

STEMRAD[®] 360^γ

Shielding Reactor Personnel from Gamma Radiation



High Dose
Reactor Activities



Aberrant Dose
Readings



Detection
Compromised



Emergency
Response



Current solutions protect personnel from alpha and beta radiation but do nothing to block gamma radiation.



By selectively shielding stem cell rich organs in the pelvic region, StemRad has made protection from gamma radiation possible.



StemRad's 360 Gamma reduces the probability of stochastic effects due to low dose exposures while preventing lethal deterministic effects following high dose exposures.



ALARA dictates dose reduction through 'time, distance, shielding'. StemRad enables shielding to save lives.



"StemRad has developed radiation protection for the day prevention fails."

*Four Star Admiral James Ellis,
former CEO of INPO*





Rapidly Deployable
From onsite FLEX dome inventory



Tested against Cs-137
Effective against High-Energy Gammas



Highly Ergonomic
Compatible with current PPE



Full Mobility
Positioned on the body's center of gravity



ALARA
Increased ROI on high-dose critical path tasks



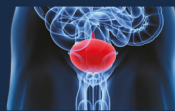
Reduction in Cancer Incidence



Ovarian cancers
35%



Colon cancers
27%



Bladder cancers
22%



Stomach cancers
19%



Leukemias
19%

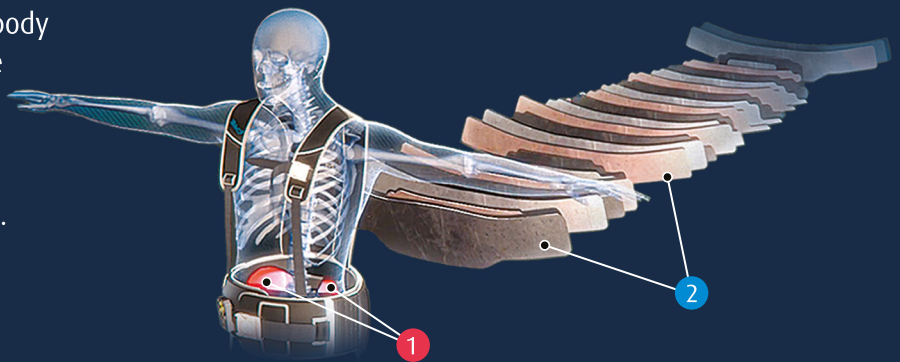
Prevention of Acute Radiation Syndrome^{**}

Dose in Sv	1.5	2	3	4	5	6
% Lethality Unshielded	3.5%	6%	25%	50%	80%	95%
% Lethality Shielded	0%	0%	0%	0%	0%	0%

^{**} survival will vary depending on radionuclide energy

1 By sparing a sufficient volume of the wearer's bone marrow, the 360 Gamma enables the body to perform its crucial life-saving regenerative biological processes post-exposure.

2 Patented internal structure ensures optimal protection while minimizing weight. The 360 Gamma accounts for pelvic bone marrow depth and the natural attenuation properties of human tissue.



"While whole body shielding is inherently heavy, partial body shielding is lighter in weight and selectively shields tissues of increased radiosensitivity (i.e. bone marrow) with substantial amounts of shielding material to protect hematopoietic functions; therefore, potentially preventing the acute health effects of exposure to gamma radiation (i.e. Acute Radiation Syndrome -ARS)." OECD Report on Occupational Radiation Protection in Severe Accident Management

