

TechBriefs

Savannah River National Laboratory

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Benefits

- > This device is necessary in some cases to meet life safety code and building code requirements and in others simply to make opening the door easier for the worker. The simple design options have been fabricated on site and could be easily manufactured. The prototypes demonstrate different field adjustments that can be made to lessen or increase the applied forces to match field needs.

Applications and Industries

- > This device could be marketed by door or door hardware manufacturers and sold to organizations where pressure differentials are necessary. Examples include clean rooms in the electronics and microchip manufacturing, hospital isolation rooms, laboratories and nuclear facilities.

Intellectual Property

- > US Patent 9,151,099 B2 has been issued

Contact Information

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Egress Door Opening Assister

Savannah River National Laboratory has patented a device that assists persons to open an egress door where a pressure differential occurs across the opening.

Description

Where pressure is maintained at different levels on opposite sides of a wall to force air-flow in a certain direction, certain forces on a door through that wall resist the door's opening. SRNL's spring-loaded device is mounted to the door frame and presses against the door (or vice versa) to relieve some of this pressure until the door is open enough to release the effect. The device provides less counter force than the pressure differential forces to ensure the door closes properly.

