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API 5L X65 steel development for sour service applications at ArcelorMittal Pecém
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The development of steels for the oil and gas industry, mainly Sour Service application that are resistant to corrosion in acidic environments, requires strict quality control, as pipes are crucial for the reliability and safety of oil and gas transportation systems, ensuring material integrity in corrosive environments. To meet customer requirements, steel cleanliness control is important, as it is the raw material for pipe manufacturing, including minimizing non-metallic inclusions and dissolved gases to reduce susceptibility to hydrogen-induced cracking (HIC). This study presents the development of slabs of API 5L X65 steel for Sour Service, highlighting the quality technologies and process control practices implemented at ArcelorMittal Pecém. The results demonstrate the successful production of steel with corrosion resistance and resistance to hydrogen-induced cracking, meeting demanding industry requirements.