Patricia	278
Oliveras, Brian Pedro	1933
Olsen, Lev	1266
Olsen, Taimi	1990
Olshewsky, Steven J.	651
O'Nan, Kathleen	1020
O'Neal, John and Cassandra	639
O'Neil, Susan R.	1194
O'Reilly, Mary E.	2203
Orkin, Jenna	108
Ormondroyd, Joan & Edward	1284
Ortiz, Jessie	636
Osborne, Benjamin T.	741
Oshea, James	2348

<b>Commenter Name</b>	<b>Commenter Number</b>
Oskins, Clyde J.	139
Oslin, Sanda	370
Oslin, Sanda S.	1466
Osmond, Jonathan	1542
Osterberg, Eli	443
Otto, Michael	302
Overby, Stuart	85
Owen, Michelle	1304
Owens, Laura	221
Ozanich, James R.	1151
Ozkan, dogan	87
Paddock, Brian	1079
Padilla, Irene	866
Palmer, Paula	2095
Pandian, Murugan	1851
Pankowicz, Stephen	2561
Pantoga, Julia	1935
Papandrea, John	37
Papscun, Alan	2185
Park, Colin	495
Park, Tressa	2275
Parker, C. Nevil	351
Paster, Jeremy B.	2559
Paterson, Geoffrey	803
Patriot, Joe	1104
Pattengale, Jamie	2090
Patterson, Jean	815
Patterson, Jean	817
Patterson, Mark	1657
Paul, Edward	542
Paul, Lynda	1515
Payne, John	384
Payne, Jr., Jack H.	2094
Pearson, Cliff	2268
Pearson, Senanu	1425
Peck, Sally	625
Pecora, Jerry	347
Peek, Linda	123
Pellett, Howard A.	826
Peltz, William I.	778
Peluce, Ilse	1852
Pendle, Hina	2041
Penzenstadler Gress, Joan and Archie	1099
Peppard, Jeanne	289
Perelman, Jodi	2113
Perez, Susan M.	151
Perlin, Judith	2352
Perlman, Joseph	1057
Perrault, Claire	704

<b>Commenter Name</b>	<b>Commenter Number</b>
Perrault, Sarah Michele	1433
Perricelli, Claire S.	1429
Perry, Ben	463
Perry, Diana	1689
Perry, Doug	1457
Perz, Stephen G.	1819
Peters, Gary	1294
Peters, Michael	674
Peterson, Don	1090
Peterson, Grace	797
Peterson, Ron	319
Peteson, Vicky A.	2331
Petrie, Noel	224
Pew, Stephen	1431
Pfeffer, Carla Ann	574
Philbin, Michael	2347
Phillips, Nickie	833
Phillips, Tomi	508
Philpott, Louis	1483
Pierce, Scott	2312
Pinkel, Georgia Lee	1096
Pitcher, Patricia	2281
Plank, David	730
Plants, Ken	722
Plath, Joyce	575
Platsis, Zach	223
Plaza, Francisco	2439
Plevin-Foust, Mimi	1909
Ploski, Cynthia	1073
Ploss-Campoamor, Erin	2330
Pober, Michal	605
Polazzo, Free	786
Polifronio, John	706
Pollack, Sasha	1526
Pollard, IV, David O.	2207
Pollitt, Katha	806
Ponnet, Fr. Chris	1813
Pontoeiero, Fernando	864
Ponzetti, III, P.	1081
PooOoop (no last name provided)	565
Popejoy, Madeline	2455
Popelka, Becky	2415
Poppe, Melissa	998
Portelance, Leon J.	1439
Porter, Mary Marvin	2251
Porter, Shawn	631
Portolese, Joseph	295
Potter, Stephanie	2351
Powell, Catherine	456

