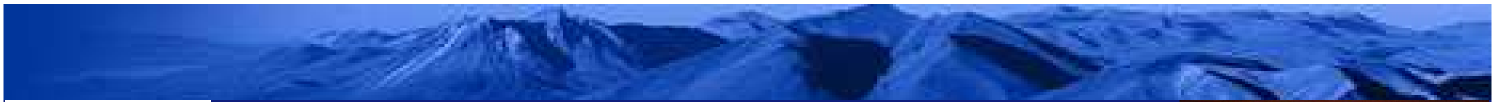


Furnace Integrity Monitoring

Hydrometallurgical Lab · Pyrometallurgical Lab · Modeling · Hydro/Pyro Pilot Plant · **Engineering Support**

Furnace Integrity Monitoring

Smelting furnaces, including induction, arc or flash furnaces are amongst the most expensive process equipment items for many metallurgical treatment facilities. Consequently, furnaces are seldom installed with backup units, and a premature furnace failure generally means loss of cash flow for the business, and hazardous conditions for the operators.

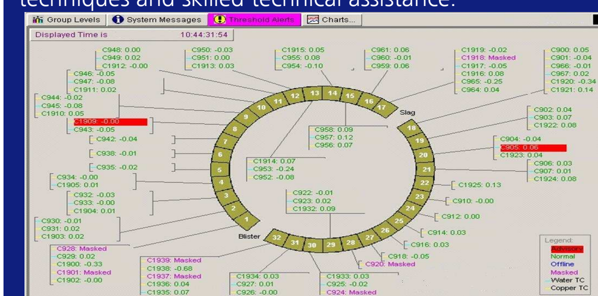
Furnaces are expected, and designed to perform safely and reliably, with high productivity, under arduous conditions for extended periods, so the overall integrity of the furnace is of vital importance to all stakeholders including owners, operators and insurers.

Key Capabilities…

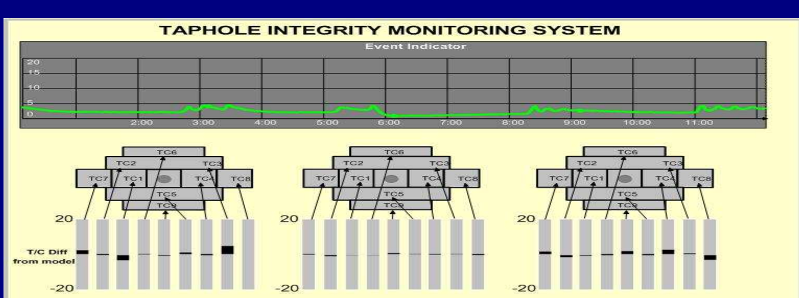
XPS, with many years of experience in collectively designing, operating, optimizing and monitoring furnaces, can assist you with reliable techniques to confidently monitor critical aspects of furnace integrity.

- Monitoring of the refractory lining integrity.
- Monitoring of the integrity of tap holes and the areas adjacent to tap holes.
- Accurate and reproducible monitoring of the slag/metal, slag/alloy or slag/matte interface.

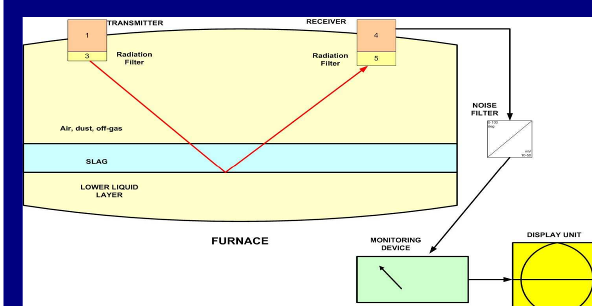
With respect to **monitoring of refractory lining integrity** XPS can offer reliable monitoring systems, custom designed to suit your particular process application, based on sound engineering principles and supported by sophisticated yet reliable measurement techniques and skilled technical assistance.



With respect to on-line **monitoring of tap hole integrity,** XPS can offer systems based on the experience gained in a long-term successful development which has prevented any tap hole run-outs during the three years that the system has been in operation at the particular smelter where it is installed. The system is able to use proven sensing techniques matched with the MSPC data analysis system to detect small deviations from predicted behaviour and provide the necessary early warning before irreversible and potentially catastrophic tap hole failure occurs. The increased safety of personnel working in the vicinity of the tapping area results in improved working conditions and morale.



With respect to the problem of reliably monitoring the **level of the slag/metal or slag/matte interface** on a continuous, objective and reproducible manner using non-contact technology, the XPS team has developed techniques and expertise to provide this information.



The specific methods are patented, but we invite you to approach one of the XPS team members to discuss the specifics of your operation and the way XPS could assist you in solving this perennial problem.

Contact Us…

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