

## Diesel Engine Condition Monitoring

*'...the organisation is now able to expand their business opportunities to reach clientele operating equipment from remote locations...'*



An established organisation who specialises in diesel engine reconditioning and protection systems sought to add remote access, and improve visibility, when it came to real-time monitoring of engine parameters.

It is important to monitor the condition of diesel engines to ensure they are running under optimum conditions, and not under any stress. This involves monitoring pressure, temperature, liquid level, overspeed, time and vibration.

When certain pre-determined thresholds are reached, it is important to respond quickly, a process best handled by automating start/stop functionality to control the engine under these measured conditions.

An integral part of the organisation's business is the manufacture of Control Panel displays - solutions that monitor, control & display (locally) real-time diesel engine conditions.

### Remote visibility allows rapid response

One major challenge the organisation faces is that a significant number of their clients have their diesel engines deployed in remote locations, and thus, it is often the case that local workers are not always onsite to monitor engine performance - and those that are may not be adequately trained to respond!

The organisation felt that by adding a remote 'watch dog' service, this would allow swift - and correct - action to be taken should any issues arise with diesel engine performance.

This is a service which would significantly reduce operational costs to their clients.



Control Panel - data now accessible remotely

## Technology that delivers - remotely!

Another challenge encountered was that many of the remote monitoring sites were outside of reliable - or non-existent - 3G infrastructure. It is for this reason that the organisation turned to the *SatVUE Smart Remote Monitoring Solution*.

With the condition monitoring sensors already included as part of the Control Panel system, the role of the SatVUE is three-fold; handling the two-way satellite communications, enabling remote access via secure, user-defined web portal, and added alarm functionality.

## Alert capabilities ensure timely response

By monitoring the parameters output by the Control Panel, the SatVUE has been programmed to email alerts to multiple staff, in the event of any pre-determined thresholds being breached.

## The Result?

Since the implementation of the remote access SatVUE solution, benefits are being reaped by both the organisation and their clients.

Firstly, the organisation is now able to expand their business opportunities to reach clientele operating equipment from remote locations, and secondly, with the diesel engine conditions monitored automatically and remotely, their clients are free to focus on other operational tasks at a local level.

They are now looking to implement the SatVUE system as a solution to any further remote monitoring requirements.

## The Benefits

- expanded business opportunities to reach clientele operating equipment from remote locations
- remote visibility reduces need for manual site inspections
- custody of data and minimisation of data transposition errors
- remote access from any web-enabled device
- ease of installation



Remote monitoring and alarming ensure asset protection



Satellite communications provide reliable remote access



Monitor Multiple Sites via a single Remote Web Portal

## Have other applications? Due to its flexible sensor integration the SatVUE solution is ideal for monitoring

**Water** - ground, surface, waste, irrigation, bores, tanks, turkey's nests, pipelines, channels, streams or dams for levels, quality, evaporation, flow & pressure; seawater for quality, currents & tides

**Air** - for dust, gases, temperature, humidity, pressure, solar radiation, wind speed & direction

**Soil** - for moisture & contaminants

**Oil, gas, & other fluids** - in pipelines and tanks for levels and pumps for status & control & more!



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