

January 11, 2018  
Furukawa Electric Co., Ltd.

### **Notice Concerning a Gas Leak that Occurred at Chiba Works**

An accident occurred at around 12:35 on January 10, 2018 (Wednesday), with gas leaking inside the factory of Furukawa Fitel Optical Device Co., Ltd., which is located at Furukawa Electric's Chiba Works. We apologize deeply to all concerned for the trouble this caused.

We hereby inform you as follows of the situation clarified as of 15:00 on January 11 (Thursday).

#### 1. Place of occurrence

6 Yawatakaigandori, Ichihara City, Chiba Prefecture  
Furukawa Electric Co., Ltd., Chiba Works

Manufacturing plant for optical semiconductors of Furukawa Fitel Optical Device Co., Ltd.

#### 2. The course of the accident

Around 12:35, January 10 (Wednesday) Black smoke was detected from the detoxification column of the clean room of the manufacturing plant for optical semiconductors. Because a leak of toxic gas was possible, all employees inside the plant evacuated. As a result of measuring for toxic gas, it was confirmed that a leak had occurred outside of the clean room so all employees from other buildings linked to the plant were also made to evacuate.

Around 15:10, January 10 (Wednesday) It was confirmed that the leakage of toxic gas had already stopped.

Please note that gas concentrations in the manufacturing plant for optical semiconductors and linked buildings are below the environmental standards at the present time.

#### 3. The cause of the gas leak

The cause is currently under investigation with the competent fire department.

#### 4. State of damage (as of 15:00, January 11)

- (1) Human damage: 4 Furukawa Electric employees complained of feeling unwell and rested at the Works, but an industrial physician and public health nurse judged that they did not require medical treatment.
- (2) Property damage: Part of the detoxification column of the clean room of the manufacturing plant for optical semiconductors was broken (estimated).
- (3) The state of current operations
  - [1] Manufacturing of chips for optical semiconductors has ceased. About 400 Furukawa Electric Group employees of adjacent facilities evacuated to separate buildings and returned home in order on January 10.
  - [2] Other plants on the Works' premises are currently operating as normal.
- (4) Forecast for resumption of manufacturing: The site is currently being verified and no forecast for the resumption of manufacturing has been established.

#### 5. Cause and countermeasures

The cause is currently being investigated by the related authorities, but a Countermeasures Headquarters has been set up at Chiba Works and will do everything it can to advance its investigation of the cause, etc.

When the cause becomes clear, we will implement appropriate countermeasures while looking to the guidance of the related authorities.

#### 6. Details of the leaked toxic gas

##### - Phosphoric gas, arsenic gas

It is estimated that harmless products reacted chemically with air in the detoxification column, with phosphoric gas (including phosphine) and arsenic gas (including arsine) generated as a result.

Details: Inorganic compounds used when manufacturing optical semiconductors such as indium gallium arsenide phosphide (InGaAsP), etc. Both arsine and phosphine are used as raw materials in semiconductor manufacturing processes.