Statement of

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on behalf of the

AMERICAN CHEMISTRY COUNCIL

before the

COMMITTEE ON NATURAL RESOURCES

UNITED STATES HOUSE OF REPRESENTATIVES

HEARING ON

Enhancing Energy Security

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My name is Raj Gupta. I am Chairman and CEO of the Rohm and Haas Company, one of the world's largest manufacturers of specialty chemicals. We make technologically sophisticated materials that find their way into applications in a variety of major markets. Most Rohm and Haas products are never seen by consumers; rather, they are used by other industries to produce better-performing, high quality end-products and finished goods. The history of Rohm and Haas has been a series of innovative technical contributions to science and industry, usually taking place behind the scenes.

Rohm and Haas has more than 17,000 employees and annual sales of approximately $5.7 billion. We operate more than 100 research and manufacturing locations in 25 countries. Our worldwide headquarters are located on historic Independence Mall in the heart of Philadelphia, Pennsylvania.

I am also here today on behalf of the American Chemistry Council (ACC), a locally based trade association that represents the nation's leading companies engaged in the business of chemistry. ACC members apply the science of chemistry to produce innovative products and services that make people's lives better, healthier and safer. ACC is committed to improved environmental, health and safety performance through Responsible Care, common sense advocacy designed to address major public policy issues, and health and environmental research and product testing.

The $460 billion business of chemistry is a key element of the nation's economy, providing the building block materials that the rest of the U.S. economy relies upon. It is the country's largest exporter, accounting for ten cents out of every dollar in U.S. exports. Chemistry companies invest more in research and development than any other business sector. Safety and security have always been primary concerns of ACC members, and they have intensified their efforts, working closely with government agencies to improve security and to defend against any threat to the nation's critical infrastructure.

SUMMARY OF TESTIMONY

A hearing on enhancing the nation's energy security could not come at a better time. The nation is facing an energy crisis caused by runaway prices for natural gas. Unless Congress acts to increase domestic natural gas supplies our economy will continue to struggle and we will fall short of our goals for a cleaner

environment.

A crisis of this magnitude poses a grave threat to America's economic and national security. Current energy prices are making it impossible for the US chemical industry, and other critical industries, to compete in global markets. Because the business of chemistry produces the building block materials that the rest of our modern economy relies upon, we are somewhat of a "canary in the coalmine." As we go, so goes the rest of the nation.

In particular, the US chemical industry's economic survival depends on having access to an abundant and affordable supply of natural gas. Natural gas is almost exclusively a domestic energy source, yet we all must operate in a global marketplace. We compete with producers from Asia, Europe, and the Middle East. Current natural gas prices have turned the US chemical industry into the world's high-cost producer. From our perspective, it is not an exaggeration to say that an economic disaster is unfolding in this nation because of dangerously volatile prices in natural gas markets. Critical infrastructures like the chemical industry are extremely sensitive to wild swings in energy prices. Without a secure supply of energy, the industries that contribute to the nation's economic and national security are deeply compromised.

What we are facing is not a seasonal disturbance, but a fundamental structural imbalance in supply and demand for natural gas. America has developed a tremendous thirst for natural gas. It is clean. It is efficient. And until recently, it was abundant and cheap.

Consumers love it for heating their homes. Environmentalists love it because it is clean burning. Industries, including the chemical industry, love it because it is an excellent raw material that makes its way into thousands of products that everyone one of use, every day.

Because we love it, America is using more and more gas. Natural gas used to generate electricity has increased by 35 percent in the past five years and will nearly double in the next decade. Almost all new power generating capacity coming on line in the US is gas fired. Half of new homes are now heated by gas. America is becoming an economy that runs on natural gas.

Unfortunately, the nation's current natural gas supply is running low. Production today is below where it was 30 years ago when Americans were consuming far less.

The paradox is that America has adequate reserves to meet current and future needs. Unfortunately, we can't access those reserves. The most promising – and desperately needed – sources are currently off-limits to development. Some of the most promising supply sources are in areas like the eastern Gulf of Mexico, the northern Rocky Mountains, and off the coasts of North Carolina and California.

In the final analysis, the natural gas crisis is a domestic political and public policy problem. Environmental policies are driving new demand for gas to generate electricity and heat homes. Other policies keep critically needed supplies out of reach. As a nation, we can't have it both ways. We can't crave more and make less.

Appropriate federal policies are needed to ensure a better balance between the supply of and demand for natural gas, and to keep prices at a reasonable level.

Let me use my company as just a brief example of the impact higher natural gas costs can have. Rohm and Haas provides specialty materials that are used to help create products used by people every day – technology that enhances the performance of house paints, home insulation, food packaging, computer chips and electronic devices, laundry detergents, sunscreens, and much more. We are a global producer of specialty materials and chemistry, which last year reported sales of $5.7 billion.

