

OCT 30 2003

K033211

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**510(k) Summary for Public Disclosure**

**Submitter:** Endocardial Solutions  
1350 Energy Lane, Suite 110  
St. Paul, MN 55108 USA  
Phone: 651-523-6900  
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**Contact:** Karen J. McKelvey  
Regulatory Compliance Engineer

**Date Prepared:** October 1, 2003

**Trade Name:** EnSite 3000<sup>®</sup> System  
a) Model EC 1000 EnSite<sup>□</sup> Multi-electrode Diagnostic Catheter  
b) EnSite 3000<sup>®</sup> Electrophysiology Workstation  
c) Model EN 0010 EnSite<sup>™</sup> NavX Surface Electrode

**Common name:** Electrophysiology cardiac mapping system

**Classification Name:** a) Electrode recording catheter or electrode recording probe (21CFR 870.1220)  
b) Programmable diagnostic computer (21 CFR 870.1425)

**Predicate Device:** Endocardial Solutions EnSite 3000<sup>®</sup> System  
510(k) No. K030129

**Device Description:** The EnSite 3000<sup>®</sup> System is a computerized storage and display system for use in electrophysiology studies of the human heart. The system consists of a console workstation, patient interface unit, and an electrophysiology mapping catheter or surface electrode kit.

Unlike currently available electrode recording catheters, the EnSite Catheter does not require direct contact with the endocardium for the detection of intracardiac electrograms. The EnSite 3000<sup>®</sup>

System is a system that facilitates mapping and treatment of arrhythmias. When used with the EnSite catheter, the system is useful for treating patients with complex, non-sustained, or poorly tolerated arrhythmias that are difficult, if not impossible, to map with current mapping techniques. By visualizing the global activation pattern seen on the color-coded isopotential maps in the EnSite 3000<sup>®</sup> System, in conjunction with the reconstructed electrograms, the electrophysiologist can identify the arrhythmia source and can navigate to the defined area for therapy. When used with NavX patches, the system is useful in treating patients with simpler arrhythmias by providing non-fluoroscopic navigation and visualization of conventional EP catheters

Intended use:

The EnSite 3000<sup>®</sup> System is indicated for patients for whom electrophysiology studies are indicated.

- When used with the EnSite<sup>®</sup> Catheter, the EnSite 3000<sup>®</sup> System is intended to be used in the right atrium of patients with complex arrhythmias that may be difficult to identify using conventional mapping systems alone.

OR

- When used with the EnSite NavX<sup>™</sup> Surface Electrode Kit, the EnSite 3000<sup>®</sup> System is intended to display the position of conventional electrophysiology catheters in the heart.

Technological  
Characteristics:

The new device has the same technological characteristics as the legally marketed predicate device.

Non-clinical  
Performance Data:

The changes made to the EnSite 3000<sup>®</sup> System underwent a battery of bench and user tests. Device validation testing was conducted in accordance with in-house procedures.

Conclusion:

An evaluation of the device changes indicates that the device is as safe and effective as the previously marketed device to which it is being compared and does not raise any new issues of safety and effectiveness.



OCT 3 0 2003

Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

Endocardial Solutions, Inc.  
c/o Ms. Karen J. McKelvey  
Regulatory Compliance Engineer  
1350 Energy Lane, Suite 110  
St. Paul, MN 55108

Re: K033211

Trade Name: EnSite System  
Regulation Number: 21 CFR 870.1425  
Regulation Name: Programmable Diagnostic Computer  
Regulatory Class: Class II (two)  
Product Code: DQK  
Dated: October 3, 2003  
Received: October 3, 2003

Dear Ms. McKelvey:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate 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) that do not require approval of a premarket approval application (PMA). 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 (PMA), 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 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

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Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050. This letter will allow you to begin marketing your device as described in your Section 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), please contact the Office of Compliance at (301) 594-4646. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer 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,



Bram D. Zuckerman, M.D.

Director

Division of Cardiovascular Devices

Office of Device Evaluation

Center for Devices and

Radiological Health

Enclosure

### 13. Indications for Use

The EnSite System is indicated for patients for whom electrophysiology studies are indicated.

- When used with the EnSite® Catheter, the EnSite System is intended to be used in the right atrium of patients with complex arrhythmias that may be difficult to identify using conventional mapping systems alone.

OR

- When used with the EnSite NavX™ Surface Electrode Kit, the EnSite System is intended to display the position of conventional electrophysiology catheters in the heart.

**Note: There is no change to the Indications for Use.**

(Sign-Off)  
Division of Cardiovascular  
Devices

Dona Alexander  
(Division Sign-Off)  
Division of Cardiovascular Devices  
510(k) Number K033211