Megaports Project Performance Outcomes

I. Megaports Project Introduction

In order to prevent terrorists from using containers to transport nuclear or radioactive materials, the United States has promoted the Megaports Initiative (hereinafter referred to as "Megaports Project") in major ports around the world, under which radiation detection equipment is deployed at major ports around the world to detect import and export cargo containers, with a view to deterring and preventing the smuggling of illegal nuclear materials through containers. Megaports was launched in 2006, with the U.S. Department of Energy investing over US$59.1 million in funding personnel training 、 installing radiation portal monitoring equipment at the Port of Kaohsiung. The project's system was officially commissioned in 2010 and maintained by the U.S. for 3 years. In September 2013, the ownership of Megaports Project was transitioned to the Customs Administration, Ministry of Finance who would be responsible for all subsequent funding for the system operation and maintenance. The Customs Administration will also take responsibility for protecting the people of Taiwan and international container transport, including those destined for the U.S., from the threat of nuclear radiation.

II. Megaports Project Performance Outcome

The Customs uses radiation portal monitors (RPMs) to detect radiation in import, export and transshipment containers, and the data is transmitted to the workstations at Customs' Central Alarm Station (CAS) via wireless communication. In the event of a radiation (gamma and/or neutron) alarm, Customs will determine if a secondary inspection with hand-held radiation detection devices is necessary in container yards after comparing the data with cargo manifests. With secondary inspections, Customs will locate radiation hotspots and identify radionuclides emitted from the container. A written notice along with relevant detection data will be submitted to the competent authority, the Nuclear Safety Commission (NSC), which will then adjudicate if a tertiary detection is necessary. The NSC will make suggestions on the release or return of containers after consolidation of assessments. The statistics of radiation detection and alarm adjudications of the Megaports Project in recent years (2019-2025) are listed in the following table:

Year	RPM Detection (by the number of containers)	Notice to NSC (by the number of containers)	Return Adjudication (By the number of containers)
2019	5,017,378	35	12
2020	4,690,096	14	4
2021	5,009,542	10	3
2022	5,483,905	11	7
2023	6,248,781	13	6
2024	6,169,413	11	5
2025	5,047,035	4	3

Notes: The number of containers detected per month is 520,000 on average.