



Food and Drug Administration
Denver District Office
Building 20 – Denver Federal Center
P.O. Box 25087
Denver, Colorado 80225-0087
TELEPHONE: 303-236-3000

March 13, 2000

WARNING LETTER

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Steven V. Bush
President and CEO
McKinley Medical LLLP
4080 Youngfield Street
Wheatridge, Colorado 80033

Ref # : DEN-00-20

Dear Mr. Bush:

During an inspection of your firm conducted between November 29 and December 17, 1999, Consumer Safety Officers Elvin R. Smith and Nicholas R. Nance, and Microbiologist Kevin D. Kallander, of the Food & Drug Administration (FDA), determined your firm manufactures chemotherapy and pain-management electro-mechanical and sterile disposable infusion pumps, and associated infusion tubing sets. These products are considered devices within the meaning of Section 201(h) of the Federal Food, Drug and Cosmetic Act (the Act).

The above inspection revealed that the devices manufactured by your firm 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 the manufacture, packing, storage, or installation are not in conformity with the Quality System Regulation (QSR), as specified in Title 21, Code of Federal Regulations, Part 820 (21 CFR 820), as follows:

- Failure to establish and maintain an adequate quality system that is appropriate for the specific medical devices designed and manufactured by your firm, as required by 21 CFR 820.5.
- Failure of management with executive responsibility to establish its policy and objectives for, and commitment to, quality, by ensuring the quality policy is understood, implemented, and maintained at all levels of the organization, as required by 21 CFR 820.20(a).
- Failure to provide adequate resources, including the assignment of trained personnel for assessment activities, to meet the requirements of the QSR, as required by 21 CFR 820.20(b)(2). For example, resources have not been provided to assure that all sources of quality data are identified and analyzed.

- Failure of management with executive responsibility to review the suitability and effectiveness of the quality system to ensure the quality system satisfies the requirements of the QSR, and your firm's established quality policy and objectives, as required by 21 CFR 820.20(c). For example, your review does not include significant indicators of quality within your firm, such as quality trends associated with discrepancy reports, scrap reports, or Material Review Board (MRB) status reports.
- Failure to establish and maintain procedures for implementing corrective and preventative action (CAPA) to include:

not analyzing all significant sources of quality data, and using appropriate methodology where necessary to detect recurring quality problems, as required by 21 CFR 820.100(a)(1). For example, scrap reports are not included as a source of quality data. Methodology is not used to detect recurring quality problems. Low percentage defects have not been identified to determine if they would be a good source of quality data;

not verifying or validating the CAPA to ensure that such an action is effective and does not adversely affect the finished device, as required by 21 CFR 820.100(a)(4). For example, resterilization by ethylene oxide (ETO) of Outbound and Walkmed sets have not been validated; and

not investigating the cause of nonconformities relating to product, processes, and the quality system, as required by 21 CFR 820.100(a)(2). For example, a review of Discrepancy Reports showed that most did not have investigations performed to determine the cause of the nonconformance.

- Failure to document all activities required by CAPA, and their results, as required by 21 CFR 820.100(b). For example, Engineering Change Notices (ECN) and Engineering Waivers are implemented as corrective actions, yet they are not recorded in Correction Action Request (CAR) logs, do not refer to a CAR number, and are not processed as CARs.
- Failure to review and evaluate all complaints to determine whether an investigation is necessary, as required by 21 CFR 820.198(b). For example, complaints were received regarding delivery problems with Outbound Infuser lot number D981127-A. Waivers were implemented during the manufacture of this lot, and approximately 5% of the lot was rejected due to leaks and low pressure, yet no investigation was conducted to determine the cause of the nonconformity.
- Failure to maintain adequate complaint files, as required by 21 CFR 820.198(a). For example, complaints were entered into the complaint log, however, no complaint forms were generated, no investigations were conducted, and no MDR evaluations were performed.
- Failure to establish and maintain procedures for changes to a specification, method, process or procedure, as required by 21 CFR 820.70(b). For example, there is no requirement to evaluate engineering waivers to production processes to determine if validation or verification is needed.

