



RIVERSIDE
REGIONAL MEDICAL CENTER

Harold Prussia
License No.: 45-09001-01
Docket No.: 03003330
Control No.: 138016
December 9, 2005

K-8

MS-16

To Sandra Gabriel:

This letter is in response to your request for additional information. Our response will answer each question with the same numbering system as in your letter.

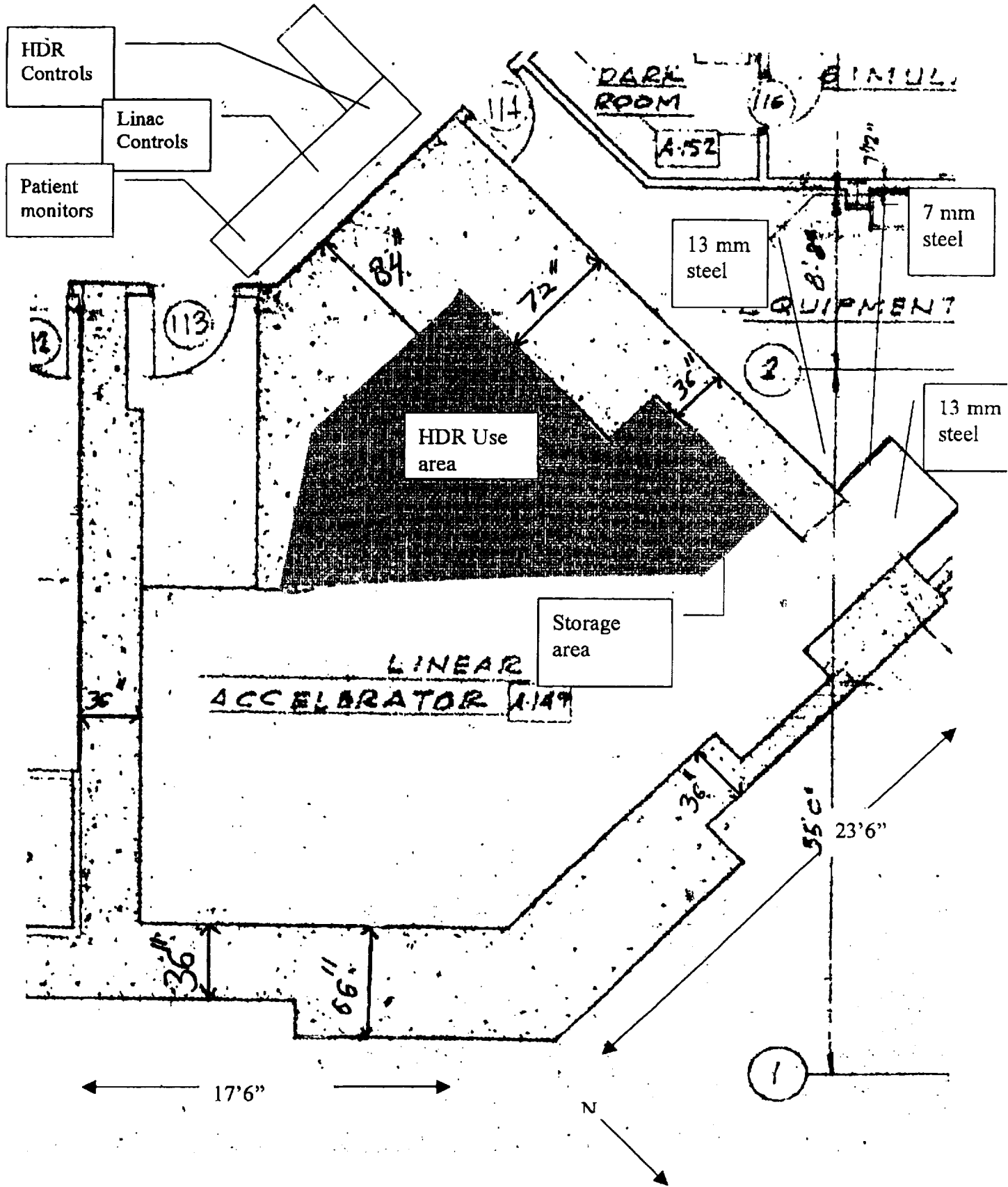
- 1)a). We have added the location of the HDR control panel to the drawing that was on page 6 of our original correspondence. The enhanced drawing is on page 3. of this response.
- 1)b). A more detailed explanation of the barrier calculations and drawing are on page 4 and 5 of this response. The added information and drawings along with the original calculations document the values and location of requested calculation points.
- 2). The HDR room ceiling height is 10 feet. There is a 30-inch space between the ceiling and the concrete roof and the concrete roof is 40" thick. Total distance from the floor slab to the exterior roof is more than 15 feet. Calculations indicate that no roof restrictions are necessary for purposes of HDR use.
- 3). The room shall have a strip attached to the floor. The unit may only be used on the console (southern) side of the strip. The linear accelerator gantry, connections and patient table, border the majority of the NORTH HDR use area. We will not use the linear accelerator table for HDR patients or HDR calibrations.
- 4). We confirm that the doses to individuals in areas beyond the equipment room will not exceed regulatory limits. Please see the attached explanation and drawing on page 4 and 5 of this response.
- 5). Both of the equipment doors will be self-locking. The key will be attached to HDR control key to prevent unknown room access. We will develop procedures that will require us to ensure the equipment room is unoccupied, locked and that the appropriate