<b>Commenter Name</b>	<b>Commenter Number</b>
Powers, Cynthia	1305
Powers, Kathleen Rice	2313
Powers, Michele	1543
Praderas, Daal	165
Prasad, Monica	692
Pratt, Don B.	614
Pratt, James	613
Pratt, Jonathan	72
Pratt, Kim	47
Pregger, Rachel	1345
Pridgeon, Carol	381
Prothero, Toni L.	1827
Provasoli, Robert and Judith	2036
Puechner, Nicole	1495
Pumroy, Marsha	2218
Purchase, Margaret	1113
Pytlewski, Genee	1248
Quesnell, Donna	1103
Quinlan, Alby	2513
Quinn IV, Frederick	373
Quinn, Tanya	2508
Quinones, Diana	1521
Quintana, David	2464
Rabbitt, Matthew	1356
Rabinowitz, Adam	681
Rademacher, Lisa J.	849
Ragghianti, Lynn	908
Rain, Patricia H.	1075
Rainey, John	173
Ranelli, Theodora	886
Rankin, Starlene	1958
Raphael, Dana	2388
Rashkin, Peter	1063
Ratcliff, Mary	808
Rath, John	732
Rathod, Soum	1480
Rattner, Ron	2558
Rauer, Suzanne	1407
Raupe, Ruth	1650
Ravitz, Evan	2062
Raymond, Allan	1318
Reams, Laine	900
Reback, Mark	292
Reback, Mark	938
Redaelli, Adriana	2071
Rees, Jenifer	1541
Reese, Matthias	237
Regan, Deborah	338
Reichart, Richard B.	1801

Commenter Name	Commenter Number
Reid, Barbara	1983
Reid, Glen A.	420
Reid, Jim	2332
Reilly Flannery, Peter C. Maureen A.	746
Reilly, Peter C.	76
Reilly, Sheila	958
Reinke, Jadwiga	314
Rejeske, Jennifer	325
Renfro, Stan	276
Renken, Norah	1751
Rescoe, Linda	2335
Reycraft, Anna	979
Reynolds, III, James H.	739
Reynolds, IV, Edwin S.	642
Reynolds, Nancy	2200
Ribet, Beth	1498
Rice, Jay	1163
Richards, Margaret	726
Richardson, III, Carlos A.	687
Richardson, Ronald J.	754
Riches, Debbie	1312
Riddell, Michele	376
Rifkin, Deborah	1334
Ring, Marian	6
Ripton, Charmaine	788
Rivera, Jessica	679
Roach, Marti	2328
Roberts, Dennis	1001
Roberts, Esther	1412
Roberts, Marlene Z.	2609
Robin, Lois	2096
Robinson, Elizabeth	77
Robinson, Ian	812
Robinson, M. Kate	1444
Roche, Justin	434
Rockwell, Paul	2282
Rodan, Eileen	1239
Rodgers, Cory	2054
Rodgers, Kenny	873
Rodin, Nick	1686
Rodnova, Nadia	2225
Rogers, Marliss A.	20
Rolfes, Kay	527
Rolfes, Kevin	91
Rolfes, Kevin	526
Rolfes, Kevin	742
Roman, Christopher	767
Romito, Richard	1442
Rose, Carol H.	1967

<b>Commenter Name</b>	<b>Commenter Number</b>
Rosen, Frederick M.	772
Rosen, Kay	1189
Rosen, R.S.	1803
Rosenberger, Paul W.	421
Rosenbloom, Oscar	1695
Rosenfeld, Shoshana	1422
Rosewood, Hecate	2395
Ross, Jodi	781
Roth, David	795
Roth, Richard H.	1267
Rothman, Lee	2372
Roux, Donald and Connie	241
Roux, Dorothy A.	305
Rowell, Jay	878
Roy, Dennis	408
Ruane, Aine I.	1153
Ruberti, Alessandra	1161
Ruby, Elizabeth	881
Ruck, Denise	2053
Rudenick, Joelle	2365
Ruiz, Osiel E.	1676
Runyan, Bob	848
Runyan, Kathryn	1985
Rusheed, Patricia A.	578
Ruski, Eileen	1047
Russell, Barbara	2126
Russum, Barbara T.	1199
Rutkowski, Robert	2554
Ryan, C.	1029
Rybandt, Joseph P.	718
Ryder, Vicku Lewin	2320
Sabourin, C.F.	1824
Saccato, JoAnn	997
Sagebiel, Marcia	2093
Saksewwski, Shannon Lee	570
Salas, Vidal R.	1076
Salazar, Javier	1905
Salgado, Liane	78
Salkowski, Virginia	1341
Salo, Dorothea	785
Salomon, Lori	1762
Salud, Pamela	2199
Samuel, Michelle	377
Sanders, Ginger	243
Sanderson, Bruce	924
Sanford, Gail L.	1228
Sansone, Rik	407
Santanello, Mary	2243
Santos, Enrique	1234

