



**PORT OF
REDWOOD CITY**

The circle of slag

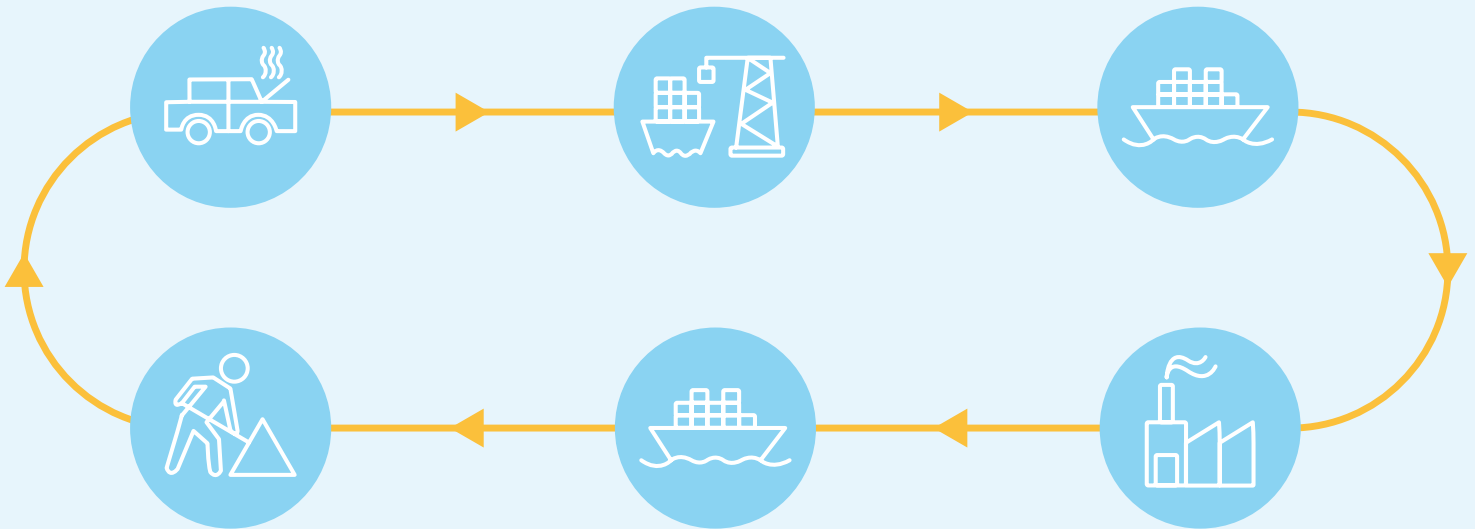
What in the world is slag and why is it so important? This may be your first time hearing of slag but it's probably not the first time you've benefitted from it. Slag is an important component of the roads we drive on or bridges we cross, and the Port of Redwood City plays a critical role in the process.



When a car is no longer fit for our roads, the car (or washer, dryer, and other appliances!) is recycled into scrap metal.

Scrap metal specialists like SIMS Metal at the Port of Redwood City, crush old appliances and cars into scrap metal that is exported for processing.

The scrap metal is shipped overseas for processing.



Slag is used to strengthen concrete, and is often used to add longevity to roads and bridges, where you might be driving your new car!

Construction aggregates, like slag, are imported by companies such as CEMEX at the Port of Redwood City, where we specialize in bringing in bulk cargo and construction materials.

Highly specialized plants across the Pacific Ocean turn the scrap metal into slag - usually small pellets of metal used in construction.

How is slag created?

Step 1

Steel slag is created in the smelting process. It is a by-product of the steel-making process. The process separates out steel from its impurities. The impurities are what we know as steel slag! Although an impurity, steel slag is now a preferred product and a valuable construction material.

Step 2

During this process, slag occurs as a molten liquid melt. The recycled metal is heated to over 2750 degrees Fahrenheit creating a molten liquid melt! Nothing we want to touch right away!

Step 3

This melt is a complex mix of silicate and metal oxides. Silicate is a salt that contains both silicon and oxygen while metal oxides are chemical compounds formed between metals.

Step 4

Once it is cooled and solidified, the slag takes various shapes and sizes. Depending on its final use, slag may take many different forms. Steel slag can be left uncrushed, blended with other natural rocks and sands or crushed!

Step 5

Slag is ready to be used! Before the 20th Century, slag was most commonly used as the support bed for railroad tracks. Currently, millions of tons of slag are produced and used annually in the United States.

