

Energy and Natural Resources Policy

ERP-01 Energy and Natural Resources

The United States has a mix of natural resources and innovative technologies unmatched by any other nation in the world. These energy and natural resources are the life blood of manufacturing. Manufacturers need sustainable, adequate, secure, reliable, efficient, affordable energy and raw materials to compete in the global marketplace. The United States has abundant supplies of natural gas, oil, coal, hydro, minerals and metals, biomass, wind and solar resources; our fleet of nuclear power plants cleanly and efficiently produce a substantial portion of the nation's electricity; advanced renewable sources and advanced distributed energy resources, are growing quickly and providing new flexibility and capabilities to manufacturers; and advances in energy efficiency continue to cut manufacturers' energy costs.

The NAM supports a diverse approach to powering our communities and operations. This diverse energy strategy promotes the responsible development and use of all energy sources, including fossil fuels, nuclear, renewables, energy technologies, and recognizes the importance of energy efficiency to meeting future energy demands. Government policies affecting energy, including permitting processes, land access and those pertaining to the electric grid, must place a priority on reliability and must preserve manufacturers' global competitiveness. The NAM supports significant investments to modernize energy infrastructure, distributed energy resources and other advanced technologies to improve efficiency, affordability, flexibility, reliability and security of the nation's energy future.

The NAM and our member companies are committed to addressing global climate change while preserving competitiveness as set forth in Section 1.09 below. Policymakers should focus on enabling the technological breakthroughs that are needed to significantly reduce emissions, and should incentivize increasing the use of products and processes that are the most cost-effective and carbon-efficient. Government should not impede or impair the ability of energy-producing and energy-consuming segments of industry from obtaining adequate funding for energy-related investments. The NAM supports policies that strengthen the competitiveness of U.S. manufacturers and opposes policies that weaken the competitiveness of U.S. manufacturers.

Incentives are often effective policy tools, but should not artificially create winners and losers in a quest for developing competing technologies or fuels. In establishing federal clean energy policies, the NAM encourages Congress to provide transparent assessments of costs and benefits, prioritize energy reliability, recognize regional differences in renewable energy resource availability, and harmonize policies so that state and federal regulations made duplicative or unnecessary are eliminated. Research and development efforts should be pursued as a means to enhance energy flexibility and expand diversification of energy supplies over time to increase the competitiveness of U.S. manufacturers.

ERP-1.01. Natural Gas and Oil

There are abundant and reliable natural gas and oil resources in the United States, and global demand for these resources continues to increase. For manufacturers, the nation's domestic natural gas and oil supply is an important component of our energy future. Moreover, a balance between supply and demand is important to ensure competitive, stable prices. In today's global

economy, U.S. manufacturers must be assured of an adequate supply of competitively priced and reliable natural gas and oil for industrial and commercial use, such as petrochemical feed stocks, process gas uses and transportation fuels and for power and steam generation.

ERP-1.01.a. Exploration and Production

The NAM supports policies that promote the leasing, exploration and development of the nation's natural gas and oil resources in a way that minimizes environmental impacts. Responsible exploration and development of promising areas onshore and offshore can substantially strengthen our nation's energy security, when developed in an environmentally sustainable way. Continued attention to compliance with safety standards will help ensure minimal safety, environmental and health impacts. Technologies such as hydraulic fracturing and horizontal drilling have made the extraction of unconventional resources, including shale gas and shale oil, technically feasible and cost-effective. Continued development of these resources, as well as other North American resources, can provide a steady stream of secure, competitively priced energy for American manufacturers and consumers. A commitment to safely and sustainably developing the nation's bounty of onshore and offshore sources of gas and oil will have a significant positive impact on this country's ability to meet its feedstock and energy needs. As is currently the case for states with onshore production from federal lands, and for Gulf Coast states with production from federal waters off their coasts, all states with federal offshore leasing and production should share in related federal revenues.

ERP-1.01.b. Refining

The refining industry is one of America's largest manufacturing sectors, and refined petroleum products play a critical role in meeting domestic transportation fuel demands. U.S. refineries process crude oil into products such as gasoline, distillate and jet fuels and heating oil and chemicals for domestic use and for export into world markets. U.S. refiners have responded to the call for a cleaner environment by producing cleaner fuels at competitive prices. Uninterrupted production of these products and the transportation infrastructure necessary to deliver them are essential to our national energy and economic security as well as to U.S. industry's ability to compete globally. U.S. exports of refined products are growing and increasing the competitiveness of U.S. markets.

ERP-1.01.c. Energy Exports

Manufacturers rely on natural gas and oil for much of their energy needs and as a raw material. The NAM believes policies that encourage the cost-effective use of energy to grow American manufacturing should be encouraged. Natural gas and oil are and will remain important manufacturing commodities because of their scalability, affordability, versatility and efficiency. The NAM supports policies at the federal and state level that facilitate the responsible and expeditious development of energy resources that allow these benefits to contribute to America's economic growth and to accrue for energy consumers.

The dramatic increase in the domestic natural gas and oil resource base has paved the way for the U.S. to become a net exporter of natural gas and oil. An adequate and reliable supply of natural gas is needed to meet the demand of the U.S. manufacturing sector and will be enabled by access to abundant domestic resources as well as increased access to global energy markets. The NAM strongly supports federal and state policies to accommodate growth in domestic natural gas production. We further believe abundant domestic natural gas and oil resources can fuel a renaissance in U.S. manufacturing. The NAM supports free trade and open markets as set forth in IEAP-01. We support an energy export policy process that is open, transparent and objective.

ERP-1.02. Coal

Coal is an abundant domestic energy resource in the U.S. that generates a significant percentage of our nation's electricity. Coal is capable of providing essential baseload power that is key to a modern energy strategy for our manufacturing sector. Maintaining coal as part of a diverse energy portfolio and as a viable export commodity provides for strong economic growth. In addition to coal used for electricity generation, metallurgical coal is a high-grade component in the chemical reactions that transform iron into steel. Every ton of steel produced requires approximately 0.6 tons of metallurgical coal, making coal essential to the manufacturing industry.

Technology solutions that reduce emissions from the fuels the world uses are essential to achieving progress on climate. State-of-the-art emission control devices, boiler improvements and other advanced coal technologies have led to steady increases in energy efficiency and lower emissions from coal electricity generation over several decades. Governments should support and encourage the development and deployment of these advanced technologies in the U.S. and around the world to reduce global emissions.

Governments should support and encourage the development and deployment of carbon capture, utilization and sequestration technologies. Further regulatory actions that unreasonably increase the cost of production and use of coal for limited environmental or health benefits are counterproductive. Environmental policies should be applied in a manner that balances the realities of climate change and the important role that coal production and generation play in the nation's diverse energy portfolio.

ERP-1.03. Clean Energy Sources and Solutions

Government plays an important role in supporting the research and development of alternative energy sources and technologies. Low-carbon, renewable and alternative energy resources such as wind, solar, geothermal, hydrogen, hydropower, landfill gas, municipal solid waste and biomass are an important part of a diverse energy portfolio. Together these resources account for a steadily rising share of U.S. energy supply and development. A competitive market energy policy and investment in alternative energy infrastructure is the best way of encouraging economically sustainable alternative energy options and government must ensure that alternative energy technologies have equal treatment and access to energy markets.

The NAM supports policies that encourage an energy mix including clean, renewable and low carbon energy resources and other power and thermal energy solutions and promote energy-efficiency measures. Many NAM members are increasingly reducing the carbon footprint of their operations and supply chain. Government should support policies and technologies that ensure the low-carbon energy manufacturers are sourcing can be reliably and affordably transmitted and delivered. Conversely, the NAM opposes federal government mandates for increasing the use of any energy source at the expense of any other. Significant grid improvements are needed and encouraged to ensure manufacturers have secure, flexible and competitive energy options. As the nation's energy mix expands and diversifies, government policies must place a priority on energy reliability.

The use of renewable energy for thermal applications, including biomass, biogas, geothermal, landfill gas, renewable electrification, renewable hydrogen and solar thermal, is not as developed in the market or as cost-competitive as the use of renewable energy for electricity. Therefore, the NAM supports policies to incentivize renewable thermal energy options, which is critical to supporting lower-carbon footprint for industrial process heat applications.

ERP-1.03.a Combined Heat and Power

Consistent with U.S. manufacturers' demonstrated history of innovation, the NAM supports policies to encourage investment in combined heat and systems. CHP systems allow end users to realize energy savings greater than upfront investment and ongoing operation and maintenance costs and reduce emissions. Policymakers should remove any remaining barriers that impede deployment of such energy-efficient technologies. Working with all stakeholders, federal policymakers should consider modeling best practices for states to address regulatory barriers to CHP deployment, including guidance for assigning reasonable fees and rates for interconnection to the local distribution grid, supplementary power, backup or standby power, maintenance and interruptible power supplied to facilities that operate CHP systems that also allow for reasonable cost recovery by an electric utility based on the costs to provide these services and do not shift costs to non-CHP customers. Federal policymakers should also provide guidance for valuing the sale of energy and capacity from CHP to a utility.