<b>Commenter Name</b>	<b>Commenter Number</b>
Sarahchild, D'Cady	1034
Sarakula, Vik	975
Sauer, Rick	2198
Saus, Steven	1428
Savage, David	1517
Savage, Michael P.	1139
Sawaya, Marie	1944
Sawyer, Kathy	2380
Saxton, Jan	2019
Scaff, Beverly	1257
Scanion, Kelley	326
Scanlan, Dan	563
Scarr, Carolyn	577
Schachet, Richard	1124
Schaeffer, Dominic	1811
Schaeffer, Kathy	2307
Schaeffer, Paul	862
Schatz, Bernie	1056
Schein, Katey	2109
Schieferstein, Jeanne	2533
Schilling, Cherry	1841
Schliessman, Peter	532
Schlueter, John	2428
Schmitz, Gladys	1898
Schmitz, Gladys	2341
Schneider, Ginny	1255
Schneider, Lous G.	1654
Schoen, Martin J.	857
Scholl, Janice	1417
Schoonover, Shannon	1177
Schrank, Esther Frances	149
Schroeder, Cynthia	2507
Schubert, Marjorie A.	1756
Schueler, Carla	2339
Schultz, Robert W.	1853
Schwartz, Ellen	1798
Schwartz, Eric	1262
Schwartz, Valarie	1675
Schwartzman, Alan	1469
Schwebke, Mark	1996
Schwendimann, Reverend	883
Scianna, Paolo	355
Scoble, Bill and Judy	737
Scott, Marcia Catherine	2478
Scott, Mika	597
Scurrah, James	489
Sears, Jeanne	882
Seeger, Peggy	1209
Seeley, J. Browning	1690

<b>Commenter Name</b>	<b>Commenter Number</b>
Seff, Leslie	485
Segal, Rebecca	1410
Seifert, Father Michael	1225
Sellman, Jonathan	2165
Senders, Virginia L.	601
Serene, Anastasia	195
Serinus, Jason	1520
Severns, Laurel	645
Shahian, Linda Marie	2004
Shandler, Jalien	2143
Shanholtzer, Craig and Charis	1783
Shanklin, Elizabeth	1174
Shannon, Susan G.	1054
Shapero, Sarah	770
Shapiro, Vita C.	1791
Shaw, Barbara A.	366
Sheak, Bob	750
Shears, Marjorie B.	2254
Sheble, Anne	188
Sheehan, Bill	2560
Sheff, Christian	10
Sheldon, Erin	2038
Sheldon, James	668
Sheldon, Sue	1302
Shelley, Kathleen	2358
Shelly, Norman	1201
Shelp, Jr., Richard G.	1366
Sheridan, Paul	782
Sheridan, Shannon	1230
Shesgreen, Mary	1146
Shields, Alice	660
Shiller, Robert	464
Shiller, Robert	492
Shiller, Robert	513
Shippen, Nancy	2406
Shirey, Keith	364
ShisInday, Alessandra C.	2385
Shively, Lisa	1
Shoosmith, Amy	1887
Shores, Jr., Arthur W.	2436
Shoul, Rohna	1710
Shows, Laurie R.	838
Shubert, Richard	232
Shulman, Joseph	1287
Shulman, Seth	2550
Shuttler, Archie	79
Shwedo, R.	717
Shwedo, Robin	1105
Siegel, Howard	1644

<b>Commenter Name</b>	<b>Commenter Number</b>
Silver, Sandy A.	2326
Silverstein, Barbara and Grant	1744
Simbeck, Greg	1998
Simber, Tina	262
Simmons, Jayne	1857
Simons, Stephen	1080
Simpson, Robin	457
Sinclair, Clara M.	1402
Sinclair, Melanie	1929
Sirna, Tony	689
Skalski, Anne L.	2359
Skeel, Marjorie	1634
Skinner, David E.	1009
Skipper, Ned	1509
Skoglund, Chris	525
Skoglund, Christopher	901
Sky, Kate	1760
Slagter, Dr. Janet	638
Sluyter, Aidea	1497
Smart, Leslie	2318
Smay, Betty	2551
Smit, Elsje	1789
Smith, Adelaide	190
Smith, Anne	1107
Smith, Charles D.	837
Smith, Cheryl C.	2257
Smith, E.A.	1784
Smith, Joanna Oltman	2222
Smith, Kelley	1548
Smith, Kevin	747
Smith, Liberty	1360
Smith, Lika	1831
Smith, Mark H.	917
Smith, Peter	1112
Smith, Quinda	584
Smith, Susan	2170
Smith, Trudee	1387
Smith-Remick, Donna	1190
Snider, Stewart	1069
Snow, Berk	2623
Snyder, Erykaa	666
So, Samrong	1397
Soergel, David	2169
Solomon, Phyllis	2572
Sommers, Stephanie	1241
Sonne, Gina	690
Sordill, Pat	637
Sorgen, Michael	2383
Sorgen, Phobe Anne Thomas	2384

