Vattenfall Thermographer Roger Eriksson now uses FLIR GasFindIR LW to more easily detect leaks of SF_6, a gas 24,000 times more dangerous that CO_2.

VATTENFALL DETECTS ENVIRONMENTALLY HAZARDOUS GAS LEAKS WITH FLIR GASFINDIR LW

Vattenfall, Europe's fifth largest generator of electricity and the largest generator of heat, are among the first power companies to invest in a FLIR GasFindIR LW camera. Vattenfall use the camera for inspection of high voltage circuit breakers in interlocking installations, in order to detect leakage of the environmentally hazardous gas sulphur hexafluoride (SF_6).

SF6 is an insulating gas, used in most types of high voltage switches all around the world. A big problem with leaking SF_6, is that it is a greenhouse gas, 24,000 times more hazardous to the environment than carbon dioxide (CO_2). Finding and repairing SF_6 leaks is therefore very important in efforts to help reduce global warming. In Vattenfall´s home market, Sweden, the company produces and distributes electricity in every part of the country. Before Vattenfall invested in the GasFindIR LW, the company looked for leaks of SF_6 using gas sniffers. However with this equipment the leak searching was more time consuming and the plant had to be shut down during the search.

LEAK SEARCH WITH PLANT IN OPERATION

Thermographer Roger Eriksson works at Vattenfall Service, providing preventive maintenance to both the Vattenfall concern and external clients. Today he is one of four experts travelling around Sweden to find SF_6 leaks using a FLIR GasFindIR LW. "The great difference between a sniffer and the GasFindIR LW is that with the camera you can see the gas and from where it leaks", says Roger Eriksson. Another big advantage is that we can stand at a distance and investigate places difficult to reach with a sniffer. And on top of this the plant can be in full operation, which of course saves a great deal of money in the long run.

SEARCH FROM DISTANCES UP TO 20-30 METERS

If the gas leak is by a gasket, the gas has a tendency to leak in "puffs" as pressure builds. In these cases you therefore have to look at the same location for a while, not to risk missing a leak. These kinds of "puff leaks" are very hard to detect with a sniffer. "When the leak has been detected a film sequence is recorded and a report is sent. Not until then it is necessary to close the switch in order to remedy the leak. The leak we found today would have been impossible to find using a sniffer. It was located at the top of the lid to the circuit breaker. In order to get up there with a sniffer we would have had to use a sky lift", Roger Eriksson concludes.

HOW DOES IT WORK?

The FLIR Gas Detection cameras are infrared cameras which are able to visualise gas by inverting the physics of fugitive gas leaks. The camera produces a full picture of the scanned area and leaks appear as smoke on the camera's viewfinder or LCD, allowing the user to see fugitive gas emissions. The image is viewed in real time and can be recorded in the camera for easy archiving.

ENVIRONMENTAL AWARD TO FLIR GASFINDIR LW

In 2009, the FLIR GasFindIR LW was awarded Svenska Kraftnät´s environmental award for reducing interlocking plants´ negative effect on the environment. Svenska Kraftnät is the state utility that administers and runs the Swedish national electrical grid. They also have the system responsibility for the national supply of natural gas in Sweden.

For more information, visit www.flir.com/thg or contact:

FLIR Systems AB, Sweden
World Wide Thermography Center
Rinkebyvägen 19 - PO Box 3
SE-182 11 Danderyd
Sweden
Tel.: +46 (0)8 753 25 00
Fax: +46 (0)8 755 07 52
e-mail: sales@flir.se