SUMMARY

Inspection of this manufacturer of cardiac pacing leads, spinal cord stimulation systems, and cardiac electrophysiology catheters (medical devices) was conducted as part of SJN-DO FY'06 work plan and as a request from CDRH to conduct a PMA inspection for product P970004/S33 (InterStim Sacral Nerve Stimulator) and a Post-market inspection for product P030036 (SelectSecure Lead Model 3830) under assignment #707644. Coverage was followed in accordance with CP 7383.001 "Medical Device Premarket and Postmarket Inspections", and CP 7382.845 "Inspection of Medical Device Manufacturers". In addition, a QSIT Level 1 (abbreviated) inspection was conducted which covered the CAPA and Management Controls subsystems.

Previous inspection dated 10/10/2003 was classified NAI and no form FDA-483, Inspectional Observations, was issued. The inspection found, during the review of MDR's, that one event out of 35 was entered in the complaint system 4 months after receipt. Complaints and MDR's are handled by a designated complaint unit located at Rice Creek, MN. Management promised to relinquish this information to Rice Creek.

Current inspection disclosed no objectionable conditions. No form FDA-483, Inspectional Observations, was issued. No refusals were encountered and no samples were collected. PMA P970004/S33 is recommended for approval.

ADMINISTRATIVE DATA

Inspected firm:	Medtronic Puerto Rico Operations Co.
Location:	Rd 149 Km 56.3 Villalba, PR 00766
Phone:	(787) 847-3500
FAX:	(787) 847-3545
Mailing address:	P.O. Box 6001 Villalba, PR 00766
Dates of inspection:	3/2/2006, 3/3/2006, 3/6/2006, 3/7/2006, 3/8/2006, 3/9/2006
Days in the facility:	6
Participants:	Hector J Colon Torres, Investigator

HISTORY

History of this firm remains as reported during previous inspection. Medtronic Puerto Rico Operations Co. (MPROC), located in Villalba, PR, is comprised of Medtronic Cardiac Rhythm Management (CRM) and Medtronic Neurological (Neuro and Gastro/Urology) operations. The firm manufactures cardiac pacing leads, spinal cord stimulation systems, and cardiac electrophysiology catheters (please refer to **Exhibit #1, pages 1-2,** for a list of product families manufactured at MPROC Villalba). All the products manufactured at the Villalba plant are sterilized on-site by ethylene oxide (EtO), except for the diagnostic catheters and a prostate therapy diagnostic device which are sterilized by gamma radiation at Steris in Vega Baja, PR. Medtronic Villalba is part of MPROC which also comprise the Juncos, PR and Humacao, PR facilities. However, each site has its own and independent Quality System.

MPROC Villalba most responsible individual is Mr. Gerardo Mari-Roca, Sr. Manufacturing Director/Plant Manager. Mr. Mari-Roca reports directly to MPROC Vice President, Mr. Manuel Santiago, who in turn reports to Mr. Stan Myrum, VP CRM Operations & Quality. **Exhibit #2, pages 1-4** includes the current organization structure for both MPROC Villalba CRM & Neuro, and corporate.

Any official correspondence from the Agency to MPROC Villalba should be addressed to:

Medtronic Puerto Rico Operations Co.
Attn: Mr. Gerardo Mari-Roca, Plant manager
Rd. 149, Km. 56.3
Call Box 6001
Villalba, PR 00766

This firm is currently registered with FDA for 2006 under number 2649622. Please refer to **Exhibit #3, pages 1-3,** for copies of the annual registration submission and electronic confirmation notification.

INTERSTATE COMMERCE

All the products manufactured at Medtronic Villalba are shipped to several distribution centers located throughout United States, Europe, and Asia. The main distribution centers are (b) (4) Netherlands, EOC Dist on Netherlands; Moundsview, MN, East Distributor on Minneapolis, MN; and San Juan, PR, Medtronic Sales Office on PR.

JURISDICTION

The products manufactured at Medtronic Villalba are medical devices intended for human use. The finished devices are shipped to the United States, Europe, and Asia, though entering in interstate movement.

INDIVIDUAL RESPONSIBILITY AND PERSONS INTERVIEWED

On 3/2/06, I met, presented my credentials, and issued a form FDA-482, Notice of Inspection, to Mr. Gerardo Mari-Roca, who identified himself as the Sr. Manufacturing Director/Plant Manager of Medtronic Puerto Rico Operations Co., located at Villalba, PR Mr. Mari-Roca's authority was evidenced as described on the firm's Quality Manual. He accepted the form FDA-482, Notice of Inspection. I also observed several official documents signed by him throughout the inspection to include memorandums and notifications posted at bulletin boards.