Rohm and Haas operates more than 100 manufacturing plants and research centers around the world – 43 plants in the United States alone. Natural gas is the primary energy source used to keep these plants running. On average, Rohm and Haas consumes about 25 million mmBtus of natural gas a year. Therefore, a $1 increase in natural gas prices increases our costs by $25 million, before hedging.

The prices we are paying for natural gas and raw materials are rising at such incredible rates – and expected to continue to increase significantly in coming months – that we have had no choice but to quickly raise product prices and impose energy-related surcharges so that we can continue to provide customers with products they need and want.

Last week I had to send hand-carried letters directly to some of our most important customers, telling them

of our overriding need to raise prices immediately and to institute energy-related surcharges where needed. Given the outlook for continued increased raw material and energy costs, it is likely Rohm and Haas will have to raise prices further in coming months. We regret having to pass on price increases and surcharges of this nature, but we have no other choice if we are to remain profitable.

THE BUSINESS OF CHEMISTRY IS HIGHLY DEPENDENT ON NATURAL GAS

The current price of natural gas is the chemical industry's number one economic issue. Natural gas is the lifeblood of the chemistry business in the U.S. Not only do we use natural gas as a fuel in our manufacturing processes, much like other industries, but we also use it as an ingredient, or feedstock, for many of the products we make.

Natural gas and natural gas liquids contain hydrocarbon molecules that are split apart during processing and then recombined into useful chemical products. These products include life-saving medicines, health improvement products, technology-enhanced agricultural products, more protective packaging materials, synthetic fibers and permanent press-clothing, longer-lasting paints, stronger adhesives, faster microprocessors, more durable and safer tires, lightweight automobile parts, and stronger composite materials for aircraft and spacecraft. The business of chemistry also makes many of the products that help save energy throughout the entire economy, including insulation, house wraps, lubricants, and high-strength light-weight materials, enabling American industries and consumers to be more energy efficient. The business of chemistry is the only part of the economy that adds value to these hydrocarbon molecules rather than combusting them for energy.

Natural gas accounts for nearly thirty-nine percent of all energy consumption by the business of chemistry. Natural gas liquids that are derived from natural gas or refinery operations account for another twenty-three percent. In total, more than half of the U.S. business of chemistry's energy needs come from natural gas.

On average, more than $1 of every $10 the industry spends on materials is for natural gas. For some petrochemical producers, natural gas represents nearly one-quarter of the cost of materials. And nitrogenous fertilizer producers spend $9 of every $10 for natural gas.

The U.S. business of chemistry has invested billions of dollars in facilities that make chemical products from natural gas and natural gas components. These facilities do not have the ability to switch to other inputs and produce these products. This infrastructure was built based on the competitive advantage the U.S. offered through its natural gas supply.

While the U.S. chemistry business is the nation's single largest manufacturing consumer of natural gas, we are extremely energy efficient in the use of that gas. Through the use of combined heat and power ("CHP") generation, our facilities create two forms of energy - electric energy and thermal energy or steam, and both are put to work. The efficiency rating of many of our CHP facilities is often twice that of traditional electric generators. This efficiency level is further enhanced because the generation is physically located close to where it is used, avoiding transmission line losses. Use of CHP technologies by the business of chemistry accounts for nearly a third of all CHP used in manufacturing. And through the use of CHP technology, the business of chemistry has reduced its total fuel and power energy consumption per unit of output by more than forty-three percent since 1974. Nonetheless, our industry's natural gas fuel needs remain substantial.

Because of our industry's duel use of natural gas, as well as our significant presence in the U.S., the business of chemistry today accounts for eleven percent of domestic natural gas consumption, second only to electric utilities. As a result, changes in the natural gas market, such as constricted supply and inflated prices, have a particularly severe impact. In order for the domestic business of chemistry to remain competitive in the global marketplace and to be able to continue to provide employment and other benefits here at home, it is essential that measures be taken to increase natural gas supplies and to make these supplies available at reasonable prices.

NATURAL GAS DEMAND IS INCREASING, SUPPLY IS SHORT, AND PRICES ARE HIGH

The recent history of natural gas prices is a study in commodity price volatility. On January 4, 2000, the average spot price of natural gas at the Henry Hub was $2.15 per mmBtu. On January 5, 2001, the price had spiked up to $9.82 per mmBtu. On January 4, 2002, the price was $2.36 per mmBtu and on February 26, 2003, the average spot price at the Henry Hub exceeded $19 per mmBtu. While this extreme volatility is indicative of a very tight supply situation in general, the more worrisome aspect of the experience of the last

three years is what it foretells for the long-term. Historically, when gas prices began an upward climb, producers responded to the higher prices by drilling more wells, which produced additional supply and consequently lowered the price.

