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FATALITIES FROM HYDROGEN SULFIDE IN WELLS

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WHEN a pile driver penetrates through filled earth and strikes the underlying mangrove swamp, a gush of hydrogen sulfide often escapes. The contractor pays for new paint jobs on the white houses nearby as a matter of course. In vegetable packing plants the wash water from either deep or shallow wells often gives off enough hydrogen sulfide to irritate the eyes of workers alongside the washer. The workers take turns in working at the job close to the washer. In some open bodies of water, sulfur springs and decaying vegetation combine to produce enough hydrogen sulfide to darken the paint on boats as well as on houses on the shore. In many locations in Southern Florida the characteristic odor of hydrogen sulfide is commonly encountered, so that the residents tend to dismiss the presence of this gas as nothing more than an annoying nuisance until they are sharply reminded of its serious toxicity by a tragic incident such as the following.

On Jan. 2, 1948, three men undertook the task of cleaning a well that was part of the water supply of a vegetable packing plant in the Everglades near Lake Okeechobee. The well was square, about 6 ft. by 6 ft. (1.8 by 1.8 m.) and was sunk about 20 ft. (6 m.) in the muck. First, the well was pumped out, and then the factory superintendent went down for a few minutes to probe the depth of the mud at the bottom. When he climbed out, a winch was rigged and a laborer went down to shovel mud into the bucket. After a few minutes, he was seen to fall forward in the mud and water at the bottom of the well. Another man went to his aid, but he too collapsed. A third man attempted the rescue and failed. When the bodies were brought to the surface, they were given prolonged artificial respiration, but none of them recovered.

One week later, the Florida Industrial Commission and the State Board of Health made a combined investigation of the accident. An attempt was made to reproduce conditions prevailing at the time of the accident. The well was pumped out to a depth of more than 18 ft. (5.5 m.). Readings of the hydrogen sulfide content were made at various levels by means of an M.S.A. type hydrogen sulfide detector. The results are given in table 1.

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