Medtronic Villalba Management Representative is Mrs. Betsy Rosario Rivera, Sr. QA/QS Manager. I met and presented my credentials to Mrs. Rosario during the final day of the inspection on 3/9/06. (b) (4) However, she delegated her duties to Mr. Rafael Berly-Torres, Regulatory Compliance Manager. In addition to Mr. Berly, the responsibility for management representation was delegated to Mr. Miguel O. Beltrán-Delgado, Sr. QA/QS Manager for MPROC Juncos facility. Mr. Berly and Mr. Beltrán accompanied me throughout the inspection.

Other persons met and interviewed that provided valuable information and support during the inspection include:

- Michael Holgers, Director, CRM Compliance – Mr. Holgers provided information related to the post marketed product evaluated, and data handled at a corporate level such as consumer complaints and MDR's.
- Mr. Roberto López, Principal Quality Engineer – Mr. López also accompanied me during the whole inspection and provided information and documentation related to the PMA product evaluated to include process flow, failure investigations, trends, etc.
- Mr. Roberto Murillo, QA/QS Manager – Mr. Murillo provided information about statistical analysis, trends, failure investigations, and corrective and preventive actions.
- Mr. Ricardo J. Lugo, Senior Manufacturing Director, MPROC Neuro/Diabetes Business, Juncos, PR.
- Mr. Gilberto Méndez, Configuration Management
- Mr. Rafael Cruz, Engineering Process and Equipment Manager
- Mrs. Luisa Orta, SR. QA Engineer
- Mr. Norberto Rivera, Sr. Manufacturing Engineer

FIRM'S TRAINING PROGRAM

This area was not evaluated in detail during this inspection. However, during the review of corrective and preventive actions documents it was evident that a training program is implemented as some of the corrective actions that I reviewed include training given to employees.

MANUFACTURING OPERATIONS

The product subject to this PMA inspection was P970004/S33 InterStim® Sacral Nerve Stimulator. Medtronic Villalba is engaged in the manufacture of the leads used in this system. Other components are manufactured at the Juncos, PR plant. The manufacturing steps for the tined leads are described in **Exhibit #4,** Manufacturing Document Procedure, Doc. No. (b) (4)

For the post market inspection the device subject to review was P030036 SelectSecure™ Lead Model 3830. Please refer to **Exhibit #5, pages 1-2,** for copy of the manufacturing flow and steps for lead model 3830.

COMPLAINTS

Please refer to the "CAPA" heading of this report for details.

CORRECTIVE AND PREVENTIVE ACTIONS

The CAPA subsystem was evaluated as part of a QSIT Level I (Abbreviated) inspection. I requested the firm's CAPA procedures for review and found that the requirements of the quality system regulation are defined and documented. The firm identifies and analyses several sources of product and quality problems such as consumer complaints, product non-conformities, distributors' quality feedback, and internal audits, etc. As per my questions and document review, the firm showed that quality data is analyzed, trends are identified and if needed CAPA's are generated and implemented. The firm uses statistical techniques such as pareto charts, spread sheets, and other non statistical techniques for data analysis. This analysis includes comparisons between data sources to establish global view of quality problems.

I challenged the quality data information system by selecting three quality data sources: MDR's, NCR's (non-conformance report), and process deviations. I requested a listing of all the events from the selected sources from March 2004 through March 2006. I used the table #2 of the *Binomial Staged Sampling Plans, Row "A", Column "0 out of"* to select a 15 record sample for each source. MDR activities are conducted at the headquarters located in Minneapolis, MN. For the process

deviations evaluation I also requested the only four GCAPA's (global CAPA's) generated and implemented since March 2004, thus increasing the sample to (b) (4) investigation records. No objectionable conditions were observed.

The corrective and preventive actions evaluated appeared to be verified and/or validated prior to the implementation. The CAPA's also appeared to be well documented and implemented as per my evaluation. All information pertaining to quality problems and the whole CAPA system appears to be properly disseminated to appropriate individuals including dissemination for management review. In addition as part of the CAPA subsystem inspection I requested and reviewed the trending reports for all three Medtronic business (CRM, Neuro, and Catheters) from March 2006 and going back one year. No objectionable conditions were observed.