Our experiences over the past few years have not followed this history. Although gas producers responded to the extraordinary high prices of 2001 by greatly increasing the number of wells drilled, this activity did not lead to a commensurate increase in supply. The supply of natural gas actually increased only marginally during 2001 despite record high levels of drilling rigs operating. The price decline from January 2001 to January 2002 was a result of what economists call “demand destruction,” brought about by a mild spring and summer and, ominously, the closing or curtailment of manufacturing facilities. In other words prices dropped not because supply increased, but because demand decreased.

The reaction of producers during this most recent price run-up is much more cautious. Fewer new rigs are going into the fields and gas production has not responded to higher prices. This “Catch-22” response of producers not placing new rigs in service because they are fearful that prices will drop before they can recoup their costs only serves to keep the price high.

A disturbing reality of the U.S. natural gas market is that nearly 70% of it is price insensitive. This means that 70% of gas consumers have no option to either stop using energy or to use a different form of energy and must pay whatever the price is for the gas they need. The remaining 30% of demand, predominantly industrial manufacturers, can adjust to gas price swings by switching to more reasonably priced fuels or by ceasing to operate their manufacturing facilities. It is in this 30% that demand destruction occurs. In the past, this demand destruction generally has been temporary. Higher prices led to increased production and lesser demand, thereby increasing supply and moderating prices. Once prices returned to more economic levels, industrial consumers switched back to natural gas or restarted idled facilities.

In light of recent trends – record numbers of working drill rigs in 2001 did not increase supply; more stringent air quality regulations that limit or eliminate the ability to fuel switch; ever increasing demand for natural gas from price insensitive users -- there is a significant risk that this historical pattern will not repeat itself. Rather, ACC is concerned that temporary demand destruction may become permanent demand destruction for many of its members.

THE IMPACT OF HIGH GAS PRICES

Restricted supplies and high prices for natural gas severely limit the ability of U.S. chemical manufacturers to remain competitive with foreign competitors. The business of chemistry in the U.S. is concentrated in the Gulf Coast region largely because of the region’s proximity to a traditionally abundant, low cost supply of natural gas resources. While about seventy percent of U.S. petrochemicals production uses natural gas as a feedstock, the same percentage of producers in Western Europe and Asia use naphtha, a crude oil derivative. Unlike crude oil, the price of which is set by the global market, natural gas is not as broadly traded, with the result that price increases for natural gas in North America are felt only in North America. For many years, the U.S. business of chemistry enjoyed the benefit of relatively low cost feedstocks relative to our foreign competitors, enabling the industry to become the global leader in chemical products. A tightened natural gas market and soaring natural gas prices, however, put this position in jeopardy. For the business of chemistry, experience shows that, although this number fluctuates depending on the price of crude oil, the price for natural gas at which we become unable to compete in global markets is between $3.25 and $4.00. Current prices are hovering around $6.00.

High natural gas prices significantly cut into our industry’s profitability. For every one-dollar increase in the price of natural gas, over the course of a year, our industry incurs approximately $4.2 billion in additional costs. Yet, because we compete in a global market, U.S. companies are unable to pass these added costs for natural gas along to their customers if our products are to remain competitively priced with those produced by our foreign competitors. In 1999, when the price of natural gas averaged $2.27, the operating margin for basic chemical companies was 6.8%. In 2001, when the price of natural gas rose to an average of $4.27, the operating margin dropped to 0.6%.

High natural gas prices also negatively impact productivity and employment in our industry. In any industry, a company faced with declining profitability must evaluate whether or not to continue operations. During the 2000-2001 “spike” in natural gas prices, many companies idled their operations. About fifty percent of the industry’s methanol capacity and fifteen percent of the industry’s ethylene capacity were simply shut down during this time. Many workers were sent home. As natural gas prices came down plants reopened. These

relatively short-term increases in natural gas prices led to relatively short-term shutdowns. However, there are serious questions regarding how these companies will respond over the long-term if faced with a business environment with sustained conditions of tightened natural gas supply and high natural gas prices. For our employees, demand destruction sooner or later becomes job destruction.

As the largest industrial consumer of natural gas in the United States, the business of chemistry has been severely affected by these steep increases in natural gas prices. Prior to the run-up in gas prices in 2000 and 2001, the business of chemistry, America's largest export industry, contributed one of the nation's highest positive trade balances. Today, after two years of high gas prices, our industry is facing a negative trade balance for the first time ever. High U.S. manufacturing costs, tied to inflated natural gas prices, allow foreign competitors, who do not face the same elevated energy and feedstock prices, to become low cost producers and capture market share at our expense. This has resulted in thousands of jobs lost and plants shut down, and the movement of investment capital overseas.

Here are some specific examples of the dramatic effect that the 2001 spike in natural gas prices had on companies in the business of chemistry:

Ø Almost one-half of the nation's methanol capacity and one-third of its ammonia capacity were shut down. Five years ago, the U.S. was relatively self-sufficient for its methanol needs. Now, we import about the same amount of methanol as we do crude oil.

