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# Sea Harvest Benefits from North Star Liquid Ice

By Pat Shanahan



**North Star Model 60 Liquid Ice Generators at Sea Harvest, Saldanha, South Africa**

In addition to improved quality, the additional storage time allows for greater flexibility for the plant. Now boats can offload any day of the week, even those days the plant is closed, instead of having to synchronize their deliveries with the plant schedule. "We believe that because of a better cold chain with slurry ice, the product quality is far better," said van Houwelingen. "The slurry ice is also much softer," he added. "It causes less damage to the texture of the fish and has greater surface contact with the inside and outside of the fish cooling it throughout."

The North Star liquid ice generators and the complete refrigeration plant were installed by M.R.E. (Marine Refrigeration Engineering) (Pty) Ltd of Cape Town. This was the first installation of a liquid ice plant for M.R.E. and principal Sandro Biccari reports that it was accomplished "with absolute ease." "Our first challenge was to convince Sea Harvest that we could make a 30-40% ice slurry dependably," said Biccari.

"Sea Harvest had a previous slurry plant that had many problems and could not produce a guaranteed slurry. The North Star system was easy to commission and to adjust to meet their requirements," he added.

Sea Harvest's van Houwelingen agreed that North Star's dependability was a major reason for choosing the liquid ice generators. "North Star's simple and straight-forward design and robust construction is a plus compared to the other complicated and maintenance-intensive slurry ice generating plants," he said. "The capacity of the North Star plants are conservatively rated, and you tend to get more than the rated capacity out of the plants. And the stainless steel freezing surface is a plus when you are making seawater ice."



Saldanha, South Africa – Sea Harvest, a leading processor of hake in South Africa, has been enjoying the benefits of its new North Star liquid ice system. The company reports that the North Star system has improved the efficiency of their cold chain and the quality of their seafood products in a number of important ways.

The two new North Star Model 60 liquid ice generators installed at Sea Harvest each produce 4m<sup>3</sup> per hour (96 MT per day) of a 35% ice slurry concentration. Before installation of the North Star system, Sea Harvest held dressed hake in chilled seawater tanks prior to further processing. The seawater tanks offered limited chilling time before the fish quality began to deteriorate. According to Sea Harvest site engineer, Nico van Houwelingen, fish held in slurry ice from the new North Star system can be held for up to 24 hours without any loss of quality.



**Mixing Tank keeps slurry at proper consistency**

The flexibility of the North Star design, which allows liquid ice generators to be easily converted to make flake ice was also a plus for van Houwelingen. The plant's improved cold chain in the grading and processing areas of the plant has increased its compliance with international quality and safety standards, especially those in the European Union. "We wanted flexibility," stated van Houwelingen. "The North Star units can be converted to make flake ice if, for any reason, we cannot use slurry on our fish."

Since 1950, North Star Ice Equipment has been known the world over for its line of high capacity, industrial ice makers and ice handling equipment, including flake ice makers, liquid ice systems, ice rakes, and screw conveyor and pneumatic ice delivery systems. North Star ice systems are now operating in over 117 countries around the world.