MANAGEMENT CONTROLS

I selected the Management Controls as the second subsystem to be evaluated. I requested and reviewed the firm's Quality Manual to include such as management responsibilities, firm's quality policy, and management representative appointment. I reviewed the management review procedures and requested the schedules and meeting agendas from March 2004 through present. In addition, I reviewed the procedure for internal quality audits and requested for review the audits schedules from March 2004 through present as well as the qualifications for the internal auditors. No objectionable conditions were observed.

PMA EVALUATION

The product subject to this PMA inspection was P970004/S33 InterStim® Sacral Nerve Stimulator. Medtronic Villalba is engaged in the manufacture of the leads used in this system. Other components are manufactured at the Juncos, PR plant.

As part of the evaluation of the subject PMA, I reviewed the following documents:

- QA Engineering Plan/Report no. (b) (4) titled: Process Qualification for Functional Stimulation Tined Leads (models 3093 and 3889) and Functional Stimulation Leads (models 3092 and 3966) at MNPRO.
- QA Engineering Plan/Report no. (b) (4) titled: Validation for (b) (4) Special Process (welds)
- QA Engineering Plan/Report no. (b) (4) titled: Microbial Qualification for the Models 3093 and 3889 Manufactured at Medtronic Villalba Puerto Rico.
- QA Engineering Plan/Report no. (b) (4) titled: Intallation and Operational Qualification for SCS LZ Despatch Oven.

- Manufacturing Document Procedure (b) (4) titled: (b) (4) Tined (b) (4)
- General Work Instructions (b) (4) titled: (b) (4)
- Preventive maintenance and calibration records for the curing ovens, (b) (4) and (b) (4)

In addition, I performed a plant tour and inspected the actual manufacturing room for the PMA device to include each step of the process. No objectionable conditions were observed neither during the document review or the inspection of the facility.

POSTMARKET EVALUATION

For the post market inspection the device subject to review was P030036 SelectSecure™ Lead Model 3830. The following data was reviewed:

- Product manufacturing trending data.
- All process changes implemented since the product was approved (a total of (b) (4)
- A total of (b) (4) complaints pertinent to the audited product.
- A total of 2 MedWatch reports. The reports will be submitted by Rice Creek by the end of March 2006.
- Engineering Plan Doc. (b) (4) titled: (b) (4) for application process of steroid elution on lead model 3830.
- Doc. (b) (4) titled: Design Verification / Process Qualification Report.
- Docs. (b) (4) and (b) (4) titled: Qualification and Validation Plan/Report for the welding special process of lead model 3830.
- Docs. (b) (4) and (b) (4) titled: Microbial Qualification Plan/Report for the model 3830.

No objectionable conditions were observed during the post market evaluation.

OBJECTIONABLE CONDITIONS AND MANAGEMENT'S RESPONSE

No objectionable conditions were observed during this inspection and no form FDA-483, Inspectional Observations, was issued.

REFUSALS

No refusals were encountered during this inspection. Firm management and employees were very cooperative at all times.

GENERAL DISCUSSION WITH MANAGEMENT

On 3/09/06, I held a closing meeting with Medtronic Puerto Rico Operations, Co. officials in which I explained all the activities performed during my inspection. No form FDA-483, Inspectional Observations, was issued neither other verbal observations were indicated. Present during the meeting were Mr. Gerardo Mari-Roca, Plant Manager, Mrs. Betsy Rosario, Sr. QA/QS Manager, Mr. Rafael Berly-Torres, Regulatory Compliance Manager, Mr. Miguel O. Beltrán-Delgado, Sr. QA/QS Manager for MPROC Juncos, plus several other managers and section heads. Please refer to **Exhibit #6,** for the attendance sheet of the closing meeting.

I reminded Mr. Mari-Roca that even though the current inspection resulted without any observations, his firm is still responsible to comply with all the regulations pertinent to their operations as the current inspection was not an all-inclusive inspection and it only covered part of the whole quality system. I also indicated that legal sanctions including seizure, injunction, civil money penalties and prosecution are available to FDA if establishments do not voluntarily correct serious conditions. No other issues were discussed and I closed the inspection.

ADDITIONAL INFORMATION

- I collected a labeling set for the product subject to the post market inspection (SelectSecure™ Lead Model 3830). This set is to be forwarded to CDRH. Please refer to **Exhibit #7.**
- Both manufacturing facilities (buildings) located at the Villalba complex (CRM and Neuro) are now registered with FDA under the same number 2649622.

Héctor J Colón Torres, Investigator