

The Cold Facts

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What's New At RSC?

The RSC organization expands again. We are pleased to announce a new division; RSC International opened in December 1999. The primary division office is located in Houston, Texas. In conjunction with this new office, we are also pleased to announce the appointment of Vince Orlando as Division President.

Vince brings 30+ years of experience in the industrial refrigeration business to RSC. His experience lies in the food processing, food distribution and petro-chemical/chemical industries. Vince's thrust is to meet the business challenges of RSC's growth and to better support our customers in the southwestern area of the U.S. Please join us in welcoming Vince to the RSC team.

Some Really Important SARA Title III Housekeeping Issues

Please remember that an owner or operator of a reporting facility must *promptly* advise the EPA of any changes to the facility. This includes facility ownership, emergency contact names and telephone numbers, chemical inventory or other changes that affect the original report. It is very important to note that the company will be held liable if this procedure is not followed. Obviously, the problem becomes magnified in the case of a chemical emergency.

To reinforce the importance of addressing this issue, we recently heard an unpleasant incident about a company that experienced an ammonia leak. No one was hurt. The local fire department was called immediately and was on the scene. The leak was secured in a timely manner. However, the EPA was not called until after the entire fix was completed, some six hours later. The EPA took a very negative attitude toward the plant. They quoted the law that states that they are to be notified immediately. A word to the wise will hopefully be sufficient. Please don't become an EPA statistic.

Industry Trends

We recently reported that we had been testing a dehumidification system at a processing plant. What we found was very interesting. The addition of a small amount of dehumidified air to a blast freezer reduced the required number of defrosts per operating day. Fewer defrosts and cleaner evaporators result in increased refrigerating capacity and therefore lower operating cost.

We also explored a few other applications that are familiar problems in our industry. They were frost buildup on freezer building structures not caused by vapor or thermal leaks and sweating surfaces in process areas due to high humidity operation and/or area clean up. In all cases, the dehumidification system had a very positive impact on the overall plant operation.

We were also curious why this technology had not been used more frequently, particularly since it addresses some very well known problems. First, the latest laws, HAACP and others, have forced us into finding ways to solve the problems that relate to the food industry. Secondly, there is much confusion about the technology.

There are several different manufacturers of equipment and several different techniques used to lower the humidity level. There may also be a requirement for outside air to be introduced into the space, and if there is, how much. RSC can help you select an appropriate unit and install it. Please contact any one of us to determine how we can help solve your problem.

On-Going Training: Do You Need It? Can RSC Help?

It's time for us to begin making plans for another OSHA and PSM training seminar. It has been a while since we held the last training and we would like to know if we could help you again. You will recall we had 80 people attend our last training. It was tailored to meet the ongoing OSHA training required to keep plant personnel current on their continuing education. This type of training also contributes to the knowledge base, which obviously translates into a safer and more efficient workplace.

The RSC Service Department is coordinating the seminar if response is sufficient to warrant it. So if there are folks in your organization who can benefit from the training, please contact us. A full package of information will be distributed to those interested. Please let us know soon so we can plan accordingly.

A Bit On The Technical Side...

We have recently been called in to assist several plants with failed or non-operating under-floor heating systems in freezer applications. The basics of the concept are to supply just enough heat to the ground below the floor to eliminate the possibility of freezing the moisture in the soil. As you know, water expands when it freezes and the moisture-laden soil has no place to expand

but upward. It can crack and raise several inches of concrete floor, regardless of the reinforcement.

Years ago, the typical design included natural convection or forced convection large diameter piping placed in the soil or in a layer of sand on top of the soil or in a protective layer of lower quality concrete also located below the finished floor and the insulation.

Typically there were several pipes laid between four and six feet apart, in parallel, the width of the freezer floor. What can happen is the pipes become clogged, which in turn reduces or eliminates the airflow. Unfortunately, this has been the case in all of the recent situations.

The primary problem is that no one knows there's a problem until it is too late—the floor starts to heave and the concrete begins cracking. It's a result of "out of sight, out of mind." Please add this item to your maintenance checklist. The floor warming systems for your freezers should be inspected every six months.

Today, we recommend a glycol system design that is more predictable and has proven to be more reliable. Also, this design is much more conducive to facility expansion since the air system has some limitations. If we can assist you with an under-floor problem or a new installation, please contact us.

A Few Words About Value:

The cost of our service is reflective of the **Quality, Training and Expertise** that Refrigeration Systems Co. offers. The emphasis is on reducing the total life-cycle cost of the project. That is why many of our customers are repeat customers.

Refrigerant Gas Detection...

A Brief Survey

Most people are confused by the differences in the refrigerant gas detectors available on the market today. The following is a brief evaluation of the three most popular types:

- **SOLID STATE** - This detector is noted for low cost, long life and medium sensitivity. It is not gas specific and will alarm on most industrial gases; therefore, it typically requires higher alarm settings to prevent false alarms. It is an excellent choice for general refrigerant gas detection.
- **ELECTRO-CHEMICAL** - This detector is noted for its capability to detect low levels of gas and its specificity to a single gas type. It is rather high in cost as compared to solid state (50% higher) and requires the element to be replaced at least once every 18 months.
- **INFRARED DETECTION** - This detector has the characteristics of the electro-chemical unit with high sensitivity and selectivity. This equipment is more expensive than the electro-chemical unit and usually is installed in a central location and an air pump is used to sample many areas through small plastic tubes. Unlike the electro-chemical device, the element does not need periodic replacement. This unit can be cost effective over time if many electro-chemical units are necessary for satisfactory coverage.

RSC can supply any of the above detection types. Generally, we supply the solid state variety which is, in our opinion, the best compromise between capability, cost and life expectancy.

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