<b>Commenter Name</b>	<b>Commenter Number</b>
Soulier, Rosa K.	1559
Sparks, Darla Reynolds	743
Spanicht Testtestjkl, Chris	38
Spector, Ann Mari	910
Spice, Ken	1336
Spicer, Gary L.	1951
Spidel, Kevin R.	890
Spikes, Linda	1792
Spitzer, Mandy	1306
Spitzley, David A.	905
Spottswood, Robert	1238
Spres, Tina	491
Spring, Barbara	82
St. John, John H.	1254
St. Onge, Erin C.	1198
St. Onge, Patricia	1658
St. Pierre, Leslie	1135
Stade, Kirsten Eva	1126
Stan, Evan	52
Standefer, Michael L.	943
Stanek, Michael	898
Stanfield, Pablo	2009
Staniford, Tamsen	1373
Stanley, Chris	161
Stanton, Blaine	1557
Stanton, Brad and Jennifer	867
Stanton, Nicholas T.	1613
Staples, Jeff	1236
Star, Suzy E.	2247
Starr, Julie	514
Statton, Anne E.	1031
Stauffer, Diana	2205
Stavis, Kathleen M.	953
Stebler, Timothy	371
Stec, Michael	719
Steele, Carla	2458
Steele, Joanne	839
Steffens, Susan	939
Stein, Jonathan	2193
Stein, Kathy	271
Steitz, Jim	1474
Stenger, Jason	2155
Stephens, Dick	1333
Sterling, Suzanna	468
Stern, Bill	399
Sterrett, Frank S.	1844
Sterrett, Janny	1817
Stevens, Denise	452
Stevens, Kate	1722

<b>Commenter Name</b>	<b>Commenter Number</b>
Stevens, Russell	885
Steward, Beth	2201
Stewart, Carole	740
Stewart, Mickie	1511
Stietzel, Eric R.	1978
Stivers, Craig	226
Stock, Jay & Sharon	1050
Stockley, A.M.	2308
Stokesberry, Mele	1125
Stole, Lori	35
Stoll, Jeremy	2253
Stone, Dwight	1955
Stone, Robert	379
Stone, Terry	1351
Stoner, Amy	1137
Storms, Peter J.	13
Stoudemire, Anna	59
Stranahan, Lorene A.	2032
Strange, Jr., William B.	951
Stuart, Kathleen	2643
Stuckman, Scott	233
Studer, Megan	2213
Stukas, Deborah	524
Stulman, Michael	474
Sturm, Jeffrey	1508
Subira, Eos Mandisa	1713
Sudak, Linda	699
Suggs, Charles	331
Sullivan, Barbara G.	1648
Sullivan, Charles	1485
Sullivan, Ian	1491
Sullivan, William John	26
Sumii, Miya	2635
Summers, Kirstin M.	2421
Sunshine, Jane	1191
Sutton, Sheila M.	1535
Swan, Alison	180
Swanson, Michael	227
Sward, Jean	2596
Sweberg, Dean	2020
Sweeney, Margaret	616
Sweeting, Arlene	2499
Sweetson, James C.	707
Swennerfelt, Ruah	922
Swift, Alice C.	1046
Swindler, Margie	1322
Szekeres, Andy	1460
Taggart, Lynn M.	2127
Takarabe, Clara	667

