

April 1997

RADIOACTIVE MATERIALS PROGRAM
Bureau of Radiation Control
Information Notice 97-1

To HDR Licensees Regarding Treatment Planning Errors

This information notice is applicable to Category 5A medical licensees utilizing the Nucletron Plato Treatment Planning System. You should review this information for applicability to your program and take action as appropriate to avoid similar problems.

Description of event:

A treatment plan was completed using the Nucletron Plato treatment planning computer and software (version 13.10). The plan included a step size of 5 mm, prescribed dose of 350 cGy and was checked and approved by both the physicist and physician and stored on the program card. The next day the source was replaced with a new higher activity source. On the day of treatment, the plan was updated to include the new source strength. During this step the computer automatically changed the step size from 5.0 mm to 2.5 mm (the default step size), however the indicated dose remained unchanged at 350 cGy. This was not immediately noticed by the physicist since he was not working in that section of the data page. During the final plan review prior to treatment neither the physicist or the physician noticed the step size was now indicating 2.5 mm. The plan was approved and the treatment was delivered. During subsequent chart review it was noticed that the plan indicated the wrong step size. The actual dose was 665 cGy to half the intended treatment area. Since this was the first of three fractions, the treatment plan has been modified to correct for this error.

Contributing to this misadministration included the failure of the licensee to carefully review the plan prior to treatment, failure of the treatment planning computer to provide a warning or error message when it changed the step size and failure to calculate the correct dose when the step size was changed. A similar problem was previously described in Nucletron Technical Bulletin issued in December 1996 (copy enclosed). The manufacturer was notified of this error.

No specific actions nor written response is required. If you have any questions or need additional information, please contact us at (904) 487-2437.

April 16, 1997

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