ERP-1.03.b Microgrids and Energy Storage

Microgrid and energy storage solutions are promising tools for manufacturers to reduce their energy costs, increase efficiency and boost resiliency. The NAM recognizes that these technology solutions are still in their early stages of development and therefore supports government policies and programs for research, development and deployment of multiple forms of energy storage and microgrid solutions.

ERP-1.04. Energy Delivery Infrastructure

The NAM supports continued improvements to laws and regulations that result in a transparent, streamlined and timely federal regulatory process for the siting and permitting of all energy delivery infrastructure, including oil and natural gas pipelines, energy transport by rail and interstate electric transmission infrastructure. Investments should also be made to establish infrastructure for hydrogen power for generation and transportation. Cost-effective investments in transmission infrastructure to maintain and improve the reliability, capacity, integration of clean energy, efficiency and security of the electric grid; recognize the total cost of ownership for all investments; and promote an electricity market that benefits residential, commercial and industrial rate-payers. Improved transmission infrastructure should also account for an increase in battery-electric cars and commercial vehicles. Transparent assessment of the full cost of technologies, which require additional investments to maintain grid reliability and efficiency, should be recognized in cost/benefit analyses.

ERP-1.05. Demand-Side Management (DSM) Programs

The NAM believes that the provision of cost-effective DSM services by customer and aggregator programs, energy efficiency measures and distributed energy resources can help ensure a reliable and adequate electricity supply at a lesser cost. Investments in and opportunities for technologies and measures that enable customers and aggregators to provide such services should not be precluded. The NAM also believes that electric and natural gas utilities should not be precluded from meeting future electricity and natural gas needs with these technologies and measures. Utilities also must not be precluded from recovering prudently incurred costs when implementing these programs, measures and services, and nondiscriminatory market opportunities for DSM services and distributed energy resources.

Unreasonable barriers to customer choice of power generation and efficiency improvements, including distributed generation, should be eliminated. The NAM encourages cost-effective information exchanges that support DSM through data exchange between utilities and customers.

ERP-1.06. Hydroelectric Power

Hydropower is a renewable resource that has demonstrated the capability to provide affordable electricity in areas where nature provides such opportunities and effectively complements the nation's other fuel resources to meet U.S. energy needs. Although hydropower contributes a relatively small percentage of the nation's energy supply, it is a significant percentage of the renewable energy supply. It is energy efficient, with energy conversion efficiency in the range of 85% to 95%. The NAM supports the continued use and development of hydropower resources.

The NAM supports the streamlining of the regulatory process for hydroelectric power development through the elimination of redundant or contradictory regulatory steps and avoiding the imposition of conflicting clauses in other legislative initiatives, such as those related to clean air, clean water and endangered species.

With regard to hydropower projects owned and operated by the federal government itself, efforts to offset their impact on fish and wildlife (including Endangered Species Act initiatives) must be carefully balanced with the preservation of economic, recreational and public safety goals.

ERP-1.07. Nuclear Energy

Nuclear power is a safe and vital source of electricity that does not emit criteria pollutants or GHGs into the atmosphere. It is the largest source of non-emitting power generation in the United States and a major source of electricity for manufacturers. The NAM supports the continued development and operation of nuclear energy consistent with the protection of public health and safety.

Nuclear energy helps ensure reliable and affordable clean electricity as part of a diversity of fuel sources. As the demand for electricity in the U.S. continues to grow, the NAM supports the construction of additional nuclear power plants that have been approved by the Nuclear Regulatory Commission to maintain a diverse portfolio of generating resources. The NAM also supports advanced nuclear technology for use in manufacturing as a source of carbon-free process heat. The NAM supports government investment in research and development of advanced nuclear technology.

In supporting the continued use and development of nuclear energy in the United States, the NAM supports the construction of facilities covering all parts of the fuel cycle and nuclear energy generation, including power plants, enrichment facilities, fuel fabrication plants, low-level and high-level waste handling and disposal operations, and other related facilities critical to the nuclear energy industry. The NAM supports federal actions to sustain and grow the domestic uranium mining, conversion and enrichment industries, as well as to support deployment of advanced nuclear reactor designs.

The NAM supports policies that move the federal government to fulfill its legal obligation to remove used fuel from commercial nuclear power plants and manage its long-term disposal. We support the research, development and demonstration of technologies to close the fuel cycle while a permanent disposal facility, which is needed even if the fuel cycle is successfully closed, is developed. The NAM encourages the development of interim storage facilities, where appropriate, for consolidating used fuel until recycling or permanent disposal facilities, or both, are available.

ERP-1.08. Energy Efficiency

Manufacturers, including generators and users of energy, are committed to reducing our energy intensity and producing more energy-efficient consumer products to help reduce the demand for

energy, save money, lower costs and lessen greenhouse gas emissions. American society has much to gain from sensible efficiency and waste reduction measures across all sectors of the economy. Manufacturers, including generators and users of energy, continue to seek improvements to the New Source Review process to reduce barriers to installation of energy-efficient technologies.

ERP-1.08.a. Industrial Energy Efficiency

Manufacturers use one-third of our nation's energy and are directly affected by the cost of energy in making products as well as by the cost of maintaining office operations. It is widely acknowledged that process and building system energy efficiency and conservation offer immediate and cost-effective opportunities to reduce energy cost inputs, reduce water use, stretch available energy supplies and decrease greenhouse gas emissions. Manufacturers have taken the lead in making energy efficiency a priority. Improvements in energy efficiency in the manufacturing sector have helped the country to be more efficient in energy use per unit of GDP and reduced the energy intensity of the U.S. economy.

Manufacturers have achieved greater energy efficiency through cost-effective distributed generation, combined heat and power technologies, waste heat recovery systems, water reuse and recycling, high efficiency motor-driven systems, digitalization, intelligent energy systems, such as advanced metering infrastructure and demand response, and improved process manufacturing.

The most significant federal actions to increase industrial energy efficiency in the long run are those that will create a positive, reliable and unbiased climate for capital investment financing tools and other energy services agreements for new and existing plants, buildings and equipment across all sectors.

There is an important federal role to be played in research and development of advanced new high-risk energy efficiency and waste minimization technologies in energy-intensive industries. Federal policies should provide a reliable investment environment for businesses of all kinds and sizes to pursue energy management technologies, practices and services.

The NAM believes that previous overly prescriptive federal energy policies have failed in large part because cost-effective industrial energy-efficiency improvements are best left to individual businesses and the competitive marketplace. Industrial energy management is a complex moving target that includes process innovation, long-term quality planning, energy assessments of building and equipment purchases, linkage of water and energy efforts, employee awareness and waste minimization and recovery.

The NAM supports voluntary industry and market-driven benchmarking of industrial facilities and processes for the purposes of raising the level of awareness of best-in-class energy management possibilities. The NAM opposes the undue imposition of mandatory data collection programs. Mandatory standards are not feasible, as product demand, weather, water availability, fuel price swings and capital investments, such as pollution control technology, influence manufacturing energy consumption.

The NAM supports federal programs that encourage and help manufacturers, especially small and medium-sized manufacturers, to understand and deploy energy efficiency and energy management measures for the purposes of becoming more competitive in a global marketplace.

ERP-1.08.b. Building Sector Energy Efficiency

Manufacturers play a significant role in improving the efficiency of commercial and residential buildings. Since the building sector consumes approximately 40 % of all energy used in the United States, the NAM supports market, regulatory and institutional reforms that increase opportunities to better utilize advanced technology and energy management practices to boost energy efficiency in buildings. The NAM supports government research and development into advanced building technologies like energy management systems, energy-efficient technologies and energy-efficient materials.

The NAM supports policies to enhance private sector investment in public building efficiency improvement projects, policies that strengthen standards for existing commercial, industrial and residential buildings and policies that recognize the incredible efficiency improvements manufacturers have made to products. These policies will:

- Promote consumer transparency through energy use labeling for buildings;
- Improve the existing national database of energy consumption information;
- Encourage open and visible access to energy usage and pricing;
- Partner with the private sector to support research, development and deployment of energy-efficient technologies;
- Modernize the Energy Policy and Conservation Act of 1975, as amended;
- Streamline regulation of energy efficiency;
- Save taxpayers money by reducing government energy spending;
- Recognize and value energy-efficiency investments; and
- Provide incentives, rather than penalties, for states to update building codes.

