

How Sensear Helped an Oil & Gas Team Cut the Cables and Boost Protection

Client: Oil & Gas Facility

Industry: Oil and Gas

Overview

For years, one industrial energy customer faced a growing safety and communication challenge: maintaining clear, hands-free communication in extremely high-noise areas—while still meeting strict double hearing protection and Intrinsically Safe (IS) standards.



That all changed when the customer worked with Sensear to deploy a **customized IS Bluetooth® communication solution**—a wireless upgrade that delivered protection, clarity, and efficiency.

The Challenge

This facility operated in environments with sound levels up to 115 dB(A), where double hearing protection was mandatory and reliable radio communication was essential for operations and safety.

- **Cable Chaos:** Workers were required to wear multiple cables—from earbuds, control boxes, and radio connectors—making it difficult to move without snagging wires.
- **Hearing Protection Compromised:** PPE was frequently pulled out of place due to cable tension, putting hearing safety at risk.
- **Unsafe Modifications:** The customer had to jerry-rig headsets onto hardhats using screws and non-standard clips, causing physical damage and voiding IS ratings.
- **No Volume Control:** Existing headsets didn't limit radio volume, leading to complaints of “blasted ears” during transmissions.
- **Poor User Experience:** Frustration with gear led to low PPE adoption and communication errors that slowed work down.

As high-noise industrial sites grew more complex and safety expectations rose, the need for **Intrinsically Safe (IS) wireless communication** became essential—allowing crews to stay protected, untethered, and fully connected in hazardous environments.



The Solution

Sensear developed a custom firmware solution that paired its digital IS Bluetooth® wireless technology headsets directly with the customer's Motorola IDEN radios—eliminating the need for interface cables entirely. With a simple power-on pairing, users could activate Bluetooth® mode when entering high-noise zones and deactivate it when in quieter areas—without ever removing or rewiring equipment.

What Made the Difference:

- **Full Situational Awareness** while using Two-way radios or Bluetooth® devices
- **Clear Face-To-Face Conversation** without removing PPE
- **FM Short-Range Communication**—ideal for 1:1 comms within 50 meters
- **Rugged, Over-Ear Design** built for harsh field conditions
- **Future-Ready** planning for IS headset deployment in hazardous zones

Workers reported increased safety and fewer equipment failures after switching to Sensear's wireless headsets—eliminating cable snags and PPE dislodgement.

The Results

The impact of switching to Sensear was immediate:

- **Improved Safety:** Hearing protection stayed intact, and volume was automatically limited.
- **Higher Worker Adoption:** Easier, wireless operation led to greater usage and acceptance.
- **Increased Productivity:** Smoother, clearer communication reduced downtime and errors.
- **Reduced Equipment Damage:** No more damaged cables, pulled PPE, or cracked IS devices.

Looking Ahead

With reliable, wireless IS communication now in place, the company has a scalable solution that improves safety, communication, and ROI across the entire facility. Sensear is helping them move from workaround solutions to true high-noise communication performance.

Conclusion

Whether navigating loud production floors or entering IS zones where every cable matters—

Sensear makes it possible.

Sensear delivers the clarity, comfort, and compliance that workers need to stay connected and safe.

Global Sales Headquarters

Sensear Inc.
1141 East Main Street, Suite 201
East Dundee, IL 60118
United States of America
Toll-Free: 1-888-973-6732

Corporate Headquarters

Sensear Pty Ltd
4 Hehir Street
Belmont, Western Australia 6104
Australia
Toll-Free: +61 8 9277 7332

www.sensear.com