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CF Industries, Inc. (CF) is pleased to have the opportunity to present a statement on energy supply and demand issues affecting the agricultural sector of the United States. We welcome the opportunity to discuss how the current energy situation has affected the fertilizer industry over the last eight months and what we forecast the impact will be in the months to come. We strongly support the need for a comprehensive energy policy that focuses on adequate supply sources to aid strategic industries such as ours.

CF Industries is a farmer owned cooperative and is one of the largest nitrogen fertilizer producers and marketers in North America. We operate world scale production facilities in Donaldsonville, Louisiana and Medicine Hat, Alberta, Canada. CF and its Member cooperatives account for approximately one-fourth of the nitrogen fertilizers used in the United States and approximately one-third of the nitrogen fertilizer used in the primary growing areas of the Midwest. The Company also produces and mines phosphate fertilizers in Plant City and Hardee County, Florida. Through its nine member owners, CF's nitrogen and phosphate fertilizer products reach farmers and ranchers in 48 states and two Canadian provinces.

Today, I am testifying on behalf CF Industries and The Fertilizer Institute (TFI). TFI is a voluntary, non-profit trade association of the fertilizer industry. TFI's 200 member companies include producers, manufacturers, distributors and retail dealers of fertilizer and fertilizer materials. In addition, we endorse the testimony being given today by the National Council of Farmer Cooperatives (NCFC). CF is also a member of the NCFC.

My purpose today is to discuss the devastating impact that the sharp rise in natural gas prices is having on both the fertilizer industry and on the American farmer. To fully understand the

impact of increased natural gas prices on the fertilizer industry, a basic understanding of our products and production process is necessary.

Natural gas is the primary feedstock in the production of virtually all commercial nitrogen fertilizers in the United States. The production process involves a catalytic reaction between elemental nitrogen derived from the air with hydrogen derived from natural gas. The primary product from this reaction is anhydrous ammonia (NH3). Anhydrous ammonia is used directly as a commercial fertilizer or is used as the basic building block for producing virtually all other forms of nitrogen fertilizer such as urea, ammonium nitrate, nitrogen solutions, diammonium phosphate and mono-ammonium phosphate. Natural gas is also used as a process gas to generate heat when upgrading anhydrous ammonia to urea.

Natural Gas	+	Air	$\longrightarrow$	Anhydrous Ammonia
(CH_4)		(N_2)		(NH_3)

Since natural gas is the only raw material used in producing nitrogen fertilizers, it is by far, the primary cost component. In fact, in the case of ammonia, natural gas accounts for 75 to 90 percent of the total cash cost of production.

Given this heavy reliance on natural gas, it is easy to understand the devastating impact that the recent rise in natural gas prices is having on the fertilizer industry. This can be clearly demonstrated by comparing natural gas costs, production costs and U.S. nitrogen fertilizer operating rates over the last year and half. In January of last year, natural gas prices at the Henry Hub were averaging $2.40 per million Btu (MMBtu) and the cost to produce a ton of ammonia for a typical Louisiana producer was approximately $100 per ton. At that time, the U.S. nitrogen industry was operating at approximately 90 percent of capacity. During the first half of 2000, natural gas prices began to steadily increase and by the end of June had increased to over $4.00 per MMBtu. Production costs rose to almost $170 per ton and the industry operating rate fell to 71 percent. Most of the natural gas consultants at that time thought prices had peaked. Unfortunately, they were wrong. As everyone knows, natural gas prices began to soar during the second half of the year and by the end of December had climbed on a daily spot basis to over $10

per MMBtu. Fertilizer production costs also soared to well over $300 per ton. Not surprisingly, the industry was forced to shut down capacity with the industry operating rate falling to 57 percent in December and to a record low 47 percent in January. To put this into perspective, the average annual U.S. operating rate during all of the 1990s was 92 percent.

Natural gas prices have recently moderated somewhat from the record highs in December and early January. The lower prices have allowed the U.S. industry operating rate to move back into the 75-78 percent range. However, under today's natural gas prices, the industry is, at best, operating in a cash breakeven position with many plants running for the sole reason of meeting spring season supply commitments. Based on recent press releases and industry publications, the U.S. operating rate is likely to drop back into the 50-60 percent range by the end of June.

The sharp rise in natural gas prices and the resulting curtailment of U.S. fertilizer production has also had a dramatic impact on fertilizer prices throughout the marketing chain and, in particular, at the farm level. Nitrogen prices at the farm level jumped this year to record high levels. Based on a recent survey, the U.S. average farm level ammonia price, for example, has jumped to between $385-$400 per ton. This compares to an average of the last two years of $219. Urea prices have also jumped from a two-year average of $188 per ton to $280 and UAN from $129 to $200 per ton. This translates into an increase in cost to a typical Midwest corn farmer of anywhere from $15 to $20 per acre.

Absent a substantial long-term reduction in natural gas prices, the U.S. domestic nitrogen fertilizer industry and, therefore, farm level supply, is at serious risk. Of the nineteen million tons of capacity in the U.S., approximately one million tons has already been permanently closed. According to an analysis recently completed by Blue, Johnson and Associates, another five million tons could possibly close within the next two to three years. In addition, it is anticipated that the remainder of the industry will likely operate on a "swing basis." That is, plants will only run when natural gas prices are low enough and/or fertilizer prices are high enough that producers can, at a minimum, cover their cash costs of production.