Finally, the role of cooperative government-industry initiatives, rather than government mandates, will be crucial in developing innovations that transform current construction and retrofit methods into an approach that fully integrates energy efficiency. Hand-in-hand with this is the development of techniques to maintain efficiency through the lifespan of buildings, including energy audit systems and techniques and best practice sharing of both.

ERP-1.09. Climate Change

Climate change is happening. Human activities are contributing. The NAM supports the objectives of the Paris Climate Agreement to significantly reduce the risks and impacts of global climate change. Manufacturers are committed to helping address climate change while increasing the global competitiveness of U.S. industries.

U.S. manufacturers are leading and the results have been unprecedented: we are significantly more carbon efficient than most of our global competitors, and the U.S. has reduced its total GHG emissions more than any other nation. We are committed to being part of the solution and encourage all other sectors of the American economy to join us. Manufacturers are advocating for policies that encourage domestic emissions reductions so that the U.S. continues to lead on the global stage, driving our international counterparts to do the same.

All sectors of the global economy will have to do their part to limit global GHG emissions. U.S. manufacturers are both creators and users of the technologies that will be vital to reducing global emissions. Accordingly, sound policy for U.S. manufacturers is one that reduces emissions while maintaining their global competitiveness. Policymakers should pursue policies that achieve meaningful, cost-effective GHG reductions while empowering U.S. manufacturers

to thrive in the global marketplace and ensuring the affordable, reliable energy supplies needed to keep our economy strong.

ERP-1.09.a. Principles

There is a clear governmental role in addressing climate change. Actions to address climate change should:

- Promote global action;
- Ensure manufacturers remain competitive in global markets;
- Achieve meaningful global GHG reductions in an equitable, timely and cost-effective manner;
- Set emissions reduction goals that are based on the best-available science and provide credit for early action;
- Utilize economy-wide policy options that leverage market-based options, including cost-containment mechanisms and complementary sector-specific policy where appropriate;
- Prevent carbon leakage by ensuring that no jurisdiction gains a competitive advantage by failing to take action to reduce carbon emissions. Carbon leakage refers to the situation that may occur if, for reasons of cost related to climate policies, businesses were to transfer production to other countries with laxer emission constraints.
- Drive research, development and deployment of technologies that will be needed to meet the climate challenge;
- Encourage government-led efforts to foster resiliency to the impacts of climate change;
- Promote smart land use and carbon offsets that achieve real, additional, verifiable, permanent and effective emissions reductions;
- Support policies that preserve consumer choice;
- Focus on GHG reductions, not fuel choice;
- Recognize the use of feedstocks, in both traditional and nontraditional forms, that are transformed into products rather than emitted as GHGs.
- Coordinate energy policy to ensure a diverse and secure supply of affordable energy and consider the impacts of energy delivery design and regulation on manufacturers;
- Safeguard the global competitiveness of energy-intensive and trade-exposed U.S. manufacturing sectors. Where feasible, assess reductions on a cost per ton basis;
- Recognize and reflect the reality that available large-scale technology options, emission abatement costs and cost sensitivity may differ widely between and within sectors;
- Take into particular account the vulnerability of small and medium-sized manufacturers;
- Protect intellectual property rights of manufacturers;
- Support energy efficiency across the economy, in accordance with the provisions of Section 1.08 above;
- Harmonize policies so that state and federal regulations made duplicative or unnecessary are eliminated; and
- Be agile and flexible to adapt to future developments in technology, science and policy.

ERP-1.09.b. International

Addressing climate change is a significant and important goal for all nations. In addition to the broad principles noted above that the NAM supports for all policies, international actions to address climate change should also:

- Ensure methods used to enforce international commitments are fair, transparent and effective;

- Ensure consistency with the WTO and compliance with our international trade obligations, regardless of whether the measure is multilateral or unilateral;
- Avoid the potential for harmful effects on U.S. manufacturers of possible reciprocal actions by our trading partners;
- Recognize that compulsory transfers of technology threaten manufacturing jobs in the U.S. and the development of new technologies to achieve environmental objectives;
- Promote the elimination of barriers to international trade and the purchase of environmental goods and technologies; and
- Encourage linkages between jurisdictions to facilitate the most efficient and cost-effective emissions mitigation opportunities.

ERP-1.09.c. Technologies and Innovations

The NAM supports many near-term actions that governments can take to drive innovation and accelerate manufacturers' progress toward ambitious global emissions reductions. A strong commitment to the development and deployment of new and advanced technologies, requiring significant public and private investment, is essential to address global climate change and to meet current and future domestic and global energy challenges.

Manufacturers are committed to developing technology solutions to achieve further emission reductions from our own operations, as well as enabling reductions in our customer industries and consumer end users. These activities should be supported by an appropriate policy framework that drives innovation and technology deployment toward cost-effective emissions reductions.

Policies and incentives should promote government and private sector investment in research, development, commercialization and deployment of technologies that reduce GHG emissions. Incentives should have long-term predictability, provide certainty for investment decisions and promote continued U.S. technology leadership. Governments must cooperate to establish effective legal frameworks for reduction, mitigation and adaptation technologies.

ERP-1.09.d. Carbon Capture

To meet growing global energy demand and GHG reduction goals, the world must vastly ramp up the deployment of carbon, capture, use and storage technologies. The U.S. is well positioned to be the world leader in this emerging technology; we have the technical know-how to capture carbon, the ingenuity to maximize the use of carbon and the natural resource (deep saline formations) to securely sequester carbon.

The NAM supports incentives for CCUS including tax credits and policies to:

- Support on-going research, development and demonstration of CCUS technology,
- Address barriers to claiming the 45Q tax credit;
- Promote CO₂ pipeline infrastructure development;
- Allow access to public lands for CO₂ storage; and
- Reform UIC Class VI requirements.

CCUS has the potential for broad applications in the electric power sector, energy production and industrial processes such as cement manufacturing, refining, steel-making, and biofuels production. CCUS can significantly reduce CO₂ emissions from a diverse suite of facilities and enable cleaner production of energy from reliable base-load energy sources. It also allows for manufacturers to rely on the continued use of existing U.S. energy infrastructure while simultaneously meeting environmental goals. Captured CO₂ serves a beneficial use in a wide

range of products such as the development of plastics and polymers, algae production, and with chemicals in agricultural applications. CO₂ can also be used to increase the production of energy through enhanced oil recovery.

In order to move toward more CCUS investment, the U.S. needs a policy framework that supports the business case for CCUS investment. Policymakers should also consider complementary measures, particularly in the midstream space because sources of CO₂ are not always located nearby suitable storage or utilization sites, creating logistical challenges for operators and potentially limiting the ability of companies to scale up CCUS investments. Building out an interstate system of CO₂ pipelines and improving the infrastructure permitting process will be necessary steps to realizing the full potential of CCUS.

ERP-1.10. Natural Resources

U.S. manufacturers require access to natural resources, such as rare earth elements and other critical materials, in order to produce products that are vital to the U.S. economy. Capitalizing on natural resource potential carried out in a responsible and sustainable manner and making ecologically efficient use of natural resources to ensure long-term access to those resources is critical to both competitiveness and improved environmental performance, contributing to increased productivity, lower costs, value-added and new products. As certain natural resources are non-renewable, continued efforts to increase material efficiency, creating circular economies, reusing and recycling of these resources is essential. Moreover, these resources are the front end of the manufacturing supply chain and are essential for the U.S. to remain competitive in the global manufacturing economy. Competition for raw materials should be market-based. The NAM supports reforming permitting processes and government policies that allow manufacturers reliable and secure access to these vital resources, support R&D, encourage the mining and processing of such resources and support unimpeded trade thereof.

ERP-1.11. Federal Lands

Much of our nation's vast resource endowment is found on federal lands. Of those public lands, large percentages are either off limits or under restrictions to resource development. The NAM supports policies that facilitate the expeditious permitting, leasing, exploration and development of the nation's resources in an environmentally sound and responsible manner. While resource development is not appropriate on all federal lands, the NAM opposes efforts to unnecessarily further restrict access to these national natural resources. The inconsistent administration of the critical mineral, hardrock, hydro, wind, solar, geothermal, natural gas, oil, coal, oil shale, pore space, and uranium policies have limited the potential to use a wide range of resources that lie beneath, on and above federal lands. Long-term, stable and reliable federal policies must be maintained. The NAM therefore supports streamlining and expediting resource permitting, leasing, policies, and regulations that limit royalties and fees to cost recovery for administration of the programs and opposes blanket moratoria.

