

THE JEFFERSON ISLAND DISASTER

By 1980, Diamond Crystal's Jefferson Island mine was accounting for more than half of the total tonnage produced by the company. In huge rooms carved from the purest rock salt deposits known in the world, men labored under 75-foot ceilings at a depth of 1,500 feet. On the morning of November 20, 1980, forty-eight Diamond Crystal miners descended into the mine to begin their shift.

The 1,500 foot level was the fourth level worked in the mine's sixty-year history. Previous levels at 800, 1,000, and 1,300 feet were worked as far toward the edges of the dome as was safe. The majority of the underground horizontal tunnels lay deep under the floor of Lake Peigneur, which surrounded Jefferson Island and was connected to the Gulf of Mexico by a canal.

Topside, on a rig sitting out in the lake, drillers had been working all night driving an exploratory hole in search of oil. As the petroleum industry has long known, oil is often found in close proximity with such salt deposits.

At 5:00 a.m., the rig's drilling pipe had gotten hung up and started to vibrate violently. When the platform began to list severely, the drilling crew headed for shore. At 8:30 a.m., the huge rig toppled over and disappeared into a lake that was only three to six feet deep. Half an hour earlier, a leak was reported in the mine below.

At 8:30 a.m., the mine lights

flashed three times, the signal for evacuation of the mine. Instructions called for miners to leave the work stations and proceed to the shaft as soon as they saw the signal.

Safety is a major concern to everyone, but particularly to those who work underground to extract minerals. Federal and state governments have safety regulations, and mining companies have corresponding safety rules and procedures. At Jefferson Island, the company mine rescue teams were among the best. They had consistently won contests sponsored by the U.S. Bureau of Mines. Diamond Crystal had worked hard on mine safety, and federal officials considered its safety record and programs "exemplary."

"You can sit in St. Clair and write safety instructions until you are blue in the face," said Charles D. Cronenworth, then the company president, "but only if everybody participates as they did in the mine drills will the program work."

Wilfred Johnson, a fifteen-year Diamond Crystal employee, was driving toward the area of the reported leak at the 1,300 foot level. He could see that water was two feet deep in some areas at the 1,300 foot level.

The safety drills called for him to check and be sure that each miner on the shift had seen the emergency light signal and was proceeding with the evacuation. To

do this, he had to descend to the 1,500 foot level, where most of the miners were working. All of these miners returned to the 1,300 foot level, only to discover that the access to the shaft there was cut off by water. The contingency plan in this event was to proceed to the shaft station at the 1,000 foot level. The miners ascended to that level, and, eight at a time, were taken to the surface. Johnson and others who had helped direct the evacuation came up on the last trip. Later federal officials called the calm and orderly evacuation "a real guts performance."

Even when all of the miners were safely on the surface, the extent of the disaster that was taking place was not fully realized. The drilling rig had evidently punched into the outer workings at the 1,300 foot level, and Lake Peigneur was pouring into the mine. It was not long before the effects of the disaster could be seen on the surface.

A whirlpool had formed where the drilling rig had disappeared. At 11:30 a.m., the large river barges used to transport salt through the Delcambre Canal began to be sucked into the whirlpool, where they disappeared completely. Soon the water level in the lake was sinking rapidly. As it got lower than the shallow canal, the water in the canal began to run backward into the lake. Soon a huge waterfall had been created,

with the once calm canal running backward in a torrent of mud and water. Parts of the lake shore and lake bed were sucked away.

In spite of the water flow from the canal, by 2:30 that afternoon the lake bed was virtually empty. Along the shore, land had slid into the lake and taken with it such landmarks as the Rip Van Winkle Gardens, a pet project of former Jefferson Island mine owner L. Lyle Bayless, Jr. That night the flames from a ruptured gas well lit the unbelievable scene.

