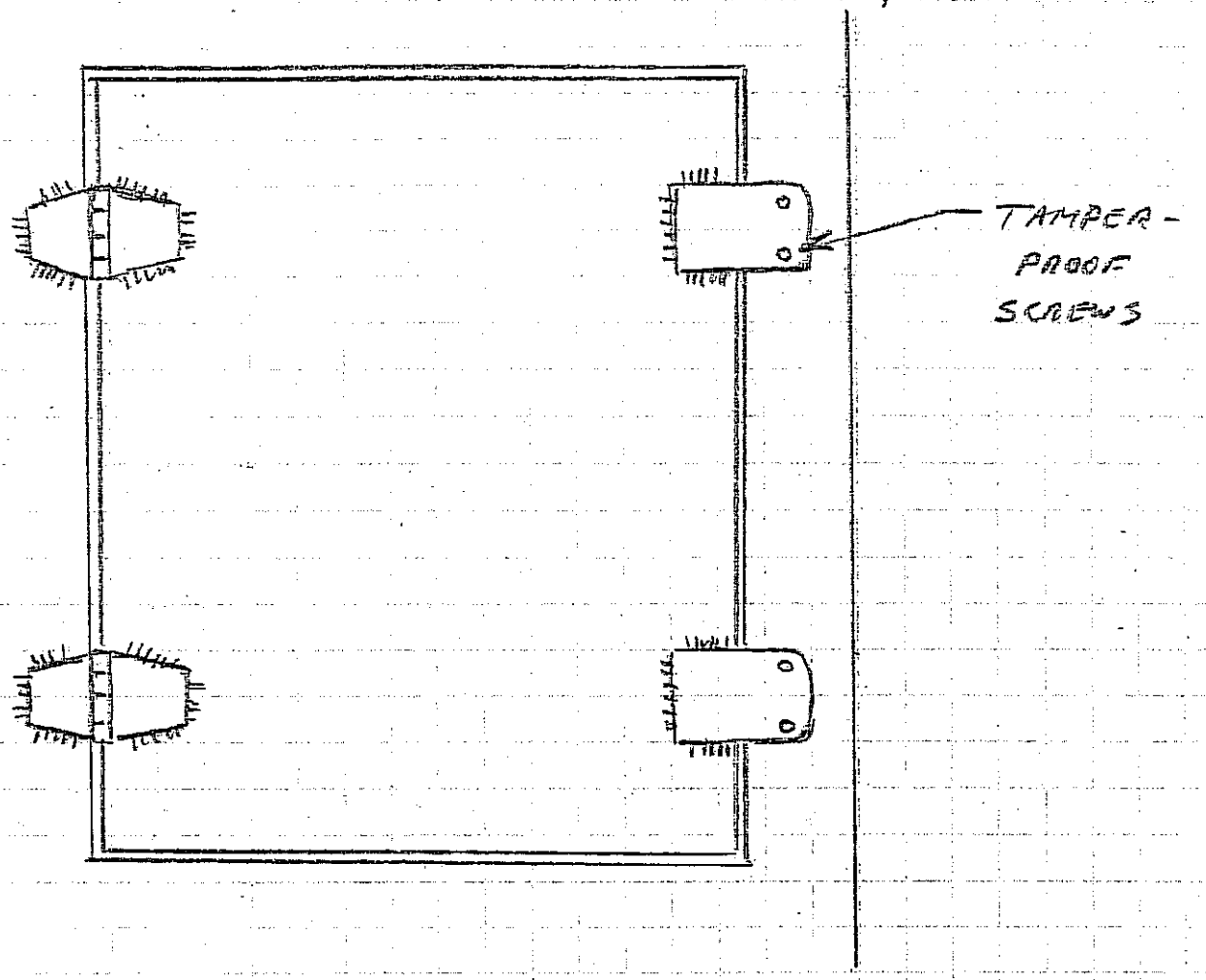
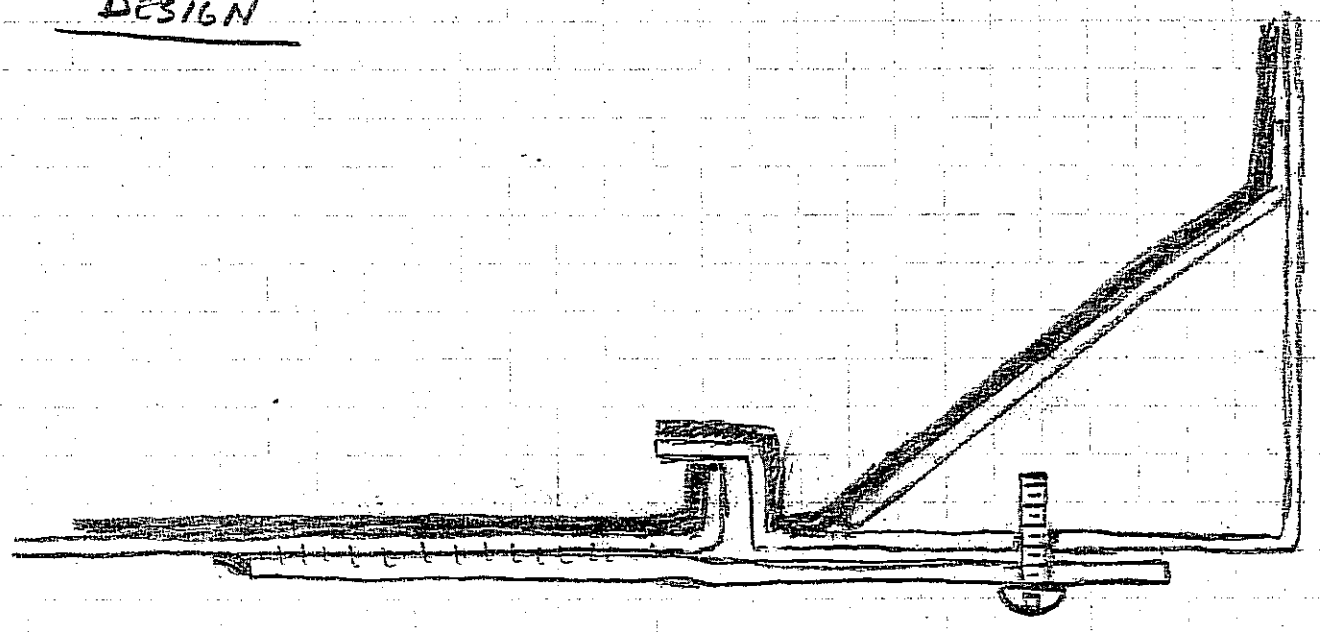
11/15/05 WJ