ERP-02 Sustainability and Environmental Quality

Environmental sustainability is vital for human well-being and ecosystem functioning. Sustainability drives the strategy for development and implementation of technologically and economically viable products, processes that protect human health, ecosystems and long-term economic growth. The principles are not prescriptive. The NAM is committed to sustainability practices that balance environmental protection, economic development and social development. American industry has established a strong record in sustainable practices and environmental protection. As the foundation of communities, manufacturers have made

substantial investments over time to minimize their environmental footprint and continue to do so today. This commitment to innovation will ensure further progress toward reducing environmental impacts and increasing sustainability in operations.

A high standard of living depends upon a healthy environment, robust economic growth and an adequate and secure supply of energy at globally competitive prices. Quality of life encompasses complex economic and social considerations, including clean air and water, healthy soils and conservation of material and human resources, as well as continued economic development. Environmental laws and regulations should be designed with utmost care to ensure that they are effective in achieving their desired objectives while at the same time avoid unnecessary adverse economic and social impacts.

Accordingly, measures to protect human health and the environment should:

- Address an identified need and the most cost-effective means of implementation;
- Be based on factual data and credible science, with due regard for their total impacts on employment, energy used, resources, land use and other regional, national and international health, social and economic concerns;
- Promote innovation and recognize that technological advances over time have generally reduced the environmental impacts of energy production and consumption and all manner of product manufacturing;
- Recognize the technological advances made by manufacturers and allow for a proper balance between economic growth and the protection of human health and our environment;
- Take into account global societal challenges, such as those posed by climate change and a changing environment, as well as those posed by the limitations of existing technologies;
- Utilize sound science and appropriate risk management processes to better focus our national effort and resources on global challenges that pose a truly significant risk;
- Employ rigorous economic analysis to better understand potential economic impacts and cost-benefit relationships;
- Include a careful review and evaluation of the compliance time frames that manufacturers are given to meet new standards or regulations;
- Integrate a complete cumulative analysis of a regulation's impacts on regulated industries, manufacturers and the economy;
- Encourage collaboration and eliminate barriers; and
- Encourage pilot projects and advance the application of new technologies.

ERP-2.01. Principles for Sustainability

NAM member companies are committed to advancing sustainability efforts that positively impact manufacturing and industry's contributions to environmental protection, economic performance and the social well-being of the employees, communities, customers and consumers they serve. NAM members recognize the benefits of adopting sustainability best practices, including the application of life-cycle analysis practices in the manufacturing sector. For example, the United Nations' Sustainable Development Goals is one framework that some NAM members refer to when developing their sustainability objectives. NAM members will work proactively with relevant stakeholders to ensure that the voice of manufacturing is heard and is contributing its positive story. NAM members support the following principles for sustainability in manufacturing:

- Sound economic, social and environmental performance is an element of sustainable companies;

- Encouraging research, development and deployment of innovative, cost-effective technologies and operational improvements that will enhance sustainable manufacturing activities;
- Building effective, resilient systems to reduce environmental impacts by improving water, air and energy efficiency;
- Minimizing natural resource impacts by increasing efficiencies and conservation to optimize raw material input and to reduce waste output;
- Continuing to improve the environmental, health and safety profile of manufacturing and its workforce by improving performance processes and products;
- Recognizing action taken by companies who are leaders in implementing voluntary sustainability practices and procedures;
- Managing land use and natural resources to provide economic benefit while protecting biodiversity;
- Collaborating and interacting with supply chain members to responsibly manage total environmental impacts;
- Improving resource management through waste prevention and reduction efforts first and by increasing the amount of recycling throughout their operations;
- Using recycled materials in the manufacture of products and packaging;
- Designing products, while meeting necessary performance requirements, to increase their potential after use, for reuse, remanufacturing and/or recycling; and
- Building sustainable practices to support, attract, develop and retain a highly skilled, diverse workforce.

ERP-2.02. Standards

Standards serve an important role by providing for consistency of approach and quality of outputs for society. Standards should not be narrowly based on a single environmental medium, but should take into consideration cross-media impacts that may occur when a standard results in the mere transfer of a pollutant from one medium form to another. Standards should reflect the fundamental difference between corrective programs, which involve retrofitting of existing facilities, and preventive programs, which involve the construction of new facilities and manufacture of new products. In those instances when standards are technology-based, each standard must be technically proven, achievable and cost effective. Once technology has been installed in compliance with current regulations, the installer should not be arbitrarily subjected to changed regulations for a reasonable period of time, taking into consideration the useful life of the equipment.

As a general principle, NAM members support the federal government's implementation of OMB Circular A-119 that directs agencies to use voluntary consensus standards in lieu of government-unique standards except where inconsistent with law or otherwise impractical. The use of such standards eliminates the cost to the government of developing its own standards and decreases the cost of procuring goods. It also encourages long-term growth for U.S. manufacturing and promotes efficiency and economic competition through the harmonization of standards.

ERP-2.03. Hazard Identification, Risk Assessment and Risk Management

The ability to systematically and effectively identify hazards, assess risks and manage those risks is critical to successful industrial activity. Those processes include the application of scientifically sound hazard identification and prioritization, objective, credible risk assessment, benefit-cost analysis, flexible, efficient risk management and adequate opportunity for meaningful public participation in the risk assessment process. Governments need to recognize

the costs for environmental protection compete in a society with finite resources to address diverse worthy goals. Environmental laws and regulations should be based on scientific criteria resulting in cost-effective measures that provide significant environmental or human health benefit.

ERP-2.04. Compliance and Enforcement

The NAM recognizes that enforcement is a critical component of any environmental protection program. Great advances in environmental protection have resulted from practical, cooperative programs between regulated entities and regulatory agencies. As environmental protection requires more technically complicated solutions and the global business environment becomes more competitive, greater emphasis should be given to such cooperative approaches and to providing compliance guidance before violations occur. The consequences of non-compliance should be proportionate to the violation, and the consequences should drive compliance and prohibit recurrence of violations. Further, enforcement actions should not be used by regulators to extract improvement and investments in excess of regulatory requirements and permit conditions.

The government should continue to work with the regulated community to develop and implement methodologies to measure compliance with environmental regulations and associated environmental improvements. When reported violations decrease, this may result in improved compliance as opposed to reduced enforcement. The government should draft clear requirements and effective communications in order to support regulated parties' compliance. Enforcement should be applied consistently and equally to ensure fairness across the regulated community.

Both regulations and enforcement policies should recognize the need for flexibility in implementation and science-based action when unique circumstances exist or unforeseen events occur. The federal government should work with states to exercise appropriate flexibility when interpreting, implementing and enforcing state standards based on federal law and regulations, while enforcement at the local level should be consistent within a state.

Citizen suits can be contrary to sound principles of regulatory law whereby clear standards of conduct are formulated and enforced by a regulatory agency subject to a right of judicial review. Citizen suits introduce uncertainties to pollution control enforcement policies, dissipate resources needed to carry out effective regulatory programs, stimulate litigation and are subject to exploitation. If allowed, such suits should be limited to local persons with affected interests in order to eliminate suits brought for nuisance or harassment purposes. The courts should not approve settlement agreements between regulatory agencies and plaintiffs in citizen suits that were negotiated without the full participation of affected regulated entities.

ERP-2.05. Proprietary and Confidential Information

The protection of proprietary and confidential information is of utmost importance to American industry at all government levels. Confidential business information should be given the full protection intended by Section 1905 of Title 18 of the U.S. Code. Because of the need to protect trade secrets and other CBI, as well as the need to minimize paperwork burdens, information collection requests by federal agencies and their contractors should comply with the spirit and letter of the Paperwork Reduction Act. There should be no exception for surveys made pursuant to settlement agreements in citizen suits. Regulatory driven disclosure of trade secret information should be balanced against a gain in environmental, health or safety protection.

ERP-2.06. Hazardous and Non-Hazardous Waste Management

Waste products are generated by all segments of society, including industrial facilities, commercial establishments, residences and federal, state and local government agencies. To help ensure environmental protection and public health, the NAM supports a comprehensive, efficient and effective hazardous and non-hazardous waste management regulatory system that includes an accessible and affordable infrastructure. These systems should be implemented in ways that ensure effective environmental protection, but minimize complexity and administrative burden.

The NAM recognizes the success of the Resource Conservation and Recovery Act in achieving improved management and disposal of waste streams. In addition, the NAM supports significant voluntary industrial waste minimization initiatives and regulatory changes that provide more flexibility and incentives to minimize volume, reduce toxicity and encourage recycling, reuse and reclamation processes to minimize waste while providing equivalent environmental protection.

