



DEPARTMENT OF HEALTH & HUMAN SERVICES

94933d

Public Health Service

Food and Drug Administration
Detroit District
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Detroit, MI 48207
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CERTIFIED MAIL
RETURN RECEIPT REQUESTED

August 31, 2004

WARNING LETTER
2004 - DT - 06

Mr. Mark A. Sutter
President and CEO
Terumo Cardiovascular Systems Corp.
6200 Jackson Road
Ann Arbor, MI 48103

Dear Mr. Sutter:

An inspection of your Ann Arbor, Michigan facility was conducted from May 10 through 18, 2004. The inspection covered your cardiovascular bypass products that are devices as defined by Section 201(h) of the Federal Food, Drug and Cosmetic Act (the Act). This inspection revealed that these devices are adulterated within the meaning of Section 501 of the Act, as explained further below.

The above-referenced inspection revealed that these devices are adulterated within the meaning of Section 501(h) of the Act, in that the methods used in, or the facilities or controls used for their manufacture, packing, storage, or installation are not in conformance with the current Good Manufacturing Practice (CGMP) requirements of the Quality System regulation (QS regulation), as specified in Title 21, Code of Federal Regulation (CFR), Part 820. Significant deviations include, but are not limited to, the following:

1. Failure to establish and maintain an adequate organizational structure to ensure that your medical devices are designed and produced in accordance with the requirements of 21 CFR 820.20, as demonstrated by the types of observations made during these inspections. For example: [See FDA-483 observations 1, 2, 3, 12 and 13].
2. Failure to establish and maintain procedures for quality audits to assure that the quality system is in compliance with the requirements and failure to conduct quality audits at sufficient regular intervals as required by 21 CFR 820.22 For example: [See FDA-483 observations 2 and 3].

3. Failure to establish and maintain adequate procedures for implementing corrective and preventive action [CAPA], which include requirements for analyzing processes, work operations, quality audit reports, quality records, service records, complaints, returned product, and other sources of quality data to identify existing and potential causes of nonconforming product or other quality problems, as required by 21 CFR 820.100(a). For example: [See FDA-483 observations 8 and 12].
4. Failure to verify or validate corrective and preventive actions to ensure that such actions are effective and do not adversely affect the finished device, as required by 21 CFR 820.100(a)(4). For example: [See FDA-483 observation 11].
5. Failure to maintain and follow your complaint handling system to address all the requirements of 21 CFR 820.198. For example: [See FDA-483 observations 9, 10 and 13.].

This letter does not include, in the above five citations, all of the observations listed on the FDA-483 issued at the conclusion of the inspection, however those observations also warrant your further attention. Furthermore, this letter is not intended to be an all inclusive review of your firm's compliance status. It is your responsibility to assure adherence to each requirement of the Act and the regulations. Other Federal agencies are advised of the issuance of all Warning Letters about medical devices so that they may take this information into account when considering the award of contracts. Additionally, pending 510(k) or PMA applications and export approval requests may not be approved until the violations are corrected.

We request that you take prompt action to correct these violations. Failure to promptly correct violations may result in enforcement action being initiated by the Food and Drug Administration without further notice. The Act provides for the seizure of violative products, the assessment of civil money penalties, and for enjoining the manufacture and/or distribution of violative products.

We acknowledge receipt of the June 9, 2004 and July 14, 2004 letters of Mr. Steven Arick, Director, Regulatory Affairs, written in response to the FDA-483. Mr. Arick's letters describe substantial commitments toward corrective actions, and we are encouraged by the letters that you have already accomplished many of those corrections. The June 9, 2004 letter was difficult to follow in some respects due to the decision to combine the response to several separate FDA-483 observations in some sections however we have carefully reviewed the letter and have the following comments:

1. FDA-483 observations 9, 10, and 13 concern complaints and listed several specific incidents as examples under these three observations. A review of the documents collected by our investigators and the documents supplied with the response letter revealed the following additional questions:
 - a. **APS-064.** The incident cause was user error, a disabled alarm.
Why does the device design allow the alarm to be disabled?
 - b. **APS-045.** In addition to the root cause of the problem, a 9/16/03 memo of the assessment of the returned unit also noted several other defects.
Are you taking additional steps to improve the quality of assembly of these boards and tightening their incoming acceptance process?
 - c. **APS-033.** The incident notes state the CPG pump stopped twice during by-pass.
Was a Medical Device Report (MDR) filed with FDA concerning the CPG pump stoppage during by-pass procedure? If not, why not?
2. FDA-483 observation 11 concerns the lack of documented verification or validation of corrective actions to assure the actions were effective and did not adversely affect the device. Regarding the response to the two examples:
 - a. **APS-033.** The documents enclosed with the response letter describe some of the changes made by your vendor but they do not appear to constitute the verification or validation as required by 21 CFR 820.100(a)(4).
 - b. **APS-036.** The response indicates the problem was found to be due to an intermittent cable connection. During the investigation you found the vendor had already known about the problem and had implemented a change to a more robust connector. The response also indicates "NFC 809915 was drafted for all field units".
 1. **What actions are you taking to assure vendors do not implement changes without your knowledge and approval and without performing verification or validation as required by 21 CFR 820.100(a)(4)?**
 2. **Is ~~the change~~ a field correction action? If yes, was it conducted as a market withdrawal or as a recall that should have been reported to FDA?**

3. FDA-483 observation 13 reported no documented Management Final Review on the closure form for complaint APS-001. The complaint was resolved through a design change to the mounting bracket for a calibration controller. A February 17, 2003 e-mail from the Quality Engineer on the project states that the systems "already in the field, will receive the updated design."

Was there a Field Correction Action taken concerning the systems already in the field and reported to FDA as a recall? If not, why not?

The remaining corrections described in the response letter appear to be acceptable. We will evaluate them during our next inspection.

Please notify this office in writing, within fifteen (15) working days of your receipt of this letter, as to the specific steps you have taken to correct these violations. You should also include an explanation of each step being taken to identify and make corrections to assure that similar violations will not recur. If corrective actions cannot be completed within 15 working days, please state the reason for the delay and the time frame within which the corrections will be implemented.

Your reply should be directed to Melvin O. Robinson, Compliance Officer, at the above address.

Sincerely,



Joann M. Givens
District Director
Detroit District

Encl: FDA-483