

Anaerobic digester (USA)



Project description

In the Californian town of San Luis Obispo, a modern food and green waste treatment facility is being built.

The facility, which is to be commissioned in the summer of 2018, will considerably reduce the volume of green waste sent to landfill in the area, in the process producing renewable biogas fuel and high-grade fertilizer.

The facility's key element, its anaerobic digester, must be protected against earthquakes, and this is being achieved by seismically isolating the structure from the ground.

mageba scope

To seismically isolate the structure, it is supported by LASTO®LRB isolators, 52 in total – each designed for a design displacement of 60 mm, a vertical load of 5,000 kN, and a horizontal load of 1,057 kN at the design displacement.

The elastomeric bearings have a diameter of 800 mm, and a lead core of diameter 260 mm which is suitable for the target natural frequency and provides energy dissipation.

The performance of the isolators was verified prior to use by comprehensive laboratory testing. Full "type testing" was carried out on two prototypes, and factory production control (FPC) testing was carried out on all 52 isolators prior to delivery to site.

Highlights & Facts

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Type: LASTO®LRB seismic isolators

Features: Designed per AASHTO specifications

Installation: 2017

Structure:

City: San Luis Obispo

Country: United States

Type: Environmental industry building

Built: 2018

Owner: HZIU Kompogas SLO Inc.

Contractor: Hitachi Zosen Inova

Engineer: Hitachi Zosen Inova

The anaerobic digester is located in San Luis Obispo, California



View of the LRBs following installation to support the anaerobic digester



Construction of the anaerobic digester on top of the installed LRBs