ERP-2.06.a. Regulatory Process for Waste

It is imperative that the distinction between hazardous and non-hazardous waste, as well as the distinction between waste and non-waste, continue to be clarified. Regulations should be tailored to address the different types of waste appropriately. Responsible management of hazardous and nonhazardous waste demands that government, the public and industry cooperate in assessing and managing risk and ensuring regulations support various waste activities accordingly, while also seeking to find the highest and best use (reuse) for secondary materials before deciding that the material has no such options other than direct disposal.

The NAM recognizes the primary rights and responsibilities of states regarding land use decisions. The federal government should encourage and support states in their efforts to locate private and public waste management facilities properly within their own jurisdictions. Economic development is dependent on adequate and properly safeguarded waste management facilities, including incineration, landfills and other treatment, storage and disposal facilities. Private ownership and operation of such facilities is desirable.

State responsibility for providing adequate waste disposal and treatment capacity is also recognized by federal law. Federal sanctions requiring states to meet this duty to public health and the environment are appropriate and should be vigorously enforced.

ERP-2.06.b. Waste Management Methods

Adequate management capacity and techniques must be encouraged by the federal government in proportion to the development of new disposal requirements. No reasonably safe method or facility should be banned or prohibited until such time as superior alternative methods and facilities are available to handle the displaced hazardous and non-hazardous waste. The ability of some methods of managing hazardous and non-hazardous waste to mitigate environmental and health hazards has been questioned. When methods are shown to be ineffective and pose an unreasonable risk to human health and the environment, their authorized use should be appropriately modified to reduce risks or discontinued.

Consideration should also be given for products designed with inherently recyclable materials and/or designed for rebuild at the end of an initial useful life. Effective regulation should consider the initial product design, which having met regulatory requirements at the time, may not meet current standards due to a shift in regulations. Equipment designed to be rebuildable should be permitted for recirculation for its intended application instead of becoming waste.

ERP-2.06.c. State and Federal Responsibilities Regarding Waste

State agencies are in the best position to consider and act upon local environmental needs and should have primary responsibility for reviewing and enforcing hazardous and non-hazardous waste management programs. Under existing law, these programs must be at least equivalent to the requirements set out under RCRA.

The NAM supports the EPA's delegation of and state assumption of regulatory authority over hazardous and non-hazardous waste management programs, so long as environmental protection is assured, the states maintain a consistent approach to regulating these programs, and a patchwork approach to waste management is avoided.

ERP-2.06.d. Interstate Transport of Waste

The commerce clause of the U.S. Constitution precludes the states from regulating interstate transport of waste. Companies need maximum flexibility to determine where to dispose of wastes for purposes of waste minimization, recycling, reclamation or treatment consistent with federal regulations. Bans, differential fees and other limiting barriers would prove detrimental to that flexibility.

ERP-2.07. Chemical Safety

The NAM supports human health and environmental protection and is committed to ensuring that chemicals and other products are developed, manufactured, distributed and used safely. NAM members are committed to manufacturing safe, innovative and sustainable products that provide essential benefits to consumers while protecting human health and the environment. No goal is more important than safety to manufacturers. Product safety provides the foundation of consumer trust, and manufacturers devote significant resources to achieve this goal. Every member of the value chain has an important part to play in ensuring the products they use are safe for their intended use, that the end customer knows how to use it safely and that their products have a sustainable end of life. Environmental, health and economic impacts should be reviewed and evaluated in all proposed regulations, with considerations such as risk and cost-benefit assessments. Economic and societal benefits and costs should be considered in risk management determinations. It is of the utmost importance that innovation, safe product development and affordable consumer choice be encouraged and unnecessary barriers avoided.

ERP-2.07.a. Emerging Chemicals and Contaminants

Federal and state government should work collaboratively with manufacturers to ensure a measured and scientifically sound approach to the regulation of emerging contaminants that is protective of public health. The NAM supports efforts to address emerging contaminants that is risk-based and reflects the best available science, makes responsible use of limited resources and results in responsible, protective and pragmatic actions that do not circumvent existing authorities and procedures. The NAM also supports coordinated research and the sharing of best practices on the detection, measurement, risk analysis, remediation and safe disposal to help inform appropriate human health and environmental protection thresholds.

ERP-2.07.b. Toxic Substances Control

The regulation of toxic substances should be administered in a manner that protects health and the environment while avoiding unnecessary adverse economic impacts on business enterprises. The NAM supports chemical reporting requirements that reduce complexity and ensure that reporting occurs at the point of raw materials import in order to coordinate efforts and make global supply chains more transparent. It is of the utmost importance that barriers to innovation and new product development be minimized.

The U.S. chemical management system should be based on credible scientific information. Chemicals posing the greatest demonstrated risk should be targeted through prioritization of chemicals in commerce and specific risks in a given application. Certain chemicals and materials are key to safe operation and long-term durability of manufactured goods. Consideration should be given to actual exposure risk for humans and the environment. Risk to sensitive subpopulations, such as children, should be considered in this process. Tiered and targeted testing should be conducted if necessary information is lacking, and a risk-based process should be used to assess if a chemical is safe for its intended uses. Evaluation of hazard data should be done using a weight of evidence approach as part of a systematic review framework that allows for the use of the most relevant and best science. Regulation and prioritization should consider the degree of hazard and reasonable exposure potential associated with intended uses; provide reasonable time frames for compliance; and ensure transparency, clarity and stakeholder participation. The NAM is committed to working with Congress and the administration to ensure adequate resources and timely implementation of TSCA.

To ensure the flow of interstate commerce, the U.S. chemical management system should be maintained at the federal level to establish and enforce harmonized requirements among federal agencies and states. A “patchwork” approach to chemical management, in which individual states have their own chemical requirements, is ineffective, is contrary to principles of free interstate commerce and decreases the competitiveness of U.S. businesses. To avoid overlap, policies should be coordinated to establish consistent standards and requirements, enhance protection of the public, promote innovation and competitiveness and avoid duplication, public confusion and unnecessary negative economic impacts.

ERP-2.07.c. Use and Source Reduction

Restrictions on manufacturing inputs will reduce the ability of domestic producers to compete in U.S. markets and to supply important export markets. The NAM opposes mandated toxics use reduction because manufacturers are in the best position to determine what products to manufacture and how to make safe, reliable products.

As a regulatory approach, the NAM supports risk management to control the use of chemicals. The NAM opposes phase-outs and bans on the production and use of specific chemicals without a determination of unreasonable risk. Reduction or elimination of chemicals should not be based on toxicity levels or listing rather than risk. The beneficial uses of chemicals to society should be carefully considered in attempts to eliminate risk, as greater or different risks might be incurred from alternatives or their absence. Compliance timelines should provide ample opportunity for strategies that result in environmental benefit and innovation or that strengthen U.S. competitiveness.

ERP-2.07.d. Integrated Risk Information System

IRIS assessments must be transparent: peer reviewed, subject to robust public comment and, when appropriate, subject to enhanced scientific analysis and methods. IRIS must rely on the best available scientific information regarding hazard and exposure, employ consistent and objective methods and models, utilize transparent procedures for evaluating data quality and be uninfluenced by policy. Evaluation of hazard data should be done using a weight of evidence approach as part of a systematic review framework that allows for the use of the most relevant and best science. Public involvement should begin at the problem formulation stage. Assessment of scientific uncertainties at each step of the risk assessment process should be used to help inform policymakers and stakeholders in setting IRIS values.

ERP-2.08. Superfund Reform Principles

NAM members have a substantial interest and concern regarding the requirements and operations of the Superfund program. While the NAM supports Superfund's goal of protecting human health and the environment, the Superfund program often requires an extraordinary investment of administrative, legal and technical resources to obtain limited, if any, environmental benefits. Private sector spending on Superfund also uses funds that could be invested in people, plants and equipment. Retroactive imposition of liability, application of joint and several liability to unrelated parties and imposition of effectively perpetual liability violate basic principles of equity, ignore opportunity costs and cripple efforts to remediate sites by spurring litigation and delaying cleanups.

If Superfund is to achieve its goals in a cost-effective manner, legislative reform should be based on the following principles. First, provide that Superfund is to be used only for sites that present real, significant risks to human health or the environment and that cannot be remediated in a timely manner under other programs, including state voluntary cleanup programs. Second, consistent with the Supreme Court's decision in *Burlington Northern v. EPA*, responsible parties should be held liable only for their fair share of the response costs unless there is no legitimate basis to allocate liability among the responsible parties. Third, avoid years of inaction, protracted allocation and, where possible, litigation, by embracing cost-effective early actions. Such actions could enhance private investment, site redevelopment and urban renewal.