Ø Ethylene capacity dropped between ten and fifteen percent, with at least five percent of this drop due to plant shutdowns. Net trade in ethylene was at one-fifth of the 1997 level in 2001.

Ø The Gulf Coast region's economy, where most of the U.S. petrochemical industry is located, was hit particularly hard with widespread job losses due to plant shutdowns. In Louisiana alone, for example, over 2,000 jobs have been lost over the last four years just in the ammonia industry.

Ø Historically, ethylene production based on U.S. ethane (from natural gas) has had the lowest cost per pound after the Middle East, which has abundant inexpensive natural gas resources. However, in 2002, that low cost position was eroded. In 2002, ethylene production costs rose globally as the price of oil also rose above historic levels. Natural gas experienced higher price increases relative to oil, however, with the result that U.S. ethane-based production lost its clear low cost position.

The recent price run-up in prices has resulted in similar problems for the industry which is still struggling to recover from 2000-2001. The Dow Chemical Company moved 1.4 billion pounds of production from the U.S. to Germany in large part because of high energy costs. For the first time in the history of our industry, energy costs in Europe our substantially below those in the U.S., leaving domestic industries at a disadvantage. Many other manufacturers are curtailing or shutting down production because they cannot manufacture products at a price that would be competitive with imports from nations with lower feedstock prices.

Although the impact on our business is felt particularly hard, the chemical industry is not alone. For example, the U.S. fertilizer industry is similarly dependent upon natural gas and similarly affected, as are its customers, America's farmers. Imports of nitrogen and ammonia from Russia and elsewhere are gaining increasing market share as U.S. producers of these agricultural commodities are bested on price.

As more and more U.S. manufacturers shut down and production moves overseas, not only does our nation lose those jobs, but we also become increasingly reliant upon other nations for the materials upon which we have built our modern economy, our agricultural base and our national defense. Further down stream, U.S. consumers also are negatively impacted in everything from increased home heating and electricity costs to higher prices on consumer goods as production costs rise. Those at the lower end of the income scale are particularly hard hit where their choices often are between heating their homes or purchasing food and needed medicine.

POLICY RECOMMENDATIONS

The U.S. economy, especially the manufacturing sector, is in the midst of the "other energy crisis," brought on by dangerously volatile natural gas prices. The nation's chemical industry, as the largest industrial user, is particularly hard-hit, with plants being closed and jobs being lost.

As the House Resources Committee prepares its part of the Comprehensive Energy Bill, it should consider these three solutions:

Increase Production Now – It's unarguable that the country is facing a fundamental structural imbalance in supply and demand for natural gas. For example, natural gas use to generate electricity has increased by 35 percent the past five years and will nearly double in the next decade. Production, on the other hand, is below levels of 30 years ago when we were using much less. We need more gas and the most promising supply source is in the area in the eastern Gulf of Mexico known as Lease Sale 181. The gas is there and the transportation structure is in place. Congress should direct the Department of Interior to make available for leasing all tracts within Lease 181. Gas from the area could be flowing to homes and manufacturing plants within 18 months and have a significant downward impact on today's high prices.

Provide for Long-Term Production – Congress should suspend all existing statutory and administrative moratoria on oil and gas production in the waters of the United States, including waters off the East and West Coasts. In addition, the Department of Interior should be directed to make federal lands in the Rockies available for development as soon as possible and Congress should take the appropriate steps to encourage the construction of infrastructure needed to bring that gas to market.

Conservation – Natural Gas storage levels are at an all-time low. If the water supply was at a comparable level, a drought would be declared and use restrictions would be put in place. The fastest short-term solution to re-balance natural gas and to fill the reserve that's needed for next winter is to curb demand. Congress should direct the federal government immediately reduce its energy consumption and provide incentives for states and consumers to do the same.

Energy Diversity – Natural gas is an excellent fuel source, but our over reliance in the absence of adequate supplies set us the course that resulted in last months record high prices. America must utilize its resources strengths and continue to make responsible use of all available energy sources including coal, nuclear and renewable energy.

For the U.S. chemical industry, economic survival depends on having access to an abundant and affordable supply of natural gas. Every recession since World War II has been proceeded by a steep increase in energy prices. In the past it's been the cost of oil. This time, it may by natural gas, the "other" fuel and the hidden energy crisis.

The time has come to pay the piper. The nation can't have it both ways – if we want to use more natural gas for environmental and other socially responsible reasons, we need to produce more. This is not a usual supply and demand problem that will be fixed by market forces. Congress created the problem, and is the only body that can solve it.

Thank you again for giving us the opportunity to present our views and concerns. We stand ready to discuss these issues and potential legislation, and to assist the Committee in any way we can.