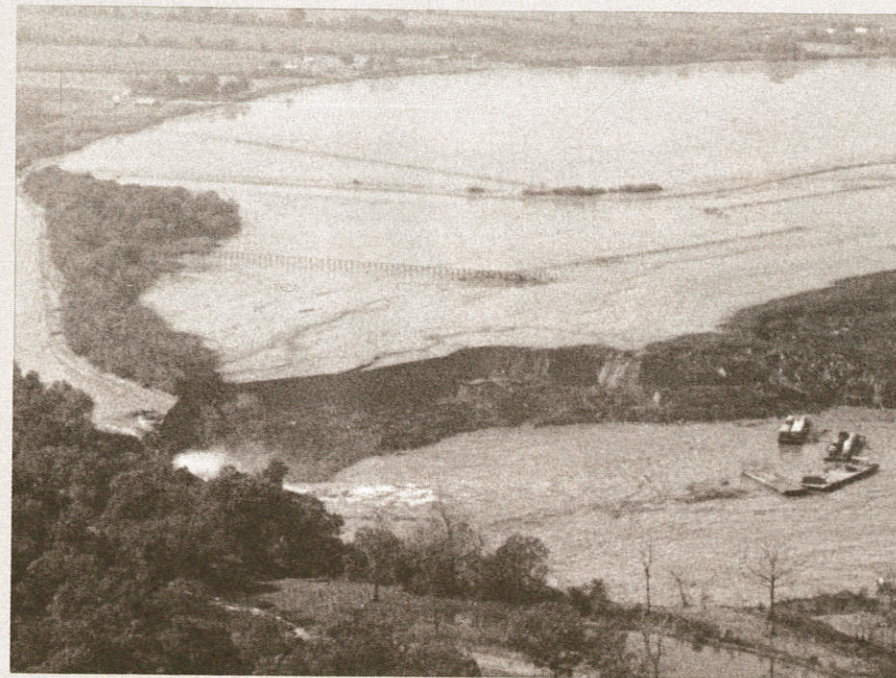
Miraculously, everyone in the mine had gotten out alive. However, the mine itself was destroyed. As the lake gradually was refilled with water that poured from the Gulf of Mexico through the Delcambre Canal, some of the lost

barges began popping to the surface. They would never be used to haul salt from the Jefferson Island mine again.

Diamond Crystal moved immediately to recover the severe loss it had sustained from the mine's flooding and filed suit the next day (November 21, 1980) in Lafayette, Louisiana against Texaco Inc., the proprietor of the oil rig which had, from all appearances, caused the flooding by drilling a hole through the edge of the roof at the 1,300 foot level of the mine. The size and complexities of the litigation grew exponentially as dozens of cross claims, counter claims, and auxiliary claims were asserted in the suit by an ever-growing list of injured parties.

After several trial dates had

been scheduled and postponed and scores of depositions had been taken and digested, trial of Diamond Crystal's suit was scheduled to start on July 6, 1983, more than two and one-half years after the flooding. But on July 1, literally on the courthouse steps, a settlement of all Diamond Crystal's claims was reached, under which it received \$32,000,000 in cash. The company had received \$10,000,000 from its insurance companies soon after the loss occurred. As part of the settlement, \$3,500,000 of the insurance proceeds was repaid. Thus, before taxes and costs of litigation, Diamond Crystal recovered \$38,500,000 for the loss of the mine.



The Jefferson Island disaster. By 1:15 pm, the barges on the right were stuck high and dry on mud flats. The waterfall formed by the rushing in of the Delcambre Canal is visible in the left center of the photograph.

RECOVERY AND THE FUTURE



New products in the 1980s.

Charles D. Cronenworth remembers very well the impact of the loss of the Jefferson Island mine.

"It cast a pall over our other operations, though they were completely unrelated," he recalls. "Our competition was saying things that customers and others were perceiving as evidence that this was the end. We did lose a lot. Besides seriously affecting service to our many customers who depended on us—customers like the Olin Corporation, which relied exclusively on our company for some half-million tons a year—we lost sixty percent of our after-tax profits with the Jefferson Island mine out of operation.

"However, when the Bureau of Mines and the Environmental Protection Agency allowed us to return to the site again, we cranked up the surface operations and got back into the production of evaporated salt at Jefferson Island. We started bringing rock salt in from other mines and processing it. We felt it was necessary to show that Diamond Crystal had the strength, courage, and capability to re-establish an operation and to service our customers. Everyone involved helped us to show our resilience and tenacity."

