

DEPARTMENT OF HEALTH AND HUMAN SERVICES
FOOD AND DRUG ADMINISTRATION

DISTRICT OFFICE ADDRESS AND PHONE NUMBER US Food & Drug Administration, CDER/Inspection Assessment Branch White Oak Building 51, Room 4235, 10903 New Hampshire Avenue Silver Spring, MD 20993, Attn: Mr. Concepcion (Coki) Cruz; Telephone 001-301-796-3254; FAX: 001-301-847-8738; E-MAIL: cderosiab@fda.hhs.gov Industry Information: www.fda.gov/oc/industry	DATE(S) OF INSPECTION November 7, 2016-November 16, 2016
	FEI NUMBER 3002807979

NAME AND TITLE OF INDIVIDUAL TO WHOM REPORT IS ISSUED
TO: Jila Breeze, Senior Vice President and Head of Global Quality and Compliance

FIRM NAME Sun Pharmaceuticals Industries, Inc.	STREET ADDRESS SEZ Unit-I, Plot A-41, Industrial Area, Phase VIII-A
CITY, STATE AND ZIP CODE S.A.S. Nagar, Mohali-160071 Punjab, India	TYPE OF ESTABLISHMENT INSPECTED Finished Dosage Pharmaceutical Manufacturer

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DURING AN INSPECTION OF YOUR FIRM (I) WE OBSERVED:

LABORATORY SYSTEM

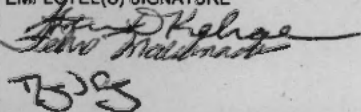
Observation 1

There is a failure to thoroughly review the failure of a batch or any of its components to meet any of its specifications whether or not the batch has been already distributed. Specifically,

a. ^{(b)(4)}Tablets ^{(b)(4)}mg, written OOS investigation #217272, was opened on 22 April 2016 and closed on 06 June 2016 for related substance test of ^{(b)(4)} of ^{(b)(4)}. The failing result obtained on 20 April 2016 for batch # ^{(b)(4)} was ^{(b)(4)}% with specification of NMT ^{(b)(4)}%. Three additional batches were associated with the investigation batches # ^{(b)(4)} # ^{(b)(4)} and # ^{(b)(4)} with failing results of ^{(b)(4)}%, ^{(b)(4)}%, and ^{(b)(4)}% (^{(b)(4)}) respectively. The laboratory investigation revealed no laboratory error after sample re-analysis. A full investigation was done in production and a non-assignable cause was identified. The batches associated with the event were released to the market in the month of March 2016. The impurity specification of ^{(b)(4)} (NMT ^{(b)(4)}%) for finished dosage form was changed in line with the EP pharmacopeia specification (^{(b)(4)}%) for ^{(b)(4)} API after these OOS results were obtained to justify the release of the ^{(b)(4)}Tablet batches. Additionally, the firm's did not follow SOP #OP013156, entitled, Handling of Out of Specification Results (OOS) which requires the batch disposition of rejected if the OOS result was found valid.

b. ^{(b)(4)}Tablets ^{(b)(4)}mg and ^{(b)(4)}mg, written OOS investigation #221781, was opened on 28 May 2016 and closed on 07 June 2016 for IR test identification. The investigation was regarding the analyses of batches # ^{(b)(4)} # ^{(b)(4)} # ^{(b)(4)} # ^{(b)(4)} # ^{(b)(4)} and ^{(b)(4)} performed on 23 May 2016 that did not comply with the wavenumbers ^{(b)(4)} ± ^{(b)(4)}, ^{(b)(4)} ± ^{(b)(4)}, and ^{(b)(4)} ± ^{(b)(4)}. On 10 November 2016, during the laboratory tour I interviewed the analyst who performed the IR identification analyses (^{(b)(6)}) and he stated that he performed the IR identity test without being trained in the IR identification of the finished product test of ^{(b)(4)} tablets. The firm failed to train and qualify the analyst in the IR identification of ^{(b)(4)}Tablets prior to assigning finished product samples to be analyzed by IR.

Observation 2

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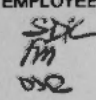
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Laboratory records do not include complete data derived from all tests, examinations and assay necessary to assure compliance with established specifications and standards. Specifically, There is a failure to document repeat testing in the laboratory equipment logbook when samples are reanalyzed from the same sample preparation vial. On October 29, 2016, (b) (4) raw material batch (b) (4) was tested twice for (b) (4) and (b) (4) content via Atomic Absorption Spectrometry (AAS) due to invalidated runs. However, the AAS equipment logbook does not show that repeat analysis was performed. In addition on April 27, 2016, (b) (4) batch (b) (4) was tested for (b) (4) content via AAS three times due to invalidated runs but the equipment logbook only shows that the batch was tested twice.