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138016

signs are posted on the outside of both doors before inserting the key in the HDR control. The appropriate door signage will comply with 10CFR20 and be determined by the results of an area survey with the source at point B in the drawing on page 3. The door signs will be attached by Velcro and removed after the control key has been removed from the HDR unit.



Response to Item 1b. See attached diagram

Point A is the source location assumed for the dose calculation beyond the knockout wall at point E. This source location is outside the designated source usage area, closer to the knockout wall than any point inside the designated usage area. Accordingly, it is used to demonstrate that dose to the public beyond the knockout wall is within regulatory limits even if the source is used closer to the wall that indicated by the designated usage area.

Point B is the source location assumed for the dose calculated at points C and D beyond the equipment room. Note that this source location is also slightly outside the designated use area, and permits radiation to pass through the steel cage, avoiding any of the thick vault concrete walls. Like the above, it is used to demonstrate that dose to the public outside the building beyond the equipment room are within regulatory limits even if the source is used outside designated usage area.

Point C is beyond the equipment room, through the 13 mm section of the steel cage, one foot beyond the outside wall.

Point D is beyond the equipment room, through the 7 mm section of the steel cage, one foot beyond the outside wall.

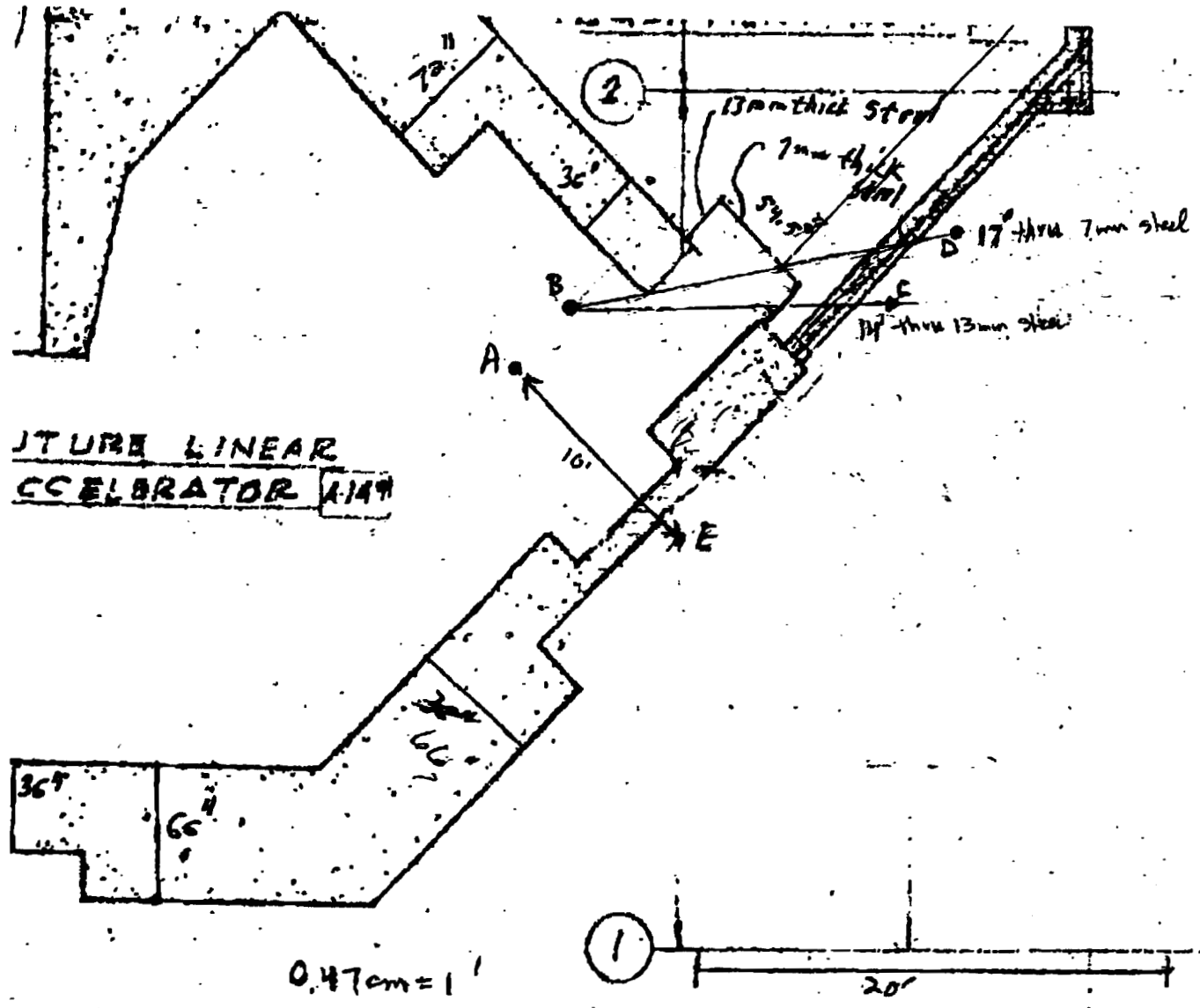
Point E is outside, one foot beyond the concrete knockout wall.

Response to Item 2.

The roof is 40 inch thick concrete. Someone on the roof is at least 10 ' from the source. Accordingly, the calculations labeled "Yearly Dose Equivalent Beyond Concrete Barriers 3' Thick or Greater " apply. That is, dose on the roof is within regulatory limits even if full occupancy by members of the public is assumed.

Response to Item 4.

Beyond the equipment room is the outside parking area where points C and D are located. The dose at these points was calculated in the original report. The calculations were labeled "Yearly Dose Equivalent Outside the Building, Beyond the 13 mm Steel Cage" and "Yearly Dose Equivalent Outside the Building, Beyond the 7 mm Steel Cage." In all instances, the dose was within regulatory limits. (Note the typographical error in the original report. The distances to Points C and D were labeled as 14" and 17" respectively. The actual distances were 14' and 17'.)



Thank you for your help. If you have any questions, you may e-mail me or call at 757-594-2757

Harold Prussia
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CERTIFICATION

THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32,33, 34, 35, 36, 39, AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

CERTIFYING OFFICER—NAME AND TITLE	SIGNATURE	DATE
Grady Philips III Senior Vice President Riverside Regional Medical Center	<i>Grady Philips III</i>	12/9/05