Congress should construct a fair, broad-based funding system that recognizes that the public and private sectors, as well as individuals, have contributed to the creation of Superfund sites. Superfund sites resulted from manufacturing processes and disposal practices that benefitted society, such that the social costs of cleanups at sites without viable responsible parties should be spread over a broad spectrum of taxpayers. Congress should avoid where possible piecemeal reauthorization of Superfund, such as granting carve-outs from liability for municipalities. These will only further damage the program. The EPA and states should select remedies based on sound science, realistic risk assessments and practical solutions incorporating prevailing background conditions. The law must recognize the limits of present technology, the need for practical solutions and site-specific risk assessments that focus on actual or probable exposure scenarios. Congress should limit recoveries for natural resource damages to the amounts needed to restore, replace or acquire the equivalent of any injured natural resources consistent with baseline conditions of the resources. Finally, Congress should provide complete relief from future liability for a party who remediates a site.

ERP-2.09. Product Labeling and Marketing Standards

A product label, when correctly used and understood by consumers, can facilitate consumer understanding. The NAM supports voluntary environmentally sustainable labeling, including electronic labeling, designed to communicate the following: achievement of meeting a standard or criteria; a characteristic for which no current national standard exists; manufacturers' commitment to the environment and protection of human health; the shared responsibility of government, industry and the consumer to create and support the recycling infrastructure; and information pertaining to recyclability, reuse and use of recycled materials.

The NAM encourages the use of uniform, national standards for voluntary labeling. Product claims should be substantiated by the manufacturers. These claims should be supported by uniform, generally accepted definitions and technical standards. The NAM supports enforcement against fraudulent or intentionally misleading claims. Enforcement of labeling should be conducted by the Federal Trade Commission with technical guidance from the

appropriate governmental entities, industry and considering all other technically accurate information.

ERP-2.10. Water Quality Control

Both freshwater and saltwater ecosystems deliver many essential goods and services to U.S. citizens, including raw water for drinking, fish and other aquatic organisms that are used for food, irrigation and livestock water for agriculture and process water to support various industrial activities. Water ecosystems also support recreational activities, including both contact (e.g., swimming) and non-contact (e.g., fishing, boating). The Federal Water Pollution Control Act, as amended by the Clean Water Act, established the objective to restore and maintain the quality of the nation's waters. Through limitations on wastewater discharges, water quality in the U.S. has significantly improved. American industry has made a major contribution to this national effort and will continue to support this objective.

ERP-2.10.a. Pretreatment

The Clean Water Act requires the establishment of pretreatment standards by the EPA for pollutants that interfere with, pass through or otherwise are incompatible with a Publicly Owned Treatment Works, as well as for those pollutants that prevent biosolids use or disposal by such works. These standards are uniform, with no provision for adjustments.

A POTW is a public utility that is financially supported by industry, commercial establishments, institutions and residences. Like other such utilities, POTWs provide necessary services that support employment and economic growth. Many NAM members rely on the services provided by POTWs and thus have an interest in their efficient and continuous operation. The NAM supports pretreatment where it is demonstrably required to protect the operation of the POTW, prevent discharges that would violate the POTW's permit or prevent the generation of sludge that would not meet regulatory standards.

The NAM also supports equitable user charges that are based on the true cost of treating a company's wastewater. The NAM further supports pre-treatment programs that incorporate the flexibility needed to respond to local conditions in cost-effective ways that meet the goals of the Clean Water Act.

The NAM specifically recommends that:

- POTW authorities be allowed to implement their own pretreatment programs, which would include the establishment of local pretreatment standards as necessary to meet established permit conditions;
- All POTW National Pollutant Discharge Elimination System permits be enforced in the same manner as industrial NPDES permits, placing the responsibility for POTW discharges on the municipality in those cases where non-compliance results from POTW deficiencies as opposed to violations of permit limits by indirect dischargers. Noncompliance costs should be allocated accordingly;
- The EPA should retain a role in pretreatment by issuing guidelines to assist POTWs in understanding the elements of the programs necessary to meet the established permit limitations;
- States should be the primary enforcers of POTW permits. Only after a state and POTW have failed to initiate action within a reasonable time after violation of the POTW's NPDES permit should the EPA become involved;

- Each POTW should be solely responsible for its relationship with its customers. Federal or state agencies should not unduly interfere with decisions POTWs make to ensure the adequate treatment of discharges from industrial customers; and
- The NAM also recommends that the EPA consider integrated facilities when establishing categorical pretreatment standards. Some industries have diverse manufacturing operations that are subject to more than one categorical pretreatment standard. In these “integrated facilities,” it may be more cost-effective to combine wastewater from each individual operation for treatment purposes. However, categorical pretreatment standards that apply to separate wastewater streams can be a barrier to such cost-effective pretreatment methods.

ERP-2.10.b. Best Available Technology Economically Achievable

The installation of pollution control equipment by U.S. industry to meet current legal limits has resulted in major improvements in water quality. The NAM believes that the Clean Water Act should be implemented in a manner that protects human health and the environment while avoiding costly treatment requirements and other restrictions on industrial discharges that result in little, if any, additional benefit to the quality of U.S. waters. BAT can be defined, in effect, as the best control and treatment measures that have been or are capable of being used. Given the efficacy of existing treatment facilities in removing toxic pollutants and the unrealistic statutory deadlines for establishing toxic effluent limitations, the NAM makes the following recommendations:

- BAT limitations should be required only where there is a significant toxics problem. A “significant toxics problem” should be defined where present limitations are not protecting receiving waters and where further abatement of toxics would have a measurable, positive effect on receiving waters. Situations where a pollutant is present in the effluent solely as a result of its presence in intake waters should not be considered a significant toxics problem;
- Additional requirements for non-conventional pollutants should not be applied unless required to meet water quality standards; and
- A risk-based approach to the regulation of effluent discharges should be adopted.

ERP-2.10.c. Nonpoint Source Pollution

The relationships between and relative impacts of point and nonpoint sources differ from one part of the country to another, making it difficult to establish a uniform program. What is needed is a balanced approach to point and nonpoint problems that focuses on the water quality of the watershed in question. The NAM, therefore, supports the following:

- More extensive treatment should not be required of any point source dischargers in lieu of regulating nonpoint sources if such treatment will have no appreciable impact on the quality of the receiving waters; and
- Effective management of nonpoint sources of water pollution should be achieved through state and regionally developed programs, taking into account regional differences. The EPA should provide technical and funding assistance, but should not attempt to assume the role of developing a uniform federal nonpoint program.

Congress should stress the need for improving the capability to assess the nation’s water quality, to aid in determining the relative impact of point and nonpoint sources on water quality and the ability of waters to meet their designated uses. Conclusions derived from the data can then be used to better allocate the nation’s resources in achieving our water quality goals.

ERP-2.10.d. Clean Water Act Jurisdictional Issues

The NAM supports the continued use of the term “navigable waters” in the Clean Water Act and opposes overly broad interpretations of that term and the term “waters of the United States.” The term “waters of the United States” should be interpreted to mean waters that are navigable in fact or that have a relatively permanent surface connection to a water that is navigable in fact. The NAM opposes expanded federal jurisdiction over “all intrastate” and “intermittent waters” on the grounds that it raises constitutional concerns and contravenes the intent of the authors of the CWA. The NAM supports a clear and consistent rule that is protective of water quality and that it is within the constitutional limits of the federal CWA authority. The NAM supports continued federal-state partnerships as an effective means of implementing the goals of the CWA. The NAM opposes the expansion of CWA jurisdiction to include discharges to groundwater or another nonpoint source; regulation of such discharges are governed under other statutory authorities (such as SDWA, RCRA, CERCLA) and addressed through state programs.

ERP-2.10.e. U.S. Coastal and Ocean Resources

The NAM supports multiple uses of the nation’s coastal and ocean resources. Current federal environmental statutes allow the nation’s coastal waters to be used for purposes ranging from resource development to recreation and conservation. An overly prescriptive coastal and ocean resources policy will undermine the careful balancing of diverse interests and uses of this very important resource. In particular, Coastal and Marine Spatial Planning should be an informational tool only. It should not be used to preclude economic uses of oceans, the Great Lakes and coastal areas or to block permits for such uses, while balancing the need to protect these vital natural resources.

ERP-2.10.f. Total Maximum Daily Loads

As part of the development of TMDLs, states should assess the technical feasibility and economic practicability of attaining the water quality standard, based on the social and economic impacts of the costs of compliance. TMDL allocations should be developed for pollutants only where appropriate. Other tools should be considered to achieve compliance with applicable water quality standards.

ERP-2.10.g. Whole Effluent Toxicity

The WET program should be based on scientifically sound criteria and implemented in a manner that requires monitoring and follow-up actions only when needed. WET program implementation should appropriately account for the variability inherent in WET testing.

