

# How Essential is Refrigeration?

**Refrigeration equipment is extremely reliable. Most people don't even know it is there, in the background quietly working away. So, when asked if refrigeration is essential of course everyone says no.**

However, consider refrigeration from the other side. Consider, just consider for a moment, that the aliens intended to invade planet Earth. They have a secret weapon. They beam it towards Earth and every single refrigeration system on the planet stops.

Mike was driving his car along the road. He noticed that his fuel tank was low. He pulled over into a filling station, got out, inserted the nozzle into his tank and..... Nothing happened.

He went across to the kiosk and joined the queue of other angry people. The cashier was desperately trying to explain that he didn't know what was happening only that he could no longer take payment by credit or debit cards, the agency cards didn't work and he didn't know what had happened. In fact, he wished he was somewhere else.



Mike turned away. Across the road was a cash machine. If credit cards were a problem he would take out cash from the hole in the wall. The person in

front was beating the machine with their fists. The machine was out of order. It was a busy high street so he walked to the next cash machine but met the same problem. He walked across the road to a convenience store for a cool drink and a sandwich. It was a scene of havoc. Apparently credit and debit cards could not be used, in fact only cash could be used.

And what was worse the drinks in the refrigerated cabinet were warm, the frozen food was starting to thaw and the chilled food cabinet had a flashing red light with a warning sign saying that food from this cabinet may be unsafe.

Mike couldn't raise a dialling tone on his mobile phone so he walked outside, went across to the phone box and picked up the phone. The line was dead. At the exchange engineers were frantically trying to start the backup refrigeration machinery that would prevent the telephone exchange from overheating. All lines had had to be



closed down. The same problem was being reported from all the major telecommunication centres throughout the country.

At all the major banking centres engineers were working frantically tried to save the data on the computers by shutting them down safely so that when the refrigeration machinery could be restarted they could bring the banking systems back up online. They were of course working in sweltering temperatures and humidity and tempers were being lost with increasing frequency.

The lights started to go out all over the town, the country, the world. When all the refrigeration plants had stopped the massive generating overcapacity and caused all power stations to shut down and the grid to stop. All fire services had been called to the chemical plants. Every plant was overheating and the engineers could not shut them down fast enough.

The Prime Minister's office started to receive reports. At first the PM thought the chief of staff was going balmy.

Of course the nuclear deterrent couldn't be ineffective. He had been reassured time and again that there were backups, double backup and braces on the countries security



systems so what the hell was he talking about 'it wouldn't work'. The chief of staff had patiently tried to explain that the refrigeration systems had broken down in the bunkers, radar stations and satellite stations. In fact we had no defence system at all except to shoot what the soldiers could see with their own eyes and shoot with a rifle. All aircraft were grounded, missiles inoperable and the NAAFI's supply of ice cream was melting. The country was defenceless. If only he could call his friend George. Perhaps it was just as well that that shiny and well worn phone wasn't working either as George had problems of his own.

Next door in No 11, the Chancellor of the Exchequer also had his problems. Basically, all communication had stopped just after the stock exchange had gone down, and not just the London exchange but all over the world Markets had closed, the Bank of England shutdown. The economy had stopped. He thought, as he changed his underpants, that maybe he didn't really want to be Prime Minister. Maybe now was a good time to retire to his croft in the highlands?

His wife at the said croft was having problems of her own. The refrigerator was positively warm and the freezer thawing and she could not get through to the refrigerator repairman. She would have to go to the shop for a nice tin of salmon for his tea. When she got to the shop it had sold out of salmon, in fact sold out of all tinned and dried goods. She went home and opened a tin of beans, little realising that the next day tins of beans would be being exchanged for 2 sacks of best house coal at the hastily reconvened local market, eBay having stopped working along with all other computers.



Our world cannot operate without the electronic transfer of money and the computers that carry this out all need cooling to keep them operational. Without refrigeration commerce would stop.

Our defence, warning and weapons systems, relies on the same small electronic components all of which need cooling to keep them operational. Without refrigeration we would have no defence.



The distribution and storage of food cannot take place without refrigeration, the crops would just rot in the fields the meat and fish remain in the fields and seas, far from our centres of population. No refrigeration, no food.



And in those centres of population all the buildings, cars, buses and trains, built without opening windows would become unusable. Planes would be grounded, enclosed ships with their swimming pools and casinos would become unbearable.

A lot more people would become ill with a lack of fresh food. More bad news. Most hospitals are air conditioned and could not operate without refrigeration. All operating theatres and are air conditioned, medicines and vaccines stored in refrigerators and blood is kept frozen. And when they die the bodies will have to be buried quickly in summer because without refrigeration in the mortuary decay will occur very quickly.

So, why don't people worry about maintaining our infrastructure of refrigeration on which the whole world is dependent? Probably its very reliability. It works, quietly in the background and never goes wrong. Most people can talk at length about the need for good transport. We all realise its importance because it is for ever going wrong; trains are late, or never arrive, traffic grinds to a halt with monotonous regularity and, when it stops, we all miss transport so we know its importance. But refrigeration? When did we last hear that the trains were late because of the wrong kind of refrigerant?

*So, do we have to bring politicians and railway company managers in to run our refrigeration companies before its importance is recognised?*

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