

Introduction

ACHIEVING CARBON-NEUTRAL CREMATORIES

KASOUKEN

ASSOCIATION OF RESEARCH INITIATIVES FOR CREMATION, FUNERAL AND CEMETERY STUDIES

Chairman I TARU TAKEDA

As COVID-related travel restrictions continue to be lifted, I have been able to resume traveling in Europe this year. EU member nations are leading the way in addressing environmental issues. They consider climate change an imminent crisis. Many countries in the world have been making efforts to reduce net greenhouse gas (GHG) emissions, but the EU has written the set goals into law. They adopted the European Climate Law in 2021. It codifies the EU's goal to become climate neutral by 2050 as a legally binding obligation. As an intermediate goal, the Law sets a total GHG emissions reduction target of 55% by 2030 compared to 1990 levels. The European Commission also presented a series of legislative proposals, so called the "FIT for 55" in 2021, which describe the measures it will take to reach the target, including this 55% reduction, by 2030.

To abide by the law and to meet the set targets, businesses in all sectors must achieve their reduction targets. Crematories are no exception. When I visited Crematorium Antwerpen in Belgium, the plan to demolish and rebuild a new crematory was moving forward. The original crematory, ceremony hall and cafe were built in 1983. Its worn-out appearance, and sudden rise in maintenance and repair costs and soaring energy consumption were all indicative of the facility becoming technologically unfit. Since the building structures are in the area away from the cemetery and the park, it was decided to rebuild the facilities from scratch. The new plan includes setting solar photoelectric generation panels and a wind power generation system on the rooftop. There will be intensive afforestation for the purpose of GHG absorption. The employees will be required to commute by using public transportation and/or bicycles. All vehicles owned by the facility shall be EVs. During my visit, they were at the stage of working on the blueprint. The new facility is due for completion in 2026.

In Belgium, crematories are in the process of switching from gas furnace to electric. The Netherlands, however, has long been using electric furnaces. DFW Europe, a Netherlands company that develops electric furnaces,

introduced their products to the market in November 2018. The first product (DFW Electric) commenced its operation in the Netherlands in June 2019. By December 2022, a total of 25 electric furnaces were in operation in England, Germany and the Netherlands. In the Netherlands, 11% of all the crematory furnaces are electric today, 118 crematories are planned to be in operation by the end of 2023, 16% of which are expected to adopt electric furnaces. And by 2030, approximately 50% will be run by electric. In the next several years, the number of electric furnaces in EU member countries is expected to rise in order to meet the legally binding goals to countermeasure climate change and other environmental issues.

Each EU member country has its own plans to achieve carbon neutrality. For example, Switzerland is now returning to gas furnaces after using electric for decades. They believe electric furnaces are inefficient due to the longer time spent to complete the cremation process. Feuerhalle Simmering in Vienna, Austria has also switched back to gas furnace and has plans to move to hydrogen before 2030. They are already in the testing stage.

One of the measures Japan is promoting is construction of Net Zero Energy Buildings (ZEBs) by which the total energy consumption is reduced by 50% compared to conventional buildings. Since crematories are highly energy intensive, it is quite a challenge to achieve the 50% reduction target. There is, however, one crematory in Japan that intends to meet the minimum ZEB-ready criteria. It is currently in the planning stage. Reuse of waste heat from crematories, which is common in Europe, is another area Japan needs to become more proactive. How we, the mortuary sector, decisively approach the carbon neutral target will be perceived as how serious Japan is about the global environmental issues.

English text by Yukiko Izumi

Contact: KASOUKEN (General Incorporated Association)
2-5-9 Kandanshikicho Chiyoda-ku, Tokyo 101-0054 Japan
TEL +81-3-3518-2821 FAX +81-3-3518-2820
E-mail : kasouken@mbe.nifty.com <http://kasouken.c.ooco.jp/>