ERP-2.10.h. Spill Prevention, Control and Countermeasure; Definition of Oil Clarification

Further clarification of the term “oil” as it pertains to the SPCC regulations is needed. While the Coast Guard has provided guidance on what constitutes “oil,” the EPA has not. Without a consistent definition or determination process, it is often difficult for industry to comply with SPCC regulations. Some facilities might rely on the Coast Guard’s guidance, but an EPA inspector may disagree with the Coast Guard guidance and find the company to be in violation of SPCC regulations. Given these conflicts, overly conservative assumptions drive up SPCC compliance costs.

The EPA should clarify that SPCC regulations apply only to facilities that have a reasonable potential to discharge oil to waters that are navigable in fact or that have a relatively permanent surface connection to water that is navigable in fact.

ERP-2.11. Groundwater Policy

State governments should retain the principal control and management responsibility for groundwater. Groundwater protection strategy requires a high degree of flexibility and responsiveness to local conditions. The availability of adequate supplies of groundwater for human consumption as well as industrial, agricultural and municipal uses is critical. Multiple groundwater uses must be protected from the potentially adverse effect of municipal, industrial, agricultural and other nonpoint sources, such as septic tanks, surface runoff and antiquated sewage systems. Due to the ubiquity of municipal and nonpoint sources of groundwater contamination and to the impracticality of a zero-release standard in most activities, protection strategies should be based on a use classification of aquifers.

Industrial substances, discharges and releases potentially affecting groundwater are subject to comprehensive regulation through provisions of the Safe Drinking Water Act, FIFRA, RCRA and other state and federal statutes. Federal groundwater initiatives must build upon rather than ignore or duplicate this body of law. In particular, the toxicity, exposure and risk assessments required for listing and standard setting under current law should be preserved. The NAM opposes any attempt to expand the applicability of these or other environmental laws to reach activities with statutory exemptions. Any expansion of EPA authority over statutorily exempt activities must originate in Congress.

The objective of groundwater policy should be to manage this valuable resource for multiple uses. Drinking water standards are relevant criteria only when there is human consumption of the water. Treatment after extraction or conversion to alternative water supplies may be preferable to large-scale groundwater aquifer treatment efforts. Natural attenuation also is a viable alternative to pumping and treating remedies. If a groundwater aquifer treatment effort already is underway, the NAM recommends that the EPA review the remedy to determine if alternate, less energy-intensive options are available.

When aquifer cleanup is the treatment technology selected, the principle of “the polluter pays” should prevail, whether an individual, agriculture, government or industry is responsible. State and local governments, as representatives of the public, should bear the full costs attributable to their own activities and to nonpoint source contamination.

Government should continue to encourage the development of improved technologies for recycling and/or destruction or safe treatment of hazardous wastes and thereby help prevent groundwater contamination and avert costly cleanup efforts. Government should also undertake a program of public education on the causes of nonpoint source pollution in order to get public cooperation in reducing these sources.

Land use, transportation planning, regulation of commercial, residential and industrial development and, in some regions, control over water withdrawal and allocation are essential elements of any nonpoint source pollution abatement program. These matters have traditionally and properly remained largely the domain of state and local governments.

ERP-2.12. Water Conservation

Manufacturers have demonstrated leadership not only minimizing environmental impact to water supplies but also helping to ensure adequate water supplies through conservation efforts. The NAM supports voluntary policies that take a multi-sectoral approach and drive the use of technology solutions and innovation toward water conservation efficiency and reuse to reduce potential risks related to water scarcity.

ERP-2.13. Air Quality Control

The NAM believes that the objectives of the Clean Air Act to protect public health and welfare are desirable and supportable. The NAM believes the best strategy is for companies to expeditiously identify and adopt technological innovations to continue to improve our environment and business opportunities.

American industry spends billions of dollars annually toward air quality protection and has achieved remarkable improvements in air quality. Increasingly, the Clean Air Act is being implemented in a way inconsistent with the original model of cooperative federalism, leaving states with a diminished role. Manufacturers are committed to clean air, but we need policies that support a sustainable environment and economy. The decades-old Clean Air Act should be reformed and modernized to allow for continued improvements in air quality, while being flexible enough to better account for challenges created by extraneous factors, such as foreign emissions, unique geography or topography and technological limitations and benefits exceeding costs.

Because of the enormity of capital expenditure and operation and maintenance costs associated with compliance with federal air quality programs, the NAM believes that federal policymakers should consider thorough, balanced, sound and objective scientific studies before making regulatory decisions. The NAM also recognizes that manufacturers who make market-based decisions to deploy energy-efficient technology also reduce emissions that may fall under the jurisdiction of the Clean Air Act. The NAM recognizes that appropriate use of market-based mechanisms achieve environmental objectives more effectively and efficiently than command-and-control programs.

As a general policy matter, the NAM supports streamlining air quality control regulations that are focused on the manufacturing sector. U.S. industry and regulators continue to struggle with the complex requirements of the New Source Review program. NSR often triggers evaluations that can last for several years when a particular facility attempts to upgrade or install technologies that lead to increased energy efficiency, thus potentially undermining the achievement of appropriate air quality and environmental policy goals. Such obstacles undercut improved air quality by delaying the installation of more efficient technology. The NAM therefore supports ways to streamline and reform NSR requirements, including the development of practical, routine repair, replacement and maintenance exemption provisions.

ERP-2.13.a. National Ambient Air Quality Standards

The Clean Air Act requires federal regulators to review (NAAQS) for criteria pollutants, including particulate matter and ozone, every five years. With the tremendous air quality progress made over recent decades, the NAM supports reform of the Clean Air Act to better address the current challenges that arise during the NAAQS review and establishment process. The NAAQS review process should be modified to incorporate a time frame 1) more consistent with implementation schedules and 2) which facilitates more robust review of the large volume of material relevant to review and setting standards. Implementation guidance and rules and updates to modeling and permitting tools should be in place when the NAAQS is changed or within a reasonable and defined amount of time. NAAQS should be set in a transparent manner with consideration of the public health and welfare, energy and economic impacts, and the standards should be set taking into account background (non-U.S. manmade and natural sources) in order to provide the necessary flexibility for compliance. Furthermore, the NAM strongly supports review of the NAAQS by diverse and well-qualified representatives of the scientific community with relevant expertise, based on sound, peer-reviewed, objective studies. The EPA should not rely on internal re-analyses of published peer-reviewed studies if the EPA's re-analysis has not itself been

individually peer reviewed and published. The NAM encourages the EPA to appoint a broad array of members to its independent advisory panels to promote rigorous and thorough study of proposed regulations based on sound science. In order to facilitate a robust scientific review, the NAAQS review process should be lengthened to 10 years.

ERP-2.13.b. Emission Offsets and Controls Required in Non-Attainment Areas

The basic rule in non-attainment areas is that no new major sources of pollution can be constructed without obtaining a permit that imposes stringent control requirements and requires sufficient “offsets” to ensure progress toward attainment of the NAAQS. Offsets are enforceable emission reductions by existing sources of pollution that are applied to counterbalance the anticipated emissions from new sources.

Offset requirements should be tied to reasonable and available reduction opportunities. Regulators should consider reasonable cost thresholds when establishing these requirements. In some U.S. locations, the availability of offsets is very limited and thus the cost is tremendous. The NAM believes that air quality goals should be commensurate to the expense associated with implementation of those goals.

Federal regulators must recognize the general market principle of diminishing cost-effectiveness of new control technologies to meet more stringent requirements relative to the potential incremental health and environmental benefits obtained. Control costs increase exponentially to achieve minimal incremental benefits as regulators impose requirements approaching a level of “zero risk.”

ERP-2.13.c. Hazardous Air Pollutants

The NAM supports regulation of hazardous air pollutants that pose a threat to public health. However, any such regulation must be based upon sound scientific data that clearly demonstrate a need to protect public health and consideration of the welfare, energy and economic impacts. The EPA’s inability to meet arbitrary deadlines should not trigger automatic regulation. The NAM supports comprehensive reform of the EPA’s listing and delisting process.

ERP-2.13.d. New Source Performance Standard

The NAM believes that NSPS should be streamlined and simplified to provide manufacturers with certainty that they are in compliance with the law. In addition, emission standards should be set considering the costs and benefits of further reductions and do not hinder economic growth and competitiveness. The EPA should focus on what control strategies are available within the fence line. The EPA should also allow adequate timing to demonstrate compliance once an NSPS is triggered.

ERP-2.14. International Environmental Programs

Varying environmental quality control requirements can affect the competitiveness of a nation’s industries in world markets. In order to avoid distortions in international trade, the NAM supports cooperation in international notification and consultation when a nation proposes major changes to its environmental protection programs, as well as in the development of intelligent measures to deal with dislocation or inequities in international trade brought about by differences in environmental standards. Cooperation in gathering and disseminating environmental data and information should also be encouraged.