Observation 3
 Appropriate controls are not exercised over computers or related systems to assure that changes in master production and control records or other records are instituted only by authorized personnel. Specifically, There is no password protection for the Sartorius GP3202 precision balance instrument ID MQABAL04 that is used in the quality control testing laboratory to weigh (b) (4) for analysis. Laboratory analysts have the ability to change instrument settings including date and time on the instrument.

Observation 4
 Examination and testing of samples is not done to assure that in-process materials conform to specifications. Specifically, Raw material (b) (4) used by your firm for manufacturing of (b) (4) (b) (4) mg and (b) (4) mg tablets, is reprocessed (b) (4) and (b) (4) in manufacturing operations. Your firm keeps a (b) (4) specification solely for testing of (b) (4). However, the (b) (4) specification is (b) (4) to that of the incoming (b) (4) raw material. There is no justification for the use of a (b) (4) test for the (b) (4) or the (b) (4) range listed in the (b) (4) (b) (4) specification. While V.Y., Regional Quality Head claims the (b) (4) (b) (4) processing of (b) (4) is used to improve tablet (b) (4) range, there is no data showing direct correlation between (b) (4) (b) (4) and finished tablet (b) (4)

QUALITY SYSTEM
Observation 5

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The quality control unit lacks authority to review production records to assure that no errors have occurred. Specifically, SOP OPO13152 "Good Documentation Practices (GDP) effective date July 28, 2016 explains that Quality Assurance is to periodically review electronic data as a part of self-inspection. However, periodic review of electronic data is only being performed for the quality control testing laboratory and is not being performed for the programmable logic controller (PLC) and automated systems located in the production area.

Regarding this,

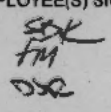
a. Quality assurance does not periodically review the alarms generated in the automated systems and the only automated equipment alarms that are being reviewed are the ones that production operators document in the batch production records that cause an equipment stoppage during a production run.

b. Event logs (audit trails) generated in the ^{(b)(4)} human machine interface automated compression machine are not periodically reviewed by quality assurance for disassembly, cleaning, change over and preventative maintenance. Quality assurance only reviews the hard copy printout event logs printed by production personnel and attached in the batch production record after the completion of a compression batch that document the activities performed between the start and stop of a production run.

c. On November 9, 2016, during a walk-through of the production area, we observed an error message prompt on the ^{(b)(4)} human machine interface automated compression machine equipment ID MPDRCM01 that read the following: "Valid ^{(b)(4)} is required". According to production operators in the area, the error message has been appearing for months on the equipment. However, quality assurance was not notified of the error message prompt on the machine and there was no associated investigation into the issue.

Observation 6
 The quality control unit lacks responsibility to reject all procedures or specifications impacting on the quality of drug products. Specifically, Previously retired versions of standard operating procedures and forms are accessible for viewing for the end users of the electronic document management system entitled "Documentum Compliance Manager". A general search on the electronic document management system allows the end users to access these obsolete procedures.

PRODUCTION SYSTEM
Observation 7

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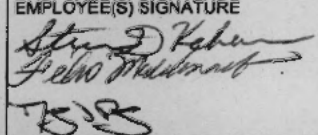
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There are no written procedures for production and process controls designed to assure that the drug products have the identity, strength, quality, and purity they purport or are represented to possess. Specifically, Critical Process Parameter (CPP) for ^{(b) (4)} Tablet ^{(b) (4)} mg to ^{(b) (4)} distance processing range for the tablet ^{(b) (4)} process is established as ^{(b) (4)} cm to ^{(b) (4)} cm in the batch production record. However, there is no rationale or data to support the establishment of this range.

Regarding this, ^{(b) (4)} machine equipment qualification performed under Performance Qualification Protocol/Report of ^{(b) (4)} Machine Equipment Number: MPDGAC03 Protocol No. PQ-MRI ^{(b) (4)} 02-00 approved on September 4, 2010 was performed at a set ^{(b) (4)} to ^{(b) (4)} distance value of ^{(b) (4)} cm. ^{(b) (4)} product development report titled Addendum II to Feasibility Trial Report of ^{(b) (4)} Tablets ^{(b) (4)} mg report FSTR/03/0212-A02, approved on April 18, 2012 was performed at a ^{(b) (4)} to ^{(b) (4)} distance range value of ^{(b) (4)} cm to ^{(b) (4)} cm. ^{(b) (4)} process validation report titled Process Performance Qualification (PPQ) Report of ^{(b) (4)} Tablets ^{(b) (4)} mg (Compression and ^{(b) (4)} Document R/E/PPQ/15/016/01, approved on March 14, 2016 was performed at a set ^{(b) (4)} to ^{(b) (4)} distance value of ^{(b) (4)} cm.

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