What followed were times of hard decisions and belt-tightening. The situation was made even more serious by the severe recession that hit the country during that time. "The loss of the mine not only impacted on our sales," company stockholders were told in the 1981 annual report, "but also on our entire organization as we endeavored to cope with the immediate serious problems of personnel, salt supply, customer confidence,

and overall employee morale . . . Management acknowledges the commendable performance throughout the year of all the men and women who are the Diamond Crystal Salt Company."

With everybody pitching in, the company slowly began to recover from the damaging blow. Sales efforts were stepped up, product development was further emphasized, and a policy of diversification was adopted. The negative claims of competitors were countered, and customers were drawn back. The work load brought on by the legal complexities of the disaster was enormous and extraordinary, and Diamond Crystal's legal counsel deserved a special tribute for achieving a successful conclusion in the litigation.

A painful, but necessary, decision was made to shut down and sell the Bahamas operation, so that company resources could be used for the diversification efforts. Net sales continued to increase each year, although net income in fiscal 1981 was severely affected by the mine loss.

As is often the case, the difficult times prompted a thorough examination of all of Diamond Crystal's activities, at first with an eye toward recovery and then with an eye toward the future. Simply getting back to where things were was not enough. The company was nearly 100 years old, and it hadn't stayed in business that long by just holding the line. If Diamond Crystal was to prosper during its second century of business, it had to do more than resume business as usual.

While controlling costs and maintaining customer

relations were major goals during recovery, diversification and expansion became the long-range aims of the Diamond Crystal management. In 1982, Diamond Crystal was in a position to purchase Dietary Specialties, Ltd.—makers of a line of low sodium seasonings, soups, sauces, and gravies, which was primarily marketed to the institutional trade—to add to its Packet Products line. The company's new DC Transport trucking subsidiary was given the money and backing to expand its operations.

Diamond Crystal also entered into a project with Consumers Power Company of Michigan and a Canadian LPG brokerage firm to develop underground storage facilities for liquid petroleum gas, using cavities carved out during salt extraction.

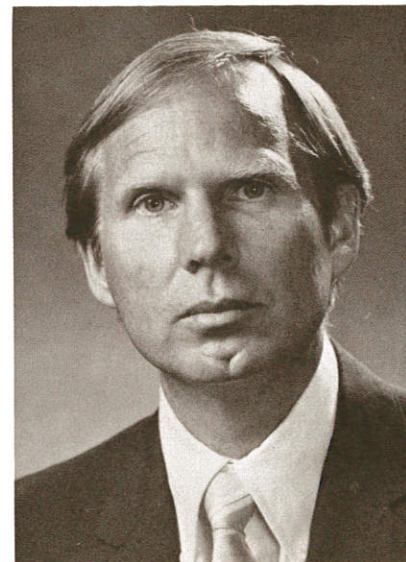
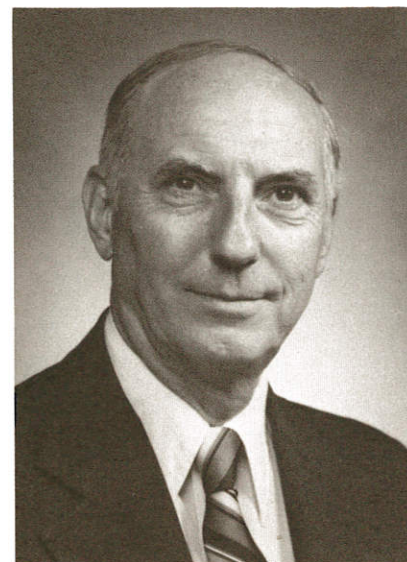
Diamond Crystal was restructured into a Salt Division and a Packet Products Division to aid the diversification efforts, and other acquisitions were being explored. "We believe it is important that we proceed cautiously," stockholders were told, "and only consider an acquisition of a top quality company with above average return on investment and growth potential." Although the deal didn't go through by the choice of Diamond Crystal, negotiations in 1982 to acquire a major salt company let the industry know that Diamond

Crystal was back as a company to be reckoned with.

In 1982, board chairman Franklin H. Moore died. He was replaced as chairman by Frederick S. Moore, son of Charles F. Moore.