<b>Commenter Name</b>	<b>Commenter Number</b>
Takehara, James and Sarah	2625
Talbot, Medicine Story	2284
Talley, James	775
Tanner, Stuart M.	814
Taub, Jerome	2289
Taylor, Jenel	1478
Taylor, Marcus	46
Taylor, Mason	1976
Taylor, Timothy D.	764
Taylor, Zachary	1828
Taylor-Roth, Steven	1720
TD and JB (no last name provided)	1858
Teall-Fleming, Dennis R.M.	923
Tenney, Gerry	801
Teraoka, Isabelle & Nobuya	1832
Tereba, Susan	1973
Terry, Beverly	2108
Terzian, Patrica N.	1467
Thayer, Deborah	1213
Thomas, Ben	1974
Thomas, Ellen	323
Thompson, Eric	693
Thompson, Bryan	858
Thompson, Dean	780
Thompson, Ian	264
Thompson, Mark Iktomi	865
Thompson, Patricia	1443
Thompson, Sandra	985
Thomsen, Allen V.	758
Thun, Susan	2474
Thurston Timmerman, Don and Roberta	273
Tiffany, Ann A.	2120
Tiffany, Peter	293
Tifford, Paul	441
Tifford, Paul	573
Tinapple, Hillary	2252
Tindall, Tavia	386
Titterington, Patrice	2023
Tobin, Frances T.	1946
Tobin, Steven	1499
Tollafeld, Jeff	677
Tomashevsky, Bob	809
Tomczyszyn, Michael J.	1245
Toms, Michael	2013
Torre-Bueno, Ava	1362
Totonchi, Sara J.	825
Townley, Windflower	2381
Trasatto, Carol	1314
Trasoff, Stephanie	1942

<b>Commenter Name</b>	<b>Commenter Number</b>
Triplett, Tia	1656
Tripp, Benjamin	2314
Tromm, Curtis	471
Trotta, Kristina	633
Tsindle, Clove	2167
Tuggle, Melissa	973
Tunick, Janet	424
Tur, Mario	1538
Turek, Gabriella	1251
Turnbull, Clay	490
Turner, Kathleen Kaeding	382
Turner, Kathleen Kaeding	1140
Turoff, Bermice	1068
Tussing, Katherine	167
Tutu, Nontombi Naomi	2084
Twocats, Mona	1261
Tyson, Joan	417
Tyszka, Marilyn	1398
Uebelacker, Genie	2157
Ulman, Erik	1301
Umeda, Stephanie	100
Underwood, Deborah Gayle	1804
Underwood, Jerry	1473
Urbanowicz, Dan	11
Usher, Craig	1208
Ustuner, Kutay	1815
Valanti, Lisa	895
Valenty, Allene	303
Valenzano, Joyce	1464
Valley, Penn	694
van Davis, Barbara	363
van Davis, Jeffrey	362
Van Natta, Wil	624
Van Zeeland, Michel	1869
Van Zeeland, Michel	1880
VanHandel, Jason	1907
Vann, James E.	1708
Vargas, Kathryn	1033
Vasquez, Susan Boon	1427
Vaughn, Gail	245
Vaughn, Pamela	2040
Verdier, Bill	787
Verna, Ray	1986
Vertrees, Gerald	263
Victor, Anne	176
Victor, Arisa	649
Victoria (no last name provided)	571
Vid, Da	596
Viereck, Jennifer Olaranna	169

<b>Commenter Name</b>	<b>Commenter Number</b>
Vigne, Jan B.	2235
Vincent, Larry D.	1705
Vincent, Thomas	1384
Vinograd, Lorraine	2363
Vinson, John	398
Visher, Marjorie	1994
von Ranson, Jonathan	67
Vonderplanitz, Aajonus	996
vonWether, Karl	1655
W., Adam	2018
Wachter, Billie	1645
Wagner, James	459
Wahl, Richard	2012
Waitt, Alden S.	2056
Walker, Joseph J.	2050
Walker, Kay	242
Walker, Todd	350
Wallace, Gerald	432
Wallace, Tristin	2369
Wallach, Leah	1424
Walls, W. Tom	1524
Walsh, Coreen	2425
Walsh, Katie	2258
Walsh, M Tereda	1145
Walters, Ben	2055
Walters, Danny	768
Ward, Annette	2280
Ward, Donald E.	2233
Ward, Fred	2534
Warner, Darryl	220
Warner, Thomas A.	2184
Warrender, Craig	39
Warrick, III, W.H.	1952
Warth, Diane M.	1329
Waters, Barbara	2142
Watson, Claire	131
Watson, Claire	199
Watson, Lisa	576
Watt, Katherine	7
Waxman, Edward R.	1273
Waxman, Jonas	2091
Way, David	766
Webb, Carol	2322
Webber, Deborah A.	759
Wechsler, Curt	481
Wedworth, Albert E.	907
Weiler, Brenda	2026
Weintraub, Rachel	1902
Weisberg, Karen Poster	1077

