

**DEPARTMENT OF HEALTH AND HUMAN SERVICES
FOOD AND DRUG ADMINISTRATION**

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| DISTRICT ADDRESS AND PHONE NUMBER 6th & Kipling St. (P.O. Box 25087) Denver, CO 80225-0087 (303)236-3000 Fax: (303)236-3100 | DATE(S) OF INSPECTION 5/8/2017-5/23/2017* |
| | FEI NUMBER 3002946837 |

NAME AND TITLE OF INDIVIDUAL TO WHOM REPORT ISSUED
Mr. Gregg N. Pederson , President

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| FIRM NAME Pharmacy Resources Incorporated | STREET ADDRESS 5290 East Yale Circle, Ste 101 |
| CITY, STATE, ZIP CODE, COUNTRY Denver, CO 80222 | TYPE ESTABLISHMENT INSPECTED Producer of Sterile and Non-Sterile Drugs |

This document lists observations made by the FDA representative(s) during the inspection of your facility. They are inspectional observations, and do not represent a final Agency determination regarding your compliance. If you have an objection regarding an observation, or have implemented, or plan to implement, corrective action in response to an observation, you may discuss the objection or action with the FDA representative(s) during the inspection or submit this information to FDA at the address above. If you have any questions, please contact FDA at the phone number and address above.

DURING AN INSPECTION OF YOUR FIRM I OBSERVED:

OBSERVATION 1

Aseptic processing areas are deficient regarding the system for cleaning and disinfecting the room and equipment to produce aseptic conditions.

Specifically,

Your firm's cleaning agents are not adequate for use in your ISO 5 LAFW and ISO 7 clean room.

- A. On 5/8/17, I observed a bottle of expired (b) (4) (sporicidal agent) in the pharmacy's storage cabinet. The (b) (4) was expired as of 9/29/15.
- B. In addition, disinfectant efficacy has not been established for the (b) (4) and the (b) (4) (b) (4), used to clean the inside of the ISO 5 LAFW on (b) (4) basis. For example, there is no scientific justification for the current (b) (4) contact time established for both of your sanitizing agents. For sporicidal activity, the (b) (4) sanitizer labeling requires an undiluted chemical contact time of (b) (4).

In addition, during the inspectional walk-through of your facility on 5/8/17, non-smooth cleaning surfaces (porous speakers) were observed in the ISO 7 certified cleanroom/buffer area to include a small stereo and an intercom system.

OBSERVATION 2

Aseptic processing areas are deficient regarding the system for monitoring environmental conditions.

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| | | <input checked="" type="checkbox"/> Zachery L Miller Zachery L Miller Investigator Signed by: Zachery L Miller -5 |

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Specifically,

- 1) Environmental monitoring performed by your firm is not representative of continued daily sterile operations. Viable (air, surface, and personnel) monitoring was not performed during the compounding of Tri-Mix Injectable, Lot Number: 080517. For example:
 - C. Personnel monitoring only occurs (b) (4) during (b) (4) (b) (4) and only includes (b) (4). This is not representative of the daily sterile operations or the batches of sterile product produced at the facility.
 - D. Viable monitoring is not performed more frequently than during the (b) (4) (b) (4) and is completed (b) (4). This is not representative of the daily sterile operations.
 - E. Surface and air microbial monitoring of the ISO 5 areas are only performed on (b) (4) basis which is not representative of the daily sterile operations.
 - F. Review of 2016 and 2017 (b) (4) environmental monitoring data, which documented surface and air microbial results, identified positive results that were never investigated, to include:
 - a. On (b) (4), positive results were observed in Hood^{(b) (4)} and Hood^{(b) (4)} at (b) (4). There was no documentation of the number of colony forming units identified. According to SOP 3.300.403, action levels are determined by “(b) (4) (b) (4) ...” Alert and action limits have not been determined for your environmental monitoring. No investigation was documented.

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- b. On (b) (4), no results were recorded/documented for Hood (b) (4) and the "(b) (4)" locations (missing data). No investigation was conducted to determine reasons for the omitted results. These locations were re-sampled again on (b) (4) – no environmental data existed for all of the laminar flow hoods and the (b) (4) location for (b) (4) timeframe.

OBSERVATION 3

Procedures designed to prevent microbiological contamination of drug products purporting to be sterile do not include adequate validation of the sterilization process.

Specifically,

Your firm has not conducted in situ air pattern analyses (smoke studies) under dynamic conditions, simulating routine production in the cleanroom and the laminar-flow hoods and (b) (4). Without, there is no assurance critical processing areas are suitable for aseptic manufacturing of sterile drug products.

OBSERVATION 4

There is no written testing program designed to assess the stability characteristics of drug products.

Specifically,

Your firm does not have any finished product sterility data to support the current expiration dates for any of the erectile dysfunction sterile drug products.

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For example, the current finished product expiration dates of 90 days for Tri-Mix and Bi-Mix, and 60 days for Super Tri-Mix and QuadMix injectables, are only supported with the following sterility data from the stock solutions (ingredients used to prepare each of the finished products above):

- (b) (4) expiry date of (b) (4) days is based upon (b) (4)
- (b) (4) expiry date of (b) (4) days is based upon (b) (4)
- (b) (4) . **No sterility data is available at (b) (4) timeframe.**
- (b) (4) expiry date of (b) (4) days is based upon (b) (4) .
Sterility has only been determined at (b) (4) .

In addition, there is no sterilization step when each of these stock solutions is combined to compound one of the final products above.

OBSERVATION 5

Protective apparel is not worn as necessary to protect drug products from contamination.

Specifically, the garments and protective apparel worn by your sterile drug technicians are inadequate. Your clean room gowning consists of non-sterile shoe covers, non-sterile hair net, non-sterile face mask/shield, a day use sterile outer gown, and sterile gloves. On 5/8/17, I observed your technician wearing the above non-sterile clean room garb while performing aseptic filling of Tri-Mix, Lot # 080517 in the ISO 5 zone.

OBSERVATION 6

Laboratory controls do not include the establishment of scientifically sound and appropriate test procedures designed to assure that drug products conform to appropriate standards of identity, strength, quality and purity.

Specifically,

All of your firm's erectile dysfunction sterile drug products are tested for sterility with an in-house method. However, sterility testing by your laboratory does not meet all the requirements for sampling and method suitability specified in relevant compendial methods.

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For example, a method suitability test (a positive control using different challenge microorganisms to demonstrate that the dilution/recovery scheme used is effective at neutralizing any residual antimicrobial properties of the compound) is not conducted for any of the erectile dysfunction formulations.

OBSERVATION 7

Routine calibration of equipment is not performed according to a written program designed to assure proper performance.

Specifically, there is a failure to calibrate equipment used in the production of sterile drug products, for example:

- A) The (b) (4) used to perform (b) (4) after the compounding of sterile products has been due for calibration since December 31 , 2015;
- B) The (b) (4) that is used to (b) (4) (b) (4) used during the sterile production of both animal and human sterile drug compounds has not been calibrated, to include calibration of the (b) (4) and (b) (4) ;
- C) The (b) (4) that is used to (b) (4) sterilize compounded equine animal drug products as well as the (b) (4) drug product, (b) (4) with (b) (4) has not been calibrated, to include calibration of the (b) (4) ;

***DATES OF INSPECTION**

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5/08/2017(Mon),5/09/2017(Tue),5/10/2017(Wed),5/11/2017(Thu),5/12/2017(Fri),5/15/2017(Mon),5/16/2017(Tue),5/23/2017(Tue)

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