- Failure to validate those processes which cannot be fully verified by a subsequent inspection and test, as required by 21 CFR 820.75(a). For example, there has been no validation of the effects of multiple sterilization by ETO on Outbound and Walkmed sets, nor has the manufacture of the Walkmed Infusion Pump, transferred to your facility from [redacted] been adequately validated.
- Failure to establish and maintain procedures for rework, to include retesting and reevaluation of the nonconforming product after rework, to ensure the product meets its current approved specifications, as required by 21 CFR 820.90(b)(2). For example, Outbound set D991113A was ETO sterilized, then reworked. This product had been previously sterilized by gamma radiation. There is no documented validation for ETO sterilization of this product.
- Failure to establish and maintain procedures to control product that does not conform to specified requirements, as required by 21 CFR 820.90(a). For example, two lots of tubing sets were tested with infusion pumps. These pumps had been rejected, and were not repaired at the time of testing.
- Failure to identify, by suitable means, the acceptance status of product, which will be maintained throughout manufacturing of the product, as required by 21 CFR 820.86. For example, there is no system to determine which, and how many components, in-process materials and finished devices are in a hold status, and their location.
- Failure to ensure that all inspection, measuring, and test equipment, including mechanical, automated, or electronic inspection and test equipment, is suitable for its intended purposes and is capable of producing valid results, as required by 21 CFR 820.72(a). For example, the [redacted], used to [redacted] in [redacted], has not been validated, to assure it is working as intended. In fact, our investigators found that the unit was not cycling from the minimum to maximum temperatures, as required by the [redacted] procedure. This failure was not detected by your firm.
- Failure to establish and maintain procedures to adequately control environmental conditions which could reasonably be expected to have an adverse effect on product quality, as required by 21 CFR 820.70(c). For example, clean room floors are not monitored for bioburden, nor are they included in your clean room environmental monitoring program.
- Failure to establish and maintain requirements for the clothing of personnel if contact between such personnel and product or environment could reasonably be expected to have an adverse effect on product quality, as required by 21 CFR 820.70(d). For example, clean room personnel do not wear shoe covers over athletic/street shoes.
- Failure to establish and maintain procedures to prevent contamination of equipment or product by substances that could reasonably be expected to have an adverse effect on product quality, as required by 21 CFR 820.70(e). For example, you use a [redacted] to clean floors in the clean room. The [redacted] is reused and left in a bucket of dirty water. The product "[redacted]" is used as a disinfectant for the clean room floors when the label does not state that the product is to be used as a disinfectant.

For your information, during our inspection we noted several deviations from the regulations for design control located in 21 CFR 820.30. These deviations include:

not establishing and maintaining procedures for validating the device design, including adequate risk analysis, as required by section 820.30(g) of the QSR. For example, the Walkmed product line risk analysis states that no malfunctions of the device can result in serious injury or death. In direct contradiction, the operations manual for this device states that air emboli and over-infusion may result in serious injury or death;

not establishing and maintaining procedures to ensure the design requirements relating to a device are appropriate and include a mechanism for addressing incomplete, ambiguous, or conflicting requirements, as required by section 820.30(c) of the QSR;

not establishing and maintaining procedures for defining and documenting design output in terms that allow an adequate evaluation of conformance to design input requirements, to include ensuring that design outputs which are essential for the proper functioning of the device are identified, which is required by section 820.30(d) of the QSR; and

not establishing and maintaining procedures for the identification, documentation, validation or where appropriate verification, review, and approval of design changes before their implementation, as required by section 820.30(i) of the QSR. For example, ECN C7XJ eliminated the use of C7XJ and allowed the use of ETO sterilization for Outbound sets which were previously gamma-sterilized. There is no documentation to show that these changes were implemented in accordance with proper design change procedures, including assessing the risk of the change, the effect of heat on the product, and the effect of ETO residue on the product.

Also, for your information, we issued your firm a Warning Letter on April 29, 1998, which stated your devices are misbranded within the meaning of section 502(t) of the Act, in that you failed to submit information to FDA as required by the Medical Device Reporting (MDR) regulation found in 21 CFR 803. This current inspection found that, although there has been some correction on your part in this area, we continue to find deviations from MDR. Examples are: (1) reporting some complaints as MDRs, yet not reporting others with the same circumstances, and (2) not submitting backflow and under-delivery complaints as MDRs unless the failure can be reproduced by McKinley. The fact that failures cannot be reproduced at your facility does not justify not submitting the malfunctions as MDRs.

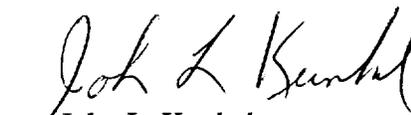
This letter is not intended to be an all-inclusive list of deficiencies at your facility. It is your responsibility to ensure adherence to each requirement of the Act and regulations. The specific violations noted in this letter and in the FDA-483 issued at the closeout of the inspection may be symptomatic of serious underlying problems in your firm's manufacturing and quality assurance systems. You are responsible for investigating and determining the causes of the violations identified by the FDA. If the causes are determined to be systems problems, you must promptly initiate permanent corrective actions.

We acknowledge your response dated December 31, 1999, revised January 7, 2000, to the observations noted on the FD-483. We have found this response to inadequately address our concerns with your quality system. Our comments regarding your response are attached to this letter.

You should take prompt action to correct these and any other manufacturing or quality systems deviations identified by your internal audits. Failure to promptly correct these deviations may be identified in a follow-up inspection, and may result in regulatory action being initiated by the Food and Drug Administration without further notice. These actions include, but are not limited to, seizure, injunction, and/or civil penalties.

Please notify this office in writing, within 15 days of receipt of this letter, of the additional steps you will be taking to achieve compliance which have not been previously reported to us. Your reply should be sent to the Food and Drug Administration, Denver District Office, Attention: Shelly L. Maifarth, Compliance Officer, at the above address. You may contact her at (303) 236-3046 if you have any questions about this letter.

Sincerely,


John L. Kunkel
Acting District Director

Attachment:
As Stated

cc:

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