

Tanknology - Enhancing th

With PEI NACS, taking place this year in Las Vegas from October 7-10, one exhibitor certain to be there is North American tank testing company Tanknology, regarded today as a global leader in its respective market, having pioneered core aspects of tank inspection solutions across the world during the last 26 years. With its first VacuTect system introduced into Canada back in 1998 and having tested over one million tanks since then, its international operations now span more than 30 countries. VacuTect is Tanknology's signature product, which works by introducing a vacuum into a tank, thereby creating a slight negative pressure to show up any leaks either by ingress of air or water. Alongside VacuTect are Tanknology's camera inspection services operated through its PetroScope and the more recent TankCam applications. PetroScope provides detailed video inspections of fuel tank interiors once the tank has had its product removed, eliminating the need for manned entry. TankCam has the facility to inspect tanks whilst the product is still in place. Seemingly not looking a day older since I first met him 20 years ago, I caught up with Tanknology President Allen Porter at the last PEI show in Atlanta, to talk through the company's journey over the last two and a half decades and to learn more about what has changed for them and the industry during this time. We were joined by International Divisional Vice President, Ignacio Allende. Allen was quick to point out that advancing technology is the key factor in the development of their business, allowing them to be able to identify any number of problems with a tank more accurately and far more cost effectively, compared to when they first started out. This he says is on two levels; the incredible resolution of photographs and HD capacity of videos made possible through modern camera equipment and also the way in which images and information can now be stored and communicated to clients in an almost immediate fashion. With better lighting options now available and the ability to be able to zoom in and out with a camera lens at will, everything is made so much easier, Allen says and he adds that for clients, the results are far more conclusive mainly because the magnification of the images they will see today is many times greater than anything the natural eye can produce. Then there is the way in which the information is held and presented to our customers, Allen continues. "20 years ago we were using VHS tapes, but now of course we are saving everything electronically on a drive, meaning that the information is much more accessible for everyone involved," We talked next about



Allen Porter, President of Tanknology, based in Austin Texas, USA

environmental issues affecting the way the company positions itself, which again have come into much greater focus since Tanknology was first established. Is the industry winning the battle against contamination through leaking tanks I asked? He replied. "We have been testing storage tanks now for 25 years and the failure rate of tanks continues to decline year on year. Across the US in the late 1980's there were 2 million fuel storage tanks in place, but today, approximately 1.5 million of these are no longer in service. The main issues surrounding fibreglass tanks today are that many of the tanks manufactured in the 1970's and early 1980's did not anticipate a high percentage of alcohol i.e. ethanol being used in fuel, which now is there and evidence does show that in certain climates fibreglass tanks fail and cracks will appear. Tanknology was awarded a grant from the EPA in the US to investigate this area of concern, after reports showed that there were tank failures of this nature in Arizona. Accordingly we inspected these tanks using our camera facilities and analysed the videos to clarify the situation" Is this problem causing worry amongst customers with fibreglass tanks, I asked. Allen continued, "For all the tanks tested today the failure rate is about half a percent, but this can often be due to something simple like an air ingress or a fitting that is not tight. It does not necessarily mean there is a crack or hole in the tank. The drop in tank

failures has been gradual over the last 10 years due to the fact that most of the older tanks have been removed, combined with the huge reduction in the tank population. In the nineties we saw an increase in the number of above ground storage tanks being utilised by smaller operators, utilities and municipalities, where risk management decisions were being made about keeping an underground tank and paying the costs associated with leak detection or having an above ground facility fitted which does not have to be regulated in the same way underground tanks are. This trend levelled out by about the year 2000" Bringing us back to 2014 and reminding me that regular tank inspections have never been more important, especially with the value of fuel being what it is today, Allen told me that the number of tanks failing is still a reasonably high number, both steel and fibreglass. Tanknology's TankCam tool is playing a vital role inspecting tanks which do not pass their regulative tests. He explained "The TankCam goes into the tank whilst the tank is in full operating condition and carries out a full inspection. It may be that there is water dripping in or a riser has broken loose or that the ball flow for the overflow protection is not tight and there is an air source there, or it maybe there is a more serious matter which needs to be dealt with, but whatever the problem, TankCam will find it so as to allow the necessary remedial procedures to be put in

the definition of tank testing

place at the earliest opportunity. It is common though for tanks to be repaired at any level and TankCam has the added benefit of being able to check that any repair work has been carried out correctly, as manned inspection can be, as I pointed out earlier, quite dangerous. By using camera facilities customers can also build up a documented photographic case record over time of failing or corrected areas. From our perspective we are delighted with the product's entry into the market and the response we have had through the industry. As well as identifying possible damage to a tank it can also monitor whether a repair has been carried out correctly or cleaned effectively, in the case of it being converted from ethanol to diesel or maybe from gasoline to some of the E85 products for example" I asked Allen if as a result of an inspection they would recommend certain works to be carried out. He answered, "We are an independent analyst you might say. We go onto a site and provide the necessary tests and inspections and if there are recommendations to be made on the evidence we supply, then providing it is appropriate we will make them, but in most cases we would not stipulate which supplier they might use". Outside of the US, Tanknology offer its customers around the world a turnkey service, utilising its network of trained licensees. Ignacio Allende who is responsible for the international development of Tanknology, pointed out that the legislation in place shapes much of the work Tanknology carries out, but as he explains it is different in every country. "In the US, standard EPA federal regulations state that all underground fuel



Ignacio Allende, Vice President - International Division & Intellectual Property

tanks must have a leak detection test every 30 days, an operation typically facilitated by using monitoring equipment provided by companies like OPW, SGB, Emco or Veeder Root for example, but this does not involve having to inspect inside the tank. In Northern Europe and Scandinavia, however, legislation is such that operators must put a man inside the tank once it reaches 15 years of age, to inspect its integrity. In recent times I have to say that this has provided good opportunities for Tanknology as our PetroScope product is designed for inspecting the interior of a tank without sending an operative into a dangerous environment. We are working very closely with Shell in Europe supporting a statement they made a few years earlier, saying that Shell would never put operatives inside a tank again because of the

risks involved. We have partnered Shell in the Nordic countries and shown regulators the work we have achieved with our robotic cameras and they have been satisfied that this is an effective alternative to risking the lives of workers inside a fuel tank. Apart from problems relating to highly explosive fumes, you must consider that there will be no oxygen in the tank and as such a person going inside to make an inspection, must wear a mask. If this fails, life threatening circumstances will occur and in the past there have been people who have died in this situation". To conclude this interview on possibly a lighter note, Allen Porter summed things up by saying "Tanknology is right at the front end of environmental regulation. Our customers are typically owner operators dealing with everyday regulative issues. As legislation changes or if regulations are modified, our strengths have always been to be able to provide a service for whatever is needed. Our camera inspections are just part of what we do. We also do audits, visual monthly inspections on tanks and sumps and we carry out diagnostic analysis on behalf of our clients. The primary focus of our business is to assist the market and other service providers in the industry to ensure that fuel storage sites are in compliance with local regulations. We test 50,000 sites a year and employ 250 people. We operate outside the US through 25 licensees in 30 countries. Our future objectives are to pioneer new products and services to support our core activities." You can talk to either Allen or Ignacio directly on booth 6523 at PEI NACS, taking place in Las Vegas, America from 7-10 October 2014.



Condensation droplets and corrosion near the bung at the top of an Underground Storage Tank, captured on video using Tanknology's TankCam Video Inspection System.

