

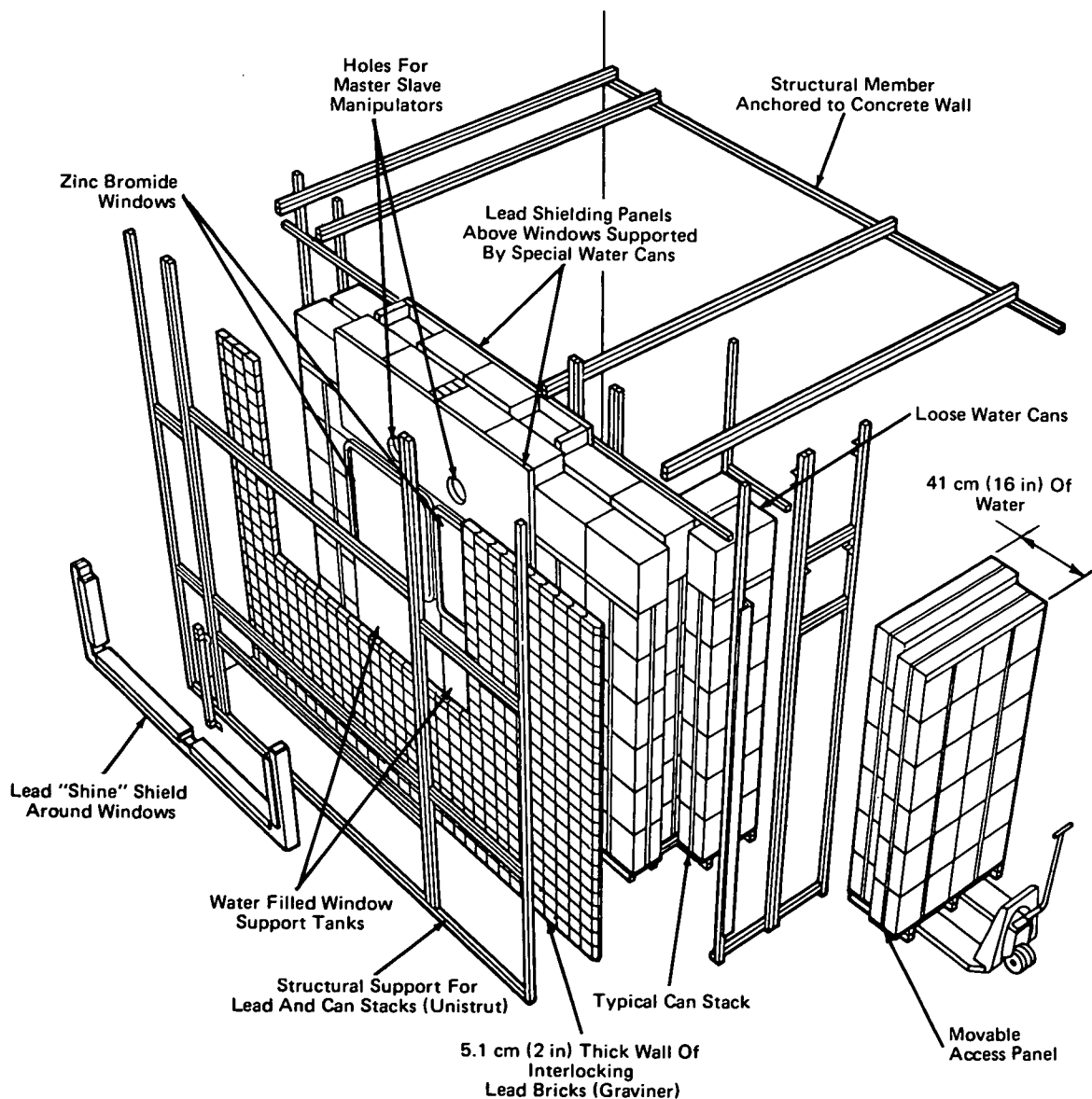
# AEC-NASA TECH BRIEF

## *Lawrence Berkeley Laboratory*



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### Flexible Shielding System for Radiation Protection



(continued overleaf)

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A flexible, low-cost shielding system, consisting of water-filled steel cans and lead bricks, is designed to protect against nuclear radiation. The versatile modular construction permits easy modification of the shielding wall thickness in order to attenuate different levels of radioactivity. The overall geometry can also be re-arranged to accommodate different enclosure sizes. The portable components (see figure) include water-filled tank sections, zinc bromide windows, a turntable unit, master-slave manipulators, interlocking 5.1 cm (2 in) lead bricks, and the support structure for the assembled shield.

The water-filled cans (24 to a stack) are strapped to a pallet which has a special mounting base. Each row of cans is placed in position to the left or right of the adjacent row, creating the desired horizontal displacement between cracks. The cold-pressed, interlocking lead bricks, made of 4% antimonial lead, are formed into

various shapes and sizes to allow for greater flexibility in the shield. The individual bricks vary in weight, but generally can be easily handled and stacked by one man.

**Note:**

Requests for further information may be directed to:  
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Reference: B72-10500

**Patent status:**

No patent action is contemplated by AEC or NASA.

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(LRL-10028)