Commenter Name	Commenter Number
Weishaar, Jennifer	92
Weishaar, Jennifer	2543
Weiss, Melissa	2051
Weiss, Meredith	965
Weiss, Patricia Sharp	2240
Weiss, Rebecca	2296
Welber, Arnold J.	705
Welch, Casey	1197
Welford, Gabrielle	1028
Welford, Jane	580
Well, Bob	2319
Wellen, Russ	1296
Wells, Lisa	1319
Welte, Patricia S.	1221
Wen, Frederick	56
Wen, Frederick	359
Werda, Patrick	1310
Weser, Ben	1681
Wesiburd, Stana	1809
White, Allison B.	2228
White, Ely	144
White, Jane	1066
White, K.	1825
White, Lois	1379
White, Randall F.	1093
Whitefield, Anne	229
Whitehead, Corinne	994
Whitley, Kathleen	383
Whitnah, Claudia	304
Whitten, Chrisotpher	1652
Whitworth, Ariel	1110
Wickham, Matthew	1544
Widmalm, Marianne U.	805
Wilham, Kathryn	1048
Wilkerson, Carolyn	1143
Wilkerson, L.	2
Wilkins, Ann Thomas	712
Wilkins, Evelyn S.	1637
Wilkins, Joan	1731
Willemin, Chris	629
Willey, Nicole	1220
Williams,	81
Williams, Amy S.	675
Williams, et al., Rose M.	487
Williams, Kiva L.	846
Williams, Martin C.	1375
Williams, Patricia M.	2427
Williams, Shannon	1430
Williams, Susan F.	2139

<b>Commenter Name</b>	<b>Commenter Number</b>
Williamson, Joan K.	926
Williamson, Norma	306
Willis, April A.	2298
Willis, Jennifer	2212
Wills, Elizabeth	1674
Willse, Matthew	2274
Wilson, Branden P.	2356
Wilson, Debra	734
Wilson, Jeffrey J.	1449
Windberg, Thomas J.	1152
Winderbaum, Buff	1415
Windfall, Florence	1368
WindRiver, Winifred	1712
Wingard, Greg	1038
Winn, A.E.	1519
Winsberg, Julie	1061
Winton-Henry, Cynthia	2325
Wishart, Stephen	852
Witherspoon, Ann	367
Withnall, Elizabeth	1854
Withnall, Emily	2343
Witt, Elizabeth	1338
Wittenborn, John L.	2587
Wolfe, Shirley A.	2316
Wolman, Adam	1529
Wolters, Fred	2002
Wood, Nancy Howell	1761
Woods, Mara	372
Woods, Nancy	2239
Woodyard, Michael T.	2432
Woolery, Phillip C.	2151
Woolner, Cate N.	2129
Workman, Jeremy	2309
WorldPeace, John	648
Worrall, Patrick	1381
Woz, Greg	164
Wright-Kaiser, Carol A.	995
Wu, David	58
Wyatt, Maria	1921
Wyche, Will	2234
Wylie-Sears, Dan S.	444
Wyss, Cassie	36
Yaguda-Kinsey, Sandra	1493
Yamamoto, Mary	2360
Yarbrough, David Wesley	872
Yoder, Maegan Gasa	990
Younce, John William	2158
Young, Alan	1159
Young, Cathy	1456

<b>Commenter Name</b>	<b>Commenter Number</b>
Young, Faith	175
Youngson, Patricia	2249
Zaino, Liza	141
Zaltzberg, Ellen	1747
Zamonas, Cathy	204
Zauscher, Melanie	1097
Zavaleta, Irma	1186
Zeff, David	2514
Zehner, Kristen	330
Zehner, Kristen	1326
Zehr, Karl	288
Zeichner, Walter I.	115
Zeitew, Ruth	2483
Zeman, Terri	181
Zemek, Matthew J.	903
Zervos, Maria	2266
Ziccardy, Marcia	1200
Zillah, Alice	1455
Zimmer, Anne	1372
Zimmerman, Milton	1016
Zimmerman, Nancy	1553
Zolbrod, Lisa	1141
Zook, Pamela	2601
Zorn, Glen	986
Zoubeck, Suzanne J.	1008
Zubow, Deborah	1742
Zuckerman, Cory	560
Zunes, John and Helen	1343