Is REACH an issue for the foundry sector?

Basically, the REACH regulation affects each and every actor in a supply chain at least indirectly. However, there are a few cases in which foundries are affected directly by the obligation to register and / or pre-register.

Having been implemented meanwhile in national law, the European REACH regulation influences the law on chemicals and (hazardous) substances. It should be seen as relating to all substances, meaning that REACH applies not only to chemicals but also to metals, for example. As used in REACH, the term **substances** designates those chemical elements and compounds that were formed in the course of a chemical reaction, giving them an identity of their own. Please note that REACH does not apply to substances that are classified as **waste,** so that the obligation to register does not apply to the generation of waste. Within the meaning of REACH, **preparations** are mixtures or solutions consisting of no less than two substances, which includes molten iron, for example. In the terminology of REACH, an **article** means an object which during production is given a special shape, surface, or design which determines its function to a greater degree than does its chemical composition. This definition matches the castings made by foundries.

It should be remembered that, while REACH is concerned with substances of all kinds, it does not normally apply to preparations and articles, or if it does, related obligations are subordinate (modifying / passing on risk management measures, duties concerning information about special substances in preparations / articles). Specifically, REACH and its attendant obligations apply in those cases where substances are either originally produced within the EU or put into circulation – i.e. imported – in the EU for the first time. Whenever this is the case, manufacturers or importers must register the substances in question with the European Chemicals Agency (EChA) in Helsinki.

The principle that underpins the entire REACH regulation is laid down in Art. 5, which says 'no data, no market'. In other words: any substance that is not registered with EChA may be neither produced nor imported in the EU. The first step in the registration process is to marshal the data required. To ensure that no inequitable hardships are imposed by this principle which might paralyse numerous production processes, a so-called pre-registration phase has been arranged under REACH which began on June 1, 2008 and ends on December 1, 2008. For substances that have been pre-registered within the term stated in an easier process that is not legally binding, the regulation grants extended time for the submission of registration dossiers.

Foundries produce **castings** which, under the REACH regulation, are classified as articles. Substances in articles that are not released intentionally **do not have to be registered.** Accordingly, REACH normally applies to foundries only in their capacity as so-called 'downstream users'. Foundries are classified as such because they normally use substances in their production (e.g. metals, additives, etc.) which their suppliers were obliged to register. Disregarding the obligation to register for the moment, there will be certain cases in which foundries are **obliged to provide specific information** which, however, will probably not deviate to any considerable extent from the current obligation to initiate certain risk-management measures.

In principle, there is **no obligation to register molten iron**, a melt of alloy components that is generated as part of the production process. Under REACH, casting alloys are regarded as 'special preparations', for although the individual components of an alloy blend during melting, their material identity remains unaffected. Following the REACH substance model, this constitutes a 'multi-substance system' for which registration is not mandatory. To the extent that the substances contained in an alloy have been registered before, foundries play the part of downstream users and thus are not required to initiate registrations of their own.

It is true that the **oxide** by-products of the process, such as zinc oxide, do constitute new substances because they were generated in a chemical reaction. However, oxides are regarded as **waste** to which **REACH does not apply**. Nevertheless, to ensure that any recycling processes are accounted for, foundries should request their customers to pre-register or register their end products so as to avoid recycling paths being cut off because of customers neglecting their obligations under REACH.

Any foundries that **import** raw materials or expendables directly from non-EU countries **fall under the obligation to register** or pre-register the substances concerned. To shift the burden of this obligation, foundries may approach their suppliers and ask them to appoint a so-called 'only representative' within the EU to handle pre-registration activities on behalf of a supplier, so that the foundry itself becomes a downstream user again. In cases of doubt, however, it is advisable for foundries to handle pre-registration themselves, for the process is free of charge and secures for them the generous transitional periods allowed by REACH.

To enable foundries to identify their role under REACH and comply with their specific obligations, the CAEF has developed **instructions for generating a substance inventory** together with a checklist. The **inventory of substances is not obligatory in REACH**, but provides an overview on the handling of obligations and possible risks with regard to REACH. The inventory helps to identify obligations in REACH that have to be taken care of by foundries, such as the duty of pre-registration or registration. This list of substances should include all raw materials and expendables used by a given foundry. Ideally, such inventories should specify related identification codes (e.g. CAS, EINECS) and be broken down into quantity ranges. Moreover, they should be continuously updated to ensure that any future activities are conformable with REACH.

Please remember that an enterprise may well have more than one function under REACH, so that, for instance, it may appear as a downstream user with regard to the expendables used by it, and as an importer with regard to nickel imported from a non-EU country.