



POSS Monitoring of point heating

Many point switches are heated during winter to prevent them from freezing in wintry weather. The point switches may yet freeze when the point heating system fails, which will lead to disruption of the train service. Strukton Systems has developed a monitoring solution for point heating systems to prevent this kind of problems. This solution is based on the permanent monitoring of the point temperature, which enables railway managers and contractors to see in real time whether a point heating system functions well. This prevents the freezing of points.

Functioning of POSS point heating monitoring

The POSS monitoring system offers a simple but effective monitoring solution. Rail temperature measuring already takes place. Strukton Systems has adjusted the existing rail temperature measuring to allow for monitoring a minimum temperature in addition to a maximum temperature (see figure 1).

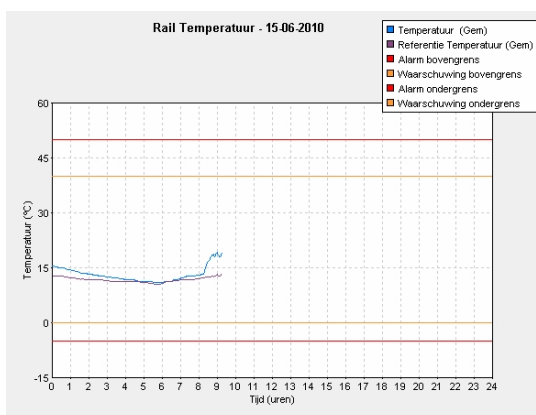


Figure 1 monitoring of maximum and minimum rail temperature

Temperature sensor

The temperature sensor is positioned on the rail in such a way that POSS monitors the temperature of the rail which is heated by the point heating. POSS will generate a warning or alarm signal if the temperature reaches a particular limit. The signal is made visible in POSSonline and an SMS or e-mail alert can be sent to the maintenance organisation if desired. This enables the maintenance organisation to be more attentive to failures in the point heating systems and to solve failures before the point freezes.



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The risk of freezing points is based on a combination of low temperatures, precipitation or higher relative atmospheric humidity and a faulty point heating. POSS point heating monitoring provides all these data through internet and makes it possible to present them geographically. The combined presentation of these different kinds of data helps e.g. the failure co-ordination centre to determine the urgency of problems in the point heating systems. (see figure 2).



Figure 2: combination of different kinds of data helps the failure co-ordination centre

The application works well in combination with all types of point heating systems, because the application measures the rail temperature and therefore checks the working of the point heating. It does not make any difference therefore if the points are heated using electricity, gas or geothermal warmth. An additional advantage is that the capital outlay for the monitoring of point heating is relatively low. Monitoring of point heating can be combined with the monitoring application for points. This makes it possible to present a complete image of the real-time status of the point on one screen. The data are available through internet and can therefore be consulted at any time and any place.

Strukton Systems

Strukton Systems is part of Strukton Rail, a major innovative European player in the field of rail systems. The company offers a complete package of products and services in the field of railway infrastructure, rolling stock and transport systems. Strukton Rail has over 3,200 staff members.