By 1983, Diamond Crystal had reached \$85.8 million in sales. Packet Products accounted for \$18.5 million, up from \$12.1 million in 1979. In the Salt Division, sales for water conditioning hit \$17.4 million, food processing brought in \$16 million, and industrial customers accounted for \$15.9 million. Consumer, agriculture, and government sales accounted for \$7.9 million, \$6.5 million, and \$2.8 million, respectively.

By 1985, Weather-Pruf salt, a traditional number-one seller in New York and New England, had become popular in Florida, thanks to a sales and advertising campaign emphasizing its ability to pour freely even in damp and humid conditions. The company also enjoyed good sales of its water conditioning products. The DiCromat salt analyzer had become an industry standard and was being used by customers ranging from Campbell Soup to Nabisco. More and more, though, Diamond Crystal's strategy was not merely to increase sales volume, but also to emphasize the value-added dimensions of its business.



(Left) Charles D. Cronenworth, President and Chief Executive Officer, 1975 - 1985.

(Middle) Frederick S. Moore, Chairman of the Board.

(Right) Roy C. Satchell, President and Chief Executive Officer.

THE HARDY SALT COMPANY

The Hardy Salt Company, which joined the Diamond Crystal family on April 1, 1985 as the Hardy Salt Division, has its own history which stretches back over 70 years. Founded in 1914 by Thomas Walter Hardy, the company at first purchased salt in bulk and packaged it in its St. Louis, Missouri, facility for distribution throughout the Midwest. It was not until 1929 that a growing business and a lack of steady supplies of bulk salt prompted a move into actual salt production.

The move coincided with the beginning of the Depression, but Hardy—who had grown up in a small Tennessee town and who began his career in the salt industry in 1906 as a salesman for Morton Salt—was not deterred. Hardy purchased a site in Manistee, Michigan, from the Ruggles & Rademaker salt company and by 1932 was mining salt hydraulically and using the evaporation method in production.

Over the years the Manistee plant has been expanded and modernized to keep pace with increasing demands and new technology. It was the first facility in North America to install quintuple-effect evaporators for salt production. In the early 1940s, Hardy originated trace mineral salt for livestock feeding, and, in the late 1950s, the company developed a new method for producing flake salt by feeding granulated salt through rollers under extremely high pressure. The

Manistee plant also manufactures compacted rock salt by forcing granulated salt into a large roll compactor. The resulting hard, flat sheets are then crushed to various sizes for such uses as water softening and de-icing.

In 1965, Hardy acquired a solar evaporation facility at Lakepoint, Utah, on the shores of the Great Salt Lake. The venture turned out to be uneconomical, however. A much more successful acquisition took place in 1971 when Hardy purchased a salt production facility in Williston, North Dakota, from the Dakota Salt and Chemical Company. The plant is the northernmost salt plant in the United States and was at the time of purchase the first completely new evaporative salt plant to be built in this country since the end of World War II. The salt wells at Williston tap a salt deposit 250 feet thick and 8,000 feet underground, making them some of the deepest salt wells in the world.

By the time that Hardy Salt joined Diamond Crystal, it had grown to a company with \$23,000,000 in annual sales, with facilities and properties in Missouri, Wisconsin, Minnesota, Ohio, and Utah, in addition to the two evaporated salt plants at Manistee and Williston. Along with a good product mix of value-added products, Hardy also brought to Diamond Crystal an expanded customer base and valuable production and distribution facilities. The

Development of new products to meet new market needs has become an increasingly important factor in the 1980s. In a joint project with Michigan State University, Diamond Crystal developed CURE-TROL, a curing base for bacon processing which dramatically reduces the formation of nitrosamines during the frying of bacon. This was an important breakthrough, as many nitrosamines are carcinogenic, yet nitrite, as a curing agent, provides protection against toxins causing botulism. CURE-TROL offers an effective solution to the dilemmas facing bacon processors and consumers. CURE-TROL is also formulated of Alberger Fine Flake Salt, a product which is produced exclusively by Diamond Crystal.

Resingard Cleansing Formula Salt Nuggets is another example of the value-added potential which the company has realized. The Resingard Formula contains two cleansing agents which can significantly reduce accumulations of dirt and minerals in home water softeners. Other new products include a special rock pretzel salt and Salt Sense, a lowered-sodium table salt.

