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EB Technology vis-a-vis Gamma Radiation for Irradiation Sterilization: Emerging Scenario

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The irradiation sterilization as a green and safety sterilization method is widely used in the treatment of food, medical products, herbals and agricultural products in the worldwide. The main technologies for irradiation sterilization are Gamma radiation and Electron beam technology which includes EB and X-ray.

Co-60 based technology was developed more than half century, but following the continuous concerns on the radiation safety, nuclear security, the radioactive waste and the supply of Co-60 sources, the development of Gamma radiation for irradiation sterilization faces more and more challenges. Electron beam based technology was developed relatively much later to Gamma technology. As the need of alternative methods which not use the radioactive material for irradiation sterilization, the EB technology developed very fast in last decade.

The presentation provided the general analysis of the advantages and drawbacks on different aspects such as regulation requirement, safety and security, products scope, economically competitive for both gamma and EB technologies and then gave some suggestion and outlook for this emerging scenario of irradiation sterilization.

Country/Organization invited to participate

China

Primary author: Mr PENG, Wei (Vanform Corporation, China)

Presenter: Mr PENG, Wei (Vanform Corporation, China)

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