ERP-2.15. Environmental Justice

The NAM fully supports the non-discriminatory administration of environmental programs. Federal, state and local environmental agencies should administer and enforce all

environmental statutes and regulations in a non-discriminatory manner. The NAM recognizes the importance of economic prosperity to, and its interrelationship with, health and environmental protection. The NAM encourages its members to develop and maintain clear lines of communication with communities that host industrial facilities. More specifically, the NAM encourages manufacturers to work with local communities, local and state governments and the EPA to achieve an open and informed dialogue on their facilities' environmental performance, in order to ensure healthy and safe communities in which they operate.

Additionally, we support:

- The federal goal that no person in the United States shall, on the ground of race, color or national origin, be excluded from participation in, be denied the benefits of or be subjected to discrimination under any program or activity receiving federal financial assistance;
- State efforts to increase dialogue among government officials, local communities and facilities in order to recognize and respond to community questions and concerns about facility operations;
- State development of public participation procedures that will respond to community concerns. State environmental justice procedures should include guidance for early and meaningful public participation. The concerns of interested citizens within the community should be addressed early in the regulatory decision-making process. For example, concerns should be addressed concurrently with the technical review of a permit application, rather than being relegated only to comments on proposed decisions or subsequent, wasteful litigation. States should document the public participation process within reasonable time frames. State procedures also should ensure and document appropriate due process and reasonable time frames for permit applicants to address public participation concerns; and
- An EPA role in developing mechanisms to identify actual exposures to harmful substances using scientifically sound methodologies. The EPA should also ensure that permitting under existing environmental statutes continues to be an agency priority.

ERP-2.16. Facility Security

As a nation, we have demonstrated firm resolve in protecting our critical infrastructures and key assets from terrorist exploitation. In this effort, government at all levels, the private sector and concerned citizens across the country are involved in an important partnership and a commitment to action.

NAM members have a substantial interest and concern regarding requirements and administration of facility site security programs. NAM members prudently engage in risk management planning and invest in security as a necessary component of their business operations and to ensure customer confidence. However, manufacturers have great concern about duplicative government security requirements and federal actions that do not take into account voluntary actions companies already implement.

The term "security" means actions carried out to ensure or enhance the protection of manufacturing facilities' security-sensitive assets, including, but not limited to, employee training and background checks; protection of the perimeter of the facility; protection against and prevention of access to controls of the plant; installation and operation of intrusion detection sensors; and the implementation of measures to increase computer or computer network security.

As public policy or legislative proposals to authorize enforcement of security vulnerability assessments and security plans for private facilities are developed, the NAM recommends adherence to the following principles:

- Avoid chemical elimination or reduction schemes disguised as security measures. The NAM has seen legislation at both the state and federal levels that purport to be based on security concerns, yet the effect would be “toxic use reduction.” The bills, prompted by misusing phrases such as “inherently safer technology,” ignore the commitment to improving safety at every phase of operations. Decisions about IST involve complex process safety issues that require a holistic approach. These judgments should be made by experts in the field rather than by government mandate. Initiatives that focus on IST distract from the real issue of security.
- Recognize security work that has already been implemented by companies and through safety and security management principles from their respective associations. It would be wasteful (and unfair) to require companies to add an additional governmental layer of bureaucracy onto existing industry programs, which often include requirements of other government regulations that include all the necessary components of security. Manufacturers should be deemed to be in compliance if they have implemented an industry standard that is determined to be substantially equivalent to the requirements of relevant federal security law.
- Consider provisions that would recognize work done under existing state, local and other federal regulations/laws. This would avoid disruption of the ongoing security work being completed by manufacturers under the approval of federal and state authorities. Chemicals should be exempted if they fall under an existing federal or state security regulatory program.
- Foster continued information sharing between manufacturers and federal, state and local officials in order to enhance security. Information submitted to the government must be properly safeguarded to ensure against release to the public. Such releases of information could undermine the very security that any legislation or information sharing would seek to enable.
- Promote and recognize voluntary cooperation and agreement among all parties and encourage voluntary actions. Partnerships are currently providing the foundation for developing and implementing coordinated protection strategies.
- Ensure some limitation of liability from civil lawsuits in the event of a criminal or terrorist act. No legislation or rule should be construed to create a private right of action or grant jurisdiction to a court that enables private persons to enforce the law or rule against anyone subject to it. Allow only those parties that are directly subject to a rule to bring a petition for review against a rule, not just “any person.”
- Security investment reflects what is reasonable in light of threat and vulnerability conditions, as well as what is economically justifiable and sustainable in a competitive marketplace or in an environment of limited resources.
- Allow for flexibility in achieving standards established by legislation and recognize that the level of risk and the attractiveness of a target vary from facility to facility, even within the same industry. No federal program should take a one-size-fits-all approach to security and should instead recognize the variable nature of risk, allowing companies to achieve compliance in a way best suited to their particular situation.

ERP-2.17. Circular Economy

Often referred to as “circularity,” a circular economy is a system aimed at minimizing waste and making the most of resources. Unlike the linear model of production, use and disposal, the circular model keeps products, equipment and infrastructure in use for as long as possible and

enables them after use to be reused, remanufactured or recycled back into a raw material or used as an energy source. NAM members support a circular economy model where technologically and economically feasible, as it can improve resource management, product design and environmental performance of products. As referenced by section 2.01., NAM members support data-driven life-cycle analysis practices in the manufacturing sector, as appropriate.

NAM members recognize that a circular economy should increase the efficiency of the manufacturing process at all stages of the product life cycle and may provide the following benefits:

- Reduces negative impacts on the environment
- Increases innovation and supports emerging technologies
- Fosters competitiveness and promotes economic growth
- Creates jobs and new sustainable business opportunities

ERP-2.17.a. Recycling

Recycling continues to be an environmental, economic and societal success story led by manufacturers, many of which utilize recycled materials on a daily basis to make new products that add value to the economy. The private and public sectors have invested billions of dollars in infrastructure enabling citizens and businesses to reduce, reuse and recycle efficiently.

Recycling helps numerous industries reduce their energy use, along with greenhouse gas emissions. Recycling conserves non-renewable natural resources and raw material supply, creates jobs, contributes to the economy and offers consumers an efficient method to reduce their environmental footprint.

The NAM supports the collection, processing and subsequent reuse of recyclable materials. The NAM supports the principles of sustainable materials management, consistent with sections 2.0 and 2.05 of the NAM Environmental Quality and Sustainability Policy. The NAM supports life-cycle thinking as a key tool for manufacturers making informed decisions and understanding the impacts of products including end-of-life options.

NAM members recognize that no one-size-fits-all approach works in recycling, and different commodities may require different approaches or solutions when looking at opportunities to initiate and/or increase recycling. The NAM supports initiatives to identify and promote best practices in capturing recyclable materials to promote and encourage recycling and reuse.

Currently, recycling programs are within the purview of state and local governments. This has resulted in a patchwork of requirements that vary between communities and across states. A patchwork approach to recycling causes confusion for the public and manufacturers, decreases certainty for U.S. businesses that must comply with varied recycling requirements and poses one of the biggest challenges to having a robust recycling infrastructure that produces high-quality recycled materials. To avoid this, NAM members support the development of federal policies that establish consistent recycling standards, which will avoid public confusion and unnecessary negative economic impacts, and that recognize recyclable materials as distinct from waste. Policies should support investments in programs that promote innovation and strengthen America's recycling infrastructure. The federal government and manufacturers, including recycling businesses, must work cooperatively to ensure that policies are adaptable to evolving materials and markets and, when appropriate, credit manufacturers for their use of renewable and recyclable materials in the manufacturing process. The NAM also supports public education to help raise recycling rates and quality.

Market forces should guide recovery and recycling systems:

- As with other goods and commodities, the NAM supports international free trade and open markets for recycling activities and materials.
- An incentivized market would spur investment in the modernization, expansion and/or construction of new infrastructure to support product reuse and recycling.
- Voluntary actions can and should be part of the solution.
- The NAM supports policies that recognize the value of recyclable and recycled materials as economic commodities.

ERP-2.17.b. Sustainable Packaging

The essential purpose of packaging is to protect perishable products, manufactured goods and other items throughout the supply chain, as well as enhance the user and consumer experience. NAM members support sustainable packaging, whereby the packaging is made from renewable or recycled materials and/or the packaging is designed to be reused or recycled. Sustainable packaging saves energy, reduces emissions and minimizes environmental impacts. NAM members are committed to developing and using the best type of packaging to not only protect their products, but also reduce environmental and cost impacts of the resources used for packaging.