At Packet Products, the product line has expanded to include a wide variety of low fat, low calorie, sodium-controlled, and sugar-free items for institutional and restaurant use, and its products are available in more than 300 packaging variations. Its exclusive customers range from McDonalds to American Airlines. The division has manufacturing facilities in Massachusetts and Oklahoma and customer service centers in Los Angeles and Toronto. In some cases, the simple paper packets of salt and pepper have been replaced by classy colored foil packets for airlines that want to dress up their passengers' meal trays.

In March of 1985, Diamond Crystal found the acquisition opportunity it had been looking for, and Hardy Salt Company, with plants in Michigan and North Dakota, was purchased. With that purchase, the Diamond Crystal Salt Division now has plants in Akron, Ohio; Manistee, Michigan; St. Clair, Michigan; and Williston, North

Dakota. It also has salt service centers in Tennessee, Illinois, Ohio, Minnesota, New Jersey, Missouri, and Florida.

Last year, sales for both company divisions neared the \$100 million mark, with Packet Products accounting for more than \$22 million in sales. The company's three wholly owned subsidiaries, Diamond Crystal Salt of Canada, Ltd., DC Transport, and Diamond Energy Corporation, also were doing well, and company officers were actively continuing acquisition and diversification efforts.

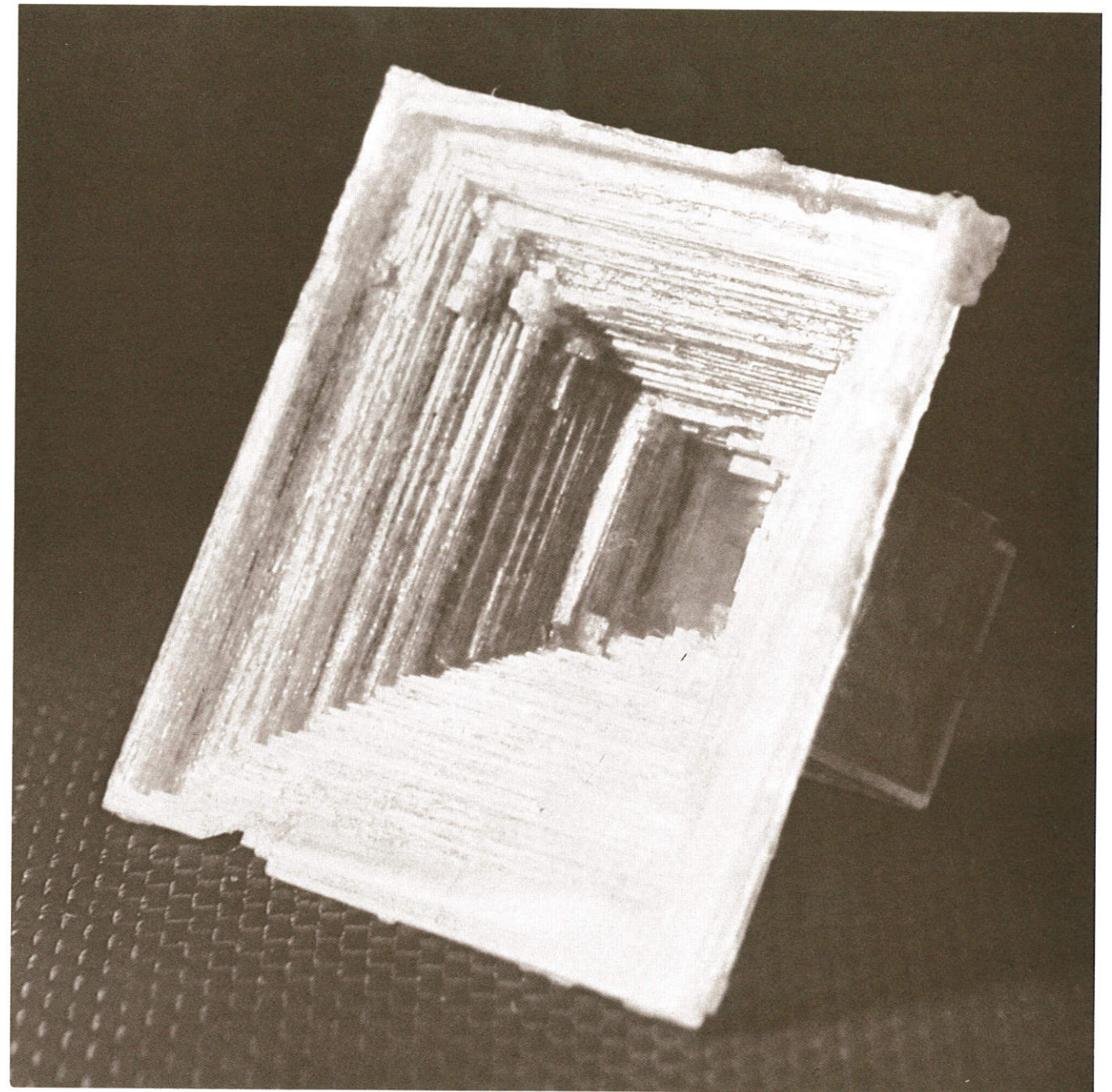
Also, in July of 1985, Charles D. Cronenworth, nearing retirement age after thirty-nine years of service, was elected vice chairman of the board and was replaced as president and chief executive officer by Roy C. Satchell, who had been a senior vice president of American Standard Inc.

