

Training Evaluation Request
Oregon Environmental Services Advisory Council
Watura
Hydrogen Sulfide (H₂S) Risks and Treatment

Course title: Hydrogen Sulfide (H₂S) Risks and Treatment

Drinking Water CEUs: 0 h

Wastewater CEUs: 1.5 h

Instructor bio: **Maelle LIMOUZIN** is a Water Resources and Environmental Engineer who studied at UT Austin. She spent 10 years working in a consulting company for drinking water and wastewater public utilities and 3 years in a company that manages drinking water and wastewater facilities. Currently, she uses her technical expertise and experience to train public and private organizations in managing their drinking water and wastewater systems.

Course description: Hydrogen sulfide (H₂S) is a toxic, corrosive gas that forms in wastewater systems under anaerobic conditions and can be deadly even at relatively low concentrations. It causes major risks for operators, contributes to severe corrosion of concrete and metal structures, and generates strong odors that affect both workers and nearby communities. This course helps operators understand how H₂S forms, how to measure it, how to stay safe, and how to apply preventive and curative treatment methods to reduce risks.

Learning goals:

- Identify how H₂S forms in wastewater systems and the main risks it creates for people and infrastructure
- Describe how H₂S exposure is managed and controlled in wastewater operations
- Select appropriate preventive and corrective treatment methods to reduce H₂S risks

Tracking attendance method:

The e-learning platform offers a highly interactive experience designed to engage learners at every stage. It begins with an initial test to assess knowledge and tailor the learning journey. The course includes short, focused videos interspersed with mandatory training quizzes that reinforce key concepts and ensure active participation. Students are required to watch every video entirely and to answer practice questions before advancing to the next course module. Students cannot skip course content. A final quiz at the end of each chapter evaluates overall comprehension and certifies the learner's mastery of the material. Students must obtain a minimum score of 70% for every chapter's final quiz to successfully complete the course and obtain the certificate of attendance. The platform automatically tracks each learner's learning time. The real learning time is indicated alongside the delivered credits in the course completion certificate.

Course outline: Hydrogen Sulfide (H₂S) Risks and Treatment

Initial Test		6 min
1. Hydrogen Sulfide (H₂S) Risks	1.1. Course Overview	1 min
	1.2. Introduction to Hydrogen Sulfide (H ₂ S)	4 min
	1.3. Risks Related to H ₂ S	7 min
	1.4. Activity - Effects of H ₂ S Exposure on Human Health	1 min
	1.5. H ₂ S Production Mechanisms	8 min
	1.6. Measuring H ₂ S Levels	7 min
	1.7. Corrosion and Odor Impacts	7 min
	1.8. Personal Safety and PPE	8 min
	1.9. Activity - H ₂ S Respiratory Protection	2 min
	1.8. Chapter 1 - Fact Sheets	2 min
	Chapter final test	6 min
	2. Hydrogen Sulfide (H₂S) Treatment	2.1. Preventive Control and Treatment
2.2. Curative Treatment		6 min
2.3. Corrosion Prevention and Odor Treatment Strategies		5 min
2.4. Confined Space Entry and Emergency Response		6 min
2.5. Course Glossary		4 min
2.4. Chapter 2 - Fact Sheets		2 min
Chapter final test		6 min
Total Learning Time		108 min
Requested Contact Hours		1.5 h