

Attachment No. 4

Effects of Hydrogen Sulfide H2S

PPM	EFFECT TIME
.00011-33	Typical background concentrations.
0.01-1.5	Odor threshold – rotten egg smell.
10	Permissible Exposure Level – 8 Hours.
20 -30	Possible fatigue, loss of appetite, headache, irritability, poor memory, dizziness. Intense odor. Above 30ppm odor is sweet or sickeningly sweet.
50 -100	Mild Irritation - eyes, throat – 1 Hour.
100	Coughing, eye irritation, loss of smell 2-15 minute. Altered breathing, drowsiness 15-30 minutes. Throat irritation 1 hour. Symptom severity increases. Hemorrhage & Death 48 hours.
100-150	Loss of smell (olfactory fatigue or paralysis).
200-300	Significant Irritation. Marked conjunctivitis & respiratory tract – 1 Hour. Pulmonary edema may occur from prolonged exposure 48 hours.
500 - 700	Staggering, unconsciousness in 5 minutes. Serious eye damage, 30 minutes. Death 30-60 minutes.
700-1000	Rapid unconsciousness, “knockdown” or immediate collapse 1 to 2 breaths. Breathing stops. Death within minutes.
>1000	Nearly instant Death.



This material was produced under grant number SH-27664-SH5 from the Occupational Safety and Health Administration, U.S. Department of Labor. It does not necessarily reflect the views or policies of the U.S. Department of Labor, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.

258 PU-22-391 Filed 05/09/2023 Pages: 1
 Exhibit W166 - Grain Handling Safety Coalition - effect of H2S effect time
 Intervenor John H. Warford, Jr., as Trustee of Revocable Trust

Grain Handling Safety Coalition
www.grainsafety.org

W166