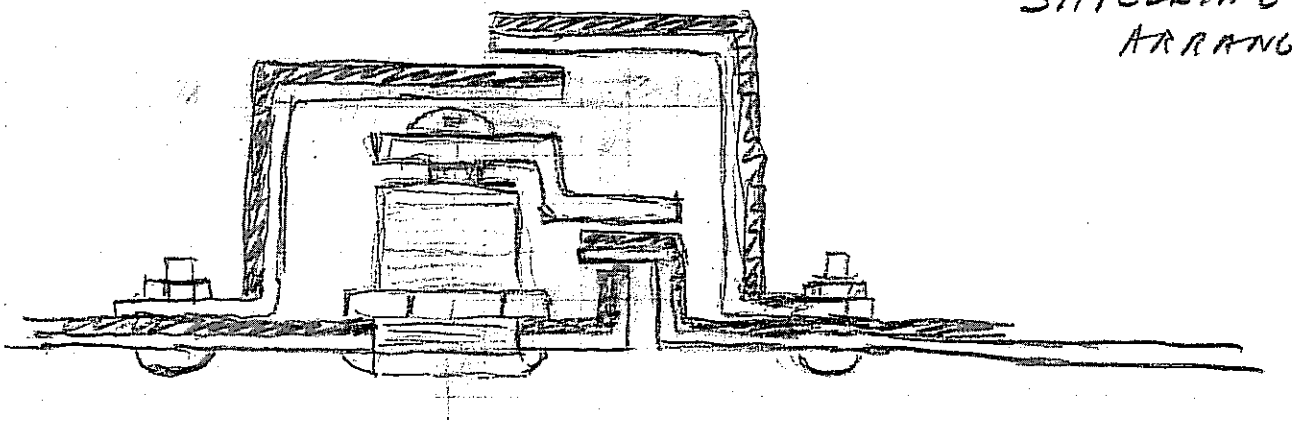
EXISTING DESIGN



11/10/05
WJ

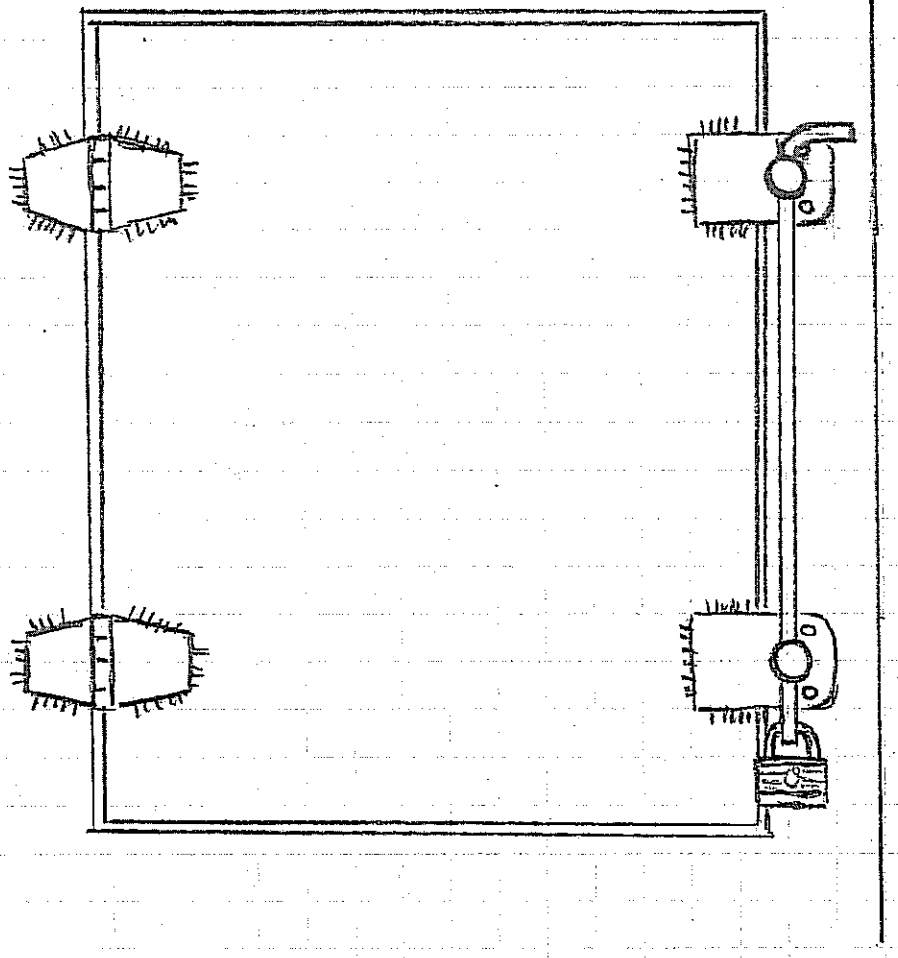
BL 4.2.2 MONOCHROMETER
HUTCH LOCKING LATCHES