So what does all of this mean to the American farmer? To fully answer that question it is

necessary to provide some additional background information. Since the 1940s when commercial fertilizers were introduced into the market on a large scale basis, farm demand for nitrogen fertilizers was always supported by a large, efficient, domestic fertilizer industry. During the 1990s, for example, approximately 70-75 percent of the nitrogen fertilizers consumed by American farmers was supplied by domestic production with another 15 percent supplied from nearby Canadian plants. The remaining 10-15 percent of the volume was sourced from offshore suppliers.

At the heart of the domestic fertilizer industry are production facilities designed to manufacture fertilizer products on a daily basis for the entire year. Many of these facilities are located near the source of raw materials but, far from the major consuming regions. Furthermore, it is important to note that most U.S. nitrogen fertilizer is consumed within a very short time frame in the fall and spring application seasons. As a result, an extensive distribution and storage infrastructure has been developed over the years to bridge this geographic and seasonal gap and ensure that American farmers would have adequate supplies at the right time. This system was specifically designed to move and handle large volumes of product from domestic production sites to the major consuming areas. Thus, the distribution and storage infrastructure is purposely integrated into the domestic production system to insure efficiency, economies of scale, and reliability of supply.

Under a scenario of continued high natural gas prices and further curtailments and closures within the fertilizer industry, U.S. farmers will likely be faced with increasing supply uncertainty and continued high prices. This year gave us a sense of the uncertainty to come. In December and January when the U.S. industry-operating rate fell to record lows of fifty percent, it was evident that there would not be enough supply to meet farm level demand. This was despite the fact that the U.S. production shut downs and increasing prices were attracting record volumes of imports. Fortunately, warmer than expected temperatures resulted in lower than projected natural gas prices. This allowed the U.S. industry to bring production back on stream and fill the potential shortfall in supply. It is clear that if natural gas prices had remained in $8.00+ range in January and February, U.S. production would have remained curtailed and imports would not have been able to fill the void.

Longer-term, a scenario of continued high natural gas prices will undoubtedly lead to more U.S. plant closures, abandonment of marginally profitable infrastructure to rural communities, and increased imports. While higher volumes of imports could help fill part of the potential loss in U.S. supply, domestic production and distribution will have to remain viable to fully meet farmer demand. As I mentioned previously, the current distribution and storage system within the U.S. was constructed around a U.S. supply base. Consequently, there is limited infrastructure to offload, store and transport larger and larger volumes of imports. The lack of infrastructure is particularly apparent for anhydrous ammonia, which requires specialized tanks, pipelines, railcars and barges. Massive new investment and considerable lead-time will be needed if the existing infrastructure assets are left permanently stranded.

Increased reliance on imports would also result in a considerable increase in the potential for supply and price volatility. The vast majority of the U.S. industry was constructed to meet U.S. demand. Offshore supply, on the other hand, was constructed to opportunistically compete in a world market. In other words, cargoes are sold and shipped to those markets that will yield the highest netback prices. Imports are also subject to changes in world economic conditions, fluctuating exchange rates, and political and/or policy changes in other countries. A classic example of how policy changes in other countries can impact world markets occurred in April of 1997 when China banned all urea imports. Up until that point, China was by far the world's largest importer of urea. The world market was immediately thrown into turmoil. What China will do in the future is anybody's guess. However, a lifting of the ban could easily and suddenly tighten world markets and divert potential tonnage away from the U.S. market.

Increased U.S. reliance on imports will not result in lower prices for U.S. farmers. Nitrogen fertilizers are a fungible commodity product where market prices are set by supply/demand conditions and, therefore, by the cash costs of the marginal producer. Under a continued environment of high natural gas costs, the marginal supplier to the market will be the U.S. producer. Consequently, higher import volumes will not translate to lower prices to U.S. farmers.

From the standpoint of the American farmer, it is very important to recognize that a large percentage of the domestic nitrogen industry is owned and operated by farmer owned cooperatives. This includes almost 30 percent of the total U.S. ammonia capacity and approximately one third of the total U.S. urea and nitrogen solutions capacity. Further, it is estimated that approximately half of the total nitrogen fertilizers consumed in this country is moved through the farmer-owned cooperative supply and distribution system. Consequently, closure of the U.S. industry would directly impact farmers through their investment in the cooperative system as well as their ability to purchase product – particularly in remote, rural communities.

In our opinion, high energy prices present the most serious threat to the fertilizer sector and to farmers in general, since the energy shocks of the 1970s. The fertilizer industry believes that is essential the U.S. develop a comprehensive and balanced energy policy – one that encourages the development of additional supplies and, at the same time, promotes the efficient use of a variety of energy sources and technologies.

More specifically, the fertilizer industry supports a thorough review of those policies that severely restrict oil and gas production on multiple-use federal lands and large portions of the continental shelf. We believe that access to these reserves can be substantially beneficial towards meeting the nation's energy needs without compromising other legitimate interests.

In addition, the fertilizer industry also believes that it is imperative that a complete review be conducted of those policies and regulations that have artificially encouraged the demand for natural gas over other fuel technology for electric power generation. The tremendous delays and burdens involved in re-licensing hydroelectric power plants, vigorous EPA enforcement activities against coal-fired power plants, and the innumerable re-licensing and spent fuel storage issues associated with nuclear power plants, have left natural gas as the only practical fuel for new electric power generation plants.

The fertilizer industry believes that a balanced and comprehensive energy policy is not only long overdue, but also essential to the long-term viability of both the U.S. fertilizer industry and the American farmer.

Thank you for the opportunity to discuss these issues with you today. We look forward to working with you over the next few months and I would be pleased to answer any questions you may have on the fertilizer industry and natural gas pricing issues.