

JUL 10 1998

K781346

## 510(k) Summary

# RadioCameras™ Biteblock Localization and Positioning System

- I. **Company:** Surgical Navigation Technologies  
530 Compton St.  
Broomfield, CO 80020  
(303) 439-9709
- II. **Product Name:** RadioCameras™ Biteblock Localization and Positioning System
- III. This submission describes a system that is intended to be used to place patients at the isocenter of a linear accelerator for stereotactic radiosurgery or radiotherapy procedures on cranial lesions. The RadioCameras™ System uses fiducial markers on a biteblock to localize the treatment site on CT or MR scans and optical tracking of infrared markers on the biteblock as the method of locating the position of the treatment isocenter relative to the LINAC isocenter. The RadioCameras™ System consists of a high resolution linear CCD camera array, computer workstation, a biteblock optical positioner, and an optical calibration jig.
- IV. The RadioCameras™ System was shown to be substantially equivalent to the commercially available localization and positioning systems for use in conjunction with linear accelerator-based stereotactic radiosurgery and radiotherapy.



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Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850Roger White  
Group Director  
Quality Systems and Regulatory Affairs  
Surgical Navigation Technologies  
530 Compton Street  
Broomfield, Colorado 80020Re: K981346  
RadioCameras™ Biteblock Localization and  
Positioning System  
Dated: April 13, 1998  
Received: April 14, 1998  
Regulatory class: II  
21 CFR 892.5050/Procode: 90 IYE

Dear Mr. White:

We have reviewed your Section 510(k) notification of intent to market the device referenced above and we have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (Premarket Approval), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 895. A substantially equivalent determination assumes compliance with the Current Good Manufacturing Practice requirements, as set forth in the Quality System Regulation (QS) for Medical Devices: General regulation (21 CFR Part 820) and that, through periodic QS inspections, the Food and Drug Administration (FDA) will verify such assumptions. Failure to comply with the GMP regulation may result in regulatory action. In addition, FDA may publish further announcements concerning your device in the Federal Register. Please note: this response to your premarket notification submission does not affect any obligation you might have under sections 531 through 542 of the Act for devices under the Electronic Product Radiation Control provisions, or other Federal laws or regulations.

This letter will allow you to begin marketing your device as described in your 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801 and additionally 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4613. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address "<http://www.fda.gov/cdrh/dsma/dsmamain.html>".

Sincerely yours,

Lillian Yin, Ph.D.  
Director, Division of Reproductive,  
Abdominal, Ear, Nose and Throat  
and Radiological Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

510(k) Number (if known): K981346

Device Name: RadioCameras™ Biteblock Positioning and Localization System

Indications For Use:

The RadioCameras™ Biteblock Positioning and Localization System is indicated for use with a Linear Accelerator to perform Stereotactic Radiosurgery or Radiotherapy on cranial lesions. The RadioCameras™ System provides precise positioning of the treatment target at the Linear Accelerator's isocenter.

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

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Concurrence of CDRH, Office Of Device Evaluation (ODE)

*Edward G. Skjorn*  
(Division Sign-Off)  
Division of Reproductive, Abdominal, ENT,  
and Radiological Devices  
510(k) Number K981346

Prescription Use   
(Per 21 CFR 801.109)

OR

Over-The-Counter Use \_\_\_\_\_

(Optional Format 1-2-96)

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