SHIELDING ARRANGEMENT



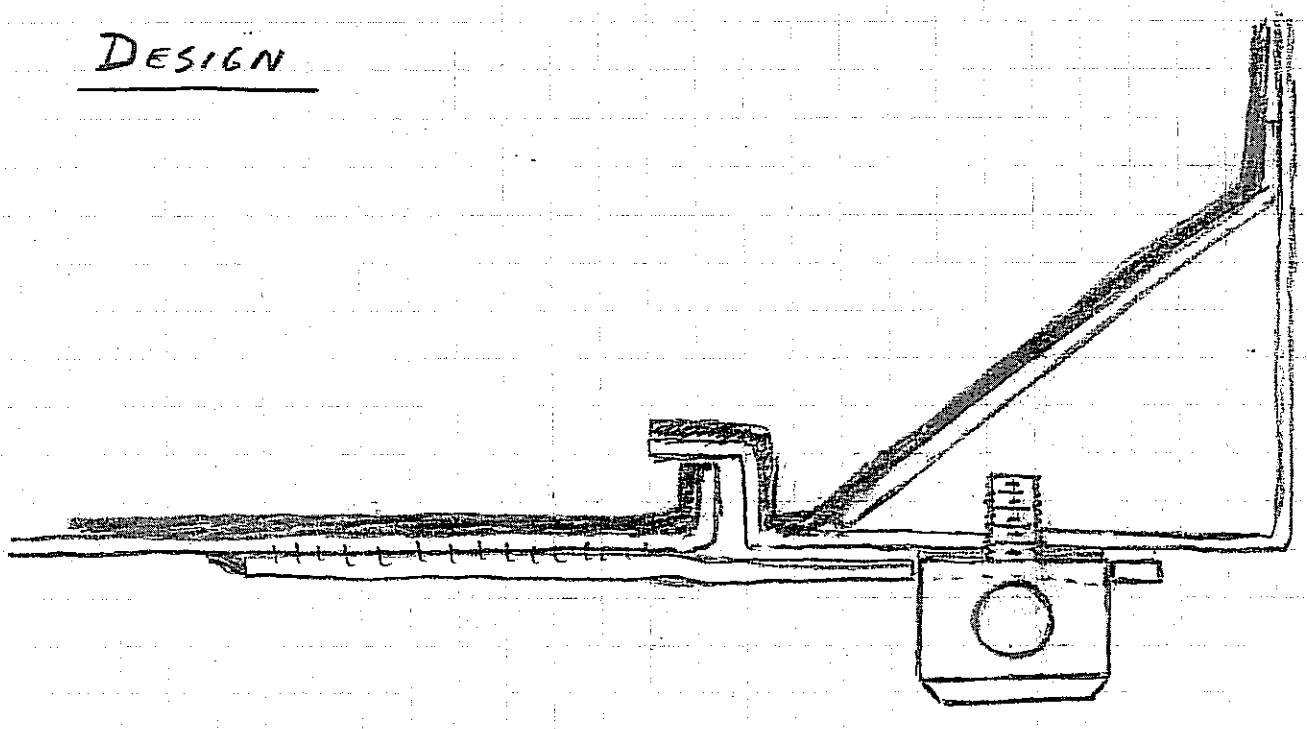
– THIS WAS JUDGED TO BE TOO COMPLICATED BY TIM WILLIAMS AND BOB CONROY.

