

# Take 5 for Safety

*E. Lessard*

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**BROOKHAVEN**  
NATIONAL LABORATORY

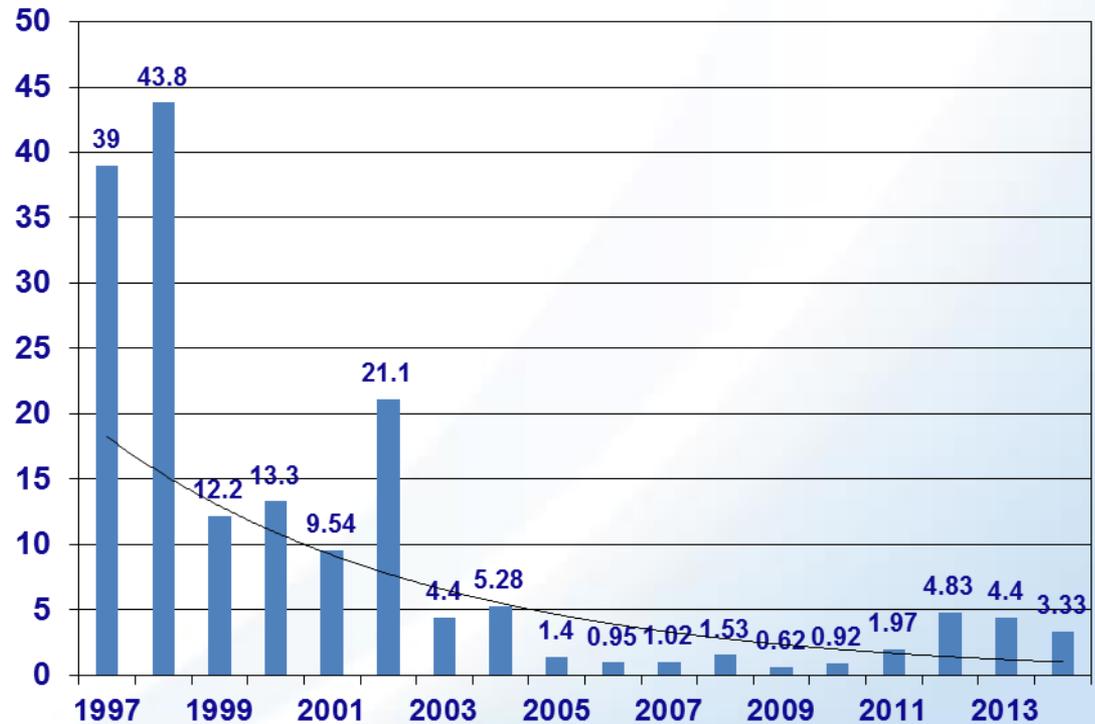
*a passion for discovery*



# Radiological Control at C-AD

- The C-AD uses radiation shielding, time and distance to reduce radiation levels in occupied areas to acceptable levels
- This C-AD policy is described in formal terms in Chapter 4 of the current SAD, and in OPM 9.5.1 C-A ALARA Policy

C-AD Calendar-Year Collective Dose, person-rem and Trend Line



# C-AD Radiological Protection Policy

- Annual site-boundary dose equivalent is less than 5 mrem
- Annual on-site dose equivalent to inadvertently exposed people in non-Collider-Accelerator Department facilities is less than 25 mrem
- Maximum dose equivalent to any area where access is not controlled is limited to less than 20 mrem during a fault condition
- For continuously occupied locations, the dose equivalent rate is ALARA but in no case greater than 0.5 mrem in one hour or 20 mrem in one week

# C-AD Radiological Protection Policy

- Dose equivalent rates where occupancy is not continuous is ALARA, may not exceed 1,000 mrem in one year for whole body radiation
  - Or 3,000 mrem for the lens of the eye, or 10,000 mrem for any organ
- The ALARA Committee Chair must notify the C-AD Chair in writing when exposure is expected to exceed 500 mrem in one year
- The C-AD Chair must approve all personnel exposures that will exceed 500 mrem in one year
- The daily dose to trained Radiation Workers shall be less than 100 mrem
  - A first line supervisor may approve a dose between 100 and 200 mrem

# Look for Hazards in Every Direction

I'm not surprised at the passenger's lack of a helmet, but I am surprised that the guy in front is wearing one

