2. That we learn everything we possibly can about good safety practices and how they apply to our people in their jobs.

3. That we learn everything we can about our people through personal contact. We work through their feelings and emotions to help them establish a desire to live and work safely.

We seek to ". . . first convince him that (we) are his sincere friend." Therein is the drop of honey by which we sell safety to our employes!

SAFE HANDLING OF MOLTEN ALUMINUM

By G. P. FISHER
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If I asked the group here today the definition of safety, I would probably get a good variety of answers and they would probably all be correct, or partially correct.

I would like to share with you the KACC definition of safety. Safety is simply the control of hazards. Quite naturally, our safety program is designed to control hazards, hazards being unsafe acts and unsafe conditions. A lot of effort has been put into controlling unsafe conditions through engineering. Good safety engineering standards are probably the first approach to safety. I would imagine that the ideal plant would be one that is engineered so well that it is practically impossible to have an accident.

Well, we all know that although hazards can be controlled, they cannot always be eliminated.

There are many inherent hazards associated with handling any type of molten metal, and although a lot of these hazards are similar, they each have their own specific differences. When aluminum is heated to over 1215° Fahrenheit, it assumes a character quite different from the metal that we have come to know in so many everyday uses. Through engineering, we continue to improve the safe handling of molten aluminum. However, as much as we try through engineering design to control these hazards, there comes a point when we have to rely on people to control hazards through their personal practices.

The control of unsafe acts through education is the next important part of our safety program. We try to teach our employees how to control the inherent hazards of molten aluminum through various programs such as job safe practices, problem solving safety meetings, visual aids, training sessions, safety recommendations, etc.

Aluminum is one of the world's most abundant metals. United States producers use an "ore" of impure hydrated aluminum oxide knows as bauxite. Important sources are located in Arkansas, Dutch Guiana, and Jamaica.

After the impure ore is converted to pure aluminum oxide, alumina, at Kaiser Aluminum's refining plants in Louisiana it is shipped to Kaiser Aluminum's metal producing (reduction) plants. One of these plants is at Ravenswood, W. Va.

The alumina ore is shipped to the Ravenswood plant by rail and dumped through the grate at our unloading station. The ore goes by conveyor to storage hoppers and is fed into an ore bucket and then is dumped into a reduction pot ore storage hopper on top of the pot. A reduction pot is one of the many electric smelting furnaces which operate continuously. It is at this point that the hazards associated with handling molten aluminum begins.

The pots are shallow steel tanks, lined with carbon. They are partially filled with molten cryolite, a salt-like substance known chemically as sodium aluminum flouride, which dissolves alumina and also conducts the electric current. The electric current is introduced through carbon blocks immersed in the molten cryolite. Under the influence of electric energy, the oxygen combines with the carbon leaving pure molten aluminum.

The gases formed by this process are pulled out through a ventilation system which is one of the best in the world, keeping the rooms clear at all times and is