11/15/05 WJ



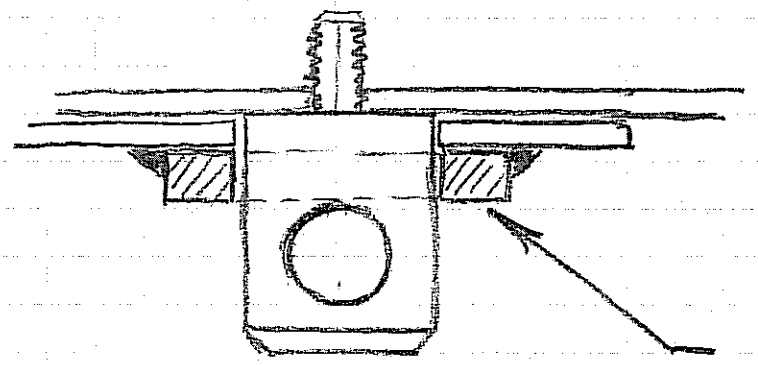
PROPOSED

DESIGN



11/16/05 WJ

STRONGER, MORE PRECISE LOCKING PIN:



TACK-WELDED SPACER RING, THICKNESS TAILORED TO PROVIDE FIRM CLOSING OF DOOR.

- THIS DESIGN PUTS MORE MATERIAL BETWEEN THE THREADED STUD AND THE LOCK HOLE, MAKING IT STRONGER.

- IT ALSO ALLOWS TAILORING OF THE LOCK ROD FIT TO ENSURE A FIRMLY CLOSED DOOR.
(THIS IS IMPORTANT TO RICK DONAHUE.)

INSTALLATION:
- HOLE SAW EXISTING DOOR PLATES, 1 1/4" DIA.
- WITH DOOR CLOSED, TRANSFER PUNCH HUTCH WALL FOR:
- DRILLING AND TAPPING, 1/4-28, INTO CORNER CAVITY (NO LEAD REMOVED)
- CUSTOM MACHINE SPACER RINGS FOR SNUG DOOR CLOSURE
- TACK WELD SPACER RINGS TO DOOR PLATES
- TOUCH-UP PAINT.

REQUEST FOR CHANGES TO PERSONNEL PROTECTION SYSTEMS

Requester	Request Date	Desired Completion Date
WILL THUR	11/14/05	12/1/05

Area Affected:
BL 4.2.2 MONOCHROMETER RADIATION ENCLOSURE

Reason for Change or New Design:
BL 4.2.2 OPERATING EXPERIENCE HAS SHOWN A NEED FOR REGULAR USER ACCESS TO THE MONOCHROMETER. THE TAMPER-PROOF SCREW ACCESS IS NOT APPROPRIATE, AND A KEY-LOCK ARRANGEMENT IS NEEDED, WITH KEY ON THE RSS CHASSIS KEY RING (AS FOR MINI-HUTCH PANEL ACCESS).

Desired Operational Results:

- ELIMINATE USER ACCESS TO TAMPER-PROOF TOOLS
- ELIMINATE USER USE OF ANY TOOLS TO ACCESS THIS MONOCHROMETER (NO AUXILIARY SCREWS)
- USER ACCESS TO MONOCHROMETER VIA LOCKS WITH KEY ON RSS CHASSIS KEY RING
  - AUTOMATIC KEYING OFF OF BEAMLINE
  - REQUIRES KEY-ENABLE TO RESTORE OPERATION (INSPECTION BY BEAMLINE COORDINATOR)
- USER ACCESS IS REQUIRED FOR SIX PANELS
  - FOUR ARE HINGED, TWO ARE NOT

CONCEPTUAL DESIGN APPROVED BY	DATE
Second Person	
Technical Safety Committee, Georgeanna Perdue	
Personnel Safety System Engineer, Art Ritchie	