

## Statement

Since a gigantic earthquake and resulting tsunami hit the Japanese islands on March 11, more than five months have passed. The number of people deceased and left missing by these two related disasters rose to 15,800 and 4,300, respectively. In addition, more than 80,000 people remain evacuated from their homes. On behalf of all the attendees of the 2011 Goldschmidt Conference, we, presidents of the three meeting-sponsoring societies, would like to express our condolences to the relatives and friends of those who died as the result of these two disasters, and also express our sympathy to the people who have suffered.

As has been reported by various media outlets all over the world, electricity-generating stations of the Fukushima Daiichi Nuclear Power Plant of Tokyo Electric Power Company were severely damaged, and for a time, control of the nuclear power reactors was in question. Measures taken to regain control of these power plants – including spraying the reactor cores with seawater – damaged them further and, eventually, a large amount of radioactive material was released from the reactor facilities into the environment. The contamination affected not only the areas around the reactor site itself, but also a relatively large area of eastern main land Japan, with some specific areas getting heavily contaminated. In addition, a small amount of the radioactive material became airborne and was spread all over the world, particularly into the atmosphere and in the oceans.

To understand the accident-induced global dispersal of radioactive materials from the Fukushima Daiichi Nuclear Power Plant reactors and to promote international collaboration in further response, the Geochemical Society of Japan (GSJ), European Association of Geochemistry (EAG) and Geochemical Society (GS) cosponsored a special session about the Fukushima Daiichi Nuclear Power Plant accident at the 2011 Goldschmidt Conference in Prague, Czech Republic, 15-19 August 2011. Through this conference session, GSJ, EAG and GS developed a common understanding of the Fukushima accident and agreed to release the following position statement to the world.

### 1. Disclosure of monitoring data of radioactive material

The geochemical community tries to assess objectively the ways that radioactive materials are spread regionally and globally and readily makes available any data to the public. We strongly urge other organizations, including governmental sectors, to follow the same action as ours.

### 2. Continued monitoring of the spread of radioactive materials

Considering the fact that the radioactive nuclides released by the accident at the nuclear power reactors have long half-lives, it is strongly recommended that monitoring in the environment remains a priority for the foreseeable future. To carry out the long-term monitoring effectively, resources – both financial and personnel will be essential.

### 3. International alliance of researchers for global monitoring of radioactive materials

Radioactive materials spread not only within Japan but also across the globe. Because of that fact, we find merit in establishing international collaborations promptly to conduct the monitoring most

effectively. To facilitate such an alliance and make the collaboration functional, we strongly urge the developed countries to contribute toward these efforts.

#### 4. Future perspective

As developing countries industrialize, there is going to be increasing demand for energy. Barring the emergence of an unforeseen green energy in the not-too-distant future, economic growth is going to come at the cost of ever increasing additions of greenhouse gasses to the atmosphere. This is likely to force mankind to make hard choices about energy, including retaining nuclear energy in the mix of sources. It is our collective responsibility as global citizens to try and understand how the accidental dispersal of radioactive materials impacts the environment before potentially expanding the nuclear industry in the future.

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