Many things have changed during the 100 years that Diamond Crystal has been in existence, but quality, customer service, innovation, and research are still as important as they were at the beginning.

"I think the real opportunity in the salt business is to take this organization and the heritage it represents, the strength of the markets that it now has, and further improve on it with an even stronger customer service orientation," said Satchell.

"We need to do things just a little bit better. We don't want to be the largest salt company; but we do want to be the best, and we want the people that work here and our customers to really believe that. The company has a very good track record. Now we want to become the benchmark for the industry. We want to further our image as top-of-the-line, as respected in our field as IBM is in its field."

More specifically, Satchell and Frederick Moore foresee increased volume, more value-added products, further improved quality, product innovation, more efficient plant operations, strengthened marketing efforts, and above all, a company-wide commitment to customer



An enlargement of the unique Alberger salt crystal, an extraordinary product which is as important today as it was 100 years ago.

service. They also are committed to further growth in the Packet Products Division, through internal product development and increased emphasis on the opportunities and potential of this important facet of Diamond Crystal.

Charles Moore and the other founders of Diamond Crystal had faith that they could attract enough customers for their top-quality Alberger Salt to make the business work. They also knew that customer service had to be as top-quality as the product. No matter what else has changed during the last 100 years, the concepts of quality and service are just as basic to Diamond Crystal today as they were in 1886.

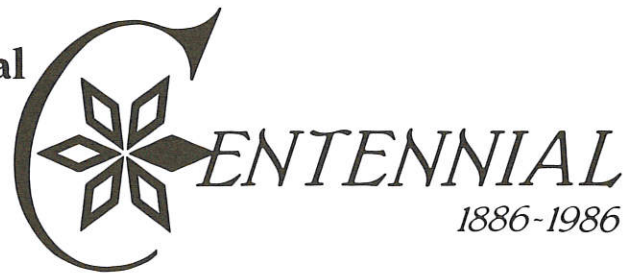
It is doubtful that back in 1886 Charles Moore ever imagined that the little salt company he founded and nurtured would become the largest independently owned salt company in the country. He would also have been unable to foresee the many new uses for salt that were to create new markets during the century of Diamond

Crystal's existence. The idea of over \$100 million in sales probably would be unimaginable to him. Of all the changes, one wonders what a man who sold salt by the barrel would think of one of the little fluted packets of salt his company now sells.

Charles Moore, however, would easily recognize the sentiments expressed by his great-grandson, Frederick S. Moore: "The real credit has to go to the employees and the customers, and I think that the real story of Diamond Crystal has been the company's dedication and responsiveness to their needs. Diamond Crystal has always tried to deal with everybody with integrity."

The salt trade has been traditionally viewed as a commodities industry. With the renewed emphasis on new product development and innovations in packaging and delivery, the Diamond Crystal Salt Company looks to its next 100 years as a diversified service industry—an evolution that will carry a business with proud roots in the nineteenth century into continued prosperity in the twenty-first century.

**Diamond Crystal
Salt Company**



The Centennial Committee:

Charles D. Cronenworth	Carl W. Kucsera
Dr. John Heiss	Norman Gene Watson
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